Summary of Impacts	Significance Determination	Mitigation Measures (MM) and Regulatory Requirements (RR)	Responsible Parties	Monitoring Parties	Implementation Stage
required mitigation would ensure that Project-related construction activities would not substantially affect circulation during the Project's construction. With implementation of the required mitigation, impacts would be reduced to less-than-significant levels.					
Threshold f.: During proposed improvements to Iris Avenue and/or Chicago Avenue along the Project frontage, there is a potential that the Project could adversely affect emergency access or access to nearby uses. This is conservatively evaluated as a significant impact for which mitigation would be required in the form of a traffic control plan for implementing developments. MM 4.18-1requires the Project Applicant to prepare and obtain Riverside County approval of a temporary traffic control plan prior to issuance of grading permits. With implementation of the required mitigation, the Project would not result in inadequate emergency access or access to nearby uses during the Project's construction phase. Accordingly, with implementation of the required mitigation, impacts would be reduced to less-than-significant levels.	Less than Significant with Mitigation Incorporated				
Threshold g.: As part of the Project, a 16-foot-wide pedestrian and equestrian trail would be constructed on site. Impacts associated with the construction of this trail are inherent to the Project's construction phase, and have been evaluated throughout this EIR under the appropriate subject heading (e.g., biological resources, etc.). There would be no impacts to the environment specifically related to the construction of this community trail that have not already been evaluated and mitigated for throughout this EIR. Accordingly, impacts would be less than significant.	Less-than-Significant Impact				
4.19 Tribal Cultural Resources					

Summary of Impacts	Significance Determination	Mitigation Measures (MM) and Regulatory Requirements (RR)	Responsible Parties	Monitoring Parties	Implementation Stage
Threshold a.: Implementation of the proposed Project would result in direct physical impacts to approximately 0.61-acre of the overall 12.17 acres mapped for Site P-33-12915/CA-RIV-7181, and would impact approximately 0.97-acre of the overall 3.80 acres mapped for Site P-33-12916/CA-RIV-7182, both of which are considered tribal cultural resources. In addition, the Project would result in direct impacts to Sites CA-01, CAR-04, CAR-05, CAR-08, CAR-10, and CAR-13-1, and portions of CA-RIV-7184, all of which are assumed to comprise potential tribal cultural resources. Therefore, Project impacts to Sites P-33-12915/CA-RIV-7181, P-33-12916/CA-RIV-7182, CAR-04, CAR-05, CAR-08, CAR-10, and CAR-13-1 represent a significant tribal cultural resources impacts of the proposed Project for which mitigation would be required. The Project site also has been identified as a component of a TCR landscape; thus, development of the Project site with residential uses would result in a potentially significant impact to the TCR landscape and mitigation would be required. Additionally, the Project has the potential to result in impacts to TCRs that may be buried beneath the Project site's surface, resulting in a potentially significant impact. ~~Implementation of Mitigation Measure MM 4.5-1 would ensure that Feature E of Site P-33-02918 (CA-RIV-7184) and CAR-12 are capped with layers of soil or sand fill, above which landscaping, trails, recreation areas, or access roads could be constructed, which would preclude impacts to these resources, and also would ensure that controlled grading is implemented at Sites P-33-002918 (CA-RIV-7184) Features B, C, D, E, P-33-12916 Features A, B, C, D, CA-001, CAR-04, CAR-05, CAR-08, CAR-10, and CAR13-I, which would ensure the systematic removal of the ground surface to allow for the identification,~~	Less than Significant with Mitigation Incorporated	**MM 4.5-1** 060 - Planning-CUL.2 Controlled Grading. Although all bedrock features will be either preserved in place or relocated into open space on site, the soils surrounding cultural Site(s) P-33-002918 (CA-RIV-7184) Features B, C, D, E, P-33-12916 Features A, B, C, D, CA-001, CAR-04, CAR-05, CAR-08, CAR-10, ~~CAR-12,~~ and CAR13-I will be impacted during construction activities. To address controlled grading in this area, a plan will be developed in consultation with Soboba Band of Luiseño Indians and Pechanga Band of Indians, and included in the Cultural Resources Monitoring Program (CRMP) by the Project Archaeologist. The controlled grading plan shall require the systematic removal of the ground surface to allow for the identification, documentation and recovery of any subsurface cultural deposits. Results of the controlled grading program shall be included in the Phase IV monitoring report required pursuant to Mitigation Measure MM 4.5-10~~1~~. ~~**MM 4.5-2** 060 Planning-CUL. 1 Cultural Sensitivity Training. The County shall ensure that a worker awareness training program is developed and delivered to train the Contractor's equipment operators and the Project's field consultants about tribal cultural resources and the requirements for avoidance and minimization. The program shall inform workers about the following topics: federal and state regulations pertaining to cultural resources and tribal cultural resources; the presence of Environmentally Sensitive Areas (ESAs) that are restricted from all Project related activities; the requirement for ground disturbing activities near the ESAs to be monitored by a Tribal Monitor; the subsurface indicators of resources that shall require a work stoppage; procedures for notifying the County and, if necessary, the coroner, of any occurrences; confidentiality requirements; appropriate and respectful behavior when in the presence of tribal cultural resources; maintaining a harassment-free and safe work environment for monitors; and enforcement of penalties and repercussions for non-compliance with the program.~~ ~~The County shall offer the opportunity to consulting tribes to provide content for the training program. The training shall be given first to construction supervisors and may be recorded. The construction supervisors are responsible for ensuring that all workers that will operate ground-disturbing equipment receive this training prior to operating equipment that will disturb original ground. All trained workers will be required to receive~~	Project Applicant, Project Archaeologist ~~Project Applicant, Construction Contractors~~	Riverside County Planning Department, Tribal Monitor ~~Riverside County Planning Department, Tribal Monitor~~	Prior to ground disturbing activities and to be included in the CRMP ~~Prior to ground disturbing activities~~

Summary of Impacts	Significance Determination	Mitigation Measures (MM) and Regulatory Requirements (RR)	Responsible Parties	Monitoring Parties	Implementation Stage
~~documentation, and recovery of any associated subsurface tribal cultural resources deposits. Implementation of Mitigation Measure MM 4.5-1 would ensure that Project construction workers are subject to sensitivity training to enable them to assist in the identification of potential subsurface cultural resources.~~ Implementation of Mitigation Measure MM 4.5-1 would ensure that controlled grading is implemented at Sites P-33-002918 (CA-RIV-7184) Features B, C, D, E, P-33-12916 Features A, B, C, D, CA-001, CAR-04, CAR-05, CAR-08, CAR-10, CAR-12, and CAR13-I , which would ensure the systematic removal of the ground surface to allow for the identification, documentation, and recovery of any associated subsurface tribal cultural resources deposits. Implementation of Mitigation Measures MM 4.5-2~~3~~ and MM 4.5-3~~4~~ would ensure that the Project's Final Map includes an Environmental Constraints Sheet that identifies the open space areas on site that would be used for the relocation of bedrock milling features. Implementation of Mitigation Measure MM 4.5-4~~5~~ would ensure that relocation of features as mitigation for impacts to Sites P-33-002918 (CA-RIV-7184) Features B, C, D, P-33-12916 (CA-RIV-7182) Features A, B, C, D, CA-001, CAR-04, CAR-05, CAR-08, CAR-10, and CAR-13-I are coordinated between the Project Applicant, Project Archaeologist, and a representative from the consulting Tribe(s), and would ensure that these resources all would be relocated to permanent open space areas. Implementation of Mitigation Measures MM 4.5-5~~6~~ and MM 4.5-6~~7~~ would ensure that all ground-disturbing activities (i.e., grading) are monitored by a Native American monitor and County-approved archaeologist, and would ensure the appropriate treatment of any subsurface resources that may be identified. Implementation of Mitigation Measure MM		~~a brochure and hardhat sticker and sign a form indicating their understanding of the requirements and restrictions and copies of the forms shall be provided to the County as proof of compliance. Materials and supplies delivery drivers, above ground construction workers (i.e., framers, carpenters, electricians, plumbers, painters, and roofers) are not required to receive the training because the type of specialized activities that they will perform does not have the potential to disturb cultural resources or tribal cultural resources.~~ ~~MM 4.5-3~~MM 4.5-2 060 - Planning-CUL. 4 ECS Sheet-Resource Relocation and Reburial Prior to issuance of grading permits: the developer/applicant shall provide evidence to the Riverside County Planning Department that a confidential~~n~~ Environmental Constraints Sheet has been included in the Grading Plans. This sheet shall indicate an area to be used for relocation of the bedrock milling features that cannot be avoided by this project. In addition, a permanent space within this area will be predetermined and designation, in consultation with the Soboba Band of Luiseño Indians and Pechanga Band of Indians, ~~and designated~~ on a confidential map for reburial of any artifacts that will be impacted and/or discovered during grading. ~~MM 4.5-4~~MM 4.5-3 060 - Planning-CUL. 5 ECS Sheet - Resources Preserved in Place Prior to final map approval the developer/ applicant shall provide evidence to the Riverside County Planning Department that an Environmental Constraints Sheet has been included in the Grading Plans. This sheet shall indicate the presence of environmentally constrained area(s) and the requirements for avoidance of ~~the applicable~~ portions of P-33-012915 (CA-RIV-7181), portions of P-33-012916 (CA-RIV-7182), P-33-012917 (CA-RIV-7183)~~, Features A, B and C, P-33-02918 (CA-RIV-7184) Features A and C, CA-002, CAR-09, and CAR-11. Avoidance includes all Project related temporary and permanent activity or use during and following construction~~. ~~MM 4.5-5~~MM 4.5-4 060 - Planning-CUL. 6 Feature Relocation. Site P-33-002918 (CA-RIV-7184) Feature D, P-33-12916 (CA-RIV-7182) Features A, B, C, D, and E, CAR-04, CAR-05, CAR-08, CAR-10~~, CAR-12~~, and CAR-13-I cannot be	Project Applicant Project Applicant Project Applicant, Project Supervisor,	Riverside County Planning Department Riverside County Planning Department Riverside County Planning Department, Native American	Prior to final map approval Prior to final map approval Prior to issuance of grading permits

Summary of Impacts	Significance Determination	Mitigation Measures (MM) and Regulatory Requirements (RR)	Responsible Parties	Monitoring Parties	Implementation Stage
4.5-~~7~~8 would ensure that temporary fencing is installed to preclude unplanned construction-related impacts to portions of P-33-012915 (CA-RIV-7181) , portions of P-33-012916 (CA-RIV-7182), P-33-012917 (CA-RIV-7183) Features A, B and C, P-33-02918 (CA-RIV-7184) Feature A, CA-02, CAR-09, and CAR-11. Implementation of Mitigation Measure MM 4.5-~~8~~9 would ensure that all cultural resources uncovered on site are properly relinquished and housed at an appropriate curation facility. Implementation of Mitigation Measure MM 4.5-~~10~~9 would ensure that deed restrictions are recorded to restrict development within the ESAs, thereby ensuring long-term preservation of any sites or relocated tribal cultural resources within the Project's open space areas. Implementation of Mitigation Measure MM 4.5-10~~1~~ would ensure that a Phase IV Monitoring Report is prepared to demonstrate compliance with the mitigation measures presented herein. Implementation of Mitigation Measures MM 4.5-11~~2~~ and MM 4.5-12~~3~~ would ensure that any previously-undiscovered tribal cultural resources identified on site or within the Project's off-site improvement areas during ground-disturbing activities are appropriately treated and documented as directed by the Archaeological Monitor, County Archaeologist, and Native American Monitor. In consultation with Tribes, the County has determined that implementation of the required mitigation for impacts to tribal cultural resources would reduce the Project's potential impacts to tribal cultural resources, but the impact would remain significant and unavoidable after mitigation. ~~Implementation of MM 4.5-1 would ensure that Feature E of Site P-33-02918 (CA-RIV-7184) and CAR-12 are capped with layers of soil or sand fill, above which landscaping, trails, recreation areas, or access roads could be constructed, which would~~		avoided through Project redesign. Prior to grading permit issuance, the Project Supervisor and Project Archaeologist and a representative from the Soboba Band of Luiseño Indians and Pechanga Band of Indians shall meet onsite to determine the strategy for relocating the milling features to a permanent open space area predetermined and designated, in consultation with ~~the~~ Tribes, ~~and designated~~ on a confidential map. Before construction activities are allowed to start and using professional archaeological methods, as well as follow the cultural ~~costumes~~ customs and traditions of Tribes, any visible artifacts shall be recovered and recorded, and photo documentation of each feature in situ shall occur. No sacred sites shall be photographed, and prior approval is needed from Soboba Band of Luiseño Indians and Pechanga Band of Indians. The current Department of Parks and Recreation forms for the sites shall be updated, detailing which features were relocated, the process through which this was done, and updated maps using sub meter GIS technology to document the new location of each feature. The relocation information shall be included in the Phase IV Monitoring Report. The ability of features to be relocated depends on the extent of subsurface bedrock, which cannot be fully understood until after ground disturbance begins. In the event that a feature cannot be relocated without damage, after a reasonable and good faith effort as determined by the County, the Project Supervisor and Project Archaeologist, in coordination with the Native American Monitors, shall ~~be reburied~~rebury the resource in the pre-designated reburial location. ~~MM 4.5-6~~MM 4.5-5 060 - Planning-CUL. 7 Native American Monitor. Prior to the issuance of grading permits, the developer/permit applicant shall enter into agreement(s) with ~~the Soboba Band and Pechanga Band for one Native American monitor from each tribe for the duration of ground disturbing activity associated with project construction~~ consulting tribe(s) for the appropriate number of Native American Monitor(s). In conjunction with the Archaeological Monitor(s), the Native American Monitor(s) shall attend the pre-grading meeting with the contractors to provide Cultural Sensitivity Training for all construction personnel. In addition, an adequate number of Native American Monitor(s) shall be on-site during all initial ground-disturbing activities and excavation of soils in each	Project Archaeologist Project Applicant	Monitor Riverside County Planning Department, Native American Monitors	 Prior to issuance of grading permits

Summary of Impacts	Significance Determination	Mitigation Measures (MM) and Regulatory Requirements (RR)	Responsible Parties	Monitoring Parties	Implementation Stage
~~preclude impacts to these resources. Implementation of MM 4.5-2 would ensure that controlled grading is implemented at Sites P-33-002918 (CA-RIV-7184) Features B, C, D, E, P-33-12916 Features A, B, C, D, CA-001, CAR-04, CAR-05, CAR-08, CAR-10, and CAR13-I. Implementation of MM 4.5-3 would ensure that the Project's Final Map includes an Environmental Constraints Sheet that identifies the open space areas on site that would be used for the relocation of bedrock milling features. MM 4.5-4 would ensure that the Project's Final Map includes an Environmental Constraints Sheet that identifies the presence of environmentally constrained area(s) and the requirements for avoidance of portions of P-33-012915 (CA-RIV-7181), portions of P-33-012916 (CA-RIV-7182), P-33-012917 (CA-RIV-7183) Features A, B and C, P-33-02918 (CA-RIV-7184) Feature A, CA-002, CAR-09, and CAR-11. Implementation of MM 4.5-5 and MM 4.5-6 would ensure that mitigation for impacts to Sites P-33-002918 (CA-RIV-7184) Features B, C, D, P-33-12916 (CA-RIV-7182) Features A, B, C, D, CA-001, CAR-04, CAR-05, CAR-08, and CAR-10 are coordinated between the Project Applicant, Project Archaeologist, and a representative from the consulting Tribe(s), and would ensure that these resources all would be relocated to permanent open space areas. Implementation of MM 4.5-7 would ensure that all ground-disturbing activities) are monitored by a County-approved archaeologist, and would ensure the appropriate treatment of any subsurface resources that may be identified. Implementation of MM 4.5-8 would ensure that temporary fencing is installed to preclude unplanned construction-related impacts to portions of P-33-012915, portions of P-33-012916 (CA-RIV-7182), P-33-012917 (CA-RIV-7183) Features A, B and C, P-33-02918 (CA-RIV-7184) Feature A, CA-002,~~		portion of the project site including clearing, grubbing, tree removals, grading and trenching. In conjunction with the Archaeological Monitor(s), the Native American Monitor(s) have the authority to temporarily divert, redirect or halt the ground disturbance activities to allow identification, evaluation, and potential recovery of cultural resources. Activities will be documented in Tribal Monitoring Notes which will be required to be submitted to the County Archaeologist prior to grading final inspection. The developer/permit applicant shall submit a fully executed copy of the agreement(s) to the County Archaeologist to ensure compliance with this condition of approval. Upon verification, the Archaeologist shall clear this condition. This agreement shall not modify any condition of approval or mitigation measure. ~~If either or both tribes decline to enter into agreement for Native American monitoring within 60 days of extending an offer, then the County will require the Archaeological Monitor to notify the tribes in the event of an unanticipated discovery.~~ ~~MM 4.5-7~~MM 4.5-6 060 - Planning-CUL. 8 Project Archaeologist. Prior to issuance of grading permits: The applicant/developer shall provide evidence to the County of Riverside Planning Department that a County certified professional archaeologist (Project Archaeologist) has been contracted to implement a Cultural Resource Monitoring Program (CRMP). A Cultural Resource Monitoring Plan shall be developed, in consultation with Soboba Band of Luiseño Indians and Pechanga Band of Indians, that addresses the details of all activities and provides procedures that must be followed in order to reduce the impacts to cultural, tribal cultural and historic resources to a level that is less than significant ~~to the greatest extent feasible~~ as well as address potential impacts to undiscovered buried archaeological resources associated with this project. A fully executed copy of the contract and a digitally-signed copy of the Monitoring Plan shall be provided to the County Archaeologist to ensure compliance with this condition of approval. Working directly under the Project Archaeologist, an adequate number of qualified Archaeological Monitors shall be present to ensure that all earth moving activities are observed and shall be on-site during all grading activities for areas to be monitored	Project Applicant, Project Archaeologist	Riverside County Planning Department	Prior to issuance of grading permits

Summary of Impacts	Significance Determination	Mitigation Measures (MM) and Regulatory Requirements (RR)	Responsible Parties	Monitoring Parties	Implementation Stage
~~CAR-09, and CAR-11. Implementation of MM 4.5-9 would ensure that deed restrictions are recorded to restrict development within the ESAs, thereby ensuring long-term preservation of any sites or relocated sites within the Project's open space areas. Implementation of the required mitigation would reduce the Project's impacts to Sites P-33-12915/CA-RIV-7181, P-33-12916/CA-RIV-7182, CAR-04, CAR-05, CAR-08, CAR-10, and CAR-13-1 to below a level of significance. Implementation of MM 4.5-11 would ensure that any previously undiscovered archaeological sites or resources identified on site or within the Project's off-site improvement areas during ground-disturbing activities are appropriately treated as directed by the Archaeological Monitor, County Archaeologist, and Native American Monitor.~~		including off-site improvements. Inspections will vary based on the rate of excavation, the materials excavated, and the presence and abundance of artifacts and features. The Professional Archaeologist may submit a detailed letter to the County of Riverside during grading requesting a modification to the monitoring program if circumstances are encountered that reduce the need for monitoring. ~~MM 4.5-8~~MM 4.5-7 060 - Planning-CUL. 9 Temporary Fencing. Temporary fencing shall be required for the protection of cultural site(s) portions of P-33-012915 (CA-RIV-7181), portions of P-33-012916 (CA-RIV-7182), P-33-012917 (CA-RIV-7183) Features A, B and C, P-33-02918 (CA-RIV-7184) Feature A, CA-02, CAR-09, and CAR-11 during grading activities. Prior to commencement of grading or brushing, the project archaeologist shall confirm the site boundaries and determine an adequate buffer for protection of the site(s), in consultation with the Soboba Band of Luiseño Indians and Pechanga Band of Indians. The applicant shall direct the installation of fencing under the supervision of the project archaeologist and Native American Monitor(s). The fencing can be removed only after grading operations have been completed. ~~MM 4.5-9~~MM 4.5-8 070 - Planning-CUL. 1 Artifact Disposition. Prior to Grading Permit Final Inspection, the landowner(s) shall relinquish ownership of all cultural resources that are unearthed on the Project property during any ground-disturbing activities, including previous investigations and/or Phase III data recovery. Historic Resources- all historic archaeological materials recovered during the archaeological investigations (this includes ~~any~~ collections made during an earlier project, such as testing of archaeological sites that took place years ago, if applicable), shall be curated ~~and permanently housed~~ at the Western Science Center, a Riverside County curation facility that meets State Resources Department Office of Historic Preservation Guidelines for the Curation of Archaeological Resources ensuring access and use pursuant to the Guidelines Prehistoric Resources- One of the following treatments shall be applied.	Project Applicant, Project Archaeologist, Construction Contractors Landowner(s), Project Archaeologist	Riverside County Building and Safety Department, Riverside County Planning Department, Native American Monitors Riverside County Planning Department	Prior to commencement of ground disturbing activities and during all site grading and construction activities Prior to grading permit final inspection

Summary of Impacts	Significance Determination	Mitigation Measures (MM) and Regulatory Requirements (RR)	Responsible Parties	Monitoring Parties	Implementation Stage
		a) Preservation-In-Place of the cultural resources, if feasible. Preservation in place means avoiding the resources, leaving them in the place where they were found with no development affecting the integrity of the resources. b) Reburial of the resources on the Project property. The measures for reburial shall include, at least, the following: Measures to protect the reburial area from any future impacts. Reburial shall not occur until all required cataloguing, analysis and studies have been completed on the cultural resources, with an exception that sacred items, burial goods and Native American human remains are excluded. Any reburial processes shall be culturally appropriate. Listing of contents and location of the reburial shall be included in the confidential Phase IV Report. The Phase IV Report shall be filed with the County under a confidential cover and not subject to a Public Records Request.			
		~~MM 4.5-10~~MM 4.5-9 070 - Planning-CUL. 2 Deed Restrictions. At the conclusion of all construction activities, the Project proponent and landowner shall record a deed restriction on the avoidance areas (and the reburial location, if used) with the County to restrict development of the ESAs in the future. Deed restrictions shall not disclose the nature of the ESAs. A copy of the deed restriction(s) shall be submitted to the County planning staff as proof of compliance prior to the issuance of certificates of occupancy for the Project.	Project Applicant	Riverside County Building & Safety Department	Prior to final building inspection
		~~MM 4.5-11~~MM 4.5-10 070 - Planning CUL. 3 Phase IV Monitoring Report. Prior to Grading Permit Final Inspection, a Phase IV Cultural Resources Monitoring Report shall be submitted that complies with the Riverside County Planning Department's requirements for such reports for all ground disturbing activities associated with this grading permit. The report shall follow the County of Riverside Planning Department Cultural Resources (Archaeological) Investigations Standard Scopes of Work posted on the TLMA website. The report shall include results of any feature relocation or residue analysis required as well as evidence of the required cultural sensitivity training for the construction staff held during the required pre-grade meeting and evidence that any artifacts have been treated in accordance to procedures stipulated in the	Project Applicant, Project Archaeologist	Riverside County Planning Department, Soboba Band of Luiseño Indians, Pechanga Band of Indians	Prior to grading permit final inspection

Summary of Impacts	Significance Determination	Mitigation Measures (MM) and Regulatory Requirements (RR)	Responsible Parties	Monitoring Parties	Implementation Stage
		Cultural Resources Management Plan. The copy of the report shall be provided to the County of Riverside Planning Department, Soboba Band of Luiseño Indians, and Pechanga Band of Indians.			
		~~MM 4.5-12~~MM 4.5-11 015 - Planning-CUL. 1 Human Remains. If human remains are found on this site, the developer/permit holder or any successor in interest shall comply with State Health and Safety Code Section § 7050.5 and Public Resources Code § 5097.98.	Project Applicant, Construction Contractors, Project Archaeologist	County Coroner	In the event that human remains are encountered.
		~~MM 4.5-13~~MM 4.5-12 015 - Planning-CUL. 2 Unanticipated Resources. The developer/permit holder or any successor in interest shall comply with the following for the life of this permit. If during ground disturbance activities, unanticipated historical or archaeological resources* are discovered, the following procedures shall be followed. All ground disturbance activities within 100 feet of the discovered historical or cultural resource shall be halted and the applicant shall call the County Archaeologist immediately upon discovery of the historical or archaeological resource. For archaeological resources, a meeting shall be convened between the developer, the Project archaeologist**, the Native American tribal representative (or other appropriate ethnic/cultural group representative), and the County Archaeologist to discuss the significance of the find. At the meeting with the aforementioned parties, a decision is to be made, with the concurrence of the County Archaeologist, as to the appropriate treatment (documentation, recovery, avoidance, etc.) for the cultural resource. For any historical resources that may be uncovered, a meeting with the County Archaeologist shall be held to determine the significance of and appropriate treatment for the historical resource(s), which may include documentation and/or resource recovery and curation at facilities such as the Western Science Center in Hemet, depending on the significance of the resource. Resource evaluations shall be limited to nondestructive analysis. Further ground disturbance shall not resume within the area of the discovery until the appropriate treatment has been accomplished.	Project Applicant, Project Archaeologist, Construction Contractors	Riverside County Planning Department, Native American Tribes	In the event that unanticipated cultural resources are encountered

Summary of Impacts	Significance Determination	Mitigation Measures (MM) and Regulatory Requirements (RR)	Responsible Parties	Monitoring Parties	Implementation Stage
		* A cultural resource site is defined, for this purposes of Mitigation Measure MM 4.5-123, as being a feature and/or three or more artifacts in close association with each other. ** If not already employed by the project developer, a County approved archaeologist shall be employed by the Project developer to assess the significance of the cultural resource, attend the meeting described above, and continue monitoring of all future site grading activities as necessary. **RR 4.5-1:** Unless otherwise required by law, the site of any reburial of Native American human remains or associated grave goods shall not be disclosed and shall not be governed by public disclosure requirements of the California Public Records Act. The Coroner, pursuant to the specific exemption set forth in California Government Code Section 6254 (r), parties, and Lead Agencies, will be asked to withhold public disclosure information related to such reburial, pursuant to the specific exemption set forth in California Government Code 6254 (r).	N/A	N/A	N/A
4.20 Utilities and Service Systems					
Threshold a.: Although the Project would require construction of new or expanded water, wastewater conveyance, and stormwater drainage systems, impacts associated with the construction of such facilities have been evaluated throughout this EIR under the appropriate subject headings (e.g., air quality, biological resources, etc.). Where significant direct or cumulative impacts are identified, mitigation measures have been imposed to reduce the Project's impacts to the maximum feasible extent. There are no environmental impacts that would occur specifically related to the Project's proposed water, sewer, and drainage improvements that have not already been addressed. As such, with the mitigation measures specified in this EIR, Project impacts due to water, sewer, and drainage improvements would be less than significant. Additionally, the Project's wastewater generation would represent approximately 0.1% of the RWQCP's daily capacity. Accordingly,	Less-than-Significant Impact	**RR 4.20-1** The Project is required to comply with the provisions of the California IWMA of 1989 (AB 939) which mandates a reduction of disposed waste throughout California. **RR 4.20-2:** The Project is required to comply with the provisions of the Mandatory Commercial Recycling Program (AB 341): AB 341 made a legislative declaration that it is the policy goal of the State that not less than 75% of solid waste generated be source reduced, recycled, or composted by the year 2020, and required by the California Department of Resources, Recycling, and Recovery, by January 1, 2014, to provide a report to the Legislature that provides strategies to achieve that policy goal and also includes other specified information and recommendations. **RR 4.20-3:** The Project would be subject to the following applicable standard conditions of approval imposed on the Project by the RCDWR: • Prior to issuance of a building permit, a Waste Recycling Plan (WRP) shall be submitted to the Riverside County Department of Waste Resources for approval. At a minimum, the WRP must	N/A	N/A	N/A

Summary of Impacts	Significance Determination	Mitigation Measures (MM) and Regulatory Requirements (RR)	Responsible Parties	Monitoring Parties	Implementation Stage
the Project would not result in or require the expansion of the existing facilities at the RWQCP, and impacts would be less than significant. Threshold b.: Because the WMWD UWMP determined that the WMWD would have adequate supplies during normal, dry, and multiple dry years through at least 2045, the Project only has the potential to conflict with the UWMP projected supplies and demand based on the anticipated increase in the number of dwelling units proposed as part of the Project as compared to the number of dwelling units anticipated by the UWMP for the Project site. The Project would result in an increase in the number of dwelling units projected on site by 105 dwelling units, which would result in a net increase in demand of approximately 106.0 AFY (94,568 gpd). The Project's incremental increase in demand represents only 6.6% of WMWD's excess capacity in 2020 and represents only 1.8% of WMWD's projected excess capacity in 2045. Thus, the Project's incremental increase in water demand would be accommodated by WMWD's existing and projected excess capacity. It can be concluded that the WMWD would have sufficient water supplies to serve the Project based on existing entitlements and resources. The Project also would not result in the construction or expansion of facilities, beyond the on-site and site adjacent improvements that are inherent to the Project's design and that already have been evaluated throughout this EIR. Impacts would be less than significant. Thresholds c. and d.: Impacts associated with the Project's proposed sewer improvements are inherent to the Project's construction phase, and impacts have been evaluated throughout this EIR under the appropriate subject headings	Less-than-Significant Impact Less-than-Significant Impact	identify the materials (i.e., cardboard, concrete, asphalt, wood, etc.) that will be generated by construction and development, the projected amounts; the measures/methods that will be taken to recycle, reuse, and/or reduce the amount of material; the facilities and/or haulers that will be utilized; and the targeted recycling or reduction rate. During Project construction, the Project site shall have, at a minimum, two bins: one for waste disposal and the other for the recycling of Construction and Demolition (C&D) materials. Additional bins are encouraged to be used for further source separation of C&D recyclable materials. Accurate record keeping (receipts) for recycling of C&D recyclable materials and solid waste disposal must be kept. Arrangements can be made through the franchise hauler. • Prior to final building inspection, evidence (i.e., receipts or other type of verification) to demonstrate Project compliance with the approved WRP shall be presented by the Project proponent to the Planning Division of the Riverside County Department of Waste Resources in order to clear the project for occupancy permits. Receipts must clearly identify the amount of waste disposed and Construction and Demolition (C&D) materials recycled. • Hazardous materials are not accepted at Riverside County landfills. In compliance with federal, State, and local regulations and ordinances, any hazardous waste generated in association with the Project shall be disposed of at a permitted Hazardous Waste disposal facility. Hazardous waste materials include, but are not limited to, paint, batteries, oil, asbestos, and solvents.			

Summary of Impacts	Significance Determination	Mitigation Measures (MM) and Regulatory Requirements (RR)	Responsible Parties	Monitoring Parties	Implementation Stage
(e.g., air quality, biological resources, etc.). Where significant direct or cumulative impacts are identified, mitigation measures have been imposed to reduce the Project's impacts to the maximum feasible extent. There are no environmental impacts that would occur specifically related to the Project's proposed sewer improvements that have not already been addressed in pertinent sections of this EIR. As such, with the mitigation measures specified in this EIR, Project impacts due to proposed sewer improvements would be less than significant. With respect to sewer treatment capacity, the Project's 53,360 gpd of wastewater would represent only approximately 0.13% of the RWQCP's total daily treatment capacity. Therefore, it can be concluded that the RWQCP would have adequate capacity to treat sewer flows generated by the Project, and the Project would not result in a determination by the wastewater treatment provider that serves or may service the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments. Accordingly, because adequate treatment capacity exists at the RWQCP to treat the Project's sewer flows, Project impacts to wastewater treatment capacity would be less than significant. Threshold e.: The Project's0.26 tpd of solid waste would represent approximately 0.004% of the excess daily capacity at El Sobrante Landfill, approximately 0.01% of the excess daily capacity at the Badlands Landfill, and approximately 0.01% of the excess daily capacity at the Lamb Canyon Landfill. It is anticipated that these regional landfill facilities would have sufficient daily capacity to accept solid waste generated by the Project. Therefore, the Project would not generate solid waste in excess of State or local standards, or in excess	Less-than-Significant Impact				

Summary of Impacts	Significance Determination	Mitigation Measures (MM) and Regulatory Requirements (RR)	Responsible Parties	Monitoring Parties	Implementation Stage
of the capacity of local infrastructure, and would not otherwise impair the attainment of solid waste reduction goals, and impacts would be less than significant.					
Threshold f.: With mandatory compliance to AB 939, AB 341, and RCDWR's programs and policies, the Project would not result in a significant impact due to noncompliance with regulations related to solid waste. A less-than-significant impact would occur.	Less-than-Significant Impact				
Threshold g.: Impacts associated with the construction or expansion of utility facilities would be less than significant or otherwise mitigated to the maximum feasible extent by this EIR. No additional mitigation would be required.	Less-than-Significant Impact				
4.21 Wildfire					
Threshold a.: The Project site and surrounding areas are not identified as evacuation routes, and there are no adopted emergency response plans or emergency evacuation plans applicable to the Project area. During construction and at Project build-out, the Project would be required to maintain adequate access for emergency vehicles. Additionally, the Project alone only would increase evacuation times in the local area by up to a maximum of 12 minutes, evacuation times only would increase by a maximum of 14 minutes under cumulative conditions, and the Project would not cause or contribute to evacuation times exceeding the FEMA-identified threshold of 90 minutes under either Project only or cumulative conditions. Accordingly, the Project would not impair implementation of or physically interfere with an adopted emergency response plan or an emergency evacuation plan. Impacts would be less than significant.	Less-than-Significant Impact	**MM 4.21-1** Prior to issuance of building permits, the Riverside County Fire Department (RCFD) shall review the proposed building plans to ensure compliance with the recommendations included in the Project's Fire Protection Plan (FPP), entitled, "Arroyo Vista Development Fire Protection Plan" (herein, "FPP"), prepared by Firewise2000, LLC, dated April 27, 2023, and included as Technical Appendix L1 to the Project's Environmental Impact Report (SCH No. 2023030118). The review shall specifically ensure that the building plans incorporate all of the applicable "Construction Standards" requirements identified in Section 6.0 of the Project's FPP, as well as all of the applicable "Infrastructure" requirements identified in Section 8.0 of the Project's FPP. **MM 4.21-2** Prior to final building inspection, the Project Applicant shall provide the Riverside County Fire Department (RCFD) with a copy of the Project Homeowners Association's (HOA) proposed Covenants, Conditions, and Restrictions (CC&Rs). The Project's CC&Rs shall incorporate all requirements of the Project's Fire Protection Plan (FPP), entitled, "Arroyo Vista Development Fire Protection Plan" (herein, "FPP"), prepared by Firewise2000, LLC, dated April	Project Applicant Project Applicant	RCFD RCFD	Prior to issuance of building permits Prior to final building inspection

Summary of Impacts	Significance Determination	Mitigation Measures (MM) and Regulatory Requirements (RR)	Responsible Parties	Monitoring Parties	Implementation Stage
Thresholds b. and e.: Future development on site would comply with the fire abatement requirements specified by the Project's FPP, which includes the provision of FMZs, construction standards, recommended CCRs, and recommended provisions related to infrastructure. However, in the event that the recommendations of the Project's FPP are not implemented, the Project could result in the exposure of Project occupants to wildfire-related pollutant concentrations and/or could results in the exposure of people or structures to a significant risk of loss, injury, or death involving wildland fires. This is evaluated as a significant direct and cumulatively-considerable impact for which mitigation would be required. Implementation of MM 4.21-1 through MM 4.21-3 would nsure full compliance with the Project's FPP. Specifically, MM 4.21-1 would ensure that all structures onstructed on the Project site comply with the FPP recommendations related to "Construction Standards" and "Infrastructure," pursuant to Sections 6.0 and 8.0 of the Project's FPP, respectively. MM 4.21-2 would ensure that the Project's CC&Rs incorporate the recommended measures from the Project's FPP related to maintenance of the FMZs and as specified in Section 7.0 (Mandated Inclusion in the CC&R's) of the Project's FPP. It also would ensure that the Project's CC&Rs include measures requiring subsequent homebuyers within the proposed development to acknowledge the responsibilities set forth in the Project's FPP, would ensure that educational materials related to fire safety are distributed to all future homeowners, and would ensure that the CC&Rs require the Project's HOA to provide the lot owners with information regarding wildfire mitigation efforts necessary for community fire safety. MM 4.21-3 would ensure that all future homebuyers associated	Less than Significant with Mitigation Incorporated	27, 2023, and included as Technical Appendix L1 to the Project's Environmental Impact Report (SCH No. 2023030118). The CC&Rs shall specifically include requirements related to maintenance of the Project's Fuel Management Zones (FMZs), including identification of maintenance requirements for individual homeowners as well as maintenance requirements to be implemented by the Project's HOA. The review also shall ensure that all of the measures recommended in Section 7.0 (Mandated Inclusion in the CC&R's) of the Project's FPP have been included in the Project's CC&Rs. The Project's CC&Rs also shall require that any future sales of homes to subsequent homeowners also shall require review of the Project's FPP and a signed copy of the Project's FPP shall be included in any subsequent escrow documents. The CC&Rs shall further provide that each year prior to the onset of fire season, the HOA shall provide the lot owners with information regarding wildfire mitigation efforts necessary for community fire safety that are contained within the Project's FPP. **MM 4.21-3** Prior to the sale of any proposed residences within the Project, a copy of the Project's Fire Protection Plan" (herein, "FPP"), prepared by Firewise2000, LLC, dated April 27, 2023, and included as Technical Appendix L1 to the Project's Environmental Impact Report (SCH No. 2023030118), shall be made available to all potential homebuyers, and all perspective homebuyers shall be provided with education materials related to fire safety, as identified in Section 9.0 of the Project's FPP. Additionally, a copy of the Project's FPP shall be included as part of any future sales agreement, and future homeowners shall be required to sign a copy of the FPP as part of their escrow papers acknowledging the requirements, restrictions, and responsibilities outlined in the Project's FPP. The signed copy of the FPP shall be included in the escrow papers.	Project Applicant	Riverside County Planning Department	Prior to the sale of proposed residences

Summary of Impacts	Significance Determination	Mitigation Measures (MM) and Regulatory Requirements (RR)	Responsible Parties	Monitoring Parties	Implementation Stage
with the Project would be required to review and acknowledge the homeowner responsibilities identified by the Project's FPP for on-going maintenance. With full compliance with the Project's FPP, as would be assured with implementation of MM 4.21-1 through MM 4.21-3, would ensure that the Project does not exacerbate fire risk or expose future Project occupants to substantial wildfire-related pollutant concentrations and would ensure that the Project does not result in the exposure of people or structures either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires. Thus, with implementation of the required mitigation, Project impacts would be reduced to less-than-significant levels.					
Threshold c.: The Project's FMZs would require on-going maintenance, including on-going thinning of vegetation, that could result in significant environmental effects, particularly to biological resources. However, impacts associated with Project implementation, including implementation of the recommended FMZs, are evaluated within appropriate subject headings throughout this EIR, and in all cases impacts were determined to be less than significant, or would be reduced to less-than-significant levels with the implementation of mitigation measures. Accordingly, the Project would not exacerbate fire risk, and would not result in temporary or ongoing impacts to the environment beyond what is already evaluated and disclosed by this EIR. Impacts would be less than significant.	Less-than-Significant Impact				
Threshold d.: Although during extreme fire conditions there still would remain a potential for wildland fires to affect future buildings on site, implementation of the recommendations of the Project's FPP and applicable fire-related	Less-than-Significant Impact				

Summary of Impacts	Significance Determination	Mitigation Measures (MM) and Regulatory Requirements (RR)	Responsible Parties	Monitoring Parties	Implementation Stage
regulatory requirements would reduce the site's vulnerability to wildfire to less-than-significant levels. Additionally, with development of the site runoff on the site would be controlled by the Project's proposed drainage system, thereby precluding fire-related flooding impacts downstream. In addition, the Project site would not cause or be affected by fire-induced landslides. Therefore, the Project would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes, and impacts would be less than significant.					

1.0 INTRODUCTION

1.1 PURPOSES OF CEQA AND LEGAL AUTHORITY FOR THIS EIR

This Environmental Impact Report (EIR) has been prepared in compliance with the California Environmental Quality Act ("CEQA"; Public Resources Code § 2100 et. Seq.), as amended, and the State CEQA Guidelines ("State CEQA Guidelines"; Title 14 California Code of Regulations § 15000 et. seq.), as amended. As stated by State CEQA Guidelines § 15002(a), the basic purposes of CEQA are to:

- Inform governmental decision makers and the public about the potential, significant environmental effects of proposed government actions (including the discretionary approval of land entitlement applications submitted by private parties);
- Identify the ways that environmental damage can be avoided or significantly reduced;
- Prevent significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures when the governmental agency finds the changes to be feasible; and
- Disclose to the public the reasons why a governmental agency approved the project in the manner the agency chose if a project will be approved involving significant environmental effects.

The public agency with the principal responsibility for carrying out or approving a project or the first public agency to make a discretionary decision to proceed with a proposed project should ordinarily act as the "Lead Agency" pursuant to State CEQA Guidelines §§ 15050-15051. The County of Riverside is the Lead Agency for the proposed Project evaluated in this EIR.

Under CEQA, if a Lead Agency determines that there is substantial evidence in light of the whole record that a project may have a significant effect on the environment, the agency must prepare an Environmental Impact Report ("EIR"; State CEQA Guidelines § 15064(a)(1)). The purpose of an EIR is to inform public agency decision-makers and the public of the potentially significant environmental effects of a project, identify possible ways to minimize the significant effects, and describe reasonable alternatives to the project (State CEQA Guidelines § 15121(a)).

This EIR is an informational document that represents the independent judgment of the County of Riverside (as the Lead Agency) for use by the Riverside County decision-makers, responsible and trustee agencies, and members of the general public to evaluate the physical environmental effects that could result from constructing and operating the proposed Project. The County of Riverside has reviewed and, as necessary, directed revisions to all submitted drafts, technical studies, and reports supporting this EIR for consistency with County policies and requirements to ensure that this EIR reflects its own independent judgment. Governmental approvals requested from the County of Riverside by the Project Applicant include:

- Adoption by resolution of General Plan Amendment No. 220009 (GPA220009)
- Adoption by ordinance of Change of Zone No. 2200031 (CZ2200031)
- Adoption by resolution of Tentative Tract Map No. 38510 (TTM38510); and
- Certification of this EIR.

Other related discretionary and administrative actions that are required to construct and operate the Project described in this EIR are listed in Section 3.0, *Project Description*. This document complies with all criteria, standards, and procedures of CEQA §§ 21000 et seq. and State CEQA Guidelines §§ 15000 et seq.

As a first step in the CEQA compliance process, Riverside County determined that implementation of the Project has the potential to result in significant environmental effects, and a Project EIR, as defined by State CEQA Guidelines § 15161, is required. As stated in State CEQA Guidelines § 15161, a Project EIR should "…focus primarily on the changes in the environment that would result from the development project" and "…examine all phases of the project including planning, construction, and operation." This EIR represents the independent judgment of Riverside County (as the Lead Agency) and evaluates the physical environmental effects that could result from constructing and operating the proposed Project. Acting as Lead Agency, Riverside County will consider the following issues regarding the proposed Project: a) evaluation of this EIR to determine if the physical environmental impacts are adequately disclosed; b) assessment of the adequacy and feasibility of identified mitigation measures and the potential addition, modification to, or deletion of mitigation measures, standard conditions of approval, or Project design features; c) consideration of alternatives to the Project that would reduce or eliminate significant environmental effects of the Project; and, if necessary, d) consideration of Project benefits that override the Project's unavoidable and unmitigable significant effects on the environment.

Accordingly, and in conformance with State CEQA Guidelines § 15121(a), the purposes of this EIR are to: (1) disclose information by informing public agency decision makers and the public generally of the significant environmental effects associated with all phases of the Project; (2) identify possible ways to minimize or avoid those significant effects; and (3) to describe a reasonable range of alternatives to the Project that would feasibly attain most of the basic Project objectives but would avoid or substantially lessen its significant environmental effects.

Before taking action to approve the Project, the County of Riverside (serving as the Lead Agency) has the obligation to: (1) ensure this EIR has been completed in accordance with CEQA; (2) review and consider the information contained in this EIR as part of its decision-making process; (3) make a statement that this EIR reflects Riverside County's independent judgment; (4) ensure that all significant effects on the environment are avoided or substantially lessened where feasible; and, if necessary (5) make written findings for each unavoidable significant environmental effect stating the reasons why mitigation measures or project alternatives identified in this EIR are infeasible and citing the specific benefits of the proposed Project that outweigh its unavoidable adverse effects (State CEQA Guidelines §§ 15090-15093).

The roles and responsibilities of the County of Riverside Planning Commission and Board of Supervisors for Project-related approvals are as follows.

- **The Planning Commission**: The Planning Commission will recommend to the Board of Supervisors whether the Project's applications, which include GPA220009, CZ2200031, and TTM38510, should be approved, modified, or denied, and will recommend to the Board of Supervisors whether to certify the Final EIR (FEIR) with or without modifications.

- **Board of Supervisors**: The Board of Supervisors will decide whether to approve, modify, or deny GPA220009, CZ2200031, and TTM38510. Project-related approvals will be subject to a noticed public hearing held before the Board of Supervisors. Upon approval or conditional approval of the Project and certification of this EIR by the Board of Supervisors, the County would conduct additional discretionary and administrative level reviews as needed to implement the Project.

This EIR and all supporting technical appendices are available at the County of Riverside Planning Department, 4080 Lemon Street, 12th Floor, Riverside, CA 92501 during the County's regular business hours, or can be requested in electronic form by contacting the County Planning Department.

1.2 SUMMARY OF THE PROJECT EVALUATED BY THIS EIR

The County of Riverside is the Lead Agency for the proposed Project, under whose authority this EIR has been prepared. For purposes of this EIR, the term "Project" refers to the Project's discretionary applications (GPA220009, CZ2200031, and TTM38510) and the discretionary and ministerial actions required to implement the Project, as proposed, and all of the activities associated with Project implementation including planning, construction, and long-term operations.

In summary, the Project as evaluated herein consists of a General Plan Amendment, Change of Zone, and Tentative Tract Map. Collectively, the approval of these discretionary actions would allow for the development of the 140.8-acre Project site with 231 single-family dwelling units, a sewer lift station, three water quality basins, a trailhead/parking area, and natural open space areas. Specifically, the Project Applicant is requesting the following governmental approvals from the County of Riverside to implement the Project (refer to Chapter 3.0, *Project Description*, for a complete description of the Project's construction and operational characteristics):

- **General Plan Amendment No. 220009** is proposed to modify the General Plan and Lake Mathews/Woodcrest Area Plan (LMWAP) land use designations for the 140.8-acre Project site from "Rural Community – Very Low Density Residential (RC-VLDR)" to "Rural Community – Low Density Residential (RC-LDR)."

- **Change of Zone No. 2200031** is proposed to change the zoning classification of the 140.8-acre Project site from "Light Agriculture, 10-Acre Minimum Lot Size (A-1-10)" to "One Family Dwellings, 10,000 s.f. Minimum Lot Sizes (R-1-10,000)."

- **Tentative Tract Map No. 38510** is proposed to subdivide the approximately 140.8-acre Project site to accommodate a total of 231 residential lots on 88.09 acres, a sewer lift station on 0.25-acre, three water quality basins on 5.39 acres, four open space lots on 23.75 acres, a trail head and associated parking on 0.55-acre, internal roadway dedications on 22.29 acres, and a Chicago Avenue dedication on 0.48-acre. Proposed residential lots would include a mixture of minimum lot sizes ranging from 0.25-acre to 1.0 acre, with individual lots ranging in size from 10,890 s.f. to 46,123 s.f. (net).

1.3 CEQA Process Overview

CEQA (Public Resources Code, §§ 21000- 21177) requires that all public agencies within the State of California, having land use approval over project activities that have the potential to affect the quality of the environment, shall regulate such activities so that impacts to the environment can be prevented to the extent feasible. Such activity is reviewed and monitored through the CEQA process, as provided in the State CEQA Guidelines (California Code of Regulations, Title 14, Division 6, Chapter 3, §§ 15000-15387). CEQA distinguishes varied levels of documentation and public review based on a project's anticipated level of effect on the environment.

When it is determined through preliminary review that a project may likely have one or more significant effects upon the environment, then an Environmental Impact Report (EIR) must be prepared. The "scope" of the EIR may be determined through preparation of an Initial Study and a public scoping process. The EIR should consider both the potential project-specific (direct and indirect) and cumulative environmental impacts that could result from the implementation of the proposed project.

Pursuant to State CEQA Guidelines § 15121, the EIR is primarily an informational document intended to inform the public agency decision-makers and the general public of the potentially significant effects of a proposed project. The EIR should disclose all known potentially significant impacts; identify feasible means to minimize or mitigate those effects; and consider a number of feasible alternatives to the project that might further reduce significant impacts while still attaining the project objectives. The decision-makers must consider the information in an EIR before taking action on the proposed project. The EIR may constitute substantial evidence in the record to support the agency's action on the project.

The EIR is prepared by or under the direction of the Lead Agency, which for the proposed Project is the County of Riverside. The County of Riverside is the public agency that has the primary responsibility for approving or carrying out the Project. Further, Responsible and Trustee Agencies, which are public agencies that have a level of discretionary approval over some component of the proposed Project, may rely upon the EIR prepared by the County of Riverside.

An EIR is prepared in two key stages. First, a Draft EIR is prepared and distributed for public and agency review. Once comments on the Draft EIR are received, responses to those comments and any additional relevant project information are prepared and compiled in a Final EIR. Both of these documents (i.e., the Draft EIR and the Final EIR), along with any related technical appendices and reference sources, represent the complete record of the EIR. Throughout this document, the terms Final EIR or Draft EIR may be used interchangeably since both are part of the ultimate EIR record; however, "Draft EIR" may be used specifically when referring to information provided in the volume made available for the CEQA-required 45-day public review period.

In accordance with State CEQA Guidelines § 15087, this Draft EIR will be made available for review by the public and public agencies for a minimum period of 45 days to provide comments "on the sufficiency of the document in identifying and analyzing the possible impacts on the environment and ways in which the significant effects of the project might be avoided or mitigated" (State CEQA Guidelines § 152049(a)). Responses to written comments received during the public review period will be included in the Final EIR. During the decision-making process, the Project and its design features, objectives, merits, environmental

consequences, and socioeconomic factors, among other information contained in the Project's administrative record, will be considered by Riverside County decision-makers. If the Final EIR is certified and the Project approved, Riverside County and other public agencies with permitting authority over all, or portions, of the Project would be able to rely on the Final EIR as part of their permitting processes to evaluate the environmental effects of the Project as they pertain to the approval or denial of applicable permits.

1.4 EIR Scope, Format, And Content

1.4.1 EIR Scope

Pursuant to the procedural requirements of CEQA, on March 2, 2023, the County filed a Notice of Preparation (NOP) with the California Office of Planning and Research (State Clearinghouse) and the Riverside County Clerk to indicate that an EIR would be prepared to evaluate the Project's potential to impact the environment. The NOP also was distributed to surrounding property owners, responsible and trustee agencies, and other interested parties for a 30-day public review period that commenced on March 2, 2023, and concluded on April 1, 2023. The NOP was distributed for public review to solicit responses to help the County identify the full scope and range of potential environmental concerns associated with the Project so that these issues could be fully examined in this EIR. Comments on the NOP were received from the following agencies and individuals:

- California Department of Fish and Wildlife (CDFW)
- Riverside County Department of Waste Resources (RCDWR)
- Kathleen Crook
- California Department of Conservation
- Debbie Walsh, Rural Association of Mead Valley
- Bruce Rodgers

In addition, a publicly-noticed EIR Scoping Meeting was held at the Riverside County Administrative Center, 1st Floor Conference Room 2A, located at 4080 Lemon Street, Riverside, California, 92501 on April 3. 2023, which provided members of the general public an additional opportunity to comment on the scope of environmental issues to be addressed in this EIR.

An Initial Study was not prepared for the proposed Project because the County determined that an EIR was clearly required. As such, this EIR evaluates all of the environmental topics identified in Appendix G to the State CEQA Guidelines and in the County's standard Environmental Assessment Checklist form. Based on Appendix G and the County's Environmental Assessment Checklist form, and in consideration of all comments received by Riverside County on the NOP and during the EIR Scoping Meeting, Section 4.0 of this EIR evaluates the Project's potential to cause adverse effects to the following environmental issue areas:

- Aesthetics
- Agriculture and Forestry Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Energy
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards/Hazardous Materials
- Hydrology/Water Quality
- Land Use/Planning
- Mineral Resources
- Noise
- Paleontological Resources
- Population/Housing
- Public Services
- Recreation
- Transportation
- Tribal Cultural Resources
- Utilities/Service Systems
- Wildfire

The Project's potential to result in growth-inducing impacts are discussed in Section 5.0, *Other CEQA Considerations*, of this EIR. The NOP, public review distribution list, and written comments received by the County during the NOP public review period are provided in *Technical Appendix A* to this EIR. Please refer to Table 1-1, *Summary of NOP Comments*, for summarized comments received during NOP public review period.

Table 1-1 Summary of NOP Comments

Commenter	Date	Comments	Location in EIR Where Comment(s) Addressed
California Department of Fish and Wildlife (CDFW)	April 3, 2023	• Recommends an assessment of biological resources located within the Project site and off-site improvement areas, with emphasis on identifying sensitive species and their associated habitats. • Requests a discussion of direct, indirect, and cumulative impacts expected to adversely affect biological resources as a result of the Project. • Recommends mitigation measures to avoid or minimize impacts that are expected to occur as a result of Project implementation. • Evaluate Project consistency with the Western Riverside Multiple Species Habitat Conservation Program (MSHCP) and California Endangered Species Act (CESA).	EIR Subsection 4.4 (Biological Resources)
California Department of Conservation	March 13, 2023	• Requests that agricultural conservation easements, among other measures, be considered as potential mitigation. • Recommends discussion surrounding the type, amount, and location of farmland conversion resulting directly and indirectly from implementation of the Project.	EIR Subsection 4.2 (Agriculture and Forestry Resources)
Riverside County Department of Waste Resources (RCDWR)	March 14, 2023	• Build-out of the Project may have the potential to increase the amount of waste that could adversely affect solid waste facilities. The DEIR should include the projected maximum amount of waste generated from build-out of the Project, using appropriate waste generation factors for the proposed land uses. • Provides suggestions for considerations in order to meet the goals and standards of State legislation and regulations addressing solid waste. • Provides suggestions for consideration in order to meet the goals and standards of State legislation and regulations. • Requests compliance with AB 75.	EIR Subsection 4.20 (Utilities and Service Systems)

Commenter	Date	Comments	Location in EIR Where Comment(s) Addressed
Debbie Walsh, Rural Association of Mead Valley	April 3, 2023	• Concern that the Project requires a Foundation General Plan Amendment. Additionally, believes the Proposed Project cannot complete the Foundational Plan Amendment due to inconsistencies with General Plan elements. • Concern that the proposed Project would violate the General Plan and the Woodcrest Area Plan Vision. • Concern over environmental health impacts.	EIR Subsections 4.0 (Environmental Analysis) and 4.3 (Air Quality)
Kathleen Crook		• Concern regarding water run-off due to the development of the Project site. • Recommends consultation with Native American tribes to identify areas of significance. • Identifies potentially significant sites and rock outcroppings. • Concern that the proposed Project does not support the Foundation Component/Land Use Designation identified in the General Plan.	EIR Subsections 4.0 (Environmental Analysis), 4.1 (Aesthetics), and 4.5 (Cultural Resources)
Bruce Rodgers	March 30, 2023	• Petition expressing concern regarding traffic generation due to development of the proposed Project.	EIR Subsection 4.18 (Transportation)

1.4.2 Use of This EIR

This EIR will be made available for review by the public and public agencies for a minimum period of 45 days to provide comments "on the sufficiency of the document in identifying and analyzing the possible impacts on the environment and ways in which the significant effects of the project might be avoided or mitigated" (State CEQA Guidelines § 152049(a)). During the decision-making process, the Project and its design features, objectives, merits, environmental consequences, and socioeconomic factors, among other information contained in the Project's administrative record, will be considered by Riverside County decision-makers. If the Final EIR is certified and the Project approved, Riverside County and other public agencies with permitting authority over all, or portions, of the Project will be able to use the Final EIR as part of their permitting processes to evaluate the environmental effects of the Project as they pertain to the approval or denial of applicable permits.

1.4.3 Content And Organization Of This EIR

This EIR contains all of the information required to be included in an EIR as specified by the CEQA Statutes and Guidelines (California Public Resources Code, Section 21000 et. seq. and California Code of Regulations, Title 14, Chapter 5). This EIR is organized in the following manner:

- **Section S.0, Executive Summary**, provides an overview of the EIR document and CEQA process. The Project, including its objectives, is described, and the location and regional setting of the Project site is documented. In addition, the Executive Summary discloses potential areas of controversy related to the Project, including those issues identified by other agencies and the public, and identifies potential alternatives to the proposed Project that would reduce or avoid significant impacts, as

required by CEQA. Finally, the Executive Summary provides a summary of the Project's impacts, mitigation measures, and conclusions, in a table that forms the basis of the EIR's Mitigation Monitoring and Reporting Program.

- **Section 1.0, Introduction**, provides introductory information about the CEQA process and the responsibilities of the County of Riverside, serving as the Lead Agency for this EIR; a brief description of the Project; the purpose of this EIR; applications proposed by the Project Applicant that would require discretionary County approvals; permits and approvals required by other agencies; and an overview of the EIR format.

- **Section 2.0, Environmental Setting**, describes the environmental setting, including an overview of the regional and local setting, as well as descriptions of the Project site's physical conditions and surrounding context. The existing setting is defined as the condition of the Project site and surrounding area at the approximate date this EIR's NOP was released for public review on March 2, 2023. The setting discussion also addresses the relevant regional planning documents that apply to the Project site and vicinity.

- **Section 3.0, Project Description**, serves as the EIR's Project Description for purposes of CEQA and contains a level of specificity commensurate with the level of detail proposed by the Project, including the summary requirements pursuant to State CEQA Guidelines § 15123. This Section provides a detailed description of the Project, including its purpose and main objectives; design features; landscaping; site drainage; utilities; grading and construction characteristics; and operational characteristics expected over the Project's lifetime. In addition, the discretionary actions required of the County of Riverside and other government agencies to implement the Project are discussed.

- **Section 4.0, Environmental Analysis**, provides an analysis of the potential direct, indirect, and cumulative impacts that may occur from implementing the proposed Project. The topics analyzed in this section include the topics summarized above under Section 1.4.1. A conclusion concerning significance is reached for each discussion; mitigation measures are presented as warranted. The environmental changes identified in Section 4.0 and throughout this EIR are referred to as "effects" or "impacts" interchangeably. The State CEQA Guidelines also describe the terms "effects" and "impacts" as being synonymous (State CEQA Guidelines § 15358).

  In the environmental analysis subsections of Section 4.0, the existing conditions are disclosed that are pertinent to the subject area being analyzed, accompanied by a specific analysis of physical impacts that may be caused by implementing the proposed Project. Impacts are evaluated on a direct, indirect, and cumulative basis. Direct impacts are those that would occur directly as a result of the proposed Project. Indirect impacts represent secondary effects that would result from Project implementation. Cumulative effects are defined in State CEQA Guidelines § 15355 as "…two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts."

  The analyses in Section 4.0 are based in part upon technical reports that are appended to this EIR. Information also is drawn from other sources of analytical materials that directly or indirectly relate to

the proposed Project and are cited in Section 7.0, *References*. Where the analysis demonstrates that a physical adverse environmental effect may or would occur without undue speculation, feasible mitigation measures are recommended to reduce or avoid the significant effect. Mitigation measures must be fully enforceable, have an essential nexus to a legitimate governmental interest, and be "roughly proportional" to the impacts of the Project. The discussion then indicates whether the identified mitigation measures would reduce impacts to below a level of significance. In most cases, implementation of the mitigation measures would reduce the adverse environmental impacts to below a level of significance. If mitigation measures are not available or feasible to reduce an identified impact to below a level of significance, the environmental effect is identified as a significant and unavoidable adverse impact, for which a Statement of Overriding Considerations (SOC) would need to be adopted by the County of Riverside pursuant to State CEQA Guidelines § 15093.

- **Section 5.0, Other CEQA Considerations**, includes specific topics that are required by CEQA. These include a summary of the Project's significant and unavoidable environmental effects, a discussion of the significant and irreversible environmental changes that would occur should the Project be implemented, as well as potential growth-inducing impacts of the proposed Project.

- **Section 6.0, Project Alternatives**, describes and evaluates alternatives to the proposed Project that could reduce or avoid the Project's adverse environmental effects. CEQA does not require an EIR to consider every conceivable alternative to the Project but rather to consider a reasonable range of alternatives that will foster informed decision making and public participation. A range of two alternatives is presented in Section 6.0.

- **Section 7.0, References**, cites all reference sources used in preparing this EIR and lists the agencies and persons that were consulted during preparation of this EIR. Section 7.0 also lists the persons who authored or participated in preparing this EIR.

CEQA requires that an EIR contain, at a minimum, certain specified content. Table 1-2, *Location of CEQA Required Topics*, provides a quick reference in locating the CEQA-required sections within this document.

1.4.4 Incorporation By Reference

State CEQA Guidelines § 15147 states that the "information contained in an EIR shall include summarized… information sufficient to permit full assessment of significant environmental impacts by reviewing agencies and members of the public," and that the "placement of highly technical and specialized analysis and data in the body of an EIR shall be avoided." State CEQA Guidelines § 15150 allows for the incorporation "by reference all or portions of another document… [and is] most appropriate for including long, descriptive, or technical materials that provide general background but do not contribute directly to the analysis of a problem at hand." The purpose of incorporation by reference is to assist the Lead Agency in limiting the length of this EIR. Where this EIR incorporates a document by reference, the document is identified in the body of the EIR, citing the appropriate section(s) of the incorporated document and describing the relationship between the incorporated part of the referenced document and this EIR.

Therefore, the detailed technical studies, reports, and supporting documentation that were used in preparing this EIR are bound separately as Technical Appendices. The Technical Appendices are available for review

at the Riverside County Planning Department, 4080 Lemon Street, 12th Floor, Riverside, CA 92502, during the County's regular business hours or can be requested in electronic form by contacting the County's Planning Department. The individual technical studies, reports, and supporting documentation that comprise the Technical Appendices are as follows:

Table 1-2 Location of CEQA Required Topics

CEQA Required Topic	State CEQA Guidelines Reference	Location in this EIR
Table of Contents	§ 15122	Table of Contents
Summary	§ 15123	Section S.0
Project Description	§ 15124	Section 3.0
Environmental Setting	§ 15125	Section 2.0
Consideration and Discussion of Environmental Impacts	§ 15126	Section 4.0
Significant Environmental Effects Which Cannot be Avoided if the Proposed Project is Implemented	§ 15126.2(b)	Section 4.0 & Subsection 5.1
Significant Irreversible Environmental Impacts Which Would be Involved in the Proposed Action Should it be Implemented	§ 15126.2(c)	Subsection 5.2
Growth-Inducing Impacts of the Proposed Project	§ 15126.2(d)	Subsection 5.3
Consideration and Discussion of Mitigation Measures Proposed to Minimize Significant Effects	§ 15126.4	Section 4.0 & Table S-1
Consideration and Discussion of Alternatives to the Proposed Project	§ 15126.6	Section 6.0
Effects Not Found to be Significant	§ 15128	Subsection 5.4
Organizations and Persons Consulted	§ 15129	Section 7.0 & Technical Appendices
Discussion of Cumulative Impacts	§ 15130	Section 4.0
Energy Conservation	Appendices F and G	Subsection 4.6

A. Notice of Preparation (NOP) and Written Comments on the NOP
B. Air Quality Report
C1. Habitat Assessment and Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) Consistency Analysis
C2. Delineation of State and Federal Jurisdictional Waters
C3. Determination of Biologically Equivalent or Superior Preservation Report
D1. Phase I Cultural Resources Assessment (CRA)
D2. Phase II Cultural Resources Assessment (CRA)
D3. Phase II Cultural Resources Assessment (Architectural History)
E. Energy Analysis
F1. Geotechnical Evaluation
F2. Geotechnical Interpretive Report
G. Greenhouse Gas Analysis
H. Phase I and Limited Phase II Environmental Site Assessment (ESA)
I1. Drainage Study
I2. Water Quality Management Plan (WQMP)
I3. Hydraulic Analysis

J. Noise Study
K1. Vehicles Miles Traveled (VMT) Analysis
K2. Traffic Analysis
L1. Fire Protection Plan
L2 Fire Evacuation Analysis
M. Airport Land Use Commission (ALUC) Approval Letter
N. General Plan Consistency Analysis
O. Agricultural Infeasibility Correspondence

Other reference sources that are incorporated into this EIR by reference are listed in Section 7.0, *References*, of this EIR. In most cases, documents or websites not included in the EIR's Technical Appendices are cited by a link to the online location where the document/website can be viewed by the public. All references relied upon by this EIR are included as part of Riverside County's Administrative Record pertaining to the proposed Project.

1.5 Responsible and Trustee Agencies

The California Public Resource Code (§ 21104) requires that all EIRs be reviewed by responsible and trustee agencies (see also State CEQA Guidelines § 15082 and § 15086(a)). As defined by State CEQA Guidelines § 15381, "the term 'Responsible Agency' includes all public agencies other than the Lead Agency which have discretionary approval power over the project." A Trustee Agency is defined in State CEQA Guidelines § 15386 as "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." The Project would require approval by the following agencies:

- The Santa Ana Regional Water Quality Control Board (RWQCB) is a Trustee Agency responsible for issuance of a Construction Activity General Construction Permit and National Pollutant Discharge Elimination System (NPDES) Permit to ensure that on-site water flows do not result in siltation, other erosional effects, or degradation of surface or subsurface water quality. The Santa Ana RWQCB also would be responsible for issuing Waste Discharge Requirements (WDRs) for Project impacts to Santa Ana RWQCB jurisdictional areas pursuant to Section 401 of the Clean Water Act (CWA).

- The California Department of Fish and Wildlife (CDFW) is a Trustee Agency for issuance of a 1602 Streambed Alteration Agreement (SAA).

- The Riverside County Flood Control and Water Conservation District (RCFCWCD) is a Responsible Agency and would be responsible for approving the Project's drainage infrastructure.

- Western Municipal Water District (WMWD) is a Responsible Agency that would review and approve proposed water ~~and sewer~~ connections.

- The City of Riverside is a Responsible Agency that would review and approve proposed sewer connections.

1.6 AREAS OF CONTROVERSY

Substantive issues raised in response to the NOP were previously summarized in Table 1-1. The purpose of this table is to present the primary environmental issues of concern raised by public agencies and the general public during the NOP review period. The table is not intended to list every comment received by the County during the NOP review period. Regardless of whether or not a comment is listed in the table, all applicable comments received in responses to the NOP are addressed in this EIR. Based on comments received during the NOP review period, concerns were raised regarding potential impacts to air quality, aesthetics, agriculture and forestry resources, biological resources, cultural resources, transportation, and utilities and service systems. Issues raised during the Scoping Meeting included concerns related to biological resources, cultural resources, hydrology and water quality, land use and planning, and transportation. No other areas of controversy were identified as part of the NOP process, beyond comments regarding the Project's potential environmental effects.

1.7 TO BE RESOLVED BY THE DECISION-MAKING BODY

The primary issues to be resolved by the decision-making body for the proposed Project involve the Project's significant and unavoidable impacts in the issue areas of Agricultural Resources and Vehicle Miles Traveled (VMT), which are addressed in EIR Subsections 4.2 and 4.18, respectively. The Riverside County Board of Supervisors will need to evaluate whether the mitigation measures proposed to reduce the Project's unavoidable impacts adequately reduce Project impacts to the maximum feasible extent. The Board of Supervisors also will make a determination as to whether the Project's benefits outweigh these adverse environmental effects in support of adopting a Statement of Overriding Consideration's pursuant to State CEQA Guidelines § 15093. Finally, the Board of Supervisors will decide whether to approve one of the Project alternatives in lieu of the proposed Project, if it is determined that one of the alternatives is feasible and its approval would serve to substantially reduce or avoid significant environmental impacts.

2.0 ENVIRONMENTAL SETTING

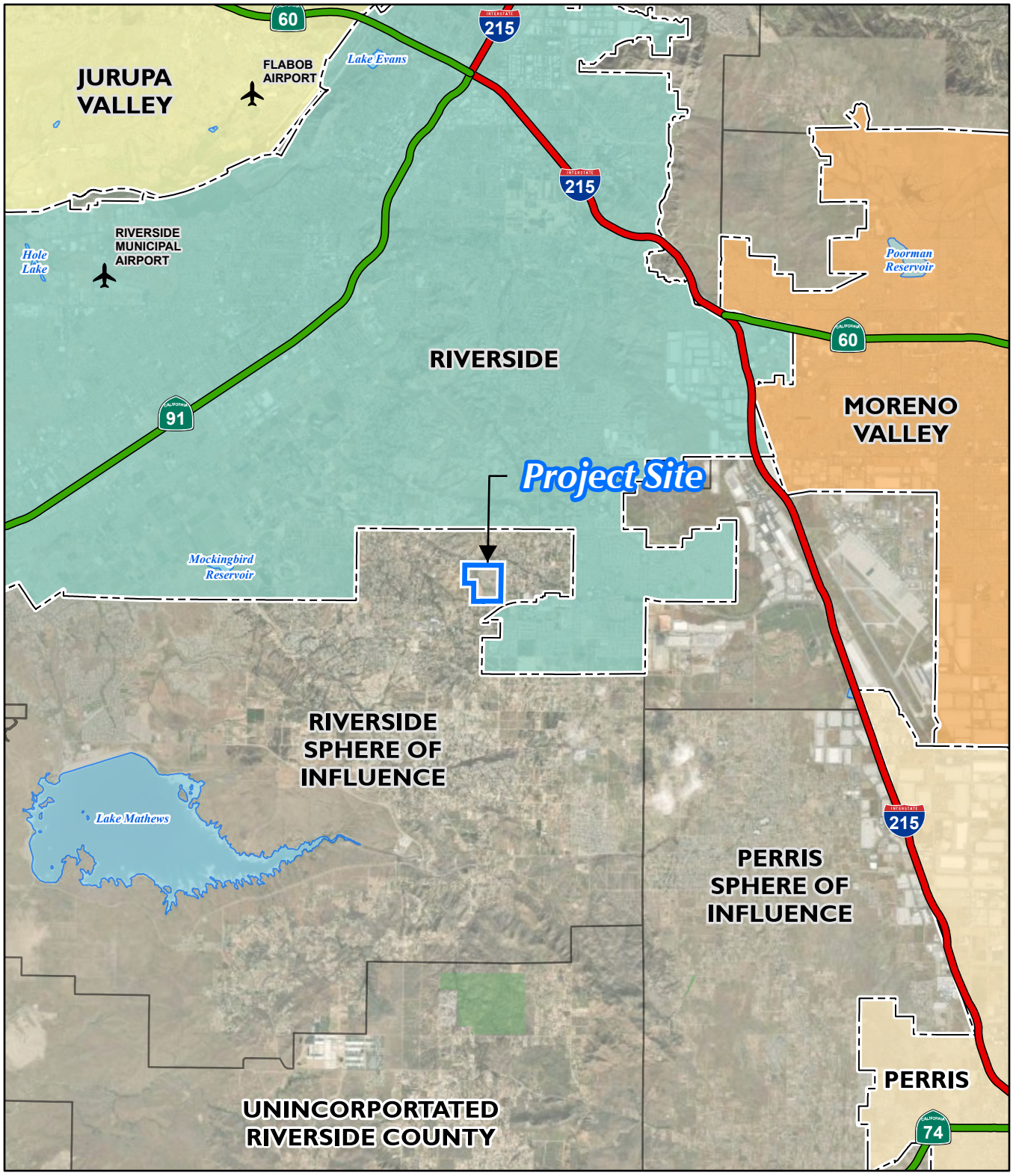
This Section 2.0 is provided pursuant to State CEQA Guidelines § 15125(a), and includes a description of the physical environmental conditions in the vicinity of the Project site and its off-site improvement areas from both a local and regional perspective as it existed at the time the Notice of Preparation (NOP) was published for this EIR, which occurred on March 2, 2023. This Section provides a brief overview of resources on and surrounding the Project site; additional detail regarding existing conditions for individual issue areas (e.g., biology, geology, etc.) is provided within the appropriate subsection headings within Section 4.0, *Environmental Analysis*, of this EIR.

2.1 REGIONAL SETTING AND LOCATION

The 140.8-acre Project site is located within unincorporated western Riverside County, California. Figure 2-1 *Regional Map*, depicts the Project site's location within the regional vicinity. As shown, Riverside County abuts San Bernardino County to the north; Orange County to the west; and San Diego and Imperial Counties to the south. Riverside County is located in an urbanizing area of southern California commonly referred to as the Inland Empire. The Inland Empire is an approximate 28,000 square-mile region comprising western San Bernardino County, western Riverside County, and the eastern reaches of Los Angeles County. The Southern California Association of Governments (SCAG) estimates that Riverside County as a whole had a population in 2020 of 2,418,000. SCAG estimates that the population will increase to 2,992,000 million by 2050. (SCAG, 2024b, Table 12)

2.2 LOCAL SETTING AND LOCATION

The Project site is located within the western region of unincorporated Riverside County, California. As depicted in Figure 2-2, *Vicinity Map*, the Project site is within the Winchester community of the Lake Mathews/Woodcrest Area Plan (LMWAP) of unincorporated Riverside County, and is located within the Sphere of Influence (SOI) of the City of Riverside. The Project site is located in a portion of unincorporated Riverside County that is surrounded by the City of Riverside on three sides, with the City of Riverside boundaries occurring approximately 500 feet south, approximately 0.5-mile east, and approximately 0.5-mile north of the Project boundary. The Project site is located approximately 4.1 miles northeast of Lake Mathews, State Route (SR) 91 occurs approximately 4.0 miles northwest of the Project site, Interstate 215 (I-215) is located approximately 3.7 miles to the northeast, and Interstate 15 (I-15) occurs approximately 10.6 miles west of the Project site. From the local perspective, and as depicted on Figure 2-2, the 140.8-acre Project site is located north of Iris Road, west of Chicago Avenue, and south of Gentian Avenue/Twin Lakes Drive. The Project site encompasses Assessor Parcel Numbers (APNs) 245-300-001 and 245-300-004. The 140.8-acre Project site is located in Section 24, Township 3 South, Range 5 West, San Bernardino Baseline and Meridian. (Google Earth, 2024; RCIT, n.d.)

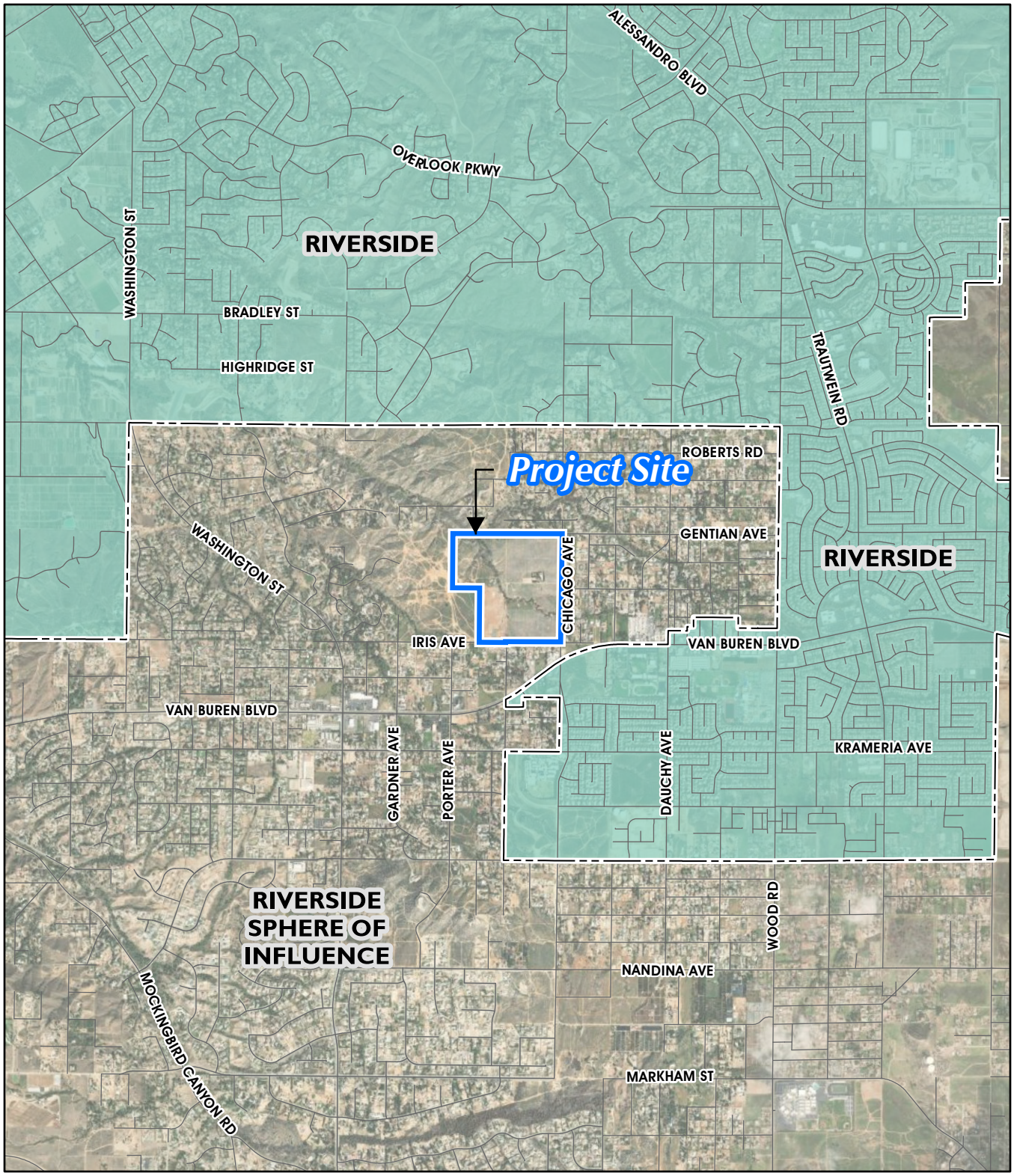


Source(s): Esri, RCIT (2023)

Figure 2-1

0 0.5 1 2 Miles

Regional Map



Source(s): Esri, RCIT (2023)

Figure 2-2

0 875 1,750 3,500 Feet

Vicinity Map

2.3 SURROUNDING LAND USES AND DEVELOPMENT

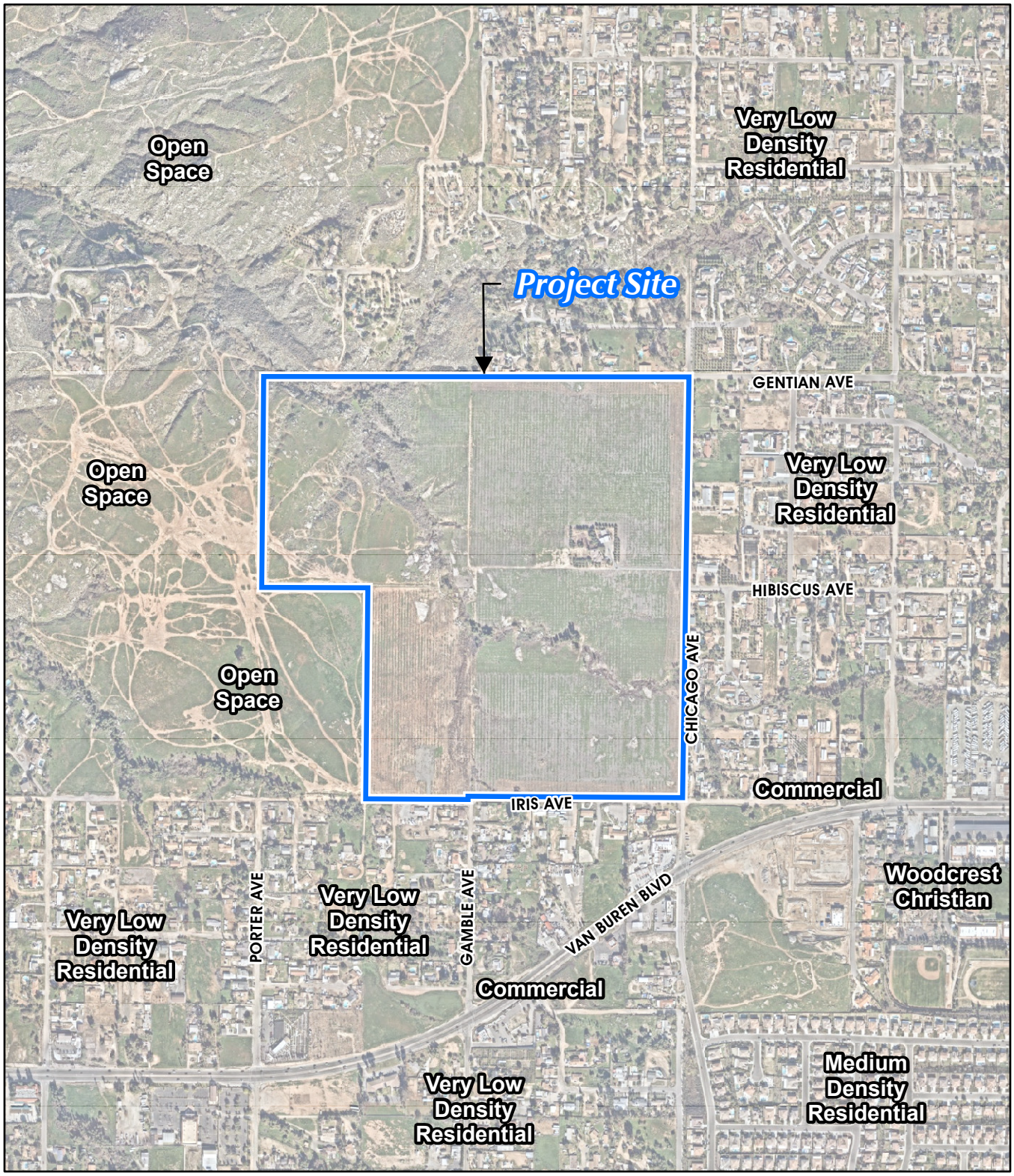
Land uses in the immediate vicinity of the Project site are illustrated on Figure 2-3, *Surrounding Land Uses and Development*. As shown, land uses to the west consist of natural open space on hilly terrain, beyond which are rural and very low-density residential uses. To the north of the Project site are open space and very low-density residential uses. To the east of the Project site are very low-density residential uses, along with several commercial retail uses along the northern side of Van Buren Boulevard. Land uses to the south of the Project site consist of very low-density residential uses and Van Buren Boulevard, to the south of which are additional very low-density residential uses located within unincorporated Riverside County. Lands to the southeast of the Project site and south of Van Buren Boulevard are located in the City of Riverside and consist of medium-density residential uses, several schools (Woodcrest Christian, Martin Luther King High School, and Frank Augustus Miller Middle School), and commercial land uses along the south side of Van Buren Boulevard.

2.4 LOCAL PLANNING CONTEXT

State CEQA Guidelines § 15125(d) requires that EIRs identify the general plans and regional plans that are applicable to the project under evaluation, and recognize potential inconsistencies. Plans that are applicable to the Project evaluated herein are summarized below, with additional information provided in the applicable resource discussions in Section 4.0, *Environmental Analysis*.

2.4.1 SCAG REGIONAL TRANSPORTATION PLAN/SUSTAINABLE COMMUNITIES STRATEGY (RTP/SCS)

The Southern California Association of Governments (SCAG) is a regional agency established pursuant to California Government Code § 6500, also referred to as the Joint Powers Authority law. SCAG is designated as a Council of Governments (COG), a Regional Transportation Planning Agency (RTPA), and a Metropolitan Planning Organization (MPO). The Project site is within SCAG's regional authority. As an MPO and public agency, SCAG develops transportation and housing strategies that transcend jurisdictional boundaries that affect the quality of life for southern California as a whole. In April 2024, SCAG's Regional Council adopted *Connect SoCal (2024-2050 Regional Transportation Plan/Sustainable Communities Strategy)*. Connect SoCal embodies a collective vision for the region's future, prepared with input by local governments, county transportation commissions (CTCs), tribal governments, non-profit organizations, businesses, and stakeholders within the counties of Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura. Connect SoCal plans for a large number of transportation projects, ranging from highway improvements, railroad grade separations, bicycle lanes, new transit hubs, and replacement bridges. These future investments were included in county plans developed by the six CTCs and seek to reduce traffic bottlenecks, improve the efficiency of the region's network, and expand mobility choices. The goals of Connect SoCal are to: 1) build and maintain an integrated multimodal transportation network; 2) develop, connect and sustain communities that are livable and thriving; 3) create a healthy region for the people of today and tomorrow; and 4) support a sustainable, efficient and productive regional economic environment that provides opportunities for all residents. (SCAG, 2024)



Source(s): Esri, NearMap Imagery (2023)

Figure 2-3

Surrounding Land Uses and Development

2.4.2 South Coast Air Quality Management District Air Quality Management Plan (AQMP)

The Project site is the South Coast Air Basin (SCAB), which is managed by the South Coast Air Quality Management District (SCAQMD). The SCAB includes parts of San Bernardino, Los Angeles, and Riverside counties and all of Orange County. The SCAQMD is directly responsible for reducing emissions from stationary (area and point), mobile, and indirect sources. Currently, the National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) are exceeded in most parts of the SCAB. In response, and in conformance with California Health & Safety Code § 40702 et seq. and the California Clean Air Act, 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 to minimize any negative fiscal impacts of air pollution control on the economy. Each version of the plan is an update of the previous plan and has a 20-year horizon with a revised baseline. In December 2022, the SCAQMD released the Final 2022 AQMP (2022 AQMP). The 2022 AQMP continues to evaluate current integrated strategies and control measures to meet the NAAQS, as well as explore new and innovative methods to reach its goals. Some of these approaches include utilizing incentive programs, recognizing existing co-benefit programs from other sectors, and developing a strategy with fair-share reductions at the federal, State, and local levels. Similar to the 2016 AQMP, the 2022 AQMP incorporates scientific and technological information and planning assumptions, including the 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (2020 RTP/SCS), a planning document that supports the integration of land use and transportation to help the region meet the federal Clean Air Act (CAA) requirements. The 2022 AQMP is based on assumptions provided by the EMission FACtor model (EMFAC) developed by the California Air Resources Board (CARB) for motor vehicle information and assumptions provided by SCAG for demographics. The air quality levels projected in the 2022 AQMP are based on the assumption that development associated with general plans, specific plans, residential projects, and wastewater facilities will be constructed in accordance with population growth projections identified by SCAG in its 2020 RTP/SCS. The 2022 AQMP also assumes that such development projects will implement strategies to reduce emissions generated during the construction and operational phases of development. (SCAQMD, 2022)

2.4.3 County of Riverside General Plan and Lake Mathews/Woodcrest Area Plan (LMWAP)

The prevailing planning document for the Project site and its surrounding area is the Riverside County General Plan. The Project site is located within the LMWAP portion of the Riverside County General Plan. As depicted on Figure 2-4, *Existing General Plan Land Use Designations*, the County's General Plan and LMWAP designate the 140.8-acre Project site for "Rural Community – Very Low Density Residential (RC-VLDR)" land uses. The RC-VLDR land use designation is intended to allow for single-family detached residences on large parcels of 1 to 2 acres, while limited agriculture, intensive equestrian, and animal keeping uses are expected and encouraged. (Riverside County, 2021b, Figure 3 and Table 1)

2.4.4 City of Riverside General Plan

The City of Riverside General Plan was last amended in August 2019. The plan provides a foundation for City policies and actions and guides both the physical development of the City and the provision of public infrastructure and services. The Project is located within the City of Riverside's Sphere of Influence (SOI). The County of Riverside is currently responsible for the administration of land use decisions within the SOI.

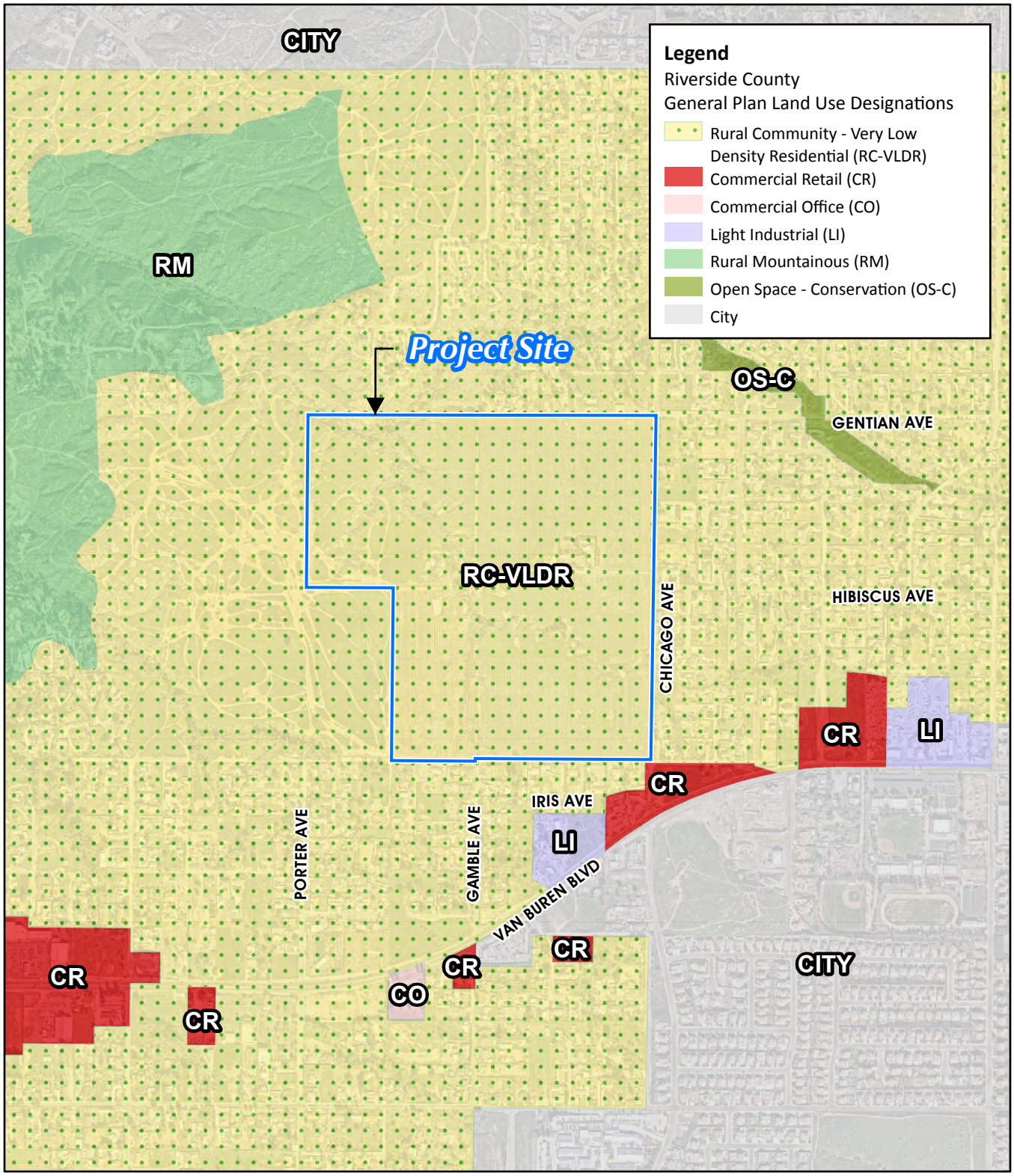
The City of Riverside designates pre-zoning for the areas within the SOI, and designates a majority of the Project site for "A – Agricultural," while areas in the extreme northwestern corner of the Project site are designated for "OS – Open Space/Natural Resources" and "HR – Hillside Residential." The "A – Agricultural" land use designation is intended to accommodate residential use on large agricultural and citrus parcels in a manner consistent with Proposition R and Measure C. Proposition R relates to: 1) preservation of agriculture through application of the RA-5-Residential Agricultural Zone to two specific areas of the City: and 2) protection of hillside areas through application of the RC-Residential Conservation Zone to areas of the City based on slopes over 15 percent. Measure C amended Proposition R to promote agriculture by adding the following as official City policy: "It is hereby declared to be the policy of the City of Riverside to promote and encourage agriculture as an essential industry and a desirable open space use. The Greenbelt and La Sierra Lands are important agricultural lands because of their high soil quality, favorable climate and low water costs. It is further declared to be the policy of the City to retain, wherever feasible, agricultural lands in private ownership and to encourage and assist the maintenance and formation of family farms, especially for farmers who live on their land." The intent of the "OS – Open Space/Natural Resources" designation is to provide for the protection of natural resources, creeks, hillsides, arroyos, and other sensitive areas. The intent of the "HR – Hillside Residential" land use designation is to allow for sensitive development of residential homes where slopes exceed 15% in a manner consistent with Proposition R and Measure C. (City of Riverside, 2019, Figure LU-10, Table LU-3, and pp. OS-13 and OS-14)

2.4.5 Zoning

The Riverside County Land Use Ordinance (Ordinance No. 348) is intended to implement the Riverside County General Plan's land use plan. As shown on Figure 2-5, *Existing Zoning Classifications*, the Project site is zoned "Light Agriculture, 10-Acre Minimum Lot Size (A-1-10)." The A-1-10 zoning classification allows for single-family dwellings, and also allows for a range of agricultural and equestrian uses. (RCIT, n.d.; Riverside County, 2021d)

2.4.6 Western Riverside County Multiple Species Habitat Conservation Plan

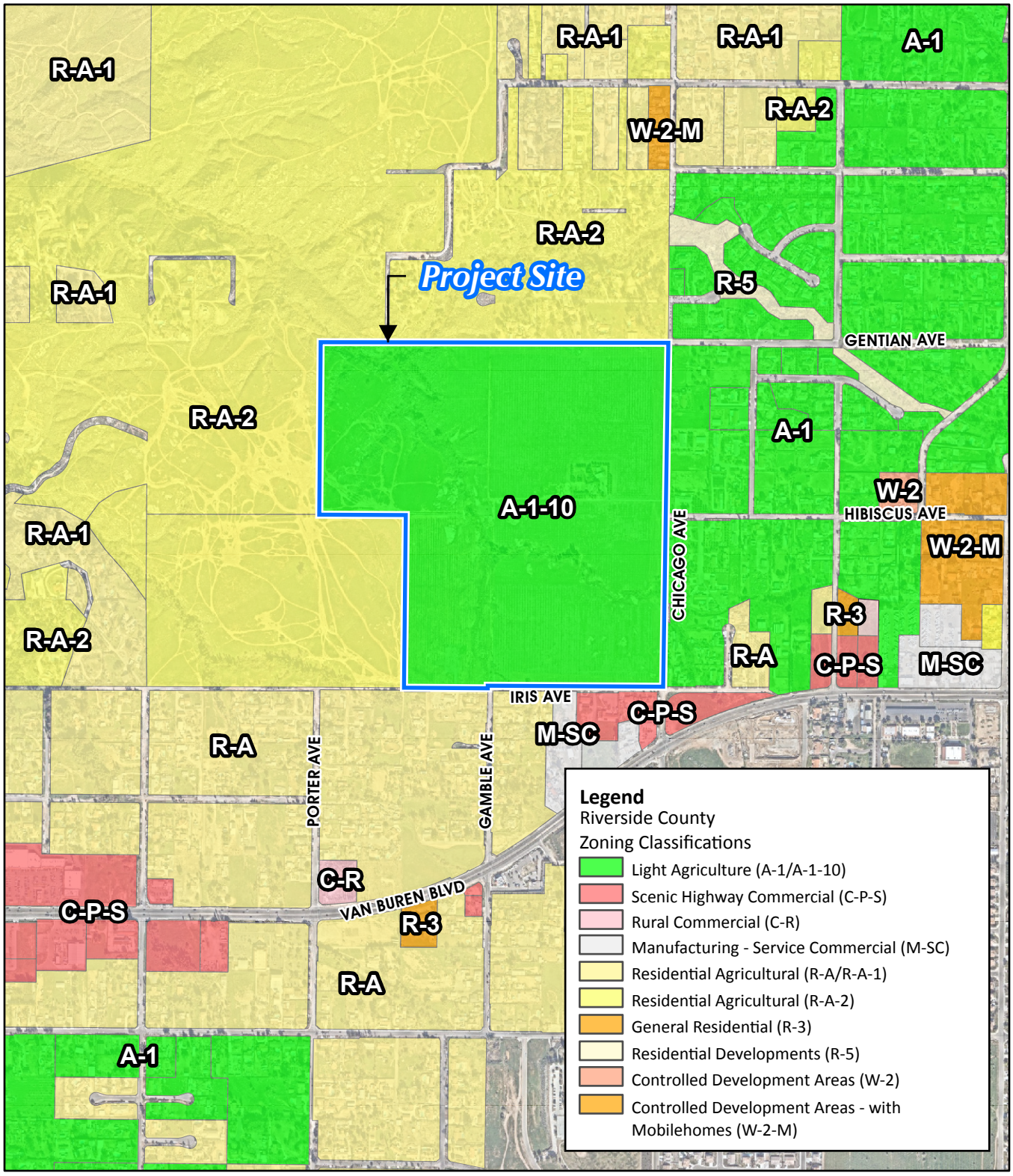
The Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP), a regional Habitat Conservation Plan (HCP), was adopted on June 17, 2003, and an Implementing Agreement (IA) was executed between the United States Fish and Wildlife Service (USFWS), California Department of Fish and Wildlife (CDFW), and participating entities. The intent of the Western Riverside County MSHCP is to preserve native vegetation and meet the habitat needs of multiple species, rather than focusing preservation efforts on one species at a time. The MSHCP identifies Criteria Cells and Cell Groups, in which habitat conservation efforts are targeted. The Project site is not located within or adjacent to any MSHCP Criteria Cells or Cell Groups, indicating that the Project site is not targeted for conservation under the MSHCP. The nearest lands located within an MSHCP Criteria Cell or Cell Group occurs approximately 3.4 miles south of the Project site. Although the Project site is not targeted for conservation by the MSHCP, the MSHCP also identifies a number of additional survey and conservation requirements. The Project site is not located within an MSHCP Survey area for amphibians or mammals, although the Project site occurs within an MSHCP burrowing owl survey area. The Project site is not located within a narrow endemic plant species survey area or a criteria species survey area. (RCA, n.d.) Refer to EIR Subsection 4.4, *Biological Resources*, for a complete description of applicable MSHCP requirements and the Project's consistency with the MSHCP.



Source(s): Esri, NearMap Imagery (2023), RCIT (2023)

Figure 2-4

Existing General Plan Land Use Designations



Source(s): Esri, NearMap Imagery (2023), RCIT (2023)

Figure 2-5

0 275 550 1,100 Feet

Existing Zoning Classifications

2.5 EXISTING PHYSICAL SITE CONDITIONS

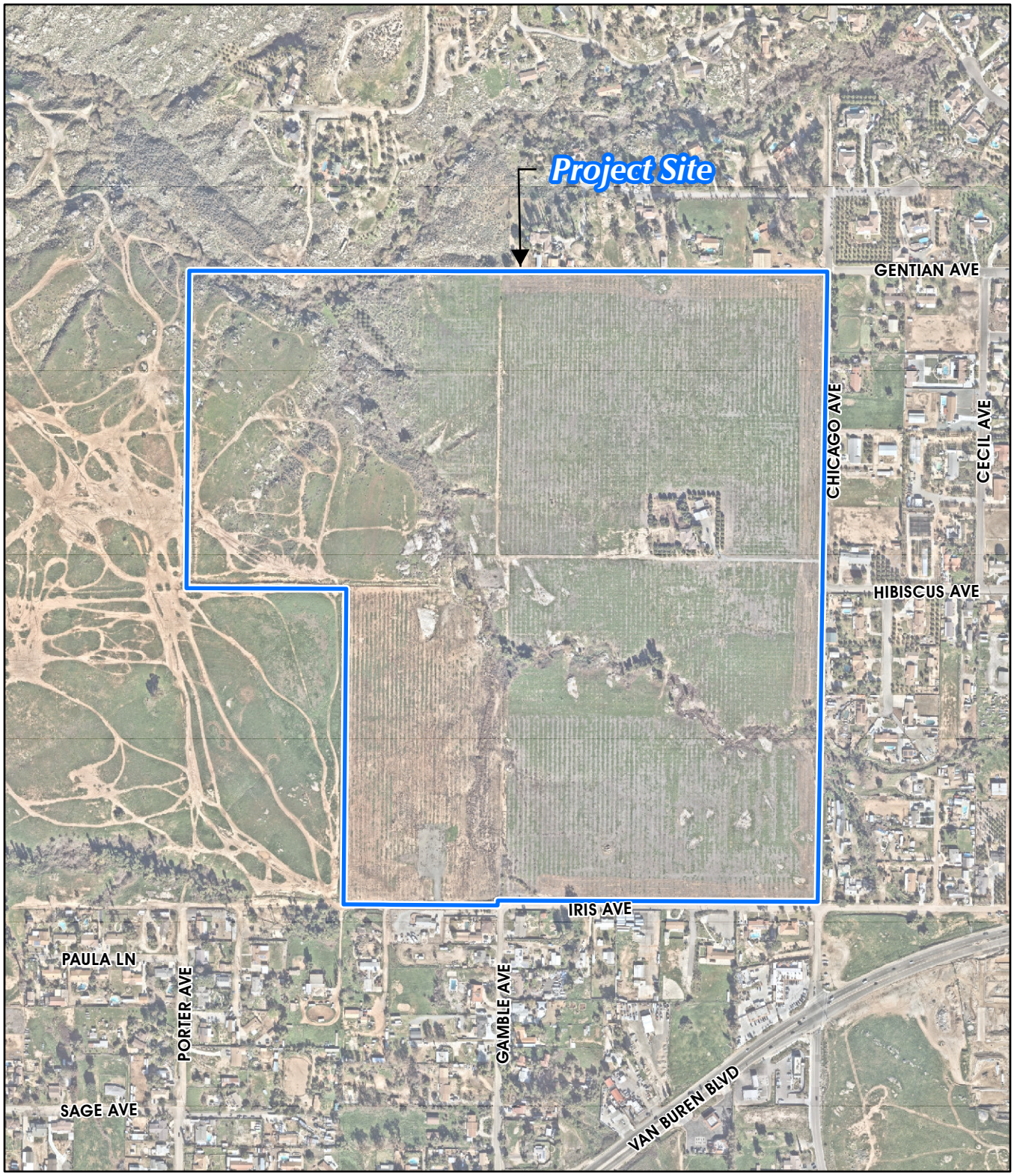
Pursuant to State CEQA Guidelines § 15125, the physical environmental condition for purposes of establishing the setting of an EIR is the environment as it existed at the time the EIR's NOP was released for public review. The NOP for this EIR was released for public review on March 2, 2023. The following subsections provide a description of the Project site's physical environmental condition ("existing conditions") as of that approximate date. The site's current physical conditions and surrounding areas are shown on Figure 2-6, *Aerial Photograph*. More detailed information regarding the Project's site's environmental setting as it relates to a specific environmental issue area is provided in the various subsections of EIR Section 4.0, *Environmental Analysis*.

2.5.1 LAND USE

The existing land use condition of the Project areas is shown on Figure 2-6. The Project site appears to have been vacant land up until around 1967. From approximately 1967 until at least 2020, the Project site appears to have been utilized for agricultural uses (orchards), with a single-family home occurring in the central portions of the Project site. In 2020/2021, the existing orchards were removed from the Project site and were run through a chipper on site. The chip material was subsequently spread evenly over the former agricultural portions of the site, which have kept these portions of the Project site from revegetating. Chips were not placed on the western potions of the Project site that consist of open space areas that largely were not subject to past agricultural uses on site. The existing single-family home still occurs in the central portions of the Project site, and is surrounded by ornamental trees and vegetation. There is an existing underground septic tank associated with the existing residence on site. The Project site also is bisected by a large arroyo that supports native riparian habitat (southern willow scrub) and wetland habitat (freshwater marsh), as well as Riversidean sage scrub along the banks of the arroyo. Several dirt roadways traverse the property in an east-west and north-south orientation. A large concrete pad also occurs in the southwestern portion of the Project site. The northwest portions of the Project site are vacant and undeveloped, and contains several prominent drainages as well as informal dirt pathways. The Project site also contains three existing water wells in the northeast portion of the Project site.

2.5.2 SITE TOPOGRAPHY

As shown on Figure 2-7, *USGS Topographic Map*, the Project site exhibits undulating topography with elevations generally decreasing from southeast to northwest. A prominent drainage traverses the Project site in a northwesterly/southeasterly orientation, and runoff generated on a majority of the site sheet flows into this drainage. Elevations on site range from approximately 1,401 feet above mean sea level (amsl) at the northwest corner of the site to 1,579 feet amsl near the southeastern corner of the site. (Google Earth, 2021)



Source(s): Esri, NearMap Imagery (2023)

Figure 2-6

Aerial Photograph

2.5.3 Air Quality and Climate

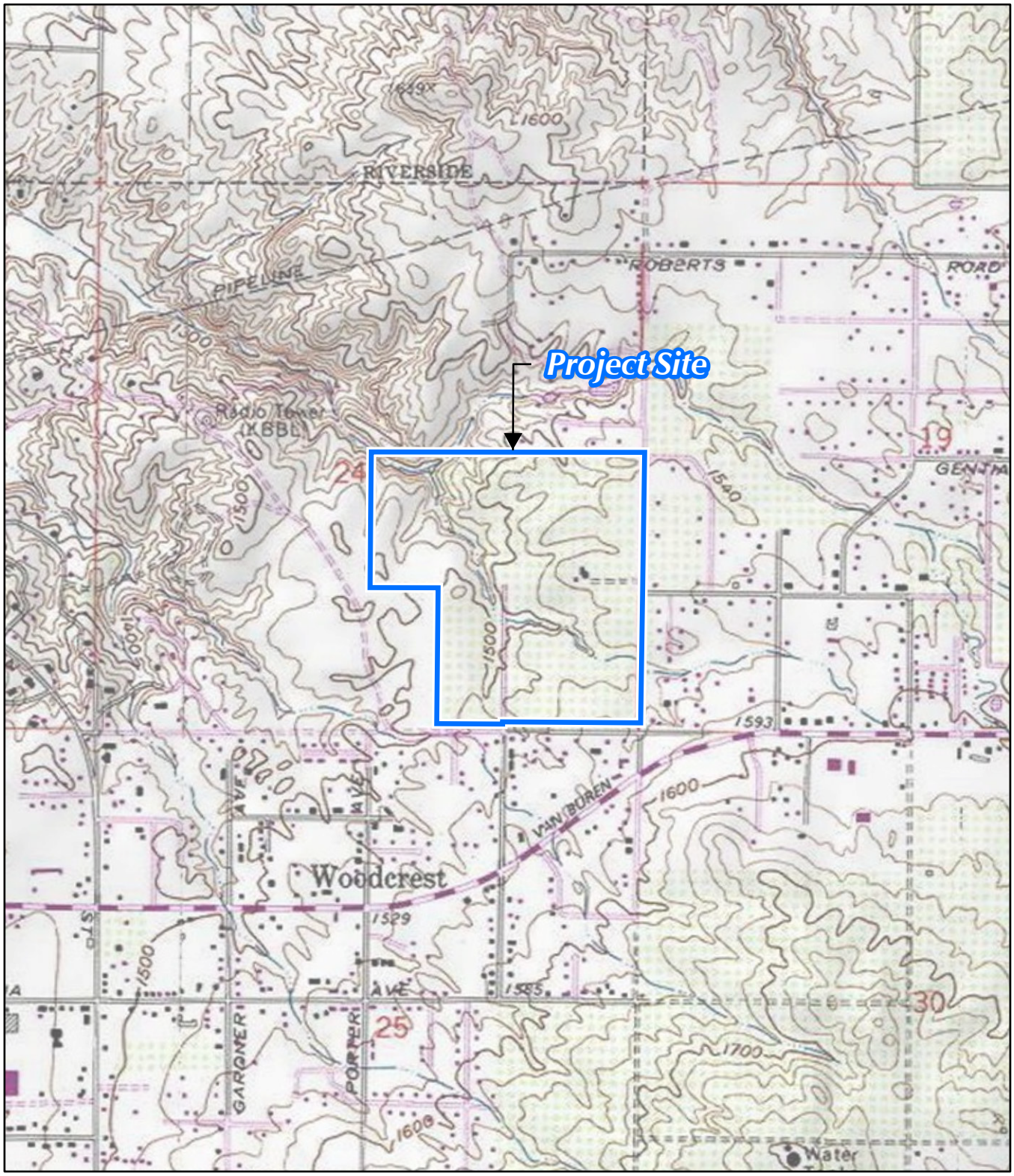
The Project site is located in the SCAB within the jurisdiction of SCAQMD. The SCAQMD was created by the 1977 Lewis-Presley Air Quality Management Act, which merged four county air pollution control bodies into one regional district. Under the Act, the SCAQMD is responsible for bringing air quality in areas under its jurisdiction into conformity with federal and State air quality standards. The Project site is located within the SCAB, a 6,745-square mile subregion of the SCAQMD, which includes portions of Los Angeles, Riverside, and San Bernardino Counties, and all of Orange County. The SCAB is bounded by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east. (Urban Crossroads, 2023a, p. 5)

As documented in the Project's Air Quality Impact Analysis (*Technical Appendix B* to this EIR), although the climate of the SCAB is characterized as semi-arid, the air near the land surface is quite moist on most days because of the presence of a marine layer. More than 90% of the SCAB's rainfall occurs from November through April. Temperatures during the year range from an average minimum of 36°F in January to over 100°F maximum in the summer. During the late autumn to early spring rainy season, the SoCAB 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 Ana[s]" each year. (Urban Crossroads, 2023a, pp. 5-6)

2.5.4 Agriculture and Forestry Resources

Under existing conditions, the Project site is used for agricultural production (orchards). As more fully discussed in EIR Subsection 4.2, *Agriculture and Forestry Resources*, the California Department of Conservation (CDC) Farmland Mapping and Monitoring Program (FMMP) identifies "Important Farmland" to include lands mapped as "Prime Farmland," "Farmland of Statewide Importance," and "Unique Farmland." As mapped pursuant to the FMMP, the Project site contains approximately 56.8 acres of "Farmland of Statewide Importance," approximately 50.6 acres of "Unique Farmland," approximately 2.4 acres of "Farmland of Local Importance," while the remaining 31.0 acres of the Project site are classified as "Other Lands." Thus, under existing conditions the Project site contains approximately 109.8 acres of "Important Farmland" types[1].

[1] It should be noted that while Appendix G to the State CEQA Guidelines does not include "Farmland of Local Importance" in the definition of "Important Farmland" types, the Farmland Conversion Reports published by the California Department of Conservation (CDC) include "Farmland of Local Importance" in its calculations of "Important Farmland"; therefore, for purposes of analysis throughout this EIR, "Farmland of Local Importance" is conservatively considered to comprise an "Important Farmland" type.



Source(s): Esri, USGS (2013)

Figure 2-7

USGS Topographic Map

2.5.5 BIOLOGICAL RESOURCES

The Project site supports the following vegetation/land cover types: southern sage scrub, Riversidean sage scrub, non-native grassland, disturbed, and developed. Southern willow sage scrub comprises a special-status vegetation community. Territories for least Bell's vireo were observed on the Project site during the 2024 field investigations. No other special-status plants or special-status wildlife were observed on the Project site during field investigations. Potential jurisdictional features within the Project site include two drainage features, herein referred to as Drainages 1 and 2. Within the Project site, there is a total of 1.37 (5,598 linear feet) of Regional Water Quality Control Board (RWQCB) jurisdiction and 2.99 acres (5,598 linear feet) of California Department of Fish and Wildlife (CDFW) jurisdictional streambed. Refer to EIR Subsection 4.4, *Biological Resources*, for a detailed description of the vegetation communities that occur on-site. (ELMT, 2025b, p. 18)

2.5.6 GEOLOGY

The Project site is situated in the Peninsular Ranges geomorphic province. The Peninsular Ranges province is one of the largest geomorphic units in western North America. It extends from the point of contact with the Transverse Ranges geomorphic province, southerly to the tip of Baja California. This province varies in width from about 30 to 100 miles. It is bounded on the west by the Pacific Ocean, on the south by the Gulf of California and on the east by the Colorado Desert Province. (GeoTek, 2021, p. 6)~~(GeoTek, 2021b, p. 6)~~

The Peninsular Ranges are essentially a series of northwest-southeast oriented fault blocks. Several major fault zones are found in this province. The Elsinore Fault zone and the San Jacinto Fault zone trend northwest-southeast and are mostly found near the middle of the province. The San Andreas Fault zone borders the northeasterly margin of the province, and the San Jacinto fault borders the province adjacent the Colorado Desert province. (GeoTek, 2021, p. 6)~~(GeoTek, 2021b, p. 6)~~

More specifically, the site is located within a large structural mass known as the Perris Block of the Peninsula Ranges providence. The Perris Block is a relatively stable mass of granitic bedrock that in places is overlain by alluvium and thin sedimentary and volcanic units. After formation of granitic rocks, the Perris Block experienced vertical movements that produced nearly flat erosional surfaces. Sediments emanating from the elevated portions of the Perris Block filled low lying areas of the region. The Project area is in an area geologically mapped by others to be underlain by granitic bedrock (tonalite). (GeoTek, 2021, p. 6)~~(GeoTek, 2021b, p. 6)~~

No active faults are shown in the immediate site vicinity on the maps reviewed for the Project area. The Project site is not located within an Earthquake Fault Zone (Alquist-Priolo) as designated by the State of California. According to Riverside County Geographic Information System (GIS) data, the Project site is not located within a fault zone, fault line, an area subject to liquefaction hazards, or an area subject to ground subsidence. (GeoTek, 2021, p. 6)~~(GeoTek, 2021b, p. 6)~~

2.5.7 SOILS

Table 2-1, *Summary of On-Site Soils*, provides a summary of the soils present on the Project site, and identifies the attendant rate of runoff and erosion susceptibility. As shown, approximately 0.2% of the Project site has a "Slow" rate of runoff and a "Slight" susceptibility to erosion. Approximately 3.5% of the Project site has a "Slow to Medium" rate of runoff and a "Slight to Moderate" susceptibility to erosion. Approximately 1.2%

of the Project site has a "Slow" rate of runoff and a "Slight" susceptibility to erosion. Approximately 67.5% of the Project site has a "Medium" rate of runoff and a "Moderate" susceptibility to erosion. Approximately 28.0% of the Project site has a "Rapid" rate of runoff and a "High" susceptibility to erosion. Areas with a "Rapid" rate of runoff and a "High" susceptibility to erosion primarily occur in the northwest portions of the site, and around the northwest/southeast oriented drainage that traverses the site. (USDA, 1971, pp. 17, 24, 32-33, 40, 46, and 65; USDA, 2021)

Table 2-1 Summary of On-Site Soils

Map Symbol	Map Unit Name	Rate of Runoff	Erosion Susceptibility	Acres in AOI[1, 2]	Percent of AOI[1, 2]
BdC	Bonsall fine sandy loam, 2 to 8 percent slopes	Slow to Medium	Slight to Moderate	4.4	3.2%
ChD2	Cieneba sandy loam, 8 to 15 percent slopes, eroded	Medium	Moderate	0.8	0.6%
CkF2	Cieneba rocky sandy loam, 15 to 50 percent slopes, eroded	Rapid	High	39.4	28.0%
FaD2	Fallbrook sandy loam, 8 to 15 percent slopes, eroded	Medium	Moderate	55.9	39.8%
FfC2	Fallbrook fine sandy loam, 2 to 8 percent slopes, eroded	Slow	Slight	1.4	1.0%
HcC	Hanford coarse sandy loam, 2 to 8 percent slopes	Slow to Medium	Slight to Moderate	0.4	0.3%
MmB	Monserate sandy loam, 0 to 5 percent slopes	Slight	Slow	0.2	0.2%
VsD2	Vista coarse sandy loam, 8 to 15 percent slopes, eroded	Medium	Moderate	38.2	27.1%
Totals for Area of Interest:		--	--	**140.8**	**100.0%**

1. AOI = Area of Interest.
2. Values reflect rounding.

(USDA, 1971, pp. 17, 24, 32-33, 40, 46, and 65; USDA, 2021)

2.5.8 HYDROLOGY

Under existing conditions, the Project site contains one natural watercourse, Goldenstar Creek, which runs southeast to northwest through the center of the Project site. Runoff from areas to the southeast of the Project site are tributary to Goldenstar Creek. All areas on site are tributary to Goldenstar Creek, with exception of two small drainage areas along the western boundary in the southern portions of the site, which convey flows off site to the west. Flows within Goldenstar Creek converge with an off-site drainage in the northwest portion of the Project site, and flows from both drainages discharge from the Project site at the northwest corner of the site. Peak flows within Goldenstar Creek at the northwest corner of the Project site is approximately 469.9 cubic feet per second (cfs). (Rick, 2024a, Appendix B)

2.5.9 NOISE

The most common and significant source of noise in Riverside County is mobile noise generated by transportation-related sources. Other sources of noise are the various land uses (i.e., commercial, and institutional) that generate stationary-source noise. As shown in EIR Table 4.13-1, the ambient recorded noise levels in the Project area range from 53.5 to 62.7 A weighted decibels (dBA) equivalent noise levels (Leq) during daytime hours and from 49.6 to 59.1 dBA Leq during nighttime hours. Refer to EIR Subsection 4.13,

Noise, for additional information regarding the site's existing noise conditions. (Urban Crossroads, 2023f, p. 31)

2.5.10 TRANSPORTATION

Regional access to the Project site is available from the SR-91 and I-215 Freeways via Van Buren Boulevard. SR-91 occurs approximately 4.0 miles northwest of the Project site, while I-215 is located approximately 3.7 miles to the northeast.

According to LMWAP Figure 7 (Lake Mathews/Woodcrest Area Plan Circulation), the Riverside County General Plan and LMWAP classify Van Buren Boulevard as an "Urban Arterial (152-foot Right-of-Way [ROW])," Washington Street north of Van Buren Boulevard is classified as an "Arterial (128-foot ROW)," Washington Street south of Van Buren Boulevard is classified as a "Major (118-foot ROW)," and Porter Street south of Van Buren Boulevard is classified as a "Secondary (100-foot ROW)" (Riverside County, 2021b, Figure 7) According to the Figure CCM-4 (Master Plan of Roadways) of the City of Riverside General Plan Circulation Element, Van Buren Boulevard is classified as a "120-foot Arterial (6 Lanes)" and is identified as a "Scenic Boulevard" and a "Parkway"; Washington Street north of Van Buren Boulevard is classified as a "110-foot Arterial (4 Lanes)"; Nandina Avenue between Washington Street and Barton Street is classified as a 100-foot Arterial (4 Lanes)"; Washington Street south of Van Buren Boulevard, Porter Avenue between Mariposa Avenue and Van Buren Boulevard, Wood Road, Krameria Avenue between Wood Road and Barton Street, and Barton Street south of Van Buren Boulevard are classified as "88-foot Arterial (4 Lanes)"; and Goldenstar Avenue is classified as a "66-foot Collector (2 Lanes)" (City of Riverside, 2019a, Figure CCM-4).

The Project area is currently served by Riverside Transit Agency (RTA), a public transit agency serving various jurisdictions within Riverside County. The existing RTA Route 27 runs along Van Buren Boulevard to the south of the Project site. There is an existing bus stop on Van Buren Boulevard near Gamble Avenue. 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. (Urban Crossroads, 2023c, p. 31).

Under existing conditions, there are limited pedestrian facilities in the vicinity of the Project site. Field observations conducted in May 2022 by Urban Crossroads, Inc., indicate light pedestrian and bicycle activity within the Project area (Urban Crossroads, 2023c, p. 31). According to LWMAP Figure 8 (Trails and Bikeway System), the Project site and immediate surroundings are not identified for future development with trails or bikeways (Riverside County, 2021b, Figure 8).

2.5.11 PUBLIC FACILITIES

Fire protection services for the Project site are provided by the Riverside County Fire Department (RCFD). The RCFD provides a full range of fire services within the County and contracting cities. The level of service provided is dependent on response times, travel distance, and staffing workload levels established in the Riverside County Fire Protection and Emergency Medical Aid Plan. The Fire Protection Master Plan contains four fire response categories that are used to determine the response times/travel distances for primary and secondary fire stations. The response categories are based on the amount of community build-out presumed

in the Master Fire Plan. The Fire Department assumes in any given region that three or more fire engines respond to any reported fire.

The fire station that would serve the Project is Station 8 (Woodcrest), which is located approximately 1.6 roadway miles southwest of the Project site. The Project site also could be served by City of Riverside Station 11 (Orange Crest), which is located approximately 2.2 roadway miles east of the Project site (Google Earth, 2024).The fire stations that could serve the Project site are staffed full-time, 24 hours per day, 7 days per week with a minimum three-person crew, including paramedics, operating a "Type 1" structural firefighting apparatus.

The Riverside County Sheriff's Department (RCSD) provides community policing for the Project area. The Sheriff Station serving the Project area is Moreno Valley Station, located at 22850 Calle San Juan De Los Lagos in the City of Moreno Valley, or approximately 4.9 miles northeast of the Project site (Google Earth, 2024). In addition to community policing, other services provided by the Sheriff's Department include, but are not limited to, operating of the emergency 911 system, operating correctional facilities, performing traffic control, and providing crime prevention education. Also, the Sheriff's Department coordinates with volunteer groups such as Neighborhood Watch Programs and the Community Oriented and Policing Problem Solving (COPPS) Program and the Community Oriented Policing (COP) Program. COPPS shifts the focus of police work from a solely reactive mode by supplementing traditional law enforcement methods with proactive problem-solving approaches that involve the community as well as the police.

The Project site is located within the Riverside Unified School District (RUSD). The nearest public schools to the Project site include Woodcrest Elementary School, located approximately 0.8-mile southwest of the Project site; Frank Augustus Miller Middle School, located approximately 0.5-mile south of the Project site; and Martin Luther King High School, located approximately 0.6-mile southeast of the Project site (Google Earth, 2024). According to the RUSD's 2016 Long Range Facilities Master Plan, the Woodcrest Elementary School had an enrollment of 704 students with a total capacity of 750 students; Frank Augustus Miller Middle School had an enrollment of 1,072 students and a capacity of 1,200 students; and Martin Luther King High School has a total enrollment of 3,375 students and a capacity of 3,400 students (RUSD, 2016, pp. 153, 173, and 193).

There are two public parks within a two-mile radius of the Project site: Bergamont Park, located approximately 1.4 miles east of the Project site, and Orange Terrace Community Park, located approximately 1.9 miles east of the Project site. Facilities available at Bergamont Park include tot lots, two half-court basketball hoops, picnic areas, and open play areas. Recreational facilities available at Orange Terrace Park include six softball fields, full and half-court basketball courts, tot lots, and open play areas. (Google Earth, 2024)

The Project site is located within the Riverside County Public Library System (RCPLS) service area. The nearest library servicing the proposed Project site is the Woodcrest Library, located at 16625 Krameria Avenue, or approximately 1.1 miles southwest of the Project site. (Google Earth, 2024)

2.5.12 Utilities and Service Systems

A. Water Service

The Project site is located in the service area of the Western Municipal Water District (WMWD). WMWD serves retail customers directly in Orangecrest, Mission Grove, El Sobrante, Eagle Valley, Temescal Canyon, Woodcrest, Lake Mathews, portions of Mead Valley and Perris, and March Air Reserve Base. The WMWD provides water service to nearly one million people in a service area covering roughly 527 square miles within western Riverside County. WMWD serves approximately 25,000 retail and 14 wholesale customers with water from the Colorado River, State Water Project, recycled water, and local groundwater. (WMWD, 2022)

Under existing conditions, there is an existing water main within Iris Avenue along the Project site's frontage, and an existing water line within Chicago Avenue (south of Iris Avenue). Recycled water currently is not available in the Project area.

B. Sewer Service

The City of Riverside Wastewater Division is responsible for the collection and treatment of wastewater flows generated within the City as well as the community services districts of Jurupa, Rubidoux, Edgemont, and the community of Highgrove, and would provide sewer service to the proposed Project. The City's collection system consists of over 800 miles of gravity sewers ranging from 4 to 51 inches in diameter, 414 miles of sewer laterals that are City owned, and 20 wastewater pump stations. The wastewater pump stations range in size from less than 100 gallons per minute (gpm) to over 11,000 gpm. Treatment occurs at the Regional Water Quality Control Plant (RWQCP), which provides preliminary, primary, secondary, and tertiary treatment for a hydraulic rated capacity of approximately 46 million gallons per day (mgd) average dry weather flow. (City of Riverside, 2019b, p. ES-1)

Under existing conditions, there is a 10-inch sewer line within Van Buren Boulevard, located approximately 0.1 mile south of the Project site.

C. Solid Waste Services

The Riverside County Department of Waste Resources (RCDWR) is responsible for the efficient and effective landfill disposal of non-hazardous county waste within the County, and operates six active landfills in addition to holding a contract agreement to dispose of waste at the private El Sobrante Landfill (Riverside County, 2015, p. 4.17-36). Solid waste generated in the Project area is disposed of at either the El Sobrante Landfill, Lamb Canyon Landfill, or Badlands Landfill. The El Sobrante Landfill is currently permitted to receive 16,054 tons per day (tpd), while the average daily tonnage in December 2022 was 9,291 tpd. The Lamb Canyon Landfill is permitted to receive 5,000 tpd, while data from December 2022 shows that the Lamb Canyon Landfill received a daily average of approximately 1,890 tpd. The Badlands Landfill is permitted to receive 4,800 tpd, while in December 2022 the Badlands Landfill received an average of 2,899 tpd. (RCDWR, 2023a; RCDWR, 2023b; RCDWR, 2023c)

D. Other Services

The Project site also is located in the service territories of the Southern California Gas Company (natural gas) and Southern California Edison (electricity) (California Energy Commission, 2020).

2.5.13 Rare and Unique Resources

As required by CEQA Guidelines § 15125(c), the environmental setting should identify any inconsistencies between a proposed project and applicable general, specific, or regional plans, and place special emphasis on resources that are rare or unique to that region and would be affected by the project. The principal discretionary actions required of Riverside County to implement the Project are described in detail in Section 3.0, *Project Description*, and are listed in Table 3-7, *Matrix of Project Approvals/Permits*.

Based on the existing conditions of the Project site and surrounding area described above and discussed in more detail in Section 4.0, *Environmental Analysis*, the only rare or unique resources on the Project site is Goldenstar Creek, which traverses the Project site in a southeast-to-northwest orientation. A majority of the Project site is subject to historical and on-going disturbance, and thus the Project site does not contain major areas of sensitive resources. Additionally, the Project site does not contain any trees or rock outcroppings that would be considered rare or unique resources. Thus, based on a review of the Project site's existing conditions, Goldenstar Creek is the only rare and unique resource on-site.

3.0 PROJECT DESCRIPTION

This Section provides all of the information required for an EIR Project Description by State CEQA Guidelines § 15124, including a description of the Project's precise location and boundaries; a statement of the Project's objectives; a description of the Project's technical, economic, and environmental characteristics; and a description of the intended use of this EIR, including a list of the government agencies that are expected to use this EIR in their decision-making process; a list of the permits and approvals that are required to implement the Project; and a list of related environmental review and consultation requirements.

3.1 REGIONAL SETTING

The 140.8-acre Project site is located within the western portion of unincorporated Riverside County, California. Figure 2-1 (previously presented) depicts the Project site's location within the regional vicinity. As shown, Riverside County abuts San Bernardino County to the north; Orange County to the west; and San Diego and Imperial Counties to the south. Riverside County is located in an urbanizing area of southern California commonly referred to as the Inland Empire. The Inland Empire is an approximate 28,000 square-mile region comprising western San Bernardino County, western Riverside County, and the eastern reaches of Los Angeles County.

3.2 PROJECT LOCATION AND SETTING

As previously depicted on Figure 2-2, the Project site is located within the Woodcrest community of the Lake Mathews/Woodcrest Area Plan (LMWAP) of unincorporated Riverside County. More specifically, the 140.8-acre Project site is bound to the south by Iris Avenue and to the east by Chicago Avenue. Under existing conditions, the northwestern portions of the Project site consist of natural open space, while a single-family home and several ancillary structures are located in the east-central portions of the Project site. Under existing conditions, the Project site generally is surrounded by rural residential uses, with exception of natural open space areas located to the west of the property and medium-density residential uses to the south of Van Buren Boulevard. Refer to EIR Section 2.0 for a detailed description of the local setting and surrounding land uses.

3.3 PROPOSED PROJECT

The proposed Project consists of applications for a General Plan Amendment (GPA220009), Change of Zone (CZ2200031), and Tentative Tract Map (TTM38510) to allow for the future development of the 140.8-acre Project site with 231 single-family dwelling units, a trailhead/parking area, a sewer lift station, three water quality basins, and natural open space areas with associated trails. A new intersection would be created along Iris Avenue to provide access to the site, while the alignment of Chicago Avenue through the Project site has been designed to divert Project-related traffic away from the existing rural residential community to the north and east of the Project site. This EIR analyzes the physical effects associated with all components of the proposed Project, including planning, construction, and ongoing operation. The governmental approvals requested from Riverside County to implement the Project consist of the following:

1. Adoption by resolution of a General Plan Amendment (GPA220009);
2. Adoption by ordinance of a Change of Zone (CZ2200031);
3. Adoption by resolution of Tentative Tract Map No. 38510 (TM38510); and

4. Certification of this EIR.

The Project's applications, as submitted to the County of Riverside by the Project Applicant, are herein incorporated by reference pursuant to State CEQA Guidelines § 15150 and are available for review at the Riverside County Planning Department, 4080 Lemon Street, 12th Floor, Riverside, CA 92501. All other discretionary and administrative approvals that would be required of the County of Riverside or other government agencies also are within the scope of the Project analyzed in this EIR.

3.4 STATEMENT OF OBJECTIVES

The underlying purpose of the proposed Project is to develop a low-density residential community that minimizes impacts to the Woodcrest community and preserves sensitive environmental resources. The following is a list of specific objectives that the proposed Project intends to achieve.

A. To efficiently develop an underutilized property with low-density residential uses with a range of lot sizes while preserving, to the maximum extent feasible, areas on site that contain sensitive environmental resources, including major site drainages.

B. To ensure land use compatibility with the surrounding community by accommodating larger lots at northern, eastern, and southern portions of the property to serve a land use transition between the existing rural residential uses in the surrounding community and smaller residential lot sizes.

C. To develop a residential community with a design that takes topographic, geologic, hydrologic, and environmental opportunities and constraints into consideration.

D. To increase the available housing supply within the region by providing detached single-family homes that will be marketable within the evolving economic profile of Riverside County and surrounding communities.

E. To assist Riverside County in meeting its Regional Housing Needs Assessment (RHNA) allocation by developing low density residential uses.

F. To provide a system of public and community facilities, including recreational facilities, in an efficient and timely manner in order to meet the needs of Project residents.

3.5 PROJECT'S COMPONENT PARTS AND DISCRETIONARY APPROVALS

The proposed Project consists of applications for General Plan Amendment No. 220009 (GPA220009), Change of Zone No. 2200031 (CZ2200031), and Tentative Tract Map No. 38510 (TTM38510) to allow for future development of the 140.8-acre Project site with 231 single-family dwelling units, a trailhead/parking area, a sewer lift station, three water quality basins, and natural open space areas. The principal discretionary actions required of the County of Riverside to implement the Project are described in detail on the following pages. Additional discretionary and administrative actions that would be necessary to implement the proposed Project are listed in Table 3-5, *Matrix of Project Approvals/Permits*, at the end of this Section.

3.5.1 General Plan Amendment No. 220009

The Riverside County General Plan assigns a land use designation to all properties within the County's jurisdiction. Development is required by law to comply with the provisions of the County's General Plan. The Project Applicant is seeking a General Plan Amendment (GPA No. 220009) to modify the General Plan and LMWAP land use designations for the 140.8-acre Project site. Specifically, and as depicted on Figure 3-1, *General Plan Amendment No. 220009*, under existing conditions, the Project site is designated "Rural Community – Very Low Density Residential (RC-VLDR)." As part of GPA No. 220009, the 140.8-acre Project site would be redesignated to "Rural Community – Low Density Residential (RC-LDR)." The RC-LDR land use designation is intended to accommodate single-family detached residences on large parcels of 0.5 to 1 acre, as well as limited agriculture, including equestrian and animal keeping uses. It should be noted that while the minimum lot size within the RC-LDR land use designation is 0.5-acre, the General Plan Land Use Element also provides that the allowable density of a particular land use designation may be clustered in one portion of the site in smaller lots, as long as the ratio of dwelling units/area remains within the allowable density range associated with the designation. (Riverside County, 2021a, Table LU-4; RCIT, n.d.)

3.5.2 Change of Zone No. 2200031

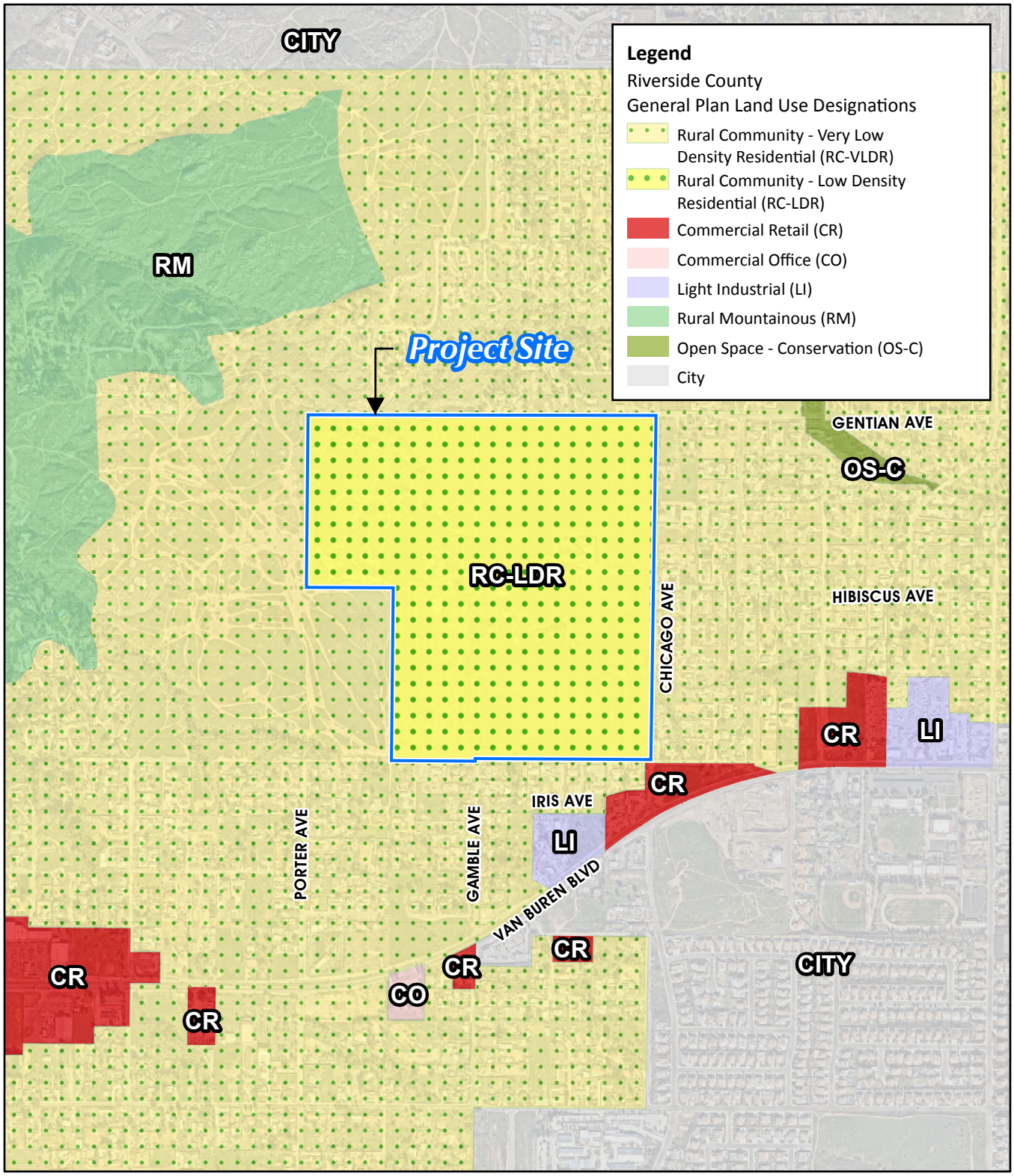
The Riverside County Zoning Ordinance (Ordinance No. 348), which is part of the County's Code of Ordinances, assigns a zoning designation to all properties within unincorporated Riverside County. All development within the County is required, by law, to comply with the provisions of the Zoning Ordinance. Under existing conditions, the Project site is zoned "Light Agriculture, 10-Acre Minimum Lot Size (A-1-10)." As part of CZ2200031, and as depicted on Figure 3-2, *Change of Zone No. 2200031*, the zoning classification for the 140.8-acre Project site would be changed to "One Family Dwellings, 10,000 s.f. Minimum Lot Sizes (R-1-10,000)." The R-1-10,000 zoning classification allows for one-family dwellings and limited agricultural uses on minimum 10,000 square foot (s.f.) lot sizes. (Riverside County, 2021c; RCIT, n.d.)

3.5.3 Tentative Tract Map No. 38510

As shown on Figure 3-3, *Tentative Tract Map No. 38510*, and as summarized in Table 3-1, *Tentative Tract Map No. 38510 Land Use Summary*, Tentative Tract Map No. 38510 (TTM38510) would subdivide the approximately 140.8-acre Project site to accommodate a total of 231 residential lots on 88.09 acres, a sewer lift station on 0.25-acre, three water quality basins on 5.39 acres, four open space lots on 23.75 acres, a trail head and associated parking on 0.55-acre, internal roadway dedications on 22.29 acres, and a Chicago Avenue dedication on 0.48-acre. Proposed residential lots would include a mixture of minimum lot sizes ranging from 0.25-acre to 1.0 acre, with individual lots ranging in size from 10,890 s.f. to 46,123 s.f. (net). The average lot size would be 16,517 s.f. (net). Larger lots (minimum one-acre and 0.75-acre lots) are generally proposed along the northern and eastern site boundaries, medium-sized lots (0.3-acre) are proposed along the southern boundary, while 0.25-acre lots are proposed in the interior portions of the Project site.

A. Grading Plan

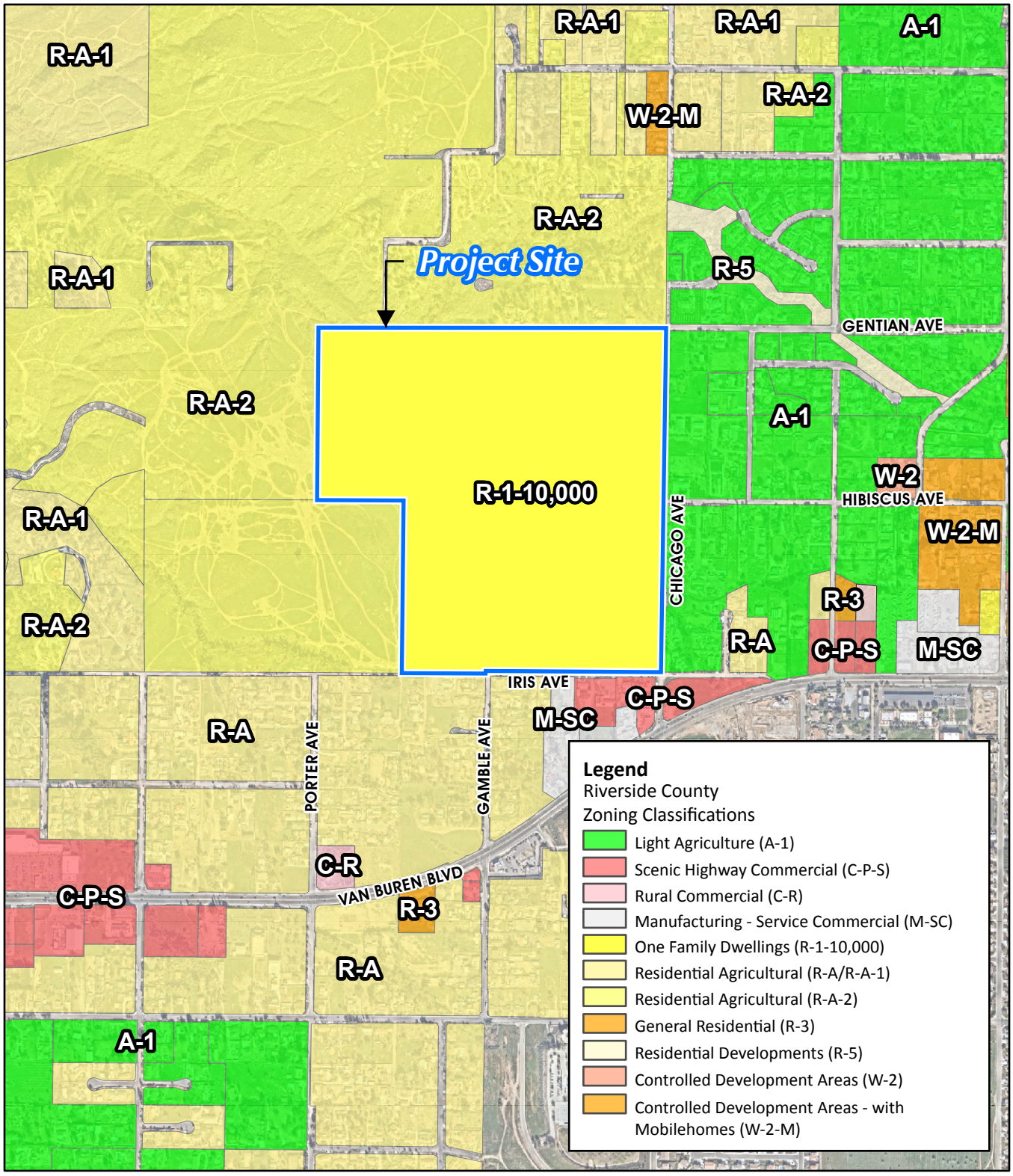
Development of the Project would involve re-contouring the pre-development terrain of the Project area to create building pads, roads, and water quality basins. As shown in Figure 3-4, *Conceptual Grading Plan,* the



Source(s): Esri, NearMap Imagery (2023), RCIT (2023)

Figure 3-1

General Plan Amendment No. 220009

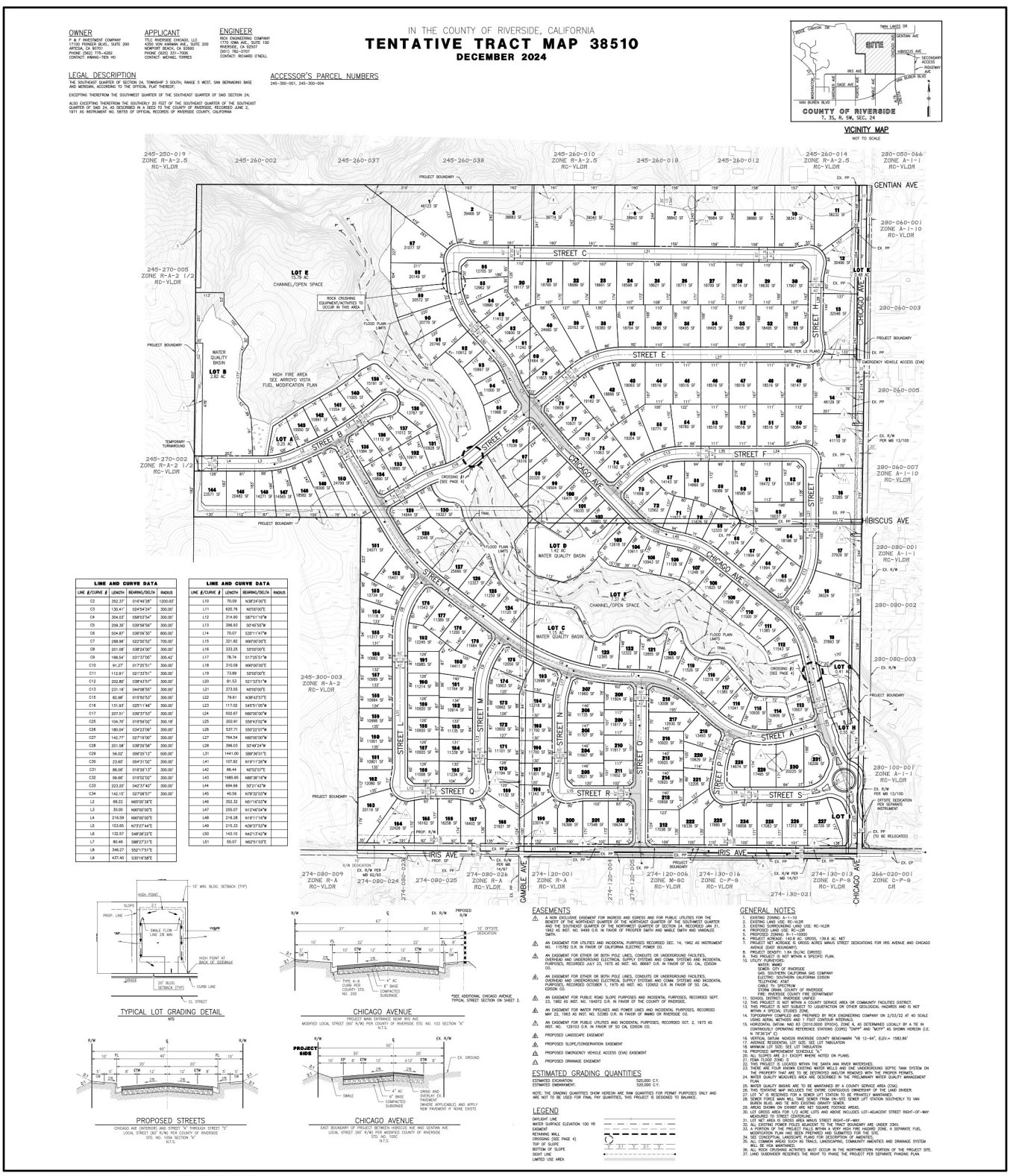


Source(s): Esri, NearMap Imagery (2023), RCIT (2023)

Figure 3-2

0 275 550 1,100 Feet

Change of Zone No. 2200031



Source(s): Rick Engineering (12-23-2024)

Figure 3-3

Source(s): Rick Engineering (12-23-2024)

Figure 3-4

Not to Scale

Conceptual Grading Plan

Table 3-1 Tentative Tract Map No. 38510 Land Use Summary

Land Use	Lot Numbers	Acreage
Residential	1 through 231	88.09
Sewer Lift Station	A	0.25
Water Quality Basins	B through D	5.39
Open Space	E through G, I	23.75
Trail Head/Parking	H	0.55
Internal Roadway Dedications	J	22.29
Chicago Avenue Dedication	K	0.48
Totals:	**--**	**140.8**

Note: Totals reflect rounding.

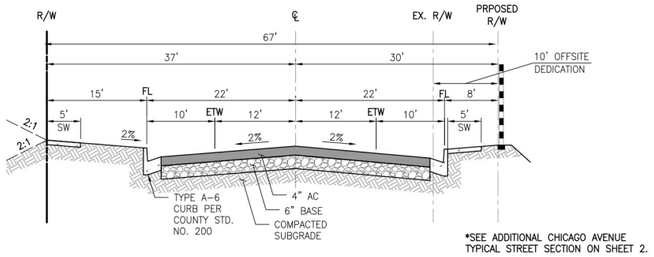
grading of the Project site would consist of standard residential grading for the single-family residential lots and adjacent streets. The Project would require a total of 520,000 cubic yards (c.y.) of cut and 520,000 c.y. of fill. Earthwork activities are expected to balance on site and no import or export of soils would be required. Blasting is required for the proposed Project and would take place in approximately four locations across the Project site. Manufactured slopes would be constructed at a maximum gradient of 2:1 (horizontal:vertical), and would extend to up to 72 feet in height. A total of three water quality basins are proposed, which would be located to the north and south of the existing creek in the central portions of the Project site (Goldenstar Creek), and in the northwest portion of the Project site.

B. Circulation Improvements

Figure 3-5, *Roadway Cross-Sections*, depicts the roadway improvements proposed as part of TTM 38510, which are described below.

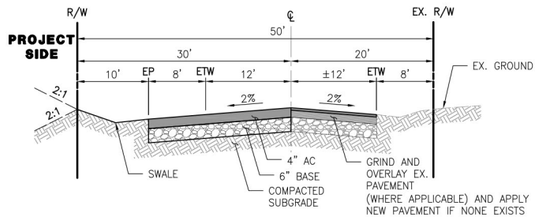
- Iris Avenue. As shown on Figure 3-5, two roadway cross-sections are proposed for Iris Avenue along the Project site's frontage with this roadway. For the portion of Iris Avenue between the southwest corner of the Project site and Gamble Avenue, the Project Applicant would dedicate 30 feet of right-of-way (ROW) and would improve this segment of Iris Avenue to its ultimate half-width cross-section as a Local Street with a total ROW of 50 feet, which would include approximately 32 feet of paved travel lanes, curb and gutter along the north side of the roadway, and a 10-foot-wide parkway that would include a five-foot-wide curb-separated sidewalk. For the portion of Iris Avenue located between Gamble Avenue and Chicago Avenue, the Project Applicant would dedicate 10 feet of ROW, and would improve this segment of Iris Avenue to its ultimate half-width cross section as a Local Roadway with a total ROW of 50 feet, which would include 32 feet of pavement, curb and gutter along the north side of the roadway, and a 10-foot-wide parkway along the northern side of the roadway that would include a 5-foot-wide curb-separated sidewalk.

- Chicago Avenue. Three separate roadway cross-sections are proposed for Chicago Avenue, as shown on Figure 3-5. For the portion of Chicago Avenue at the Project entrance north of Iris Avenue, the Project would implement full-width improvements to Chicago Avenue as a Modified Local Street with a total ROW of 67 feet, which would include approximately 40 feet of paved travel lanes; curb and gutter; a 15-foot-wide parkway along the west side of the roadway that would include a five-foot-wide



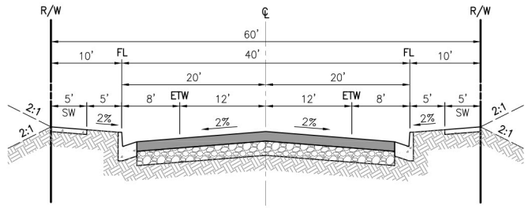
CHICAGO AVENUE

PROJECT MAIN ENTRANCE NEAR IRIS AVE
MODIFIED LOCAL STREET (60' R/W) PER COUNTY OF RIVERSIDE STD. NO. 103 SECTION "A"
N.T.S.



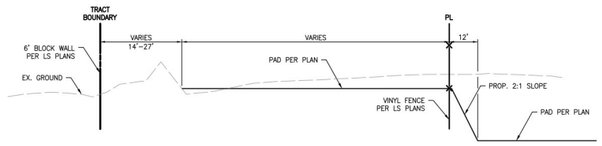
CHICAGO AVENUE

EAST BOUNDARY OF PROJECT BETWEEN HIBISCUS AVE AND GENTIAN AVE
LOCAL STREET (60' R/W) PER MODIFIED COUNTY OF RIVERSIDE
STD. NO. 105C
N.T.S.

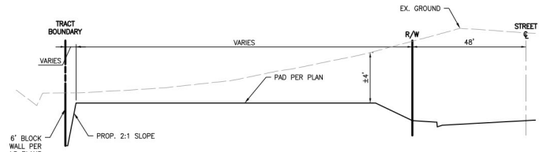


PROPOSED STREETS

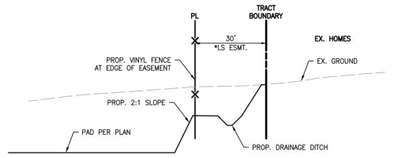
CHICAGO AVE (INTERIOR) AND STREET "A" THROUGH STREET "S"
LOCAL STREET (60' R/W) PER COUNTY OF RIVERSIDE
STD. NO. 105A SECTION "A"
N.T.S.



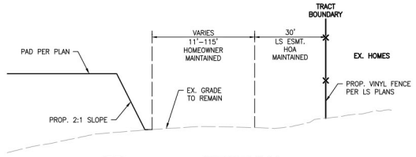
A — SECTION
N.T.S.



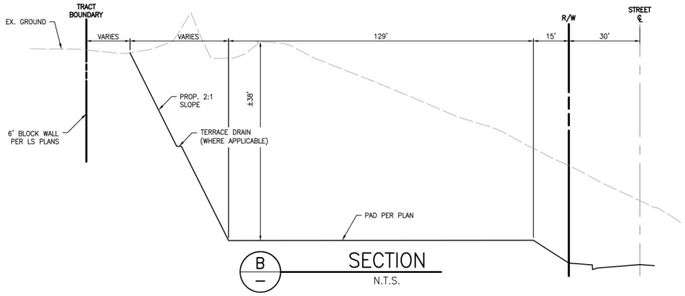
D — SECTION
N.T.S.



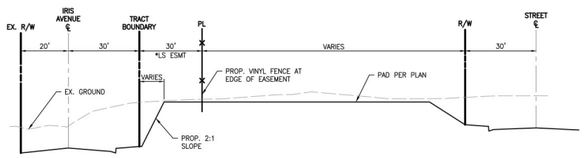
G — SECTION
N.T.S.



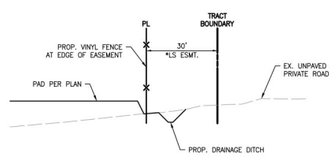
J — SECTION
N.T.S.



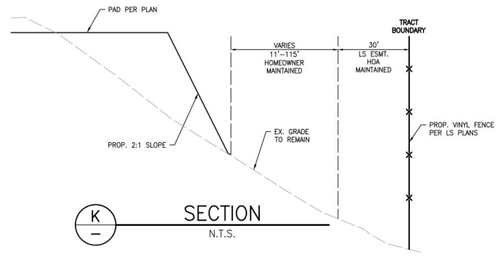
B — SECTION
N.T.S.



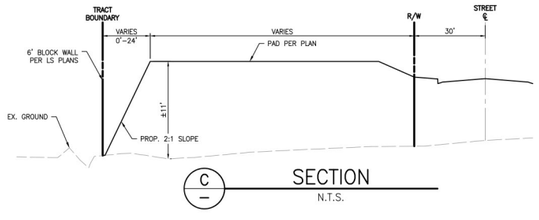
E — SECTION
N.T.S.



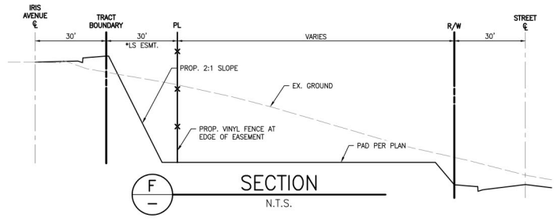
H — SECTION
N.T.S.



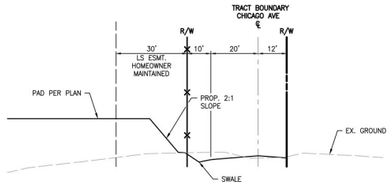
K — SECTION
N.T.S.



C — SECTION
N.T.S.



F — SECTION
N.T.S.



I — SECTION
N.T.S.

Source(s): Rick Engineering (12-23-2024)

Figure 3-5

Not to Scale

Roadway Cross-Sections

curb-separated sidewalk; and a 10-foot-wide parkway along the eastern side of the road that would include a five-foot-wide sidewalk. The portion of Chicago Avenue proposed to provide access within the Project site would be constructed to its full-width standard as a Local Street with a total ROW of 60 feet, and would include 36 feet of paved travel lanes; curb and gutter; and 10-foot-wide parkways on each side of the street that would include five-foot-wide curb-separated sidewalks. The portion of Chicago Avenue along the east boundary of the Project site, between Hibiscus Avenue and Gentian Avenue, would be improved to its ultimate half-width section as a Local Street with a total ROW of 50 feet, and would include 32 feet of paved travel lanes with a 10-foot-wide swale along the western side of the roadway.

- Internal Local Roadways. As shown on Figure 3-5, the remaining roadways proposed on site would be constructed as local roadways with a total ROW of 60 feet, and would include 36 feet of paved travel lanes; curb and gutter; and 10-foot-wide parkways along each side of the road that would include five-foot-wide curb-separated sidewalks.

- Roundabout. One roundabout is proposed at the southeast corner of the Project site with connections to Chicago Avenue and Street S. The proposed roundabout would include a total ROW of 33 feet to 81 feet and would include 16 feet of paved travel lanes, curb and gutter, and a six-foot sidewalk around the perimeter of the roundabout.

- Emergency Vehicle Access (EVA). One Emergency Vehicle Access (EVA) point is proposed, between Lots 13 and 14 at the eastern terminus of Street E. The EVA would not be used by future Project residents, except in cases of emergencies (e.g., wildfires) where evacuation of the community is required. As shown on Figure 3-5, the EVA would include 24 feet of pavement within a 40-foot-wide easement.

C. *Fuel Management Plan*

TTM38510 includes a conceptual Fuel Management Plan (herein, "FMP") that would protect the proposed residential units from fire hazards, while at the same time creating a smooth visual transition from the natural vegetation that may be located to the homeowner's front, side, and/or rear landscapes. As shown in Figure 3-6, *Conceptual Fuel Management Plan*, fuel management zones (FMZs) are proposed along lots abutting Goldenstar Creek, along lots abutting the natural open space area in the northwest portion of the Project site, and along the western boundary of the site that abuts natural open space areas located off site. As shown, individual lots would contain FMZs that are the responsibility of the owner to maintain, while the proposed water quality basin and open space lots contain fuel management zones to be maintained by the Project's Home Owners' Association (HOA). Additionally, no build zones and setback zones are proposed along the perimeter of the Project site.

The FMZs would be provided where the conditions outlined below exist, as per Riverside County Fire Department Standards. The required FMZs would consist of the following:

- **Fuel Treatment Zone 1A:** Fuel Treatment Zone 1A would be owner maintained within individual lots and shall be free of all combustible construction and materials. The lot owner shall plant their lot with fire resistant vegetation, and the area shall be permanently irrigated and regularly maintained.

- **Fuel Treatment Zone 1B:** Fuel Treatment Zone 1B is a common area would be HOA maintained to Zone 1A standards. It includes all manufactures slopes and level areas located within 50 feet of a home, as well as within the Project's water quality basins.

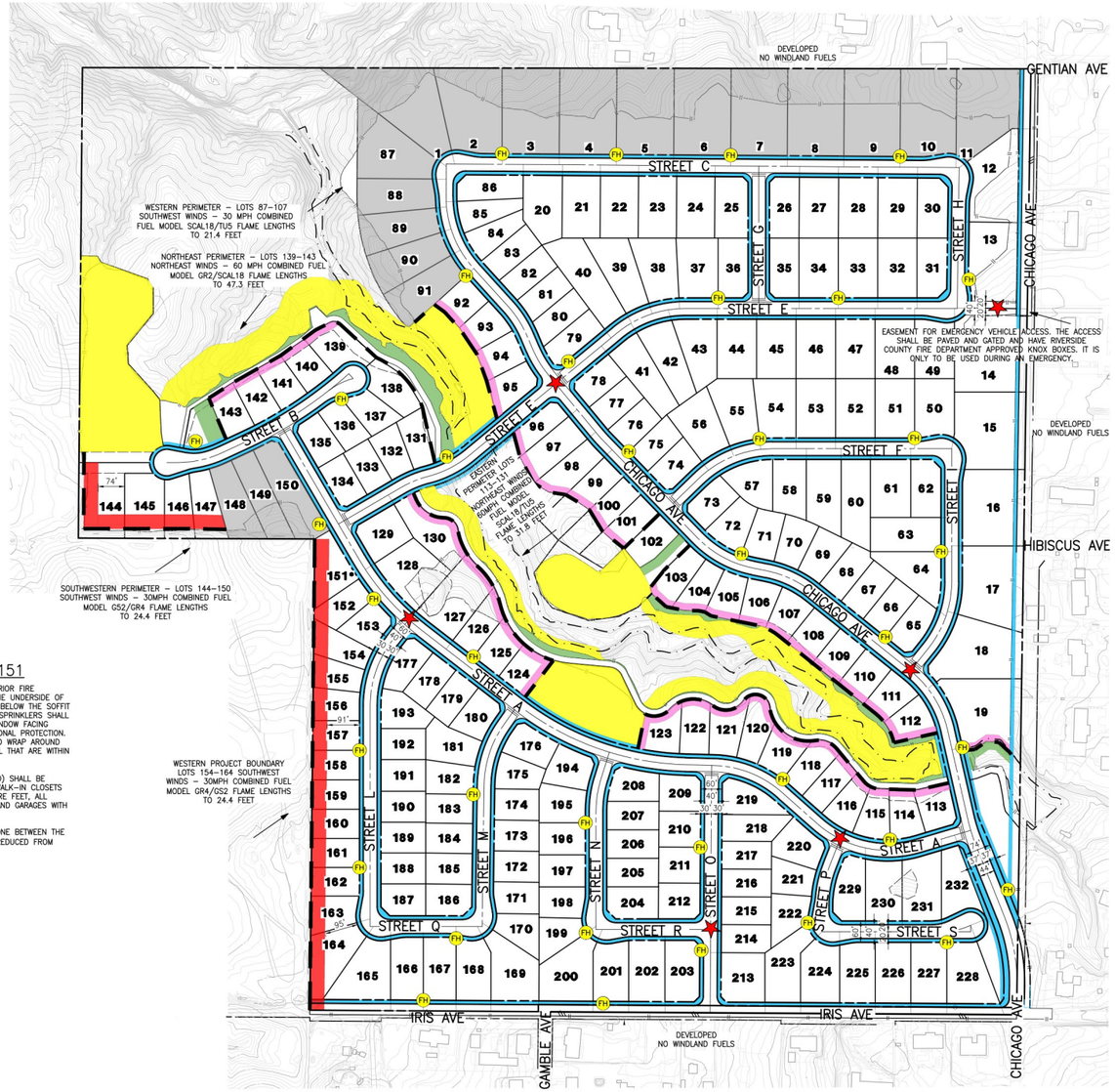
- **Fuel Treatment Zone 2:** Fuel Treatment Zone 2 includes areas located within 50 and 100 feet from each structure that would be thinned within an owner's lot or to protect an adjacent structure. This zone shall be maintained by the Project's HOA and would interlink with Zone 1A and Zone 1B Fuel Treatment Zones.

- **Roadside Fuel Treatment:** The Roadside Fuel Treatment zone would be maintained to Zone 1B standards and is located along all roads within the Proposed Project.

Additionally, required FMZs include no build zones that range from 20 to 40 feet in width and cannot contain any combustible materials, including homes or other structures. Additional setback zones to provide further fuel treatment and solid non-combustible walls to intercept heat from a wildfire are illustrated on Figure 3-4.

D. Landscaping Plan

Figure 3-7, *Conceptual Landscape Plan*, depicts the Project's conceptual landscape plan. As shown, landscaping for the proposed Project would consist of a variety of trees, shrubs, and groundcover. Trees are proposed along the Project site's frontages with Iris Avenue and Chicago Avenue, as well as along the Project's internal roadways. Tree species included as part of the conceptual landscape plan include peppermint (*Agonis flexuosa*), gold medallion tree (*Cassia leptophylla*), desert willow (*Chilopsis linearis*), camphor tree (*Cinnamomum camphora*), Australian willow (*Geijera parviflora*), blue jacaranda (*Jacaranda mimosifolia*), Southern California black walnut (*Juglans californica*), Chinese flame tree (*Koelreuteria bipinnata*), fernleaf Catalina ironwood (*Lyonothamnus floribundus* ssp. *aspleniifolius*), Mexican palo verde (*Parkinsonia aculeata*), ghost pine (*Pinus sabiniana*), Torrey pine (*Pinus torreyana*), Chinese pistache (*Pistacia chinensis*),California sycamore (*Platanus racemosa*), fern pine (*Podocarpus gracilior*), Fremont's cottonwood (*Populus fremontii* ssp. *fremontii*), various *Prosopis* tree species, coast live oak (*Quercus agrifolia*), Engelmann oak (*Quercus engelmannii*), Goodding's willow (*Salix goodingii*), red willow (*Salix laevigata*), arroyo willow (*Salix lasiolepis*), pacific willow (*Salix lucida*), elderberry (*Sambucus nigra*), pink trumpet tree (*Tabebuia impetiginosa*), tipu tree (*Tipuana tipu*),lacebark elm (*Ulmus parvifolia*), and bay laurel (*Umbellularia californica*).

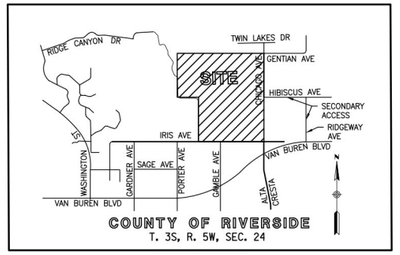


*NOTES FOR LOT 151

1. THE HOME SHALL HAVE THE INTERIOR FIRE SPRINKLER SYSTEM EXTENDED TO THE UNDERSIDE OF THE SOFFIT OR HIGH ON THE WALL BELOW THE SOFFIT THAT FACES WILDLAND FUELS. FIRE SPRINKLERS SHALL ALSO BE INSTALLED ABOVE EACH WINDOW FACING WILDLAND FUELS TO PROVIDE ADDITIONAL PROTECTION. THESE FIRE SPRINKLERS SHALL ALSO WRAP AROUND THE STRUCTURE ON EACH SIDE WALL THAT ARE WITHIN 40 FEET OF WILDLAND FUELS.

2. FIRE SPRINKLERS (PER NFPA 13D) SHALL BE INSTALLED – THIS SHALL INCLUDE WALK–IN CLOSETS OR ROOMS IN EXCESS OF 55 SQUARE FEET, ALL BATHROOMS REGARDLESS OF SIZE, AND GARAGES WITH LIVING SPACES ABOVE THE GARAGE.

3. CREATE A 20 FOOT NO BUILD ZONE BETWEEN THE STRUCTURE AND WILDLAND FUELS (REDUCED FROM THE CURRENT 40 FEET).



VICINITY MAP

NOT TO SCALE

ARROYO VISTA DEVELOPMENT - TTM 38510
LEGEND - FIRE PROTECTION PLAN MAP
UNINCORPORATED RIVERSIDE COUNTY, CALIFORNIA

Symbol	Description
Not Shown	**FUEL TREATMENT ZONE 0 (LOT OWNER MAINTAINED) -** An irrigated zone that is cleared of all existing plants that is 5 feet in width beginning at the outer wall of each structure. No combustible material or plants are allowed in this zone. Plants are limited to small plants typically less than 1 foot in height and that will not spread more than 1 foot. Usually these plants are placed in containers that are located between windows and doors. See written Fire Protection Plan for additional information.
No Color.	**FUEL TREATMENT ZONE 1A (LOT OWNER MAINTAINED) -** The lot owner shall plant their lot with fire resistant vegetation and maintain it to Zone 1A criteria. Plants listed in the Prohibited Plant List found in Appendix A of the Fire Protection Plan shall not be planted. Zone 1A shall extend outward from Zone 0 for a distance of 45 feet. Maintenance will be on-going throughout the year as needed. Zone 0 plus Zone 1A will result in 50 feet of irrigated landscaping. The area is permanently irrigated and regularly maintained. See Fire Protection Plan for details. In larger lots that have over 50 feet between the rear of the home and the lot boundary, the area within 100 feet of the home shall be treated to Zone 2 criteria by the lot owner.
	FUEL TREATMENT ZONE 1B (HOA MAINTAINED) - A common area that is maintained to Irrigated Zone 1A criteria shown above by the HOA. It includes all manufactured slopes and level areas located within 50 feet of a home. This zone is often located in and surrounding water quality basins designed to retain runoff from precipitation. See written Fire Protection Plan for details.
	FUEL TREATMENT ZONE 2 (HOA MAINTAINED) - Areas located within 50 and 100 feet from each structure that are thinned within an owners lot or to protect an adjacent structure. This zone will frequently interlink to adjacent lot owners Zone 1A or HOA Zone 1B. This area may include small clusters of trimmed fire resistance native plants up to 18 inches in height and trimmed native trees limbed up to 6 feet from the ground where 50% of the vegetation is removed. The zone may include irrigated or temporarily irrigation needed for specimen shrub and tree establishment for revegetation. Selected native plant clusters over 18 inches in height must be separated by at least 1 1/2 times the mature height of the retained plants. Ground cover, native plants and grasses shall be weed whipped or mowed to 4" or less in stubble height each year once they dry out. See written Fire Protection Plan for additional details.
	ROADSIDE FUEL TREATMENT (HOA MAINTAINED) - This zone shall be maintained as described in Zone 1b above. This zone is permanently irrigated and is the most critical to safe ingress and egress. Should water supplies become limited, this zone should be the last to have its irrigation stopped. See written Fire Protection Plan for additional for details.
	NO BUILD ZONE (LOT OWNER MAINTAINED) - An area that is 20-feet in width that is maintained to Zone 1A criteria. It is located adjacent to wildland vegetation. No combustible construction including the home shall be located in this zone. The zone is suitable for walkways, water features, gardens, and similar non-combustible uses.
	NO BUILD ZONE 40 FEET (LOT OWNER MAINTAINED) - An area located at the rear of the lot adjacent to wildland fuels that is 40 feet in width that is maintained to Zone 1A criteria.No combustible construction including the home shall be located in this zone.
	SETBACK ZONE (ESTABLISHED BY BUILDER) - Homes built on these lots shall be setback from the rear property line and or from the Project boundary a minimum of 100 feet. This will provide space for 100 feet of fuel treatment within each lot.
	SOLID NON-COMBUSTIBLE WALL - A solid non-combustible radiant and convective heat deflection wall 6 feet in height shall be located as shown to both intercept radiant and convective heat from a wildfire. It shall also serve to trap a large number of wind blown embers and reduce fire behavior adjacent to it. See written Fire Protection Plan for details.

Prepared for: TTLC Riverside Chicago, LLC.
4350 Von Karmon Ave., Suite 200
Newport Beach, CA 92660

Prepared By: FIREWISE2000, LLC.
PO Box 339
Lower Lake, CA 95457
Telephone: 760-745-3947
Info@firewise2000.com

SYMBOL LEGEND

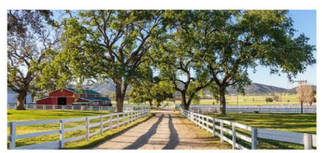
SYMBOL	DESCRIPTION
	Emergency/Fire Access Way Entrance
FH	The FH (Fire Hydrant) symbol is shown for reference only. Each fire hydrant is to be installed per Riverside County Fire Department requirements.

Source(s): Rick Engineering (01-11-2023)

Figure 3-6

Not to Scale

Conceptual Fuel Management Plan



NOTES:
1. SLOPE PLANTING CONCEPT SHALL BE COMPLIANT WITH MINIMUM STANDARDS FOR BUILDING & SAFETY EROSION CONTROL STANDARDS
   - OVER 3 FEET VERTICAL: GROUNDCOVER PLANT MATERIAL MAXIMUM 12" O.C.
   - OVER 15 FEET VERTICAL: SHRUBS MAXIMUM 10' O.C., TREES 20' MAXIMUM O.C. OR A COMBINATION THEREOF
2. HYDROZONES WILL BE PROPERLY DESIGNATED AND PROPOSED METHOD OF IRRIGATION SHALL BE INDICATED
3. NO OVERHEAD IRRIGATION WITHIN 24" OF NON-PERMEABLE SURFACES
4. SUBSURFACE OR LOW-VOLUME IRRIGATION SHALL BE USED FOR IRREGULARLY SHAPED AREAS, OR AREAS LESS THAN 8' IN WIDTH
5. NO TREES WITHIN 10' OF DRIVEWAYS, ALLEYS, OR STREET INTERSECTIONS
6. PRIOR TO PROJECT CONSTRUCTION, I AGREE TO SUBMIT A COMPLETE LANDSCAPE CONSTRUCTION DOCUMENT PACKAGE THAT COMPLIES WITH THE REQUIREMENTS OF APPLICABLE ORDINANCES, INCLUDING BUT NOT NECESSARILY LIMITED TO ORDINANCE NO. 859.2; ORDINANCE 348, ORDINANCE 41; PROJECT CONDITIONS OF APPROVAL; AND IN SUBSTANTIAL CONFORMANCE WITH THE APPROVED LANDSCAPE CONCEPT PLAN. SHOULD THE ORDINANCES BE REVISED, PLANS MAY BE SUBJECT TO CHANGE.

1. PROPERTY LINE
2. PARKWAYS
3. FUEL MOD BOUNDARY
4. SIGHT LINE
5. FIRE HYDRANT
6. RIGHT-OF-WAY
7. SIDEWALK
8. CURB

Source(s): Urban Arena, Inc. (05-23-2025)

Figure 3-7

Not to Scale

Conceptual Landscaping Plan

E. Walls and Fences

Figure 3-8, *Wall and Fence Plan*, depicts the Project's proposed walls and fences. As shown, 6-foot tall masonry walls are proposed along the rear and side lots along the western Project boundary, along the rear and side of lots abutting Goldenstar Creek, and along the rear and sides of lots abutting the open space proposed in the northwest corner of the Project site. The rear of lots in the northern portion of the Project site would have 6-foot tall tubular steel view fencing. On the remaining portions of residential lots throughout the Project site, 6-foot tall privacy vinyl fencing is proposed to establish private areas for each individual lot.

F. Utility Plan

1. Water Plan

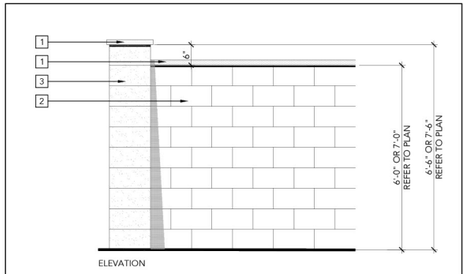
The Western Municipal Water District (WMWD) would provide potable water to the proposed Project. As shown on Figure 3-9, *Utility Plan,* under existing conditions there is an existing 8-inch water line located within Iris Avenue along the Project site's frontage. As part of the Project, a series of 8-inch water lines are proposed within Iris Avenue, the on-site portions of Chicago Avenue, and internal roadways on site in order to provide water service to each individual residential lot.

2. Sewer Plan

The City of Riverside would provide sewer services to the proposed Project. As shown on Figure 3-9, under existing conditions there is a 10-inch sewer line within Van Buren Boulevard. As part of the Project, a series of 8-inch sewer lines would be constructed within on-site roadways to provide sewer service to individual residential lots. All sewer flows generated by the Project would be routed to the proposed sewer lift station, which would be located in the northwest portion of the Project site. A force main is proposed to extend from the sewer lift station within Street B, Street A, and Chicago Avenue. The sewer main would discharge into a proposed 8-inch gravity sewer approximately 325 feet south of the Project site, which would connect to the existing 10-inch sewer line within Van Buren Boulevard. Sewer flows generated by the Project ultimately would be treated by the Riverside Water Quality Control Plant, located in the northwest portion of the City of Riverside, approximately 7.2 miles northwest of the Project site.

3. Drainage Plan

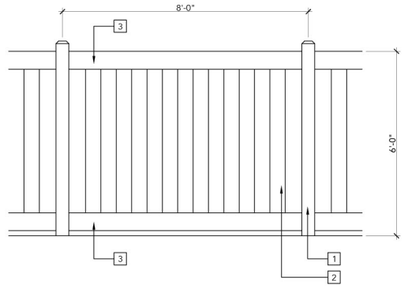
As shown on Figure 3-9, the Project generally would maintain the existing drainage patterns on the Project site, with the site continuing to drain in a northwesterly direction. As proposed, the developed portions of the Project site would include three separate drainage basins, each being conveyed by separate storm drain backbone systems. As proposed, a series of catch basins are proposed throughout the proposed on-site roadways, with storm drain lines ranging in size from 18 inches to 54 inches. Runoff from the western portions of the Project site would be conveyed to the proposed water quality basin in Lot B, flows from the southeastern portions of the Project site would be conveyed to the proposed water quality basin in Lot C, and flows from the portion of the Project site located north of Goldenstar Creek would be conveyed to the proposed water quality basin in Lot D. Following detention and water quality treatment, all flows generated on the developed portions of the Project site would be discharged directly into Goldenstar Creek. Runoff that is tributary to the Project site from off-site areas to the west would be routed to a proposed storm drain bypass line that would range in size from 18 inches to 54 inches, with the run-on flows being conveyed through Lot C and directly into Goldenstar Creek.



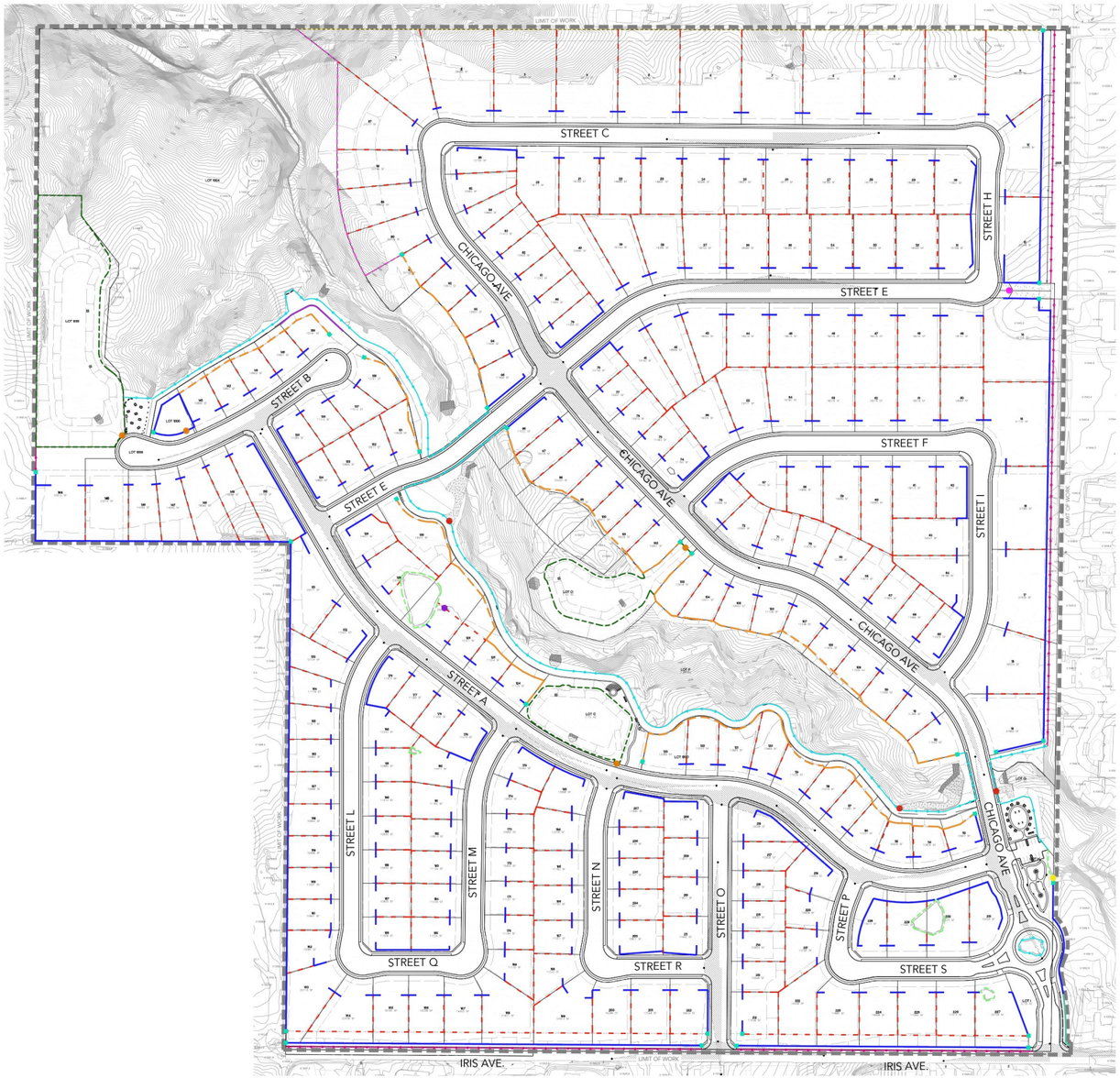
ELEVATION

1 ANGELUS CONCRETE SPLIT-FACE CAP- COLOR SANDSTONE
WALL CAP = 8"X16"X4"
PILASTER CAP = 18"X18"X4"
2 ANGELUS ONE-SIDED SIDE SPLIT-FACE, COLOR TO BE SANDSTONE
(SPLIT-FACE TO FACE STREET - PRECISION ON HOMEOWNER'S SIDE)
3 16" SQUARE BLOCK PILASTER - COLOR TO BE BURNISHED NATURAL GRAY

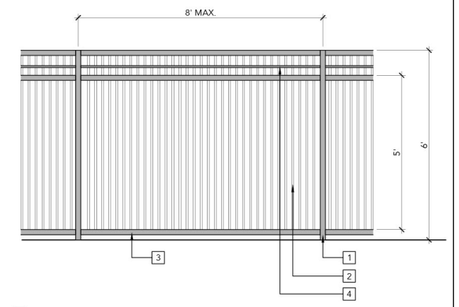
1 C.M.U. BLOCK WALL N.T.S.



1 5"X 5" ALUMINUM POST WITH VINYL SLEEVE
2 6" TONGUE & GROOVE VINYL PLANK
3 2"X 7" ALUMINUM TOP & BOTTOM RAIL WITH VINYL SLEEVE

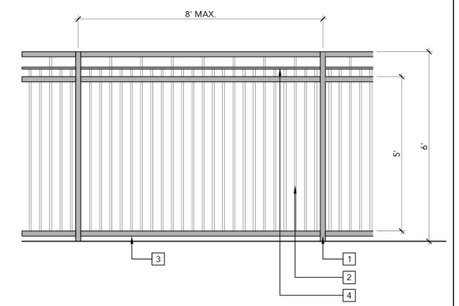


2 VINYL PRIVACY FENCE N.T.S.



1 2"X 2" T.S. POST
2 1"X 1" T.S. PICKET MEMBER @ 2" O.C. MAX.
3 2"X 2" T.S. TOP & BOTTOM RAIL
4 1"X 2" T.S. HORIZONTAL RAIL

3 6' DOUBLE PICKET T.S. FENCE N.T.S.



1 2"X 2" T.S. POST
2 1"X 1" T.S. PICKET MEMBER @ 4" O.C. MAX.
3 2"X 2" T.S. TOP & BOTTOM RAIL
4 1"X 2" T.S. HORIZONTAL RAIL

4 6' T.S. VIEW FENCE N.T.S.

Source(s): Urban Arena, Inc. (05-23-2025)

Figure 3-8

Not to Scale

Wall and Fence Plan

Source(s): Rick Engineering (12-23-2024)

Figure 3-9

Not to Scale

Utilities Plan

G. Project Phasing

As shown on Figure 3-10, *Proposed Phasing Plan*, the Project is anticipated to implemented in three phases of development. Phase 1 of the Project would entail development of the central portion of the Project site located south of Goldenstar Creek, Phase 2 of the Project would entail development of the southwest corner of the Project site, and Phase 3 of the Project would entail the development of portions of the Project site located north of Goldenstar Creek. Specifically, Phase I would include the development of 84 residential lots, internal roadways, a sewer lift station, a trailhead/parking area, an open space lot, and two water quality detention basins. Phase 2 would include the development of 35 residential lots and internal roadways. Phase 3 would include the development of 112 residential lots, two open space lots, a water quality detention basin, and internal roadways.

3.6 Project Construction and Operational Characteristics

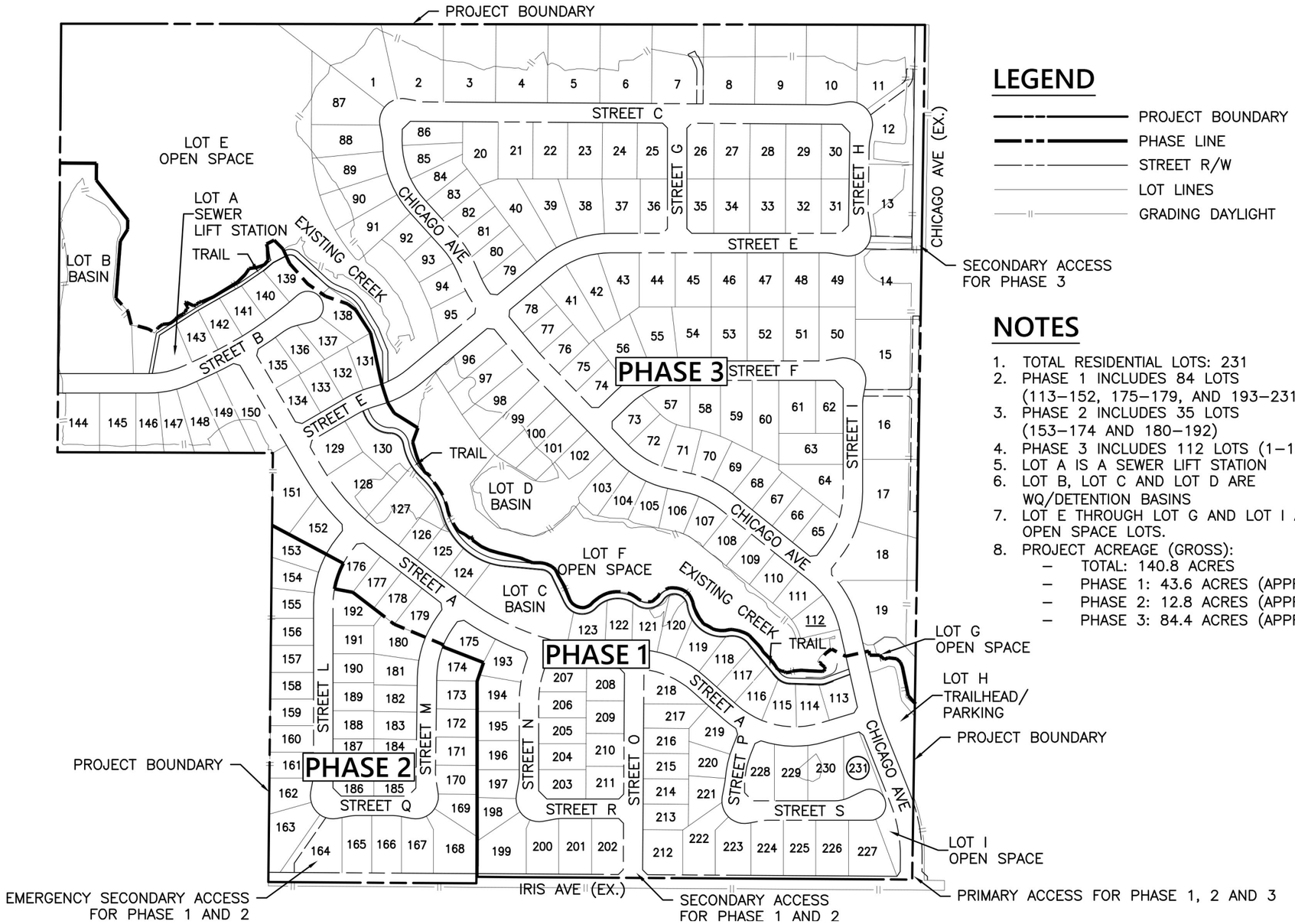
3.6.1 Construction Details

A. Proposed Physical Disturbance

As shown on Figure 3-11, *Proposed Limits of Physical Disturbance*, construction activities associated with the Project would result in impacts to approximately 111.0 acres of vegetation on-site and impacts to 1.8 acres off site that mostly consists of disturbed areas (existing improved roadways). Areas planned for physical disturbances off-site would be limited to planned improvements to Iris Avenue and Chicago Avenue, along with the construction of water, sewer, and drainage facilities within the ROWs for Iris Avenue and Chicago Avenue. Off-site improvements occur within fully disturbed/developed areas.

B. Construction Schedule and Equipment

Table 3-2, *Estimated Construction Schedule*, provides a summary of each phase of the anticipated construction activities. Although the Project would be developed in three phases of development, as described above in subsection 3.5.3.G, the analysis throughout this EIR considers development in two phases in order to provide a "worst case" analysis of the Project's potential construction-related impacts. As shown in Table 3-2, for purposes of analysis it is assumed that construction activities for Phase 1 of the Project would commence in June 2024 and would be completed in October 2025, while it is assumed that construction activities for Phase 2 of the Project would commence in December 2024 and would conclude by January 2025. Although construction activities would not commence as early as June 2024, the construction schedule evaluated throughout this EIR represents a "worst case" assessment of potential construction-related impacts since air quality emission factors for construction decreases as time passes and the analysis year increases due to emission regulations becoming more stringent and the phasing out of older, more polluting equipment. Table 3-3, *Anticipated Construction Equipment*, provides a summary of the construction equipment anticipated to be used during construction of the proposed Project.



LEGEND

- PROJECT BOUNDARY
- PHASE LINE
- STREET R/W
- LOT LINES
- GRADING DAYLIGHT

NOTES

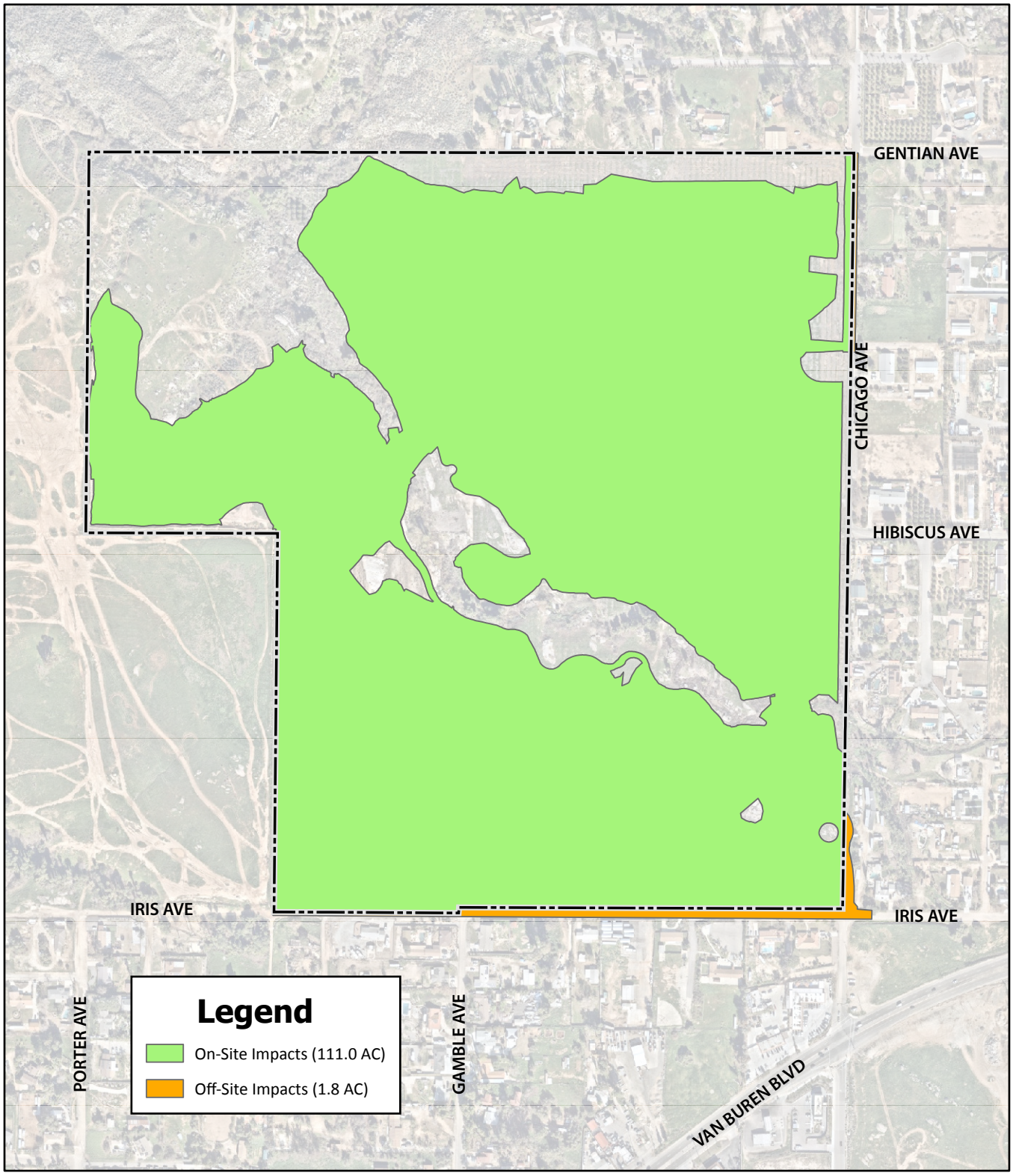
1. TOTAL RESIDENTIAL LOTS: 231
2. PHASE 1 INCLUDES 84 LOTS (113–152, 175–179, AND 193–231)
3. PHASE 2 INCLUDES 35 LOTS (153–174 AND 180–192)
4. PHASE 3 INCLUDES 112 LOTS (1–112)
5. LOT A IS A SEWER LIFT STATION
6. LOT B, LOT C AND LOT D ARE WQ/DETENTION BASINS
7. LOT E THROUGH LOT G AND LOT I ARE OPEN SPACE LOTS.
8. PROJECT ACREAGE (GROSS):
   - TOTAL: 140.8 ACRES
   - PHASE 1: 43.6 ACRES (APPROX.)
   - PHASE 2: 12.8 ACRES (APPROX.)
   - PHASE 3: 84.4 ACRES (APPROX.)

Source(s): Rick Engineering (07-16-2024)

Figure 3-10

Not to Scale

Proposed Phasing Plan



Source(s): Esri, Nearmap Imagery (2024), Rick Engineering (December 2024)

Figure 3-11

Proposed Limits of Physical Disturbance

Table 3-2 Estimated Construction Schedule

Construction Activity	Start Date	End Date	Days
Phase 1			
Demolition	6/3/2024	7/31/2024	22
Site Preparation	8/1/2024	8/31/2024	22
Grading	9/2/2024	4/4/2025	155
Building Construction	3/3/2025	12/31/2026	479
Paving	5/1/2025	10/1/2025	110
Architectural Coating	6/2/2025	10/31/2025	110
Phase 2			
Demolition	12/2/2024	1/31/2025	45
Site Preparation	2/3/2025	2/28/2025	20
Grading	3/3/2025	6/13/2025	75
Building Construction	9/1/2025	12/31/2027	610
Paving	7/1/2025	9/15/2025	55
Architectural Coating	8/1/2025	10/16/2025	55

(Urban Crossroads, 2023a, Table 3-2)

Table 3-3 Anticipated Construction Equipment

Construction Activity	Equipment[1]	Amount	Hours Per Day
Demolition	Concrete/Industrial Saws	1	8
	Excavators	3	8
	Rubber Tired Dozers	2	8
Site Preparation	Crawler Tractors	4	8
	Rubber Tired Dozers	3	8
Grading	Excavators	2	8
	Graders	1	8
	Rubber Tired Dozers	1	8
	Scrapers	2	8
	Crawler Tractors	2	8
	Bore/Drill Rigs	1	8
	Generator Set	1	8
Building Construction	Cranes	1	8
	Forklifts	3	8
	Generator Sets	1	8
	Tractors/Loaders/Backhoes	3	8
	Welders	1	8
Paving	Pavers	2	8
	Paving Equipment	2	8
	Rollers	2	8
Architectural Coating	Air Compressors	1	8

[1] In order to account for fugitive dust emissions, Crawler Tractors were used in lieu of Tractors/Loaders/Backhoes during the site preparation and grading phases.

(Urban Crossroads, 2023a, Table 3-3)

C. Construction-Related Blasting and Rock Crushing

1. Blasting Activities

Portions of the Project site are underlain by non-rippable bedrock materials that are not conducive to standard grading techniques. In these areas, it is anticipated that blasting would be required during grading in order to break up the existing bedrock. Figure 3-12, *Blasting Activity and Receiver Locations*, depicts the portions of the Project site that are anticipated to be subject to blasting activities in relation to the nearest sensitive receptors. A blasting contractor would be required to complete all blasting-related activities in compliance with applicable regulations of the Riverside County Sheriff's Department, the U.S. Bureau of Mines, the California Division of Occupational Safety and Health (Cal-OHSA), the Department of Homeland Security, and the Bureau of Alcohol, Tobacco, Firearms, and Explosives (ATF). As required by law a licensed blasting contractor would be responsible for performing and supervising all blasting activities, including the following:

- Drill pattern design;
- Pre-blast inspection;
- Loading of explosives;
- Pre-blast notifications and warning signaling;
- Blasting safety procedures;
- Blasting site security;
- Post-blast inspections and re-entry procedures; and
- Blast log and history.

Explosives used for blasting usually consist of a primer, secondary explosive, and an initiator. The blasting contractor would most likely use a high explosive Ammonia Gelatin as a primer for each shot and ammonium nitrate mixed with fuel oil (ANFO) as the primary blasting agent. Nonelectric blasting caps are typically used to initiate the blasting agent. The charges are time delayed by at least 8-milliseconds. Delays between charges are used to decouple changes and reduce vibration.

Pattern blasting is a common technique used in blasting for construction. This method is used when rock materials occur over a wide area. Pattern blasting involves drilling holes in a pre-designed pattern. The depth and spacing of holes is controlled to provide the maximum fracture with the minimum amount of ground shaking.

Blasting patterns typically consist of drill holes between two and five inches in diameter. Depth of the drill holes would be determined by the blasting contractor and is specific to each application. Blasting patterns on construction sites typically range from three feet by three feet to 12 feet by 12 feet.

The Blasting Engineer would control blasting-induced vibration and noise. General control measures include:

- Stemming shall be of uniform size in order to ensure consistency between individual shots;
- The weight of explosives used per delay shall be determined by adherence to the Scaled Distance Equation;

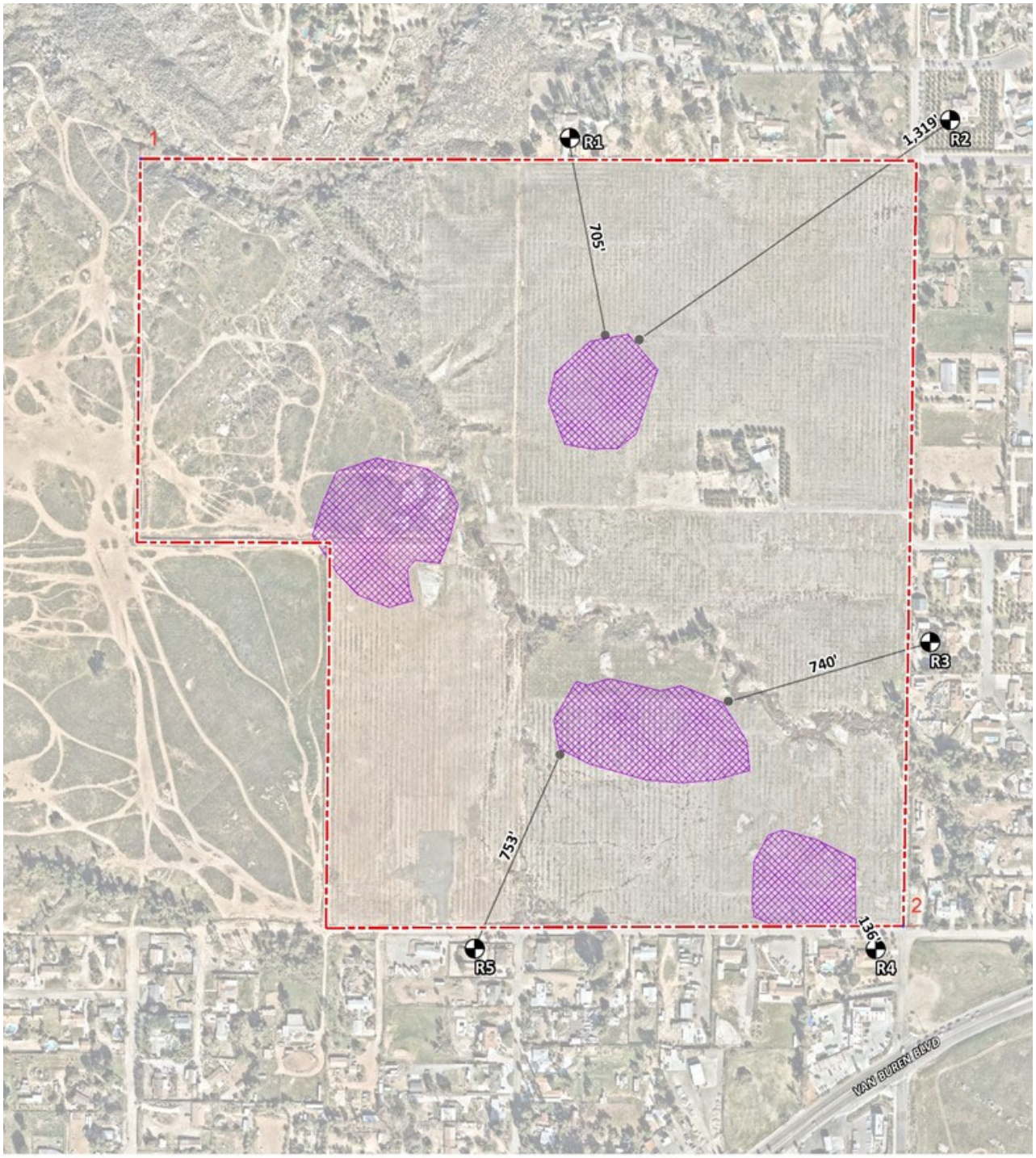


Figure 3-12

Blasting Activity and Receiver Locations

- Independent delays shall be used for each blast hole to control vibration; and
- Blasting shall not take place when wind velocity equals or exceeds 15 miles per hour. A licensed blasting contractor will determine wind speed through the use of a recording anemometer located a minimum of ten feet above ground level.

In addition, ground vibrations and air overpressure shall be monitored during each blast for compliance with the limits by the U.S. Bureau of Mines. Following each blast, seismographs shall be checked to ensure that the blasting has not exceeded relevant standards. The relevant standards are as follows:

- Pursuant to 30 CFR Ch. VII, § 816.67(b)(1)(i) of U.S. Bureau of Mines publication RI8485, airblasts shall not exceed 133 dB at the location of any dwelling, public building, school, church, or community or institutional building outside the permit area.
- Pursuant to 30 CFR Ch. VII, § 816.67(d)(2)(i) of U.S. Bureau of Mines publication RI8508, the maximum ground vibration shall not exceed the limits in said section at the location of any dwelling, public building, school, church, or community or institutional building outside the permit area.

Refer to EIR Subsection 4.13, *Noise*, for additional discussion and an evaluation of potential noise impacts related to blasting activities during construction.

2. Construction-Related Rock Crushing Activities

As a component of the Project's grading plan, non-rippable rock materials that are excavated as part of the above-described blasting activities would be subject to rock crushing activities to reduce the size of the materials in order to make the material suitable for placement on site. Figure 3-13, *Rock Crushing Activity and Receiver Locations*, depicts the anticipated location of the rock crushing activities in relation to the nearest sensitive receptors. A note has been included on TTM No. 38510 requiring the placement of the rock crushing equipment in the location depicted on Figure 3-13. Rock crushing activities would include a hoe ram or breaker representing a percussion hammer fitted to an excavator for breaking rock and a rock crushing activity including jaw crushers, a cone crusher, screens, and a conveyor system.

3.6.2 Operational Characteristics

The proposed Project would be operated as a rural residential community. As such, typical operational characteristics include residents and visitors traveling to and from the site, leisure and maintenance activities occurring on individual residential lots, and general maintenance of common areas. Low levels of noise and low levels of artificial exterior lighting typical of a rural residential community are expected. Lighting associated with the Project would be subject to compliance with County of Riverside Ordinance Nos. 655 and 915. Ordinance No. 655 would require the use of low-pressure sodium lamps and the shielding of all nonexempt outdoor lighting fixtures. Ordinance No. 915 requires that all outdoor luminaires shall be located, adequately shielded, and directed such that no direct light falls outside the Project boundaries or onto the public right-of-way.

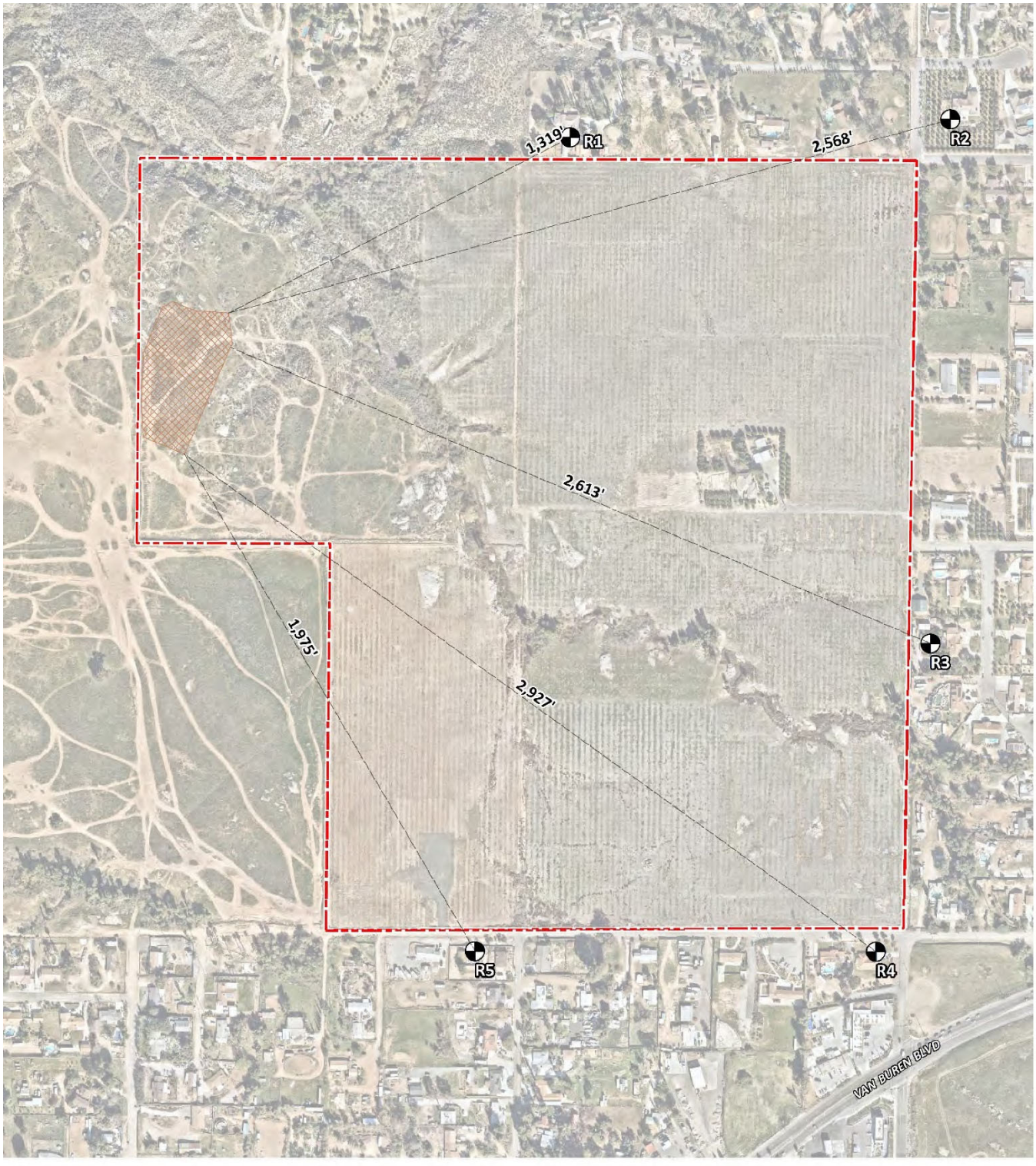


Figure 3-13

Rock Crushing Activity and Receiver Locations

B. Future Population

Implementation of the Project would result in a total of 231 single-family homes. According to Appendix E to the Riverside County General Plan, the average household size in the LMWAP area for residential development is 3.34 persons per household (pph). Accordingly, the Project is anticipated to result in a future population on site of approximately 772 persons (231 households x 3.34 persons/household = 771.54 persons). (Riverside County, 2021a, Appendix E, Table E-2)

C. Future Traffic

1. Project Trip Generation

A Project-specific Traffic Analysis (herein, "TA), which is included with this EIR as *Technical Appendix K2,* was prepared for the proposed Project by Urban Crossroads, Inc. As discussed in the Project's TA, in order to develop the traffic characteristics of the proposed Project, trip-generation statistics published in the in the Institute of Transportation Engineers (ITE) Trip Generation Manual (11th Edition, 2021) for the Single Family Detached Residential (ITE Land Use Code 210) were utilized. It should be noted that *Technical Appendix K2* assumes the Project would include a total of 233 residential dwelling units, whereas only 231 dwelling units are proposed as part of TTM38510; thus, the analysis in *Technical Appendix K2* provides "worst case" analysis of the Project's potential generation of traffic. (Urban Crossroads, 2023c, p. 39)

The trip generation summary for Phase 1 and Project Buildout are shown on Table 3-4, *Trip Generation Summary*. As shown, Phase 1 of the proposed Project is anticipated to generate a net total of 1,142 trips per day, with 85 AM peak hour trips and 144 PM peak hour trips. Full buildout of the Project (i.e., implementation of Phases 1 and 2) is anticipated to generate 2,198 trips per day, with 163 AM peak hour trips and 219 PM peak hour trips. (Urban Crossroads, 2023c, p. 39)

Table 3-4 Trip Generation Summary

			AM Peak Hour			PM Peak Hour			
Land Use	Quantity	Units[1]	In	Out	Total	In	Out	Total	Daily
Phase 1 (2026)	121	DU	22	63	85	72	42	114	1,142
Phase 2 (2027)	112	DU	20	58	78	66	39	105	1,056
Total	233	DU	**42**	**121**	**163**	**138**	**81**	**219**	**2,198**

[1] DU = dwelling units

(Urban Crossroads, 2023c, Table 4-1)

2. Project Trip Distribution and Assignment

The Project trip distribution and assignment process represents the directional orientation of traffic to and from the Project site. Trip distribution is heavily influenced by the geographical location of the site, the location of surrounding uses, and the proximity to the regional freeway system. The assignment of traffic from the Project area to the adjoining roadway system is based upon the Project trip generation, trip distribution, and the arterial highway and local street 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, the Project's traffic distribution

and peak hour intersection turning movement volumes are shown on the following exhibits of the Project's TA (*Technical Appendix K2*) :

- Exhibit 4-1 Project Trip Distribution
- Exhibit 4-2 Project Only (Phase 1) Traffic Volumes
- Exhibit 4-3 Project Only (Project Buildout) Traffic Volumes

D. Water Demand

According to water demand estimates used in Riverside County EIR No. 521 (SCH No. 2009041065), which was prepared in conjunction with the County's 2015 update to the General Plan, residential uses within the County are anticipated to result in a demand for approximately 1.01 acre-feet per year (AFY) per dwelling unit, or approximately 902 gallons per day (gpd). The water demand rates identified by EIR No. 521 reflect the County's standard estimate for water demand by use type within the County. Thus, the Project is expected to result in a demand for approximately 233.3 AFY (231 dwelling units x 1.01 AFY/dwelling unit = 233.31 AFY), or approximately 208,362 gpd. (Riverside County, 2015, Table 4.19-BI)

E. Wastewater Generation

According to wastewater generation estimates used in Riverside County EIR No. 521, residential uses within the County are anticipated to result in the generation of approximately 230 gpd of wastewater per dwelling unit. The wastewater demand rates identified by EIR No. 521 reflect the County's standard estimate for wastewater generation by use type within the County. Thus, the Project is expected to result in the generation of approximately 53,130 gpd of wastewater requiring treatment (231 dwelling units x 230 gpd/dwelling unit = 53,130 gpd). (Riverside County, 2015, Table 4.19-BJ)

3.7 SUMMARY OF REQUESTED ACTIONS

Riverside County has primary approval responsibility for the proposed Project. As such, Riverside County serves as the Lead Agency for this EIR pursuant to CEQA Guidelines § 15050. The role of the Lead Agency was previously described in detail in Section 1.0 of this EIR. As part of the approval process for the proposed Project, the County's Planning Commission will hold a public hearing to consider this EIR and the Project's General Plan Amendment (GPA220009), Change of Zone (CZ2200031), and Tentative Tract Map (TTM38510) applications. The Planning Commission will make advisory recommendations to the Board of Supervisors on whether to approve, approve with changes, or deny GPA220009, CZ2200031, and TTM38510, and whether to certify this EIR. A public hearing will then be held before the Board of Supervisors, which will consider the information contained in the Project's EIR and the EIR's Administrative Record in its decision-making processes, certify or decline to certify this EIR, and tentatively approve, tentatively approve with changes, or deny approval of proposed GPA220009, CZ2200031, and TTM38510. Following tentative approval of these applications, the Board of Supervisors will then hold a hearing for the second reading of the Project's rezone ordinance. Additionally, the Project's GPA220009 subsequently will be considered by the Riverside County Board of Supervisors as part of their quarterly General Plan "batch" hearing, which is required for final approval of GPA220009, CZ2200031, and TTM38510.

3.8 RELATED ENVIRONMENTAL REVIEW AND CONSULTATION

Following approval of the Project, ministerial actions also would be necessary to implement the proposed Project. These include, but are not limited to, grading permits, building permits, encroachment permits/road improvements, drainage infrastructure improvements, stormwater permits (NPDES), and State and federal resource agency permits. Table 3-5, *Matrix of Project Approvals/Permits*, lists the agencies that are expected to use this EIR and provides a summary of the subsequent actions associated with the Project. This EIR covers all federal, State, and local government approvals which may be needed to construct or implement the Project, whether explicitly noted in Table 3-5, or not (State CEQA Guidelines §15124(d)).

Table 3-5 Matrix of Project Approvals/Permits

Public Agency	Approvals and Decisions
County of Riverside Discretionary Approvals	
Riverside County Planning Commission	Provide recommendations to the Riverside County Board of Supervisors regarding certification of this Project EIR. Provide recommendations to the Riverside County Board of Supervisors whether to approve, conditionally approve, or deny General Plan Amendment No. 220009, Change of Zone No. 2200031, and Tentative Tract Map No. 38510.
Riverside County Board of Supervisors	Tentatively Approve, tentatively approve with conditions, or deny approval of proposed Tentative Tract Map No. 38510. Tentatively approve by ordinance or deny Change of Zone No. 2200031. Tentatively approve by resolution or deny General Plan Amendment No. 220009. Reject or certify this EIR along with appropriate CEQA findings. Adopt a Statement of Overriding Considerations. Approve by resolution General Plan Amendment No. 220009 as part of a General Plan Amendment "batch" hearing.
Subsequent Riverside County Approvals	
Riverside County Subsequent Implementing Approvals: Planning Department and/or Building & Safety	Record Final Map(s). Issue Grading Permits. Issue Building Permits. Approve Road Improvement Plans. Issue Encroachment Permits.
Other Agencies – Subsequent Approvals and Permits	
California Department of Fish and Wildlife	Issuance of a Section 1602 Streambed Alteration Agreement (SAA)
Santa Ana Regional Water Quality Control Board	Issuance of a Construction Activity General Construction Permit. Compliance with National Pollutant Discharge Elimination System (NPDES) Permit and Waste Discharge Requirements. Issuance of a Section 401 Permit pursuant to the Clean Water Act.
Riverside County Flood Control and Water Conservation District (RCFCWCD)	Approval of proposed drainage infrastructure
City of Riverside	Approval of proposed sewer connections and improvements
Western Municipal Water District (WMWD)	Approval of proposed water ~~and sewer~~ connections and improvements

4.0 ENVIRONMENTAL ANALYSIS

4.0.1 SUMMARY OF EIR SCOPE

In accordance with California Environmental Quality Act (CEQA) Guidelines Sections 15126-15126.4, this EIR Section 4.0, *Environmental Analysis*, provides analyses of potential direct, indirect, and cumulatively-considerable impacts that could occur from planning, constructing, and operating the proposed Project.

In compliance with the procedural requirements of CEQA, a Notice of Preparation (NOP) was prepared and distributed for a 30-day public review period on March 3, 2023, in accordance with CEQA Guidelines Section 15082. An Initial Study was not prepared for the Project, and as such the NOP indicated that the required EIR will evaluate all of the topics listed in Appendix G to the CEQA Guidelines, as implemented by Riverside County and the County's standard Environmental Assessment (EA) Form. Public comment on the scope consisted of written comments received by the Riverside County in response to the NOP issued for this EIR. A publicly-noticed Scoping Session also was held as part of a Riverside County Planning Director's Hearing on April 3, 2023 at the Riverside County Administrative Building (4080 Lemon Street, Riverside, CA 92501), although no comments resulting in an expansion of the scope of the EIR were provided as part of the Scoping Session. Pursuant to Appendix G to the CEQA Guidelines and the County's standard EA form, this EIR evaluates 21 primary environmental subject areas, as listed below. Each Subsection evaluates several specific subject matters related to the general topic of the Subsection. The title of each Subsection is not limiting; therefore, refer to each Subsection for a full account of the subject matters addressed therein.

4.1 Aesthetics
4.2 Agriculture and Forest Resources
4.3 Air Quality
4.4 Biological Resources
4.5 Cultural Resources
4.6 Energy
4.7 Geology and Soils
4.8 Greenhouse Gas Emissions
4.9 Hazards and Hazardous Materials
4.10 Hydrology and Water Quality
4.11 Land Use and Planning
4.12 Mineral Resources
4.13 Noise
4.14 Paleontological Resources
4.15 Population and Housing
4.16 Public Services
4.17 Recreation
4.18 Transportation
4.19 Tribal Cultural Resources
4.20 Utilities and Service Systems
4.21 Wildfire

4.0.2 SCOPE OF CUMULATIVE EFFECTS ANALYSIS

CEQA requires that an EIR contain an assessment of the cumulative impacts that may be associated with a proposed project. As noted in CEQA Guidelines § 15130(a), "an EIR shall discuss cumulative impacts of a project when the project's incremental effect is cumulatively considerable." "[A] cumulative impact consists of an impact which is created as a result of the combination of the project evaluated in the EIR together with other projects creating related impacts" (CEQA Guidelines §15130(a)(1)). As defined in CEQA Guidelines § 15355:

> *'Cumulative Impacts' refers to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.*

(a) The individual effects may be changes resulting from a single project or a number of separate projects.

(b) The cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.

CEQA Guidelines § 15130(b) describes two acceptable methods for identifying a study area for purposes of conducting a cumulative impact analysis. These two approaches include: 1) a list of past, present, and probable future projects producing related or cumulative impacts, including if necessary, those projects outside the control of the agency ('the list of projects approach'), or 2) a summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area-wide conditions contributing to the cumulative impact ('the summary of projections approach').

The summary of projections approach is used in this EIR, except for the evaluation of near-term vehicular traffic-related noise impacts, which relies instead on the list of projects approach. This methodology was determined to be appropriate by Riverside County because long-range planning documents contain a sufficient amount of information to enable an analysis of cumulative effects for all subject areas, with exception of vehicular-related noise effects, which require a greater level of detailed study.

Under this approach, the cumulative analysis under most sections considers impacts to each issue area based on the presumed buildout of the Riverside County General Plan as well as the general plans of any nearby jurisdictions that occur within the cumulative study area for each subject area. For most issue areas, this would encompass nearby areas within unincorporated Riverside County and nearby portions of the City of Riverside and the City of Moreno Valley, although the cumulative study area may be smaller or larger depending on the issue area under evaluation. For example, for the issue area of aesthetics, the cumulative study area is defined by the Project's viewshed (i.e., off-site areas with views of the Project site), which encompasses lands within the immediate Project vicinity (i.e., within approximately two miles of the Project site). For the issue of hydrology and water quality, by contrast, the cumulative study area is defined as the Santa Ana River Watershed, which encompasses portions of San Bernardino, Riverside, Orange, and Los Angeles Counties. For the issue of biology, the cumulative study area corresponds to the boundaries of the Western Riverside County Multiple Habitat Species Conservation Plan (MSHCP), as the MSHCP provides for the conservation of a wide variety of special status plant and animal species and encompasses a broad region that generally represents biological conditions associated with the Project area; thus, the cumulative study area for biological resources includes all future land uses within western Riverside County as called for by the general plans of the County and the various cities that are included in the MSHCP region. Refer to the individual Subsections within EIR Section 4.0 for a description of the specific cumulative study area used for each subject area evaluated in this EIR.

As noted, for most issue areas, nearby portions of unincorporated Riverside County and nearby portions of the City of Riverside and the City of Moreno Valley are used as the Project's cumulative study area. This cumulative study area encompasses a large area surrounding the Project site that has similar environmental characteristics as the Project area. This area generally contains a variety of residential, light industrial, and

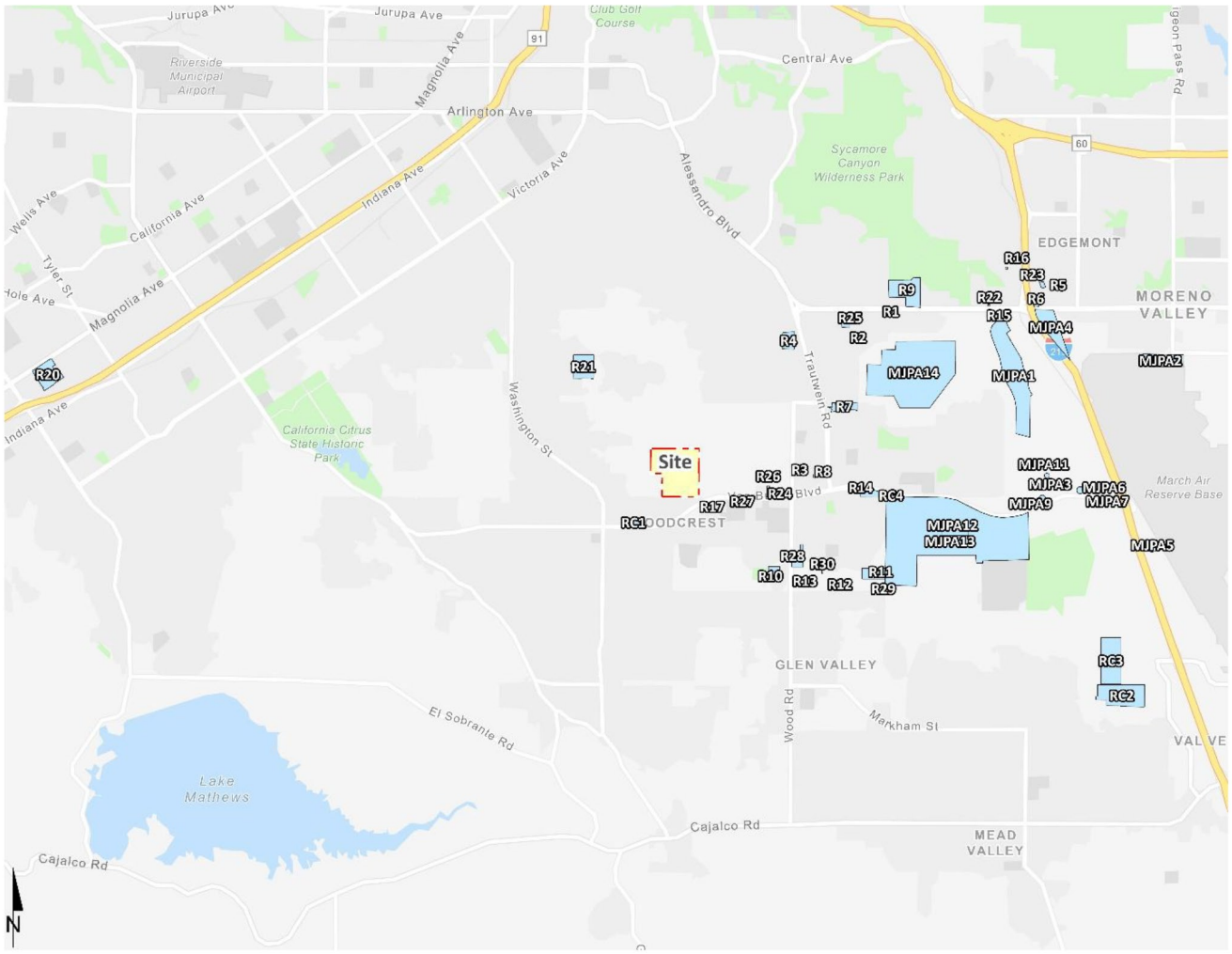
commercial land uses, with portions of the area comprising undeveloped lands and open space. This study area exhibits similar characteristics in terms of climate, geology, and hydrology. This study area also encompasses the service areas of the Project site's primary public service and utility providers. Areas outside of this study area either exhibit topographic, climatological, or other environmental circumstances that differ from those of the Project area, or are simply too far from the proposed Project site to produce environmental effects that could be cumulatively considerable.

The analysis of cumulatively-considerable traffic-related impacts to noise uses a combined approach, utilizing the list of projects approach for the near-term analysis of cumulatively-considerable impacts, and the summary of projections approach for the evaluation of long-term cumulatively-considerable impacts. With the combined approach, the cumulative impact analysis for the analysis of traffic-related impacts to noise overstates the Project's (and Project-related components') potential cumulatively-considerable impacts as compared to an analysis that would rely solely on the list of projects approach or solely on the summary of projections approach; therefore, the combined approach provides a conservative, "worst-case" analysis for cumulative traffic-related noise impacts.

For near-term conditions, the analysis of cumulatively-considerable vehicular-related noise impacts is based on existing traffic conditions plus ambient growth and the manual addition of traffic from past, present, and reasonably foreseeable projects, and includes approved and pending development projects in proximity to the Project site that would contribute traffic to the same transportation facilities as the Project, as well as large, traffic-intensive projects farther from the Project site that have the potential to affect regional transportation facilities. This methodology recognizes development projects that have the potential to contribute measurable traffic to the same intersections, roadway segments, and/or State highway system facilities as the proposed Project and have the potential to be made fully operational in the foreseeable future. As shown on Table 4.0-1, *Cumulative Projects List*, and as depicted on Figure 4.0-1, *Cumulative Development Location Map*, the near-term cumulative impact analysis of traffic-related noise impacts includes 46 other past, present, and reasonably foreseeable projects within this study area in addition to the summary of projections (Urban Crossroads, 2023c, Table 4-2). The analysis of long-term cumulatively-considerable traffic impacts considers full buildout of nearby portions of unincorporated Riverside County, the City of Riverside, and the City of Moreno Valley, based on the general plan land use plans for these jurisdictions.

For the issue of air quality, the cumulative study area comprises the South Coast Air Basin (SCAB), while the cumulative impact analysis relies on guidance from the South Coast Air Quality Management District (SCAQMD). The SCAQMD published a report giving direction on how to address cumulative impacts from air pollution: *White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution* (SCAQMD, 2003). In this report the AQMD states on page D-3:

> *"...the AQMD uses the same significance thresholds for project specific and cumulative impacts for all environmental topics analyzed in an Environmental Assessment or EIR. The only case where the significance thresholds for project specific and cumulative impacts differ is the Hazard Index (HI) significance threshold for toxic air contaminant (TAC) emissions. The project specific (project increment) significance threshold is HI > 1.0 while the cumulative (facility-wide) is HI > 3.0. It should be noted that the HI is only one of three TAC emission*



Source(s): Urban Crossroads (04-27-2023)

Figure 4.0-1

Not to Scale

Cumulative Development Location Map

Table 4.0-1 Cumulative Projects List

ID#	Project/Location	Land Use	Quantity	Units[1]
City of Riverside:				
R1	P17-0419/20/21	Fast Food w/ Drive Thru	2	TSF
R2	P16-0578	Warehouse	82.2	TSF
R3	P19-0151/P19-0152/P19-0153	Health and Fitness Club	22	TSF
R4	P13-0665	SFDR	8	DU
R5	P15-1035/P16-0556/P16-0567	Warehouse	176	TSF
R6	P14-0841 to P14-0848/P16-0472/P16-0474	Warehouse	73.2	TSF
		Commercial Retail	15	TSF
R7	P14-0472/P14-0473/P15-0321/P15-0322	SFDR	85	DU
R8	P19-0022/P19-0024/P19-0026/P19-0027/P19-0028	Fast Food w/ Drive Thru	4.319	TSF
R9	Sycamore Hills Distribution Center	Warehouse	603	TSF
R10	PR-2021-00073	Single Family Detached Housing	41	DU
R11	P06-1355	Single Family Detached Housing	20	DU
R12	P06-1396	Single Family Detached Housing	20	DU
R13	P03-1404	Single Family Detached Housing	20	DU
R14	P10-0113, P10-0118, P10-0449	Free-Standing Discount Superstore	139	TSF
		Home Improvement Superstore	155.433	TSF
		Shopping Plaza	126	TSF
R15	P12-0360	Vocational School	12	TSF
R16	P12-0507 through P12-0510	Warehouse/Industrial	235.741	TSF
R17	P13-0263, P13-0264, P13-0769	Retail	11	TSF
		Day Care	10	TSF
		Drive-Thru Restaurant	3	TSF
		Office	10	TSF
		Medical Office	8	TSF
R18	P20-0013, P20-0014, P20-0015, P20-0016	Residential	81	DU
R19	P20-0018, P20-0019, P20-0020, P20-0021	Residential	138	DU
R20	PR-2021-000713	Medical Center	180.474	TSF
R21	P16-0774	Single Family Detached Housing	46	DU
R22	P14-0600, P14-0601, P14-0602, P15-044	Industrial	121.39	TSF
R23	P14-1070	Warehousing	240.08	TSF
R24	P15-0075, P15-0076, P15-0819	Auto Repair	11.738	TSF
		Fast Food w/ Drive Thru	2.2	TSF
R25	P15-0983, P15-0984	Child Care	15	TSF
R26	P17-0688, P17-0689	Car Wash	5.44	TSF
R27	P19-0042	Restaurant	4.3	TSF
		Office	9.92	TSF
R28	PR-2021-001053	Single Family Detached Housing	96	DU
County of Riverside:				
RC1	CUP03766	Automated Car Wash	1	TUN
RC2	Knox Business Park	Warehouse	1259.05	TSF
RC3	Oleander Business Park	Warehouse	711	TSF
RC4	PP25382	Commercial Office Building	10.275	TSF
March Joint Powers Authority:				
MJPA1	Meridian Business Park (West Campus)	Industrial Park	2278.852	TSF
MJPA2	K4 Parcel	Warehouse	718	TSF
MJPA3	Economic Business Center	Warehouse	124.523	TSF
MJPA4	Freeway Business Center	Warehouse	709.083	TSF
MJPA5	Veteran's Industrial Plaza/VIP 215	Warehouse	2000	TSF
MJPA6	Veteran's Plaza	Commercial Retail	198	TSF
MJPA7	MS Van Buren I	Warehouse	176.396	TSF

Table 4.0-1 Cumulative Projects List

ID#	Project/Location	Land Use	Quantity	Units[1]
MJPA8	MS Van Buren II	Warehouse	162	TSF
MJPA9	MS Prime Six	General Office	74.922	TSF
MJPA10	Meridian Distribution Center IV	Warehouse	90	TSF
MJPA11	Meridian Distribution Center III	Warehouse	262	TSF
MJPA12	Eagle Business Park	Business Park	390.48	TSF
MJPA13	South Campus	Office	388	TSF
		Commercial Retail	283	TSF
		Business Park	1764.18	TSF
		Industrial Park	1774.437	TSF
MJPA14	West Campus Upper Plateau	High-Cube Fulfillment Warehouse	1837	TSF
		Cold Storage Warehouse	725.561	TSF
		Business Park	2997.386	TSF
		Retail	160.921	TSF
		Park	60.28	AC

1. AC = Acres, TSF = Thousand Square Feet; DU = Dwelling Unit.
(Urban Crossroads, 2023c, Table 4-2)

> *significance thresholds considered (when applicable) in a CEQA analysis. The other two are the maximum individual cancer risk (MICR) and the cancer burden, both of which use the same significance thresholds (MICR of 10 in 1 million and cancer burden of 0.5) for project specific and cumulative impacts.*
>
> *Projects that exceed the project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable. This is the reason project-specific and cumulative significance thresholds are the same. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant."*

The cumulative analysis provided in EIR Subsection 4.3 assumes that individual projects that do not generate emissions that exceed the SCAQMD's recommended daily thresholds for project-specific impacts would also not cause a cumulatively considerable increase in emissions for those pollutants for which the South Coast Air Basin (SCAB) is in nonattainment, and, therefore, would not be considered to have a significant, adverse air quality impact. Alternatively, individual project-related emissions that exceed SCAQMD thresholds for Project-specific impacts would be considered cumulatively considerable.

Compliance with the SCAQMD guidelines for evaluating direct and cumulatively-considerable impacts due to air quality emissions has been shown to result in a demonstrable reduction in air quality pollutants within the SCAB. Regulations promulgated by the SCAQMD have led to a dramatic reduction in the level of air quality pollutants within the SCAB, including levels of ozone, particulate matter (PM_{10} and $PM_{2.5}$), carbon monoxide (CO), and oxides of nitrogen (NO_X). As noted in the SCAQMD 2016 AQMP, "the remarkable historical improvement in air quality since the 1970s is the direct result of Southern California's comprehensive, multiyear strategy of reducing air pollution from all sources as outlined in its AQMPs" (SCAQMD, 2017). Improvements also have been seen in ozone levels. Part of the control processes of the SCAQMD's duty to greatly improve the air quality in the SCAB is the uniform CEQA review procedures required by SCAQMD's CEQA Handbook (SCAQMD, 2019). The single threshold of significance used to

assess Project direct and cumulative impacts has in fact been successful, as evidenced by the track record of the air quality in the SCAB dramatically improving over the course of the past decades.

Environmental impacts associated with buildout of the cumulative study area were evaluated in CEQA compliance documents prepared for the respective general plans of each of the above-named jurisdictions. The location where each of these CEQA compliance documents is available for review is provided below. All of the CEQA compliance documents listed below are herein incorporated by reference pursuant to CEQA Guidelines § 15150.

- Riverside County General Plan Program EIR No. 521 (SCH No. 2009041065), available for review at the Riverside County Planning Department, located at 4080 Lemon Street, 12th Floor, Riverside, California 92501.

- City of Moreno Valley General Plan Update EIR (SCH No. 2020039022), available for public review at the City of Moreno Valley Planning Division, located at 14177 Frederick St., Moreno Valley, California 92552.

- City of Riverside General Plan 2025 Final Program Environmental Impact Report (SCH No. 2004021108), available for public review at the City of Riverside Planning Division, Community Development Department, 3900 Main Street, Riverside, CA 92522.

4.0.3 Identification of Impacts

Subsections 4.1 through 4.21 of this EIR evaluate the 21 environmental subjects warranting analysis pursuant to CEQA. The format of discussion is standardized as much as possible in each Subsection for ease of review. The environmental setting is discussed first, followed by a discussion of the Project's potential environmental impacts based on specified thresholds of significance used as criteria to determine whether potential environmental effects are significant.

The thresholds of significance used in this EIR are based on the thresholds presented in CEQA Guidelines Appendix G and as applied by Riverside County to create the County's standard Environmental Assessment Form. The thresholds are intended to assist the reader of this EIR in understanding how and why this EIR reaches a conclusion that an impact would or would not occur, is significant, or is less than significant.

Serving as the CEQA Lead Agency for this EIR, Riverside County is responsible for determining whether an adverse environmental effect identified in this EIR should be classified as significant or less than significant. While Riverside County has generally elected to use the thresholds presented in CEQA Guidelines Appendix G, it should be noted that CEQA affords the County discretion to formulate standards of significance, and recognizes that the significance of a particular impact may vary with the setting (14 Cal. Code Regs., § 15064(b).) The standards of significance used in this EIR are based on the independent judgment of Riverside County, taking into consideration the current CEQA Guidelines Appendix G, Riverside County's Municipal Code, and adopted County policies and ordinances; the judgment of the technical experts that prepared this EIR's Technical Appendices; performance standards adopted, implemented, and monitored by regulatory agencies; significance standards recommended by regulatory agencies; and the standards in CEQA that trigger

the preparation of an EIR. As required by CEQA Guidelines § 15126.2(a), impacts are identified in this EIR as direct, indirect, cumulative, short-term, long-term, on-site, and/or off-site impacts of the proposed Project. A summarized "impact statement" is provided in each Subsection following the analysis.

The following terms are used to describe the level of significance related to the physical conditions within the area affected by the proposed Project:

- No Impact: An adverse change in the physical environment would not occur.

- Less-than-Significant Impact: An adverse change in the physical environment would occur but the change would not be substantial or potentially substantial and would not exceed the threshold(s) of significance presented in this EIR.

- Significant Impact: A substantial or potentially substantial adverse change in the physical environment would occur and would exceed the threshold(s) of significance presented in this EIR, requiring the consideration of mitigation measures.

Each Subsection also includes a discussion or listing of the applicable regulatory criteria (laws, policies, regulations, etc.) that the Project is required to comply with (if any). If impacts are identified as significant after mandatory compliance with regulatory criteria, feasible mitigation measures are presented that would either avoid the impact or reduce the magnitude of the impact. The following terms are used to describe the level of significance following the application of recommended mitigation measures:

- Less-than-Significant Impact with Mitigation: A substantial or potentially substantial adverse change in the physical environment would occur that would exceed the threshold(s) of significance presented in this EIR; however, the impact can be avoided or reduced to a less-than-significant level through the application of feasible mitigation measure(s).

- Significant and Unavoidable Impact: A substantial or potentially substantial adverse change in the physical environment would occur that would exceed the threshold(s) of significance presented in this EIR. Feasible and enforceable mitigation measure(s) that have a proportional nexus to the Project's impact are either not available or would not be fully effective in avoiding or reducing the impact to below a level of significance.

For any impact identified as significant and unavoidable, Riverside County would be required to adopt a statement of overriding considerations pursuant to CEQA Guidelines § 15093 in order to approve the Project despite its significant impact(s) to the environment. The statement of overriding considerations would list the specific economic, legal, social, technological, and other benefits of the Project, supported by substantial evidence in the Project's administrative record, that outweigh the unavoidable impacts.

4.1 AESTHETICS

This Subsection describes the aesthetic qualities and visual resources present on the Project site and in the site's vicinity and evaluates the potential effects that the Project may have on these resources. Descriptions of existing visual characteristics, both on-site and in the vicinity of the Project site, and the analysis of potential impacts to aesthetic resources are based, in part, on field observations and site photographs collected by T&B Planning, Inc. on November 30, 2022, analysis of aerial photography (Google Earth, 2024), and Project application materials submitted to Riverside County and described in Section 3.0, *Project Description*, of this EIR. This Subsection is also based in part on information and policies contained in the Riverside County General Plan Update No. 960 (Riverside County, 2021a), Riverside County GIS database (RCIT, 2023), Riverside County Ordinance No. 348 (Riverside County, 2019), and Riverside County Ordinance No. 655 (Riverside County, 1988).

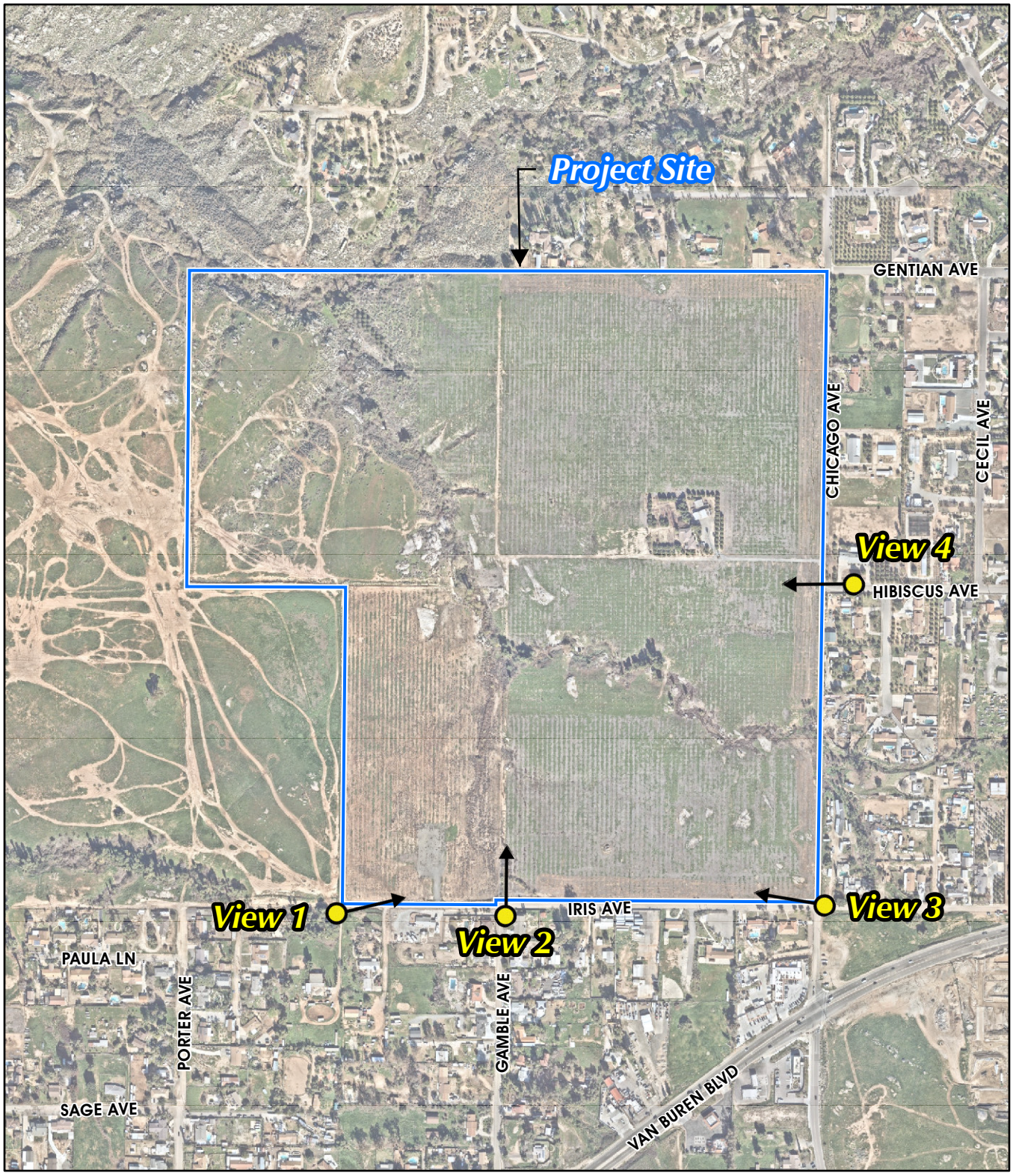
4.1.1 EXISTING CONDITIONS

A. Existing Aesthetic Conditions

The Project site comprises 140.8 acres of land located north of Iris Road, west of Chicago Avenue, and south of Gentian Avenue/Twin Lakes Drive within the Woodcrest community of the Lake Mathews/Woodcrest Area Plan in unincorporated western Riverside County. Under existing conditions, a majority of the Project site is largely disturbed in association with its historical use as an orchard, with a single-family home and several associated outbuildings occurring in the central portions of the Project site. In 2020/2021, the existing orchards were removed from the Project site. During removal, the orchard trees were fed into a woodchipper on site, and the resulting wood chips were spread across the former orchards. The northwestern portions of the Project site consist of largely undisturbed lands that contain areas of natural vegetation, rock outcroppings, and several informal dirt trails. A prominent drainage (Goldenstar Creek) traverses the Project site in a northwesterly orientation, although this drainage is not prominently visible from off-site locations. The Project site exhibits undulating topography with elevations generally decreasing from southeast to northwest. Elevations on site range from approximately 1,401 feet above mean sea level (amsl) at the northwest corner of the Project site to 1,579 feet amsl near the southeastern corner of the site.

To illustrate the existing visual conditions of the Project site in more detail, a photographic inventory was prepared. Figure 4.1-1, *Site Photographic Key Map*, depicts the location of the four vantage photographs, each of which are described below. These photographs, shown on Figure 4.1-2 and Figure 4.1-3, were taken in November 2022 and proved a representative visual inventory of the site's visual characteristics as seen from surrounding public viewing areas.

- Site Photograph 1: Site Photograph 1 was taken at the southwestern corner of the Project boundary along Iris Avenue looking east/northeast. As shown in this photograph, in the foreground there is an existing dirt road (Iris Avenue) which occurs immediately to the south of an existing barbed-wire fence that surrounds this portion of the Project site. Disturbed natural vegetation, including scrub bushes, are visible abutting the existing fence and in the left portions of the photo. The on-site portions of the Project site are visible in the middle ground beyond the chain-link fence, and appears to consist of a former orchard that has been covered with wood chips. Sparse amounts of vegetation are visible in



Source(s): Esri, NearMap Imagery (2023)

Figure 4.1-1

Site Photographic Key Map

VIEW 1

View from the southwestern corner of the Project Site along Iris Ave looking east.

VIEW 2

View from the southern boundary at the intersection of Iris Ave and Gamble Ave looking north.

Figure 4.1-2

Not to Scale

Site Photographs 1 and 2

VIEW 3

View from the southeastern corner of the Project Site at the intersection of Iris Ave and Chicago Ave looking northwest.

VIEW 4

View from east of the Project Boundary at the intersection of Hibiscus Ave and Chicago Ave looking west.

Figure 4.1-3

Not to Scale

Site Photographs 3 and 4

the former orchards. Along the horizon, numerous trees are visible, portions of which occur within Goldenstar Creek (on and off site), with the remaining trees being associated with existing residential uses to the north of the Project site.

- Site Photograph 2: Site Photograph 2 was taken along the southern boundary of the Project site at the intersection of Iris Avenue and Gamble Avenue facing north. As shown in this photo, views of the foreground are dominated by existing natural vegetation that occurs along the southern boundary of the Project site, which largely obstructs views of the Project site from this location. The former orchards that have been removed from the Project site are visible in the middle ground of the photo. As shown, from this location the existing vegetation within the former orchards consists of very sparse low-lying vegetation, with a majority of these areas consisting of unvegetated lands covered with woodchips. Further in the distance, several existing trees are visible that are associated with the existing residential uses to the north of the Project site. Along the horizon in the distance is a small hill form with scattered rural residential development

- Site Photograph 3: Site Photograph 3 was taken at the southeast corner of the Project site at the intersection of Iris Avenue and Chicago Avenue looking west/northwest. As shown in the foreground of the photo, there is an existing barbed wire fence along this portion of the Project boundary. Natural vegetation, most of which appears to be dead, is visible in the foreground. In the middle ground, the former orchards are visible, with woodchips scattered across this portion of the site and with scant vegetation. From this location, the site's elevation increases steeply from the right side to the left side of the photo. The former orchards continue to the north in the distance in the right portion of the photo. Several trees associated with Goldenstar Creek are visible in the middle ground. In the distance along the horizon in the right portion of the photo is an existing hill with rural residential developments and associated ornamental landscaping and trees.

- Site Photograph 4: Site Photograph 4 was taken along the eastern border of the Project site at the intersection of Hibiscus Avenue and Chicago Avenue, looking west. A barbed-wire fence surrounds the Project site at this location. In the foreground, the former orchards are visible, along with the woodchips that were spread across this portion of the Project site. As shown, this portion of the Project site features minimal amounts of natural vegetation, with relatively gentle sloping topography. In the right side of the photograph an unpaved road is visible, beyond which is ornamental vegetation and trees associated with the existing single family residence on site. Several existing powerlines are visible traversing the Project site in the left side of the photograph. In the distance on the left side of the photograph are several existing trees and other vegetation associated with Goldenstar Creek. Natural open space and existing rural residential developments are visible in the distance along the horizon.

B. Scenic Highways

According to Figure 9 (*Scenic Highways*) of the Lake Mathews/Woodcrest Area Plan (LMWAP) and as shown on Figure 4.1-4, *LMWAP Scenic Highways*, there are no officially designated scenic highway corridors within the Project site's vicinity. The closest officially-designated State scenic highway is California State Route (SR) 243, which is located approximately 27.1 miles east of the Project site. The closest State-eligible scenic highway is Interstate (I) 15, which is located approximately 10.2 miles southwest of the Project site. The closest

County eligible scenic highway is El Sobrante Road, which is located approximately 3.0 miles southwest of the Project site. (Riverside County, 2021b, Figure 9; Google Earth, 2024)

4.1.2 Applicable Regulatory Requirements

A. Riverside County General Plan

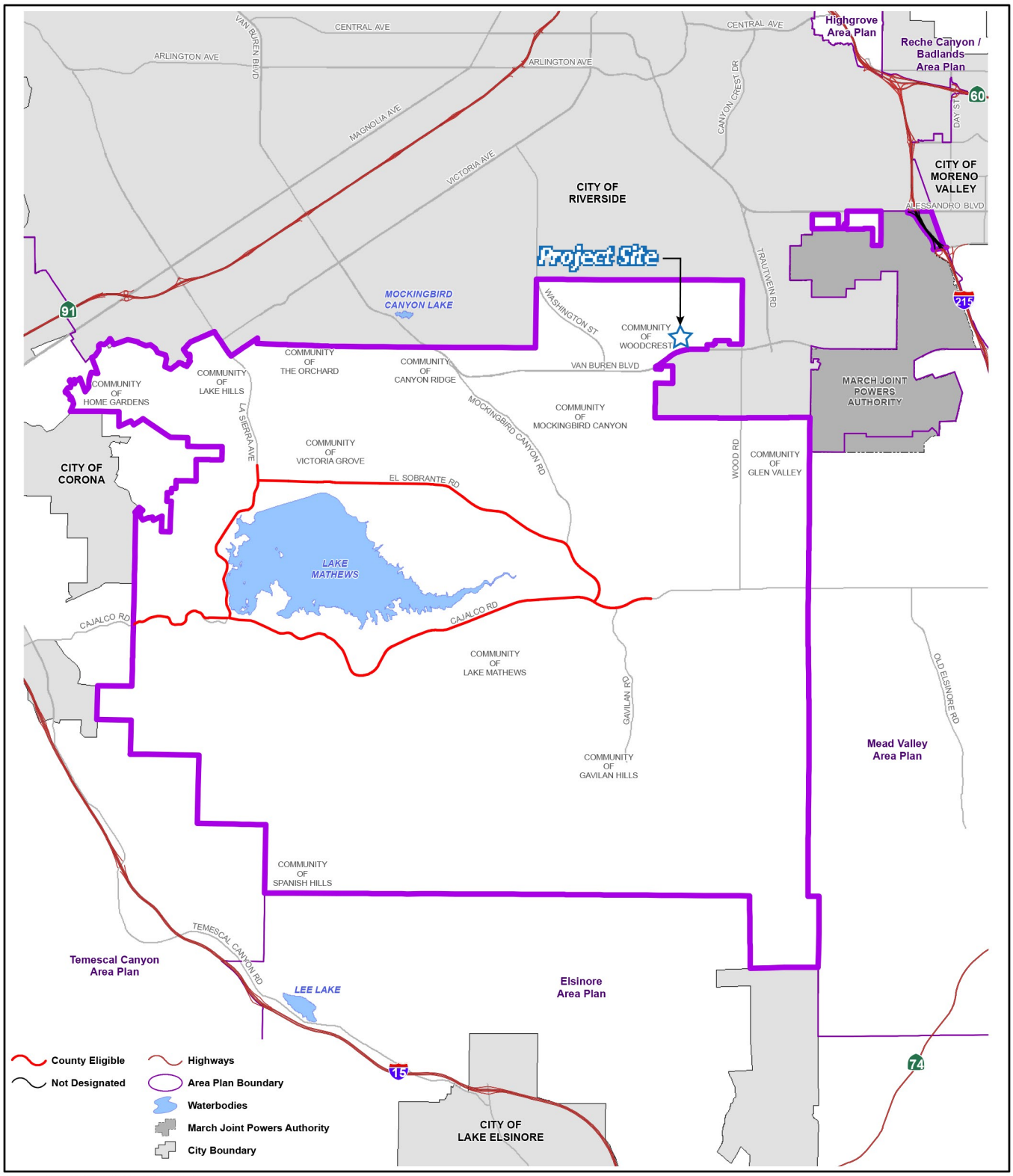
The Riverside County General Plan does not have any specific sections related to aesthetics and visual resources. However, the Land Use Element of the Riverside County General Plan includes policies related to Land Use Compatibility, Community Design, and Scenic Corridors, which have applicability to the topic of aesthetics. The Land Use Element provides direction related to how future development is intended to build out, such as the intensity/density and character of new development. The Land Use Element also addresses the relationship between development, community enhancement, and natural resource management.

The Multipurpose Open Space Element of the Riverside County General Plan also addresses open space and scenic resources in Riverside County. According to the Multipurpose Open Space Element, scenic resources include: "…areas that are visible to the general public and considered visually attractive" and "…natural landmarks and prominent or unusual features of the landscape." Hillsides and ridges that rise above urban or rural areas or highways can also be considered scenic backdrops. Additionally, the Multipurpose Open Space Element defines scenic vistas as "…points, accessible to the general public, that provide a view of the countryside." Riverside County General Plan Policy OS 21.1 intends to "[i]dentify and conserve the skylines, view corridors, and outstanding scenic vistas within Riverside County." (Riverside County, 2021a, pp. OS-52 to OS-53)

The Circulation Element, Land Use Element, and Multipurpose Open Space Element of the Riverside County General Plan also identify scenic corridors, which are roadways (including State and County eligible and designated scenic highways) that traverse scenic resources, and identify policies that are intended to protect and maintain the scenic resources within these corridors. Scenic highways in the Project vicinity were previously depicted on Figure 4.1-4. As noted in the LMWAP, Policy LMWAP 19.1 seeks to "Protect the scenic highways from change that would diminish the aesthetic value of adjacent properties in accordance with policies in the Scenic Corridors sections of the Land Use, Multipurpose Open Space, and Circulation Elements." (Riverside County, 2021a, p. OS-52; Riverside County, 2021b, p. 34)

B. Riverside County Ordinance No. 348, Land Use Ordinance

Riverside County's Land Use Ordinance No. 348 establishes allowable uses of land and sets standards for what and how land may be developed. The ordinance protects the people and property of Riverside County from development of unsuitable land uses and aims to ensure that built areas are developed safely and with minimal conflict with surrounding lands. Ordinance No. 348 also identifies requirements for landscaping associated with development proposals. The landscaping of development projects should enhance the visual character and aesthetic quality of a site and its surroundings. (Riverside County, 2021c)



Source(s): LMWAP (12-08-2016)

Figure 4.1-4

Not to Scale

LMWAP Scenic Highways

C. *Riverside County Ordinance No. 655, Regulating Light Pollution*

Riverside County has adopted an ordinance regulating light pollution (Ordinance No. 655). Ordinance No. 655 is intended to restrict the permitted use of certain light fixtures emitting light into the night sky which could have a detrimental effect on astronomical observation and research. Ordinance No. 655 sets forth requirements for lamp source and shielding of light emissions for outdoor fixtures to reduce "skyglow" or light pollution that affects day or nighttime views from the Mt. Palomar Observatory, which is located approximately 22.9 miles southeast of the Project site. As shown on Figure 6 of the LMWAP. The Project site is located just north of the Mt. Palomar Night Time Lighting Policy Area. As such, the Project site is not subject to the outdoor lighting policies and requirements specified by Riverside County Ordinance No. 655, which includes specific standards for lighting fixtures installed along public roadways and in other common areas and applies to all new development. Ordinance No. 655 encourages the use of low-pressure sodium lamps where possible, requires the shielding of all nonexempt outdoor lighting fixtures, specifies the hours of operation for non-exempt outdoor lighting fixtures, and regulates lighting fixtures used to illuminate an outdoor advertising display (Riverside County, 1988)

D. *Riverside County Ordinance No. 915, Regulating Outdoor Lighting*

Riverside County has adopted an ordinance regulating outdoor lighting (Ordinance No. 915). Ordinance No. 915 is intended to provide minimum requirements for outdoor lighting in order to reduce light trespass. Ordinance No. 915 provides regulations on adequate lighting shielding, glare, and light trespass in order to ensure that all development in Riverside County installs lighting in a way that does not jeopardize the health, safety, or general welfare of Riverside County residents and does not degrade their quality of life. (Riverside County, 2012)

4.1.3 Basis for Determining Significance

Section I of Appendix G to the California Environmental Quality Act (CEQA) Guidelines addresses typical adverse effects to aesthetics and includes the following threshold questions to evaluate a project's impacts to aesthetic resources (OPR, 2018a):

- Would the project have a substantial adverse effect on a scenic vista?
- Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?
- Would the project substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point). If the project is in an urbanized area, conflict with applicable zoning and other regulations governing scenic quality?
- Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Additionally, the following thresholds are derived from Riverside County's Environmental Assessment Checklist, as revised to reflect the December 2018 updates to the State CEQA Guidelines. As such, the following thresholds are used to evaluate the significance of the proposed Project's impacts on aesthetics. The proposed Project would result in a significant impact to aesthetics if the Project or any Project-related component would:

a. *Have a substantial effect upon a scenic highway corridor within which it is located;*

b. *Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings and unique or landmark features; obstruct any prominent scenic vista or view open to the public; or result in the creation of an aesthetically offensive site open to public view;*

c. *In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings. (Public views are those that are experienced from publicly accessible vantage points.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality;*

d. *Interfere with the nighttime use of the Mt. Palomar Observatory, as protected through Riverside County Ordinance No. 655;*

e. *Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area; or*

f. *Expose residential property to unacceptable light levels.*

The significance thresholds set forth in Riverside County's Environmental Assessment Checklist, which are based on Appendix G to the CEQA Guidelines, were used to evaluate the significance of the proposed Project's impacts on aesthetics.

4.1.4 Impact Analysis

Threshold a.: ***Would the Project have a substantial effect upon a scenic highway corridor within which it is located?***

As previously indicated and depicted on Figure 4.1-4, there are no officially-designated State or County scenic highway corridors within the Project's vicinity or viewshed. The closest State-designated scenic highway to the Project site is SR 243, which is located approximately 27.1 miles east of the Project site. The closest State-eligible scenic highway is I-15, which is located approximately 10.2 miles southwest of the Project site. The closest County-eligible scenic highway is El Sobrante Road, which is located approximately 3.7 miles southwest of the Project site. The Project site is not visible from any portion of SR 243 or I-15 due to distance and intervening topography. In addition, and based on viewshed analysis data available from Google Earth, the Project site also is not visible from any portion of El Sobrante Road. As such, the Project would not have a substantial effect upon a scenic highway corridor, and no impact would occur. (Google Earth, 2024)

Threshold b:	***Would the Project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings and unique or landmark features; obstruct any prominent scenic vista or view open to the public; or result in the creation of an aesthetically offensive site open to public view?***
Threshold c:	***In non-urbanized areas, would the Project substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage points.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?***

According to mapping information available from the United States Census Bureau (USCB), the Project site is located within an urbanized area (Riverside-San Bernardino, CA 95340) (USCB, 2010). As previously described, under existing conditions the Project site contains undulating topography with elevations generally decreasing from southeast to northwest. The Project site consists of a former orchard that has been covered with woodchips, with areas of natural vegetation largely constrained to Goldenstar Creek. In addition, the northwestern portions of the Project site that were not subject to past agricultural activities largely consists of natural vegetation with no trees, along with several informal dirt trails.

With implementation of the proposed Project, the 140.8-acre Project site would be developed with 231 single-family dwelling units, a sewer lift station, three water quality basins, a trailhead/parking area, a pedestrian and equestrian trail, and natural open space areas. Areas proposed for development with residential uses largely would occur in areas that previously were part of the former orchard on site, with exception of the residential units proposed along Street B, which would be developed in areas that were never subject to agricultural uses. As part of the Project's design, no development is proposed within Goldenstar Creek, and as such the natural vegetation and trees associated with Goldenstar Creek would not be affected by Project development. There are no prominent scenic resources within areas planned for residential development on site. As such, development of the Project as proposed would not damage scenic resources, and impacts would be less than significant.

As depicted on the existing site photos presented on Figure 4.1-2 and Figure 4.1-3, the Project site does not contribute to any prominent scenic vistas visible to the public. There are no large rock outcroppings, historic buildings, or large trees within the areas that would be subject to development as part of the Project, with exception of the ornamental trees associated with the existing residential home on site that would be removed as part of site development. The closest scenic vistas are the Santa Ana Mountains, which are located approximately 12.0 miles west of the Project site. As shown on the existing site photos, the Project site does not afford prominent views of the Santa Ana Mountains or any other prominent visual resources under existing conditions; thus, the Project would not obstruct any views of any regionally-significant scenic resources. While Goldenstar Creek could be considered a visual resource, this drainage is not prominently visible from off-site areas as shown on the existing site photos, with exception of the natural vegetation and trees associated with the creek, which would not be affected with Project development. Pursuant to the Project site's proposed zoning classification, the proposed 231 single-family residences would be restricted to a maximum height of 40 feet; thus, the proposed residential structures would have no potential to obstruct distant views of scenic resources in the surrounding area or region. Accordingly, Project impacts to scenic vistas or views open to the public would be less than significant. (Google Earth, 2024)

Development of the Project as proposed would be required to comply with all applicable provisions of the Riverside County Land Use and Zoning Ordinance (Ordinance No. 348), which includes standards related to lot sizes, lot coverage, and minimum yard requirements. Residential dwelling units anticipated with development of the Project would be of a similar character to the existing rural residential uses that occur in the Project vicinity. With development of the proposed Project, the Project's proposed residential uses would appear as a continuation of the area's existing rural residential development pattern. Therefore, the Project would not result in the creation of an aesthetically offensive site open to public view, resulting in less-than-significant impacts.

As previously noted, mapping information from the USCB indicates that the Project site is located within an urbanized area. With approval of the Project's Change of Zone No. 2200031, the proposed Project would be fully consistent with the Project site's underlying zoning classification of "One-Family Dwellings (R-1)." The proposed Project would be required to comply with all provisions of Ordinance No. 348 and would be required to comply with all other applicable Riverside County ordinances, including ordinances related to visual quality. Furthermore, and as previously noted, the Project's proposed residential uses would appear as a continuation of the area's existing rural residential development pattern. As such, the Project would not conflict with applicable zoning or other regulations governing scenic quality, and the Project would not substantially degrade the existing visual character or quality of public views of the site and its surroundings; therefore, impacts would be less than significant. (USCB, 2010).

Threshold d: ***Would the Project interfere with the nighttime use of the Mt. Palomar Observatory, as protected through Riverside County Ordinance No. 655?***

As shown on Figure 6, *Mt, Paloma Night Time Lighting Policy Area*, of the LMWAP, the Project is approximately 1.1 miles north of the limits of Zone B of the Mt. Palomar Lighting Policy Area. Therefore, the Project is not subject to the provisions of Ordinance No. 655. As such, the Project has no potential to interfere with the nighttime use of the Mt. Palomar Observatory, as protected through Riverside County Ordinance No. 655. No impact would occur.

Threshold e: ***Would the Project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?***

Threshold f: ***Would the Project expose residential property to unacceptable light levels?***

Future development on the Project site would be subject to Riverside County Ordinance No. 915. Ordinance No. 915 requires that all outdoor luminaires shall be located, adequately shielded, and directed such that no direct light falls outside the parcel of origin, or onto the public right-of-way. Compliance with Ordinance No. 915 would be assured through future review of building permit applications by Riverside County, and would ensure that the Project does not expose residential properties to unacceptable light levels. Impacts would be less than significant.

None of the Project's proposed building materials would consist of reflective materials, except for the proposed windows, which would not be mirrored and would have similar low-potential glare characteristics as other glass windows on buildings in the Project vicinity. Windows on individual homes largely would be obstructed

from public views by the Project's proposed landscaping, which includes trees along all roadways within the proposed development. Windows on site would further be obstructed by the Project site's undulating topography. The proposed Project does not include any components that would generate substantial amounts of reflective surfaces that would be visible from off-site locations. Accordingly, impacts associated with glare would be less than significant.

Based on the foregoing analysis, and because the Project would be required to comply with the lighting provisions of Riverside County Ordinance No. 915, the Project would not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area, and would not expose residential property to unacceptable light levels; therefore, impacts would be less than significant.

4.1.5 Cumulative Impact Analysis

For purposes of analysis, the Project's cumulative study area includes all areas within the Projects viewshed, as the Project does not have the potential to result in cumulatively-considerable impacts to visual quality outside of areas in which the Project site is visible.

As discussed in the analysis of Threshold a., there are no officially-designated or eligible State or County scenic highway corridors within the Project's viewshed. As such, the Project would not have a substantial effect on a scenic highway corridor, and no cumulatively-considerable impacts would occur.

As analyzed in Thresholds b. and c., the Project would not damage scenic resources visible from off-site locations, including, but not limited to, trees, rock outcroppings, or unique or landmark features. Under existing conditions, the Project site does not afford prominent views of the Santa Ana Mountains or any other prominent visual resources under existing conditions; thus, the Project would not obstruct any views of any regionally-significant scenic resources. The Project also would be subject to compliance with the applicable zoning provisions of Ordinance No. 348, and would be required to comply with all applicable County ordinances governing scenic quality, thereby ensuring the Project does not result in the creation of an aesthetically offensive site open to public view. Furthermore, the Project's proposed residential uses would appear as a continuation of the area's existing rural residential development pattern. Therefore, the proposed Project would not result in less-than-significant cumulatively-considerable impacts associated with scenic resources, scenic vistas, aesthetically-offensive sites, or due to a conflict with applicable zoning and other regulations governing scenic quality.

As noted in Threshold d., the Project site is approximately 1.1 miles outside of the limits of Zone B of the Mt. Palomar Lighting Policy Area. Cumulative developments in the immediate vicinity of the Project site also are located outside of the Mt. Palomar Lighting Palomar Lighting Policy Area. Therefore, the Project has no potential to interfere with the nighttime use of the Mt. Palomar Observatory or conflict with Riverside County Ordinance No. 655; therefore, cumulatively-considerable impacts would be less than significant.

As discussed under the Thresholds of e. and f., development of the Project and future development in the Project vicinity would be subject to Riverside County Ordinance No. 915. Ordinance No. 915 requires that all outdoor luminaires shall be located, adequately shielded, and directed such that no direct light falls outside the parcel of origin, or onto the public right-of-way. Compliance with Ordinance No. 915 would be assured through future review of building permit applications by Riverside County, and would ensure that the Project

does not expose residential properties to unacceptable light levels. Except for the proposed windows, which would not be mirrored, none of the proposed Project materials would consist of reflective materials. Windows on individual homes largely would be obstructed from public views by the Project's proposed landscaping, which includes trees along all roadways within the proposed development. Windows on site would further be obstructed by the Project site's undulating topography. As with the Project, future developments in the Project vicinity similarly would be required to comply with Ordinance Nos. 915 and 348 in order to prevent substantial light and glare affecting daytime or nighttime views in the area. Therefore, cumulatively-considerable impacts due to light and glare would be less than significant.

4.1.6 Significance of Impacts Before Mitigation

Threshold a.: Less-Than-Significant Impact. There are no officially-designated scenic highway corridors in the Project vicinity or viewshed. The closest State-designated scenic highway to the Project site is SR 243, which is located approximately 27.1 miles east of the Project site. The closest County-eligible scenic highway is El Sobrante Road, which is located approximately 3.7 miles southwest of the Project site. Due to distance and intervening topography, the Project site would not be visible from any portion of an officially-designated or eligible scenic highway corridor, and impacts would be less than significant.

Threshold b. and c.: Less-Than-Significant Impact. Under existing conditions, the Project site is largely disturbed and implementation of the Project would not result in any damage to scenic resources including trees, rock outcroppings, or unique or landmark features. Additionally, the Project site does not contribute to any prominent scenic vistas visible to the public. The Project would appear as a continuation of the existing rural residential development pattern in the area, and there are no components of the Project that would result in the creation of an aesthetically offensive site open to public view. The Project also would be subject to compliance with the applicable zoning provisions of Ordinance No. 348, and would be required to comply with all other applicable County ordinances governing scenic quality. Therefore, the Project would not result in the creation of an aesthetically offensive site open to public view. The Project also would not degrade the existing visual character or quality of public views of the site and its surroundings. Impacts would be less than significant.

Threshold d.: No Impact. The Project site is located approximately 1.1 miles north of the limits of Zone B of the Mt. Palomar Lighting Policy area. Therefore, the Project is not subject to the provisions of Ordinance No. 655. As such, the Project has no potential to impact the nighttime use of Mt. Palomar Observatory as protected through Riverside County Ordinance No. 655, and no impact would occur.

Thresholds e. and f.: Less-Than-Significant Impact. Development on the Project site would be subject to Riverside County Ordinance No. 915, which requires that all outdoor luminaires shall be located, adequately shielded, and directed such that no direct light falls outside the parcel of origin, or onto the public right-of-way. Furthermore, none of the Project's proposed building materials would consist of reflective materials, except for the proposed windows, which would not be mirrored and would have similar low-potential glare characteristics as do other glass windows on residential buildings in the Project vicinity. Impacts would be due to light and glare less-than-significant.

4.1.7 County Regulations, Design Requirements, and Mitigation

Applicable County Regulations and Design Requirements

The following are applicable regulations and design requirements within Riverside County. Although these requirements technically do not meet CEQA's definition for mitigation, they are imposed herein to ensure Project compliance with applicable County regulations and design requirements.

- The Project is required to comply with Riverside County Ordinance No. 915, which is intended to provide minimum requirements for outdoor lighting in order to reduce light trespass. Ordinance No. 915 provides regulations on adequate lighting shielding, glare, and light trespass in order to ensure all development in Riverside County installs lighting in a way that does not jeopardize the health, safety, or general welfare of Riverside County residents or degrade their quality of life.

Mitigation

Impacts would be less than significant; therefore, mitigation is not required.

4.2 AGRICULTURE AND FORESTRY RESOURCES

The information and analysis in this Subsection 4.2 are based in part on information obtained from the California Department of Conservation (CDC) Farmland Mapping & Monitoring Program (FMMP) (CDC, 2021), Riverside County GIS (RCIT, n.d.), and the Riverside County General Plan Amendment 960 Final EIR (Riverside County, 2015). Refer to Section 7.0, *References*, for a complete list of these and other reference sources.

4.2.1 EXISTING CONDITIONS

A. Forestry Resources

The Project site is located in the Woodcrest portion of unincorporated Riverside County, a rapidly urbanizing region that generally contains dry, sparsely-vegetated terrain in the natural condition. As shown in Figure 4.5.2 of the Riverside County General Plan Update Draft EIR No. 521, aside from sparsely scattered lowland forests/woodlands, there are no forestry resources in the Project's vicinity under existing conditions. The nearest forest land to the Project site occurs within the Cleveland National Forest, located approximately 11.2 miles southwest of the Project site. (Riverside County, 2015, Figure 4.5.2)

B. Agricultural Resources

1. Regional Agricultural Setting

According to information available from the Riverside County Agricultural Commissioner's Office, the top three categories of agricultural resources cultivated in Riverside County (by value) are nursery stock, milk, and alfalfa. In 2020 (the most recent year for which data is available), the total gross value of agricultural production in Riverside County was approximately $1.42 billion, which represents a 7.3% increase from 2019 when total values were $1.32 billion. (Agricultural Commissioner, 2021)

The CDC reports that agricultural lands face continuing pressure from urbanization and rising production costs. The CDC's "2014-2016 California Farmland Conversion Report" summarizes land use conversion between 2014 and 2016 (the most recent years for which information has been reported by the CDC), and states that Riverside County as a whole experienced a net loss of 3,635 acres of Important Farmland between 2014 and 2016, representing a decline of 0.9% (CDC, n.d., Table A-25). Important Farmlands, as defined by Riverside County, include Prime Farmland, Statewide Important Farmland, Unique Farmland, and Farmland of Local Importance.

2. Historic and Existing Site Conditions

The Project site appears to have been vacant land up until around 1967. From approximately 1967 until at least 2020, the Project site appears to have been utilized for agricultural uses (orchards), with a single-family home occurring in the central portions of the Project site. In 2020/2021, the existing orchards were removed from the Project site and were run through a chipper on site. The chip material was subsequently spread evenly over the former agricultural portions of the site, which have kept these portions of the Project site from revegetating. Chips were not placed on the western potions of the Project site that consist of open space areas that largely were not subject to past agricultural uses on site. The existing single-family home still occurs in the central portions of the Project site, and is surrounded by ornamental trees and vegetation. The Project site

also is bisected by a large arroyo that supports native riparian habitat (southern willow scrub) and wetland habitat (freshwater marsh), as well as Riversidean sage scrub along the banks of the arroyo. Several dirt roadways traverse the property in an east-west and north-south orientation. A large concrete pad also occurs in the southwestern portion of the Project site. The northwest portions of the Project site are vacant and undeveloped, and contain several prominent drainages as well as informal dirt pathways. The Project site also contains three existing water wells in the northeast portion of the Project site.

3. Zoning

As described in EIR subsection 2.4.4, under existing conditions the Project site is zoned "Light Agriculture, 10-Acre Minimum Lot Size (A-1-10)." The A-1-10 zoning classification allows for single-family dwellings, and also allows for a range of agricultural and equestrian uses. According to Riverside County Ordinance No. 625, the A-1 zoning classification is considered "land zoned for primarily agricultural purposes." (RCIT, n.d.; Riverside County, 2021c; Riverside County, 1994)

4. Agricultural Land Classifications

The goal of the CDC's FMMP is to provide consistent, timely, and accurate data to decision makers for use in planning for the present and future of California's agricultural land resources. To meet this goal, the FMMP's objective is to provide maps and statistical data to the public, academia, and local, State, and federal governments to assist them in making informed decisions for the best utilization of California's farmland. The FMMP was established in 1982 in response to what was by then a critical need for data on the nature, location, and extent of farmland, grazing land, and urban built-up areas in the State. California Government Code § 65570 mandates the FMMP to biennially report to the Legislature on the conversion of farmland and grazing land, and to provide maps and data to local governments and the public. The FMMP also was directed to prepare and maintain an automated map and database system to record and report changes in the use of agricultural lands. It was the intent of the Legislature and a broad coalition of building, business, government, and conservation interests that the FMMP be non-regulatory, and provide a consistent and impartial analysis of agricultural land use and change in California. With this in mind, the FMMP provides basic data from which observations and analyses can be made in the land use planning process. (CDC, 2004, p. 3)

Pursuant to the FMMP, all lands within California are classified into one of seven map categories. The minimum mapping unit is generally 10 acres, except as otherwise noted (CDC, 2004, p. 6). Provided below is a description of the various map categories established by the FMMP:

- **Prime Farmland (P)**: Farmland with the best combination of physical and chemical features able to sustain long-term agricultural production. This land has the soil quality, growing season, and moisture supply needed to produce sustained high yields. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date. (CDC, 2004, p. 6)

- **Farmland of Statewide Importance (S)**: Farmland similar to Prime Farmland but with minor shortcomings, such as greater slopes or less ability to store soil moisture. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date. (CDC, 2004, p. 6)

- **Unique Farmland (U)**: Farmland of lesser quality soils used for the production of the state's leading agricultural crops. This land is usually irrigated, but may include non-irrigated orchards or vineyards as found in some climatic zones in California. Land must have been cropped at some time during the four years prior to the mapping date. (CDC, 2004, p. 6)

- **Farmland of Local Importance (L)**: Land of importance to the local agricultural economy as determined by each county's board of supervisors and a local advisory committee. (CDC, 2004, p. 6)

- **Grazing Land (G)**: Land on which the existing vegetation is suited to the grazing of livestock. This category was developed in cooperation with the California Cattlemen's Association, University of California Cooperative Extension, and other groups interested in the extent of grazing activities. The minimum mapping unit for Grazing Land is 40 acres. (CDC, 2004, p. 6)

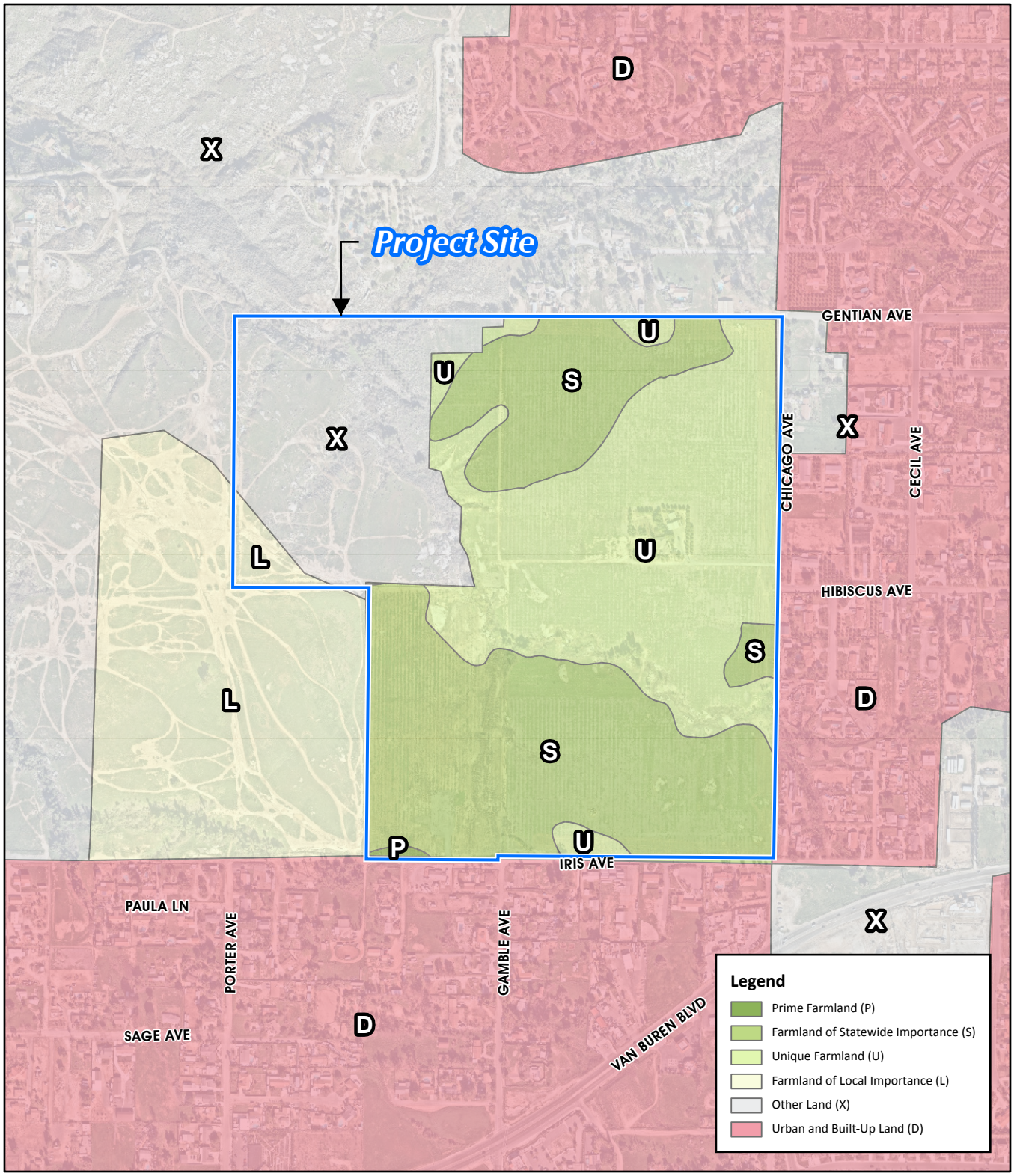
- **Urban and Built-Up Land (D)**: Land occupied by structures with a building density of at least 1 unit to 1.5 acres, or approximately 6 structures to a 10-acre parcel. This land is used for residential, industrial, commercial, institutional, public administrative purposes, railroad and other transportation yards, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, water control structures, and other developed purposes. (CDC, 2004, p. 6)

- **Other Land (X)**: Land not included in any other mapping category. Common examples include low density rural developments; brush, timber, wetland, and riparian areas not suitable for livestock grazing; confined livestock, poultry, or aquaculture facilities; strip mines, borrow pits; and water bodies smaller than 40 acres. Vacant and nonagricultural land surrounded on all sides by urban development and greater than 40 acres is mapped as Other Land. (CDC, 2004, p. 6)

As shown on Figure 4.2-1, *FMMP Farmland Map*, the Project site is classified by the FMMP as containing approximately 56.8 acres of "Farmland of Statewide Importance," approximately 50.6 acres of "Unique Farmland," approximately 2.4 acres of "Farmland of Local Importance," while the remaining 31.0 acres of the Project site are classified as "Other Lands." "Farmland" is defined in Section II (a) of Appendix G of the California Environmental Quality Act (CEQA) Guidelines and by Riverside County to mean "Prime Farmland," "Farmland of Statewide Importance," "Unique Farmland," or "Farmland of Local Importance." Thus, under existing conditions the Project site contains approximately 109.8 acres of "Important Farmland" types. (CDC, 2021)

5. Williamson Act Land Preserves and Agricultural Preserves

Agricultural preserves are the result of Riverside County's participation in the California Land Conservation Act (CLCA) of 1965, also known as the Williamson Act, CA Gov. Code § 51200, et seq. This program allows owners of agricultural land to have their properties assessed for tax purposes on the basis of agricultural production rather than current market value. The main purpose of the Act is to encourage property owners to continue to farm their land, and to prevent the premature conversion of farmland to urban uses. According to Riverside County GIS, the Project site is not included in any agricultural preserves, and is not subject to a



Source(s): Esri, NearMap Imagery (2023)

Figure 4.2-1

0 175 350 700 Feet

FMMP Farmland Map

Williamson Act Contract. The nearest agricultural preserve and Williamson Act contracted land occurs immediately east of the Project site (Woodcrest 1 Agricultural Preserve) at the northwest corner of Hibiscus Avenue and Cecil Avenue. (RCIT, n.d.)

4.2.2 Applicable Regulatory Requirements

The following is a brief description of the State and local environmental laws and related regulations governing the protection of agriculture and forestry resources.

A. State Regulations

1. California Land Conservation Act (CLCA)

The California Land Conservation Act (CLCA) of 1965, also known as the Williamson Act (CA Gov. Code § 51200, et seq.), enables local governments to enter into contracts with private landowners for the purpose of restricting specific parcels of land to agricultural or related open space use. In return, landowners receive property tax assessments that are much lower than normal because they are based upon farming and open space uses as opposed to full market value. Pursuant to California Government Code § 51230, counties and cities may establish Agricultural Preserves, which define boundaries of those areas within which the city or county will be willing to enter into contracts pursuant to the CLCA. Contracts pursuant to the CLCA are only allowed for areas within established Agricultural Preserves. Agricultural Preserves generally must be at least 100 acres in size; however, a city or county may allow for lesser acreage if a finding is made that the characteristics of the agricultural enterprises in the area are unique and that the establishment of preserves of less than 100 acres is consistent with the general plan of the county or city. Once established, land uses within an Agricultural Preserve must be agricultural in nature, or other such uses that are not incompatible with agricultural uses. For lands within Agricultural Preserves, individual landowners may enter into a Contract with a county or city, which would provide for the exclusion of uses other than agricultural, and other than those compatible with agricultural uses, for the duration of the Contract, even if the land is sold to a new owner. In return for entering into a Contract, the landowner is granted preferential taxes that are based upon agricultural and related land uses rather than fair market value. Contracts may be exited at the option of the landowner or local government by initiating the process of term nonrenewal. Under this process, the remaining contract term (nine years in the case of an original term of ten years) is allowed to lapse, with the contract null and void at the end of the term. During the nonrenewal process, the annual tax assessment continually increases each year until it is equivalent to current tax rates at the end of the nonrenewal period. Under a set of specifically defined circumstances, a Contract may be cancelled without completing the process of term nonrenewal. Contract cancellation, however, involves a comprehensive review and approval process, and the payment of a fee by the landowner equal to 12.5 percent of the full market value of the property in question. (CDC, 2019; CA Legislative Info, n.d.)

2. Farmland Mapping and Monitoring Program (FMMP)

The goal of the California Department of Conservation's Farmland Mapping and Monitoring Program (FMMP) is to provide consistent, timely, and accurate data to decision makers for use in planning for the present and future of California's agricultural land resources. To meet this goal, FMMP's objective is to provide maps and statistical data to the public, academia, and local, state, and federal governments to assist them in making informed decisions for the best utilization of California's farmland. The FMMP was established in

1982 in response to what was by then a critical need for data on the nature, location, and extent of farmland, grazing land, and urban built-up areas in the State. Government Code § 65570 mandates FMMP to biennially report to the Legislature on the conversion of farmland and grazing land, and to provide maps and data to local government and the public. The FMMP was also directed to prepare and maintain an automated map and database system to record and report changes in the use of agricultural lands. It was the intent of the Legislature and a broad coalition of building, business, government, and conservation interests that FMMP be non-regulatory, and provide a consistent and impartial analysis of agricultural land use and change in California. With this in mind, FMMP provides basic data from which observations and analyses can be made in the land use planning process. Pursuant to the FMMP, all lands within California are classified into one of seven map categories, as previously summarized in subsection 4.2.1. (CDC, 2004, p. 3)

3. California Forest Practice Act

The California Department of Forestry and Fire Protection (CAL FIRE) enforces the laws that regulate logging on privately-owned lands in California. The Forest Practice Act was enacted in 1973 to ensure that logging is done in a manner that will preserve and protect fish, wildlife, forests and streams. The State Board of Forestry and Fire Protection enacts and enforces additional rules to protect these resources. (CAL FIRE, n.d.)

CAL FIRE ensures that private landowners abide by these laws when harvesting trees. Although there are specific exemptions in some cases, compliance with the Forest Practice Act and Board rules apply to all commercial harvesting operations for landowners of small parcels, to ranchers owning hundreds of acres, and large timber companies with thousands of acres. (CAL FIRE, n.d.)

The Timber Harvesting Plan (THP) is the environmental review documents submitted by landowners to CAL FIRE outlining what timber he or she wants to harvest, how it will be harvested, and the steps that will be taken to prevent damage to the environment. THPs are prepared by Registered Professional Foresters (RPFs) who are licensed to prepare these comprehensive, detailed plans. THPs can range from about 100 pages to more than 500 pages. (CAL FIRE, n.d.)

CAL FIRE does not have the authority to deny a THP that is in compliance with state and federal rules and laws, simply because the logging plan is unpopular with the public. The Department reviews and approves between 500 to 1,400 THPs each year. A THP that does not comply with all forestry and environmental regulations is returned to the RPF. It is only approved after the RPF and landowner agree to make the changes necessary to ensure compliance with all laws. CAL FIRE follows-up on approved THPs with site inspections and can shut down operations, cite or fine RPFs, Licensed Timber Operators (LTOs), and landowners if illegal operations are found. (CAL FIRE, n.d.)

B. Local Regulations

The following ordinances address farmland and agricultural preserves within unincorporated Riverside County.

- Riverside County Ordinance No. 509: This ordinance establishes uniform rules which apply to Agricultural Preserves. This ordinance determines which uses are agricultural or compatible uses within an Agricultural Preserve and prohibits all other uses within an Agricultural Preserve.

- Riverside County Ordinance No. 625: This "Right-to-Farm" Ordinance requires that development of residential uses adjacent to properties zoned primarily for agricultural purposes be regulated. Specifically, Ordinance No. 625 states that if any agricultural operation that has been in place for at least three years and is not considered a nuisance operation at the time the operation began, no change in surrounding land uses shall cause said operation to become a nuisance. A note is to be added to the Environmental Constraints Sheet for any tentative land division that states:

  > *"...that no agricultural activity, operation, or facility, or appurtenances thereof, conducted or maintained for commercial purposes, and in a manner consistent with proper and accepted customs and standards, as established and followed by similar agricultural operations in the same locality, shall be or become a nuisance, private or public, due to any changed condition in or about the locality, after the same has been in operation for more than three (3) years if it was not a nuisance at the time it began."*

  If any parcel within 300 feet of the site is zoned primarily for agricultural uses at the time of occupancy permit issuance, the Project shall comply with the "Right-to-Farm" Ordinance. County Ordinance No. 625 defines land zoned for "primarily agricultural purposes" as any land lying within any one of the following zone classifications established by the Riverside County Land Use Ordinance No. 348: A-1 (Light Agriculture); A-P (Light Agriculture with Poultry); A-2 (Heavy Agriculture); A-D (Agriculture-Dairy); or C/V (Citrus/Vineyard).

4.2.3 Basis for Determining Significance

Section II of Appendix G to the CEQA Guidelines addresses typical adverse effects to forestry and agricultural resources, and includes the following threshold questions to evaluate a project's impacts on forest and agricultural resources (OPR, 2018a):

- Would the project convert Prime Farmland, Unique Farmland, Farmland of Statewide Importance, or Farmland of Local Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

- Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?

- Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code *section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section* 51104(g))?

- Would the project result in the loss of forest land or conversion of forest land to non-forest use?

- Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

Significance thresholds are set forth in Riverside County's Environmental Assessment Checklist, are derived from Section II of Appendix G to the CEQA Guidelines (listed above), and state that the proposed Project would have a significant impact on forestry or agricultural resources if construction and/or operation if the Project would:

a. *Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use;*

b. *Conflict with existing agricultural zoning, agricultural use or with land subject to a Williamson Act contract or land within a Riverside County Agricultural Preserve;*

c. *Cause development of non-agricultural uses within 300 feet of agriculturally zoned property (Ordinance No. 625 "Right-to-Farm");*

d. *Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use;*

e. *Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Govt. Code section 51104(g));*

f. *Result in the loss of forest land or conversion of forest land to non-forest use; or*

g. *Involve other changes in the existing environment which, due to their location or nature, could result in con-version of forest land to non-forest use.*

The significance thresholds set forth in Riverside County's Environmental Assessment Checklist were used to evaluate the significance of the proposed Project's impacts on forestry and agricultural resources.

4.2.4 Impact Analysis

Threshold a.:	***Would the Project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?***

As previously shown on Figure 4.2-1, the Project site is classified by the FMMP as containing approximately 56.8 acres of "Farmland of Statewide Importance," approximately 50.6 acres of "Unique Farmland," approximately 2.4 acres of "Farmland of Local Importance," while the remaining 31.0 acres of the Project site are classified as "Other Lands." "Farmland" is defined in Section II (a) of Appendix G of the California Environmental Quality Act (CEQA) Guidelines and by Riverside County to mean "Prime Farmland," "Farmland of Statewide Importance," "Unique Farmland," or "Farmland of Local Importance." Thus, under existing conditions the Project site contains approximately 109.8 acres of "Important Farmland" types.

As previously indicated, between 2014 and 2016, Riverside County had a decline in "Important Farmlands" of approximately 0.9%. The Project would contribute towards the loss of "Important Farmland" within Riverside County because agricultural production on site would be permanently precluded with implementation of the proposed Project. Thus, Project impacts to approximately 56.8 acres of "Farmland of Statewide Importance," approximately 50.6 acres of "Unique Farmland," approximately 2.4 acres of "Farmland of Local Importance" represent a significant impact of the proposed Project.

Threshold b.: ***Would the Project conflict with existing agricultural zoning, agricultural use or with land subject to a Williamson Act contract or land within a Riverside County Agricultural Preserve?***

As defined by Riverside County Ordinance No. 625, "lands primarily zoned for agricultural use" include properties that are zoned for "Light Agriculture (A-1)," "Light Agriculture with Poultry (A-P)," "Heavy Agriculture (A-2)," "Agriculture-Dairy (A-D)," or "Citrus/Vineyard (C/V)" (Riverside County, 1994). Under existing conditions, the Project site is zoned A-1-1, which is an agricultural zoning classification based on Ordinance No. 625. Although the Project would conflict with the site's existing zoning classification, the Project Applicant is proposing to rezone the Project site for "One Family Dwellings, 10,000 s.f. Minimum Lot Sizes (R-1-10,000)" land uses as part of Change of Zone No. 2200031 (CZ2200031), which is not an agricultural zoning classification pursuant to Ordinance No. 625. Accordingly, with approval of CZ2200031, the Project would not conflict with existing agricultural zoning, and impacts would be less than significant.

Under existing conditions, the Project site consists of largely vacant and undeveloped land with one single-family residence. From approximately 1967 until at least 2020, the Project site appears to have been utilized for agricultural uses (orchards); however, the existing orchards were removed from the Project site in 2020/2021, and the Project site is no longer under active agricultural production. As such, the Project would not conflict with existing agricultural uses on site, and impacts would be less than significant.

As previously noted, according to Riverside County GIS, the Project site is not included in any agricultural preserves, and is not subject to a Williamson Act Contract. Although an existing Agricultural Preserve/Williamson Act Contract occurs immediately east of the Project site (Woodcrest 1 Agricultural Preserve), as noted below under the analysis of Threshold c. the Project would be subject to the provisions of Riverside County Ordinance No. 625, which would preclude potential indirect impacts to this existing Agricultural Preserve. Accordingly, Project impacts due to a conflict with a Williamson Act contract or land within a Riverside County Agricultural Preserve would be less than significant.

Threshold c: ***Would the Project cause development of non-agricultural uses within 300 feet of agriculturally zoned property (Ordinance No. 625 "Right-to-Farm")?***

Riverside County Ordinance No. 625 defines "land zoned for primarily agricultural purposes" as including the following zone classifications established by the Riverside County Land Use Ordinance No. 348: A-1 (Light Agriculture); A-P (Light Agriculture with Poultry); A-2 (Heavy Agriculture); A-D (Agriculture-Dairy); and C/V (Citrus/Vineyard). According to Riverside County GIS, lands to the immediate east and northeast of the Project site are zoned for A-1 land uses, lands within 300 feet of the Project site to the north and west are zoned "R-A Zone (Residential Agricultural)," while lands within 300 feet to the south of the Project site are zoned R-A, "M-SC Zone (Manufacturing – Service Commercial)," and "C-P-S Zone (Scenic Highway

Commercial)." (RCIT, n.d.) Although the Project site occurs within 300 feet of agriculturally-zoned property located north and east of the Project site, the Project would be subject to the provisions of Riverside County Ordinance No. 625, which protects agricultural operations from nuisance complaints and encourages the development, improvement, and long-term viability of agricultural land. Mandatory compliance with Ordinance No. 625 would ensure that Project-related construction and operational activities would not indirectly cause or contribute to the conversion of off-site farmland to non-agricultural use. Based on the mandatory compliance with Ordinance No, 625, impacts would be less than significant.

Threshold d:	***Would the Project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?***

There are no components of the Project that would involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use. Although agricultural uses occur in the Project vicinity (refer to the discussion of Threshold c.), there are no components of the proposed Project that could indirectly affect these existing agricultural uses. Additionally, as indicated under the analysis of Threshold c., the Project would be subject to the provisions of Riverside County Ordinance No. 625, which protects agricultural operations from nuisance complaints and encourages the development, improvement, and long-term viability of agricultural land. Compliance with Ordinance No. 625 would ensure that future development on the Project site does not result in indirect impacts to existing agricultural uses in the surrounding area. Thus, the Project would not result in any other changes to the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use, and impacts would be less than significant.

Threshold e.:	***Would the Project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Govt. Code section 51104(g))?***
Threshold f.:	***Would the Project result in the loss of forest land or conversion of forest land to non-forest use?***
Threshold g.:	***Would the Project involve other changes in the existing environment which, due to their location or nature, could result in conversion of forest land to non-forest use?***

The Project site and surrounding areas are not zoned for forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g)) (RCIT, n.d.). As such, the Project has no potential to conflict with such zoning, and no impact would occur.

As shown in Figure 4.5.2 of the Riverside County General Plan Update Draft EIR No. 521, which was prepared in conjunction with the County's 2015 General Plan Update, aside from sparsely scattered lowland forests/woodlands there are no forestry resources in the Project's vicinity under existing conditions. The nearest forest land to the Project site is the Cleveland National Forest, located approximately 11.2 miles southwest of the Project site; however, no timber production occurs in association with the Cleveland National Forest (Riverside County, 2015, Figure 4.5.2). Based on a review of aerial imagery, there are no forest-related

uses within the vicinity of the Project site. As such, the Project has no potential to result in the loss of forest land or conversion of forest land to non-forest use, and no impact would occur.

Furthermore, the Project would not involve other changes in the existing environment which, due to their location or nature, could result in conversion of forest land to non-forest use. No impact would occur.

4.2.5 Cumulative Impact Analysis

The cumulative study area for the evaluation of potential impacts to agriculture and forestry resources includes all of western Riverside County. Lands within western Riverside County generally exhibit similar climate, geologic, and soil characteristics, and agricultural production is evaluated by Riverside County and the State of California at the County level. Additionally, agricultural lands throughout western Riverside County are subject to future development that would preclude agricultural uses, based on the various land use designations applied to lands throughout western Riverside County by the County's General Plan and the general plans of other local jurisdictions.

As discussed under Threshold a., the Project site contains Farmland as defined by State CEQA Guidelines Appendix G Section II(a), which would be converted to non-agricultural land use. Specifically, the Project would result in the permanent conversion of approximately 56.8 acres of "Farmland of Statewide Importance," approximately 50.6 acres of "Unique Farmland," approximately 2.4 acres of "Farmland of Local Importance" to non-agricultural use. Other lands within western Riverside County that are designated by the County General Plan for urban development or that may be proposed in the future for urban development (i.e., as part of future General Plan Amendments) also could result in the conversion of Farmland to non-agricultural use. The Project and other cumulative developments would contribute to the on-going loss of "Important Farmlands" within the County. Accordingly, Project impacts to Farmland would be cumulatively considerable.

Under existing conditions, the Project site is zoned A-1-1, which is an agricultural zoning classification based on Ordinance No. 625. Although the Project would conflict with the site's existing zoning classification, the Project Applicant is proposing to rezone the Project site for "One Family Dwellings, 10,000 s.f. Minimum Lot Sizes (R-1-10,000)" land uses as part of Change of Zone No. 2200031 (CZ2200031), which is not an agricultural zoning classification pursuant to Ordinance No. 625. Accordingly, with approval of CZ2200031, the Project would not conflict with existing agricultural zoning, and cumulatively-considerable impacts would not occur. In addition, under existing conditions the Project site is not under active agricultural production; therefore, the Project would not conflict with existing agricultural uses on site, and cumulatively-considerable impacts would be less than significant. The Project is not subject to a Williamson Act Contract and is not located within a Riverside County Agricultural Preserve, and Project compliance with Riverside County Ordinance No. 625 would ensure that the Project's impacts to the existing Agricultural Preserve/Williamson Act Contract that occurs immediately east of the Project site (Woodcrest 1 Agricultural Preserve) would be less-than-significant on a cumulatively-considerable basis.

Although the Project site occurs within 300 feet of agriculturally-zoned property located north and east of the Project site, the Project would be subject to the provisions of Riverside County Ordinance No. 625, which protects agricultural operations from nuisance complaints and encourages the development, improvement, and long-term viability of agricultural land. Other cumulative developments within the Project vicinity that are

located within 300 feet of agriculturally-zoned property similarly would be subject to compliance with Ordinance No. 625. Mandatory compliance with Ordinance No. 625 would ensure that cumulatively-considerable impacts due to the conversion of off-site farmland to non-agricultural use would be less than significant.

There are no components of the Project that would involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use. Accordingly, cumulatively-considerable impacts would not occur.

The Project site and surrounding areas are not zoned for forest land (as defined in PRC § 12220(g)), timberland (as defined by PRC § 4526), or timberland zoned Timberland Production (as defined by Government Code § 51104(g)). As such, the Project has no potential to conflict with such zoning, and no cumulatively-considerable impacts would occur. In addition, the Project has no potential to result in the loss of forest land or conversion of forest land to non-forest use, and no cumulatively-considerable impacts due to the loss or conversion of forest land would occur. Furthermore, there are no components of the proposed Project that could result in the conversion of forest land to non-forest use, as there are no lands used for forest land uses; thus, no cumulatively-considerable impacts would occur.

4.2.6 Significance of Impacts Before Mitigation

Threshold a.: Significant Direct and Cumulatively-Considerable Impact. The Project would result in the conversion of approximately 56.8 acres of "Farmland of Statewide Importance," approximately 50.6 acres of "Unique Farmland," approximately 2.4 acres of "Farmland of Local Importance" to non-agricultural use. As previously indicated, between 2014 and 2016, Riverside County had a decline in "Important Farmlands" of approximately 0.9%. The Project would contribute towards the loss of "Important Farmland" within Riverside County because agricultural production on site would be permanently precluded with implementation of the proposed Project. This represents a significant impact of the proposed Project on both a direct and cumulatively-considerable basis.

Threshold b.: Less-than-Significant Impact. Although the Project would conflict with the site's existing zoning classification, the Project Applicant is proposing to rezone the Project site for "One Family Dwellings, 10,000 s.f. Minimum Lot Sizes (R-1-10,000)" land uses as part of Change of Zone No. 2200031 (CZ2200031), which is not an agricultural zoning classification pursuant to Ordinance No. 625. Therefore, with approval of CZ2200031, the Project would not conflict with existing agricultural zoning, and no impact would occur. There are no components of the proposed Project that could result in indirect impacts to off-site agricultural uses such that agricultural use of off-site properties would be adversely affected. Accordingly, Project impacts to existing agricultural uses would be less than significant. Additionally, the Project site is not subject to a Williamson Act contract and is not located within any County Agricultural Preserves, and with mandatory compliance with Riverside County Ordinance No. 625 there are no components of the proposed Project that have the potential to adversely affect agricultural operations at the nearest agricultural preserve/Williamson Act-contracted lands. As such, Project impacts to agricultural preserves and Williamson Act-contracted lands would be less than significant.

Threshold c.: Less-than-Significant Impact. Although the Project site occurs within 300 feet of agriculturally-zoned property located north and east of the Project site, the Project would be subject to the provisions of

Riverside County Ordinance No. 625, which protects agricultural operations from nuisance complaints and encourages the development, improvement, and long-term viability of agricultural land. Mandatory compliance with Ordinance No. 625 would ensure that Project-related construction and operational activities would not indirectly cause or contribute to the conversion of off-site farmland to non-agricultural use. Based on the mandatory compliance with Ordinance No, 625, impacts would be less than significant.

Threshold d.: Less-than-Significant Impact. Assuming mandatory compliance with Riverside County Ordinance No. 625, there are no components of the Project that would involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use. Impacts would be less than significant.

Thresholds e., f., and g.: No Impact. There are no forest lands in the Project vicinity, and no lands in the Project vicinity are zoned for timberland, timberland production, or forest uses. The Project would not result in the conversion of forest land to non-forest use. No impact would occur.

4.2.7 Applicable Regulations, Design Requirements, and Mitigation

Applicable Regulations and Design Requirements

The following are applicable regulations and design requirements within Riverside County. Although these requirements technically do not meet CEQA's definition for mitigation, they are imposed herein to ensure Project compliance with applicable County regulations and design requirements.

- Prior to Project occupancy, the provisions of Riverside County Ordinance No. 625 shall apply. Ordinance No. 625 requires that when lands are developed adjacent to properties zoned primarily for agricultural purposes (that support agricultural operations that have been in place for at least three years and not considered a nuisance operation at the time the operation began), future land buyers must be notified of any agricultural operations that are on-going in the area, and mandate that such agricultural uses shall not be the subject of nuisance complaints.

Mitigation

There are no feasible mitigation measures for impacts associated with converting Farmland to non-agricultural use.

On-site mitigation would not be feasible, as development of the Project site with 231 single-family homes cannot co-exist with agricultural uses, and restricting a small portion of the land for agricultural uses would not be economically feasible for agricultural operations. Further, it would not be economically viable for the Project Applicant to reserve all or a portion of the Project site for agricultural uses, as reservation of the land would negatively affect the Project Applicant's rate of return on its investment.

Off-site mitigation also would not be feasible. Available agricultural land within the general Project area is subject to the identical market conditions and challenges that other agricultural operations have faced before making the decision to cease operating or relocate; namely, market pressures related to urbanization, increasing expenses, and declining profitability. As discussed in the General Plan EIR (SCH No. 2009041065), similar agriculture operations either are in the process of converting to urbanized land uses, or are relatively small and

surrounded by urban development on all sides. As development in Riverside County continues, these locations will become less viable for agriculture, and significant agricultural operations are not likely to continue. Therefore, off-site mitigation would be economically infeasible, or would be precluded due to the unavailability of appropriate mitigation land. Case law supports the finding that a Lead Agency need not require mitigation where the EIR noted the long-term trend in agricultural land conversion due to development pressures in the region and concluded that mitigation was not feasible. See *Defend the Bay v. City of Irvine* (2004) 119 Cal.App.4th 1261, and *Cherry Valley Pass Acres and Neighbors v. City of Beaumont* (2010) 190 Cal.App.4th 316. Accordingly, feasible mitigation is not available to reduce impacts associated with the conversion of approximately 56.8 acres of "Farmland of Statewide Importance," approximately 50.6 acres of "Unique Farmland," approximately 2.4 acres of "Farmland of Local Importance" to non-agricultural use.

4.2.8 Significance of Impacts After Mitigation

Threshold a.: Significant and Unavoidable Direct and Cumulatively-Considerable Impact. Feasible mitigation measures are not available for the Project's conversion of approximately 56.8 acres of "Farmland of Statewide Importance," approximately 50.6 acres of "Unique Farmland," approximately 2.4 acres of "Farmland of Local Importance" to non-agricultural use.

Although it may be possible in some circumstances for impacts to agricultural land to be partially mitigated through the acquisition of off-site properties and placing such properties into permanent agricultural easements (i.e., compensatory mitigation), in this case such compensatory mitigation does not meet any of the definitions of mitigation as provided by State CEQA Guidelines § 15370. Specifically, off-site mitigation would not result in an avoidance of the impact by limiting the Project's scope (§ 15370[a]) and would not minimize impacts to agriculturally zoned property "by limiting the degree or magnitude of the Project and its implementation" (§ 15370[b]). Placing existing off-site agricultural lands into a conservation easement also would not rectify the Project's impacts to agriculturally zoned land by "repairing, rehabilitating, or restoring the impacted environment" (§ 15370[c]), given that such a conservation easement would encompass lands that already are suitable for, if not actively being used for, agricultural production. Such mitigation also would not meet the definition of State CEQA Guidelines § 15370(d) by "reducing or eliminating the impact over time by preservation and maintenance operations during the life" of the Project. Finally, because no new agricultural lands would be created, off-site agricultural easements would not result in the replacement or establishment of "substitute resources or environments" (§ 15370[e]). Therefore, Riverside County finds that off-site mitigation for land containing important agricultural resources is not a viable form of mitigation pursuant to State CEQA Guidelines § 15370 (See also the discussion above in subsection 4.2.7 regarding the infeasibility of off-site mitigation).

Accordingly, a direct and cumulatively-considerable impact due to the conversion of Farmland to non-agricultural use would occur for which no feasible mitigation is available. Thus, impacts due to the conversion of approximately 56.8 acres of "Farmland of Statewide Importance," approximately 50.6 acres of "Unique Farmland," approximately 2.4 acres of "Farmland of Local Importance" to non-agricultural use would be significant and unavoidable.

4.3 AIR QUALITY

This Subsection 4.3 is based on a technical report prepared by Urban Crossroads, Inc. (Urban Crossroads). The report addresses the Project's potential to result in regional and localized air quality impacts, and is entitled, "Arroyo Vista Air Quality Impact Analysis" (herein, "AQIA"), dated April 27, 2023, and included as *Technical Appendix B* to this EIR (Urban Crossroads, 2023a). It should be noted that the Project's AQIA evaluates a total of 233 single-family dwelling units, while only 231 dwelling units are proposed as part of the Project; thus, the analysis in *Technical Appendix B* provides a "worst" case analysis of the Project's potential impacts to air quality. Refer to Section 7.0*, References*, for a complete list of these and other reference sources.

4.3.1 EXISTING CONDITIONS

A. South Coast Air Basin

The Project site is located in the South Coast Air Basin (SCAB) 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. As previously stated, the Project site is located within the SCAB, a 6,745-square mile subregion of the SCAQMD, which includes portions of Los Angeles, Riverside, and San Bernardino Counties, and all of Orange County. (Urban Crossroads, 2023a, p. 5)

The SCAB is bounded by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east. The Los Angeles County portion of the Mojave Desert Air Basin is bounded by the San Gabriel Mountains to the south and west, the Los Angeles / Kern County border to the north, and the Los Angeles / San Bernardino County border to the east. The Riverside County portion of the Salton Sea Air Basin is bounded by the San Jacinto Mountains in the west and spans eastward up to the Palo Verde Valley. (Urban Crossroads, 2023a, p. 5)

B. Regional Climate

The regional climate has a substantial influence on air quality in the SCAB. In addition, the temperature, wind, humidity, precipitation, and amount of sunshine influence the air quality. The annual average temperatures throughout the SCAB vary from the low to mid 60s, as measured in 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. (Urban Crossroads, 2023a, p. 5)

Although the climate of the SCAB 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 SCAB climate. Humidity restricts visibility in the SCAB, and the conversion of sulfur dioxide (SO_2) to sulfates (SO_4) 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% along the coast and 59% 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. (Urban Crossroads, 2023a, p. 5)

More than 90% of the SCAB's rainfall occurs from November through April. The annual average rainfall varies from approximately nine inches in Riverside to fourteen 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. (Urban Crossroads, 2023a, pp. 5-6)

Due to its 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 year there are approximately 10 hours of possible sunshine, and on the longest day of the year there are approximately 14½ hours of possible sunshine. (Urban Crossroads, 2023a, p. 6)

The importance of wind to air pollution is considerable. The direction and speed of the wind determines the horizontal dispersion and transport of the 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 which results in an offshore flow to the southwest. On most spring and summer days, some indication of an eddy is apparent in coastal sections. (Urban Crossroads, 2023a, p. 6)

In the SCAB, there are two distinct temperature inversion structures that 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 (amsl). (Urban Crossroads, 2023a, p. 6)

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 oxides (NO_X) and carbon monoxide (CO) from vehicles, as the pool of cool air drifts seaward. Winter is therefore a period of high levels of primary pollutants along the coastline. (Urban Crossroads, 2023a, p. 6)

C. *Wind Patterns*

The distinctive climate of the Project area and the SCAB is determined by its terrain and geographical location. The SCAB 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 onshore 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. (Urban Crossroads, 2023a, pp. 6-7)

D. *Criteria Pollutants*

Criteria pollutants are pollutants that are regulated through the development of human health based and/or environmentally based criteria for setting permissible levels. Criteria pollutants, their typical sources, and health effects are identified below.

1. *Carbon Monoxide (CO)*

CO is a colorless, odorless gas produced by the incomplete combustion of carbon-containing fuels, such as gasoline or wood. CO emissions come from any source that burns fuel such as automobiles, trucks, heavy construction equipment, farming equipment, and residential heating. CO concentrations tend to be highest during the winter morning, when little to no wind and surface-based inversions trap the pollutant at ground levels. Because CO is emitted directly from internal combustion engines, unlike ozone (O_3), motor vehicles operating at slow speeds are the primary source of CO in the SCAB. The highest ambient CO concentrations are generally found near congested transportation corridors and intersections. (Urban Crossroads, 2023a, Table 2-1)

Individuals with a deficient blood supply to the heart are the most susceptible to the adverse effects of CO exposure. The effects observed include earlier onset of chest pain with exercise, and electrocardiograph changes indicative of decreased oxygen (O_2) supply to the heart. Inhaled CO has no direct toxic effect on the lungs but exerts its effect on tissues by interfering with O_2 transport and competing with O_2 to combine with hemoglobin present in the blood to form carboxyhemoglobin (COHb). Hence, conditions with an increased demand for O_2 supply can be adversely affected by exposure to CO. Individuals most at risk include fetuses, patients with diseases involving heart and blood vessels, and patients with chronic hypoxemia (O_2 deficiency) as seen at high altitudes. (Urban Crossroads, 2023a, Table 2-1)

2. *Sulfur Oxides (SO_X)*

Sulfur dioxide (SO_2) is a colorless, extremely irritating gas or liquid. It enters the atmosphere as a pollutant mainly as a result of burning high sulfur-content fuel oils and coal and from chemical processes occurring at chemical plants and refineries. When SO_2 oxidizes in the atmosphere, it forms SO_4. Collectively, these pollutants are referred to as sulfur oxides (SO_X). Sources of SO_X include coal or oil burning power plants and industries, refineries, and diesel engines. (Urban Crossroads, 2023a, Table 2-1)

A few minutes of exposure to low levels of SO_2 can result in airway constriction in some asthmatics, all of whom are sensitive to its effects. In asthmatics, increase in resistance to air flow, as well as reduction in breathing capacity leading to severe breathing difficulties, are observed after acute exposure to SO_2. In contrast, healthy individuals do not exhibit similar acute responses even after exposure to higher concentrations of SO_2. Animal studies suggest that despite SO_2 being a respiratory irritant, it does not cause substantial lung injury at ambient concentrations. However, very high levels of exposure can cause lung edema (fluid accumulation), lung tissue damage, and sloughing off of cells lining the respiratory tract. Some population-based studies indicate that the mortality and morbidity effects associated with fine particles show a similar association with ambient SO_2 levels. In these studies, efforts to separate the effects of SO_2 from those of fine particles have not been successful. It is not clear whether the two pollutants act synergistically, or one pollutant alone is the predominant factor. (Urban Crossroads, 2023a, Table 2-1)

3. Nitrogen Oxides (NOX)

Nitrogen Oxides (NO_X) consist of nitric oxide (NO), nitrogen dioxide (NO_2), and nitrous oxide (N_2O) and are formed when nitrogen (N_2) combines with O_2. Their lifespan in the atmosphere ranges from one to seven days for NO and NO_2, to 170 years for N_2O. NO_X is typically created during combustion processes and are major contributors to smog formation and acid deposition. NO_X results from any source that burns fuel such as automobiles, trucks, heavy construction equipment, farming equipment and residential heating. NO_2 is a criteria air pollutant and may result in numerous adverse health effects. It absorbs blue light, resulting in a brownish-red cast to the atmosphere and reduced visibility. Of the seven types of NO_X compounds, NO_2 is the most abundant in the atmosphere. As ambient concentrations of NO_2 are related to traffic density, commuters in heavy traffic may be exposed to higher concentrations of NO_2 than those indicated by a regional monitoring station. (Urban Crossroads, 2023a, Table 2-1)

Population-based studies suggest that an increase in acute respiratory illness, including infections and respiratory symptoms in children (not infants), is associated with long-term exposure to NO_2 at levels found in homes with gas stoves, which are higher than ambient levels found in Southern California. Increase in resistance to air flow and airway contraction is observed after short-term exposure to NO_2 in healthy subjects. Larger decreases in lung functions are observed in individuals with asthma or chronic obstructive pulmonary disease (e.g., chronic bronchitis, emphysema) than in healthy individuals, indicating a greater susceptibility of these sub-groups. In animals, exposure to levels of NO_2 considerably higher than ambient concentrations result in increased susceptibility to infections, possibly due to the observed changes in cells involved in maintaining immune functions. The severity of lung tissue damage associated with high levels of Ozone (O_3) exposure increases when animals are exposed to a combination of O_3 and NO_2. (Urban Crossroads, 2023a, Table 2-1)

4. Ozone (O3)

O_3 is a highly reactive and unstable gas that is formed when reactive organic gases (ROG) and NO_X, both byproducts of internal combustion engine exhaust, undergo slow photochemical reactions in the presence of sunlight. ROG sources include any source that burns fuels (e.g., gasoline, natural gas, wood, oil), solvents, petroleum processing, and storage and pesticides. O_3 concentrations are generally highest during the summer months when direct sunlight, light wind, and warm temperature conditions are favorable to the formation of this pollutant. (Urban Crossroads, 2023a, Table 2-1)

Individuals exercising outdoors, children, and people with preexisting lung disease, such as asthma and chronic pulmonary lung disease, are considered to be the most susceptible subgroups for O_3 effects. Short-term exposure (lasting for a few hours) to O_3 at levels typically observed in Southern California can result in breathing pattern changes, reduction of breathing capacity, increased susceptibility to infections, inflammation of the lung tissue, and some immunological changes. Elevated O_3 levels are associated with increased school absences. In recent years, a correlation between elevated ambient O_3 levels and increases in daily hospital admission rates, as well as mortality, has also been reported. An increased risk for asthma has been found in children who participate in multiple outdoor sports and live in communities with high O_3 levels. O_3 exposure under exercising conditions is known to increase the severity of the responses described above. Animal studies suggest that exposure to a combination of pollutants that includes O_3 may be more toxic than exposure to O_3 alone. Although lung volume and resistance changes observed after a single exposure diminish with repeated exposures, biochemical and cellular changes appear to persist, which can lead to subsequent lung structural changes. (Urban Crossroads, 2023a, Table 2-1)

5. Particulate Matter (PM)

Particulate matter (PM) includes inhalable particles with diameters that are generally 10 micrometers and smaller, which are referred to as PM_{10}, and fine inhalable particles with diameters that are generally 2.5 micrometers and smaller, which are referred to as $PM_{2.5}$. (Urban Crossroads, 2023a, Table 2-1))

PM_{10} is a major air pollutant consisting of tiny solid or liquid particles of soot, dust, smoke, fumes, and aerosols. Sources of PM_{10} include road dust, windblown dust, and construction. PM_{10} also is formed from other pollutants (acid rain, NO_X, SO_X, and organics), and from the incomplete combustion of any fuel. Particulate matter pollution is a major cause of reduced visibility (haze) which is caused by the scattering of light and consequently the significant reduction of air clarity. The size of the particles (10 microns or smaller, about 0.0004 inches or less) allows them to easily enter the lungs where they may be deposited, resulting in adverse health effects. Additionally, PM_{10} is a criteria air pollutant. (Urban Crossroads, 2023a, Table 2-1)

$PM_{2.5}$ is a similar air pollutant to PM_{10} consisting of tiny solid or liquid particles that are 2.5 microns or smaller (often referred to as fine particles). $PM_{2.5}$ comes from fuel combustion in motor vehicles, equipment, and industrial sources, and residential and agricultural burning. $PM_{2.5}$ also is formed from reaction of other pollutants (acid rain, NO_X, SO_X, and organics). These particles are formed in the atmosphere from primary gaseous emissions that include SO_4 formed from SO_2 release from power plants and industrial facilities and nitrates that are formed from NO_X release from power plants, automobiles, and other types of combustion sources. The chemical composition of fine particles highly depends on location, time of year, and weather conditions. $PM_{2.5}$ is a criteria air pollutant. (Urban Crossroads, 2023a, Table 2-1)

A consistent correlation between elevated ambient fine particulate matter (PM_{10} and $PM_{2.5}$) levels and an increase in mortality rates, respiratory infections, number and severity of asthma attacks and the number of hospital admissions has been observed in different parts of the United States and various areas around the world. In recent years, some studies have reported an association between long-term exposure to air pollution dominated by fine particles and increased mortality, reduction in lifespan, and an increased mortality from lung cancer. Daily fluctuations in $PM_{2.5}$ concentration levels have also been related to hospital admissions for acute respiratory conditions in children, to school and kindergarten absences, to a decrease in respiratory lung volumes in normal children, and to increased medication use in children and adults with asthma. Recent studies

show lung function growth in children is reduced with long-term exposure to particulate matter. The elderly, people with preexisting respiratory or cardiovascular disease, and children appear to be more susceptible to the effects of high levels of PM_{10} and $PM_{2.5}$. (Urban Crossroads, 2023a, Table 2-1)

6. Volatile Organic Compounds (VOCs)

Volatile Organic Compounds (VOCs) are hydrocarbon compounds (any compound containing various combinations of hydrogen and carbon atoms) that exist in the ambient air. VOCs contribute to the formation of smog through atmospheric photochemical reactions and/or may be toxic. Compounds of carbon (also known as organic compounds) have different levels of reactivity; that is, they do not react at the same speed or do not form O_3 to the same extent when exposed to photochemical processes. VOCs often have an odor, and some examples include gasoline, alcohol, and the solvents used in paints. Exceptions to the VOC designation include CO, carbon dioxide (CO_2), carbonic acid, metallic carbides or carbonates, and ammonium carbonate. VOCs are a criteria pollutant since they are a precursor to O_3, which is a criteria pollutant. The terms VOC and ROG (as discussed below) are used interchangeably. (Urban Crossroads, 2023a, Table 2-1)

Organic chemicals are widely used as ingredients in household products. Paints, varnishes, and wax all contain organic solvents, as do many cleaning, disinfecting, cosmetic, degreasing, and hobby products. Fuels are made up of organic chemicals. All of these products can release organic compounds while in use, and, to some degree, when they are stored. (Urban Crossroads, 2023a, Table 2-1)

Breathing VOCs can irritate the eyes, nose, and throat; can cause difficulty breathing and nausea; and can damage the central nervous system as well as other organs. Some VOCs can cause cancer. Not all VOCs have all these health effects, though many have several. (Urban Crossroads, 2023a, Table 2-1)

7. Reactive Organic Gases (ROGs)

Similar to VOCs, Reactive Organic Gases (ROGs) are also precursors in forming O_3 and consist of compounds containing methane (CH_4), ethane (C_2H_6), propane, butane, and longer chain hydrocarbons, which are typically the result of some type of combustion/decomposition process. Smog is formed when ROG and NO_X react in the presence of sunlight. ROGs are a criteria pollutant since they are a precursor to O_3, which is a criteria pollutant. The terms ROG and VOC (see above discussion) are used interchangeably. Sources of ROGs and health effects of ROGs are similar to VOCs, and are described above. (Urban Crossroads, 2023a, Table 2-1)

8. Lead (Pb)

Lead (Pb) is a heavy metal that is highly persistent in the environment and is considered a criteria pollutant. In the past, the primary source of Pb in the air was emissions from vehicles burning leaded gasoline. The major sources of Pb emissions include ore and metals processing, particularly Pb smelters; resource recovery; the deterioration of Pb-based paints; and leaded gasoline use and piston-engine aircraft operating on leaded aviation gasoline. Other stationary sources include waste incinerators, utilities, and lead-acid battery manufacturers. (Urban Crossroads, 2023a, Table 2-1)

Fetuses, infants, and children are more sensitive than others to the adverse effects of Pb exposure. Exposure to low levels of Pb can adversely affect the development and function of the central nervous system, leading to learning disorders, distractibility, inability to follow simple commands, and lower intelligence quotients. In

adults, increased Pb levels are associated with increased blood pressure. Pb poisoning can cause anemia, lethargy, seizures, and death; although it appears that there are no direct effects of Pb on the respiratory system. Pb can be stored in the bone from early age environmental exposure, and elevated blood Pb levels can occur due to breakdown of bone tissue during pregnancy, hyperthyroidism (increased secretion of hormones from the thyroid gland) and osteoporosis (breakdown of bony tissue). Fetuses and breast-fed babies can be exposed to higher levels of Pb because of previous environmental Pb exposure of their mothers. (Urban Crossroads, 2023a, Table 2-1)

9. Odor

Odor means the perception experienced by a person when one or more chemical substances in the air come into contact with the human olfactory nerves. Odors can come from many sources including animals, human activities, industry, nature, and vehicles. (Urban Crossroads, 2023a, Table 2-1)

Offensive odors can potentially affect human health in several ways. First, odorant compounds can irritate the eye, nose, and throat, which can reduce respiratory volume. Second, studies have shown that the VOCs that cause odors 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. (Urban Crossroads, 2023a, Table 2-1)

E. Existing Air Quality

Existing air quality is measured at established SCAQMD air quality monitoring stations. Monitored air quality is evaluated in the context of 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 4.3-1, *Ambient Air Quality Standards*. (Urban Crossroads, 2023a, p. 14)

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. The most recent state and federal standards are presented in Table 4.3-1. The air quality in a region is considered to be in attainment if the measured ambient air pollutant levels for O_3, CO (except 8-hour Lake Tahoe), SO_2 (1 and 24 hour), NO_2, PM_{10}, and $PM_{2.5}$ are not to be exceeded. All others are not to be equaled or exceeded. It should be noted that the three-year period is presented for informational purposes and is not the basis for how attainment status is determined. Attainment status for a pollutant means that the SCAB meets the standards set by the U.S. Environmental Protection Agency (EPA) or the California EPA (CalEPA). Conversely, nonattainment means that an area has monitored air quality that does not meet the NAAQS or CAAQS. A State Implementation Plan (SIP) is required by the federal Clean Air Act (CAA) for area that are designated non-attainment under the NAAQS. A SIP outlines the measures that a state will take to improve air quality in the area designated nonattainment. Once a nonattainment area meet the standards and additional redesignation requirements, the EPA designates the area as a maintenance area. (Urban Crossroads, 2023a, p. 14)

Table 4.3-1 Ambient Air Quality Standards

Ambient Air Quality Standards						
Pollutant	Averaging Time	California Standards [1]		National Standards [2]		
		Concentration [3]	Method [4]	Primary [3,5]	Secondary [3,6]	Method [7]
Ozone (O_3)[8]	1 Hour	0.09 ppm (180 µg/m³)	Ultraviolet Photometry	—	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.070 ppm (137 µg/m³)		0.070 ppm (137 µg/m³)		
Respirable Particulate Matter (PM10)[9]	24 Hour	50 µg/m³	Gravimetric or Beta Attenuation	150 µg/m³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m³		—		
Fine Particulate Matter (PM2.5)[9]	24 Hour	—	—	35 µg/m³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m³	Gravimetric or Beta Attenuation	12.0 µg/m³	15 µg/m³	
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/m³)	Non-Dispersive Infrared Photometry (NDIR)	35 ppm (40 mg/m³)	—	Non-Dispersive Infrared Photometry (NDIR)
	8 Hour	9.0 ppm (10 mg/m³)		9 ppm (10 mg/m³)	—	
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m³)		—	—	
Nitrogen Dioxide (NO_2)[10]	1 Hour	0.18 ppm (339 µg/m³)	Gas Phase Chemiluminescence	100 ppb (188 µg/m³)	—	Gas Phase Chemiluminescence
	Annual Arithmetic Mean	0.030 ppm (57 µg/m³)		0.053 ppm (100 µg/m³)	Same as Primary Standard	
Sulfur Dioxide (SO_2)[11]	1 Hour	0.25 ppm (655 µg/m³)	Ultraviolet Fluorescence	75 ppb (196 µg/m³)	—	Ultraviolet Flourescence; Spectrophotometry (Pararosaniline Method)
	3 Hour	—		—	0.5 ppm (1300 µg/m³)	
	24 Hour	0.04 ppm (105 µg/m³)		0.14 ppm (for certain areas)[11]	—	
	Annual Arithmetic Mean	—		0.030 ppm (for certain areas)[11]	—	
Lead[12,13]	30 Day Average	1.5 µg/m³	Atomic Absorption	—	—	High Volume Sampler and Atomic Absorption
	Calendar Quarter	—		1.5 µg/m³ (for certain areas)[12]	Same as Primary Standard	
	Rolling 3-Month Average	—		0.15 µg/m³		
Visibility Reducing Particles[14]	8 Hour	See footnote 14	Beta Attenuation and Transmittance through Filter Tape	No National Standards		
Sulfates	24 Hour	25 µg/m³	Ion Chromatography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m³)	Ultraviolet Fluorescence			
Vinyl Chloride[12]	24 Hour	0.01 ppm (26 µg/m³)	Gas Chromatography			

Table 4.3-1 Ambient Air Quality Standards (Cont'd)

1. California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, and particulate matter (PM10, PM2.5, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.
2. National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM10, the 24 hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 $\mu g/m^3$ is equal to or less than one. For PM2.5, the 24 hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S. EPA for further clarification and current national policies.
3. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.
4. Any equivalent measurement method which can be shown to the satisfaction of the ARB to give equivalent results at or near the level of the air quality standard may be used.
5. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.
6. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
7. Reference method as described by the U.S. EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the U.S. EPA.
8. On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.
9. On December 14, 2012, the national annual PM2.5 primary standard was lowered from 15 $\mu g/m^3$ to 12.0 $\mu g/m^3$. The existing national 24-hour PM2.5 standards (primary and secondary) were retained at 35 $\mu g/m^3$, as was the annual secondary standard of 15 $\mu g/m^3$. The existing 24-hour PM10 standards (primary and secondary) of 150 $\mu g/m^3$ also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.
10. To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.
11. On June 2, 2010, a new 1-hour SO_2 standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO_2 national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.

    Note that the 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.
12. The ARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.
13. The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard (1.5 $\mu g/m^3$ as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.
14. In 1989, the ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

For more information please call ARB-PIO at (916) 322-2990 **California Air Resources Board (5/4/16)**

(Urban Crossroads, 2023a, Table 2-2)

F. Regional Air Quality

Air pollution contributes to a wide variety of adverse health effects. The EPA has established NAAQS for six of the most common air pollutants: CO, Pb, O_3, particulate matter (PM_{10} and $PM_{2.5}$), NO_2, and SO_2 which are known as criteria pollutants. The SCAQMD monitors levels of various criteria pollutants at 37 permanent monitoring stations and 5 single-pollutant source Pb air monitoring sites throughout the air district. On December 28, 2021, the California Air Resources Board (CARB) posted the proposed 2021 amendments to the state and national area designations. Table 4.3-2, *Attainment Status of Criteria Pollutants in the SCAB*, shows the attainment designations for the SCAB. Appendix 2.1 to the Project's AQIA (*Technical Appendix B*) provides geographic representation of the state and federal attainment status for applicable criteria pollutants within the SCAB. (Urban Crossroads, 2023a, p. 17)

Table 4.3-2 Attainment Status of Criteria Pollutants in the SCAB

Criteria Pollutant	State Designation	Federal Designation
O_3 – 1-hour standard	Nonattainment	--
O_3 – 8-hour standard	Nonattainment	Nonattainment
PM_{10}	Nonattainment	Attainment
$PM_{2.5}$	Nonattainment	Nonattainment
CO	Attainment	Unclassifiable/Attainment
NO_2	Attainment	Unclassifiable/Attainment
SO_2	Attainment	Unclassifiable/Attainment
Pb[1]	Attainment	Unclassifiable/Attainment

(Urban Crossroads, 2023a, Table 2-3)

G. Local Air Quality

The Project site is located within the Source Receptor Area (SRA) 23. Within SRA 23, the SCAQMD Metropolitan Riverside County 1 monitoring station, located 8.05 miles northwest of the Project site, is the nearest long-term air quality monitoring station for O_3, CO, NO_2, PM_{10} and $PM_{2.5}$. The most recent three (3) years of data available is shown on Table 4.3-3, *Project Area Air Quality Monitoring Summary (2019-2021)*, and is considered to be representative of the local air quality at the Project site. It should be noted that data for SO_2 has been omitted as attainment is regularly met in the SCAB and few monitoring stations measure SO_2 concentrations. (Urban Crossroads, 2023a, p. 17)

4.3.2 Applicable Regulatory Requirements

The following is a brief description of the federal, State, and local environmental laws and related regulations governing air quality emissions.

Table 4.3-3 Project Area Air Quality Monitoring Summary (2019-2021)

Pollutant	Standard	Year		
		2019	2020	2021
O_3				
Maximum Federal 1-Hour Concentration (ppm)		0.123	0.143	0.117
Maximum Federal 8-Hour Concentration (ppm)		0.096	0.115	0.097
Number of Days Exceeding State 1-Hour Standard	> 0.09 ppm	24	46	20
Number of Days Exceeding State/Federal 8-Hour Standard	> 0.070 ppm	59	81	57
CO				
Maximum Federal 1-Hour Concentration	> 35 ppm	1.5	1.9	2.1
Maximum Federal 8-Hour Concentration	> 20 ppm	1.2	1.4	1.8
NO_2				
Maximum Federal 1-Hour Concentration	> 0.100 ppm	0.056	0.066	0.052
Annual Federal Standard Design Value		0.014	0.014	0.014
PM_{10}				
Maximum Federal 24-Hour Concentration (µg/m^3)	> 150 µg/m^3	99	104	76
Annual Federal Arithmetic Mean (µg/m^3)		34.4	30	34.2
Number of Days Exceeding Federal 24-Hour Standard	> 150 µg/m^3	0	0	0
Number of Days Exceeding State 24-Hour Standard	> 50 µg/m^3	21	110	16
$PM_{2.5}$				
Maximum Federal 24-Hour Concentration (µg/m^3)	> 35 µg/m^3	46.7	41	82.1
Annual Federal Arithmetic Mean (µg/m^3)	> 12 µg/m^3	11.13	12.63	12.58
Number of Days Exceeding Federal 24-Hour Standard	> 35 µg/m^3	4	4	10

ppm= Parts Per Million
Source: SCAQMD Historical Air Quality Data By Year, Air Quality Data Tables.
(Urban Crossroads, 2023a, Table 2-4)

A. Federal Regulations

1. Federal Clean Air Act

The Clean Air Act (CAA; 42 U.S.C. § 7401 et seq.) is the comprehensive federal law that regulates air emissions from stationary and mobile sources. Among other things, this law authorizes Environmental Protection Agency (EPA) to establish National Ambient Air Quality Standards (NAAQS) to protect public health and public welfare and to regulate emissions of hazardous air pollutants, which include ozone (O_3), carbon monoxide (CO), nitrogen dioxide (NO_x), sulfur dioxide (SO_2), particulate matter (PM_{10}), $PM_{2.5}$, and lead (Pb). (EPA, 2020a)

One of the goals of the CAA was to set and achieve NAAQS in every state by 1975 in order to address the public health and welfare risks posed by certain widespread air pollutants. The setting of these pollutant standards was coupled with directing the states to develop state implementation plans (SIPs), applicable to appropriate industrial sources in the state, in order to achieve these standards. The CAA was amended in 1977 and 1990 primarily to set new goals (dates) for achieving attainment of NAAQS since many areas of the country had failed to meet the deadlines. (EPA, 2020a)

The sections of the federal CAA most directly applicable to the development of the Project site include Title I (Non-Attainment Provisions) and Title II (Mobile Source Provisions). Title I provisions address the urban air pollution problems of O_3 (smog), CO, and PM_{10}. Specifically, it clarifies how areas are designated and re-designated "attainment." It also allows EPA to define the boundaries of "nonattainment" areas: geographical areas whose air quality does not meet Federal air quality standards designed to protect public health. (EPA, 2020b) Mobile source emissions are regulated in accordance with the CAA Title II provisions. These standards are intended to reduce tailpipe emissions of hydrocarbons, CO, and NO_X on a phased-in basis that began in model year 1994. Automobile manufacturers also are required to reduce vehicle emissions resulting from the evaporation of gasoline during refueling. These provisions further require the use of cleaner burning gasoline and other cleaner burning fuels such as methanol and natural gas. (EPA, 2020c)

Section 112 of the Clean Air Act addresses emissions of hazardous air pollutants. Prior to 1990, CAA established a risk-based program under which only a few standards were developed. The 1990 Clean Air Act Amendments revised Section 112 to first require issuance of technology-based standards for major sources and certain area sources. "Major sources" are defined as a stationary source or group of stationary sources that emit or have the potential to emit 10 tons per year or more of a hazardous air pollutant or 25 tons per year or more of a combination of hazardous air pollutants. An "area source" is any stationary source that is not a major source. (EPA, 2020a)

For major sources, Section 112 requires that EPA establish emission standards that require the maximum degree of reduction in emissions of hazardous air pollutants. These emission standards are commonly referred to as "maximum achievable control technology" or "MACT" standards. Eight years after the technology-based MACT standards are issued for a source category, EPA is required to review those standards to determine whether any residual risk exists for that source category and, if necessary, revise the standards to address such risk. (EPA, 2020a)

2. National Emissions Standards for Hazardous Air Pollutants (NESHAPs) Program

National Emission Standards for Hazardous Air Pollutants (NESHAP) are stationary source standards for hazardous air pollutants. Hazardous air pollutants (HAPs) are those pollutants that are known or suspected to cause cancer or other serious health effects, such as reproductive effects or birth defects, or adverse environmental effects. The EPA develops national enforcement initiatives that focus on significant environmental risks and noncompliance patterns. For Fiscal Years 2014 to 2016, the Cutting Hazardous Air Pollutants National Initiatives Strategy focuses on categories of sources that emit HAPs. (EPA, 2020d)

Sources subject to NESHAPs are required to perform an initial performance test to demonstrate compliance. To demonstrate continuous compliance, sources are generally required to monitor control device operating parameters which are established during the initial performance test. Sources may also be required to install and operate continuous emission monitors to demonstrate compliance. Consistent with EPA's Clean Air Act Stationary Source Compliance Monitoring Strategy, NESHAP sources that meet the Clean Air Act definition of "major source" generally receive a full compliance evaluation by the state or regional office at least once every two years. (EPA, 2020d)

B. State Regulations

1. California Clean Air Act (CCAA)

The California Clean Air Act (CCAA) establishes numerous requirements for district plans to attain state ambient air quality standards for criteria air contaminants. The CCAA mandates achievement of the maximum degree of emissions reductions possible from vehicular and other mobile sources in order to attain the State's ambient air quality standards, the California Ambient Air Quality Standards (CAAQS), by the earliest practical date. The California Air Resources Board (CARB) established the CAAQS for all pollutants for which the federal government has NAAQS and, in addition, established standards for sulfates, visibility, hydrogen sulfide, and vinyl chloride. Generally, the CAAQS are more stringent than the NAAQS. For districts with serious air pollution, its attainment plan should include the following: no net increase in emissions from new and modified stationary sources; and best available retrofit technology for existing sources. (SCAQMD, n.d.)

2. Air Toxic "Hot Spots" Information and Assessment Act

The Air Toxic "Hot Spots" Information and Assessment Act of 1987, commonly known as AB 2588, (Health & Safety Code §§ 44300, et seq.) requires facilities emitting specified quantities of pollutants to conduct risk assessments describing the health impacts to neighboring communities created by their emissions of numerous specified hazardous compounds. If the district determines the health impact to be significant, neighbors must be notified. In addition, state law requires the facility to develop and implement a plan to reduce the health impacts to below significance, generally within five years. Additional control requirements for hazardous emissions from specific industries are established by the state and enforced by districts. (SCAQMD, n.d.)

3. Air Quality Management Planning

The California Air Resources Board (CARB) and local air districts throughout the State are responsible for developing clean air plans to demonstrate how and when California will attain air quality standards established under both the CAA and CCAA. For the areas within California that have not attained air quality standards, CARB works with local air districts to develop and implement State and local attainment plans. In general, attainment plans contain a discussion of ambient air quality data and trends; a baseline emissions inventory; future year projections of emissions, which account for growth projections and already adopted control measures; a comprehensive control strategy of additional measures needed to reach attainment; an attainment demonstration, which generally involves complex modeling; and contingency measures. Plans may also include interim milestones for progress toward attainment. Air quality planning activities undertaken by CARB also include the development of policies, guidance, and regulations related to State and federal ambient air quality standards; coordination with local agencies on transportation plans and strategies; and providing assistance to local districts and transportation agencies. (CARB, 2012)

4. Title 24 Energy Efficiency Standards and California Green Building Standards

The California Energy Commission (CEC) first adopted Energy Efficiency Standards for Residential and Nonresidential Buildings (California Code of Regulations, Title 24, Part 6) in 1978 in response to a legislative mandate to reduce energy consumption in the state. Although not originally intended to reduce Greenhouse Gas (GHG) emissions, increased energy efficiency, and reduced consumption of electricity, natural gas, and other fuels would result in fewer GHG emissions from residential and nonresidential buildings subject to the standard. The standards are updated periodically to allow for the consideration and inclusion of new energy

efficiency technologies and methods. The 2022 version of Title 24 was adopted by the CEC and will become effective on January 1, 2023. The 2022 Building Energy Efficiency Standards focuses on four key areas in newly constructed homes and businesses: (1) encouraging electric heat pump technology for space and water heating, which consumes less energy and produces fewer emissions than gas-powered units; (2) establishing electric-ready requirements for single-family homes to position owners to use cleaner electric heating, cooking and electric vehicle (EV) charging options whenever they choose to adopt those technologies; (3) expanding solar photovoltaic (PV) system and battery storage standards to make clean energy available onsite and complement the State's progress toward a 100 percent clean electricity grid; and strengthening ventilation standards to improve indoor air quality. The 2019 Building Energy Efficiency Standards already were seven (7) percent more efficient than the previous (2016) Building Energy Efficiency Standards for residential construction and 30 percent more efficient than the previous Standards for non-residential construction. The 2016 Building Energy Efficiency Standards also already were 28 percent more efficient for residential construction and five (5) percent more efficient for nonresidential construction than the 2013 Building Energy Efficiency Standards they replaced. (CEC, n.d.)

Part 11 of Title 24 is referred to as the California Green Building Standards Code (CALGreen Code). The purpose of the CALGreen Code is to "improve public health, safety and general welfare by enhancing the design and construction of buildings through the use of building concepts having a positive environmental impact and encouraging sustainable construction practices in the following categories: (1) Planning and design; (2) Energy efficiency; (3) Water efficiency and conservation; (4) Material conservation and resource efficiency; and (5) Environmental air quality." The CALGreen Code is not intended to substitute or be identified as meeting the certification requirements of any green building program that is not established and adopted by the California Building Standards Commission (CBSC). Unless otherwise noted in the regulation, all newly constructed buildings in California are subject of the requirements of the CALGreen Code.

As previously stated, the Title 24 Building Energy Efficient Standards and CALGreen Code are updated on a regular basis, with the most recent approved updates consisting of the 2022 Building Energy Efficiency Standards and 2022 CALGreen Code, which will become effective on January 1, 2023. Residential mandatory measures included in the 2022 CALGreen Code include measures related to building envelopes (air leakage, insulation, etc.); fireplaces, decorative gas appliances; space conditioning, water heating, and plumbing systems; measures related to ducts and fans; requirements related to ventilation and indoor air quality; pool and spa systems and equipment; lighting; and provisions related to solar-ready buildings.

5. South Coast Air Quality Management District Rules

The South Coast Air Quality Management District (SCAQMD) enforces rules related to air pollutant emissions in the SCAB. Rules with applicability to the Project include, but are not limited to, those listed below.

- SCAQMD Rule 201: Permit to Construct
- SCAQMD Rule 402: Nuisance Odors
- SCAQMD Rule 403: Fugitive Dust
- SCAQMD Rule 431.2: Low Sulfur Fuel
- SCAQMD Rule 1113: Table of Standards
- SCAQMD Rule 1186: PM_{10} Emissions from Paved and Unpaved Roads, and Livestock Operations

- SCAQMD Rule 1403: Asbestos Emissions from Demolition/Renovation Activities

6. Truck & Bus Regulation

Under the Truck and Bus Regulation, adopted by CARB in 2008, all diesel truck fleets operating in California are required to adhere to an aggressive schedule for upgrading and replacing heavy-duty truck engines. Older, more polluting trucks are required to be replaced first, while trucks that already have relatively clean engines are not required to be replaced until later. Pursuant to the Truck and Bus Regulation, all pre-1994 heavy trucks (trucks with a gross vehicle weight rating greater than 26,000 pounds) were removed from service on California roads by 2015. Between 2015 and 2020, pre-2000 heavy trucks were equipped with PM filters and upgraded or replaced with an engine that meets 2010 emissions standards. The upgrades/replacements occurred on a rolling basis based on model year. By 2023, all heavy trucks operating on California roads must have engines that meet 2010 emissions standards. Lighter trucks (those with a gross vehicle weight rating of 14,001 to 26,000 pounds) adhered to a similar schedule, and were all replaced by 2020. (CARB, n.d.)

7. Advanced Clean Truck Regulation

In June, 2020, CARB adopted a new Rule requiring truck manufacturers to transition from diesel trucks and vans to electric zero-emission trucks beginning in 2024. By 2045, every new truck sold in California will be required to be zero-emission. Manufacturers who certify Class 2b-8 chassis or complete vehicles with combustion engines would be required to sell zero-emission trucks as an increasing percentage of their annual California sales from 2024 to 2035. By 2035, zero-emission truck/chassis sales would need to be 55% of Class 2b – 3 truck sales, 75% of Class 4 – 8 straight truck sales, and 40% of truck tractor sales. CARB reports that as of 2020, most commercially-available models of zero-emission vans, trucks and buses operate less than 100 miles per day. Commercial availability of electric-powered long-haul trucks is very limited. However, as technology advances over the next 20 years, zero-emission trucks will become suitable for more applications, and several truck manufacturers have announced plans to introduce market ready zero-emission trucks in the future. (CARB, 2020)

8. Senate Bill 535 – Disadvantaged Communities

Senate Bill 535 ("SB 535"; De León, Chapter 830, 2012) recognizes the potential vulnerability of low-income and disadvantaged communities to poor air quality. Disadvantaged communities in California are specifically targeted for investment of proceeds from the State's cap-and-trade program. These investments are aimed at improving public health, quality of life, and economic opportunity in California's most burdened communities while at the same time reducing pollution that causes climate change. Authorized by the California Global Warming Solutions Act of 2006 (AB 32), the State's cap-and-trade program is one of several strategies that California uses to reduce greenhouse gas emissions that cause climate change. The funds must be used for programs that further reduce emissions of greenhouse gases. SB 535 requires that 25 percent of the proceeds from the Greenhouse Gas Reduction Fund go to projects that provide a benefit to disadvantaged communities. The California Environmental Protection Agency (CalEPA) is charged with the duty to identify disadvantaged communities. CalEPA bases its identification of these communities on geographic, socioeconomic, public health, and environmental hazard criteria (Health and Safety Code, section 39711, subsection (a)). In this capacity, CalEPA currently defines a disadvantaged community, from an environmental hazard and socioeconomic standpoint, as a community that scores within the top 25 percent of the census tracts, as

analyzed by the California Communities Environmental Health Screening Tool Version 3.0 (CalEnviroScreen). (OEHHA, 2017)

9. Senate Bill 1000 – Environmental Justice in Local Land Use Planning

In an effort to address the inequitable distribution of pollution and associated health effects in low-income communities and communities of color, the Legislature passed and Governor Brown signed Senate Bill 1000 (SB 1000) in 2016, requiring local governments to identify environmental justice communities (called "disadvantaged communities") in their jurisdictions and address environmental justice in their general plans. This new law has several purposes, including to facilitate transparency and public engagement in local governments' planning and decision-making processes, reduce harmful pollutants and the associated health risks in environmental justice communities, and promote equitable access to health-inducing benefits, such as healthy food options, housing, public facilities, and recreation. SB 1000 requires environmental justice elements to identify objectives and policies to reduce unique or compounded health risks in disadvantaged communities. Generally, environmental justice elements will include policies to reduce the community's exposure to pollution through air quality improvement. SB 1000 affirms the need to integrate environmental justice principles into the planning process to prioritize improvements and programs that address the needs of disadvantaged communities. (OAG, n.d.)

10. Assembly Bill 617

Assembly Bill 617 (AB 617) was enacted into law in 2017, and relates to criteria air pollutants and toxic air contaminants from sources other than vehicles. In response to AB 617, the California Air Resources Board (CARB) established the Community Air Protection Program (CAPP or Program). The Program's focus is to reduce exposure in communities most impacted by air pollution. Communities around the State are working together to develop and implement new strategies to measure air pollution and reduce health impacts. This first-of-its-kind statewide effort includes community air monitoring and community emissions reduction programs. In addition, the Legislature appropriated funding to support early actions to address localized air pollution through targeted incentive funding to deploy cleaner technologies in these communities, as well as grants to support community participation in the AB 617 process. AB 617 also includes new requirements for accelerated retrofit of pollution controls on industrial sources, increased penalty fees, and greater transparency and availability of air quality and emissions data, which will help advance air pollution control efforts throughout the State. This new effort provides an opportunity to continue to enhance air quality planning efforts and better integrate community, regional, and State level programs to provide clean air. (CARB, n.d.)

11. Senate Bill 1137 (SB 1137)

SB 1137 is intended to protect the public health of California's communities by creating a minimum health and safety distance of 3,200-feet between sensitive receptors, such as a residence, school, childcare facility, playground, hospital, or nursing home and an oil and gas production well. Specifically, the bill prohibits the California Geological Energy Management Division (CalGEM) from approving the drilling, re-drilling, or significant alteration of any oil and gas well within this "health protection zone." SB 1137 also requires oil and gas facility operators in these protection zones to implement strict pollution controls, and to develop response plans to protect the health of Californians currently living within 3,200 feet of an existing oil well. SB 1137 also requires operators of wells/facilities to provide an individual indemnity bond sufficient to pay

the full cost of properly plugging and abandoning the well and decommissioning the facility in order to prevent operators from failing to properly decommission. (CA Legislative Info, n.d.)

C. *Local Regulations*

1. *Riverside County General Plan Air Quality Element*

The Riverside County General Plan Air Quality Element identifies goals, policies, and programs that are meant to balance Riverside County's actions regarding land use, circulation, and other issues with their potential effects on air quality. The Air Quality Element addresses ambient air quality standards set forth by the EPA and CARB. The Air Quality Element contains policies designed to establish a regional basis for improving air quality. The following relevant and applicable policies from Riverside County's General Plan Air Quality Element have been identified for the Project:

AQ 1.1: Promote and participate with regional and local agencies, both public and private, to protect and improve air quality.

AQ 1.4: Coordinate with the SCAQMD and [Mojave Desert Air Quality Management District (MDAQMD)] to ensure that all elements of air quality plans regarding reduction of air pollutant emissions are being enforced.

AQ 2.1: The County land use planning efforts shall assure that sensitive receptors are separated and protected from polluting point sources to the greatest extent possible.

AQ 2.2: Require site plan designs to protect people and land uses sensitive to air pollution through the use of barriers and/or distance from emissions sources when possible.

AQ 2.3: Encourage the use of pollution control measures such as landscaping, vegetation and other materials, which trap particulate matter or control pollution.

AQ 3.1: Allow the market place, as much as possible, to determine the most economical approach to relieve congestion and cut emissions.

AQ 3.3: Encourage large employers and commercial/industrial complexes to create Transportation Management Associations.

AQ 4.1: Require the use of all feasible building materials/methods which reduce emissions.

AQ 4.2: Require the use of all feasible efficient heating equipment and other appliances, such as water heaters, swimming pool heaters, cooking equipment, refrigerators, furnaces and boiler units.

AQ 4.6: Require stationary air pollution sources to comply with applicable air district rules and control measures.

AQ 4.7: To the greatest extent possible, require every project to mitigate any of its anticipated emissions which exceed allowable emissions as established by the SCAQMD, MDAQMD, SCAB, the Environmental Protection Agency and the California Air Resources Board.

AQ 4.9: Require compliance with SCAQMD Rules 403 and 403.1, and support appropriate future measures to reduce fugitive dust emanating from construction sites.

4.3.3 Basis For Determining Significance

A. *Thresholds of Significance*

Section III of Appendix G to the State CEQA Guidelines addresses typical adverse effects to air quality, and includes the following threshold questions to evaluate a project's impacts due to air quality emissions (OPR, 2018a):

- Would the project conflict with or obstruct implementation of the applicable air quality plan?
- Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?
- Would the project expose sensitive receptors to substantial pollutant concentrations?
- Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Significance thresholds are set forth in Riverside County's Environmental Assessment Checklist, are derived from Section III of Appendix G to the State CEQA Guidelines (listed above), and state that the proposed Project would have a significant impact due to air quality emissions if construction and/or operation of the Project would:

a. *Conflict with or obstruct implementation of the applicable air quality plan;*

b. *Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or State ambient air quality standard;*

c. *Expose sensitive receptors, which are located within one (1) mile of the project site, to substantial pollutant concentrations; or*

d. *Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.*

The significance thresholds set forth in Riverside County's Environmental Assessment Checklist were used to evaluate the significance of the proposed Project's impacts due to air quality emissions. Riverside County also has chosen to apply SCAQMD significance thresholds, as presented in SCAQMD's CEQA Air Quality Significance Thresholds (April 2019), to evaluate the Project's air quality impacts against the above thresholds.

Accordingly, Threshold a., which addresses Section III.a of Appendix G to the State CEQA Guidelines, evaluates whether the proposed Project would conflict with SCAQMD's 2016 Air Quality Management Plan (AQMP), which addresses State and federal requirements under the CAA. A conflict with the AQMP standards and requirements would inhibit the SCAQMD's ability to achieve State and federal standards for air quality.

Threshold b. addresses Section III.b of Appendix G to the State CEQA Guidelines, and emissions generated by a development project would be significant under Threshold b. if emissions are projected to exceed the Regional Thresholds established by the SCAQMD for criteria pollutants.

Threshold c. addresses Section III.c of Appendix G to the State CEQA Guidelines. Under this threshold, impacts would be potentially significant if emissions are projected to exceed the Localized Significance Thresholds (LSTs) established by the State of California and the SCAQMD for criteria pollutants or if the Project would cause or contribute to CO "Hot Spots."

Threshold d. evaluates Section III.d of Appendix G of the State CEQA Guidelines. SCAQMD Rule 402 ("Nuisance") and California Health & Safety Code, Division 26, Part 4, Chapter 3, Section 41700 prohibit the emission of any material which causes nuisance to a considerable number of persons or endangers the comfort, health, or safety of the public, including odors. The potential to violate Rule 402 or § 41700 is used herein as a basis to consider a project's odors or other emissions to be significant and require feasible mitigation measures.

B. Regional Thresholds

As noted above, the SCAQMD has developed Regional Thresholds of significance for other regulated pollutants, as summarized Table 4.3-4, *Maximum Daily Regional Emissions Thresholds*. The SCAQMD's CEQA Air Quality Significance Thresholds (April 2019) indicate that any projects in the SCAB with daily emissions that exceed any of the indicated thresholds should be considered as having an individually and cumulatively-considerable significant air quality impact. (Urban Crossroads, 2023a, p. 24)

Table 4.3-4 Maximum Daily Regional Emissions Thresholds

Pollutant	Construction	Operations
NO_X	100 lbs./day	55 lbs./day
VOC	75 lbs./day	55 lbs./day
PM_{10}	150 lbs./day	150 lbs./day
$PM_{2.5}$	55 lbs./day	55 lbs./day
SO_X	150 lbs./day	150 lbs./day
CO	550 lbs./day	550 lbs./day
Pb	3 lbs./day	3 lbs./day

lbs./day = Pounds Per Day
Source: Regional Thresholds presented in this table are based on the SCAQMD Air Quality Significance Thresholds, April 2019
(Urban Crossroads, 2023a, Table 3-1)

C. Localized Thresholds

1. Localized Thresholds for Construction Activity

As described in further detail in Subsection 3.6 of the Project's AQIA (*Technical Appendix B*), the Project's construction activities could actively disturb approximately 3.5 acres per day during site preparation and 4.0 acres per day for grading activities. It should be noted that the disturbed area per day is representative of a piece of equipment making multiple passes over the same land area. In other words, one Rubber Tired Dozer

can make multiple passes over the same land area totaling 0.5 acres in a given 8-hour day. (Urban Crossroads, 2023a, pp. 32-33)

Since the total acreage disturbed is 1 acre per day for demolition, 3.5 acre per day for site preparation, and 4 acres per day grading activities, SCAQMD's screening look-up tables are utilized in determining impacts. It should be noted that since the look-up tables identifies thresholds at only 1 acre, 2 acres, and 5 acres, linear regression has been utilized to determine localized significance thresholds. Consistent with SCAQMD guidance, the thresholds presented in Table 4.3-5, *Maximum Construction-Related Daily Localized Emissions Thresholds*, were calculated by interpolating the threshold values for the Project's disturbed acreage. (Urban Crossroads, 2023a, p. 37)

Table 4.3-5 Maximum Construction-Related Daily Localized Emissions Thresholds

Construction Activity	Construction Localized Thresholds			
	NO_X	CO	PM_{10}	PM_{10}
Demolition	118 lbs/day	602 lbs/day	4 lbs/day	3 lbs/day
Site Preparation	220 lbs/day	1,230 lbs/day	10 lbs/day	6 lbs/day
Grading	237 lbs/day	1,346 lbs/day	11 lbs/day	7 lbs/day

Source: Localized Thresholds presented in this table are based on the SCAQMD Final LST Methodology, July 2008
(Urban Crossroads, 2023a, Table 3-7)

2. Localized Thresholds for Long-Term Operations

The development of the proposed Project is located on 140.8 acres. The Project would include a total of 231 single-family residential dwelling units. According to SCAQMD LST 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., transfer facilities and warehouse buildings). The proposed Project does not include such uses, and thus, due to the lack of significant stationary source emissions, no long-term localized significance threshold analysis is needed for the proposed Project. (Urban Crossroads, 2023a, p. 37)

3. Localized Thresholds for CO Emissions

Based on the SCAQMD's CEQA Air Quality Handbook (1993), a project's localized CO emissions 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

D. Methodology

1. California Emissions Estimator Model (CalEEMod)

Land uses such as the Project affect air quality through construction-source and operational-source emissions. In May 2022 California Air Pollution Control Officers Association (CAPCOA) in conjunction with other California air districts, including SCAQMD, released the latest version of the CalEEMod Version 2022.1. The

purpose of this model is to calculate construction-source and operational-source criteria pollutant (VOCs, NO_X, SO_X, CO, PM_{10}, and $PM_{2.5}$) and GHG emissions from direct and indirect sources, and quantify applicable air quality and GHG reductions achieved from mitigation. Accordingly, the latest version of CalEEMod has been used for this Project to determine construction and operational air quality emissions. CalEEMod output for construction and operational scenarios is provided in Appendices 3.1, 3.2 and 3.3 to the Project's AQIA (*Technical Appendix B*). (Urban Crossroads, 2023a, p. 25)

2. Emission Factors Model (EMFAC)

The EMissions FACtor model (EMFAC) web database is used for State Implementation Plan and transportation conformity analyses. EMFAC2021 is a mathematical model that was developed to calculate emission rates, fuel consumption, Vehicle Miles Traveled (VMT) from motor vehicles that operate on highways, freeways, and local roads in California and is commonly used by the CARB to project changes in future emissions from on-road mobile sources. CalEEMod, version 2022.1, incorporates EMFAC2021. Additionally, the EMFAC emission factors used in this analysis include adjustment factors for the Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule. (Urban Crossroads, 2023a, p. 25)

3. Construction Emissions

Refer to Subsection 3.4 of the Project's AQIA (*Technical Appendix B*) for a discussion of construction activities, construction duration, and construction equipment assumed as inputs in the analysis of the Project's construction-related air quality impacts (Urban Crossroads, 2023a, pp. 25-28).

4. Operational Emissions

Refer to Subsection 3.5 of the Project's AQIA (*Technical Appendix B*) for a discussion of area source emissions sources, mobile-source emission sources, and energy-source emissions that were assumed as inputs in the analysis of the Project's operational-related air quality impacts. (Urban Crossroads, 2023a, pp. 30-31)

5. Sensitive Receptors

Some people are especially sensitive to air pollution and are given special consideration when evaluating air quality impacts from projects. These groups of people include children, the elderly, individuals with pre-existing respiratory or cardiovascular illness, and athletes and others who engage in frequent exercise. Structures that house these persons or places where they gather to exercise are defined as "sensitive receptors". These structures typically include residences, hotels, hospitals, etc. as they are also known to be locations where an individual can remain for 24 hours. Consistent with the LST Methodology, the nearest land use where an individual could remain for 24 hours to the Project site (in this case the nearest residential land use) has been used to determine construction and operational air quality impacts for emissions of PM_{10} and $PM_{2.5}$, since PM_{10} and $PM_{2.5}$ thresholds are based on a 24-hour averaging time. The nearest receptor used for evaluation of localized impacts of PM_{10} and $PM_{2.5}$ is represented by location R1, which represents the property line of the existing residence at 17795 Twin Lakes Drive, approximately 10 feet (3 meters) north of the Project's property line. (Urban Crossroads, 2023a, p. 34)

It should be noted that the LST Methodology explicitly states that "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, for evaluation of localized PM_{10} and $PM_{2.5}$, a 25-meter distance will be used. (Urban Crossroads, 2023a, p. 34)

Commercial and industrial facilities are not included in the definition of sensitive receptor because employees and patrons do not typically remain onsite for a full 24 hours but are typically onsite for eight hours or less. The LST Methodology explicitly states that "LSTs based on shorter averaging periods, such as the NO_X and CO LSTs, could also be applied to receptors such as industrial or commercial facilities since it is reasonable to assume that a worker at these sites could be present for periods of one to eight hours." For purposes of analysis, if an industrial/commercial use is located at a closer distance to the Project site than the nearest residential use, the nearest industrial/commercial use will be utilized to determine construction and operational LST air impacts for emissions of NO_X and CO an individual could be present at these sites for periods of one to eight hours. It should be noted that the existing residence (R1) is located at a closer distance than the nearest industrial/commercial use. As such, the same receptor will be used for evaluation of localized NO_X and CO. (Urban Crossroads, 2023a, pp. 34-35)

Receptors in the Project study area are described below and are shown on Figure 4.3-1, *Sensitive Receptor Locations*, and are described below (Urban Crossroads, 2023a, p. 35).

- Location R1: Location R1 represents the existing residence at 17795 Twin Lakes Drive, approximately 10 feet north of the Project site. Receptor R1 is placed in the private outdoor living areas (backyards) facing the Project site.

- Location R2: Location R2 represents the existing residence at 18019 Twin Lakes, approximately 57 feet northeast of the Project site. Receptor R2 is placed in the private outdoor living areas (backyards) facing the Project site.

- Location R3: Location R3 represents the existing residence at 15795 Cartwright Street, approximately 10 feet east of the Project site. Receptor R3 is placed in the private outdoor living areas (backyards) facing the Project site.

- Location R4: Location R4 represents the existing residence at 17975 Iris Avenue, approximately 79 feet south of the Project site. Since there are no private outdoor living areas (backyards) facing the Project site, receptor R4 is placed at the building façade.

- Location R5: Location R5 represents the existing residence at 16005 Gamble Avenue, approximately 62 feet south of the Project site. Since there are no private outdoor living areas (backyards) facing the Project site, receptor R5 is placed at the building façade.

4.3.4 Impact Analysis

Threshold a.: ***Would the Project conflict with or obstruct implementation of the applicable air quality plan?***

The Project site is located within the SCAB, which is characterized by relatively poor air quality. The SCAQMD has jurisdiction over an approximately 10,743 square-mile area consisting of the four-county SCAB

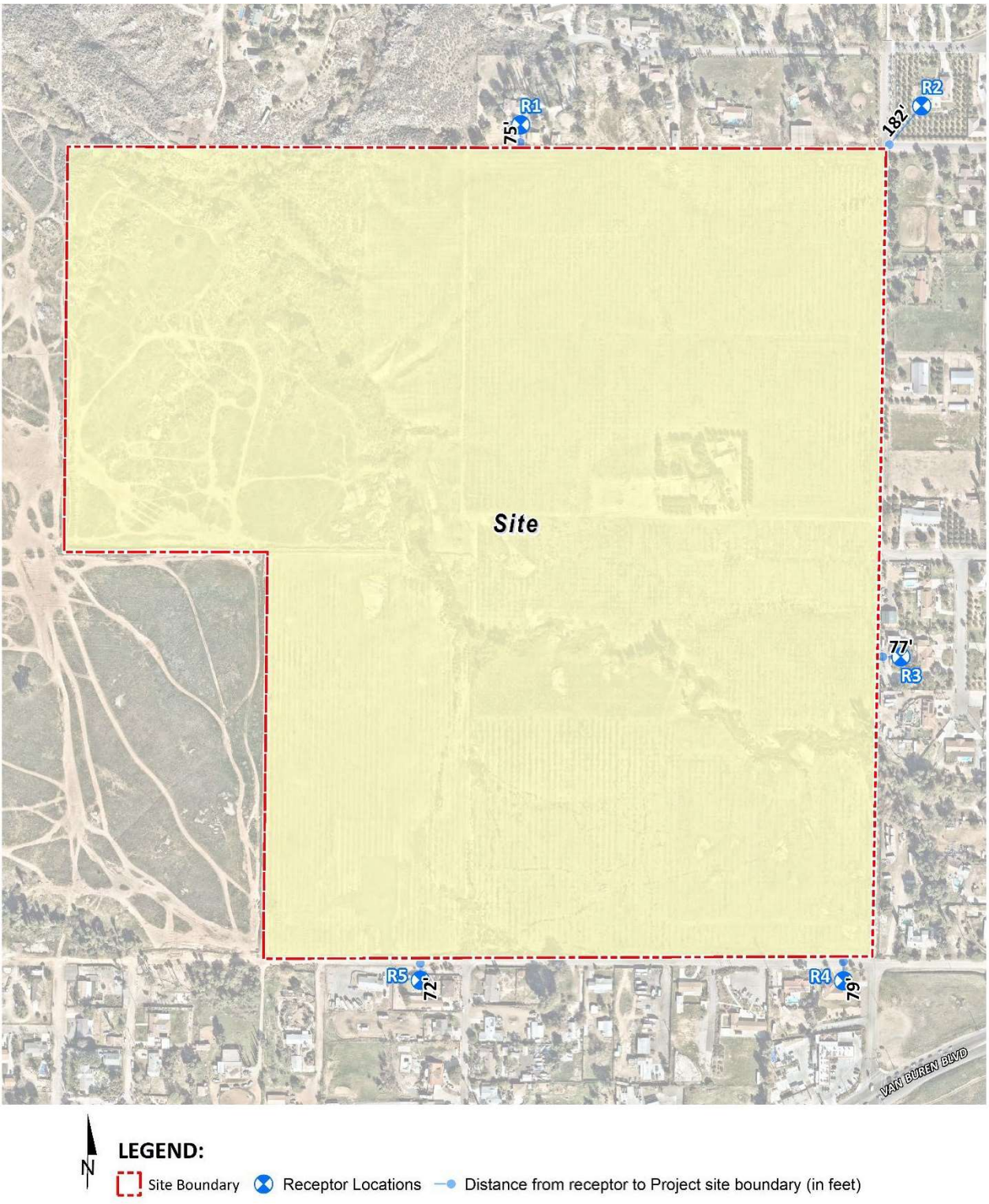


Figure 4.3-1 Sensitive Receptor Locations

and the Los Angeles County and Riverside County portions of what use to be referred to as the Southeast Desert Air Basin. In these areas, the SCAQMD is principally responsible for air pollution control, and works directly with the SCAG, county transportation commissions, local governments, as well as State and federal agencies to reduce emissions from stationary, mobile, and indirect sources to meet State and federal ambient air quality standards. (Urban Crossroads, 2023a, p. 41)

Currently, these State and federal air quality standards are exceeded in most parts of the SCAB. In response, the SCAQMD has adopted a series of 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 to minimize any negative fiscal impacts of air pollution control on the economy. (Urban Crossroads, 2023a, p. 41)

In December 2022, the SCAQMD released the Final 2022 AQMP (2022 AQMP). The 2022 AQMP continues to evaluate current integrated strategies and control measures to meet the NAAQS, as well as explore new and innovative methods to reach its goals. Some of these approaches include utilizing incentive programs, recognizing existing co-benefit programs from other sectors, and developing a strategy with fair-share reductions at the federal, State, and local levels. Similar to the 2016 AQMP, the 2022 AQMP incorporates scientific and technological information and planning assumptions, including the 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (2020-2045 RTP/SCS), a planning document that supports the integration of land use and transportation to help the region meet the federal CAA requirements. The Project's consistency with the AQMP will be determined using the 2022 AQMP as discussed below. (Urban Crossroads, 2023a, p. 41)

Criteria for determining consistency with the AQMP are defined in Chapter 12, Section 12.2 and Section 12.3 of the SCAQMD's CEQA Air Quality Handbook (1993). These indicators are discussed below. (Urban Crossroads, 2023a, p. 41)

- ***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.*

The violations that Consistency Criterion No. 1 refers to are the CAAQS and NAAQS. CAAQS and NAAQS violations would occur if regional or localized significance thresholds were exceeded. (Urban Crossroads, 2023a, p. 42)

Construction Impacts – Consistency Criterion 1

Consistency Criterion No. 1 refers to violations of the CAAQS and NAAQS. CAAQS and NAAQS violations would occur if LSTs or regional significance thresholds were exceeded. As indicated under the analysis of Thresholds b. and c., below, the Project's regional and localized emissions during construction would be below the SCAQMD Regional Thresholds and LSTs. Accordingly, the proposed Project would be consistent with the AQMP for construction activities, and impacts would be less than significant. (Urban Crossroads, 2023a, p. 42)

Operational Impacts – Consistency Criterion 1

As indicated under the analysis of Thresholds b. and c., below, the Project's operational-source emissions would not exceed any of the SCAQMD Regional Thresholds or LSTs. Therefore, the Project would not cause or contribute to any violations of the CAAQS or NAAQS. Accordingly, the proposed Project would be consistent with the AQMP for operational activities, and impacts would be less than significant. (Urban Crossroads, 2023a, p. 42)

- ***Consistency Criterion No. 2:*** *The Project will not exceed the assumptions in the AQMP based on the years of Project build-out phase.*

The 2022 AQMP demonstrates that the applicable ambient air quality standards can be achieved within the timeframes required under federal law. Growth projections from local general plans adopted by cities in the district are provided to the SCAG, which develops regional growth forecasts, which are then used to develop future air quality forecasts for the AQMP. Development consistent with the growth projections in County of Riverside General Plan is considered to be consistent with the AQMP. (Urban Crossroads, 2023a, p. 42)

Construction Impacts – Consistency Criterion 2

Peak day emissions generated by construction activities are largely independent of land use assignments, but rather are a function of development scope and maximum area of disturbance. Irrespective of the site's land use designation, development of the site to its maximum potential would likely occur, with disturbance of the entire site occurring during construction activities. As such, the Project's construction activities would not result in a conflict with the AQMP according to this criterion. (Urban Crossroads, 2023a, p. 42)

Operational Impacts – Consistency Criterion 2

The Project site is located within an unincorporated portion of the County of Riverside. As per the Riverside County General Plan, the unincorporated portions of the County are divided into 19 area plans. These area plans provide more detailed land use and policy direction regarding local issues such as land use, circulation, open space, and other topical areas. The Project site is located within the Lak Mathews/Woodcrest Area Plan (LMWAP). (Urban Crossroads, 2023a, p. 42)

Per the General Plan, the Project site is designated for "Rural Community – Very Low Density Residential" (RC-VLDR) uses. The "Rural Community – Very Low Density Residential" designation allows for 1.0 du per acre to 1.0 du per two acres. The Project Applicant is proposing a General Plan Amendment, which would change the designations on the Project site from "Rural Community – Very Low Density Residential (RC-VLDR)" to "Rural Community – Low Density Residential (RC-LDR)," both of which provide for the development of detached single residential housing dwelling units and ancillary structures on large parcels. Equestrian, animal-keeping, agriculture, and small-scale commercial uses are permitted. The RC-LDR land use allows for 2.0 du per acre to 1.0 du per acre. (Urban Crossroads, 2023a, p. 43)

The Project also proposes a Change of Zone to rezone the site from "Light Agriculture, 10-Acre Minimum Lot Size (A-1-10)" to "One Family Dwellings, 10,000 s.f. Minimum Lot Sizes (R-1-10,000)," which permits the development of one-family dwellings, agriculture, animal-keeping, planned residential developments, beauty

shops, temporary real estate tract offices, nurseries, public parks and playgrounds, and child day care centers. (Urban Crossroads, 2023a, p. 43)

The proposed Project includes the development of 231 single-family detached residential dwelling units. As previously stated, the Project is inconsistent with the current zoning designation and would require a General Plan and Change of Zone. Although the Project is inconsistent with the site's existing General Plan land use designation and zoning classification, the analysis of Thresholds b. and c., below, demonstrate that the Project's construction and long-term operational activities would not exceed any of the SCAQMD Regional Thresholds or LSTs. As such, the Project would not conflict with the AQMP according to this criterion. (Urban Crossroads, 2023a, p. 43)

AQMP Consistency Conclusion

The Project would not have the potential to result in or cause NAAQS or CAAQS violations. Additionally, Project construction- and operational-source emissions would not exceed any of the SCAQMD regional or localized significance thresholds. The Project is therefore considered to be consistent with and would not obstruct implementation of the SCAQMD 2022 AQMP, and impacts would therefore be less than significant. (Urban Crossroads, 2023a, p. 43)

Threshold b.: ***Would the Project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?***

Construction Emissions

Construction activities associated with the Project would result in emissions of VOCs, NO_X, SO_X, CO, PM_{10}, and $PM_{2.5}$. Construction related emissions are expected from the following construction activities: demolition; site preparation; grading; building construction; architectural coating; and paving. Refer to Subsection 3.4 of the Project's AQIA Technical Report (*Technical Appendices B*) for a description of the modeling inputs used to calculate the Project's estimated construction-related air pollutant emissions. Provided below is an analysis of potential impacts to air quality during construction of the proposed Project. (Urban Crossroads, 2023a, pp. 25-28)

CalEEMod calculates maximum daily emissions for summer and winter periods. The estimated maximum daily construction emissions with fugitive dust control as required by SCAQMD Rule 403 are summarized on Table 4.3-6, *Overall Construction Emissions Summary*. Detailed construction model outputs are presented in Appendices 3.1 and 3.2 to the Project's AQIA (*Technical Appendix B*). Under the assumed scenarios as described in Subsection 3.4 of the Project's AQIA, emissions resulting from the Project construction would not exceed criteria pollutant thresholds established by the SCAQMD. As such, Project regional construction-related emissions would not result in a cumulatively-considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable federal or State ambient air quality standard, and impacts would be less than significant. (Urban Crossroads, 2023a, p. 29)

Table 4.3-6 Overall Construction Emissions Summary

Year	Emissions (lbs/day)					
	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Summer (Smog Season)						
2024	4.77	62.00	107.20	2.08	69.60	21.57
2025	49.20	89.60	93.20	0.19	3.95	7.22
2026	2.68	22.20	34.40	0.06	0.82	1.26
2027	1.28	10.60	16.80	0.03	0.37	0.61
Winter						
2024	7.46	70.10	62.40	0.11	3.11	3.50
2025	48.30	89.70	91.40	0.19	4.14	9.83
2026	2.65	22.40	32.90	0.06	0.82	1.26
2027	1.27	10.60	16.20	0.03	0.37	0.61
Maximum Daily Emissions	**49.20**	**89.70**	**107.20**	**2.08**	**69.60**	**21.57**
SCAQMD Regional Threshold	75	100	550	150	150	55
Threshold Exceeded?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

(Urban Crossroads, 2023a, Table 3-4)

Operational Emissions

Operational activities associated with the Project would result in emissions of VOCs, NO_X, SO_X, CO, PM_{10}, and $PM_{2.5}$. Operational emissions would be expected from the following primary sources: area source emissions, energy source emissions, and mobile source emissions. Refer to Subsection 3.5 of the Project's AQIA (*Technical Appendix B*) for a description of modeling inputs and assumptions used to calculate the Project's operational emissions. (Urban Crossroads, 2023a, pp. 30-31)

Operational activities for summer and winter scenarios are presented in Table 4.3-7, *Summary of Operational Emissions*. Detailed operational model outputs are presented in Appendix 3.3 to the Project's AQIA (*Technical Appendix B*). As shown in Table 4.3-7, the Project's daily regional emissions from on-going operations would not exceed any of the SCAQMD Regional thresholds of significance for any criteria pollutant. As such, Project operational-related regional emissions would not result in a cumulatively-considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable federal or State ambient air quality standard, and impacts would be less than significant. (Urban Crossroads, 2023a, p. 31)

Table 4.3-7 Summary of Operational Emissions

Source	Emissions (lbs/day)					
	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Summer (Smog Season)						
Mobile Source	8.66	7.98	75.20	0.19	6.91	1.33
Area Source	12.20	3.60	14.70	0.02	0.29	0.29
Energy Source	0.12	2.09	0.89	0.01	0.17	0.17
Total Maximum Daily Emissions	**20.98**	**13.67**	**90.79**	**0.22**	**7.37**	**1.79**
SCAQMD Regional Threshold	55	55	550	150	150	55
Threshold Exceeded?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**
Winter						
Mobile Source	8.12	8.55	63.20	0.18	6.91	2.23
Area Source	11.10	3.48	1.48	0.02	0.28	0.51
Energy Source	0.12	2.09	0.89	0.01	0.17	0.31
Total Maximum Daily Emissions	**19.34**	**14.12**	**65.57**	**0.21**	**7.36**	**3.05**
SCAQMD Regional Threshold	55	55	550	150	150	55
Threshold Exceeded?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

(Urban Crossroads, 2023a, Table 3-5)

Threshold c.: ***Would the Project expose sensitive receptors, which are located within one (1) mile of the project site, to substantial pollutant concentrations?***

During both construction and operation, the Project has the potential to expose nearby sensitive receptors to substantial pollutant concentrations. The following provides an analysis based on the applicable LSTs established by the State of California and SCAQMD, an analysis of the Project's potential to result in or contribute to CO "hot spots," and an analysis of toxic air contaminants (TACs).

Localized Emissions

The analysis herein makes use of methodology included in the SCAQMD *Final Localized Significance Threshold Methodology* (LST Methodology). The SCAQMD has established that impacts to air quality are significant if there is a potential to contribute or cause localized exceedances of the NAAQS and CAAQS. Collectively, these are referred to as Localized Significance Thresholds (LSTs). (Urban Crossroads, 2023a, p. 32)

The SCAQMD established LSTs 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 LSTs as another indicator of significance in its air quality impact analyses. (Urban Crossroads, 2023a, p. 32)

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 LSTs 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 herein makes use of methodology included in the LST Methodology. (Urban Crossroads, 2023a, p. 32)

Refer to Subsection 3.6 of the Project's AQIA (*Technical Appendix B*) for a discussion of modeling inputs used in the analysis of the Project's impacts due to LSTs. Refer also to the discussion of LSTs in EIR subsection 4.3.3.C, above, and to the discussion of sensitive receptors presented in 4.3.3.D.5, above. Thresholds of significance for the construction-related LST analysis previously were presented in Table 4.3-5. (Urban Crossroads, 2023a, pp. 32-35)

Construction-Source Emissions LST Analysis

Since the total acreage disturbed is 1 acre per day for demolition, 3.5 acre per day for site preparation, and 4 acres per day grading activities, SCAQMD's screening look-up tables are utilized in determining impacts. It should be noted that since the look-up tables identifies thresholds at only 1 acre, 2 acres, and 5 acres, linear regression has been utilized to determine localized significance thresholds. Consistent with SCAQMD guidance, the thresholds presented in Table 4.3-5 (previously presented) were calculated by interpolating the threshold values for the Project's disturbed acreage. (Urban Crossroads, 2023a, p. 37)

Table 4.3-8, *Localized Significance Summary of Construction (Without Mitigation)*, identifies the localized impacts at the nearest receptor location in the vicinity of the Project. As shown in Table 4.3-8, after mandatory compliance with SCAQMD Rule 403[1], localized construction emissions would not exceed the applicable SCAQMD LSTs. On this basis, Project-related construction emissions would not expose sensitive receptors to substantial pollutant concentrations, and impacts would be less than significant. Outputs from the model runs for unmitigated construction LSTs are provided in Appendices 3.1 and 3.2 to the Project's AQIA (*Technical Appendix B*). (Urban Crossroads, 2023a, p. 37)

Operational-Source Emissions LST Analysis

The Project would consist of the development of 231 single-family homes on the 140.8-acre Project site. According to SCAQMD LST 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., transfer facilities and warehouse buildings). The proposed Project does not include such uses, and thus, due to the lack of significant stationary source emissions, no long-term localized significance threshold analysis is needed. Accordingly, long-term operation of the Project would not expose sensitive receptors to substantial pollutant concentrations, and impacts would be less than significant. (Urban Crossroads, 2023a, p. 3738)

[1] Rule 403 requires that feasible dust control measure be implemented, including at a minimum applying water to active construction areas 3 times per day, installing track-out devices at access points or implementing street sweeping, and halting operations during high wind events.

Table 4.3-8 Localized Significance Summary of Construction (Without Mitigation)

Construction Activity	Year	Emissions (lbs/day)			
		NO_X	CO	PM_{10}	$PM_{2.5}$
Demolition	Phase 1 2024	24.90	21.70	1.08	0.99
	Phase 2 2024	24.90	21.70	1.06	0.98
	Phase 2 2025	22.20	19.90	0.92	0.84
	Maximum Daily Emissions	**24.90**	**21.70**	**1.08**	**0.99**
	SCAQMD Localized Threshold	118	602	4	3
	Threshold Exceeded?	**NO**	**NO**	**NO**	**NO**
Site Preparation	Phase 1 2024	42.50	35.30	7.91	4.76
	Phase 2 2025	37.50	32.40	7.59	4.47
	Maximum Daily Emissions	**42.50**	**35.30**	**7.91**	**4.76**
	SCAQMD Localized Threshold	220	1,230	10	6
	Threshold Exceeded?	**NO**	**NO**	**NO**	**NO**
Grading	Phase 1 2024	37.60	31.40	4.44	2.61
	Phase 1 2025	32.60	29.40	4.19	2.38
	Phase 2 2025	32.60	29.40	4.19	2.38
	Maximum Daily Emissions	**37.60**	**31.40**	**4.44**	**2.61**
	SCAQMD Localized Threshold	237	1,346	11	7
	Threshold Exceeded?	**NO**	**NO**	**NO**	**NO**

(Urban Crossroads, 2023a, Table 3-8)

CO "Hot Spot" Analysis

An adverse CO concentration, known as a "hot spot", would occur if an exceedance of the State one-hour standard of 20 ppm or the eight-hour standard of 9 ppm were to occur. At the time of the 1993 Handbook, the SCAB was designated nonattainment under the CAAQS and NAAQS for CO. (Urban Crossroads, 2023a, p. 38)

It has long been recognized that CO hotspots are caused by vehicular emissions, primarily when idling at congested intersections. In response, vehicle emissions standards have become increasingly stringent in the last twenty years. Currently, the allowable CO emissions standard in California is a maximum of 3.4 grams/mile for passenger cars (there are requirements for certain vehicles that are more stringent). With the turnover of older vehicles, introduction of cleaner fuels, and implementation of increasingly sophisticated and efficient emissions control technologies, CO concentration in the SCAB is now designated as attainment, as previously noted in Table 4.3-2. (Urban Crossroads, 2023a, p. 37)

To establish a more accurate record of baseline CO concentrations affecting the SCAB, a CO "hot spot" analysis was conducted in 2003 for four busy intersections in Los Angeles at the peak morning and afternoon

time periods. This "hot spot" analysis did not predict any violation of CO standards, as shown on Table 3-9 of the Project's AQIA (*Technical Appendix B*) (Urban Crossroads, 2023a, p. 38).

Based on the SCAQMD's 2003 AQMP and the 1992 Federal Attainment Plan for Carbon Monoxide (1992 CO Plan), peak CO concentrations in the SCAB were a result of unusual meteorological and topographical conditions and not a result of traffic volumes and congestion at a particular intersection. As evidence of this, a 9.3 ppm 8-hour CO concentration was measured at the Long Beach Boulevard and Imperial Highway intersection, which was the highest CO generating intersection within the "hot spot" analysis. However, the SCAQMD determined that only 0.7 ppm was attributable to the traffic volumes and congestion at this intersection; the remaining 8.6 ppm were due to the ambient air measurements at the time the 2003 AQMP was prepared. By comparison, the ambient 8-hour CO concentration within the Project study area is estimated at 1.1 ppm – 1.6 ppm (please refer to previous Table 4.3-2). (Urban Crossroads, 2023a, p. 39)

The traffic volumes used in the 2003 AQMP "hot spot" analysis are shown on Table 3-10 of the Project's AQIA (*Technical Appendix B*). The busiest intersection evaluated for AM traffic volumes was at Wilshire Boulevard and Veteran Avenue, which had an AM traffic volume of approximately 8,062 vph. The 2003 AQMP calculated that the highest 1-hour concentration for the intersection of Wilshire Boulevard and Veteran Avenue was 4.6 ppm. This indicates that, should the hourly traffic volume increase four times to 32,250 vehicles per hour, CO concentrations (4.6 ppm x 4 = 18.4 ppm) still would not likely exceed the most stringent 1-hour CO standard (20.0 ppm).[2] (Urban Crossroads, 2023a, p. 39)

Similar considerations are also employed by other Air Districts when evaluating potential CO concentration impacts. More specifically, the Bay Area Air Quality Management District (BAAQMD) concludes that under existing and future vehicle emission rates, a given project would have to increase traffic volumes at a single intersection by more than 44,000 vehicles per hour (vph) – or 24,000 vph where vertical and/or horizontal air does not mix – in order to generate a significant CO impact. (Urban Crossroads, 2023a, p. 40)

The proposed Project would generate 2,198 trips and would not produce the volume of traffic required to generate a CO "hot spot." As shown on Table 3-11 of the Project's AQIA (*Technical Appendix A*), the intersection of Trautwein Road/Cole Avenue & Van Buren Boulevard would have the highest AM and PM traffic volumes of 6,135 vph and 6,614 vph respectively. As such, Project-related traffic volumes are less than the traffic volumes identified in the 2003 AQMP. The Project considered herein would not produce the volume of traffic required to generate a CO "hot spot" either in the context of the 2003 Los Angeles hot spot study or based on representative BAAQMD CO threshold considerations. Therefore, CO "hot spots" are not an environmental impact of concern for the Project. Localized air quality impacts related to mobile-source emissions would therefore be less than significant. (Urban Crossroads, 2023a, p. 40)

[2] Based on the ratio of the CO standard (20.0 ppm) and the modeled value (4.6 ppm).

Toxic Air Contaminants (TACs)

Construction Activities

During short-term construction activity, the Project also would result in some diesel particulate matter (DPM) which is a listed carcinogen and toxic air contaminant (TAC) in the State of California. The 2015 Office of Environmental Health Hazard Assessment (OEHHA) revised risk assessment guidelines suggest that construction projects as short as 2-6 months may warrant evaluation. Notwithstanding, based on Urban Crossroad's professional opinion and experience in preparing health risk assessments for development projects, given the distance of the Project from surrounding sensitive receptors, the dominant wind patterns blowing to the northwest away for receptors, and the annual $PM_{2.5}$ emissions from equipment during each year of construction, any DPM generated from construction activity would result in less-than-significant ground-level concentrations of DPM and would not result in a significant health risks and no further evaluation is required. (Urban Crossroads, 2023a, pp. 43-44)

Furthermore, many air districts throughout the state, including the SCAQMD, are currently evaluating the applicability of age sensitivity factors and have not established CEQA guidance. More specifically in their response to comments received on SCAQMD New Source Review rule, the SCAQMD explicitly states that: (Urban Crossroads, 2023a, p. 44)

> *"The Proposed Amended Rules are separate from the CEQA significance thresholds. The SCAQMD staff is currently evaluating how to implement the Revised OEHHA Guidelines under CEQA. The SCAQMD staff will evaluate a variety of options on how to evaluate health risks under the Revised OEHHA Guidelines under CEQA. The SCAQMD staff will conduct public workshops to gather input before bringing recommendations to the Governing Board. In the interim, staff will continue to use the previous guidelines for CEQA determinations."* (Urban Crossroads, 2023a, p. 44)

Operational Activities

TACs analysis 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., transfer facilities and warehouse buildings). The Project consists of a proposed residential subdivision and does not include any such uses that have the potential to result in TACs. Therefore, due to the lack of significant stationary source emissions, no TAC analysis is needed for operations and Project operational impacts due to TACs would be less than significant. (Urban Crossroads, 2023a, p. 44)

Community Health

Most local agencies, including Riverside County, lack the data to do their own assessment of potential health impacts from criteria air pollutant emissions, as would be required to establish customized, locally-specific thresholds of significance based on potential health impacts from an individual development project. The use of national or "generic" data to fill the gap of missing local data would not yield accurate results because such data does not capture local air patterns, local background conditions, or local population characteristics, all of which play a role in how a population experiences air pollution. Because it is impracticable to accurately isolate the exact cause of a human disease (for example, the role a particular air pollutant plays compared to the role of other allergens and genetics in causing asthma), Riverside County has determined that existing scientific

tools cannot accurately estimate health impacts of the Project's air emissions without undue speculation. Instead, readers are directed to the Project's AQIA (*Technical Appendix B*) as presented above, which provides extensive information concerning the quantifiable and non-quantifiable health risks related to the Project's construction and long-term operation.

Notwithstanding, the Project's AQIA (*Technical Appendix B*) does evaluate the proposed Project's localized impact to air quality for emissions of CO, NO_X, PM_{10}, and $PM_{2.5}$ by comparing the proposed Project's on-site emissions to the SCAQMD's applicable LST thresholds. The LST analysis above determined that the Project would not result in localized emissions of CO, NO_X, PM_{10}, and $PM_{2.5}$ that would exceed the SCAQMD's LSTs. Therefore, the proposed Project would not be expected to exceed the most stringent applicable federal or State ambient air quality standards for emissions of CO, NO_X, PM_{10}, and $PM_{2.5}$.

As the Project's emissions would comply with federal, State, and local air quality standards, the proposed Project's emissions are not sufficiently high enough to use a regional modeling program to correlate health effects on a basin-wide level, and would not provide a reliable indicator of health effects if modeled.

Threshold d: ***Would the Project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?***

The potential for the Project to generate objectionable odors has also 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. (Urban Crossroads, 2023a, pp. 44-45)

The Project consist of a proposed residential development and does not contain land uses typically associated with emitting 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. Standard construction requirements would minimize odor impacts from construction. The construction odor emissions would be temporary, short-term, and intermittent in nature and would cease upon completion of the respective phase of construction and is thus considered less than significant. It is expected that Project-generated refuse would be stored in covered containers and removed at regular intervals in compliance with the County's solid waste regulations as set forth by Riverside County Ordinance No. 745. The proposed Project would also be required to comply with SCAQMD Rule 402 to prevent occurrences of public nuisances. The Project also would be required to comply with California Code of Regulations (CCR), Title 13, Sections 2449(d)(3) and 2485, which minimize the idling time of construction equipment either by shutting it off when not in use or by reducing the time of idling to no more than five minutes. The Project also would also comply with the SCAQMD (Southern Coast Air Quality Management District) Regulation XI, Rule 1113 – Architectural Coating, which would minimize odor impacts from VOC emissions during architectural coating. (Urban Crossroads, 2023a, p. 45)

It should be noted that a sewer lift station is proposed to be built on Lot A of TTM 38510, located in the northwest portion of the Project site. The sewer lift station would collect sewer flows from the on-site sewer lines and would convey the flows south within Chicago Avenue to Van Buren Blvd where it would tie into an existing gravity sewer. The proposed system for the sewer lift station has been designed to efficiently pump

out wastewater multiple times per hour. It includes two redundant pumps to ensure that pumping operations can continue even if one of the pumps malfunctions. Additionally, odor control for the lift station shall be provided in accordance with County standards. It is anticipated that an air scrubber system would be required as well as provisions for a chemical feed system which would be provided in the event that odors are noticeable in the future. Additionally, effluent would be continuously moving through the wet well with a minimum retention time and as such, it is unlikely that any significant odors detectable above ground would be generated. The proposed Project would also be required to comply with SCAQMD Rule 402 to prevent occurrences of public nuisances.

Therefore, based on the foregoing analysis, odors associated with the proposed Project construction and operations would be less than significant and no mitigation is required.

4.3.5 Cumulative Impact Analysis

With exception of the issue of odors, the cumulative study area for air quality includes Riverside County and the SCAB. The SCAB is designated as a nonattainment area for State standards of O_3, PM_{10}, and $PM_{2.5}$. The region also is designated as a nonattainment area for federal standards of O_3 and $PM_{2.5}$. Cumulative growth in population, vehicle use, and industrial activity could inhibit efforts to improve regional air quality and attain the ambient air quality standards. Thus, with exception of odors, the setting for this cumulative analysis consists of the SCAB and associated growth and development anticipated in the air basin. For the issue of odors, the cumulative study area includes the Project site and lands in close proximity to the Project site, as odors diminish rapidly with distance from the source.

As discussed under the analysis of Threshold a., based on the level of air quality emissions anticipated for the proposed Project, the proposed Project would not result in a conflict with the SCAQMD AQMP. Because the Project would be consistent with and would not interfere with implementation of the SCAQMD AQMP, the Project's cumulatively-considerable impacts due to a conflict with the SCAQMD AQMP would be less than significant.

As previously shown in Table 4.3-2, the CAAQS designate the Project region as nonattainment for O_3, PM_{10}, and $PM_{2.5}$, while the NAAQS designates the Project region as nonattainment for O_3 and $PM_{2.5}$. SCAQMD has published a report on how to address cumulative impacts from air pollution: *White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution*. In this report the SCAQMD clearly states (Page D-3): (Urban Crossroads, 2023a, p. 44)

> *"…[SC]AQMD uses the same significance thresholds for project specific and cumulative impacts for all environmental topics analyzed in an Environmental Assessment or Environmental Impact Report (EIR). The only case where the significance thresholds for project specific and cumulative impacts differ is the Hazard Index (HI) significance threshold for TAC emissions. The project specific (project increment) significance threshold is HI > 1.0 while the cumulative (facility-wide) is HI > 3.0. It should be noted that the HI is only one of three TAC emission significance thresholds considered (when applicable) in a CEQA analysis. The other two are the maximum individual cancer risk (MICR) and the cancer burden, both of which use the same significance thresholds (MICR of 10 in 1 million and cancer burden of 0.5) for project specific and cumulative impacts.*

Therefore, this analysis assumes that individual projects that do not generate operational or construction emissions that exceed the SCAQMD's recommended daily thresholds for project-specific impacts also would not cause a cumulatively-considerable increase in emissions for those pollutants for which the SCAB is nonattainment, and, therefore, would not be considered to have a significant, adverse air quality impact. Alternatively, individual project-related construction and operational emissions that exceed SCAQMD thresholds for project-specific impacts would be considered cumulatively considerable. (Urban Crossroads, 2023a, p. 44)

The Project-specific evaluation of emissions presented under the analysis of Threshold b. demonstrates that the Project's construction and operational regional emissions of criteria pollutants would be below the SCAQMD Regional Thresholds (refer to Table 4.3-6 and Table 4.3-7). Therefore, the Project would not result in a cumulatively-considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable federal or State ambient air quality standard, and cumulatively-considerable impacts would be less than significant.

As indicated under the analysis of Threshold c., the Project's localized emissions during construction would be below the applicable SCAQMD LSTs for emissions of criteria pollutants and would not expose sensitive receptors to substantial pollutant concentrations (refer to Table 4.3-8). In addition, the Project consists of a proposed residential subdivision and does not include any uses that have the potential to result in TACs under long-term operating conditions. Additionally, the analysis under Threshold c. provides substantial evidence that the proposed Project would not cause or contribute to any CO "hot spots." Thus, Project-related air quality emissions would not expose nearby sensitive receptors to substantial pollutant concentrations and impacts would be less-than-cumulatively considerable.

With respect to odors, and as discussed under the analysis of Threshold d., the proposed Project would be required to comply with SCAQMD Rules 113, 402, and 431.2 to prevent occurrences of public nuisances (including odors) during both construction and long-term operation, and would be subject to Riverside County's solid waste regulations (Riverside County Ordinance No. 745). Additionally, although the Project includes a sewer lift station, odors associated with the sewer lift station would be highly local and would not combine with any other sources of odor in the local area to produce a cumulatively-considerable increase in odors. Other developments within the cumulative study area similarly would be required to comply with SCAQMD rules and regulations and the solid waste regulations of the applicable local jurisdictions. Therefore, Project impacts due to other emissions (such as those leading to odors) would be less-than-cumulatively considerable.

4.3.6 Significance of Impacts Before Mitigation

Threshold a.: Less-than-Significant Impact. The Project's regional and localized construction- and operational-source emissions would not exceed applicable regional significance thresholds or LSTs. Additionally, although the Project is inconsistent with the site's existing General Plan land use designation and zoning classification, the analysis of Thresholds b. and c. demonstrates that the Project's construction and long-term operational activities would not exceed any of the SCAQMD Regional Thresholds or LSTs. As such, the Project would not conflict with or obstruct implementation of the applicable air quality plan, and impacts would be less than significant.

Threshold b.: Less-than-Significant Impact. As indicated in Table 4.3-6 and Table 4.3-7, Project construction- and operational-related regional emissions would not exceed any of the SCAQMD Regional Thresholds for criteria pollutants. As such, Project regional construction- and operational-related emissions would not result in a cumulatively-considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable federal or State ambient air quality standard, and impacts would be less than significant.

Threshold c.: Less-than-Significant Impact. As indicated in Table 4.3-5, Project-related construction emissions would not exceed the SCAQMD LSTs for any criteria pollutant, and long-term operation of the Project would not expose sensitive receptors to substantial pollutant concentrations. Additionally, the Project considered herein would not produce the volume of traffic required to generate a CO "hot spot" either in the context of the 2003 Los Angeles hot spot study or based on representative BAAQMD CO threshold considerations. In addition, given the distance of the Project from surrounding sensitive receptors, the dominant wind patterns blowing to the northwest away for receptors, and the annual $PM_{2.5}$ emissions from equipment during each year of construction, any DPM generated from construction activity would result in less-than-significant ground-level concentrations of DPM and would not result in a significant health risks to nearby sensitive receptors. Therefore, the Project would not expose sensitive receptors, which are located within one (1) mile of the Project site, to substantial pollutant concentrations, and impacts would be less than significant.

Threshold d.: Less-than-Significant Impact. The Project does not propose land uses typically associated with emitting objectionable odors. Standard construction requirements would minimize odor impacts from construction. The construction odor emissions would be temporary, short-term, and intermittent in nature and would cease upon completion of the respective phase of construction and is thus considered less than significant. Additionally, it is expected that Project-generated refuse would be stored in covered containers and removed at regular intervals in compliance with Riverside County Ordinance No. 745. The proposed Project also would be required to comply with SCAQMD Rule 402 to prevent occurrences of public nuisances. The Project also would be required to comply with California Code of Regulations (CCR), Title 13, Sections 2449(d)(3) and 2485, which minimize the idling time of construction equipment either by shutting it off when not in use or by reducing the time of idling to no more than five minutes. The Project also would also comply with the SCAQMD (Southern Coast Air Quality Management District) Regulation XI, Rule 1113 – Architectural Coating, which would minimize odor impacts from VOC emissions during architectural coating. Additionally, the proposed system for the sewer lift station has been designed to efficiently pump out wastewater multiple times per hour, would include redundancies to prevent failure, and would be required to include odor control measures in conformance with County standards. Therefore, odors associated with the proposed Project construction and operations would be less than significant and no mitigation is required.

4.3.7 County Regulations, Design Requirements, and Mitigation

Applicable County Regulations and Design Requirements

The following are applicable regulations and design requirements within Riverside County. Although these requirements technically do not meet CEQA's definition for mitigation, they are imposed herein to ensure Project compliance with applicable Riverside County regulations and design requirements.

- The Project is required to comply with the provisions of South Coast Air Quality Management District Rule 403, "Fugitive Dust" by implementing the following dust control measures during construction activities, such as earth-moving activities, grading, and equipment travel on unpaved roads. Prior to grading permit issuance, Riverside County shall verify that the following notes are included on the grading plan. Project contractors shall be required to ensure compliance with the notes and permit periodic inspection of the construction site by Riverside County staff or its designee to confirm compliance. These notes also shall be specified in bid documents issued to prospective construction contractors.
    - All clearing, grading, earth-moving, or excavation activities shall cease when winds exceed 25 miles per hour (mph) per SCAQMD guidelines in order to limit fugitive dust emissions.
    - The contractor shall ensure that all disturbed unpaved roads and disturbed areas within the Project are watered at least three (3) times daily during dry weather. Watering, with complete coverage of disturbed areas, shall occur at least three times a day, preferably in the midmorning, afternoon, and after work is done for the day.
    - The contractor shall ensure that traffic speeds on unpaved roads and Project site areas are reduced to 15 mph or less.

- The Project is required to comply with the provisions of South Coast Air Quality Management District Rule 113, *Table of Standards*, by requiring that all architectural coatings must consist of low VOCs (i.e., VOCs of less than 50 grams per liter [g/L]) unless otherwise specified in the SCAQMD Table of Standards.

- The Project is required to comply with applicable SCAQMD rules for construction activities on the Project site. In addition to the SCAQMD requirements listed above, additional SCAQMD rules that are currently applicable during construction activity for this Project include but are not limited to: Rule 431.2 (Low Sulfur Fuel) and Rule 1186 / 1186.1 (Street Sweepers).

- The Project is required to comply with the provisions of SCAQMD Rule 402, "Nuisance" which requires that a person shall not discharge air contaminants or other materials that would cause health or safety hazards to any considerable number of persons or the public.

Mitigation

Project impacts to air quality would be less than significant; therefore, mitigation measures are not required.

4.4 BIOLOGICAL RESOURCES

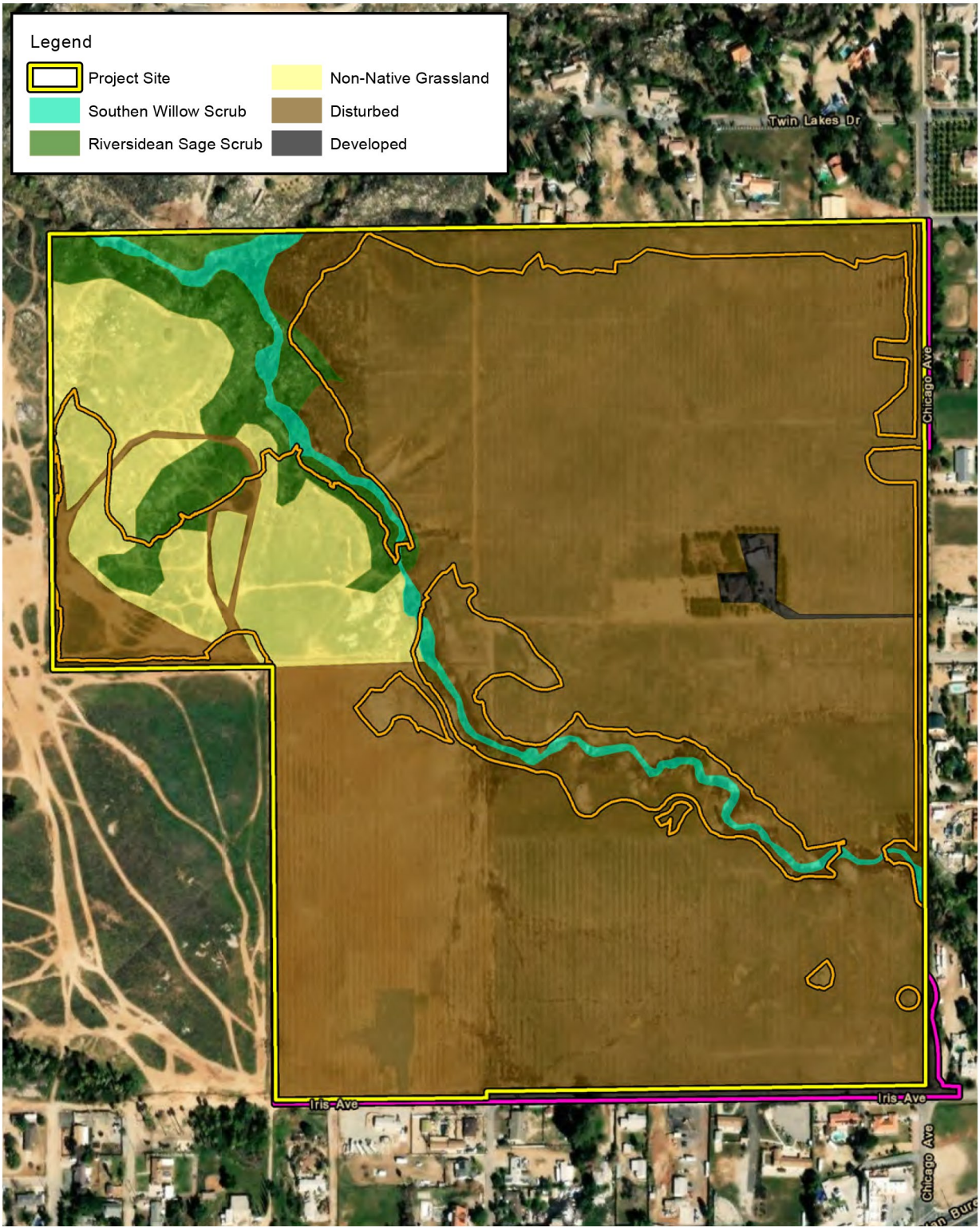
The analysis in this Subsection is based, in part, on information from the report titled "Habitat Assessment and Western Riverside County Multiple Species Habitat Conservation Plan Consistency Analysis" (herein, "HA") prepared by ELMT Consulting, Inc. (herein, "ELMT"), dated January 2025, and included as *Technical Appendix C1* (ELMT, 2025a). The Project's HA addresses potential impacts associated with development of the Project as proposed, as well as potential impacts associated with off-site improvements, as described in EIR subsection 3.6.1. In addition, The Project's HA contains information from a jurisdictional delineation report prepared by ELMT, entitled "Delineation of State and Federal Jurisdictional Waters," dated January 2025, and included as *Technical Appendix C2* to this EIR (ELMT, 2025b). In addition, the information in this Subsection is based in part on the report titled "Determination of Biologically Equivalent or Superior Preservation Report" (herein, "DBESP"), prepared by ELMT, dated January 2025, and included as *Technical Appendix C3* to this EIR (ELMT, 2025c). Refer to Section 7.0, *References*, for a complete list of these and other reference sources.

4.4.1 EXISTING CONDITIONS

Based on historical photography dating back to 1948, the Project site was used for agricultural production. The Project site had been utilized for citrus groves from the 1960s until between 2020 and 2021. Between 2020 and 2021, the citrus trees were cut down and run through a woodchipper on site, and the chips were spread evenly over the southern, northern, and eastern portion of the site. The chips have kept the Project site from revegetating. The historical agricultural uses on the Project site have eliminated the natural plant communities that historically occurred on the less-topographically variable portions of the Project site and surrounding area. Under existing conditions, the Project site primarily supports inactive agricultural fields with some associated development and a series of arroyos that slope downwards from the southern and eastern boundaries towards the northwest corner. Undeveloped land supported on-site has been subject to a variety of anthropogenic disturbances associated with historic agricultural activities, associated development, discing activities, routine weed abatement, light vehicle and off-highway recreational vehicle access, and illicit dumping and camping. (ELMT, 2025a, pp. 11-12)

A. Vegetation Mapping

The Study Area supports the following vegetation/land cover types: southern willow scrub, Riversidean sage scrub, non-native grassland, disturbed, and developed, as depicted in Figure 4.4-1, *Vegetation Map*, and described below. Table 4.4-1, *Summary of Vegetation/Land Use Types,* provides a summary of the vegetation types and their corresponding acreages within the Project site boundaries. Although the Project also would include off-site impacts due to frontage improvements to Chicago Avenue and Iris Avenue, due to the off-site sewer line connection between the southeastern corner of the Project site and Van Buren Boulevard, these areas consist entirely of disturbed/developed areas (i.e., improved roadways). Photographs depicting the Project site are shown in Attachment B of the Project's HA (*Technical Appendix C1*). (ELMT, 2025a, pp. 12-13)



Source(s): ELMT Consulting, Inc. (January 2025)

Figure 4.4-1

Not to Scale

Vegetation Map

Table 4.4-1 Summary of Vegetation/Land Use Types

Vegetation/Land Use Type	Total On-Site Acreage
Southern Willow Scrub	2.90
Riversidean Sage Scrub	7.62
Non-Native Grassland	14.24
Disturbed	113.81
Developed	2.61
Total	**141.18**

Note: Totals reflect rounding.
(ELMT, 2025a, Table 1)

1. Southern Willow Scrub

The drainage feature that bisects the Project site primarily support a southern willow scrub plant community. This plant community is dominated by arroyo willow (*Salix lasiolepsis*) and black willow (*Salix goodingii*) and supports a variety of other trees and shrubs with an herbaceous understory. Other common species observed in the southern willow scrub plant community include Mexican fan palm (*Washingtonia robusta*), salt cedar (*Tamarix* sp.), giant creek nettle, mule fat, elderberry (*Sambucus mexicana [S. caerulea]*), bowlesia (*Bowlesia incana*), California bee plant (*Scrophularia californica*), common phacelia (*Phacelia distans*), Douglas' nightshade (*Solanum douglasii*), goldfields (*Lasthenia glabrata*), hairy leaved sunflower (*Helianthus annuus*), London rocket (*Sisymbrium irio*), needle goldfields (*Lasthenia gracilis*), stinknet (*Oncosiphon pilulifer*), virgin's bower (*Clematis pauciflora*), barley (*Hordeum murinum*), and willow baccharis (*Baccharis salicina*). The areas within the arroyo that support regular surface flows are dominated by narrow-leaved cattail (*Typha augustifolia*), sparse watercress (*Sisymbrium nasturtium-aquaticum*), watercress (*Nasturtium officinale*), salt grass (*Distichlis spicata*), mule fat (*Baccharis salicifolia*), and giant creek nettle (*Urtica dioica* ssp. *holosericea*). (ELMT, 2025a, pp. 12-13)

2. Riversidean Sage Scrub

The upper limits of the drainage feature that bisects the Project site and some adjacent spaces support Riversidean sage scrub communities similar to historic vegetative cover that historically occupied the rolling hills of the site, prior to agricultural land uses. Due to the proximity of this plant community to the active flows and southern willow scrub supported within the arroyo, the Riversidean sage scrub supported on-site exhibits denser vegetation and higher diversity than would otherwise be found in the surrounding hills. This plant community is dominated by woody shrubs and trees such as elderberry, California sagebrush (*Artemisia californica*), black sage (*Salvia mellifera*), and mulefat, and supports a variety of low-growing shrubs and an herbaceous understory. Other common plant species observed in the Riversidean sage scrub supported by the Project site include common phacelia, Douglas' nightshade, goldfields, London rocket, needle goldfields, stinknet, virgin's bower, barley, baby blue eyes (*Nemophila menziesii*), popcorn flower (*Plagiobothrys collinus*), chia sage (*Salvia columbariae*), fiddleneck (*Amsinckia* sp.), desert wishbone bush (*Mirabilis laevis*), foxtail chess (*Bromus madritensis*), miniature lupine (*Lupinus bicolor*), Pomona milk vetch (*Astragalus pomonensis*), strigose lotus (*Acmispon strigosus*), wild canterbury bells (*Phacelia minor*), wild oats (*Avena fatua*), and tarragon (*Artemisia dracunculus*). (ELMT, 2025a, p. 13)

3. Non-Native Grassland

The non-native grassland plant community is located on the northeast portion of the Project site, in areas that have been subject to frequent anthropogenic disturbances, but was not subject to historic agricultural land uses. This plant community is dominated by non-native grasses such as oat grasses (*Avena barbata* and *A. fatua*), brome grasses (*Bromus diandrus* and *B. madritensis*), and rattail fescue (*Festuca myuros*), with a limited presence of other early successional species such as Mediterranean schismus (*Schismus barbatus*), filarees (*Erodium brachycarpum* and *E. cicutarum*), mustard (*Hirschfeldia incana*), tocalote (*Centaurea melitensis*), annual beard grass (*Polypogon monspeliensis*), and Jersey cudweed (*Pseudognaphalium luteoalbum*). (ELMT, 2025c, p. 13)

4. Disturbed

Disturbed land is supported through most portions of the Project site that occur away from the arroyos on site, where historic agricultural land uses eliminated the natural plant communities that once occurred. The disturbed areas of the Project site support many of the aforementioned species found in the non-native grassland plant community. Disturbance type varies throughout the site, with grading and weed abatement occurring throughout all areas, piling of refuse materials occurring near the center of most parcels, and illegal dumping being prominent around the site boundaries. (ELMT, 2025a, p. 13)

Additionally, the northern boundary of the site supports an unnamed man-made drainage and is bounded to the north by residential development. This feature primarily supports non-native weedy/early successional species, but also supports ornamental vegetation, and species adapted to more mesic conditions. Common plant species observed along the northern boundary include those observed in the non-native grassland in addition to oleander (*Nerium oleander*), red gum eucalyptus (*Eucalyptus camaldulensis*), vinegar weed (*Trichostema lanceolatum*), morning glory (*Calystegia macrostegia*), curly dock (*Rumex crispus*), speedwell (*Veronica* sp.), and common sunflower (*Helianthus annuus*). (ELMT, 2025a, pp. 13-14)

5. Developed

Developed areas generally encompass all buildings/structures or any paved or otherwise impervious surfaces. Developed land is present in the northern and southwest portions of the Project site, in the middle portion of the site where remnant roads have not deteriorated, and areas associated with the existing house on site. Vegetative cover in these areas is generally barren but may include sparse coverage of weedy, invasive, and/or primary-successional species, or remnant ornamental species. (ELMT, 2025a, p. 14)

B. Special-Status Plant Communities

The California Natural Diversity Database (CNDDB) lists six special-status habitats as being identified within the *Riverside East, Riverside West, Lake Mathews,* and *Steele Peak* quadrangles, including Southern California Arroyo Chub/Santa Ana Sucker Stream, Southern Coast Live Oak Riparian Forest, Southern Cottonwood Willow Riparian Forest, Southern Riparian Forest, Southern Sycamore Alder Riparian Woodland, and Southern Willow Scrub. One special-status plant community, Southern Willow Scrub, was observed on-site during the field investigation. (ELMT, 2025a, p. 21)

C. Special-Status Plants

The California Natural Diversity Database (CNDDB) and California Native Plant Society (CNPS) indicates that 32 special status plant species have been recorded in the *Riverside East, Riverside West, Lake Mathews,* and *Steele Peak* United States Geographical Survey (USGS) 7.5-minute quadrangle. Special-status plant species were evaluated for their potential to occur within the Project site based on habitat requirements, availability, quality of suitable habitat, and known distributions. No special-status plant species were observed on the Project site during field investigation. Based on habitat requirements for specific species and the availability and quality of on-site habitats, it was determined that the site has a low potential to support smooth tarplant (*Centromadia pungens* ssp. *laevis*), and paniculate tarplant (*Deinandra paniculata*). It was further determined that the site does not have potential to support any of the other special-status plant species known to occur in the vicinity of the site and all are presumed to be absent. Additionally, none of the aforementioned species are federally- or State-listed as endangered or threatened. They are designated as CNPS Rare Plant Rank 1B.1, and 4.2, species, respectively. In addition, smooth tarplant is listed as covered species under the MSHCP. While the historic and ongoing land uses supported by the Project site have removed the majority of the natural plant communities that once occurred in the area, freshwater marsh, southern willow scrub, and Riversidean sage scrub persist on-site in limited densities and breadth. Therefore, these species were determined to have low potentials to occur. Additionally, the Project is designed to avoid impacts to the arroyo, with the exception of two crossings, and its associated plant communities. (ELMT, 2025a, pp. 17-18)

D. Narrow Endemic Plant Species

Section 6.1.3 of the MSHCP, *Protection of Narrow Endemic Plant Species*, states that the MSHCP database does not provide sufficient detail to determine the extent of the presence/distribution of Narrow Endemic Plant Species within the MSHCP Plan Area. Additional surveys may be needed to gather information to determine the presence/absence of these species to ensure that appropriate conservation of these species occurs. Based on the RCA MSHCP Information Map query and review of the MSHCP, it was determined that the Project site is not located within any designated survey area for Narrow Endemic Plant Species. Further, based on the results of the field investigation, the Project site does not provide suitable habitat for MSHCP-listed Narrow Endemic Plant Species. (ELMT, 2025a, p. 29)

E. Wildlife

Plant communities provide foraging habitat, nesting and denning sites for wildlife species, and shelter from adverse weather or predation. Provided below is a discussion of wildlife species that were observed during the field survey or that are expected to occur within the project site. The discussion is intended to be used as a general reference and is limited by the season, time of day, and weather condition in which the field survey was conducted. Wildlife detections were based on calls, songs, scat, tracks, burrows, and direct observation. (ELMT, 2025a, p. 14)

1. Fish

The MSHCP does not identify any covered or special-status fish species as potentially occurring on the project site. While the arroyo that transects the site receives regular flows from urban runoff, the active portions of the arroyo terminate at several water percolation basins downstream, and no connection to regularly habitable waters upstream or downstream from the site are present. As such, the site is not expected to support native

fish species. No fish were observed during the field investigation. The only species of fish that might be expected to persist on-site is mosquitofish (*Gambusia affinis*), which is introduced to surface water occurring near development in association with mosquito-borne disease vector mitigation efforts. (ELMT, 2025a, p. 14)

2. Amphibians

The MSHCP does not identify any covered or special-status amphibian species as potentially occurring on the project site. Active portions of the arroyo and associated plant communities have the potential to support local amphibian species that are adapted to degraded conditions (i.e., adjacent agricultural operations and residential runoff). Amphibian species observed during the field investigation include Baja California chorus frog (*Pseudacris hypochondriaca hypochondriaca*) and garden slender salamander (*Batrachoseps major major*). Other common amphibian species that may be expected to occur include western toad (*Anaxyrus boreas*). (ELMT, 2025a, p. 14)

3. Reptiles

The MSHCP does not identify any covered or special-status reptilian species as potentially occurring on the Project site. The Project site provides suitable foraging and cover habitat for local reptile species adapted to degraded conditions and riparian communities. Reptilian species observed during the field investigation include western side-blotched lizard (*Uta stansburiana elegans*), Great Basin fence lizard (*Sceloporus occidentalis longipes*), and granite spiny lizard (*Sceloporus orcutti*). Other common reptilian species expected to occur on-site include southern alligator lizard (*Elgaria multicarinata*), San Diego gopher snake (Pituophis catenifer annectens), San Diego night snake (Hypsiglena ochrorhyncha klauberi), and red racer (*Coluber flagellum piceus*). (ELMT, 2025a, p. 15)

4. Birds

In accordance with the MSHCP, the project site is located within the designated survey area for burrowing owl. The project site provides suitable foraging and nesting habitat for local and migratory bird species adapted to degraded conditions and riparian environs. Avian species detected during the field survey include northern mockingbird (*Mimus polyglottos*), Anna's hummingbird (*Calypte anna*), black phoebe (*Sayornis nigricans*), Cassin's kingbird (*Tyrannus vociferans*), lesser goldfinch (*Spinus psaltria*), California towhee (*Melozone crissalis*), white-crowned sparrow (*Zonotrichia leucophrys*), house finch (*Haemorhous mexicanus*), mourning dove (*Zenaida macroura*), American crow (*Corvus brachyrhynchos*), California quail (*Callipepla californica*), common raven (*Corvus corax*), and song sparrow (*Melospiza melodia*). (ELMT, 2025a, p. 15)

5. Mammals

The MSHCP does not identify any covered or special-status mammalian species as potentially occurring on the project site. The project provides suitable foraging and denning habitat for mammalian species adapted to degraded conditions and riparian environs. Mammalian species observed during the field investigation included coyote (*Canis latrans*) and desert cottontail (*Sylvilagus audubonii*). Other common mammalian species that could be expected to occur include California ground squirrel (*Otospermophilus beecheyi*), striped skunk (*Mephitis mephitis*), gray fox (*Urocyon cinereoargenteus*), Virginia opossum (*Didelphis virginiana*), fox squirrel (*Sciurus niger*), and raccoon (*Procyon lotor*). (ELMT, 2025a, p. 15)

F. Special Status Wildlife

According to the CNDDB, ninety-four special-status wildlife species have been reported in the Riverside East, Riverside West, Lake Mathews, and Steele Peak quadrangle (refer to Appendix C of the Project's HA, included as *Technical Appendix B1*). No special-status wildlife species were observed during the field investigation. Based on habitat requirements for specific species and the availability and quality of on-site habitats, it was determined that the Project site has a high potential to support Cooper's hawk (*Accipiter cooperii*), sharp-shinned hawk (*Accipiter striatus*), great egret (*Ardea alba*), great blue heron (*Ardea herodias*), coastal whiptail (*Aspidoscelis tigris stejnegeri*), Costa's hummingbird (*Calypte costae*), and California horned lark (*Eremophila alpestris actia*); and a low potential to support grasshopper sparrow (*Ammodramus savannarum*), southern California legless lizard (*Anniella stebbinsi*), short-eared owl (*Asio flammeus*), long-eared owl (*Asio otus*), burrowing owl (*Athene cunicularia*), northern harrier (*Circus hudsonius*), San Bernardino ringneck snake (*Diadophis punctatus modestus*), San Diego ringneck snake (*Diadophis punctatus similis*), willow flycatcher (*Empidonax traillii brewsteri*), southwestern willow flycatcher (*Empidonax traillii extimus*), San Diego black-tailed jackrabbit (*Lepus californicus bennettii*), pallid bobcat (*Lynx rufus pallescens*), San Diego desert woodrat (*Neotoma lepida intermedia*), coast horned lizard (*Phrynosoma blainvillii*), coast patch-nosed snake (*Salvadora hexalepis virgultea*), rufous hummingbird (*Selasphorus rufus*), yellow warbler (*Setophaga petechia*), western spadefoot (*Spea hammondii*), least Bell's vireo (*Vireo bellii pusillus*), and south coast garter snake (*Thamnophis sirtalis*). (ELMT, 2025a, p. 18)

Of the aforementioned species, southwestern willow flycatcher and least Bell's vireo are both federally and State listed as endangered, and the willow flycatcher is State listed as endangered. None of the other species are federally or State listed as endangered or threatened. In addition, Cooper's hawk, sharp-shinned hawk, great blue heron, coastal whiptail, red-diamond rattlesnake, California horned lark, burrowing owl, northern harrier, southwestern willow flycatcher, San Diego black- tailed jackrabbit, pallid bobcat, San Diego desert woodrat, coast horned lizard, western spadefoot, and least Bell's vireo are listed as covered species by the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP). (ELMT, 2025a, p. 18)

Due to specific nesting requirements and ranges for each species, the majority of the aforementioned avian species are only expected to occur incidentally while foraging or during migration, and only Costa's hummingbird, California horned lark, grasshopper sparrow, long-eared owl, and yellow warbler have the potential to nest on-site. Due to listing status, the potential occurrence of willow flycatcher, southwestern willow flycatcher, least Bell's vireo, and Crotch's bumble bee are discussed in further detail below. (ELMT, 2025a, p. 18)

1. Willow Flycatcher and Southwestern Willow Flycatcher

The willow flycatcher is a nearly transcontinental species which breeds widely across temperate North America and migrates to Middle and northwestern South America for the winter. It consists of four subspecies, all of which are migratory. The species winters from southern Mexico south through Central America to Panama and western Venezuela. Subspecies *extimus* has been collected in winter in Guatemala, El Salvador, Honduras, and Costa Rica. In southern California, the subspecies *extimus* arrives typically usually in early May. (ELMT, 2025a, p. 19)

The southwestern willow flycatcher is a federally and State endangered species that usually arrives in southern California in early May, but rarely as early as the last two or three days of April. In fall, adults depart mainly during the last half of August and rarely can remain as late as September 4th. Juveniles remain until later in September, but all have departed by October 1st. The southwestern willow flycatcher breeds only in riparian habitats, typically along a dynamic river or lakeside. Surface water or saturated soil is usually present in or adjacent to nesting sites during at least the initial portion of the nesting period. Riparian habitats used by southwestern willow flycatchers typically have a dense thicket of trees and shrubs that can range in height from about 2 to 30 meters. Preferred nesting sites usually contain riparian foliage from the ground level up to a dense (about 50 to 100 percent) tree or shrub canopy. (ELMT, 2025a, p. 19)

The southern willow scrub plant community supported within and along the arroyo that transects the Project site provides suitable foraging habitat for willow flycatcher and southwestern willow flycatcher. Neither of these species were observed on-site or detected nearby during the field investigation. Due to encroachment of agricultural activities into the upper limits of the plant communities that historically occurred within the arroyo, and the preference of willow flycatcher and southwestern willow flycatcher for wider blocks of riparian habitats, the southern willow scrub supported on-site is likely too narrow to support breeding flycatchers. As a result, the Project site was determined to have a low potential to provide foraging habitat for migrant willow flycatcher and southwestern willow flycatcher, outside of the breeding season. No willow flycatcher or southwestern willow flycatcher were observed onsite during the 2024 focused surveys. (ELMT, 2025a, p. 19)

2. Least Bell's Vireo

Least Bell's vireo is a federally and State endangered subspecies of the Bell's vireo. It is a summer migrant to California and is the only regularly-occurring subspecies of Bell's vireo in Riverside County. Its nesting habitat typically consists of a well-developed over-story and understory, along with low densities of aquatic and herbaceous plant cover. The understory frequently contains dense sub-shrub or shrub thickets that are often dominated by plants such as willow, mulefat, and one or more herbaceous species. Least Bell's vireos begin to arrive at their breeding grounds in southern California riparian areas from mid-March to early April. Upon arrival, males establish breeding territories that range in size from 0.5 to 7.4 acres, with an average size of approximately two acres. In California, females begin laying eggs in April, fledging birds until the end of July. The fledglings will remain in the parental territory for up to a month. Bell's vireos leave the breeding grounds and migrate south mid- to late September. Although not common, a few have been found wintering in southern California. (ELMT, 2025a, p. 19)

Focused surveys were conducted during the 2024 breeding season for least Bell's vireo. Five least Bell's vireo territories were observed onsite within Drainage 1 and 2, and one additionally territory was observed within Drainage 2 outside of the Project footprint. (ELMT, 2025a, p. 20)

3. Crotch's Bumble Bee

Crotch's bumble bee is a candidate species for listing status by the California Endangered Species Act (CESA). It is a colonial species that lives almost exclusively from coastal California east towards the Sierra-Cascade Crest and can be found uncommonly in western Nevada and south through Baja California. The Crotch's bumble bee inhabits grassland and scrub habitats in hotter and drier climates than most other bumblebee species and is only capable of tolerating a narrow range of climatic conditions. This species feeds on a variety of annual

and perennial plant species, classifying it as a dietary generalist. It usually nests underground, often in abandoned rodent dens. However, bumble bees generally overwinter in soft disturbed soil, leaf litter, or abandoned small mammal burrows. Queens are active from March to May, with peak activity occurring in April; workers are active from April to August, with peak activity occurring between May and June; and males are active from May to September, with peak activity occurring in July. (ELMT, 2025a, p. 20)

A records search was conducted for Crotch's bumble bee occurrences within a 5-mile radius of the Project site. In accordance with iNaturalist and the CNDDB, no observations of Crotch's bumble bee have been recorded in the Woodcrest area. The nearest recorded observations of Crotch's bumble bee have been documented approximately 4 miles northeast of the project site around Sycamore Canyon Park. (ELMT, 2025a, p. 20)

The Project would generally span existing disturbed areas that historically supported agricultural land uses. The majority of the Riversidean sage scrub habitat would not be impacted from Project development, which is primarily located on the northwest corner of the Project site outside of the proposed limits of disturbance. Only 23% of the onsite Riversidean sage scrub habitat would be impacted. The Project site predominantly supports a disturbed land cover type with an unnamed drainage feature that primarily support riparian vegetation. The disturbed areas onsite largely outcompete the native nectar and pollen-producing plants that Crotch's bumble bee require. Crotch bumble bee habitat on the Project site is of low quality due to high disturbance and low diversity of flowering plant species. No Crotch bumble bees, or nests were incidentally identified within the Project site. (ELMT, 2025a, p. 20)

While the available native plant diversity supported by onsite Riversidean sage scrub plant community is constrained compared to undisturbed scrub habitats nearby, it provides limited foraging habitat for Crotch's bumble bee due to this species being a dietary generalist. In addition, the density of available vegetation and historic land uses and anthropogenic disturbances onsite have reduced the suitability of on-site soils for burrowing. Crotch's bumble bee is typically associated with sandy or loose soils. These soils are ideal for nesting and foraging because they provide easy access for digging nests. Therefore, the Project site was determined to have a low potential to support Crotch bumblebee. (ELMT, 2025a, p. 20)

Generally, for all bumble bee species, high-quality habitat has three major components: a diverse supply of flowers for nectar and pollen, nesting locations, and subterranean spaces for overwintering queens. Based on the results of this assessment, the Project site and immediately surrounding areas were determined to provide low plant diversity for nectar sources. Further, no bumble bees have been recorded in the immediate vicinity of the Project site, and no bumble bees were observed onsite during the field investigation. Due to existing anthropogenic disturbances, low plant diversity for nectar sources, no recorded occurrences in the immediate vicinity of the Project site, and lack of observations during the field investigations Crotch bumble bee are presumed absent from the Project site. (ELMT, 2025a, pp. 20-21)

G. Nesting Birds

Plant communities within and along the arroyo have the potential to provide nesting habitat for year-round and seasonal avian residents, as well as migrating songbirds that could occur in the area. Additionally, the disturbed habitats have the potential to support birds that nest on the open ground such as killdeer (*Charadrius vociferus*). (ELMT, 2025a, p. 15)

H. Burrowing Owl

In accordance with Section 6.3.2 of the MSHCP, *Additional Survey Needs and Procedures*, additional surveys may be needed for certain species in order to achieve coverage for these species. The query of the RCA MSHCP Information Map and review of the MSHCP determined that the Project site is located within the designated survey area for burrowing owl as depicted in Figure 6-4 within Section 6.3.2 of the MSHCP. No other special-status wildlife species surveys were identified by the MSHCP for the Project site. (ELMT, 2025a, p. 30)

Burrowing owl currently is designated as a candidate for listing under the CESA. The burrowing owl is a grassland specialist distributed throughout western North America where it occupies open areas with short vegetation and bare ground within shrub, desert, and grassland environments. Burrowing owls use a wide variety of arid and semi-arid environments with level to gently-sloping areas characterized by open vegetation and bare ground. The western burrowing owl (*Athene cunicularia* ssp. *hypugaea*), which occurs throughout the western United States including California, rarely digs its own burrows and is instead dependent upon the presence of burrowing mammals (i.e., California ground squirrels, coyotes, and badgers) whose burrows are often used for roosting and nesting. The presence or absence of colonial mammal burrows is often a major factor that limits the presence or absence of burrowing owls. Where mammal burrows are scarce, burrowing owls have been found occupying man-made cavities, such as buried and non-functioning drainpipes, stand-pipes, and dry culverts. They also require low growth or open vegetation allowing line-of-sight observation of the surrounding habitat to forage and watch for predators. In California, the burrowing owl breeding season extends from the beginning of February through the end of August. (ELMT, 2025a, p. 30)

Under the MSHCP burrowing owl is considered an adequately conserved covered species that may still require focused surveys in certain areas as designated in Figure 6-4 of the MSHCP. The Project site occurs within the MSHCP burrowing owl survey area and a habitat assessment was conducted for the species to ensure compliance with MSHCP guidelines for the species, as more fully documented in Subsection 5.4 of the Project's HA (*Technical Appendix C1*). Four focused burrowing owl surveys were conducted on April 22, May 6 and 28, and June 18, 2024. Based on the results of the 2024 burrowing owl focused surveys, no burrowing owls or evidence of recent or historic use by burrowing owls were observed on the Project site. As a result, burrowing owls are presumed to be absent from the Project site. (ELMT, 2025a, pp. 30-32)

I. Wildlife Linkages and Corridors

Habitat linkages provide links between larger undeveloped habitat areas that are separated by development. Wildlife corridors are similar to linkages but provide specific opportunities for animals to disperse or migrate between areas. A corridor can be defined as a linear landscape feature of sufficient width to allow animal movement between two comparatively undisturbed habitat fragments. Adequate cover is essential for a corridor to function as a wildlife movement area. It is possible for a habitat corridor to be adequate for one species yet inadequate for others. Wildlife corridors are significant features for dispersal, seasonal migration, breeding, and foraging. Additionally, open space can provide a buffer against both human disturbance and natural fluctuations in resources. The Project site has not been identified as occurring in a wildlife corridor or linkage. The nearest linkages to the Project, as identified by the MSHCP, occur approximately 1.8 miles to the northeast and 3.0 miles to the southwest. The arroyo and associated plant communities likely serve as linkages

for wildlife species to move locally, but the Project site is isolated from regional wildlife corridors and linkages as there are no riparian corridors, creeks, or useful patches of steppingstone habitat (natural areas) within or connecting the site to any recognized wildlife corridor or linkage. (ELMT, 2025a, p. 16)

J. Critical Habitat

Under the Federal Endangered Species Act, Critical Habitat refers to specific areas within the geographical range of a species at the time it is listed that included the physical or biological features essential to the survival and eventual recovery of that species. Maintenance of these physical and biological features requires special management considerations or protection, regardless of whether individuals or the species are present. All federal agencies are required to consult with the United States Fish and Wildlife Service (USFWS) regarding activities they authorize, fund, or permit which may affect a federally-listed species or its designated Critical Habitat. The purpose of the consultation is to ensure that projects will not jeopardize the continued existence of the listed species or adversely modify or destroy its designated Critical Habitat. The designation of Critical Habitat does not affect private landowners, unless a project they are proposing is on federal lands, uses federal funds, or requires federal authorization or permits (e.g., funding from the Federal Highways Administration or a Clean Water Act (CWA) Permit from the United States Army Corps of Engineers [herein, "Corps"]). If a there is a federal nexus, then the federal agency that is responsible for providing the funding or permit would consult with the USFWS. The Project site is not located with federally designated Critical Habitat. The nearest designated Critical Habitat to the site is located approximately 5.9 miles to the northwest for least Bell's vireo. (ELMT, 2025a, p. 21)

K. Jurisdictional Waters

Potential jurisdictional features analyzed as part of the field investigation include two unnamed drainage features that were observed within the boundaries of the Project site, herein referred to as Drainages 1 and 2. Figure 4.4-2, *Jurisdictional Resources* depicts the extent of jurisdictional features on site that are regulated by the Corps and Santa Ana Regional Water Quality Control Board (RWQCB) and the extent of jurisdictional features on site that are subject to regulation by the California Department of Fish and Wildlife (CDFW) and that are identified as riparian/riverine under the MSHCP. Table 4.4-2, *Jurisdictional Areas* summarizes each jurisdictional feature on site. A description of Drainages 1 and 2 is provided below. (ELMT, 2025b, p. ES-1)

Table 4.4-2 Jurisdictional Areas

Jurisdictional Feature	Stream Flow	Wetlands Classification	Class of Aquatic Resource	Linear Feet	Corps/Regional Board On-Site Jurisdiction (Acres)	CDFW Streambed On-Site Jurisdiction (Acres)
Drainage 1	Ephemeral	Riverine	Non-Section 10 Non-Wetland	4,795	1.12	2.24
Drainage 2	Ephemeral	Riverine	Non-Section 10 Non-Wetland	803	0.25	0.75
			TOTALS:	**5,598**	**1.37**	**2.99**

(ELMT, 2025a, Table 2)

1. Drainage 1

Drainage 1 is the longest drainage feature on the Project site. It flows from southeast to northwest as it bisects the Project site and converges with Drainage 2 near the northwest corner of the site, and supports a sparce southern willow scrub plant community. The drainage enters the site from an earthen channel at the southeastern corner of the Project site and flows ephemerally. The onsite drainage features receive flows via direct precipitation, and from the discharge urban runoff from residential developments upstream. Drainage 1 is approximately 4,795 linear feet with an average Ordinary High Water Mark (OHWM) that ranges from 2 to 13 feet wide. (ELMT, 2025b, p. 14)

Drainage 1 primarily supports a southern willow scrub plant community. This plant community is dominated by arroyo willow (Salix lasiolepsis) and black willow (Salix goodingii) and supports a variety of other trees and shrubs with an herbaceous understory. Other common species observed in the southern willow scrub plant community include Mexican fan palm (Washingtonia robusta), salt cedar (Tamarix sp.), giant creek nettle, mule fat, elderberry (Sambucus mexicana [S. caerulea]), bowlesia (Bowlesia incana), California bee plant (Scrophularia californica), common phacelia (Phacelia distans), Douglas' nightshade (Solanum douglasii), goldfields (Lasthenia glabrata), hairy leaved sunflower (Helianthus annuus), London rocket (Sisymbrium *irio*), needle goldfields (*Lasthenia gracilis*), stinknet (*Oncosiphon pilulifer*), virgin's bower (*Clematis pauciflora*), barley (*Hordeum murinum*), and willow baccharis (*Baccharis salicina*).(ELMT, 2025b, p. 14)

There are two smaller drainages that are part of Drainage 1 on the northwest portion of the site. These two features are small features that follow on-site topography and connect into Drainage 1. They are ephemeral features with no hydrophytic vegetation or soils. (ELMT, 2025b, p. 14)

While evidence of hydrology was present within the onsite drainage, the area is primarily dominated by non-native plant species. Additionally, water does not persist long enough within the Project site to create hydric soil conditions, and Drainage 1 does not support dominantly hydrophytic vegetation. Thus, Drainage 1 does not meet the Corps' or Regional Board's wetland definition. (ELMT, 2025b, p. 15)

2. Drainage 2

Drainage 2 is located on the northwest corner of the Project site and flows in an east-west direction. The segment of the drainage that occurs within the Project site is approximately 803 linear feet with an average OHWM that ranges from 12 to 18 feet wide. Flows originate east of the Project site and convey natural runoff, agricultural runoff, and nuisance flows from the surrounding residential developments. Water flows through the drainage quickly and there is evidence of scouring during large storm events. Although the drainage supports a stand of southern willow scrub, there is little to no vegetation within the active channel (within the OHWM). The feature is an earthen channel with clearly defined bed and banks that conveys flows all year round. The unnamed drainage feature supports a southern willow scrub vegetation community characterized by arroyo willow (*Salix lasiolepis*; FACW) and mule fat (*Baccharis salicifolia*; FAC). (ELMT, 2025b, p. 14)

Source(s): ELMT Consulting, Inc. (January 2025)

Figure 4.4-2

Not to Scale

Jurisdictional Areas

While evidence of hydrology was present within Drainage 2, the area is primarily dominated by non-native plant species. Additionally, water does not persist long enough within the Project site to create hydric soil conditions, and Drainage 2 does not support dominantly hydrophytic vegetation. Thus, Drainage 2 does not meet the Corps' or Regional Board's wetland definition. (ELMT, 2025b, p. 15)

L. MSHCP Riparian/Riverine Areas and Vernal Pools

1. MSHCP Riparian/Riverine Areas

As defined under Section 6.1.2 of the MSHCP*, Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools*, riparian/riverine areas are areas dominated by trees, shrubs, persistent emergent plants, or emergent mosses and lichens which occur close to or are dependent upon nearby freshwater, or areas with freshwater flowing during all or a portion of the year. Conservation of these areas is intended to protect habitat that is essential to a number of listed or special-status water-dependent fish, amphibian, avian, and plant species. Any alteration or loss of riparian/riverine habitat from development of a project requires the preparation of a Determination of Biologically Equivalent or Superior Preservation (DBESP) analysis to ensure the replacement of any lost functions and values of habitats in regards to the listed species. This assessment is independent from considerations given to waters of the United States and waters of the State under the CWA, the California Porter-Cologne Water Quality Control Act, and CDFW jurisdictional streambed under the California Fish and Game Code. As previously noted, two drainage features were documented onsite. These drainage features qualify as riparian/riverine habitat under Section 6.1.2 of the MSHCP, and consist of 2.24 acres (4,795 linear feet) of MSHCP riparian/riverine habitat within Drainage 1 and 0.75-acre (803 linear feet) of MSHCP riparian/riverine habitat within Drainage 2, for a total of 2.99 acres (5,598 linear feet) of MSHCP riparian/riverine habitat on site. (ELMT, 2025c, p. 10; ELMT, 2025a, p. 24)

2. MSHCP Vernal Pools and Fairy Shrimp

Vernal pools are seasonally inundated, ponded areas that only form in regions where specialized soil and climatic conditions exist. During fall and winter rains typical of Mediterranean climates, water collects in shallow depressions where downward percolation of water is prevented by the presence of a hard pan or clay pan layer (duripan) below the soil surface. Later in the spring when rains decrease and the weather warms, the water evaporates and the pools generally disappear by May. The shallow depressions remain relatively dry until late fall and early winter with the advent of greater precipitation and cooler temperatures. Vernal pools provide unusual "flood and drought" habitat conditions to which certain plant and wildlife species have specifically adapted as well as invertebrate species such as fairy shrimp. (ELMT, 2025a, p. 27)

A review of recent and historic aerial photographs (1948-2023) of the Project site during wet and dry seasons did not provide visual evidence of an astatic or vernal pool conditions within the Project site. The site supported historic agricultural activities which heavily compacted the soils on-site. No ponding was observed during the field investigation, further supporting the fact that the drainage patterns currently occurring on the Project site do not follow hydrologic regime needed for vernal pools. (ELMT, 2025a, p. 28)

No soil types that are known to support Riverside fairy (*Streptocephalus woottoni*) or Santa Rosa Plateau fairy shrimp (*Linderiella santarosae*) occur on the Project site. Furthermore, no indicators of water ponding or astatic water conditions were observed during the field investigation, and no ponding was observed on historic

aerials during the wet season due to existing activities on-site. Therefore, the site was determined not to provide suitable habitat for Riverside fairy shrimp or Santa Rosa Plateau fairy shrimp. (ELMT, 2025a, pp. 28-29)

Vernal pool fairy shrimp (*Branchinecta lynchi*) are restricted to seasonal vernal pools (vernal pools and alkali vernal pools) and prefer cool-water pools that have low to moderate dissolved solids, are unpredictable, and often short lived. The vernal pool fairy shrimp is known from four locations in Western Riverside County MSHCP Plan Area: Skunk Hollow, the Santa Rosa Plateau, Salt Creek, and the vicinity of the Pechanga Indian Reservation. The Project site is not located within or adjacent to the four known populations, and no indicators of water ponding or astatic water conditions were observed on site. Therefore, the site was determined not to provide suitable habitat for vernal pool fairy shrimp. (ELMT, 2025a, p. 29)

4.4.2 Applicable Environmental Regulations

The following is a brief description of the federal, State, and local environmental laws and related regulations governing the protection of biological resources.

A. Federal Regulations

1. Endangered Species Act (ESA)

The purpose of the federal Endangered Species Act (ESA) is to protect and recover imperiled species and the ecosystems upon which they depend. It is administered by the U.S. Fish and Wildlife Service (USFWS) and the Commerce Department's National Marine Fisheries Service (NMFS). The USFWS has primary responsibility for terrestrial and freshwater organisms, while the responsibilities of NMFS are mainly marine wildlife such as whales and anadromous fish such as salmon. Under the ESA, species may be listed as either endangered or threatened. "Endangered" means a species is in danger of extinction throughout all or a significant portion of its range. "Threatened" means a species is likely to become endangered within the foreseeable future. All species of plants and animals, except pest insects, are eligible for listing as endangered or threatened. (USFWS, 2023)

The ESA makes it unlawful for a person to take a listed animal without a permit. Take is defined as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or attempt to engage in any such conduct." Through regulations, the term "harm" is defined as "an act which actually kills or injures wildlife. Such an act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering." Listed plants are not protected from take, although it is illegal to collect or maliciously harm them on federal land. Protection from commercial trade and the effects of federal actions do apply for plants. (USFWS, 2023)

Section 7 of the ESA requires federal agencies to use their legal authorities to promote the conservation purposes of the ESA and to consult with the USFWS and NMFS, as appropriate, to ensure that effects of actions they authorize, fund, or carry out are not likely to jeopardize the continued existence of listed species. During consultation, the "action" agency receives a "biological opinion" or concurrence letter addressing the proposed action. In the relatively few cases in which the USFWS or NMFS makes a jeopardy determination, the agency offers "reasonable and prudent alternatives" about how the proposed action could be modified to avoid jeopardy. It is extremely rare that a project ends up being withdrawn or terminated because of jeopardy to a listed species. (USFWS, 2023)

Section 10 of the ESA may be used by landowners including private citizens, corporations, tribes, states, and counties who want to develop property inhabited by listed species. Landowners may receive a permit to take such species incidental to otherwise legal activities, provided they have developed an approved habitat conservation plan (HCP). HCPs include an assessment of the likely impacts on the species from the proposed action, the steps that the permit holder will take to avoid, minimize, and mitigate the impacts, and the funding available to carry out the steps. HCPs may benefit not only landowners but also species by securing and managing important habitat and by addressing economic development with a focus on species conservation. (USFWS, 2023)

2. Clean Water Act Section 401

Clean Water Act (CWA) § 401 water quality certification provides states and authorized tribes with an effective tool to help protect water quality, by providing them an opportunity to address the aquatic resource impacts of federally issued permits and licenses. Under § 401, a federal agency cannot issue a permit or license for an activity that may result in a discharge to waters of the U.S. until the state or tribe where the discharge would originate has granted or waived § 401 certification. The central feature of CWA § 401 is the state or tribe's ability to grant, grant with conditions, deny, or waive certification. Granting certification, with or without conditions, allows the federal permit or license to be issued consistent with any conditions of the certification. Denying certification prohibits the federal permit or license from being issued. Waiver allows the permit or license to be issued without state or tribal comment. States and tribes make their decisions to deny, certify, or condition permits or licenses based in part on the proposed project's compliance with Environmental Protection Agency (EPA)-approved water quality standards. In addition, states and tribes consider whether the activity leading to the discharge will comply with any applicable effluent limitations guidelines, new source performance standards, toxic pollutant restrictions, and other appropriate requirements of state or tribal law. (EPA, 2019a)

Many states and tribes rely on § 401 certification to ensure that discharges of dredge or fill material into a water of the U.S. do not cause unacceptable environmental impacts and, more generally, as their primary regulatory tool for protecting wetlands and other aquatic resources. However, § 401 is limited in scope and application to situations involving federally-permitted or licensed activities that may result in a discharge to a water of the U.S. If a federal permit or license is not required, or would authorize impacts only to waters that are not waters of the U.S., the activity is not subject to the CWA § 401. (EPA, 2019a)

3. Clean Water Act Section 404

Section 404 of the CWA establishes a program to regulate the discharge of dredged or fill material into waters of the United States, including wetlands. Wetlands subject to Clean Water Act Section 404 are defined as "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. Wetlands generally include swamps, marshes, bogs, and similar areas." Activities in waters of the United States regulated under this program include fill for development, water resource projects (such as dams and levees), infrastructure development (such as highways and airports) and mining projects. Section 404 requires a permit before dredged or fill material may be discharged into waters of the

United States, unless the activity is exempt from Section 404 regulation (e.g. certain farming and forestry activities). (EPA, n.d.)

The basic premise of the program is that no discharge of dredged or fill material may be permitted if: (1) a practicable alternative exists that is less damaging to the aquatic environment; or (2) the nation's waters would be significantly degraded. Applications for permits must, to the extent practicable: (l) demonstrate steps have been taken to avoid wetland impacts; (2) demonstrate that potential impacts on wetlands have been minimized; and (3) provide compensation for any remaining unavoidable impacts. Proposed activities are regulated through a permit review process. (EPA, n.d.)

An individual permit is required for potentially significant impacts. Individual permits are reviewed by the U.S. Army Corps of Engineers (USACE), which evaluates applications under a public interest review, as well as the environmental criteria set forth in the CWA Section 404(b)(1) Guidelines. However, for most discharges that will have only minimal adverse effects, a general permit may be suitable. General permits are issued on a nationwide, regional, or State basis for particular categories of activities. The general permit process eliminates individual review and allows certain activities to proceed with little or no delay, provided that the general or specific conditions for the general permit are met. States also have a role in Section 404 decisions, through state program general permits, water quality certification, or program assumption. (EPA, n.d.)

4. Executive Order 11990 – Protection of Wetlands

The purpose of Executive Order (EO) 11990 is to "minimize the destruction, loss or degradation of wetlands and to preserve and enhance the natural and beneficial values of wetlands." To meet these objectives, the Order requires federal agencies, in planning their actions, to consider alternatives to wetland sites and limit potential damage if an activity affecting a wetland cannot be avoided. (FEMA, 2020b) The Order applies to:

- Acquisition, management, and disposition of federal lands and facilities construction and improvement projects which are undertaken, financed, or assisted by federal agencies;

- Federal activities and programs affecting land use, including but not limited to water and related land resources planning, regulation, and licensing activities. (FEMA, 2020b)

The procedures require the determination of whether or not the proposed project will be in or will affect wetlands. If so, a wetlands assessment must be prepared that describes the alternatives considered. The procedures include a requirement for public review of assessments. (FEMA, 2020b)

5. Migratory Bird Treaty Act (16 USC Section 703-712)

The Migratory Bird Treaty Act (MBTA) makes it illegal for anyone to take, possess, import, export, transport, sell, purchase, barter, or offer for sale, purchase, or barter, any migratory bird, or the parts, nests, or eggs of such a bird except under the terms of a valid permit issued pursuant to federal regulations. The migratory bird species protected by the MBTA are listed in 50 CFR 10.13. The USFWS has statutory authority and responsibility for enforcing the MBTA (16 U.S.C. 703-712). The MBTA implements Conventions between the United States and four countries (Canada, Mexico, Japan, and Russia) for the protection of migratory birds. (USFWS, 2020a)

B. State Regulations

1. California Endangered Species Act (CESA)

The California Endangered Species Act (CESA) states that all native species of fishes, amphibians, reptiles, birds, mammals, invertebrates, and plants, and their habitats, threatened with extinction and those experiencing a significant decline which, if not halted, would lead to a threatened or endangered designation, will be protected or preserved. The California Department of Fish and Wildlife (CDFW) works with interested persons, agencies, and organizations to protect and preserve such sensitive resources and their habitats. CESA prohibits the take of any species of wildlife designated by the California Fish and Game Commission as endangered, threatened, or candidate species. CDFW may authorize the take of any such species if certain conditions are met. (CDFW, n.d.)

Section 2081 subdivision (b) of the California Fish and Game Code (CFGC) allows CDFW to authorize take of species listed as endangered, threatened, candidate, or a rare plant, if that take is incidental to otherwise lawful activities and if certain conditions are met. These authorizations are commonly referred to as incidental take permits (ITPs). (CDFW, n.d.)

If a species is listed by both the federal ESA and CESA, CFGC Section 2080.1 allows an applicant who has obtained a federal incidental take statement (federal Section 7 consultation) or a federal incidental take permit (federal Section 10(a)(1)(B)) to request that the Director of CDFW find the federal documents consistent with CESA. If the federal documents are found to be consistent with CESA, a consistency determination (CD) is issued and no further authorization or approval is necessary under CESA. (CDFW, n.d.)

A Safe Harbor Agreement (SHA) authorizes incidental take of a species listed as endangered, threatened, candidate, or a rare plant, if implementation of the agreement is reasonably expected to provide a net conservation benefit to the species, among other provisions. SHAs are intended to encourage landowners to voluntarily manage their lands to benefit CESA-listed species. California SHAs are analogous to the federal safe harbor agreement program and CDFW has the authority to issue a consistency determination based on a federal safe harbor agreement. (CDFW, n.d.)

2. Natural Community Conservation Planning Act (NCCP)

CDFW's Natural Community Conservation Planning (NCCP) program takes a broad-based ecosystem approach to planning for the protection and perpetuation of biological diversity. The NCCP program began in 1991 as a cooperative effort to protect habitats and species. It is broader in its orientation and objectives than the California and Federal Endangered Species Acts, as these laws are designed to identify and protect individual species that have already declined in number significantly. (CDFW, n.d.)

An NCCP identifies and provides for the regional protection of plants, animals, and their habitats, while allowing compatible and appropriate economic activity. Working with landowners, environmental organizations, and other interested parties, a local agency oversees the numerous activities that compose the development of an NCCP. CDFW and the USFWS provide the necessary support, direction, and guidance to NCCP participants. (CDFW, n.d.)

There are currently 17 approved NCCPs (includes 6 subarea plans) and more than 9 NCCPs in various stages of planning (includes 2 subarea plans), which together cover more than 8 million acres and will provide conservation for nearly 400 special status species and a wide diversity of natural community types throughout California. (CDFW, n.d.)

3. California Fish and Game Code, Section 1600, et seq.

CFGC section 1602 requires an entity to notify CDFW prior to commencing any activity that may do one or more of the following: (1) substantially divert or obstruct the natural flow of any river, stream, or lake; (2) substantially change or use any material from the bed, channel or bank of any river, stream, or lake; or (3) deposit debris, waste or other materials that could pass into any river, stream, or lake. The CFGC indicates that "any river, stream or lake" includes those that are episodic (they are dry for periods of time) as well as those that are perennial (they flow year round). This includes ephemeral streams, desert washes, and watercourses with a subsurface flow. It may also apply to work undertaken within the flood plain of a body of water. (CDFW, n.d.)

CDFW requires a Lake and Streambed Alteration (LSA) Agreement when it determines that the activity, as described in a complete LSA Notification, may substantially adversely affect existing fish or wildlife resources. An LSA Agreement includes measures necessary to protect existing fish and wildlife resources. CDFW may suggest ways to modify a project that would eliminate or reduce harmful impacts to fish and wildlife resources. Before issuing an LSA Agreement, CDFW must comply with CEQA. (CDFW, n.d.)

4. Native Plant Protection Act (NPPA) of 1977

The Native Plant Protection Act (NPPA) was enacted in 1977 and allows the Fish and Game Commission to designate plants as rare or endangered. There are 64 species, subspecies, and varieties of plants that are protected as rare under the NPPA. The NPPA prohibits take of endangered or rare native plants, but includes some exceptions for agricultural and nursery operations; emergencies; and after properly notifying CDFW for vegetation removal from canals, roads, and other sites, changes in land use, and in certain other situations. (CDFW, n.d.)

5. Unlawful Take or Destruction of Nests or Eggs (CFGC Sections 3503.5-3513)

Section 3503.5 of the CFGC specifically protects birds of prey, stating: “It is unlawful to take, possess, or destroy any . . . [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.” Section 3513 of the CFGC duplicates the federal protection of migratory birds, stating: “It is unlawful to take or possess any migratory nongame bird as designated in the Migratory Bird Treaty Act or any part of such migratory nongame bird except as provided by rules and regulations adopted by the Secretary of the Interior under provisions of the Migratory Bird Treaty Act.” (CA Legislative Info, n.d.)

2. Porter-Cologne Water Quality Act

The Porter-Cologne Act is the principal law governing water quality regulation in California. It establishes a comprehensive program to protect water quality and the beneficial uses of water. The Porter-Cologne Act applies to surface waters, wetlands, and ground water and to both point and nonpoint sources of pollution.

Pursuant to the Porter-Cologne Act (California Water Code section 13000 et seq.), the policy of the State is as follows:

- That the quality of all the waters of the State shall be protected;
- That all activities and factors affecting the quality of water shall be regulated to attain the highest water quality within reason; and
- That the State must be prepared to exercise its full power and jurisdiction to protect the quality of water in the State from degradation. (SWRCB, 2014)

The Porter-Cologne Act established nine Regional Water Boards (based on hydrogeologic barriers) and the State Water Board, which are charged with implementing its provisions and which have primary responsibility for protecting water quality in California. The State Water Board provides program guidance and oversight, allocates funds, and reviews Regional Water Boards decisions. In addition, the State Water Board allocates rights to the use of surface water. The Regional Water Boards have primary responsibility for individual permitting, inspection, and enforcement actions within each of nine hydrologic regions. The State Water Board and Regional Water Boards have numerous Non-Point Source (NPS)-related responsibilities, including monitoring and assessment, planning, financial assistance, and management. (SWRCB, 2014)

The Regional Water Boards regulate discharges under the Porter-Cologne Act primarily through issuance of National Pollutant Discharge Elimination System (NPDES) permits for point source discharges and waste discharge requirements (WDRs) for NPS discharges. Anyone discharging or proposing to discharge materials that could affect water quality (other than to a community sanitary sewer system regulated by an NPDES permit) must file a report of waste discharge. The SWRCB and the RWQCBs can make their own investigations or may require dischargers to carry out water quality investigations and report on water quality issues. The Porter-Cologne Act provides several options for enforcing WDRs and other orders, including cease and desist orders, cleanup and abatement orders, administrative civil liability orders, civil court actions, and criminal prosecutions. (SWRCB, 2014)

The Porter-Cologne Act also requires adoption of water quality control plans that contain the guiding policies of water pollution management in California. A number of statewide water quality control plans have been adopted by the State Water Board. In addition, regional water quality control plans (basin plans) have been adopted by each of the Regional Water Boards and get updated as necessary and practical. These plans identify the existing and potential beneficial uses of waters of the State and establish water quality objectives to protect these uses. The basin plans also contain implementation, surveillance, and monitoring plans. Statewide and regional water quality control plans include enforceable prohibitions against certain types of discharges, including those that may pertain to nonpoint sources. Portions of water quality control plans, the water quality objectives and beneficial use designations, are subject to review by the EPA, when approved they become water quality standards under the CWA. (SWRCB, 2014)

B. Local and Regional Plans and Regulations

1. Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP)

The continued loss of habitat to new development and the cumbersome process of environmental review and habitat mitigation on a project-by-project basis led to preparation of the MSHCP. The MSHCP is a multi-

jurisdictional accomplishment that provides a regional conservation solution to species and habitat issues. The primary intent of the MSHCP is to provide for the conservation of a range of plants and animals within natural communities characteristic of western Riverside County and in return, provide take coverage and mitigation for projects throughout the plan area to avoid the cost and delays of mitigating biological impacts on a project-by-project basis. (Riverside County, 2015, p. 4.8-49)

The MSHCP was adopted by Riverside County on June 17, 2003, and is a comprehensive, multijurisdictional Habitat Conservation Plan (HCP) pursuant to Section 10(a)(1)(B) of FESA, as well as an NCCP pursuant to the California Fish and Game Code. The USFWS issued a Biological Opinion and Federal ESA Section 10 permit for the MSHCP on June 22, 2004, and CDFW issued a Natural Community Conservation Planning (NCCP) Approval and Take Authorization on the same date. As long as adherence to the policies and requirements of the MSHCP is maintained, participants in the MSHCP, which include the County of Riverside and 18 cities, are allowed to authorize 'incidental take' of covered plant and wildlife species. (Riverside County, 2015, p. 4.8-49)

The MSHCP provides for the long-term survival of protected and sensitive species by designating a contiguous system of habitat to be added to existing public/quasi-public lands. The Plan includes an impact fee collected by the permittees and used in part to acquire these lands. Depending on the location of the private or public development project, certain biological studies are required for Plan compliance. These studies may identify the need for specific measures to avoid, minimize and reduce impacts to covered species and their habitat. (Riverside County, 2015, pp. 4.8-49 and 4.8-50)

The MSHCP defines two distinct consistency processes for development projects based on their location within the MSHCP's coverage area, with separate processes for projects located outside of Criteria Areas and those within a Criteria Area. Criteria Areas consist of 160-acre 'cells' with identified conservation objectives. (Riverside County, 2015, p. 4.8-50)

2. Stephens' Kangaroo Rat Habitat Conservation Plan (SKR HCP)

The Stephens' Kangaroo Rat Habitat Conservation Plan (SKR HCP) was prepared under the direction of the Riverside County Habitat Conservation Agency (RCHCA) Board of Directors, in consultation with USFWS and CDFW. The County of Riverside is a member agency of the RCHCA. The 30-year SKR HCP was designed to acquire and permanently conserve, maintain, and fund the conservation, preservation, restoration, and enhancement of Stephens' kangaroo rat-occupied habitat. The SKR HCP covers approximately 534,000 acres within the member jurisdictions and includes an estimated 30,000 acres of occupied Stephens' kangaroo rat habitat. The SKR HCP requires members to preserve and manage 15,000 acres of occupied habitat in seven Core Reserves encompassing over 41,000 acres. (Riverside County, 2015, p. 4.8-52)

On May 3, 1996, the USFWS issued a permit to the Riverside County Habitat Conservation Agency to incidentally take the federally endangered Stephens' kangaroo rat (*Dipodomys stephensi*). Similarly, the CDFW issued a California Endangered Species Act Management Authorization for Implementation of the Stephens' kangaroo rat on May 6, 1996. As of 2015, more than $50 million had been dedicated to the establishment and management of a system of regional preserves designed to ensure the survival of SKR in the plan area. This effort resulted in the permanent conservation of approximately 50% of the SKR-occupied habitat remaining in the HCP 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. Core reserves were deemed complete in December of 2003. (Riverside County, 2015, p. 4.8-52)

3. Riverside County Oak Tree Management Guidelines

In March 1993, the County of Riverside issued Oak Tree Management Guidelines to address the treatment of oak woodlands in areas where zoning and/or General Plan density restrictions allow the effective use of clustering. The guidelines are generally considered to be the most effective where minimum lot sizes are 2.5 acres or larger, or where oak woodlands are concentrated in a relatively small portion of a project site. The guidelines include recommendations for oak inventories, land use designs to cluster home sites in order to reduce impacts to oaks and mitigation measures for oak conservation. (Riverside County, 2015, p. 4.8-53)

4. Riverside County Ordinance No. 559 – Regulating the Removal of Trees

Riverside County Ordinance No. 559 regulates the removal of living native trees on parcels of property greater than one-half acre, located above 5,000 feet within the unincorporated area of Riverside County without first obtaining a permit to do so. The purpose of the ordinance is to ensure that the timberlands of Riverside County are protected and the ecological balance of such timberlands is preserved. (Riverside County, 2015, p. 4.8-53)

5. Riverside County Ordinance No. 810 – Establishing an Interim Open Space Mitigation Fee

This ordinance implements the Western Riverside County MSHCP and mitigates impacts of new development in western Riverside County. It establishes a development mitigation fee in order to help finance the acquisition of lands containing species protected by the MSHCP. By preserving these habitats and assessing a fee to develop in these open space areas, the ordinance helps to limit sprawl and encourage concentrated development, thereby reducing greenhouse gas emissions that would arise from trips between wider-flung land uses.

4.4.2 Basis for Determining Significance

Section IV of Appendix G to the State CEQA Guidelines addresses typical adverse effects to biological resources, and includes the following threshold questions to evaluate the Project's impacts to biological resources (OPR, 2018a):

- Would the Project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

- Would the Project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?

- Would the Project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

- Would the Project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

- Would the Project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

- Would the Project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

Significance thresholds are set forth in Riverside County's Environmental Assessment Checklist, are derived from Section IV of Appendix G to the State CEQA Guidelines (listed above), and state that the proposed Project would have a significant impact on biological resources if construction and/or operation of the Project would:

a. *Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state conservation plan;*

b. *Have a substantial adverse effect, either directly or through habitat modifications, on any endangered, or threatened species, as listed in Title 14 of the California Code of Regulations (Sections 670.2 or 670.5) or in Title 50, Code of Federal Regulations (Sections 17.11 or 17.12);*

c. *Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U. S. Wildlife Service;*

d. *Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;*

e. *Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U. S. Fish and Wildlife Service;*

f. *Have a substantial adverse effect on State or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means; or*

g. *Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.*

The significance thresholds set forth in Riverside County's Environmental Assessment Checklist were used to evaluate the significance of the proposed Project's impacts to biological resources.

4.4.3 IMPACT ANALYSIS

Threshold a:	***Would the Project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state conservation plan?***

The Project area is subject to two separate habitat conservation plans: the Stephens' Kangaroo Rat Habitat Conservation Plan (SKR HCP) and the Western Riverside County MSHCP. Each is discussed below.

A. Project Consistency with SKR HCP

As previously noted, the SKR HCP was prepared under the direction of the RCHCA Board of Directors, in consultation with USFWS and CDFW. Riverside County is a member agency of the RCHCA. According to Figure S-1 of the SKR HCP, the Project site is not located within or adjacent to any SKR core reserve areas. Additionally, the Project Applicant would be required to contribute fees towards the establishment and long-term maintenance of the SKR HCP core reserve pursuant to Riverside County Ordinance No. 663. The Project would not conflict with any provisions of the SKR HCP; thus, a less-than-significant impact would occur.

B. Project Consistency with the MSHCP

Provided below is an evaluation of the Project's consistency with the MSHCP Reserve assembly requirements, Section 6.1.2 (Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools), Section 6.1.3 (Protection of Narrow Endemic Plant Species), Section 6.1.4 (Guidelines Pertaining to the Urban/Wildlands Interface), and Section 6.3.2 (Additional Survey Needs and Procedures).

1. Project Relationship to MSHCP Reserve Assembly

The Project site is located in the Lake Mathews/Woodcrest Area Plan of the MSHCP but is not located within any Criteria Cells or designated conservation areas. The nearest lands that are located subject to conservation and dedication as part of the MSHCP occurs approximately 3.4 miles south of the Project site (RCIT, n.d.). Accordingly, the Project's Study Area has not been identified by the MSHCP for Reserve Assembly and is not subject to the Habitat Acquisition and Negotiation Strategy (HANS) process. As such, the Project has no potential to conflict with the MSHCP Reserve Assembly requirements, and no impact would occur.

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

Impacts to Riparian/Riverine Areas

The majority of the Project site does not support riparian habitats; however, Drainage 1 and 2, support a southern willow scrub plant community that provides moderate quality habitat for the State- and federally-listed as endangered least Bell's Vireo (*Vireo bellii pusillus*), but is not expected to provide suitable habitat for the other riparian obligate species listed under the MSHCP that may occur within the regional vicinity, including southwestern willow flycatcher *(Empidonax traillii extimus*), or yellow-billed cuckoo (*Coccyzus americanus*). (ELMT, 2025c, p. 8)

The composition of the southern willow scrub plant community riparian scrub supported on-site has been degraded by invasive plant species and previous agricultural activities. The mixed riparian scrub, located outside of the proposed limits of disturbance, does not have a contiguous willow canopy, and does not provide

the dense, multi-storied canopy for southwestern willow flycatcher and yellow-billed cuckoo. Due to incomplete canopy, limited acreage, and lack of riparian plant species diversity of the mixed riparian scrub supported on-site, the habitat associated with the on-site drainage feature was determined not to provide suitable habitat for southwestern willow flycatcher and yellow-billed cuckoo. However, the southern willow scrub plant community has the potential to provide moderate quality habitat for least Bell's vireo. Least Bell's vireo do not require the dense multi-storied riparian canopy that southwestern willow flycatcher and yellow-billed cuckoo need. (ELMT, 2025c, p. 8)

Focused surveys were conducted during the 2024 survey season for Least Bell's vireo and southwestern willow flycatcher. No southwestern willow flycatcher were observed onsite during the 2024 surveys. However, least Bell's vireo territories were observed during the 2024 season. (ELMT, 2025c, p. 9)

The proposed Project would result in permanent impacts to approximately 0.24-acre of MSHCP-defined riparian/riverine habitat within Drainage 1 in the central and southeastern portion of the site, although the Project would not result in any impacts to MSHCP riparian/riverine habitat within Drainage 2. This also represents a total of 0.24-acre of permanent and temporary impacts to suitable and occupied least Bell's vireo habitat (southern willow scrub) within Drainage 1. A DBESP is required, pursuant to Volume I, Section 6.1.2 of the MSHCP, and has been prepared for the Project (refer to EIR *Technical Appendix C3)*. As documented in the Projects DBESP, Project impacts to 0.24-acre of MSHCP riparian/riverine habitat would require mitigation through the management of approximately 2.75 acres of the riparian/riverine habitat onsite. Therefore, because the Project would result in unavoidable permanent impacts to approximately 0.24-acre of riparian/riverine habitat within Drainage 1, the Project would have the potential to conflict with MSHCP Section 6.1.2 in the absence of mitigation. Accordingly, Project impacts to 0.24-acre of MSHCP riparian/riverine habitat represent a potential conflict with MSHCP Section 6.1.2, resulting in a significant impact for which mitigation would be required. (ELMT, 2025c, p. 11)

Vernal Pools

A review of recent and historic aerial photographs of the Project site during wet and dry seasons did not provide visual evidence of an astatic or vernal pool conditions within the Project site. Additionally, no ponding was observed during the field investigation, further supporting the fact that the drainage patterns currently occurring on the Project site do not follow a hydrologic regime needed for vernal pools. From this review of historic aerial photographs and observations during the field investigations, it can be concluded that there is no indication of vernal pools or suitable fairy shrimp habitat occurring within the proposed Project site. As such, no impact to vernal pools or vernal pool species would occur with implementation of the Project. (ELMT, 2025c, p. 10)

3. Protection of Narrow Endemic Plant Species

Volume I, Section 6.1.3 of the MSHCP, *Protection of Narrow Endemic Plant Species*, requires that within identified Narrow Endemic Plant Species Survey Areas (NEPSSA), site-specific focused surveys for Narrow Endemic Plants Species will be required for all public and private projects where appropriate soils and habitat are present. Based on the RCA MSHCP Information Map query and review of the MSHCP, it was determined that the Project site is not located within any designated NEPSSA survey areas. Further, based on the results of the field investigation, the Project site does not provide suitable habitat for any of the MSHCP-listed Narrow

Endemic Plant Species. Accordingly, no impacts to narrow endemic plant species would occur with implementation of the proposed Project; thus, the Project has no potential to conflict with MSHCP Section 6.1.3 and no impact would occur. (ELMT, 2025a, p. 29)

4. Guidelines Pertaining to the Urban/Wildland Interface

Section 6.1.4 of the MSHCP, *Guidelines Pertaining to Urban/Wildlands Interface,* is intended to address indirect effects associated with development in proximity to MSHCP Conservation Areas. The Urban/Wildlife Interface Guidelines (UWIG) are intended to ensure that indirect Project-related impacts to the MSHCP Conservation Area, including drainage, toxics, lighting, noise, invasive plant species, barriers, and grading/land development, are avoided or minimized. The Project site is not located within or in close proximity of any Criteria Cells or designated conservation areas. As previously noted, the nearest lands that are located subject to conservation and dedication as part of the MSHCP occurs approximately 3.4 miles south of the Project site; thus, the Project has no potential to result in edge effects that could adversely affect the MSHCP conservation areas (RCIT, n.d.). Therefore, the proposed Project has no potential to conflict with the Urban/Wildlands Interface Guidelines established by MSHCP Section 6.1.4, and no impact would occur. (ELMT, 2025a, p. 29)

5. Additional Survey Needs and Procedures

In accordance with Section 6.3.2 of the MSHCP, *Additional Survey Needs and Procedures*, additional surveys may be needed for certain species in order to achieve coverage for these species. The query of the RCA MSHCP Information Map and review of the MSHCP determined that the Project site is located within the designated survey area for burrowing owl as depicted in Figure 6-4 within Section 6.3.2 of the MSHCP. No other special-status wildlife species surveys were identified. Project impacts to the burrowing owl are discussed below. (ELMT, 2025a, p. 27)

❑ Burrowing Owl

As previously noted, despite a systematic search of the Project site, no burrowing owls or signs of burrowing owls were observed during the field investigation. Additionally, no evidence of recent or historic use by burrowing owls were observed on the Project site. As a result, burrowing owls are presumed to be absent from the Project site. Although focused surveys determined that the burrowing owl is absent from the Project site, there is nonetheless a potential for the site to become occupied with burrowing owls prior to construction activities. This is evaluated as a potentially significant impact for which mitigation, in the form of pre-construction burrowing owl surveys, would be required. (ELMT, 2025a, pp. 30-32)

Threshold b.:	***Would the Project have a substantial adverse effect, either directly or through habitat modifications, on any endangered, or threatened species, as listed in Title 14 of the California Code of Regulations (Sections 670.2 or 670.5) or in Title 50, Code of Federal Regulations (Sections 17.11 or 17.12)?***
Threshold c.:	***Would the Project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U. S. Wildlife Service?***

The following discussion examines the potential impacts to plant and wildlife resources that would occur as a result of the proposed Project.

A. Impacts to Special Status Plants

Based on habitat requirements for specific special-status plant species and the availability and quality of on-site habitats, it was determined that the site has a low potential to support smooth tarplant (*Centromadia pungens* ssp. *laevis*) and paniculate tarplant (*Deinandra paniculata*). It was determined that the Project site does not have potential to support any other special-status plant species known to occur in the vicinity of the site and all are presumed to be absent. Smooth tarplant and paniculate tarplant are not federally or State listed as endangered or threatened. In addition, smooth tarplant is listed as covered species under the MSHCP. While the historic and ongoing land uses supported by the Project site have removed the majority of the natural plant communities that once occurred in the area, freshwater marsh, southern willow scrub, and Riversidean sage scrub persist on-site in limited densities and breadth. Therefore, these species were determined to have low potentials to occur. The proposed Project has been designed to avoid impacts to the majority of the arroyo and its associated plant communities, with the exception of two crossings proposed as part of the Project, and as such no impacts to these species would occur, if present. Accordingly, with the proposed conservation of the majority of the arroyo habitat on site, Project impacts to special-status plant species would be less than significant. (ELMT, 2025a, pp. 17-18)

C. Impacts to Special-Status Wildlife

As previously stated, no special-status wildlife species were observed during the field investigation. Based on habitat requirements for specific species and the availability and quality of on-site habitats, it was determined that the Project site has a high potential to support Cooper's hawk (*Accipiter cooperii*), sharp-shinned hawk (*Accipiter striatus*), great egret (*Ardea alba*), great blue heron (*Ardea herodias*), coastal whiptail (*Aspidoscelis tigris stejnegeri*), Costa's hummingbird (*Calypte costae*), and California horned lark (*Eremophila alpestris actia*); and a low potential to support grasshopper sparrow (*Ammodramus savannarum*), southern California legless lizard (*Anniella stebbinsi*), short-eared owl (*Asio flammeus*), long-eared owl (*Asio otus*), burrowing owl (*Athene cunicularia*), northern harrier (*Circus hudsonius*), San Bernardino ringneck snake (*Diadophis punctatus modestus*), San Diego ringneck snake (*Diadophis punctatus similis*), willow flycatcher (*Empidonax traillii*), southwestern willow flycatcher (*Empidonax traillii extimus*), San Diego black-tailed jackrabbit (*Lepus californicus bennettii*), pallid bobcat (*Lynx rufus pallescens*), San Diego desert woodrat (*Neotoma lepida intermedia*), coast horned lizard (*Phrynosoma blainvillii*), coast patch-nosed snake (*Salvadora hexalepis virgultea*), rufous hummingbird (*Selasphorus rufus*), yellow warbler (*Setophaga petechia*), western spadefoot

(*Spea hammondii*), least Bell's vireo (*Vireo bellii pusillus*), and south coast gartersnake (*Thamnophis sirtalis*). (ELMT, 2025a, p. 18)

Of the aforementioned species, southwestern willow flycatcher and least Bell's vireo are both federally and State listed as endangered, and willow flycatcher is State listed as endangered. None of the other species are federally- or State-listed as endangered or threatened. In addition, Cooper's hawk, sharp-shinned hawk, great blue heron, coastal whiptail, red-diamond rattlesnake, California horned lark, burrowing owl, northern harrier, southwestern willow flycatcher, San Diego black-tailed jackrabbit, pallid bobcat, San Diego desert woodrat, coast horned lizard, western spadefoot, and least Bell's vireo are listed as covered species by the MSHCP. The Project site was determined to have a low potential to provide foraging habitat migrant willow flycatcher, southwestern willow flycatcher, and least Bell's vireo. Additionally, willow flycatcher and southwestern willow flycatcher were not observed or detected nearby during field investigation. However, territories for the least Bell's vireo were detected on-site during the 2024 focused surveys. A total of 0.24-acre of permanent and temporary impacts to suitable habitat for and occupied by least Bell's vireo (southern willow scrub) would occur within Drainage 1. Therefore, the Project would result in potential significant impacts to a special-status wildlife species (least Bell's vireo) and mitigation would be required (ELMT, 2025a, p. 19; ELMT, 2025c, pp. 7-8)

Additionally, no vernal pools were documented on-site based on a lack of suitable soils and characteristic vernal pool plant species. No soil types that are known to support the Riverside fairy shrimp (*Streptocephalus woottoni*) or the Santa Rosa Plateau fairy shrimp (*Linderiella santarosae)* were identified on site. Furthermore, no ponding was observed on historic aerials during the wet season due to existing activities on-site, further supporting the fact that the drainage patterns currently occurring on the Project site do not follow a hydrologic regime needed for vernal pools. Additionally, the Vernal pool fairy shrimp are restricted to seasonal vernal pools. The vernal pool fairy shrimp is known from four locations in Western Riverside County MSHCP Plan Area: Skunk Hollow, the Santa Rosa Plateau, Salt Creek, and the vicinity of the Pechanga Indian Reservation. Since the Project site is not located within or adjacent to the four known populations, and no indicators of water ponding or astatic water conditions were observed on site, thereby indicating that the Project site does not provide suitable habitat for vernal pool fairy shrimp. Therefore, no impact would occur to Riverside fairy shrimp, Santa Rosa Plateau fairy shrimp, or Vernal pool fairy shrimp. (ELMT, 2025a, p. 29)

However, the Project site contains vegetation with the potential to support native nesting birds. The California Fish and Game Code prohibits mortality of native birds, including eggs. Thus, a significant impact could occur to nesting birds if grading or development were to occur to nesting birds if grading or development were to occur during the nesting season (February 1 to August 31). Furthermore, noise resulting from blasting activities that would occur during the Project's construction phase could result in a significant impact to nesting birds if present within close proximity to blasting events. Additionally, although not observed during site surveys, the Project site nonetheless contains suitable habitat for burrowing owls. MSHCP Objective 6 for burrowing owls requires that pre-construction surveys occur prior to site grading. Accordingly, prior to mitigation requiring pre-construction surveys, the Project has the potential to result in significant impacts to nesting birds and burrowing owls. (ELMT, 2025a, p. 35)

Threshold d: ***Would the Project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?***

The Project site has not been identified as occurring in a wildlife corridor or linkage, and the Project site does not contain any native wildlife nursery sites. The nearest linkages to the Project, as identified by the MSHCP, occur approximately 1.77 miles to the northeast and 2.96 miles to the southwest. The proposed Project would be confined to existing areas that have been heavily disturbed. The arroyo and associated plant communities likely serve as linkages for wildlife species to move locally, but the site is isolated from regional wildlife corridors and linkages as there are no riparian corridors, creeks, or useful patches of steppingstone habitat (natural areas) within or connecting the site to any recognized wildlife corridor or linkage. Project development activities would be limited to former agricultural areas and are designed to avoid the arroyo and associated plant communities to the extent feasible. As such, implementation of the proposed project would not impact wildlife movement opportunities and impacts to wildlife corridors and linkages would be less than significant. (ELMT, 2025a, p. 16)

Threshold e.: ***Would the Project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U. S. Fish and Wildlife Service?***

Table 4.4-3, *Summary of Vegetation/Land Use Impacts*, provides a summary of the proposed Project's impacts to vegetation/land use types. As shown, the proposed Project would result in impacts to 0.24-acre of southern willow scrub, 1.79 acres of Riversidean sage scrub, 8.35 acres of non-native grassland, 99.79 acres mapped as disturbed, and 2.61 acres mapped as developed. As previously noted, the only sensitive vegetation community on site is southern willow scrub, while Riversidean sage scrub, non-native grassland, disturbed, and developed areas are not considered special-status communities. Accordingly, Project impacts to 0.24-acre of southern willow scrub habitat represents a significant impact of the proposed Project for which mitigation would be required, although the mitigation for impacts to southern willow scrub would be the same as identified under Threshold f. for impacts to CDFW jurisdictional areas.

Table 4.4-3 Summary of Vegetation/Land Use Impacts

Vegetation/Land Use Type	Total On-Site Acreage	Project Impacts (Acres)
Southern Willow Scrub	2.90	0.24
Riversidean Sage Scrub	7.62	1.79
Non-Native Grassland	14.24	8.35
Disturbed	113.81	99.79
Developed	2.61	2.61
Total	**141.18**	**112.78**

Note: Totals reflect rounding.
(ELMT, 2025a, Table 1)

As discussed in further detail in EIR Subsection 4.10, *Hydrology and Water Quality*, the Project's drainage system has been designed to generally retain the Project site's existing drainage patterns. All of the proposed detention basins would discharge directly into Goldenstar Creek, and the total amount of runoff from the

Project site discharged into Goldenstar Creek would be similar to exiting conditions. As such, potential indirect impacts to Goldenstar Creek resulting from the Project's proposed drainage plan would be less than significant.

Threshold f: ***Would the Project have a substantial adverse effect on State or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?***

A. Project Impacts to Wetlands

Based on the jurisdictional delineation conducted by ELMT, no inundated areas, wetland features, or wetland plant species that would be considered wetlands as defined by Section 404 of the Clean Water Act occur within the Project's impact areas. As a result, implementation of the proposed Project would not result in any impacts or have substantial adverse effect on federally-protected wetlands. (ELMT, 2025a, p. 37)

B. Project Impacts to Jurisdictional Waters

The Project would result in direct impacts to areas considered jurisdictional by the RWQCB and CDFW. Project impacts to jurisdictional resources are depicted on Figure 4.4-3, *Jurisdictional Impact Map,* are summarized on Table 4.4-4, Impacts to Jurisdictional Areas, and are discussed below.

1. Impacts to Corps Jurisdiction

Drainage 1 and 2 are not relatively permanent, standing, or continuously flowing bodies of water. Therefore, they do not qualify as waters of the United States under the regulatory authority of the Corps. Thus, the Project would not result in any impacts to jurisdictional features subject to regulation by the Corps. (ELMT, 2025b, p. 18)

Table 4.4-4 Impacts to Jurisdictional Areas

Jurisdictional Feature	Stream Flow	Cowardin Class	Class of Aquatic Resource	Linear Feet	Regional Board Jurisdiction		CDFW Streambed	
					On-Site Jurisdiction	Impacts	On-Site Jurisdiction	Impacts
Drainage 1	Ephemeral	Riverine	Non-Section 10 Non-Wetland	4,795	1.12	0.14	2.24	0.24
Drainage 2	Ephemeral	Riverine	Non-Section 10 Non-Wetland	803	0.25	0.00	0.75	0.0
			TOTALS	**5,598**	**1.37**	**0.14**	**2.99**	**0.24**

(ELMT, 2025a, Table 2)

2. Impacts to Regional Board Jurisdiction

As noted in Table 4.4-3, approximately 1.37 acres (5,598 linear feet) of Regional Board jurisdiction is located within the boundaries of the Project site. Implementation of the proposed Project would result in impacts to 0.14-acre of Regional Board jurisdiction within Drainage 1. Project impacts to jurisdictional features subject to regulation by the Regional Board represent a significant impact of the Project for which mitigation would be required. (ELMT, 2025b, p. 18)

3. Impacts to CDFW Jurisdiction

Drainages 1 and 2 exhibit characteristics consistent with CDFW's methodology and would be considered CDFW streambed/riparian totaling approximately 2.99 acres (5,598 linear feet) within boundaries of the Project site. Implementation of the Project would result in impacts to 0.24-acre of CDFW jurisdictional streambed. Project impacts to jurisdictional features subject to regulation by the CDFW represent a significant impact of the Project for which mitigation would be required. (ELMT, 2025b, p. 18)

Threshold g: Would the Project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Aside from the SKR HCP and the MSHCP, which are addressed under the analysis of Threshold a., the only other local policies or ordinances protecting biological resources are the Riverside County Oak Tree Management Guidelines and Riverside County Ordinance No. 559 (Regulating the Removal of Trees). There are no oak trees or vegetation communities containing oak trees within the Project site. As such, the Project has no potential to result in a conflict with the County's Oak Tree Management Guidelines. Additionally, Riverside County Ordinance No. 559 applies to properties located above 5,000 feet above mean sea level (amsl) in elevation, while the maximum elevation at the Project site is approximately 1,579 feet amsl; thus, Riverside County Ordinance No. 559 is not applicable to the proposed Project. Accordingly, and aside from potential impacts due to a conflict with the MSHCP (as addressed under the analysis of Threshold a.), the Project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance, and no impact would occur. (ELMT, 2025a, p. 38)

4.4.3 Cumulative Impact Analysis

The cumulative impact analysis considers development of the Project in conjunction with other development projects located within the purview of the Western Riverside County MSHCP. This study area for cumulatively-considerable impacts to biological resources is appropriate because the MSHCP encompasses a large area surrounding the Project site, and provides for the long-term protection of sensitive plant, animal, and plant communities throughout the MSHCP area. Additionally, most cumulative development projects within the Project vicinity would be subject to the provisions of the MSHCP, and the general range of habitats, species, climate, etc. are fairly consistent throughout the MSHCP.

As discussed under the analysis of Threshold a., the Project would be subject to payment of fees pursuant to Riverside County Ordinance No. 663, which would ensure Project consistency with the SKR HCP. As other cumulative developments also would be subject to compliance with the SKR HCP, Project impacts due to a conflict with the SKR HCP would be less than significant on a cumulatively-considerable basis. The Project is not located within any designated Criteria Cells or conservation areas; thus, cumulatively-considerable impacts regarding MSHCP Reserve Assembly would not occur. The proposed Project would result in permanent impacts to approximately 0.24-acre of MSHCP Section 6.1.2 riparian/riverine habitat within Drainage 1 in the central and southeastern portion of the site. As other cumulative developments have the potential to result in impacts to riparian/riverine habitat, Project impacts to 0.24-acre of riparian/riverine habitat would be cumulatively considerable prior to mitigation. The majority of the Project site does not support riparian habitats; however, Drainage 1 and 2 support southern willow scrub plan that provides a moderate-quality habitat for least Bell's vireo. Other cumulative developments have the potential to result in impacts to

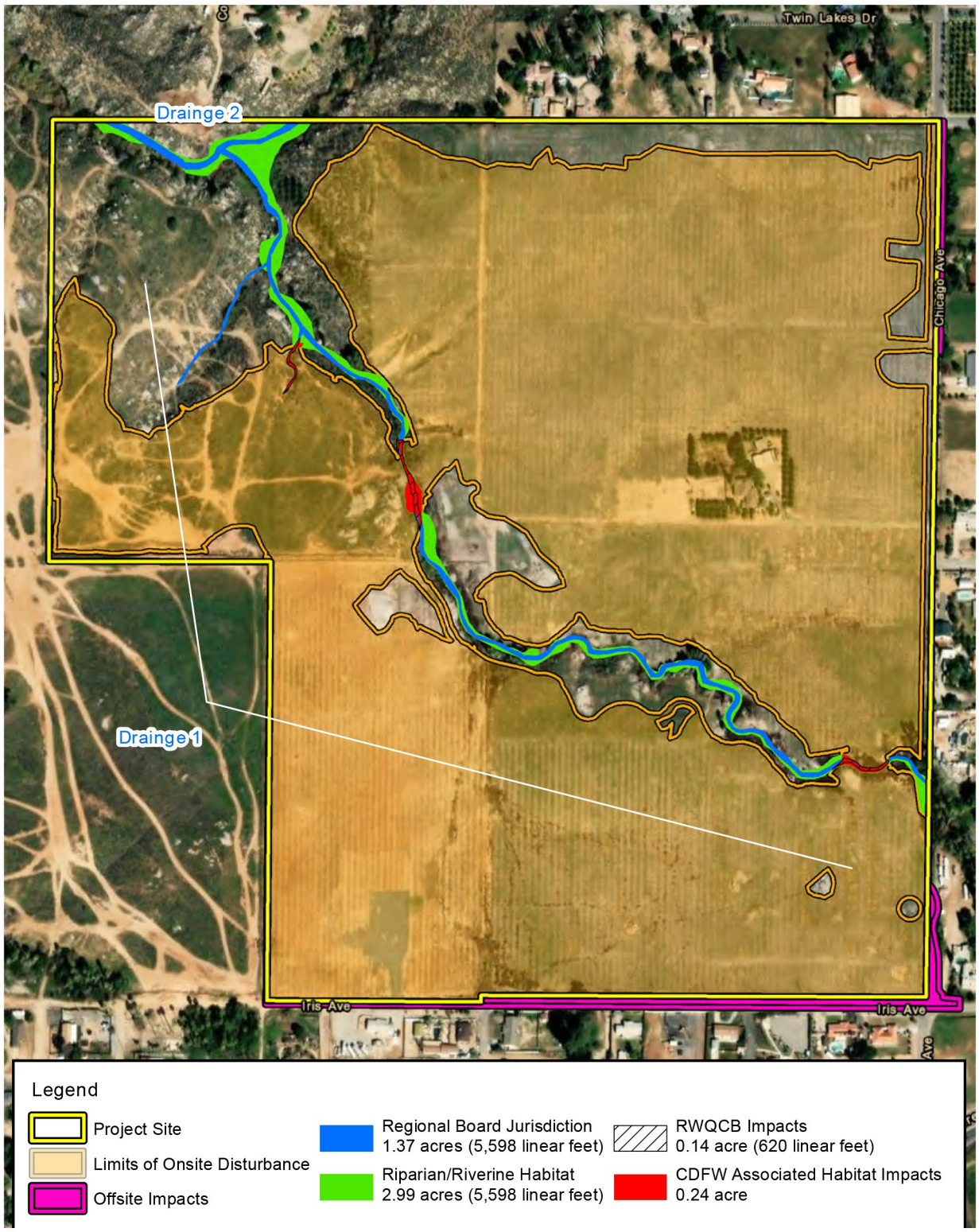
habitat communities with the potential to support least Bell's vireo. The Project site is not located near the MSHCP Conservation Areas and is not subject to the UWIG pursuant to MSHCP Section 6.1.4; thus, cumulatively-considerable impacts due to a conflict with MSHCP Section 6.1.4 would not occur. Although focused surveys determined that the burrowing owl is absent from the Project site, there is nonetheless a potential for the site to become occupied with burrowing owls prior to construction activities. Other cumulative developments would similarly have the potential to result in impacts to the burrowing owl; thus, Project impacts to the burrowing owl represent a cumulatively-considerable impact prior to mitigation.

As discussed under the analysis of Thresholds b. and c., the Project would not result in impacts to special status plants; thus, cumulatively-considerable impacts to special status plants would not occur. Although the Project would result in less-than-significant impacts to most special status animals observed or with the potential to occur on the Project site, there is a potential that the site may be occupied by nesting birds prior to the commencement of construction, resulting in potentially significant impacts if construction activities were to occur during the nesting season (February 1 through August 31). Additionally, although not observed during focus surveys, the Project site nonetheless contains suitable habitat for burrowing owls. MSHCP Objective 6 for burrowing owls requires that pre-construction surveys occur prior to site grading. Thus, the Project has the potential to result in impacts to the burrowing owl. As other cumulative developments within the region also have the potential to result in impacts to nesting birds and the burrowing owl, the Project's impacts would be cumulatively considerable. In addition, the Project would result in impacts to 0.24-acre of habitat suitable for and occupied by least Bell's vireo within Drainage 1. As other cumulative developments also have the potential to result in impacts to the least Bell's vireo, Project impacts to 0.24-acre of suitable habitat (southern willow scrub) for the least Bell's vireo represents a cumulatively-considerable impact of the proposed Project prior to mitigation.

As discussed under the analysis of Threshold d., the Project site does not contain any wildlife nursery sites; thus, cumulatively-considerable impacts to wildlife nursery sites would not occur. In addition, the Project site does not occur in an existing or planned wildlife corridor or linkage. Therefore, Project impacts to wildlife movement corridors and native wildlife nursery sites would be less than significant on a cumulatively-considerable basis.

The analysis under Threshold e. demonstrates that implementation of the proposed Project would result in impacts to 0.24-acre of southern willow scrub, which is considered a sensitive vegetation community. As other cumulative developments also have the potential to result in impacts to riparian habitat or other sensitive natural communities, Project impacts to 0.24-acre of southern willow scrub would be cumulatively considerable.

As discussed under the analysis of Threshold f., The Project would result in direct impacts to areas considered jurisdictional by the RWQCB and/or CDFW. Specifically, the Project would result in impacts to 0.14-acre of Regional Board jurisdiction and 0.24-acre of CDFW jurisdiction. The Project would not result in impacts to areas considered jurisdictional by the USACE. As other cumulative developments within the region also would have the potential to result in impacts to areas subject to jurisdiction by the RWQCB and/or CDFW, Project impacts would be cumulatively considerable.



Source(s): ELMT Consulting, Inc. (January 2025)

Figure 4.4-3

Not to Scale

Jurisdictional Impact Map

As indicated under the analysis of Threshold g., aside from the SKR HCP and MSHCP (which are addressed under the analysis of Threshold a.), the only other local policies or ordinances protecting biological resources are the Riverside County Oak Tree Management Guidelines, Riverside County Ordinance No. 499, and Riverside County Ordinance No. 559 (Regulating the Removal of Trees). However, the Project site does not contain any oak trees that would be subject to the County's Oak Tree Management Guidelines, and Riverside County Ordinance No. 559 applies only to properties located above 5,000 feet amsl. Accordingly, Project impacts due to a conflict with local policies or ordinances protecting biological resources would be less-than-cumulatively considerable.

4.4.4 Significance of Impacts Before Mitigation

Threshold a.: Significant Direct and Cumulatively Considerable Impact. The proposed Project would not conflict with the Stephens' Kangaroo Rat Habitat Conservation Plan (SKR HCP), with the mandatory payment of fees pursuant to Riverside County Ordinance No. 663. The Project would not result in a conflict with the MSHCP Reserve Assembly requirements. However, the Project would result in permanent impacts to approximately 0.24-acre of MSHCP Section 6.1.2 riparian/riverine habitat within Drainage 1. Thus, prior to mitigation, the Project's anticipated impacts to MSHCP Section 6.1.2 would represent potentially significant impacts. The Project would also result in impacts to 0.24-acre of southern willow scrub plant that provides moderate quality habitat for the State- and federally-listed endangered least Bell's vireo. Additionally, the Project has the potential to result in impacts to the burrowing owl, if the site were to become occupied prior to commencement of construction activities; thus, prior to mitigation, potential impacts to the burrowing owl represent a conflict with MSHCP Section 6.3.2. Accordingly, the Project has the potential to result in a conflict with MSHCP Sections 6.1.2 and 6.3.2; this is evaluated as a significant direct and cumulatively-considerable impact for which mitigation would be required.

Thresholds b. and c.: Significant Direct and Cumulatively Considerable Impact. The Project would not result in any impacts to special status plants. However, there is a potential for the Project site to become occupied by burrowing owls prior to commencement of construction activities. This is evaluated as a potentially significant impact of the Project for which mitigation would be required. With mandatory payment of MSHCP fees pursuant to Riverside County Ordinance No. 810, impacts to other incidental MSHCP-covered species would be less than significant. Additionally, if construction or blasting activities are proposed between February 1st and August 31st, pre-construction surveys and avoidance measures are required if any nesting birds are identified on site. The potential loss of an active nest is considered a potentially significant impact for which mitigation would be required. No vernal pools were documented on site based on a lack of suitable soils and characteristic vernal pool plant species; thus, no impacts to vernal pools would occur with Project implementation. Additionally, the Project would not result in any impacts to the willow flycatcher or southwestern willow flycatcher. However, territories for the least Bell's vireo were detected on-site during the 2024 focused surveys. A total of 0.24-acre of permanent and temporary impacts to suitable habitat for and occupied by least Bell's vireo (southern willow scrub) would occur within Drainage 1. Therefore, the Project would result in potential significant impacts to a special-status wildlife species (least Bell's vireo) and mitigation would be required.

Threshold d.: Less-than-Significant Impact. The Project site has not been identified as occurring in a wildlife corridor, and the Project site does not contain any native wildlife nursery sites. The nearest movement corridors

to the Project site, as identified by the MSHCP, occur approximately1.8 miles to the northeast and 3.0 miles to the southwest. As such, implementation of the proposed project would not impact wildlife movement opportunities and impacts to wildlife corridors and linkages would be less than significant.

Threshold e.: Significant Direct and Cumulatively-Considerable Impact. The proposed Project would result in impacts to 0.24-acre of southern willow scrub, 1.79 acres of Riversidean sage scrub, 8.35 acres of non-native grassland, 99.79 acres mapped as disturbed, and 2.61 acres mapped as developed. As previously noted, the only sensitive vegetation community on site is southern willow scrub, while Riversidean sage scrub, non-native grassland, disturbed, and developed areas are not considered special-status plant communities. Project impacts to 0.24-acre of southern willow scrub habitat represents a significant impact of the proposed Project for which mitigation would be required.

Threshold f: Significant Direct and Cumulatively Considerable Impact. The Project would not result in impacts to federally-protected wetland habitat or Corps jurisdictional waters. However, implementation of the proposed Project would result in impacts to 0.14-acre of Regional Board jurisdictional waters and 0.24-acre of CDFW jurisdictional streambed. Project impacts to areas subject to RWQCB and/or CDFW jurisdiction represent significant impacts for which mitigation would be required.

Threshold g.: No Impact. Aside from the SKR HCP and the MSHCP, which are addressed under the analysis of Threshold a., the only other local policies or ordinances protecting biological resources are the Riverside County Oak Tree Management Guidelines and Riverside County Ordinance No. 559 (Regulating the Removal of Trees). There are no oak trees or vegetation communities containing oak trees within the Project site, and Ordinance No. 559 applies to properties located above 5,000 amsl in elevation. Therefore, the Project has no potential to conflict with the County's Oak Tree Management Guidelines or Riverside County Ordinance No. 559, and no impact would occur.

4.4.5 County Regulations, Design Requirements, and Mitigation

Applicable County Regulations and Design Requirements

The following are applicable regulations and design requirements within Riverside County. Although these requirements technically do not meet CEQA's definition for mitigation, they are imposed herein to ensure Project compliance with applicable County regulations and design requirements.

- Prior to issuance of grading permits, the Project Applicant shall make payment of Western Riverside County MSHCP fees pursuant to Riverside County Ordinance No. 810, *Establishing an Interim Open Space Mitigation Fee*.

- Prior to issuance of grading permits, the Project Applicant shall make payment of fees in accordance with the Stephen's Kangaroo Rat Habitat Conservation Plan pursuant to Riverside County Ordinance No. 663, *Establishing the Riverside County Stephens' Kangaroo Rat Habitat Conservation Plan and Setting Mitigation Fees*.

- Prior to issuance of grading permits or other permits authorizing ground-disturbing activities associated with the Project, the Project Applicant shall provide the Riverside County Planning Department with

copies of the appropriate Wildlife Agency permits to address impacts to approximately 0.14-acre of Regional Board jurisdictional waters and 0.24-acre of CDFW jurisdictional streambed. Permits required include, but may not be limited to, a Waste Discharge Order pursuant to Section 13260 of the California Water Code from the Santa Ana Regional Water Quality Control Board (Regional Board), and a Section 1602 Streambed Alteration Agreement (SAA) from the California Department of Fish and Wildlife (CDFW).

Mitigation Measures

MM 4.4-1 In order to mitigate Project impacts to 0.14-acre of RWQCB jurisdiction, 0.24-acre of CDFW jurisdiction (consisting of 0.24-acre of southern willow scrub), and 0.24-acre of MSHCP Section 6.1.2 riparian/riverine resources (consisting of 0.24-acre of southern willow scrub), prior to final building inspection a conservation easement shall be placed over the 2.75 acres of riparian/riverine habitat onsite. A Habitat Mitigation Monitoring and Reporting Program shall be prepared to be approved by the County of Riverside Environmental Programs Division, Western Riverside County Regional Conservation Authority and regulatory agencies. Invasive plant species shall be removed to enhance the riparian/riverine habitat onsite and the Project Applicant shall replant the impacted areas with native landscaping.

MM 4.4-2 In order to mitigate impacts to riparian/riverine resources and least Bell's vireo, prior to final building inspection the Project Applicant shall preserve and enhance approximately 92% of the onsite drainage features. The Project Applicant shall install six-foot solid concrete masonry walls on an average of approximately 98 feet from the edge of the riparian habitat to act as a buffer between the riparian habitats within Drainage 1 and 2 and onsite development. Double picket tubular steel fencing with gaps no greater than 2" shall be installed along the backyards of Lots 87 through 90 as to prevent cats from crossing the fence line.

MM 4.4-3 In order to mitigate impacts to riparian/riverine resources and least Bell's vireo, prior to final building inspection the Project Applicant shall fence the onsite trail with a four-foot high wood split rail fence with wire mesh covering the entire width and height of the fence to deter pedestrians and dogs from entering into the riparian riverine habitat. The trail shall have posted signs at all trail entrances reflecting limited hours of use to the trail, signage to enforce dogs on leash at all times, as well as cautionary signage of rattlesnakes to deter residents from entering into the riparian habitat. Landscaping associated with the trail shall have a restriction of non-native and invasive plant species and will not use any species listed in Table 6-2 of the MSHCP. Habitat enhancement and restoration activities shall be phased to ensure that higher quality habitat shall be available through restoration prior to impacting potentially occupied least Bell's vireo habitat. The Project's CC&Rs shall include a provision requiring the Project's Homeowner's Association (HOA) to be responsible for the maintenance of the trail, including fencing along the trail. Additionally, the Project's CC&Rs shall require the Project's HOA to educate residents of the natural occurring wildlife and natural habitat on the Project site.

MM 4.4-4 In order to preclude potential indirect impacts due to encroachment into open space areas during construction activities, the following measures shall be implemented. The following

measures shall be specified in bid documents issued to prospective construction contractors, and Project construction contractors shall permit periodic inspection of the construction site by County of Riverside staff or its designee to confirm compliance.

- Construction worker training shall be provided by a qualified biologist at the first pre-construction meeting;
- Exclusionary fencing and signs shall be erected near the top of slope adjacent to conserved riparian/riverine habitat to prevent accidental/unauthorized intrusions during construction;
- No equipment shall be operated in areas of flowing water;
- Construction access and staging areas for storage of materials and heavy equipment, and for fueling, cleaning, or maintenance of construction vehicles or equipment, shall be prohibited within 20 feet from the top of slope adjacent to conserved riparian/riverine habitat; and
- A qualified biologist shall be onsite during initial clearing/grubbing, grading, and/or construction activities within the riparian/riverine habitat that will be impacted within the onsite drainage features, or within 100 feet of the habitat to be avoided, and shall periodically monitor these activities to ensure they do not exceed the fenced construction limits.

MM 4.4-5 In order to preclude potential indirect impacts to on-site preserved riparian habitat and/or on-site mitigation areas, prior to issuance of building permits for lots abutting the on-site drainages Riverside County shall review the building plans to ensure that edge effects have been minimized through the planting of native landscaping on manufactured slopes within the conserved areas, and through the installation of fencing/signage near the top of slope adjacent to conserved areas to prevent unauthorized public access, vandalism, illegal dumping, and other adverse human disturbances.

MM 4.4-6 To avoid take of active burrowing owl burrows (nests) and in accordance with MSHCP Objective 6, prior to issuance of grading permits or other permits authorizing ground disturbance (e.g., vegetation clearing, clearing and grubbing, tree removal, site watering, equipment staging), the Project Applicant shall retain a qualified biologist to perform a burrowing owl survey at all potentially suitable habitat sites within the Project's limits of disturbance within 30 days of the commencement of any ground-disturbing activities at the Project site, as discussed below.

- Pre-Construction Survey: The pre-construction survey shall be performed by a qualified biologist that will survey the site for the presence/absence of burrowing owls within 30 days prior to commencement of ground-disturbing activities at the Project site. The results of the survey should be submitted to Riverside County and the California Department of Fish and Wildlife (CDFW) within three days of survey completion. The pre-construction

survey shall be conducted in accordance with the current Burrowing Owl Instruction for the Western Riverside MSHCP.

- Burrowing Owl Management Plan: If active burrowing owl burrows are detected, the Project Applicant shall not commence activities until no sign is present that the burrows are being used by adult or juvenile owls or following CDFW approval of a Burrowing Owl Plan as described below. If owl presence is difficult to determine, a qualified biologist shall monitor the burrows with motion- activated trail cameras for at least 24 hours to evaluate burrow occupancy. The onsite qualified biologist will verify the nesting effort has finished according to methods identified in the Burrowing Owl Plan.

  The Burrowing Owl Plan shall be prepared in accordance with guidelines in the CDFW Staff Report on Burrowing Owl (March 2012) and Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP). The qualified biologist and Project Applicant shall coordinate with the County of Riverside, CDFW, and United States Fish and Wildlife Service (USFWS) to develop a Burrowing Owl Plan to be approved by the County, CDFW, and USFWS prior to commencing Project activities. The Burrowing Owl Plan shall describe proposed avoidance, relocation, monitoring, minimization, and/or mitigation actions. The Burrowing Owl Plan shall include the number and location of occupied burrow sites and details on proposed buffers if avoiding the burrowing owls or information on the adjacent or nearby suitable habitat available to owls for relocation. If no suitable habitat is available nearby for relocation, details regarding the creation and funding of artificial burrows (numbers, location, and type of burrows) and management activities for relocated owls shall also be included in the Burrowing Owl Plan. The County shall implement the Burrowing Owl Plan following CDFW and USFWS review and approval.

  If burrowing owls are observed within Project site(s) during Project implementation and construction, the Project Applicant shall notify CDFW immediately in writing within 48 hours of detection. A Burrowing Owl Plan shall be submitted to CDFW and the County for review and approval within two weeks of detection and no Project activity shall continue within 1,000 feet of the burrowing owls until CDFW approves the Burrowing Owl Plan. The County shall be responsible for implementing appropriate avoidance and mitigation measures, including burrow avoidance, passive or active relocation, or other appropriate mitigation measures as identified in the Burrowing Owl Plan.

  If ground-disturbing activities occur but the site is left undisturbed for more than 30 days, a preconstruction survey for burrowing owl shall be conducted within 3 days prior to initiation of Project activities and reported to CDFW and the County as described above. If burrowing owl are found, the same coordination described above shall be necessary.

  A final report shall be prepared by the qualified biologist documenting the results of the burrowing owl surveys and detailing avoidance, minimization, and mitigation measures. The final report shall be submitted to the County and CDFW within 30 days of completion of the survey and burrowing monitoring for mitigation monitoring compliance record keeping.

MM 4.4-7 Prior to the issuance of grading or blasting permits, Riverside County shall ensure that the following note is included on the Project's plans. Project contractors shall be required to ensure compliance with this note and permit periodic inspection of the construction site by Riverside County staff or its designee to confirm compliance. This note also shall be specified in bid documents issued to prospective construction contractors.

"In order to avoid violation of the Migratory Bird Treaty Act (MBTA) and the California Fish and Game Code Sections 3503, 3503.5, and 3513, vegetation clearing and blasting activities shall be conducted outside of the bird nesting season to the extent feasible. If avoidance of the nesting season is not feasible, a nesting bird survey shall be conducted by a qualified biologist within no more than 72 hours of such scheduled disturbance or blasting activities, to determine the presence of nests or nesting birds. The nest surveys shall include the Project site and adjacent areas where project activities have the potential to cause nest failure. The survey results shall be provided to the County's Planning Department. The Project Applicant shall adhere to the following:

1) *The Project Applicant shall designate a biologist (Designated Biologist) experienced in: identifying local and migratory bird species of special concern; conducting bird surveys using appropriate survey methodology; nesting surveying techniques, recognizing breeding and nesting behaviors, locating nests and breeding territories, and identifying nesting stages and nest success; determining/establishing appropriate avoidance and minimization measures; and monitoring the efficacy of implemented avoidance and minimization measures.*

2) *Pre-activity field surveys shall be conducted at the appropriate time of day/night, during appropriate weather conditions, no more than 3 days prior to the initiation of Project activities. Surveys shall encompass all suitable areas including trees, shrubs, bare ground, burrows, cavities, and structures. Survey duration shall take into consideration the size of the Project site; density, and complexity of the habitat; number of survey participants; survey techniques employed; and shall be sufficient to ensure the data collected is complete and accurate.*

If no nesting birds are observed during the survey, site preparation, construction, and blasting activities may begin. If active nests are identified, avoidance or minimization measures shall be undertaken in consultation with the County of Riverside and CDFW. Measures shall include immediate establishment of an appropriate buffer zone to be established by a qualified biologist, and approved by the County of Riverside, based on their best professional judgement and experience (typically 300-foot buffer for most species, 500-foot buffer for raptor species). The buffer around the nest shall be delineated and flagged, and no construction activity shall occur within the buffer area until a qualified biologist determines nesting species have fledged and the nest is no longer active, or the nest has failed. The Designated Biologist shall monitor the nest at the onset of Project activities, and at the onset of any changes in such Project activities

(e.g., increase in number or type of equipment, change in equipment usage, etc.) to determine the efficacy of the buffer. If the Designated Biologist determines that such Project activities may be causing an adverse reaction, the Designated Biologist shall adjust the buffer accordingly or implement alternative avoidance and minimization measures, such as redirecting or rescheduling construction or erecting sound barriers. All work within these buffers will be halted until the nesting effort is finished (i.e., the juveniles are surviving independent from the nest). The onsite qualified biologist will review and verify compliance with these nesting avoidance buffers and will verify the nesting effort has finished. Work can resume within these avoidance areas when no other active nests are found. Within 30 days of completion of the survey and nesting bird monitoring, a report shall be prepared and submitted to the County for mitigation monitoring compliance record keeping."

MM 4.4-8 As a condition of future grading permits, biological monitoring shall be required during all initial ground-clearing operations. A biological monitor shall be present during initial site clearing activities and at appropriate intervals throughout construction to ensure compliance with mitigation measures and regulatory permit conditions. Monitors shall be responsible for ensuring that impacts to special status species, native vegetation, wildlife habitat, and sensitive or unique biological resources that may be present prior to commencement of construction activities are avoided or appropriately addressed. Monitors shall also conduct Workers Environmental Awareness Program (WEAP) training to inform construction personnel of applicable mitigation measures and permit conditions, as well as any potential for infraction.

If any special status plants or wildlife are found, the biologist shall take appropriate action as defined in the MSHCP, mitigation measures, permit conditions, and/or applicable regulations. Federal, State, and local agencies shall be consulted as needed and appropriate. If needed, an avoidance buffer shall be established to protect the resource until this action has been completed. If common or special status wildlife is discovered, the biologist or biological monitor may move it out of harm's way or encourage it to move out of the work area prior to initiation of Project activities, if safe and feasible and permitted to do so. Monitoring and survey activities shall be documented and, at the conclusion of Project construction activities, all monitoring reports and communications shall be retained in Project files to allow for review by the Lead Agency and wildlife agencies, if requested.

4.4.4 Significance of Impacts After Mitigation

Threshold a.: Less-than-Significant Impact with Mitigation Incorporated. Implementation of Mitigation Measure MM 4.4-1 would ensure that Project impacts to 0.24-acre of MSHCP Section 6.1.2 riparian/riverine habitat within Drainage 1 are mitigated through the management of 2.75 acres of riparian/riverine habitat onsite. Implementation of Mitigation Measures MM 4.4-2 and MM 4.4-3 would ensure that appropriate fencing is installed in order to mitigate impacts due to onsite development. Implementation of Mitigation Measures MM 4.4-4 and MM 4.4-5 would preclude indirect effects to the preserved riparian/riverine habitat on site during both construction and long-term operation. Implementation of Mitigation Measure MM 4.4-6 would ensure that appropriate pre-construction surveys are conducted prior to ground disturbing and rock blasting activities, in accordance with MSHCP Objective 6 for the burrowing owl, and would require preparation and

implementation of a Burrowing Owl Plan in the event any burrowing owl individuals are identified during the pre-construction surveys. Implementation of Mitigation Measure MM 4.4-7 would require pre-construction surveys for nesting bird species, including the least Bell's vireo, and requires the avoidance with appropriate buffers for any active nests identified during the nesting season (February 1st through August 31st). Implementation of Mitigation Measure MM 4.4-8 would ensure that all ground-disturbing activities are monitored by a biological monitor and would ensure that impacts to biological resources are avoided or properly addressed. With implementation of the required mitigation, Project impacts due to a conflict with MSHCP Sections 6.1.2 and 6.3.2 pertaining to riparian/riverine resources, the least Bell's vireo (including nesting individuals), and the burrowing owl would be reduced to less-than-significant levels.

Thresholds b. and c.: Less-than-Significant Impact with Mitigation Incorporated. Implementation of Mitigation Measure MM 4.4-6 would ensure that appropriate pre-construction surveys are conducted prior to ground disturbing activities, and would require preparation and implementation of a Burrowing Owl Plan in the event any burrowing owl individuals are identified during the pre-construction surveys. In the event that Project construction activities occur during the nesting season for birds (February 1 to August 31), Mitigation Measure MM 4.4-7 would ensure pre-construction nesting surveys are conducted prior to commencement of construction activities (including blasting), and further requires appropriate avoidance of any active nests that may be identified. Implementation of Mitigation Measure MM 4.4-8 would ensure that all ground-disturbing activities are monitored by a biological monitor. Implementation of the required mitigation would reduce Project impacts to the burrowing owl, least Bell's vireo, and nesting birds to below a level of significance.

Threshold e.: Less-than-Significant Impact with Mitigation Incorporated. Implementation of Mitigation Measure MM 4.4-1 would ensure that Project impacts to 0.24-acre of southern willow scrub are mitigated through the management of 2.75 acres of riparian/riverine habitat onsite, and would reduce Project impacts to special-status plant communities to below a level of significance.

Threshold f.: Less-than-Significant Impact with Mitigation Incorporated. Implementation of Mitigation Measure MM 4.4-1 would ensure that Project impacts to approximately 0.14-acre of Regional Board jurisdictional waters and 0.24-acre of CDFW jurisdictional streambed are mitigated through the management of 2.75 acres of riparian/riverine habitat onsite. Implementation of the required mitigation would reduce the Project's impacts to waters subject to jurisdiction by the Regional Board and CDFW to less-than-significant levels.

4.5 CULTURAL RESOURCES

Cultural resources include pre-contact (formerly referred to as "prehistoric") archaeological sites, historic archaeological sites, and historic structures, and generally consist of artifacts, food waste, structures, and facilities made by people in the past. Pre-contact archaeological sites are places that contain the material remains of activities carried out by the native population of the area (Native Americans) prior to the arrival of Europeans in southern California. Artifacts found in prehistoric sites include flaked stone tools such as projectile points, knives, scrapers, drills, and the resulting waste flakes from tool production; ground stone tools such as manos, metates, mortars, pestles for grinding seeds and nuts; bone tools such as awls ceramic vessels or fragments; and shell or stone beads. Pre-contact features include hearths or rock rings bedrock mortars and milling slicks, rock shelters, rock art, and burials.

Places that contain the material remains of activities carried out by people during the period when written records were produced after the arrival of Europeans are considered historic archaeological sites. Historic archaeological material usually consists of domestic refuse, for instance bottles, cans, ceramics, and food waste, disposed of either as roadside dumps or near structure foundations. Archaeological investigations of historic-period sites are usually supplemented by historical research using written records.

Historic structures include houses, garages, barns, commercial structures, industrial facilities, community buildings, and other structures and facilities that are more than 50 years old. Historic structures may also have associated archaeological deposits, such as abandoned wells, cellars, and privies, refuse deposits, and foundations of former outbuildings.

This Subsection includes information on archaeological sites that are associated with pre-contact Native American occupation and are analyzed under the definitions of historical resources and unique archaeological sites in this Subsection. It is important to note that modern tribal representatives ascribe additional importance to such sites as tribal cultural resources and, therefore, many of these same resources are analyzed separately relative to the definitions of tribal cultural resources in Subsection 4.19 of this Draft EIR.

The analysis in this Subsection is based on three site-specific technical reports. The first report was prepared by ECORP Consulting, Inc. ("ECORP"), is entitled "Updated Phase I Cultural Resources Assessment for the Riverside Chicago Avenue Project, Riverside County, California" (herein, "Phase I CRA"), is dated April 2022, and is included in a redacted form as *Technical Appendix D1* to this EIR (ECORP, 2022). The second report also was prepared by ECORP, is entitled "Updated Phase I and Phase II Cultural Resources Assessment for the Arroyo Vista Project, Unincorporated Riverside County, California" (herein, "Phase II CRA"), is dated July 2024, and is included in a redacted form as *Technical Appendix D2* to this EIR (ECORP, 2024). Additionally, and in order to evaluate the historical significance of the existing on-site residence, the analysis in this Subsection also includes information from a site-specific architectural history assessment prepared by ECORP, entitled, "Phase II Cultural Resources Assessment (Architectural History) for the Arroyo Vista Project, Unincorporated Riverside County, California," dated June 2023, and included as *Technical Appendix D3* to this EIR (ECORP, 2023). All references used in this Subsection are included in EIR Section 7.0, *References*.

It should be noted that confidential information has been redacted from *Technical Appendices D1 and D2* for purposes of public review. In addition, much of the written and oral communication between Native American

tribes, the County of Riverside, and ECORP is considered confidential in respect to places that have traditional tribal cultural significance (Gov. Code § 65352.4), and although relied upon in part to inform the preparation of this EIR Subsection, those communications are treated as confidential and are not available for public review. Under existing law, environmental documents must not include information about the location of archeological sites or sacred lands or any other information that is exempt from public disclosure pursuant to the Public Records Act (Cal. Code Regs. § 15120(d)).

4.5.1 Existing Conditions

The Project area is located in unincorporated western Riverside County, California. The following provides a brief discussion on the prehistoric and historic context of the Project area for better understanding the relevance of resources identified within its proximity. Refer to Sections II and III of the Project's Phase I CRA (*Technical Appendix D1*) for a complete discussion of the prehistoric and historic setting.

A. Pre-Contact Setting

Paleo-Indian Period, Early Archaic Period, Milling Stone Period, and Palomar Tradition are the four general cultural periods represented in Riverside County. The following discussion of the cultural history of Riverside County references the San Dieguito Complex, the Encinitas Tradition, the Palomar Tradition, the Peninsular I, II, and III, and the San Luis Rey I Phase and II Phase, since these culture sequences have been used to describe archaeological manifestation in the region. The Late Prehistoric component present in the Riverside County area was primarily represented by the Cahuilla, Gabrielino, and Luiseño Indians (ECORP, 2022, pp. 6-8)

1. Paleo-Indian Period/Terminal Pleistocene (12,000 to 10,000 Before Present [BP])

The first inhabitants of southern California were big game hunters and gatherers exploiting extinct species of Pleistocene megafauna (e.g., mammoth and other Rancholabrean fauna). Local "fluted point" assemblages composed of large spear points or knives are stylistically and technologically similar to the Clovis Paleo-Indian cultural tradition dated to this period elsewhere in North America. Archaeological evidence for this period in southern California is limited to a few small temporary camps with fluted points found around late Pleistocene lake margins in the Mojave Desert and around Tulare Lake in the southern San Joaquin Valley. Single points are reported from Ocotillo Wells and Cuyamaca Pass in eastern San Diego County and from the Yuha Desert in Imperial County. (ECORP, 2022, p. 3)

2. Early Archaic Period (10,000 to 8,500 BP)

Approximately 10,000 years ago, at the beginning of the Holocene, warming temperatures, and the extinction of the megafauna resulted in changing subsistence strategies with an emphasis on hunting smaller game and increasing reliance on plant gathering. Previously, Early Holocene sites were represented by only a few sites and isolates from the Lake Mojave and San Dieguito complexes found along former lakebeds and grasslands of the Mojave Desert and in inland San Diego County. More recently, southern California Early Holocene sites have been found along the Santa Barbara Channel in western Riverside County. The San Dieguito Complex was defined based on material found at the Harris site (CA-SDI-149) on the San Dieguito River near Lake Hodges in San Diego County. San Dieguito artifacts include large leaf shaped points; leaf-shaped knives; large ovoid, domed, and rectangular end and side scrapers; engraving tools; and crescentics. The San Dieguito

Complex at the Harris site dates to 9,000 to 7,500 BP. However, sites from this time period in coastal San Diego County have yielded artifacts and subsistence remains characteristic of the succeeding Encinitas Tradition, including manos, metates, core-cobble tools, and marine shell. (ECORP, 2022, p. 3)

3. Encinitas Tradition or Milling Stone Period/Middle Holocene (8,500 to 1,250 BP)

The Encinitas Tradition and the Milling Stone Period refer to a long period of time during which small mobile bands of people who spoke an early Hokan language foraged for a wide variety of resources including hard seeds, berries, and roots/tubers (yucca in inland areas), rabbits and other small animals, and shellfish and fish in coastal areas. Sites from the Encinitas Tradition consist of residential bases and resource acquisition locations with no evidence for overnight stays. Residential bases have hearths and fire-affected rock indicating overnight stays and food preparation. Residential bases along the coast have large amounts of shell and are often termed shell middens. (ECORP, 2022, p. 4)

The Encinitas Tradition as originally defined applied to all of the non-desert areas of southern California. Recently, four patterns within the Encinitas Tradition have been proposed which apply to different regions of southern California. The Topanga Pattern pertains to southwestern San Bernadino County and western Riverside County. Each of the patterns is divided into temporal phases. The Topanga Pattern included the Los Angeles Basin. The Topanga I phase extends from 8,500 to 5,000 BP and Topanga II runs from 5,000 to 3,500 BP. The Topanga Pattern ended about 3,500 BP with the arrival of Takic speakers, except in the Santa Monica Mountains where the Topanga III phase lasted until 2,000 BP. (ECORP, 2022, p. 4)

The Encinitas Tradition in inland areas east of the Topanga Pattern (southwestern San Bernardino County and western Riverside County) is the Greven Knoll Pattern. Greven Knoll I (9,400-- 4,000 BP) has abundant manos and metates. Projectile points are few and are mostly Pinto points. Greven Knoll II (4,000 3,000 BP) has abundant manos and metates and core tools. Projectile points are mostly Elko points. The Elsinore site on the east shore of Lake Elsinore was occupied during Greven Knoll I and Greven Knoll II. The recovered archaeological material suggests that a highly mobile population visited the site at a specific time each year. Tools were mostly manos, metates, and hammerstones. Scraper planes were absent. Flaked stone tools consisted mostly of utilized flakes used as scrapers. The Elsinore site during the Middle Holocene was a "recurrent extended encampment" which could have been occupied during much of the year. (ECORP, 2022, p. 4)

The Encinitas Tradition lasted longer in inland areas because Takic speakers di not move east into these areas until circa 1,000 BP. Greven Knoll III (3,000 – 1,000 BP) is present at the Liberty Grove site in Cucamonga and at sites in Cajon Pass that were defined as part of the Sales Complex. Greven Knoll III sites have a large proportion of manos and metates and core tools as well as scraper planes. The scraper planes may have been used to process yucca and agave. The faunal assemblage consists of large quantities of lagomorphs and lesser quantities of deer, rodents, birds, carnivores, and reptiles. (ECORP, 2022, pp. 4-5)

4. Palomar Tradition (1,250 – 150 BP)

Takic people moved south into southern Orange County after 1,250 BP and became the ancestors of the Juaneño. Takic people moved inland from southern Orange County about 1,000 BP, becoming the ancestors of the Luiseño, Cupeño, and Cahuilla. Takic people from the Kitanemuk area moved east along the northern

slopes of the San Gabriel Mountains and spread into the San Bernardino Mountains and along the Mojave River becoming the ancestors of the Serrano and the Vanyume. The material culture of the inland areas where Takic languages were spoken at the time of Spanish contact is part of the Palomar Tradition. San Luis Rey I Phase (1,000 – 500 BP) and San Luis Rey II Phase (500 – 150 BP) pertain to the area occupied by the Luiseño at the time of Spanish contact. The Peninsular I (1,000 – 750 BP), II (750 – 300 BP), and III (300 – 150 BP) Phases are used in the areas occupied by the Cahuilla and Serrano. (ECORP, 2022, p. 5)

San Luis Rey I is characterized by Cottonwood Triangular arrow points, use of bedrock mortars, stone pendants, shell beads, quartz crystals, and bone tools. San Luis Rey II sees the addition of ceramics, including ceramic cremation urns, red pictographs on boulders in village sites, and steatite arrow straighteners. San Luis Rey II represents the archaeological manifestation of the antecedents of the historically known Luiseño. During San Luis Rey I there were a series of small permanent residential bases at water sources, each occupied by a kin group (probably a lineage). During San Luis Rey II people from several related residential bases moved into a large village located at the most reliable water source. Each village had a territory that included acorn harvesting camps at higher elevations. Villages have numerous bedrock mortars, large dense midden areas with a full range of flaked and ground stone tools, rock art, and a cemetery. (ECORP, 2022, p. 5)

5. Summary of Known Archaeology in the Project Area

The 2015 and 2022 records search indicated that there are four previously-recorded resources within or adjacent to the Project area, consisting of four precontact milling feature sites. Based on the available literature, it appears that none of these sites have been tested for the presence of subsurface resources. Over 100 previously recorded cultural resources are located within the vicinity of the Project site. These consist of a mix of precontact and historic-period sites; however, the majority consist of precontact milling sites located within the nearby hillsides and nearby drainages around the Project Area. (ECORP, 2022, p. 6)

B. Ethnohistory

The Project site is located within the territory known to have been occupied by the Cahuilla group of Native Americans, and near territory occupied the Gabrielino and Luiseño groups of Native Americans, at the time of contact with Europeans, around A.D. 1769 (ECORP, 2022, p. 6).

Cahuilla

Ethnographic accounts of Native Americans indicate that the Project site lies predominantly within the original territory of the Cahuilla. The Cahuilla spoke a Takic language. The Takic group of languages is part of the Uto-Aztecan language family. The Cahuilla occupied a territory ranging from the San Bernardino Mountains in the north to the Chocolate Mountains and Borrego Springs in the south, and from the Colorado Desert in the east to Palomar Mountain in the west. They engaged in trade, marriage, shared rituals, and war with other groups of Native Americans whose territories they overlapped, primarily the Serrano and Gabrielino. (ECORP, 2022, p. 6)

Cahuilla subsistence consisted of hunting, gathering, and fishing. Villages were often located near water sources, most commonly in canyons or near drainages on alluvial fans. Major villages were fully occupied during the winter, but during other seasons task groups made periodic forays to collect various plant foods, with larger groupings from several villages organizing for the annual acorn harvest. The major plant foods

included acorns, pinyon nuts, and various seed-producing legumes. These were complemented by agave, wild fruits and berries, tubers, cactus bulbs, roots and greens, and seeds. Hunting focused on both small to medium-sized mammals, such as rodents and rabbits, and large mammals, such as pronghorn sheep, mountain sheep, and mule deer. Hunting was done using the throwing stick or the bow and arrow, though nets and traps were also used for small animals. (ECORP, 2022, p. 6)

Cahuilla buildings consisted of dome-shaped or rectangular houses, constructed of poles covered with brush and above-ground granaries. Other material culture included baskets, pottery, and grinding implements; stone tools, arrow shaft straighteners and bows; clothing (loincloths, blankets, rope, sandals, skirts, and diapers); and various ceremonial objects made from mineral, plant, and animal substances. (ECORP, 2022, p. 6)

As many as 10,000 Cahuilla may have existed at the time of European contact in the eighteenth century. Circa 1900, Cahuilla lived in the settlements of La Mesa, Toro, and Martinez on the Augustin Phase I Cultural Resources Assessment for the Chicago Avenue Riverside Project, Riverside County, California and Toro Indian Reservations east and southeast of the Project area. As of 1974, approximately 900 people claimed Cahuilla ancestry. There was no substantial Euro American settlement in the Coachella Valley until the Southern Pacific Railroad completed its line from Los Angeles to Indio (then known as Indian Wells) in 1876. The railroad was completed to Yuma in 1877, linking southern California with Arizona and points east. Wells to supply water for the steam locomotives were dug at Indio, Coachella (originally named Woodspur), Thermal (originally named Kokell), and Mecca (originally named Walters). Settlement began around these wells and railroad stations, forming the nucleus of today's Coachella Valley towns. (ECORP, 2022, pp. 6-7)

Gabrieliño

Ethnographic accounts of Native Americans indicate that the Gabrieliño (also known as Gabrieleno, or Tongva) once occupied the region that encompasses the Project area. At the time of contact with Europeans, the Gabrieliño were the main occupants of the southern Channel Islands, the Los Angeles Bas in, much of Orange County, and extended as far east as the western San Bernardino Valley. The term "Gabrieliño" came from the group's association with Mission San Gabriel Arcángel, established in 1771. The Gabrieliño are believed to have been one of the most populous and wealthy Native American tribes in southern California prior to European contact and spoke a Takic language. The Takic group of languages is part of the Uto-Aztecan language family. (ECORP, 2022, p. 7)

The Gabrieliño occupied villages located along rivers and at the mouths of canyons. Populations ranged from 50 to 200 inhabitants. Residential structures within the villages were domed, circular, and made from thatched tule or other available wood. Gabrieliño society was organized by kinship groups, with each group composed of several related families who together owned hunting and gathering territories. Settlement patterns varied according to the availability of floral and faunal resources. Vegetal staples consisted of acorns, chia, seeds, piñon nuts, sage, cacti, roots, and bulbs. Animals hunted included deer, antelope, coyote, rabbits, squirrels, rodents, birds, and snakes. The Gabrieliño also fished and collected marine shellfish. By the late 18th century, Gabrieliño population had significantly dwindled due to introduced European diseases and dietary deficiencies. Gabrieliño communities disintegrated as families were taken to the missions. However, current descendants of the Gabrieliño are preserving Gabrieliño culture. (ECORP, 2022, p. 7)

Luiseño

The Luiseño are a Takic-speaking people who occupied what is now western Riverside County and northern San Diego County (the San Luis Rey River drainage) in prehistoric and historic times. The term Luiseño was given by the Spanish to the native groups who were living in this area and who were forcibly removed to Mission San Luis Rey. The Luiseño believe the world was created in the area now known as Temecula and that they have been here since the beginning of time. . (ECORP, 2022, p. 7)

The Luiseño lived in sedentary and autonomous village groups, each with specific subsistence territories encompassing hunting, collecting, and fishing areas. Villages were typically located in valley bottoms, along streams, or along coastal strands near mountain ranges where water was available and village defense was possible. Inland populations had access to fishing and gathering sites on the coast, which they used during the winter months. (ECORP, 2022, p. 7)

Luiseño subsistence was centered around the gathering of acorns, seeds, greens, bulbs, roots, berries, and other vegetal foods. This was supplemented with hunting mammals such as deer, antelope, rabbit, woodrat, ground squirrels, and mice, as well as quail, doves, ducks, and other birds. Bands along the coast also exploited marine resources, such as sea mammals, fish, crustaceans, and mollusks. Inland, trout and other fish were taken from mountain streams. Hunting was carried out both individually and by organized groups. Tool technology for food acquisition, storage, and preparation reflects the size and quantity of items procured. Small game was hunted with the use of curved throwing sticks, nets, slings, or traps. Bows and arrows were used for hunting larger game. Dugout canoes, basketry fish traps, and shell hooks were used for nearshore ocean fishing. Coiled and twined baskets were made for food gathering, preparation, storing, and serving. Other items used for food processing included large shallow trays for winnowing chaff from grain, ceramic and basketry storage containers, manos and metates for grinding seeds, and ceramic jars for cooking. (ECORP, 2022, p. 7)

Villages had hereditary chiefs who controlled religious, economic, and territorial activities. An advisory council of ritual specialists and shamans was consulted for environmental and other know ledge. Large villages located along the coast or in inland valleys may have had more complex social and political structures than settlements controlling smaller territories. Most Luiseño villages contained a ceremonial structure, enclosed by circular fencing and located near the center of the village. Houses were semisubterranean and thatched with locally available brush, bark, or reeds. Earth covered semisubterranean sweathouses were also common and were used for purification and curing rituals. The Luiseño first came into contact with Europeans in 1769 when the expedition led by Gaspar de Portolá arrived in their territory. That same year, the San Diego Mission was established just to the south, followed by the San Juan Capistrano Mission in 1776 and the San Luis Rey Mission in 1798. Poor living conditions at the missions and introduced European diseases led to a rapid decline of the Luiseño population. . (ECORP, 2022, p. 8)

Following the Mission Period (1769-1834), Luiseño Indians scattered throughout southern California. Some became serfs on the Mexican ranchos, others moved to newly founded pueblos established for them, some sought refuge among inland groups, and a few managed to acquire land grants. Later, many moved to or were forced onto reservations. Although many of their cultural traditions had been suppressed during the Mission Period, the Luiseño were successful at retaining their language and certain rituals and ceremonies. Starting in the 1970s, there was a revival of interest in the Luiseño language and classes were organized. Since then,

traditional games, songs, and dances have been performed, traditional foods have been gathered and prepared, and traditional medicines and curing procedures have been practiced. (ECORP, 2022, p. 8)

C. Historic Setting

1. Early Southern California History

Colonization of California began with the Spanish Portolá land expedition. The expedition, led by Captain Gaspar de Portolá of the Spanish army and Father Junipero Serra, a Franciscan missionary, explored the California coast from San Diego to the Monterrey Bay Area in 1769. As a result of this expedition, Spanish missions to convert the native population, presidios (forts), and towns were established. The purpose of the missions and presidios was to establish Spanish economic, military, political, and religious control over the Alta California territory. (ECORP, 2022, p. 9)

An asistencia (mission outpost) of Mission San Luis Rey, known as San Antonio de Pala, was built in Luiseño territory along the upper San Luis Rey River near Mount Palomar in 1810. A chapel administered by Mission San Gabriel Archangel was established in the San Bernardino area in 1819. The present asistencia within the western outskirts of present-day Redlands was built circa 1830. The missions sustained themselves through cattle ranching and traded hides and tallow for supplies brought by ship. The Spanish also constructed presidios, or forts, at San Diego and Santa Barbara, and a pueblo, or town, was established at Los Angeles. The Spanish period in California began in 1769 with the Portola expedition and ended in 1821 with Mexican independence. (ECORP, 2022, p. 9)

After Mexico became independent from Spain in 1821, what is now California became the Mexican province of Alta California. The Mexican government closed the missions in the 1830s and former mission lands were granted to retired soldiers and other Mexican citizens for use as cattle ranches. Much of the land along the coast and in the interior valleys became part of Mexican land grants or “ranchos” (Robinson 1948). The Mexican Period includes the years 1821 to 1848. The American period began when the Treaty of Guadalupe Hidalgo was signed between Mexico and the United States in 1848. As a result of the treaty, Alta California became part of the United States as the territory of California. Rapid population increase occasioned by the Gold Rush of 1849 allowed California to become a state in 1850. Most Mexican land grants were confirmed to the grantees by U.S. courts, but usually with more restricted boundaries which were surveyed by the U.S. Surveyor General’s office. Land that was not part of a land grant was owned by the U.S. government until it was acquired by individuals through purchase or homesteading. Floods and drought in the 1860s greatly reduced the cattle herds on the ranchos, making it difficult to pay the new American taxes on the thousands of acres they owned. Many Mexican-American cattle ranchers borrowed money at usurious rates from newly arrived Anglo-Americans. The resulting foreclosures and land sales transferred most of the land grants into the hands of Anglo-Americans. (ECORP, 2022, pp. 9-10)

2. Woodcrest History

Woodcrest is a census designated place in Riverside County. Although its name comes from Woodcrest Acres, a subdivision constructed in 1924, people have claimed it is attributed to the people with variations of the surname Wood who were involved in the early history of the area. One such person was John C. Woodard, an Ohio native, who built a homestead in Woodcrest in 1884. Woodard later became a trustee of the school board and ran for county treasurer in 1894. As no roads were constructed in the area, Woodard built Woodard’s

Grade, a wagon road, which ran from modern day Golden Star Avenue, south to Washington Street. The alignment of the road was used until 1959 when the County realigned the road. Another contribution to the Woodcrest name was from Wood Road built in 1916. The road was named as such as it crossed through property owned by Susan Wood. In 1926, the Woodcrest Post Office was established. The Woodcrest name was then used for four additional subdivisions in the area. During the 1950's, the Western Municipal Water District was formed, and included Woodcrest which soon led to the planting of orange groves throughout the community. (ECORP, 2022, p. 10)

3. Historic-Period Native American Settlement

The immediate Project area does not retain documentation of any protohistoric villages; however, the presence of many bedrock milling features in the area is testament to the history of food processing and habitation activity in the area. The intensive ownership of land by Euro-Americans from the Spanish Period through the Mexican Period to the American Period reduced the footprint of many Native American villages in historic times. (ECORP, 2022, p. 10)

4. Land Granting and Modern Use of the Area

Rancho San Jacinto was first granted to José Antonio Estudillo in 1842, subsequently being split in half three years later with Estudillo's son forming Rancho San Jacinto Nuevo y Potrero and his daughter forming El Sobrante de San Jacinto. Private lands gradually shrank during the latter half of the nineteenth century and the early twentieth century due to increased railroad and economic activity and the sale of land for new settlements and homesteads. Agriculture remained a staple of the region with periodic downturns due to variability in access to water. The earliest available aerial photos of the Project area date to 1931. Aerial photographs from the 1930s through 2018 show that the eastern portion of the Project Area was used for agriculture from the early 1963 to the present. A house and two associated structures are first visible in aerial photographs from 1963. Roads have existed for some time around portions of the perimeter of the Project site, and the increase in residential and commercial development in the region can be seen through time to the present day. (ECORP, 2022, p. 11)

D. Methods

The archeological program for the proposed Project consisted of institutional records searches, intensive pedestrian surveys of the on-site Project area and off-site improvement locations by qualified archeologists, a Sacred Lands File (SLF) search, and the preparation of a technical report. The Project's archaeological study conforms to the Riverside County Cultural Resource Guidelines (Draft) and the statutory requirements of CEQA. (ECORP, 2022, p. 15)

1. Records Search Methods

In 2015, First Carbon Solutions (FCS) conducted a Phase I Cultural Resources Assessment of the Project area. FCS first conducted a records search of 0.5-mile radius around the Project site on March 10, 2015, as part of the original 2015 Phase I Study. In December 2021, ECORP requested a new records search of the California Historical Resources Information System (CHRIS) from the Eastern Information Center (EIC), University of California, Riverside. The EIC is the official repository of cultural resources reports and site records for Riverside County. The purpose of the updated records search was to determine the extent and location of any

additional surveys, precontact or historic archaeological site locations, architectural resources, historic properties, cultural landscapes, or ethnic resources that have been recorded since the FCS 2015 Phase I study, and to expand the records search radius out to current standard of 1 mile. Materials reviewed included survey and evaluation reports, archaeological site records, historic maps, and listings of resources on the NRHP, CRHR, California Points of Historical Interest, California Historical Landmarks, and National Historic Landmarks. Historic-period aerial photographs and Bureau of Land Management Government Land Office records were also reviewed by ECORP. (ECORP, 2022, pp. 14-15)

FCS requested a search of the Sacred Lands File by the Native American Heritage Commission (NAHC) on March 5, 2015, as part of the 2015 Phase I Study. An updated search was requested to determine whether any sensitive or sacred Native American resources in the vicinity of the Project area could be affected by the proposed Project. (ECORP, 2022, p. 15)

On March 15, 2022, ECORP mailed notification letters to the following tribes, inviting them to participate in the fieldwork: Agua Caliente Band of Cahuilla Indians, Augustine Band of Cahuilla Mission Indians, Cabazon Band of Mission Indians, Cahuilla Band of Indians, Los Coyotes Band of Cahuilla and Cupeno Indians, Morongo Band of Mission Indians, Pala Band of Mission Indians, Pechanga Band of Luiseño Indians, Quechan Tribe of the Fort Yuma Reservations, Ramona Band of Cahuilla, Rincon Band of Luiseño Indians, Santa Rosa Band of Cahuilla Indians, Soboba Band of Luiseño Indians, and Torres-Martinez Desert Cahuilla Indians. (ECORP, 2022, p. 15)

2. Field Survey Methods

FCS conducted a formal survey of the majority of the Project area in 2015. At the time, the area of potential effect (APE) consisted of 140 acres of existing orange groves, a single-family residence, and undeveloped rural land. In 2022, ECORP carried out additional fieldwork. ECORP archeologists visited the Project area on February 17, 2022 and March 31, 2022 to confirm changes to the Project area indicated in aerial photographs and to conduct an intensive pedestrian survey of an adjacent 20-acre property included in the currently Project site boundaries but not previously surveyed, respectively. On April 1, 2022, submeter GPS boundaries of the four previously recorded resources within the Project area were collected. All cultural resources encountered during the surveys and field visits were recorded using Department of Parks and Recreation (DPR) 523-series forms approved by the California Office of Historic Preservation. The resources were photographed, mapped using a handheld Global Positioning System receiver, and sketched as necessary to document their presence using appropriate DPR forms. In 2024, ECORP, County representatives, and representatives from Pechanga Band of Indians and Soboba Band participated in field visits that resulted in the identification of additional features. (ECORP, 2022, pp. 15-16; ECORP, 2024, p. 3)

E. Results

Provided below is a summary of the results of the Project's Phase I CRA (*Technical Appendix C1*) plus a summary of additional features identified after the completion of the CRAs. Refer to section VI of the Phase I CRA for a complete description of the results of the cultural resources investigation.

1. Records Search Results

FCS conducted a records search as part of the 2015 Phase I study. The results of the 2015 records search indicated that 16 cultural resource investigations have been conducted within a 0.5-mile radius of the Project area between 1978 and 2012. Of these studies, one of these studies overlapped a majority of the Project area. The results of the 2015 study also revealed the presence of 37 previously-recorded historic period and precontact resources within a 0.5-mile radius of the Project Area. ECORP requested an updated records search in December 2021, expanding the records search radius out to the current standard of 1 mile from the Project area. ECORP received the results from the EIC on February 14, 2022. The records search update results provided details for an additional 43 cultural resource investigations and 74 additional cultural resources. A review of the FCS 2015 records search determined four of the listed 16 cultural resource investigations were not conducted within a 0.5-mile radius and therefore removed from the results. Incorporating the revised results of the FCS 2015 records search into the results of the 2022 records search update indicates that a total of 55 cultural resource investigations have been conducted within 1 mile of the Project area between 1974 and 2016. The records search indicated that approximately 95% of the Project area had been previously surveyed for cultural resources. (ECORP, 2022, p. 16)

A review of the FCS 2015 records search determined one resource has been demolished and is no longer a listed cultural resource, with another resource not located within their 0.5-mile radius. Therefore, both resources were removed from the results. Incorporating the revised results of the FCS 2015 records search into the results of the 2022 records search update indicates that a total of 109 cultural resources have been recorded within 1 mile of the Project Area. A total of four cultural resources have been recorded within or adjacent to the Project area. In addition, 105 previously recorded cultural resources are located within 1 mile of the Project area. Of these 105 previously recorded resources, 31 are located within 0.5-mile of the Project area, and 11 are located within 0.25-mile of the Project area. Documented resources are a mix of precontact and historic-period sites, with the majority of sites being precontact resources. In total, previously recorded precontact sites include 75 milling feature sites, one lithic scatter site, and two isolated finds consisting of three manos. In total, historic-period sites include 11 building/residence resources, three homesteads, three refuse deposits, and one utility pole/powerline segment. (ECORP, 2022, p. 21)

ECORP also reviewed the following sources to help facilitate a better understanding of the historic use of the property:

- Built Environment Resources Directory (BERD)
- National Register of Historic Places (NRHP)
- California Register of Historic Resources (CRHR)
- Native American Heritage Commission (NAHC)
- Historic USGS Data
- Historic aerial photographs

There are six resources listed on the BERD within 1 mile of the Project area. There are no NRHP or CRHR listed sites and there are no California Points of Historical Interest, California Historical Landmarks, or National Historic Landmarks within the Project area or within the 1-mile records search radius. Historic aerial photographs of the Project area show that the Project area was undeveloped until the 1960s. From the 1960s

onward, the Project site was utilized as agricultural land and undeveloped open space. The NAHC Sacred Lands File search failed to indicate the presence of Native American sacred lands in the vicinity of the Project area. (ECORP, 2022, pp. 29-30)

Finally, outreach to the Native American tribes resulted in four responses. On March 23, 2022, Jill McCormick of the Quechan responded to indicate no comments and deferred to more local tribes. On March 25, 2022, Paul Macarro of the Pechanga responded and accepted the invitation to participate in fieldwork. On April 18, 2022, Arysa Gonzales Romero of the Agua Caliente responded to indicate the Project is not within their traditional use area, but requested copies of technical information. On April 25, 2022, Cheryl Madrigal of the Rincon Band of Luiseño Indians responded that the Project is located within the traditional use area of the Luiseño people and is within the Rincon's specific area of historic interest. Rincon recommended working with Pechanga and the Soboba Band of Luiseño Indians, and requested a final copy of the cultural resources inventory report for review. (ECORP, 2022, pp. 30-31)

2. Field Survey Results

ECORP conducted a field visit of the approximately 140-acre Project area on February 17 and April 1, 2022 to document ground conditions and to confirm the presence of the previously-recorded resources within the Project area. The February 2022 field visit revealed that the previously documented orange grove in the FCS 2015 report has since been removed. The portions of the Project area that were part of the orange grove were now covered with a thick layer of wood chips, impacting the ground surface visibility. The presence of the four previously recorded resources was confirmed within the Project area. (ECORP, 2022, p. 31)

ECORP conducted an intensive pedestrian survey on March 31, 2022, of the adjacent 20-acre parcel that had not been included in FCS's 2015 survey. This property is located within an adjoining property that had been used for a citrus orchard, which has since been removed. The ground surface is covered with a thick layer of wood chips, impacting the ground surface visibility. The previously recorded boundary of P33-012916/ CA-RIV-7182 indicated that the resource crossed the northeastern corner of the 20-acre parcel; however, the crew did not observe any surface features or artifacts associated with the site at the time. As a result of the survey, the crew recorded two previously unrecorded resources: CA-001 and CA002. Both are bedrock milling sites. Subsequently, field visits with culturally affiliated tribes identified additional sites. (ECORP, 2022, p. 31; ECORP, 2023, p. 5; ECORP, 2024, p. 3).

Previously Recorded Resources

Previously recorded sites consist of four precontact bedrock milling sites (P-33-012915, P-33-012916, P33-012917, and P-33-012918). These resources are summarized below. (ECORP, 2022, p. 31)

❑ Site P-33-012915/CA-RIV-7181

P-33-012915/CA-RIV-7181 was recorded in 2003 and was described as more than 21 bedrock outcrops with at least 55 milling slicks on the exposed surface measuring 14 acres in the northwest corner of the Project area and likely extends beyond the Project boundary. Stone tools and lithic debitage were observed within the vicinity of the milling features. The site is considered a unique archeological resource under CEQA and is likely eligible for inclusion in the NRHP and CRHR. The site was revisited by ECORP archeologists on February 17, and April 1, 2022. The site was located, and updated site boundaries were collected. The overall

site conditions have not changed since the initial recordation. A Phase II CRA investigation was recommended to better understand the spatial limits of the site. (ECORP, 2022, pp. 31-32)

ECORP implemented the Phase II study in December 2022 to determine if there are intact archaeological deposits present that could, upon further examination, produce data that satisfy the NRHP and CRHR criteria. As part of the Phase II study, six pre-contact flakes were observed in 4 of the Shovel Test Pits (STPs) at depths between 17 and 38 cm below surface. Although the 2022 testing efforts failed to yield sufficient data that could be used to address important research themes and questions, the previous cultural resources surveys conducted in the Project area demonstrate that this site possesses the potential to yield important information in pre-contact history ("prehistory"). The types of lithic materials reported by these previous studies suggests that the site could possess archaeological data to address research questions regarding activities and site function, subsistence patterns, technology, trade interactions, and possibly chronology and temporal patterns. As a result, this site is eligible for inclusion in the NRHP under Criterion D and CRHR under Criterion 4. With the exception of the margins that interface with adjacent agricultural use, the site appears to retain sufficient integrity of materials, location, and (for the bedrock features) workmanship. These aspects of integrity are most important in conveying the significance of the site under NRHP/CRHR Criterion D/4 because in situ archaeological data is necessary for cultural research purposes. Because site P-33-12915/CA-RIV-7181 is eligible for the NRHP and CRHR under criteria D and 4, respectively, and because it retains sufficient integrity, this site is considered a historical resource under CEQA and a historic property under Section 106 of the National Historic Preservation Act (NHPA). (ECORP, 2024, p. 21)

- **Site P-33-012916/CA-RIV-7182**

P-33-012916/CA-RIV-7182 was recorded in 2003 in the east-central portion of the Project site and was described as a 2.5-acre site composed of 18 bedrock outcrops with numerous milling slicks on the exposed surface with debitage observed within the vicinity of the milling features. The 2004 investigation recommended that the site does not meet the criteria for inclusion in the CRHR; however, the 2015 investigation suggested that this site may be considered eligible for the NRHP and CRHR. A Phase II CRA investigation was recommended to better understand the spatial limits of the site and evaluate eligibility. (ECORP, 2022, p. 33)

ECORP implemented the Phase II study in December 2022 to determine if there are intact archaeological deposits present that could, upon further examination, produce data that satisfy the NRHP and CRHR criteria. During the Phase II study, one pre-contact flake was observed in one of the STPs within the top 20 cm of the unit. Although the 2022 testing efforts failed to yield sufficient data that could be used to address important research themes and questions, the previous cultural resources surveys conducted in the Project area demonstrate that this site possesses the potential to yield important information in pre-contact history ("prehistory"). The types of lithic materials reported by these previous studies suggests that the site could possess archaeological data to address research questions regarding activities and site function, subsistence patters, technology, trade interactions, and possibly chronology and temporal patterns. As a result, this site is eligible for inclusion in the NRHP under Criterion D and CRHR under Criterion 4. Based on site descriptions from the previous archaeological investigations, the site appears to retain sufficient integrity of materials and location and (for the bedrock features) workmanship. These aspects of integrity are most important in conveying the significance of the site under NRHP/CRHR Criterion D/4 because in situ archaeological data is necessary cultural research purposes. Because site P-33-12916/CA-RIV-7182 is eligible for the NRHP and

CRHR under criteria D and 4, respectively, and because it retains sufficient integrity, this site is considered a historical resource under CEQA and a historic property under Section 106 of the NHPA. (ECORP, 2024, pp. 20-21)

❑ Site P-33-012917/CA-RIV-7183

P-33-012917/CA-RIV-7183 was recorded in 2003 in the far northeastern corner of the Project site and was described as two bedrock outcrops with at least seven milling slicks on the exposed surface. Stone tools and debitage were observed within the vicinity of the milling features. In 2015, FCS cited that this site could not be relocated because of the degradation of the sites by natural erosion factors and orchard maintenance activities. Since 2015, the orchard has been removed. A Phase II CRA investigation was recommended to allow for a better understanding of the spatial limits of the site. (ECORP, 2022, pp. 33-34)

ECORP implemented the Phase II study in December 2022 to determine if there are intact archaeological deposits present that could, upon further examination, produce data that satisfy the NRHP and CRHR criteria. During the Phase II study, only shattered naturally occurring quartz was observed in 2 of the STPs between 5 and 40 cm below surface. Otherwise, all units were culturally sterile. The prior cultural resources studies demonstrate that this site previously yielded surface artifacts, but all were on the surface and in a heavily disturbed context. Previous subsurface testing failed to yield any subsurface deposits, which is consistent with the 2022 testing results. The absence of in situ archaeological data means that the site does not possess the potential to yield important information or address research questions. As a result, this site is not eligible for inclusion in the NRHP under Criterion D and CRHR under Criterion 4. In addition, no information could be located in the archival record to indicate that this site is associated with important events or persons in history or pre-contact history and therefore, this site is not eligible for inclusion in the NRHP under Criteria A or B or CRHR under Criteria 1 or 2. This site also does not embody the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master or possesses high artistic values, and as such, is not eligible for inclusion in the NRHP under Criterion C or CRHR under Criterion 3. Because site P-33-12917/CA-RIV-7183 is not eligible for the NRHP and CRHR under any criteria, this site is not considered a historical resource under CEQA or a historic property under Section 106 of the NHPA. (ECORP, 2024, p. 22)

❑ Site P-33-012918/CA-RIV-7184

P-33-012918/CA-RIV-7184 was recorded in 2003 in the southeastern corner of the Project site and was described as three bedrock outcrops with at least 11 milling slicks on the exposed surface. In 2022, the site was revisited by ECORP archeologists and it was found that the original outcrops with milling features were not relocated; however, a separate bedrock outcrop with at least 10 milling slicks was observed north of the site boundary and adjacent to the northern side of the drainage that intersects the Project area. A Phase II CRA investigation was recommended to allow for a better understanding of the spatial limits of the site and to assist in evaluating the site. (ECORP, 2022, pp. 34-35)

ECORP implemented the Phase II study in December 2022 to determine if there are intact archaeological deposits present that could, upon further examination, produce data that satisfy the NRHP and CRHR criteria. Based on STPs conducted by ECORP, all units were culturally sterile. The 2022 testing efforts failed to yield sufficient data that could be used to address important research themes and questions. The prior studies

conducted at the Project site also failed to yield any artifacts, which is consistent with the 2022 testing results. The absence of in situ archaeological data means that the site does not possess the potential to yield important information or address research questions. As a result, this site is not eligible for inclusion in the NRHP under Criterion D or CRHR under Criterion 4. In addition, no information could be located in the archival record to indicate that this site is associated with important events or persons in history or pre-contact history and therefore, this site is not eligible for inclusion in the NRHP under Criteria A or B or CRHR under Criteria 1 or 2. This site also does not embody the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master or possesses high artistic values, and as such, is not eligible for inclusion in the NRHP under Criterion C or CRHR under Criterion 3. Because site P-33-12918/CA-RIV-7184 is not eligible for the NRHP and CRHR under any criteria, this site is not considered a historical resource under CEQA or a historic property under Section 106 of the NHPA. (ECORP, 2024, pp. 21-22)

Newly Identified Resources

During the CSA and subsequent field visits with Native American representatives, ECORP identified several newly identified resources, identified as CA-001, CA-002, CAR-04, CAR-05, CAR-08, CAR-09, CAR-10, CAR-11, CAR-12, and CAR-13-I. Each is discussed below.

- **Site CA-001**

Site CA-001 is a precontact site that consists of a bedrock milling feature. The bedrock milling feature is composed of a deeply embedded granitic boulder with an exposed surface measuring 3.7 meters east to west by 2.8 meters north to south. Three well-formed milling slicks measuring 31 centimeters are located near the center of the boulder. The exposed surface of the feature lies low to the ground with the slicks approximately 20 centimeters above ground surface. A layer of sediment covers large portions of feature that may obscure other milling slicks. Because the site previously has not been subjected to subsurface testing, ECORP recommended conducting a Phase II investigation. (ECORP, 2022, p. 35)

ECORP implemented the Phase II study in December 2022 to determine if there are intact archaeological deposits present that could, upon further examination, produce data that satisfy the NRHP and CRHR criteria. STP units conducted by ECORP were culturally sterile, and the 2022 testing efforts failed to yield sufficient data that could be used to address important research themes and questions. The absence of in situ archaeological data uncovered at CA-001 means that the site does not possess the potential to yield important information or address research questions. As a result, this site is not eligible for inclusion in the NRHP under Criterion D and CRHR under Criterion 4. In addition, no information could be located in the archival record to indicate that this site is associated with important events or persons in history or pre-contact history and therefore, this site is not eligible for inclusion in the NRHP under Criteria A or B or CRHR under Criteria 1 or 2. This site also does not embody the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master or possesses high artistic values, and as such, is not eligible for inclusion in the NRHP under Criterion C or CRHR under Criterion 3. Because site CA-001 is not eligible for the NRHP and CRHR under any criteria, this site is not considered a historical resource under CEQA or a historic property under Section 106 of the NHPA. (ECORP, 2024, p. 23)

❑ Site CA-002

Site CA-002 is a precontact site that consists of a bedrock milling feature. The bedrock milling feature is composed of a large bedrock outcrop measuring 27.35 meters east to west by 39.53 meters north to south. The outcrop contains at least 15 milling slicks. The outcrop is situated on sloping ground southwest of a drainage. Most of the milling slicks are located along the western side of the outcrop, approximately 30 centimeters above ground surface. A granitic mano was identified embedded in the found adjacent to the southwestern edge of the outcrop. Because the site previously has not been subjected to subsurface testing, ECORP recommended conducting a Phase II investigation. (ECORP, 2022, p. 35)

ECORP implemented the Phase II study in December 2022 to determine if there are intact archaeological deposits present that could, upon further examination, produce data that satisfy the NRHP and CRHR criteria. STP units conducted by ECORP were culturally sterile, and the 2022 testing efforts failed to yield sufficient data that could be used to address important research themes and questions. The absence of in situ archaeological data means that the site does not possess the potential to yield important information or address research questions. As a result, this site is not eligible for inclusion in the NRHP under Criterion D and CRHR under Criterion 4. In addition, no information could be located in the archival record to indicate that this site is associated with important events or persons in history or pre-contact history and therefore, this site is not eligible for inclusion in the NRHP under Criteria A or B or CRHR under Criteria 1 or 2. This site also does not embody the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master or possesses high artistic values, and as such, is not eligible for inclusion in the NRHP under Criterion C or CRHR under Criterion 3. Because site CA-002 is not eligible for the NRHP and CRHR under any criteria, this site is not considered a historical resource under CEQA or a historic property under Section 106 of the NHPA. (ECORP, 2024, pp. 22-23)

❑ Site CAR-04

Site CAR-04 is a minor bedrock milling feature. The feature is a granite outcrop measuring 6.5 meters southeast to northwest by 3 meters southwest to northeast and is 2 meters tall at its highest point. The outcrop contains two basins and three slicks. This site was encountered during a field visit with tribal representatives and recorded on DPR records. This site was not subjected to Phase II testing, as the feature was located after the completion of Phase II testing. ECORP recommended, and the County concurred, that Site CAR-04 be treated as eligible for inclusion in the NRHP and CRHR for the purposes of the Project **(ECORP, 2024, pp. 18, 24)**.

❑ Site CAR-05

Site CAR-05 is a minor bedrock milling feature. The feature is a bedrock outcrop measuring 1.9 meters north to south by 5 meters east to west and is 31 centimeters above ground surface at its highest point. The outcrop contains two slicks. The surface of the outcrop is heavily weathered and friable. This site was encountered during a field visit with tribal representatives and recorded on DPR records. This site was not subjected to Phase II testing, as the feature was located after the completion of Phase II testing. ECORP recommended, and the County concurred, that Site CAR-05 be treated as eligible for inclusion in the NRHP and CRHR for the purposes of the Project **(ECORP, 2024, pp. 18, 24)**.

❑ Site CAR-08

Site CAR-08 is a minor bedrock milling feature. The feature is a granite outcrop measuring 2.47 meters north to south by 1.09 meters east to west and it is 0.5 meters above ground surface at its highest point. The outcrop contains one slick. This site was encountered during a field visit with tribal representatives and recorded on DPR records. This site was not subjected to Phase II testing, as the feature was located after the completion of Phase II testing. ECORP recommended, and the County concurred, that Site CAR-08 be treated as eligible for inclusion in the NRHP and CRHR for the purposes of the Project **(ECORP, 2024, pp. 18, 24)**.

❑ Site CAR-09

Site CAR-09 is a minor bedrock milling feature. The feature is a granite outcrop measuring 2.95 meters northwest to southeast by 1.03 meters northeast to southwest and it is 0.63 meters above ground surface at its highest point. The outcrop contains two milling slicks. The surface of the outcrop is weathered and it is partially covered by vegetation. This site was encountered during a field visit with tribal representatives and recorded on DPR records. This site was not subjected to Phase II testing, as the feature was located after the completion of Phase II testing. ECORP recommended, and the County concurred, that Site CAR-09 be treated as eligible for inclusion in the NRHP and CRHR for the purposes of the Project **(ECORP, 2024, pp. 18, 24)**.

❑ Site CAR-10

Site CAR-10 is a minor bedrock milling feature. The feature is a granite outcrop measuring 3.58 meters north to south by 1.78 meters east to west and it is 0.54 meters above ground surface at its highest point. The outcrop contains one basin. The surface of the outcrop exhibits weathering and crustose lichens are growing on one-quarter of the exposed surface area. This site was encountered during a field visit with tribal representatives and recorded on DPR records. This site was not subjected to Phase II testing, as the feature was located after the completion of Phase II testing. ECORP recommended, and the County concurred, that Site CAR-10 be treated as eligible for inclusion in the NRHP and CRHR for the purposes of the Project **(ECORP, 2024, pp. 19, 24)**

❑ Site CAR-11

Site CAR-11 is a minor bedrock milling feature. The feature is a bedrock outcrop measuring 2.24 meters north to south by 2.3 meters east to west and it is 2.12 meters above ground surface at its highest point. The outcrop contains one slick. This site was encountered during a field visit with tribal representatives and recorded on DPR records. This site was not subjected to Phase II testing, as the feature was located after the completion of Phase II testing. ECORP recommended, and the County concurred, that Site CAR-11 be treated as eligible for inclusion in the NRHP and CRHR for the purposes of the Project **(ECORP, 2024, pp. 19, 24)**

❑ Site CAR-12

Site CAR-12 is a minor bedrock milling feature. The bedrock milling feature is composed of a partially embedded granitic boulder outcrop. Two milling slicks are present on one boulder (west) and one is present on a separate boulder (east). This site was encountered during a field visit with tribal representatives and recorded on DPR records. This site was not subjected to Phase II testing, as the feature was located after the

completion of Phase II testing. ECORP recommended, and the County concurred, that Site CAR-12 be treated as eligible for inclusion in the NRHP and CRHR for the purposes of the Project **(ECORP, 2024, pp. 19, 25)**

- ❑ **CAR-13-I**

This precontact isolate consists of a single unifacial granite mano. The resource was identified embedded in an off-highway vehicle (OHV) track. There are no indications that this mano is accompanied by any other artifacts or cultural deposits, and does not appear to be in primary context. This isolate was encountered during a field visit with tribal representatives and recorded on DPR records. CAR-12 was not subject to Phase II testing, as it was located after the completion of Phase II testing. ECORP recommended, and the County concurred, that this site be treated as eligible for inclusion in the NRHP and CRHR for the purpose of this Project. **(ECORP, 2024, pp. 19, 25)**

On-Site Residential Structure

- ❑ **15701 Chicago Avenue (AV-01)**

Under existing conditions, there is a single-family residence located in the eastern portions of the Project site, located at 15701 Chicago Avenue, that was constructed during the 1960s (identified as "AV-01"). The existing residence is a wood-frame, one-story Ranch-style residence located at 15701 Chicago Avenue in Riverside County. Irregular in plan, the house has a medium-pitched, intersecting gable and hipped roof with broad overhanging eaves, exposed 2x6 rafters, and ceramic tile roofing. The house sits on a concrete crawlspace foundation. Its exterior consists of wood-stained clapboard and stucco siding. A single-leaf entry inset from the house's east (front) elevation provides interior access. An exterior chimney with wood-stained clapboard siding vents an interior fireplace. Sliding doors on the west elevation provide exterior access to a wooden porch enclosed by a wooden balustrade and shaded by a roof overhang supported by 4x4 wooden posts. Wooden stairs lead from the porch to a concrete patio; a flat roof supported by bracketed 4x4 wooden posts shades the patio. Fenestration consists of aluminum sliding windows and multiple vinyl replacements. Above the house's south elevation, a roof overhang supported by a 4x4 post clad in granite masonry covers a walkway between the main house and garage, connecting the two rooflines. The garage shares architectural characteristics with the main house; tilt-up doors provide vehicular access. A detached greenhouse with skylights located near the southwest corner of the house also shares architectural characteristics with the main house. Mature landscaping surrounding the house consisting of Japanese maples and a variety of shrubs and vines. (ECORP, 2023, p. 5)

ECORP implemented the Phase II architectural study in June 2023 to determine the building's eligibility or ineligibility for inclusion in the NRHP and CRHR. ECORP concluded that nothing in the archival record suggests the existing residence is associated with events that have made a significant contribution to the broad patterns of Woodcrest's history or community development; therefore, the existing residence is not eligible for inclusion in the NRHP under Criterion A or the CRHR under Criterion 1. Additionally, no information could be located in the archival record to indicate that the existing residence is associated with persons significant in Woodcrest's past and is therefore not eligible for inclusion in the NRHP under Criterion B or the CRHR under Criterion 2. This existing residence also does not embody the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master or possesses high artistic values, and as such, is not eligible for inclusion in the NRHP under Criterion C or CRHR under Criterion 3. The existing residence did not yield, nor is it likely to yield, information important in history or prehistory. As a result,

ECORP concluded that this site is not eligible for inclusion in the NRHP under Criterion D or the CRHR under Criterion 4. The existing residence possesses diminished integrity of design due to a significant 1984 remodel that altered the house's roofline and footprint. It also possesses diminished integrity of association due to the recent removal of its surrounding orange grove. Regardless of integrity, the existing residence is not eligible for inclusion in the NRHP or CRHR due to lack of historical significance. It does not contribute to a known or suspected historic district, and it is not listed on any Certified Local Government historic property register. (ECORP, 2023, p. 7)

3. Summary of Results

A summary of the results of the testing program is provided in Table 4.5-1, *Summary of Phase II Archaeological Evaluations*. As shown, only two of the archaeological sites present within the Project area (Site P-33-012915/CA-RIV-7181 and Site P-33-012916/CA-RIV-7182) are significant on an individual level because they possess sufficient archaeological data to address important research themes and questions. Sites P-33-012917/CA-RIV-7183 and P-33-012918/CA-RIV-7184 do not meet the criteria for inclusion in the NRHP or CRHR; however, when viewing the Project area as a whole, the presence of multiple bedrock mortar features (even those without associated archaeological deposits) suggests that the local area was heavily occupied in pre-contact times. The spatial distribution of sites loosely conforms to the orientation and path of a drainage corridor that bisects the project area. For the newly identified resources described above, Site CA-001 and Site CA-002 are not eligible for the NRHP and CRHR under any criteria, as these sites are not considered historical resources under CEQA or a historic property under Section 106 of the NHPA. However, a Phase II testing program was not conducted for Sites CAR-04, CAR-05, CAR-08, CAR-09, CAR-10, CAR-11, CAR-12, and CAR-13-1, as all of these sites were identified during field visits conducted after the completion of the Phase II testing program. As such, for purposes of analysis herein, Sites CAR-04, CAR-05, CAR-08, CAR-09, CAR-10, CAR-11, CAR-12, and CAR-13-1 are considered eligible for inclusion in the NRHP and CRHR. Given the nearly universal association between water features and human occupation, it stands to reason that the pre-contact occupation of the Project area focused on the drainage corridor and that smaller resource processing localities flanked each side. There currently does not exist sufficient archaeological data to test such a theory or determine whether or not there is a temporal and functional association between these six sites. The importance of the bedrock features themselves to modern descendant communities is well understood. The remaining value of the non-eligible sites is the bedrock outcrops themselves, even though they do not rise to the level of significance established by the NRHP and CRHR criteria. Whether or not these non-eligible sites are significant as tribal cultural resources is addressed separately in EIR Subsection 4.19, *Tribal Cultural Resources*. (ECORP, 2024, p. 23) In addition, and as noted above, the existing residence on site is not eligible for inclusion in the NRHP or CRHR due to lack of historical significance based on the findings of the Project's historical assessment (*Technical Appendix D3*). (ECORP, 2024, p. 26; ECORP, 2023, pp. 7-8)

Table 4.5-1 Summary of Phase II Archaeological Evaluations

Site	ELIGIBILITY CRITERIA AS ARCHAEOLOGICAL RESOURCES*			
	NRHP A / CRHR 1	NRHP B / CRHR 2	NRHP C / CRHR 3	NRHP D / CRHR 4
P-33-12915 (CA-RIV-7181)	Not eligible	Not eligible	Not eligible	Eligible
P-33-12916 (CA-RIV-7182)	Not eligible	Not eligible	Not eligible	Eligible
P-33-12917 (CA-RIV-7183)	Not eligible	Not eligible	Not eligible	Not eligible
P-33-02918 (CA-RIV-7184)	Not eligible	Not eligible	Not eligible	Not eligible
CA-001	Not eligible	Not eligible	Not eligible	Not eligible
CA-002	Not eligible	Not eligible	Not eligible	Not eligible
CAR-04	Assumed to be eligible for purposes of analysis			
CAR-05	Assumed to be eligible for purposes of analysis			
CAR-08	Assumed to be eligible for purposes of analysis			
CAR-09	Assumed to be eligible for purposes of analysis			
CAR-10	Assumed to be eligible for purposes of analysis			
CAR-11	Assumed to be eligible for purposes of analysis			
CAR-12	Assumed to be eligible for purposes of analysis			
CAR-13-I	Assumed to be eligible for purposes of analysis			

(ECORP, 2024, Table 8)
*significance relative to tribal cultural resources is assessed separately in EIR Subsection 4.19.

4.5.2 Applicable Environmental Regulations

A. Federal Regulations

1. National Register of Historic Places (NRHP)

The National Register of Historic Places is the official list of the Nation's historic places worthy of preservation. Authorized by the NHPA of 1966, the NPS's National Register of Historic Places (NRHP) is part of a national program to coordinate and support public and private efforts to identify, evaluate, and protect America's historic and archaeological resources. (NPS, n.d.)

To be considered eligible, a property must meet the National Register Criteria for Evaluation. This involves examining the property's age, integrity, and significance, as follows:

- Age and Integrity. Is the property old enough to be considered historic (generally at least 50 years old) and does it still look much the way it did in the past?

- Significance. Is the property associated with events, activities, or developments that were important in the past? With the lives of people who were important in the past? With significant architectural history, landscape history, or engineering achievements? Does it have the potential to yield information through archaeological investigation about our past? (NPS, n.d.)

Nominations can be submitted to a SHPO from property owners, historical societies, preservation organizations, governmental agencies, and other individuals or groups. The SHPO notifies affected property

owners and local governments and solicits public comment. If the owner (or a majority of owners for a district nomination) objects, the property cannot be listed but may be forwarded to the NPS for a Determination of Eligibility (DOE). Listing in the NRHP provides formal recognition of a property's historical, architectural, or archaeological significance based on national standards used by every state. (NPS, n.d.)

Under Federal Law, the listing of a property in the National Register places no restrictions on what a non-federal owner may do with their property up to and including destruction, unless the property is involved in a project that receives Federal assistance, usually funding or licensing/permitting. National Register listing does not lead to public acquisition or require public access. (NPS, n.d.)

2. National Historic Landmarks Program

National Historic Landmarks (NHLs) are nationally significant historic places designated by the Secretary of the Interior because they possess exceptional value or quality in illustrating or interpreting the heritage of the United States. Today, over 2,600 historic places bear this national distinction. Working with citizens throughout the nation, the NHL Program draws upon the expertise of NPS staff who guide the nomination process for new Landmarks and provide assistance to existing Landmarks. (NPS, n.d.)

3. American Indian Religious Freedom Act

The American Indian Religious Freedom Act (AIRFA) requires each executive branch agency with statutory or administrative responsibility for the management of Federal lands, to the extent practicable, permitted by law, and not clearly inconsistent with essential agency functions, to accommodate access to and ceremonial use of Indian sacred sites by Indian religious practitioners and avoid adversely affecting the physical integrity of such sacred sites. Where appropriate, agencies are also required to maintain the confidentiality of sacred sites. Each executive branch agency with statutory or administrative responsibility for the management of Federal lands are required to implement procedures to ensure reasonable notice is provided of proposed actions or land management policies that may restrict future access to or ceremonial use of, or adversely affect the physical integrity of, sacred sites. (NOAA, n.d.)

4. Federal Antiquities Act

The Antiquities Act is the first law to establish that archaeological sites on public lands are important public resources. It obligates federal agencies that manage the public lands to preserve for present and future generations the historic, scientific, commemorative, and cultural values of the archaeological and historic sites and structures on these lands. It also authorizes the President to protect landmarks, structures, and objects of historic or scientific interest by designating them as National Monuments. (NPS, 2021a)

B. State Regulations

1. California Administrative Code, Title 14, Section 4308

Section 4308, *Archaeological Features*, of Title 14 of the California Administrative Code provides that: "No person shall remove, injure, disfigure, deface, or destroy any object of archaeological, or historical interest or value." (NPS, n.d.)

2. California Code of Regulations Title 14, Section 1427

California Code of Regulations Title 14, Section 1427 provides that: "No person shall collect or remove any object or thing of archaeological or historical interest or value, nor shall any person injure, disfigure, deface or destroy the physical site, location or context in which the object or thing of archaeological or historical interest or value is found." (NAHC, n.d.)

3. Unique Archaeological Resources

CEQA also requires lead agencies to determine if a proposed project would have a significant effect on unique archaeological resources. If a lead agency determines that an archaeological site is a historical resource, the provisions of PRC Section 21084.1 and CEQA Guidelines Section 15064.5 would apply. If an archaeological site does not meet the CEQA Guidelines criteria for a historical resource, then the site may meet the threshold of PRC Section 21083.2 regarding unique archaeological resources.

"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."

The CEQA Guidelines note that if a resource is neither a unique archaeological resource nor a historical resource, the effects of the project on that resource shall not be considered a significant effect on the environment (14 CCR Section 15064[c][4]).

4. California Register of Historical Resources

The State Historical Resources Commission has designed this program for use by state and local agencies, private groups, and citizens to identify, evaluate, register, and protect California's historical resources. The Register is the authoritative guide to the state's significant historical and archaeological resources. The California Register program encourages public recognition and protection of resources of architectural, historical, archaeological, 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. (OHP, n.d.)

In order for a resource to be included on the California Register of Historical Resources, the resources must meet one of the following criteria:

- Associated with events that have made a significant contribution to the broad patterns of local or regional history or the cultural heritage of California or the United States (Criterion 1).
- Associated with the lives of persons important to local, California or national history (Criterion 2).

- Embodies the distinctive characteristics of a type, period, region, or method of construction or represents the work of a master or possesses high artistic values (Criterion 3).
- Has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation (Criterion 4). (OHP, n.d.)

For resources included on the California Register of Historical Resources, environmental review may be required under CEQA if property is threatened by a project. Additionally, local building inspectors must grant code alternatives provided under State Historical Building Code. Further, the local assessor may enter into contract with property owner for property tax reduction pursuant to the Mills Act. A property owner also may place his or her own plaque or marker at the site of the resource. (OHP, n.d.)

Consent of owner is not required, but a resource cannot be listed over an owner's objections. The State Historical Resources Commission (SHRC) can, however, formally determine a property eligible for the California Register if the resource owner objects. (OHP, n.d.)

5. State Health and Safety Code

California Health and Safety Code (HSC) § 7050.5(b) requires that excavation and disturbance activities must cease "In the event of discovery or recognition of any human remains in any location other than a dedicated cemetery…" until the coroner can determine regarding the circumstances, manner, and cause of any death. The coroner is then required to make recommendations concerning the treatment and disposition of the human remains. Further, this section of the code makes it a misdemeanor to intentionally disturb, mutilate or remove interred human remains. HSC § 7051 specifies that the removal of human remains from "internment or a place of storage while awaiting internment" with the intent to sell them or to dissect them with "malice or wantonness" is a public offense punishable by imprisonment in a state prison. Lastly, HSC §§ 8010-8011 establish the California Native American Graves Protection and Repatriation Act consistent with the federal law addressing the same. The Act stresses that "all California Indian human remains and cultural items are to be treated with dignity and respect." It encourages voluntary disclosure and return of remains and cultural items by publicly funded agencies and museums in California. It also outlines the need for aiding California Indian tribes, including non-federally recognized tribes, in filing repatriation claims. (CA Legislative Info, n.d.)

California Health and Safety Code, Section 5097.98 states that whenever the commission receives notification of a discovery of Native American human remains pursuant to HSC subdivision (c) of Section 7050.5, it shall immediately notify those persons that are the most likely descendants. The descendants may inspect the site and make recommendations to the landowner as to the treatment of the human remains. The landowner shall ensure that the immediate vicinity around the remains is not damaged or disturbed by further development activity until coordination has occurred with the descendants regarding their recommendations for treatment, taking into account the possibility of multiple human remains. The descendants shall complete their inspection and make recommendations within 48 hours of being granted access to the site. (CA Legislative Info, n.d.)

6. California Code of Regulations Section 15064.5

The California Code of Regulations, Title 14, Chapter 3, § 15064.5 (the State CEQA Guidelines) establishes the procedure for determining the significance of impacts to archaeological and historical resources, as well as

classifying the type of resource. Cultural resources are aspects of the environment that require identification and assessment for potential significance. The evaluation of cultural resources under CEQA is based upon the definitions of resources provided in State CEQA Guidelines § 15064.5, as follows: (OPR, 2018a)

- *A resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the California Register of Historical Resources (Pub. Res. Code § 5024.1, Title 14 CCR, Section 4850 et seq.).*
- *A resource included in a local register of historical resources, as defined in section 5020.1(k) of the Public Resources Code or identified as significant in an historical resource survey meeting the requirements section 5024.1(g) of the Public Resources Code, shall 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.*
- *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 an historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing on the California Register of Historical Resources (Pub. Res. Code § 5024.1, Title 14 CCR, Section 4852) including the following:*
    - *Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;*
    - *Is associated with the lives of persons important in our past;*
    - *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*
    - *Has yielded, or may be likely to yield, information important in prehistory or history.*
- *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 section 5020.1(k) of the Public Resources Code), or identified in an historical resources survey (meeting the criteria in section 5024.1(g) of the Public Resources Code) does not preclude a lead agency from determining that the resource may be an historical resource as defined in Public Resources Code sections 5020.1(j) or 5024.1.*

C. Local Regulations

1. Ordinance No. 578 - Establishment of Historic Preservation Districts

This ordinance is intended to facilitate the preservation of areas deemed historically important to the County of Riverside. The ordinance specifies that a Historic Preservation District may be established if the Riverside County Board of Supervisors adopts a resolution that includes the boundaries of the Historic Preservation District and finds that the proposed Historic Preservation District is in conformity with the Cultural and Paleontological section of the Multipurpose Open Space Element of the Riverside County General Plan. It must also find that, for the county, state or nation: the area exemplifies or reflects significant aspects of the

cultural, political, economic or social history; the area is identified with historic personages or with important events in history; or, that the area embodies the distinguishing characteristics of a significant architectural period which is inherently valuable for the study of architecture unique to the history of the county, state or nation. (Riverside County, 2015, p. 4.9-25)

Under this ordinance, no building or structure within the boundaries of an adopted Historic Preservation District can be constructed or altered, except in strict compliance with the plans approved in conjunction with the issuance of a Historic District Alteration Permit by the Riverside County Planning Director. The ordinance also outlines how such certificates are to be reviewed and processed in order to preserve the "historical significance and related construction theme" of the Historic District. (Riverside County, 2015, p. 4.9-26)

2. Riverside County Historic Preservation Commission

The Riverside County Historical Commission was established in 2005 to advise the Board of Supervisors on historical preservation matters. It is tasked with working to discover and identify persons, events and places of historical importance within Riverside County, and to make recommendations relating to the preservation of appropriate historic sites and structures. To accomplish this, the Commission established criteria and procedures to identify and recognize historic landmarks in Riverside County. These criteria should be used when reviewing a potentially historically or culturally significant site that could be affected by the proposed development. Such resources are noted in the countywide list provided in Table 4.9-A of Riverside County EIR No. 521. (Riverside County, 2015, p. 4.9-26)

3. Riverside County Planning Department Procedures

The Riverside County Archeologist reviews all proposed land use projects subject to CEQA and not otherwise deemed categorically exempt. The Riverside County Archeologist reviews various internal databases for information that might pertain to the age of any buildings found on site, grading permits, ground disturbance activities and building permits. Where buildings are 45 years or older, the project applicant is required to perform an architectural history evaluation to assess potential historic value as part of a Phase I Cultural Resources study. When the study is completed, and if historic-period resources were identified during a survey, a copy of the report is transmitted to the Riverside County Historic Preservation Officer (CHPO) for review and comment. The CHPO sends relevant comments back to the Riverside County Archeologist. (Riverside County, 2015, p. 4.9-26)

Vacant parcels within areas known to have prehistoric or historic resources trigger a Phase I Cultural Resources study. Similarly, any parcels with environmental, geomorphological or vegetative features known to increase the likelihood of cultural resources being present trigger a "Phase I" cultural resources study. Such studies are required to follow the reporting formula found on the Riverside County Planning Department's website which mirror the recommendations published by the State Historic Preservation Office (SHPO) in 1987. (Riverside County, 2015, p. 4.9-26)

The Riverside County Archeologist reviews all Phase I cultural resources studies for completeness and reasonable conclusions based on current industry standards in archeology. The Phase I study serves to advise the Riverside County Archeologist on matters relating to any identified prehistoric or historic resources, provide the requisite information to complete the project-related CEQA analysis and guide the Riverside

County Archeologist in determining which land use conditions of approval and/or mitigation measures apply to the proposed project. (Riverside County, 2015, p. 4.9-26)

Copies of studies are provided to tribes, upon their request, as a confidential document. If a proposed project is subject to the requirements of the Traditional Tribal Places Act (commonly referred to as Senate Bill 18), a Phase 1 report is forwarded to tribes who request it as part of consultation under SB 18. Typically, official tribal consultations are scheduled after the report has been sent to the tribe(s) to maximize consultation efforts. (Riverside County, 2015, p. 4.9-26)

4.5.3 Basis for Determining Significance

Section V of Appendix G to the State CEQA Guidelines addresses typical adverse effects to cultural resources, and includes the following threshold questions to evaluate the Project's impacts on cultural resources. (OPR, 2018a)

- *Would the Project cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?*
- *Would the Project cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?*
- *Would the Project disturb any human remains, including those interred outside of dedicated cemeteries?*

Significance thresholds set forth in Riverside County's Environmental Assessment Checklist, are derived from Section V of Appendix G to the State CEQA Guidelines (listed above), and state that the proposed Project would have a significant impact on cultural resources if construction and/or operation of the Project would:

a. *Alter or destroy an historic site;*
b. *Cause a substantial adverse change in the significance of a historical resource as defined in California Code of Regulations, § 15064.5;*
c. *Alter or destroy an archaeological site;*
d. *Cause a substantial adverse change in the significance of an archaeological resource, pursuant to California Code of Regulations, § 15064.5;*
e. *Disturb any human remains, including those interred outside of dedicated cemeteries.*

The significance thresholds set forth in the Riverside County's Environmental Assessment Checklist form, as modified by the 2018 updates to the State CEQA Guidelines, were used to evaluate the significance of the proposed Project's impacts on cultural resources.

4.5.4 IMPACT ANALYSIS

Threshold a:	***Would the Project alter or destroy an historic site?***
Threshold b:	***Would the Project cause a substantial adverse change in the significance of a historical resource as defined in California Code of Regulations, Section 15064.5?***

Historical resources are defined in Section 15064.5 of the CEQA Guidelines resources listed in, or eligible for listing in, the CRHR. They also are defined as 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, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Historical resources, therefore, can be from any time period and take many forms, including archaeological sites, buildings, structures, and landscapes. Based on the results of field investigations and research, only the existing single-family residence that occurs in the east-central portions of the Project area has the potential to comprise a historic resource. This home was constructed sometime around 1967 and would be demolished as part of Project development. However, as discussed previously, the existing single-family residence was not found to represent a historical resource and is ineligible for inclusion in the NRHP and CRHR (ECORP, 2023b). As such, the existing residence does not comprise a historical resource as defined in Section 105064.5 of the California Code of Regulations, and impacts due to the demolition of this existing residence would be less than significant. As no other historical sites or resources were identified on site, Project impacts to historical sites and resources would be less than significant. However, there is a potential for previously-undiscovered historical resources to occur on the site surface or beneath the surface of areas planned for physical impact (i.e., grading) as part of the Project. Potential impacts to previously-undiscovered historical resources on site or within the off-site improvement areas would be significant on both a direct and cumulatively-considerable basis prior to mitigation.

Threshold c:	***Would the Project alter or destroy an archaeological site?***
Threshold d:	***Would the Project cause a substantial adverse change in the significance of an archaeological resource pursuant to California Code of Regulations, Section 15064.5?***

As discussed in detail above in subsection 4.5.1.E, and as summarized in Table 4.5-2, *Summary of Project Impacts to Archaeological Sites*, based on the results of the Phase I and Phase II CRAs prepared for the Project area, all of the previously-recorded resources and the newly-discovered pre-contact resources primarily consist of rock outcrops and bedrock milling slicks. Two of them (Sites P-33-12915/CA-RIV-7181 and P-33-12916/CA-RIV-7182) are historical resources and unique archaeological resources, as defined by CEQA. Additionally, a Phase II testing program was not conducted for Sites CAR-04, CAR-05, CAR-08, CAR-09, CAR-10, CAR-11, CAR-12, and CAR-13-1; thus, for purposes of analysis herein, Sites CAR-04, CAR-05, CAR-08, CAR-09, CAR-10, CAR-11, CAR-12, and CAR-13-1 are being treated as eligible for inclusion in the NRHP and CRHR for the purpose of this analysis. The remaining resources are not eligible for the NRHP and CRHR under any criteria and thus are not considered a historical resource under CEQA or historic properties under Section 106 of the NHPA. In addition, these ineligible resources are not unique archaeological resources. (Analysis as tribal cultural resources is addressed separately in Subsection 4.19 of this Draft EIR.)

As summarized in Table 4.5-2, implementation of the proposed Project would result in direct physical impacts to approximately 0.61-acre of the overall 12.17 acres mapped for Site P-33-12915/CA-RIV-7181, and would impact approximately 0.97-acre of the overall 3.80 acres mapped for Site P-33-12916/CA-RIV-7182. Although not considered significant resources as they are not eligible for inclusion in the NRHP or CRHR, the Project also would result in direct physical impacts to approximately 0.23-acre of Site P-33-012918/CA-RIV-7184[1], and the Project would fully impact Site CA-001 (0.02-acre). The Project would not directly impact any portion of Sites P-33-012917/CA-RIV-7183 or CA-002. In addition, because a Phase II testing program was not conducted for Sites CAR-04, CAR-05, CAR-08, CAR-09, CAR-10, CAR-11, CAR-12, and CAR-13-1, for purposes of analysis herein these sites are considered eligible for inclusion in the NRHP and CRHR. As shown in Table 4.5-2, the Project would result in impacts to Sites CAR-04 (0.004-acre), CAR-05 (0.003-acre), CAR-08 (0.0005-acre), CAR-10 (0.001-acre), CAR-13-1 (0.00002-acre), and CAR-12. The Project would not result in any impacts to Sites CAR-09, CAR-11, or CAR-12, as the Project would completely avoid impacts Sites CAR-09 and CAR-11.

Collectively, the sites and features identified on the property total approximately 16.39 acres. Approximately 14.66 acres would be preserved in place through horizontal avoidance and placement into open space, which constitutes almost 90 percent of the Cultural Resources area. Approximately ten percent of the cultural resource areas cannot be preserved in place because of the need for infrastructure, ingress/egress, and engineering constraints. Thus, the Project would result in impacts to 1.73 acres of cultural resources.

Project impacts to Sites P-33-012918/CA-RIV-7184 and CA-001 would not represent a significant impacts because these features are not eligible for the NRHP and CRHR under any criteria. Thus, these sites are not considered a historical resource under CEQA or historic properties under Section 106 of the NHPA. However, as previously noted, Sites P-33-12915/CA-RIV-7181 and P-33-12916/CA-RIV-7182 are eligible for the NRHP and CRHR under criteria D and 4, respectively, and therefore comprise precontact historical resources under CEQA and historic properties under Section 106 of the NHPA. Additionally, while the remaining features do not meet the criteria for inclusion on the NRHP or CRHR, it is recommended that they be treated as eligible for the purpose of this Project. Therefore, Project impacts to Sites P-33-12915/CA-RIV-7181, P-33-12916/CA-RIV-7182, CAR-04, CAR-05, CAR-08, CAR-09, CAR-10, CAR-11, CAR-12, and CAR-13-1 represent a significant impact of the proposed Project for which mitigation would be required.

Additionally, both the Project site and off-site improvement areas have the potential to contain unidentified archaeological resources. Given the presence of previously-identified archaeological resources within the Project vicinity, including within the Project site, there is a potential for the Project site or off-site improvement areas to contain unidentified surface or subsurface archaeological resources. Excavations that occur in association with construction of the Project could affect previously unknown and unrecorded archaeological deposits or cultural resources, and these resources may meet the criteria for inclusion in the NRHP/CRHR (be historical resources) or be unique archaeological resources. If present, these resources could be impacted by project construction and any resulting damage to the resources could be considered a potentially significant impact.

Table 4.5-2 Summary of Project Impacts to Archaeological Sites

Site	Eligibility	Project Impact	Remarks
P-33-12915 (CA-RIV-7181)	Eligible	0.61-acre	95% of the site will be preserved in place; no bedrock milling features will be affected
P-33-12916 (CA-RIV-7182)	Eligible	0.97-acre	75% of the site will be preserved in place; bedrock milling features A, B, C, and D are included in the 25% of the site that will be impacted, but the rest of the features will be preserved in place
P-33-12917 (CA-RIV-7183) – Feature A	Not Eligible	0.0-acre	100% of the site will be preserved in place
P-33-12917 (CA-RIV-7183) – Feature B	Not Eligible	0.0-acre	100% of the site will be preserved in place
P-33-12917 (CA-RIV-7183) – Feature C	Not Eligible	0.0-acre	100% of the site will be preserved in place
P-33-02918 (CA-RIV-7184) – Feature A	Not Eligible	0.0-acre	100% of the site will be preserved in place
P-33-02918 (CA-RIV-7184) – Feature B	Not Eligible	0.01-acre	--
P-33-02918 (CA-RIV-7184) – Feature C	Not Eligible	0.03-acre	--
P-33-02918 (CA-RIV-7184) – Feature D	Not Eligible	0.01-acre	--
P-33-02918 (CA-RIV-7184) – Feature E	Not Eligible	0.09-acre	--
CA-01	Not Eligible	0.002-acre	--
CA-02	Not Eligible	0.0-acre	100% of the site will be preserved in place
CAR-04	Eligible[1]	0.004-acre	--
CAR-05	Eligible[1]	0.003-acre	--
CAR-08	Eligible[1]	0.0005-acre	--
CAR-09	Eligible[1]	0.0-acre	100% of the site will be preserved in place
CAR-10	Eligible[1]	0.001-acre	--
CAR-11	Eligible[1]	0.0-acre	100% of the site will be preserved in place
CAR-12	Eligible[1]	0.0-acre[2]	--
CAR-13-I	Eligible[1]	0.00002-acre	--
Total:		**1.73 acres**	**--**

1. Sites CAR-04, CAR-05, CAR-08, CAR-09, CAR-10, CAR-11, CAR-12, and CAR-13-1 were identified after the completion of the Phase II testing program, and were not subject to a Phase II testing program. Accordingly, for purposes of analysis herein, it is assumed that Sites CAR-04, CAR-05, CAR-08, CAR-09, CAR-10, CAR-11, CAR-12, and CAR-13-1 are considered eligible for inclusion in the NRHP and CRHR.

(ECORP, 2024, Table 8)

Threshold e: ***Would the Project disturb any human remains, including those interred outside of dedicated cemeteries?***

Field surveys conducted in the Project area by FCS and ECORP did not identify the presence of any human remains and no human remains are known to exist beneath the surface of the site. Nevertheless, the remote

[2] Site CAR-12 is less than one square foot in size.

potential exists that human remains may be unearthed during grading and excavation activities associated with Project construction.

If human remains are unearthed during Project ground-disturbance, the construction contractor would be required by law to comply with California Health and Safety Code, § 7050.5, "Disturbance of Human Remains." According to § 7050.5(b) and (c), if human remains are discovered, the County Coroner must be contacted and if the Coroner recognizes the human remains to be those of a Native American or has reason to believe that they are those of a Native American, the Coroner is required to contact the Native American Heritage Commission (NAHC) by telephone within 24 hours. Pursuant to California Public Resources Code § 5097.98, whenever the NAHC receives notification of a discovery of Native American human remains from a county coroner, the NAHC is required to immediately notify those persons it believes to be most likely descended from the deceased Native American. The descendants may, with the permission of the owner of the land, or their authorized representative, inspect the site of the discovery of the Native American human remains and may recommend to the owner or the person responsible for the excavation work means for treatment or disposition, with appropriate dignity, of the human remains and any associated grave goods. The descendants shall complete their inspection and make recommendations or preferences for treatment within 48 hours of being granted access to the site. According to Public Resources Code § 5097.94(k), the NAHC is authorized to mediate disputes arising between landowners and known descendants relating to the treatment and disposition of Native American human burials, skeletal remains, and items associated with Native American burials.

Notwithstanding the requirements of California Health and Safety Code § 7050.5 and California Public Resources Code § 5097.98, due to the potential to discover buried human remains during Project construction activities (i.e., grading), a potentially significant impact would occur and mitigation would be required.

4.5.5 Cumulative Impact Analysis

This cumulative impact analysis considers development of the proposed Project in conjunction with other development projects and planned development within western Riverside County. This study area was selected for evaluation because it encompasses a broad region with similar geological, biological, and climatic conditions.

As discussed previously, the existing single-family residence was not found to represent a historical resource and is ineligible for inclusion in the NRHP and CRHR (ECORP, 2023b). As such, the existing residence does not comprise a historical resource as defined in Section 105064.5 of the California Code of Regulations, and impacts due to the demolition of this existing residence would be less than significant. As no other historical sites or resources were identified on site, the proposed Project has no potential to result in cumulatively-considerable impacts to historical sites or resources, and no impact would occur.

The analysis of the Project's potential impacts to cultural resources in this section identifies a significant impact to known archeological resources as a result of the proposed Project. In addition, development of the proposed Project in combination with other projects located in adjacent residential areas would increase the potential for impacts to known and previously unknown archaeological resources that could contribute to the loss of such resources in Riverside County.. Therefore, Project impacts to Sites P-33-12915/CA-RIV-7181, P-33-12916/CA-RIV-7182, CAR-04, CAR-05, CAR-08, CAR-09, CAR-10, CAR-11, CAR-12, and CAR-13-1,

when considered in the context of other cumulative developments, would be cumulatively-considerable prior to mitigation.

The Project has the potential to result in impacts to human remains that may be buried beneath the Project site's surface. Other cumulative developments also have the potential to result in impacts to human remains. Although the Project and other cumulative developments would be required to follow existing State and federal law or other agency regulations and policies, the Project's potential impacts to human remains conservatively are evaluated as a cumulatively-considerable impact for which mitigation would be required.

4.5.6 Significance of Impacts Before Mitigation

Thresholds a. and b.: Significant Direct and Cumulatively-Considerable Impact. The only potential historical resource that was identified within the Project's study area is the existing single-family residence on site that was constructed sometime around 1967. However, as discussed previously, the existing single-family residence was not found to represent a historical resource and is ineligible for inclusion in the NRHP and CRHR (ECORP, 2023b). As such, the existing residence does not comprise a historical resource as defined in Section 105064.5 of the California Code of Regulations, and impacts due to the demolition of this existing residence would be less than significant. As no other historical sites or resources were identified on site, Project impacts to historical sites and resources would be less than significant. However, there is a potential for previously-undiscovered historical resources to occur on the site surface or beneath the surface of areas planned for physical impact (i.e., grading) as part of the Project. Potential impacts to previously-undiscovered historical resources on site or within the off-site improvement areas would be significant on both a direct and cumulatively-considerable basis prior to mitigation.

Thresholds c. & d.: Significant Direct and Cumulatively-Considerable Impact. Implementation of the proposed Project would result in direct physical impacts to approximately 0.61-acre of the overall 12.17 acres mapped for Site P-33-12915/CA-RIV-7181, and would impact approximately 0.97-acre of the overall 3.80 acres mapped for Site P-33-12916/CA-RIV-7182, both of which are considered eligible under NRHCP Criterion D and CRHR Criterion 4. In addition, because a Phase II testing program was not conducted for Sites CAR-04, CAR-05, CAR-08, CAR-09, CAR-10, CAR-11, CAR-12, and CAR-13-1, for purposes of analysis herein these sites are considered eligible for inclusion in the NRHP and CRHR. The Project would result in direct impacts to Sites CAR-04, CAR-05, CAR-08, CAR-10, and CAR-13-1. Therefore, Project impacts to Sites P-33-12915/CA-RIV-7181, P-33-12916/CA-RIV-7182, CAR-04, CAR-05, CAR-08, CAR-10, CAR-12, and CAR-13-1 represent a significant impact of the proposed Project for which mitigation would be required. The remaining archeological sites identified on the Project site either are not considered eligible for listing under the NRHP or the CRHR (Sites P-33-12917/CA-RIV-7183, P-33-02918/CA-RIV-7184, CA-01, and CA-02) or would not be impacted by the Project (Sites CAR-09, CAR-11); thus, Project impacts to Sites P-33-12917/CA-RIV-7183, P-33-02918/CA-RIV-7184, CA-01, CA-02, CAR-09, and CAR-11 would be less than significant. In addition, the existing residence does not comprise a historical resource as defined in Section 105064.5 of the California Code of Regulations, and impacts due to the demolition of this existing residence would be less than significant.

Threshold e.: Significant Direct and Cumulatively-Considerable Impact. There are no known dedicated cemeteries located within the immediate site vicinity. Although the Project Applicant would be required to comply with the applicable provisions of California Health and Safety Code § 7050.5 and California Public

Resources Code § 5097 et. seq., the Project's potential impacts to buried human remains would be significant on a direct and cumulatively-considerable basis prior to mitigation.

4.5.7 County Regulations, Design Requirements, and Mitigation

Applicable County Regulations and Design Requirements

The following are applicable regulations and design requirements within Riverside County. Although these requirements technically do not meet CEQA's definition for mitigation, they are imposed herein to ensure Project compliance with applicable County regulations and design requirements.

- Unless otherwise required by law, the site of any reburial of Native American human remains or associated grave goods shall not be disclosed and shall not be governed by public disclosure requirements of the California Public Records Act. The Coroner, pursuant to the specific exemption set forth in California Government Code Section 6254 (r), parties, and Lead Agencies, will be asked to withhold public disclosure information related to such reburial, pursuant to the specific exemption set forth in California Government Code 6254 (r).

Mitigation

The County shall require compliance with the following mitigation measures with respect to cultural, historical, and archaeological resources. It should be noted that in February 2025, Pechanga and Soboba tribe provided additional confidential comments and recommendations that are considered confidential and are not included in this EIR. The County will carefully consider the recommendations, and if feasible, they shall be implemented. If the recommendations are determined to be not feasible, they will not be included. The feasibility of the recommendations shall be addressed as the Cultural Resource Monitoring Program (CRMP) is developed by the Project Archaeologist in coordination with the tribes and the County Archaeologist (see MM 4.5-1).

MM 4.5-1 **060 - Planning-CUL.2 Controlled Grading**. Although all bedrock features will be either preserved in place or relocated into open space on site, the soils surrounding cultural Site(s) P-33-002918 (CA-RIV-7184) Features B, C, D, E, P-33-12916 Features A, B, C, D, CA-001, CAR-04, CAR-05, CAR-08, CAR-10, ~~CAR-12,~~ and CAR13-I will be impacted during construction activities. To address controlled grading in this area, a plan will be developed in consultation with Soboba Band of Luiseño Indians and Pechanga Band of Indians, and included in the Cultural Resources Monitoring Program (CRMP) by the Project Archaeologist. The controlled grading plan shall require the systematic removal of the ground surface to allow for the identification, documentation and recovery of any subsurface cultural deposits. Results of the controlled grading program shall be included in the Phase IV monitoring report required pursuant to Mitigation Measure MM 4.5-10.

~~**MM 4.5-2** **060 - Planning-CUL.1 Cultural Sensitivity Training.** The County shall ensure that a worker awareness training program is developed and delivered to train the Contractor's equipment operators and the Project's field consultants about tribal cultural resources and the requirements for avoidance and minimization. The program shall inform workers about the~~

~~following topics: federal and state regulations pertaining to cultural resources and tribal cultural resources; the presence of Environmentally Sensitive Areas that are restricted from all Project related activities; the requirement for ground disturbing activities near the Environmentally Sensitive Areas to be monitored by a Tribal Monitor; the subsurface indicators of resources that shall require a work stoppage; procedures for notifying the County and, if necessary, the coroner, of any occurrences; confidentiality requirements; appropriate and respectful behavior when in the presence of tribal cultural resources; maintaining a harassment free and safe work environment for monitors; and enforcement of penalties and repercussions for non-compliance with the program.~~

~~The County shall offer the opportunity to consulting tribes to provide content for the training program. The training shall be given first to construction supervisors and may be recorded. The construction supervisors are responsible for ensuring that all workers that will operate ground-disturbing equipment receive this training prior to operating equipment that will disturb original ground. All trained workers will be required to receive a brochure and hardhat sticker and sign a form indicating their understanding of the requirements and restrictions and copies of the forms shall be provided to the County as proof of compliance. Materials and supplies delivery drivers, above ground construction workers (i.e., framers, carpenters, electricians, plumbers, painters, and roofers) are not required to receive the training because the type of specialized activities that they will perform does not have the potential to disturb cultural resources or tribal cultural resources.~~

~~MM 4.5-3~~MM 4.5-2 **060 - Planning-CUL. 4 ECS Sheet- Resource Relocation and Reburial** Prior to issuance of grading permits: the developer/applicant shall provide evidence to the Riverside County Planning Department that a confidential ~~n~~ Environmental Constraints Sheet has been included in the Grading Plans. This sheet shall indicate an area to be used for relocation of the bedrock milling features that cannot be avoided by this project. In addition, a permanent space within this area will be predetermined and designated, in consultation with the Soboba Band of Luiseño Indians and Pechanga Band of Indians, ~~and designated~~ on a confidential map for reburial of any artifacts that will be impacted and/or discovered during grading.

~~MM 4.5-4~~MM 4.5-3 **060 - Planning-CUL. 5 ECS Sheet - Resources Preserved in Place** Prior to final map approval the developer/ applicant shall provide evidence to the Riverside County Planning Department that an Environmental Constraints Sheet has been included in the Grading Plans. This sheet shall indicate the presence of environmentally constrained area(s) and the requirements for avoidance of ~~the applicable~~ portions of P-33-012915 (CA-RIV-7181), portions of P-33-012916 (CA-RIV-7182), and P-33-012917 (CA-RIV-7183)~~, Features A, B and C, P-33-02918 (CA-RIV-7184) Features A and C, CA-002, CAR-09, and CAR-11. Avoidance includes all Project related temporary and permanent activity or use during and following construction~~.

~~MM 4.5-5~~MM 4.5-4 **060 - Planning-CUL. 6 Feature Relocation**. Site P-33-002918 (CA-RIV-7184) Features ~~B,~~ D, ~~and E,~~ P-33-12916 (CA-RIV-7182) Features A, B, C, D, CAR-04, CAR-05, CAR-08, CAR-10, ~~CAR-12,~~ and CAR-13-I cannot be avoided through Project redesign. Prior

to grading permit issuance, the Project Supervisor and Project Archaeologist and a representative from the Soboba Band of Luiseño Indians and Pechanga Band of Indians shall meet onsite to determine the strategy for relocating the milling features to a permanent open space area predetermined and designated, in consultation with ~~the~~ Tribes, ~~and designated~~ on a confidential map. Before construction activities are allowed to start and using professional archaeological methods, as well as follow the cultural ~~costumes~~ customs and traditions of Tribes, any visible artifacts shall be recovered and recorded, and photo documentation of each feature in situ shall occur. No sacred sites shall be photographed, and prior approval is needed from Soboba Band of Luiseño Indians and Pechanga Band of Indians. The current Department of Parks and Recreation forms for the sites shall be updated, detailing which features were relocated, the process through which this was done, and updated maps using sub meter GIS technology to document the new location of each feature. The relocation information shall be included in the Phase IV Monitoring Report. The ability of features to be relocated depends on the extent of subsurface bedrock, which cannot be fully understood until after ground disturbance begins. In the event that a feature cannot be relocated without damage, after a reasonable and good faith effort as determined by the County, the Project Supervisor and Project Archaeologist, in coordination with the Native American Monitors, shall ~~be reburied~~ rebury the resource in the pre-designated reburial location.

~~MM 4.5-6~~MM 4.5-5 **060 - Planning-CUL. 7 Native American Monitor**. Prior to the issuance of grading permits, the developer/permit applicant shall enter into agreement(s) with the ~~Soboba Band and Pechanga Band for one Native American monitor from each tribe for the duration of ground-disturbing activity associated with project construction~~consulting tribe(s) for the appropriate number of Native American Monitor(s). In conjunction with the Archaeological Monitor(s), the Native American Monitor(s) shall attend the pre-grading meeting with the contractors to provide Cultural Sensitivity Training for all construction personnel. In addition, an adequate number of Native American Monitor(s) shall be on-site during all initial ground-disturbing activities and excavation of soils in each portion of the project site including clearing, grubbing, tree removals, grading and trenching. In conjunction with the Archaeological Monitor(s), the Native American Monitor(s) have the authority to temporarily divert, redirect or halt the ground disturbance activities to allow identification, evaluation, and potential recovery of cultural resources. Activities will be documented in Tribal Monitoring Notes which will be required to be submitted to the County Archaeologist prior to grading final inspection. The developer/permit applicant shall submit a fully executed copy of the agreement(s) to the County Archaeologist to ensure compliance with this condition of approval. Upon verification, the Archaeologist shall clear this condition. This agreement shall not modify any condition of approval or mitigation measure. ~~If either or both tribes decline to enter into agreement for Native American monitoring within 60 days of extending an offer, then the County will require the Archaeological Monitor to notify the tribes in the event of an unanticipated discovery.~~

~~MM 4.5-7~~MM 4.5-6 **060 - Planning-CUL. 8 Project Archaeologist**. Prior to issuance of grading permits: The applicant/developer shall provide evidence to the County of Riverside Planning

Department that a County certified professional archaeologist (Project Archaeologist) has been contracted to implement a Cultural Resource Monitoring Program (CRMP). A Cultural Resource Monitoring Plan shall be developed, in consultation with Soboba Band of Luiseño Indians and Pechanga Band of Indians, that addresses the details of all activities and provides procedures that must be followed in order to reduce the impacts to cultural, tribal cultural and historic resources to a level that is less than significant ~~to the greatest extent feasible~~ as well as address potential impacts to undiscovered buried archaeological resources associated with this project. A fully executed copy of the contract and a digitally-signed copy of the Monitoring Plan shall be provided to the County Archaeologist to ensure compliance with this condition of approval.

Working directly under the Project Archaeologist, an adequate number of qualified Archaeological Monitors shall be present to ensure that all earth moving activities are observed and shall be on-site during all grading activities for areas to be monitored including off-site improvements. Inspections will vary based on the rate of excavation, the materials excavated, and the presence and abundance of artifacts and features.

The Professional Archaeologist may submit a detailed letter to the County of Riverside during grading requesting a modification to the monitoring program if circumstances are encountered that reduce the need for monitoring.

~~**MM 4.5-8**~~**MM 4.5-7 060 - Planning-CUL. 9 Temporary Fencing**. Temporary fencing shall be required for the protection of cultural site(s) portions of P-33-012915 (CA-RIV-7181), portions of P-33-012916 (CA-RIV-7182), P-33-012917 (CA-RIV-7183) Features A, B and C, P-33-02918 (CA-RIV-7184) Feature A, CA-02, CAR-09, and CAR-11 during grading activities. Prior to commencement of grading or brushing, the project archaeologist shall confirm the site boundaries and determine an adequate buffer for protection of the site(s), in consultation with the Soboba Band of Luiseño Indians and Pechanga Band of Indians. The applicant shall direct the installation of fencing under the supervision of the project archaeologist and Native American Monitor(s). The fencing can be removed only after grading operations have been completed.

Prior To Grading Final Inspection

~~**MM 4.5-9**~~**MM 4.5-8 070 - Planning-CUL. 1 Artifact Disposition.** Prior to Grading Permit Final Inspection, the landowner(s) shall relinquish ownership of all cultural resources that are unearthed on the Project property during any ground-disturbing activities, including previous investigations and/or Phase III data recovery. Historic Resources- all historic archaeological materials recovered during the archaeological investigations (this includes ~~any~~ collections made during an earlier project, such as testing of archaeological sites that took place years ago, if applicable), shall be curated ~~and permanently housed~~ at the Western Science Center, a Riverside County curation facility that meets State Resources Department Office of Historic Preservation Guidelines for the Curation of Archaeological Resources ensuring access and use

pursuant to the Guidelines Prehistoric Resources- One of the following treatments shall be applied.

a. Preservation-In-Place of the cultural resources, if feasible. Preservation in place means avoiding the resources, leaving them in the place where they were found with no development affecting the integrity of the resources.

b. Reburial of the resources on the Project property. The measures for reburial shall include, at least, the following: Measures to protect the reburial area from any future impacts. Reburial shall not occur until all required cataloguing, analysis and studies have been completed on the cultural resources, with an exception that sacred items, burial goods and Native American human remains are excluded. Any reburial processes shall be culturally appropriate. Listing of contents and location of the reburial shall be included in the confidential Phase IV Report. The Phase IV Report shall be filed with the County under a confidential cover and not subject to a Public Records Request.

~~**MM 4.5-10**~~**MM 4.5-9 070 - Planning-CUL. 2 Deed Restrictions**. At the conclusion of all construction activities, the Project proponent and landowner shall record a deed restriction on the avoidance areas (and the reburial location, if used) with the County to restrict development of the Environmentally Sensitive Areas in the future. Deed restrictions shall not disclose the nature of the Environmentally Sensitive Areas. A copy of the deed restriction(s) shall be submitted to the County planning staff as proof of compliance prior to the issuance of certificates of occupancy for the Project.

~~**MM 4.5-11**~~**MM 4.5-10 070 - Planning CUL. 3 Phase IV Monitoring Report.**
Prior to Grading Permit Final Inspection, a Phase IV Cultural Resources Monitoring Report shall be submitted that complies with the Riverside County Planning Department's requirements for such reports for all ground disturbing activities associated with this grading permit. The report shall follow the County of Riverside Planning Department Cultural Resources (Archaeological) Investigations Standard Scopes of Work posted on the TLMA website. The report shall include results of any feature relocation or residue analysis required as well as evidence of the required cultural sensitivity training for the construction staff held during the required pre-grade meeting and evidence that any artifacts have been treated in accordance to procedures stipulated in the Cultural Resources Management Plan. The copy of the report shall be provided to the County of Riverside Planning Department, Soboba Band of Luiseño Indians, and Pechanga Band of Indians.

Required Notifications

The following notifications are included as part of the recommendation of approval for TTM38510. They are intended to advise the applicant of various Federal, State and County regulations applicable to this entitlement and the subsequent development of the subject property.

~~MM 4.5-12~~MM 4.5-11 **015 - Planning-CUL. 1 Human Remains**. If human remains are found on this site, the developer/permit holder or any successor in interest shall comply with State Health and Safety Code Section § 7050.5 and Public Resources Code § 5097.98.

~~MM 4.5-13~~MM 4.5-12 **015 - Planning-CUL. 2 Unanticipated Resources**. The developer/permit holder or any successor in interest shall comply with the following for the life of this permit. If during ground disturbance activities, unanticipated historical or archaeological resources* are discovered, the following procedures shall be followed.

All ground disturbance activities within 100 feet of the discovered historical or cultural resource shall be halted and the applicant shall call the County Archaeologist immediately upon discovery of the historical or archaeological resource. For archaeological resources, a meeting shall be convened between the developer, the Project archaeologist**, the Native American tribal representative (or other appropriate ethnic/cultural group representative), and the County Archaeologist to discuss the significance of the find. At the meeting with the aforementioned parties, a decision is to be made, with the concurrence of the County Archaeologist, as to the appropriate treatment (documentation, recovery, avoidance, etc.) for the cultural resource. For any historical resources that may be uncovered, a meeting with the County Archaeologist shall be held to determine the significance of and appropriate treatment for the historical resource(s), which may include documentation and/or resource recovery and curation at facilities such as the Western Science Center in Hemet, depending on the significance of the resource. Resource evaluations shall be limited to nondestructive analysis. Further ground disturbance shall not resume within the area of the discovery until the appropriate treatment has been accomplished.

* A cultural resource site is defined, for this purposes of Mitigation Measure MM 4.5-12, as being a feature and/or three or more artifacts in close association with each other.
** If not already employed by the project developer, a County approved archaeologist shall be employed by the Project developer to assess the significance of the cultural resource, attend the meeting described above, and continue monitoring of all future site grading activities as necessary.

4.5.8 Significance of Impacts After Mitigation

Thresholds a. and b.: Less-than-Significant Impact with Mitigation. Implementation of Mitigation Measure MM 4.5-12 would ensure that any historical resources identified on site or within the Project's off-site improvement areas during ground-disturbing activities are appropriately treated, including if necessary curation of the historical artifact(s) at the Western Science Center in Hemet or as directed by the County Archaeologist. Implementation of the required mitigation would ensure that any potential impacts to subsurface historical sites or resources would be reduced to less-than-significant levels.

Thresholds c. and d.: Less-than-Significant Impact with Mitigation. Implementation of Mitigation Measure MM 4.5-1 would ensure that controlled grading is implemented at Sites P-33-002918 (CA-RIV-7184) Features B, C, D, E, P-33-12916 Features A, B, C, D, CA-001, CAR-04, CAR-05, CAR-08, CAR-10, CAR-12, and CAR13-I , which would ensure the systematic removal of the ground surface to allow for the identification,

documentation, and recovery of any subsurface cultural deposits. ~~Implementation of Mitigation Measure MM 4.5-2 would ensure that Project construction workers are subject to sensitivity training to enable them to assist in the identification of potential subsurface cultural resources.~~ Implementation of Mitigation Measures MM 4.5-2 and MM 4.5-3 would ensure that the Project's Final Map includes an Environmental Constraints Sheet that identifies the open space areas on site that would be used for the relocation of bedrock milling features. Implementation of Mitigation Measure MM 4.5-4 would ensure that mitigation for impacts to Sites P-33-002918 (CA-RIV-7184) Features B, C, D, P-33-12916 (CA-RIV-7182) Features A, B, C, D, CA-001, CAR-04, CAR-05, CAR-08, and CAR-10 are coordinated between the Project Applicant, Project Archaeologist, and a representative from the consulting Tribe(s), and would ensure that these resources all would be relocated to permanent open space areas. Implementation of Implementation of Mitigation Measures MM 4.5-5 and MM 4.5-6 would ensure that all ground-disturbing activities (i.e., grading) are monitored by a Native American Monitor and a County-approved archaeologist, and would ensure the appropriate treatment of any subsurface resources that may be identified. Implementation of Mitigation Measure MM 4.5-7 would ensure that temporary fencing is installed to preclude unplanned construction-related impacts to portions of P-33-012915, portions of P-33-012916 (CA-RIV-7182), P-33-012917 (CA-RIV-7183) Features A, B and C, P-33-02918 (CA-RIV-7184) Feature A, CA-002, CAR-09, and CAR-11. Implementation of Mitigation Measure MM 4.5-8 would ensure that all cultural resources uncovered on site are properly relinquished and housed at an appropriate curation facility. Implementation of Mitigation Measure MM 4.5-9 would ensure that deed restrictions are recorded to restrict development within the ESAs, thereby ensuring long-term preservation of any sites or relocated sites within the Project's open space areas. Implementation of the required mitigation would reduce the Project's impacts to Sites P-33-12915/CA-RIV-7181, P-33-12916/CA-RIV-7182, CAR-04, CAR-05, CAR-08, CAR-10, CAR-12, and CAR-13-1 to below a level of significance. Implementation of Mitigation Measure MM 4.5-10 would ensure that a Phase IV Monitoring Report is prepared to demonstrate compliance with the mitigation measures presented herein. Implementation of Mitigation Measures MM 4.5-11 and MM 4.5-12 would ensure that any previously-undiscovered archaeological sites or resources identified on site or within the Project's off-site improvement areas during ground-disturbing activities are appropriately treated as directed by the Archaeological Monitor, County Archaeologist, and Native American Monitor. Implementation of the required mitigation would reduce the Project's potential impacts to subsurface archaeological sites or resources to below a level of significance.

Threshold e.: Less-than-Significant Impact with Mitigation. In the event that human remains are discovered during construction activities, Mitigation Measure MM 4.5-11 would require the Project Applicant to comply with the applicable provisions of California Health and Safety Code § 7050.5 and California Public Resources Code § 5097 et. seq. Mandatory compliance with Mitigation Measure MM 4.5-11, State law, and applicable regulatory requirements would reduce the Project's potential impacts to buried human remains to less-than-significant-levels.

4.6 ENERGY

This Subsection is based in part on the information contained in the Project's Energy Analysis Report (herein, "EA"), titled "Arroyo Vista Energy Analysis," dated April 27, 2023, and appended to this EIR as *Technical Appendix E*. It should be noted that the Project's Energy Analysis assumes the Project site would be developed with 233 dwelling units, while only 231 are proposed; thus, the analysis in *Technical Appendix E* provides a "worst case" analysis of the Project's potential impacts due to energy consumption. Refer to Section 7.0, *References,* for a complete list of reference sources. (Urban Crossroads, 2023d)

4.6.1 EXISTING CONDITIONS

A. Overview

The most recent data for California's estimated total energy consumption and natural gas consumption is from 2020, released by the United States (U.S.) Energy Information Administration's (EIA) California State Profile and Energy Estimates in 2021 and indicated: (Urban Crossroads, 2023d, p. 7)

- As of 2020, approximately 6,923 trillion British Thermal Unit (BTU) of energy was consumed.
- As of 2020, approximately 524 million barrels of petroleum were consumed
- As of 2020, approximately 2,075 billion cubic feet of natural gas were consumed
- As of 2020, approximately 1 million short tons of coal were consumed

According to the EIA, in 2021 the U.S. petroleum consumption comprised about 77% of all transportation energy use, excluding fuel consumed for aviation and most marine vessels. In 2021, about 249,790 million gallons (or about 5.95 million barrels) of finished petroleum products were consumed in the U.S., an average of about 684 million gallons per day (or about 16 million barrels per day). In 2021, California consumed approximately 12,157 million gallons in motor gasoline (33.31 million per day) and approximately 3,541 million gallons of diesel fuel (9.7 million per day). (Urban Crossroads, 2023d, p. 7)

The most recent data provided by the EIA for energy use in California by demand sector is from 2020 and is reported as follows (Urban Crossroads, 2023d, p. 7):

- Approximately 34.0% transportation
- Approximately 24.6% industrial
- Approximately 21.8% residential
- Approximately 19.6% commercial

According to the EIA, California used approximately 247,250 gigawatt hours of electricity in 2021. By sector in 2021, residential uses utilized 36.5% of the state's electricity, followed by 43.9% for commercial uses, 19.2% for industrial uses, and 0.3% for transportation. Electricity usage in California for differing land uses varies substantially by the type of uses in a building, type of construction materials used in a building, and the efficiency of all electricity-consuming devices within a building. (Urban Crossroads, 2023d, p. 7)

According to the EIA, California used approximately 200,871 million therms of natural gas in 2021. In 2021 (the most recent year for which data is available), by sector, industrial uses utilized 33% of the state's natural

gas, followed by 30% used as fuel in the electric power sector, 21% from residential, 11% from commercial, 1% from transportation uses and the remaining 3% was utilized for the operations, processing and production of natural gas itself. While the supply of natural gas in the United States and production in the lower 48 states has increased greatly since 2008, California produces little, and imports 90% of its supply of natural gas. (Urban Crossroads, 2023d, p. 7)

In 2021, total system electric generation for California was 277,764 gigawatt hours (GWh). California's massive electricity in-state generation system generated approximately 194,127 GWh which accounted for approximately 70% of the electricity it uses; the rest was imported from the Pacific Northwest (12%) and the U.S. Southwest (18%). Natural gas is the main source for electricity generation at 50.19% of the total in-state electric generation system power as shown in Table 4.6-1, *Total Electricity System Power (California 2021)*. (Urban Crossroads, 2023d, p. 8)

Table 4.6-1 Total Electricity System Power (California 2021)

Fuel Type	California In-State Generation (GWh)	% of California In-State Generation	Northwest Imports (GWh)	Southwest Imports (GWh)	Total Imports (GWh)	% of Imports	Total California Energy Mix	Total California Power Mix
Coal	303	0.2%	181	7,788	7,969	9.5%	8,272	3.0%
Natural Gas	97,431	50.2%	45	7,880	7,925	9.5%	105,356	379.0%
Oil	37	0.0%	-	-	-	0.0%	37	0.0%
Other (Waste Heat/Petroleum Coke)	382	0.2%	68	15	83	0.1%	465	0.2%
Nuclear	16,477	8.5%	524	8,756	9,281	11.1%	25,758	9.3%
Large Hydro	12,036	6.2%	12,042	1,578	13,620	16.3%	25,656	9.2%
Unspecified	-	0.0%	8,156	10,731	18,887	22.6%	18,887	6.8%
Total Thermal and Non-Renewables	**126,666**	**65.2%**	**21,017**	**36,748**	**57,764**	**6910.0%**	**184,431**	**66.4%**
Biomass	5,381	2.8%	864	26	890	1.1%	6,271	2.3%
Geothermal	11,116	5.7%	192	1,906	2,098	2.5%	13,214	4.8%
Small Hydro	2,531	1.3%	304	1	304	0.4%	2,835	1.0%
Solar	33,260	17.1%	220	5,979	6,199	7.4%	39,458	14.2%
Wind	15,173	7.8%	9,976	6,405	16,381	19.6%	31,555	11.4%
Total Renewables	67,461	34.8%	11,555	14,317	25,872	3090.0%	93,333	33.6%
SYSTEM TOTALS	***194,127***	***100.0%***	***32,572***	***51,064***	***83,636***	***100.0%***	***277,764***	***100.0%***

(Urban Crossroads, 2023d, Table 2-1)

An updated summary of, and context for energy consumption and energy demands within the State is presented in "U.S. Energy Information Administration, California State Profile and Energy Estimates, Quick Facts" excerpted below (Urban Crossroads, 2023d, p. 8):

- In 2021, California was the seventh-largest producer of crude oil among the 50 states, and, as of January 2021, it ranked third in crude oil refining capacity.

- California is the largest consumer of jet fuel and second-largest consumer of motor gasoline among the 50 states and, the state accounted for 15% of the nation's jet fuel consumption and 10% of motor gasoline consumption in 2020.
- In 2019, California was the second-largest total energy consumer among the states, but its per capita energy consumption was less than in all other states except Rhode Island, due in part to its mild climate and its energy efficiency programs.
- In 2021, California was the nation's top producer of electricity from solar, geothermal, and biomass energy. The state was fourth in the nation in conventional hydroelectric power generation, down from second in 2019, in part because of drought and increased water demand.
- In 2021, California was the fourth-largest electricity producer in the nation, but the state was also the nation's second-largest consumer of electricity, and in 2020, it received about 30% of its electricity supply from generating facilities outside of California, including imports from Mexico.

As indicated above, California is one of the nation's leading energy-producing states, and California's per capita energy use is among the nation's most efficient. Given the nature of the Project, the remainder of this discussion will focus on the three sources of energy that are most relevant to the Project – namely, electricity, natural gas, and transportation fuel for vehicle trips associated with the uses planned for the Project. (Urban Crossroads, 2023d, p. 8)

B. Electricity

The usage associated with electricity use were calculated using the California Emissions Estimator Model (CalEEMod) Version 2022.1. The Southern California region's electricity reliability has been of concern for the past several years due to the planned retirement of aging facilities that depend upon once-through cooling technologies, as well as the June 2013 retirement of the San Onofre Nuclear Generating Station (San Onofre). While the once-through cooling phase-out has been ongoing since the May 2010 adoption of the State Water Resources Control Board's once through cooling policy, the retirement of San Onofre complicated the situation. California ISO studies revealed the extent to which the South California Air Basin (SCAB) and the San Diego Air Basin (SDAB) region were vulnerable to low-voltage and post-transient voltage instability concerns. A preliminary plan to address these issues was detailed in the 2013 Integrative Energy Policy Report (IEPR) after a collaborative process with other energy agencies, utilities, and air districts. Similarly, the subsequent 2022 IEPR provides information and policy recommendations on advancing a clean, reliable, and affordable energy system. (Urban Crossroads, 2023d, p. 10)

Electricity is currently provided to the Project by Southern California Edison (SCE). SCE provides electric power to more than 15 million persons in 15 counties and in 180 incorporated cities, within a service area encompassing approximately 50,000 square miles. Based on SCE's 2020 Power Content Label Mix, SCE derives electricity from varied energy resources including: fossil fuels, hydroelectric generators, nuclear power plants, geothermal power plants, solar power generation, and wind farms. SCE also purchases from independent power producers and utilities, including out-of-state suppliers. (Urban Crossroads, 2023d, p. 10)

California's electricity industry is an organization of traditional utilities, private generating companies, and state agencies, each with a variety of roles and responsibilities to ensure that electrical power is provided to

consumers. The California Independent Service Operator (ISO) is a nonprofit public benefit corporation and is the impartial operator of the State's wholesale power grid and is charged with maintaining grid reliability, and to direct uninterrupted electrical energy supplies to California's homes and communities. While utilities still own transmission assets, the ISO routes electrical power along these assets, maximizing the use of the transmission system and its power generation resources. The ISO matches buyers and sellers of electricity to ensure that enough power is available to meet demand. To these ends, every five minutes the ISO forecasts electrical demands, accounts for operating reserves, and assigns the lowest cost power plant unit to meet demands while ensuring adequate system transmission capacities and capabilities. (Urban Crossroads, 2023d, p. 10)

Part of the ISO's charge is to plan and coordinate grid enhancements to ensure that electrical power is provided to California consumers. To this end, annual transmission expansion/modification plans are filed to accommodate the State's growing electrical needs. The ISO reviews and either approves or denies the proposed additions. In addition, and perhaps most importantly, the ISO works with other areas in the western United States electrical grid to ensure that adequate power supplies are available to the State. In this manner, continuing reliable and affordable electrical power is assured to existing and new consumers throughout the State. (Urban Crossroads, 2023d, p. 10)

Table 4.6-2, *SCE 2021 Power Content Mix*, identifies SCE's specific proportional shares of electricity sources in 2021. As indicated in Table 4.6-2, the 2021 SCE Power Mix has renewable energy at 31.4% of the overall resources. Geothermal resources are at 5.7%, wind power is at 10.2%, large hydroelectric sources are at 2.3%, solar energy is at 14.9%, and coal is at 0%. (Urban Crossroads, 2023d, p. 11)

Table 4.6-2 SCE 2021 Power Content Mix

Energy Resources	2021 SCE Power Mix
Eligible Renewable	**31.4%**
Biomass & Waste	0.1%
Geothermal	5.7%
Eligible Hydroelectric	0.5%
Solar	14.9%
Wind	10.2%
Coal	**0.0%**
Large Hydroelectric	**2.3%**
Natural Gas	**22.3%**
Nuclear	**9.2%**
Other	**0.2%**
Unspecified Sources of power*	34.6%
Total	**100%**

* "Unspecified sources of power" means electricity from transactions that are not traceable to specific generation sources

(Urban Crossroads, 2023d, Table 2-2)

C. *Natural Gas*

The following summary of natural gas customers & volumes, supplies, delivery of supplies, storage, service options, and operations is excerpted from information provided by the California Public Utilities Commission (CPUC): (Urban Crossroads, 2023d, pp. 11-14)

> *"The CPUC regulates natural gas utility service for approximately 10.8 million customers that receive natural gas from Pacific Gas and Electric (PG&E), Southern California Gas (SoCalGas), San Diego Gas & Electric (SDG&E), Southwest Gas, and several smaller natural gas utilities. The CPUC also regulates independent storage operators: Lodi Gas Storage, Wild Goose Storage, Central Valley Storage and Gill Ranch Storage.*
>
> *California's natural gas utilities provide service to over 11 million gas meters. SoCalGas and PG&E provide service to about 5.9 million and 4.3 million customers, respectively, while SDG&E provides service to over 800, 000 customers. In 2018, California gas utilities forecasted that they would deliver about 4740 million cubic feet per day (MMcfd) of gas to their customers, on average, under normal weather conditions.*
>
> *The overwhelming majority of natural gas utility customers in California are residential and small commercials customers, referred to as "core" customers. Larger volume gas customers, like electric generators and industrial customers, are called "noncore" customers. Although very small in number relative to core customers, noncore customers consume about 65% of the natural gas delivered by the state's natural gas utilities, while core customers consume about 35%.*
>
> *A significant amount of gas (about 19%, or 1131 MMcfd, of the total forecasted California consumption in 2018) is also directly delivered to some California large volume consumers, without being transported over the regulated utility pipeline system. Those customers, referred to as "bypass" customers, take service directly from interstate pipelines or directly from California producers.*
>
> *SDG&E and Southwest Gas' southern division are wholesale customers of SoCalGas, i.e., they receive deliveries of gas from SoCalGas and in turn deliver that gas to their own customers. (Southwest Gas also provides natural gas distribution service in the Lake Tahoe area.) Similarly, West Coast Gas, a small gas utility, is a wholesale customer of PG&E. Some other wholesale customers are municipalities like the cities of Palo Alto, Long Beach, and Vernon, which are not regulated by the CPUC.*
>
> *Natural gas from out-of-state production basins is delivered into California via the interstate natural gas pipeline system. The major interstate pipelines that deliver out-of-state natural gas to California gas utilities are Gas Transmission Northwest Pipeline, Kern River Pipeline, Transwestern Pipeline, El Paso Pipeline, Ruby Pipeline, Mojave Pipeline, and Tuscarora. Another pipeline, the North Baja - Baja Norte Pipeline takes gas off the El Paso Pipeline at the California/Arizona border, and delivers that gas through California into Mexico. While the Federal Energy Regulatory Commission (FERC) regulates the transportation of natural gas on the interstate pipelines, and authorizes rates for that service, the California Public Utilities Commission may participate in FERC regulatory proceedings to represent the interests of California natural gas consumers.*

The gas transported to California gas utilities via the interstate pipelines, as well as some of the California-produced gas, is delivered into the PG&E and SoCalGas intrastate natural gas transmission pipelines systems (commonly referred to as California's "backbone" pipeline system). Natural gas on the utilities' backbone pipeline systems is then delivered to the local transmission and distribution pipeline systems, or to natural gas storage fields. Some large volume noncore customers take natural gas delivery directly off the high-pressure backbone and local transmission pipeline systems, while core customers and other noncore customers take delivery off the utilities' distribution pipeline systems. The state's natural gas utilities operate over 100,000 miles of transmission and distribution pipelines, and thousands more miles of service lines.

Bypass customers take most of their deliveries directly off the Kern/Mojave pipeline system, but they also take a significant amount of gas from California production. PG&E and SoCalGas own and operate several natural gas storage fields that are located within their service territories in northern and southern California, respectively. These storage fields, and four independently owned storage utilities - Lodi Gas Storage, Wild Goose Storage, Central Valley Storage, and Gill Ranch Storage - help meet peak seasonal

and daily natural gas demand and allow California natural gas customers to secure natural gas supplies more efficiently. PG&E is a 25% owner of the Gill Ranch Storage field. These storage fields provide a significant amount of infrastructure capacity to help meet California's natural gas requirements, and without these storage fields, California would need much more pipeline capacity in order to meet peak gas requirements. Prior to the late 1980s, California regulated utilities provided virtually all natural gas services to all their customers. Since then, the Commission has gradually restructured the California gas industry in order to give customers more options while assuring regulatory protections for those customers that wish to, or are required to, continue receiving utility provided services.

The option to purchase natural gas from independent suppliers is one of the results of this restructuring process. Although the regulated utilities procure natural gas supplies for most core customers, core customers have the option to purchase natural gas from independent natural gas marketers, called "core transport agents" (CTA). Contact information for core transport agents can be found on the utilities' web sites. Noncore customers, on the other hand, make natural gas supply arrangements directly with producers or with marketers.

Another option resulting from the restructuring process occurred in 1993, when the Commission removed the utilities' storage service responsibility for noncore customers, along with the cost of this service from noncore customers' transportation rates. The Commission also encouraged the development of independent storage fields, and in subsequent years, all the independent storage fields in California were established. Noncore customers and marketers may now take storage service from the utility or from an independent storage provider (if available), and pay for that service, or may opt to take no storage service at all. For core customers, the Commission assures that the utility has adequate storage capacity set aside to meet core requirements, and core customers pay for that service.

In a 1997 decision, the Commission adopted PG&E's "Gas Accord", which unbundled PG&E's backbone transmission costs from noncore transportation rates. This decision gave customers and marketers the opportunity to obtain pipeline capacity rights on PG&E's backbone transmission pipeline system, if desired, and pay for that service at rates authorized by the Commission. The Gas Accord also required PG&E to set aside a certain amount of backbone transmission capacity in order to deliver gas to its core customers. Subsequent Commission decisions modified and extended the initial terms of the Gas Accord. The "Gas Accord" framework is still in place today for PG&E's backbone and storage rates and services and is now simply referred to as PG&E Gas Transmission and Storage (GT&S).

In a 2006 decision, the Commission adopted a similar gas transmission framework for Southern California, called the "firm access rights" system. SoCalGas and SDG&E implemented the firm access rights (FAR) system in 2008, and it is now referred to as the backbone transmission system (BTS) framework. As under the PG&E backbone transmission system, SoCalGas backbone transmission costs are unbundled from noncore transportation rates. Noncore customers and marketers may obtain, and pay for, firm backbone transmission capacity at various receipt points on the SoCalGas system. A certain amount of backbone transmission capacity is obtained for core customers to assure meeting their requirements.

Many if not most noncore customers now use a marketer to provide for several of the services formerly provided by the utility. That is, a noncore customer may simply arrange for a marketer to procure its supplies, and obtain any needed storage and backbone transmission capacity, in order to assure that it will receive its needed deliveries of natural gas supplies. Core customers still mainly rely on the utilities for procurement service, but they have the option to take procurement service from a CTA. Backbone transmission and storage capacity is either set aside or obtained for core customers in amounts to assure very high levels of service.

In order properly operate their natural gas transmission pipeline and storage systems, PG&E and SoCalGas must balance the amount of gas received into the pipeline system and delivered to customers or to storage fields. Some of these utilities' storage capacity is dedicated to this service, and under most circumstances, customers do not need to precisely match their deliveries with their consumption. However, when too much or too little gas is expected to be delivered into the utilities' systems, relative to the amount being consumed, the utilities require customers to more precisely match up their deliveries with their consumption. And, if customers do not meet certain delivery requirements, they could face financial penalties. The utilities do not profit from these financial penalties - the amounts are then returned to customers as a whole. If the utilities find that they are unable to deliver all the gas that is expected to be consumed, they may even call for a curtailment of some gas deliveries. These curtailments are typically required for just the largest, noncore customers. It has been many years since there has been a significant curtailment of core customers in California."

As indicated in the preceding discussions, natural gas is available from a variety of in-State and out-of-State sources and is provided throughout the state in response to market supply and demand. Complementing available natural gas resources, biogas may soon be available via existing delivery systems, thereby increasing the availability and reliability of resources in total. The CPUC oversees utility purchases and transmission of

natural gas to ensure reliable and affordable natural gas deliveries to existing and new consumers throughout the State. (Urban Crossroads, 2023d, p. 14)

D. Transportation Energy Resources

The Project would generate additional vehicle trips with resulting consumption of energy resources, predominantly gasoline and diesel fuel. The Department of Motor Vehicles (DMV) identified 36.2 million registered vehicles in California, and those vehicles consume an estimated 17.2 billion gallons of fuel each year. Gasoline (and other vehicle fuels) are commercially provided commodities and would be available via commercial outlets. (Urban Crossroads, 2023d, pp. 14-15)

California's on-road transportation system includes 396,616 lane miles, more than 26.6 passenger vehicles and light trucks, and almost 9.0 million medium- and heavy-duty vehicles. While gasoline consumption has been declining since 2008, it is still by far the dominant fuel. California is the second-largest consumer of petroleum products, after Texas, and accounts for 10% of the nation's total consumption. The State is the largest U.S. consumer of motor gasoline and jet fuel, and 85% of the petroleum consumed in California is used in the transportation sector. (Urban Crossroads, 2023d, p. 15)

California accounts for less than 1% of total U.S. natural gas reserves and production. As with crude oil, California's natural gas production has experienced a gradual decline since 1985. In 2019, about 37% of the natural gas delivered to consumers went to the state's industrial sector, and about 28% was delivered to the electric power sector. Natural gas fueled more than two-fifths of the state's utility-scale electricity generation in 2019. The residential sector, where two-thirds of California households use natural gas for home heating, accounted for 22% of natural gas deliveries. The commercial sector received 12% of the deliveries to end users and the transportation sector consumed the remaining 1%. (Urban Crossroads, 2023d, p. 15)

4.6.2 Applicable Environmental Regulations

The following is a brief description of the federal, State, and local environmental laws and related regulations related to energy use and conservation.

A. Federal Regulations

1. Intermodal Surface Transportation Efficiency Act (ISTEA)

The Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) promoted the development of inter-modal transportation systems to maximize mobility as well as address national and local interests in air quality and energy. ISTEA contained factors that Metropolitan Planning Organizations (MPOs) were to address in developing transportation plans and programs, including some energy-related factors. To meet the new ISTEA requirements, MPOs adopted explicit policies defining the social, economic, energy, and environmental values guiding transportation decisions. The applicable MPO for Riverside County is the Southern California Association of Governments (SCAG). SCAG's Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) is the applicable planning document for the area. (FHWA, n.d.)

2. Transportation Equity Act for the 21st Century (TEA-21)

The Transportation Equity Act for the 21st Century (TEA-21) authorizes over $200 billion to improve the Nation's transportation infrastructure, enhance economic growth and protect the environment. TEA-21 creates new opportunities to improve air and water quality, restore wetlands and natural habitat, and rejuvenate urban areas through transportation redevelopment, increased transit and sustainable alternatives to urban sprawl. Several provisions of TEA-21 create new opportunities for water quality improvements.

B. State Regulations

1. Integrated Energy Policy Report

Senate Bill 1389 (Bowen, Chapter 568, Statutes of 2002) requires the California Energy Commission (CEC) to prepare a biennial integrated energy policy report that assesses major energy trends and issues facing California's electricity, natural gas, and transportation fuel sectors and provides policy recommendations to conserve resources; protect the environment; ensure reliable, secure, and diverse energy supplies; enhance the State's economy; and protect public health and safety (Public Resources Code § 25301a). The CEC prepares these assessments and associated policy recommendations every two years, with updates on alternate years, as part of the Integrated Energy Policy Report (IEPR). (CEC, n.d.)

The 2019 IEPR focuses on changes in its energy system to address climate change and improve air quality in order to ensure that all Californians share in the benefit of the state's clean energy future. The report provides an analysis of electricity sector trends, building decarbonization and energy efficiency, zero-emission vehicles, energy equity, climate change adaptation, electricity reliability in Southern California, natural gas technologies, and electricity, natural gas, and transportation energy demand forecasts. In response to SB 100, which calls for California's electricity system to become 100 percent zero-carbon by 2045, the CEC, California Public Utilities Commission (CPUC) and the California Air Resources Board (CARB) are leading the way to identify pathways to remove carbon from the state's electricity system. The goal is to utilize the clean electricity system to eliminate the carbon from other portions of California's energy system. (CEC, n.d.)

2. California Code Title 24, Part 6, Energy Efficiency Standards

California Code Title 24, Part 6 (also referred to as the California Energy Code) was promulgated by the CEC in 1978 in response to a legislative mandate to create uniform building codes to reduce California's energy consumption. To these ends, the California Energy Code provides energy efficiency standards for residential and nonresidential buildings. California's building efficiency standards are updated on an approximately three-year cycle. The 2019 Standards for building construction, which went into effect on January 1, 2020, improved upon the former 2016 Standards for residential and nonresidential buildings. The CEC anticipates that single-family homes built with the 2019 standards will use approximately 7% less energy compared to the residential homes built under the 2016 standards. Additionally, after implementation of solar PV systems, homes built under the 2019 standards will about 53% less energy than homes built under the 2016 standards. Nonresidential buildings will use approximately 30% less energy due to lighting upgrades compared to the prior code. The 2022 version of Title 24 was adopted by the CEC and will be effective on January 1, 2023. The 2022 Title 24 standards require solar photovoltaic systems for new homes, establish requirements for newly constructed healthcare facilities, encourage demand responsive technologies for residential buildings, and update indoor and outdoor lighting standards for nonresidential buildings. (CEC, n.d.)

3. California Renewable Portfolio Standards (RPS)

The California Energy Commission (CEC) implements and administers portions of California's Renewables Portfolio Standard (RPS). Under the existing RPS, 25% of retail sales are required to be from renewable sources by December 31, 2016, 33% by December 31, 2020, 40% by December 31, 2024, 45% by December 31, 2027, and 50% by December 31, 2030. SB 100 raises California's RPS requirement to 50% renewable resources target by December 31, 2026, and to achieve a 60% target by December 31, 2030. SB 100 also requires that retail sellers and local publicly owned electric utilities procure a minimum quantity of electricity products from eligible renewable energy resources so that the total kilowatt hours (kWh) of those products sold to their retail end-use customers achieve 44% of retail sales by December 31, 2024, 52% by December 31, 2027, and 60% by December 31, 2030. In addition to targets under AB 32 and SB 32, Executive Order B-55-18 establishes a carbon neutrality goal for the state of California by 2045; and sets a goal to maintain net negative emissions thereafter. The Executive Order directs the California Natural Resources Agency (CNRA), California Environmental Protection Agency (CalEPA), the Department of Food and Agriculture (CDFA), and California Air Resources Board (CARB) to include sequestration targets in the Natural and Working Lands Climate Change Implementation Plan consistent with the carbon neutrality goal. (CDC, n.d.)

4. Pavley Fuel Efficiency Standards (AB 1493)

In California, AB 1493 establishes fuel efficiency ratings for model year 2009-2016 passenger cars and light trucks. (CARB, n.d.)

5. Senate Bill 350 (SB 350) – Clean Energy and Pollution Reduction Act of 2015

In October 2015, the legislature approved, and the Governor signed, SB 350, which reaffirms California's commitment to reducing its GHG emissions and addressing climate change. Key provisions include an increase in the renewables portfolio standard (RPS), higher energy efficiency requirements for buildings, initial strategies towards a regional electricity grid, and improved infrastructure for electric vehicle charging stations. Specifically, SB 350 requires the following to reduce statewide GHG emissions: (CA Legislative Info, n.d.)

- Increase the amount of electricity procured from renewable energy sources from 33 percent to 50 percent by 2030, with interim targets of 40 percent by 2024, and 25 percent by 2027.
- Double the energy efficiency in existing buildings by 2030. This target will be achieved through the California Public Utility Commission (CPUC), the CEC, and local publicly owned utilities.
- Reorganize the Independent System Operator (ISO) to develop more regional electrify transmission markets and to improve accessibility in these markets, which will facilitate the growth of renewable energy markets in the western United States.

6. State of California Energy Plan

The State Energy Plan, drafted by the CEC, identifies emerging trends in energy supply, demand, conservation, public health and safety, and the maintenance of a healthy economy. The plan recommends reductions in congestion and increased efficiency in the use of fuel supplies. The plan also encourages urban designs that reduce vehicle miles traveled (VMT) and promote pedestrian and bicycle access.

C. *Local Regulations*

1. *Riverside County Climate Action Plan*

The County of Riverside's most current Climate Action Plan, updated in November 2019 uses several methods to promote renewable energy and energy efficiency. The regulation most relevant to the project is R2-CE1: Clean Energy, which states:

- *Clean energy includes energy efficiency and clean energy supply options such as highly efficient combined heat and power as well as renewable energy sources. Installing solar photovoltaics panels on residential and commercial building rooftops is an effective way to produce renewable energy on-site. Moreover, when combined with energy storage systems, solar panels could continuously meet residential and commercial energy demand. The Riverside County Settlement Agreement requires that on-site renewable energy production (including but not limited to solar) shall apply to any tentative tract map, plot plan, or conditional use permit that proposes to add more than 75 new dwelling units of residential development or one or more new buildings totaling more than 100,000 gross square feet of commercial, office, industrial, or manufacturing development. Renewable energy production shall be onsite generation of at least 20 percent of energy demand for commercial, office, industrial or manufacturing development, meet or exceed 20 percent of energy demand for multi-family residential development, and meet or exceed 30 percent of energy demand for single-family residential development. These renewable energy requirements should be updated with every CAP Update by the County based on most recent technology advancements.* (Riverside County, 2019a, pp. 4-11 and 4-12)

The County of Riverside also has several other non-mandatory regulations that would serve to benefit the Project. For example, CAP measure R2-L1, *Tree Planting for Shading and Energy Saving*, encourages residents and developers to plant trees to lower outdoor summer temperatures. CAP measure R2-L2, *Light Reflecting Surfaces for Energy Saving*, advocates for coating surfaces such as roofs and asphalt with substances that reflect sunlight, for example by painting them white or installing rooftop gardens.

4.6.3 Basis for Determining Significance

Section VI of Appendix G to the California Environmental Quality Act (CEQA) Guidelines addresses typical adverse effects due to energy consumption, and includes the following threshold questions to evaluate a project's impacts on energy resources (OPR, 2018a).

- Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

- Would the project conflict with or obstruct a State or local plan for renewable energy or energy efficiency?

The following thresholds are derived directly from Section VI of Appendix G to the State CEQA Guidelines and the County's Environmental Assessment form. The proposed Project would have a significant impact on energy resources if construction and/or operation of the Project would:

a. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation; or

b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

4.6.4 IMPACT ANALYSIS

A. Methodology for Calculating Project Energy Demands

Information from the CalEEMod Version 2022.1 outputs for the Project's Air Quality Impact Analysis (AQIA) (*Technical Appendix B)* was utilized in this analysis, detailing Project-related construction equipment, transportation energy demands, and facility energy demands. (Urban Crossroads, 2023d, p. 23)

In May 2022, the California Air Pollution Control Officers Association (CAPCOA), in conjunction with other California air districts, released the latest version of CalEEMod, version 2022.1. The purpose of this model is to calculate construction-source and operational-source criteria pollutants and GHG emissions from direct and indirect sources as well as energy usage. Accordingly, the latest version of CalEEMod has been used to determine the proposed Project's anticipation transportation and facility energy demands. Outputs from the model runs can be found in the Appendices 4.1, 4.2, and 4.3 to the Project's AQIA (*Technical Appendix B*). (Urban Crossroads, 2023d, p. 25)

On May 2, 2022, the EPA approved the 2021 version of the EMissions FACtor model (EMFAC) web database for use in State Implementation Plan and transportation conformity analyses. EMFAC2021 is a mathematical model that was developed to calculate emission rates, fuel consumption, VMT from motor vehicles that operate on highways, freeways, and local roads in California and is commonly used by the CARB to project changes in future emissions from on-road mobile sources. The Project's EA (*Technical Appendix E*) utilizes the different fuel types for each vehicle class from the annual EMFAC2021 emission inventory in order to derive the average vehicle fuel economy which is then used to determine the estimated annual fuel consumption associated with vehicle usage during Project construction and operational activities. For purposes of the analysis, the 2024, 2025, 2026, and 2027 analysis years were utilized to determine the average vehicle fuel economy used throughout the duration of the Project. Output from the EMFAC2021 model runs are provided in Appendix 4.4 to the Project's EA. (Urban Crossroads, 2023d, p. 25)

Threshold a.:	***Would the Project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?***

A. Construction Energy Demands

1. Construction Power Cost and Electricity Use

The focus within this subsection is the energy implications of the construction process, specifically the power cost from on-site electricity consumption during construction of the proposed Project.

As part of this analysis, it was assumed that construction would commence in June 2024 and would last through December 2027. Although construction activities would not commence as early as June 2024, the construction schedule utilized in the analysis, previously shown in EIR Table 3-2, represents a 'worst-case" analysis

scenario. Because construction activities would occur after the dates identified for construction activities, impacts would be reduced since emission factors for construction decrease as time passes and fuel efficiency increases due to emission regulations becoming more stringent. (Urban Crossroads, 2023d, p. 23)

The *2023 National Construction Estimator* identifies a typical power cost per 1,000 s.f. of construction per month as $2.50. As shown in Table 4.6-3, *Construction Power Cost*, the total power cost of the on-site electricity usage during the construction phase of the Project is estimated to be approximately $488,717.10. (Urban Crossroads, 2023d, p. 26)

Table 4.6-3 Construction Power Cost

Land Use	Power Cost (per 1,000 SF)	Size (1,000 SF)	Construction Duration (months)	Project Construction Power Cost
Phase 1				
Single Family Housing	$2.50	1,977.624	30	$148,321.80
Other Non-Asphalt Surfaces	$2.50	2,256.408	30	$169,230.60
Phase 2				
Single Family Housing	$2.50	1,846.944	36	$166,224.96
Other Non-Asphalt Surfaces	$2.50	54.886	36	$4,939.74
			CONSTRUCTION POWER COST	***$488,717.10***

(Urban Crossroads, 2023d, Table 4-3)

The total Project construction electricity usage is the summation of the products of the power cost (estimated in Table 4.6-3) by the utility provider cost per kilowatt hour (kWh) of electricity. The SCE's general service rate schedule was used to determine the Project's electrical usage. As of January 1, 2023, SCE's general service rate is $0.16 per kilowatt hours (kWh) of electricity for residential services. As shown on Table 4.6-4, *Construction Electricity Usage*, the total electricity usage from on-site Project construction-related activities is estimated to be approximately 3,113,443 kWh. (Urban Crossroads, 2023d, p. 26)

2. Construction Equipment Fuel Estimates

Fuel consumed by construction equipment would be the primary energy resource expended over the course of Project construction. Project construction activity timeline estimates, construction equipment schedules, equipment power ratings, load factors, and associated fuel consumption estimates are presented in Table 4.6-5, *Construction Equipment Fuel Consumption Estimates*. Eight-hour daily use of all equipment is assumed, and the aggregate fuel consumption rate for all equipment is estimated at 18.5 horsepower hour per gallon (hp-hr-gal), obtained from CARB 2018 Emissions Factors Table and cited fuel consumption rate factors presented in Table D-24 of the Moyer guidelines. The calculations are based on all construction equipment being diesel-powered which is consistent with industry standards. Diesel fuel would be supplied by existing commercial fuel providers serving the Project area and region. As presented in Table 4.6-5, Project construction activities would consume an estimated 258,475 gallons of diesel fuel. Project construction would represent a "single-

Table 4.6-4 Construction Electricity Usage

Land Use	Cost per kWh	Project Construction Electricity Usage (kWh)
Phase 1		
Single Family Housing	$0.16	944,905
Other Non-Asphalt Surfaces	$0.16	1,078,108
Phase 2		
Single Family Housing	$0.16	1,058,960
Other Non-Asphalt Surfaces	$0.16	31,469
CONSTRUCTION ELECTRICITY USAGE		***3,113,443***

(Urban Crossroads, 2023d, Table 4-4)

Table 4.6-5 Construction Equipment Fuel Consumption Estimates

Activity/Duration	Duration (Days)	Equipment	HP Rating	Quantity	Usage Hours	Load Factor	HP-hrs/day	Total Fuel Consumption (gal. diesel fuel)
Phase 1								
Demolition	43	Rubber Tired Dozers	367	2	8	0.4	2,349	5,459
		Excavators	36	3	8	0.38	328	763
		Concrete/Industrial Saws	33	1	8	0.73	193	448
Site Preparation	22	Rubber Tired Dozers	367	3	8	0.4	3,523	4,190
		Crawler Tractors	87	4	8	0.43	1,197	1,424
Grading	155	Excavators	36	2	8	0.38	219	1,834
		Graders	148	1	8	0.41	485	4,067
		Rubber Tired Dozers	367	1	8	0.4	1,174	9,840
		Scrapers	423	2	8	0.48	3,249	27,218
		Crawler Tractors	87	2	8	0.43	599	5,015
		Bore/Drill Rigs	83	1	8	0.5	332	2,782
		Generator Sets	300	1	8	0.48	1,152	9,652
Building Construction	479	Cranes	367	1	8	0.29	851	22,045
		Forklifts	82	3	8	0.2	394	10,191
		Generator Sets	14	1	8	0.74	83	2,146
		Tractors/Loaders/Backhoes	84	3	8	0.37	746	19,313
		Welders	46	1	8	0.45	166	4,288
Paving	110	Pavers	81	2	8	0.42	544	3,236
		Paving Equipment	89	2	8	0.36	513	3,048
		Rollers	36	2	8	0.38	219	1,301
Architectural Coating	110	Air Compressors	37	1	8	0.48	142	845
Phase 2								
Demolition	45	Rubber Tired Dozers	367	2	8	0.4	2,349	5,713
		Excavators	36	3	8	0.38	328	799
		Concrete/Industrial Saws	33	1	8	0.73	193	469
Site Preparation	20	Rubber Tired Dozers	367	3	8	0.4	3,523	3,809
		Crawler Tractors	87	4	8	0.43	1,197	1,294
Grading	75	Excavators	36	2	8	0.38	219	887
		Graders	148	1	8	0.41	485	1,968
		Rubber Tired Dozers	367	1	8	0.4	1,174	4,761
		Scrapers	423	2	8	0.48	3,249	13,170
		Crawler Tractors	87	2	8	0.43	599	2,427
		Bore/Drill Rigs	83	1	8	0.5	332	1,346
		Generator Sets	300	1	8	0.48	1,152	4,670
Building Construction	610	Cranes	367	1	8	0.29	851	28,075
		Forklifts	82	3	8	0.2	394	12,978
		Generator Sets	14	1	8	0.74	83	2,733
		Tractors/Loaders/Backhoes	84	3	8	0.37	746	24,595
		Welders	46	1	8	0.45	166	5,460
Paving	55	Pavers	81	2	8	0.42	544	1,618
		Paving Equipment	89	2	8	0.36	513	1,524
		Rollers	36	2	8	0.38	219	651
Architectural Coating	55	Air Compressors	37	1	8	0.48	142	422
TOTAL CONSTRUCTION FUEL DEMAND (GALLONS DIESEL FUEL)								***258,475***

(Urban Crossroads, 2023d, Table 4-5)

event" diesel fuel demand and would not require ongoing or permanent commitment of diesel fuel resources for this purpose. (Urban Crossroads, 2023d, p. 27)

3. Construction Trips and Vehicle Miles Traveled (VMT)

Construction generates on-road vehicle emissions from vehicle usage for workers, hauling, and vendors commuting to and from the site. The number of workers, hauling, and vendor trips are presented below in Table 4.6-6, *Construction Trips and VMT*. It should be noted that for Vendor Trips, specifically, CalEEMod only assigns Vendor Trips to the Building Construction phase. Vendor trips are more likely to occur during all phases of construction. As such, the analysis has been revised so that the default trips are ratioed between Demolition, Site Preparation, Grading, Building Construction, Paving and Architectural Coating activities based on the number of days. It should be noted that for Phase 1, because Paving and Architectural Coating activities overlap with Building Construction, the analysis assumes that the vendor trips assigned to Building Construction cover Paving and Architectural Coating as well. (Urban Crossroads, 2023d, p. 30)

4. Construction Worker Fuel Estimates

With respect to estimated VMT for the Project, the construction worker trips would generate an estimated 1,089,706 VMT during the 42 months of construction. Based on CalEEMod methodology, it is assumed that 50% of all worker trips are from light-duty-auto-vehicles (LDA), 25% are from light-duty-trucks (LDT1[1]), and 25% are from light-duty-trucks (LDT2[2]). Data regarding Project-related construction worker trips were based on CalEEMod defaults utilized within the Project's Air Quality Impact Analysis (AQIA) *(Technical Appendix B* to this EIR). (Urban Crossroads, 2023d, p. 30)

Vehicle fuel efficiencies for LDA, LDT1, and LDT2 were estimated using information generated within the 2021 version of the EMFAC developed by CARB. EMFAC2021 is a mathematical model that was developed to calculate emission rates, fuel consumption, and VMT from motor vehicles that operate on highways, freeways, and local roads in California and is commonly used by the CARB to project changes in future emissions from on-road mobile sources. EMFAC2021 was run for the LDA, LDT1, LDT2 vehicle class within the Riverside South Coast sub-area for the 2024, 2025, 2026, 2027 calendar years. Data from EMFAC2021 is shown in Appendix 4.4 of the Project's EA (*Technical Appendix E* to this EIR).

Table 4-7 of the Project's EA (*Technical Appendix E*) provides an estimated annual fuel consumption resulting from Project construction worker trips. Based on EA Table 4-7, it is estimated that 37,764 gallons of fuel would be consumed related to construction worker trips during full construction of the Project. It should be noted that construction worker trips would represent a "single-event" gasoline fuel demand and would not require on-going or permanent commitment of fuel resources for this purpose. (Urban Crossroads, 2023d, pp. 31, 33)

[1] Vehicles under the LDT1 category have a gross vehicle weight rating (GVWR) of less than 6,000 lbs. and equivalent test weight (ETW) of less than or equal to 3,750 lbs.
[2] Vehicles under the LDT2 category have a GVWR of less than 6,000 lbs. and ETW between 3,751 lbs. and 5,750 lbs.

Table 4.6-6 Construction Trips and VMT

Phase Name	Worker Trips / Day	Vendor Trips / Day	Hauling Trips / Day	Worker Trip Length	Vendor Trip Length	Hauling Trip Length
Phase 1						
Demolition	15	1	22	18.5	10.2	20
Site Preparation	18	0	0	18.5	10.2	20
Grading	20	3	0	18.5	10.2	20
Building Construction	44	9	0	18.5	10.2	20
Paving	15	0	0	18.5	10.2	20
Architectural Coating	9	0	0	18.5	10.2	20
Phase 2						
Demolition	15	1	0	18.5	10.2	20
Site Preparation	18	0	0	18.5	10.2	20
Grading	20	1	0	18.5	10.2	20
Building Construction	40	9	0	18.5	10.2	20
Paving	15	0	0	18.5	10.2	20
Architectural Coating	8	0	0	18.5	10.2	20

(Urban Crossroads, 2023d, Table 4-6)

5. Construction Vendor/Hauling Fuel Estimates

With respect to estimated VMT, the construction vendor trips (vehicles that deliver materials to the site during construction) would generate an estimated 123,171 VMT along area roadways for the Project over the duration of construction activity. It is assumed that 50% of all vendor trips are from medium-heavy duty trucks (MHDT), 50% of all vendor trips are from heavy-heavy duty trucks (HHDT), and 100% of all hauling tips are from HHDTs. These assumptions are consistent with the CalEEMod defaults utilized within the Project's AQIA (*Technical Appendix B* to this EIR). Vehicle fuel efficiencies for MHDTs and HHDTs were estimated using information generated within EMFAC2021. EMFAC2021 was run for the MHDT and HHDT vehicle classes within the Riverside South Coast sub-area for the 2024, 2025, 2026, 2027 calendar years. Data from EMFAC2021 is shown in Appendix 4.4 to the Project's EA (*Technical Appendix E*). Based on Table 4-8 of the Project's EA, it is estimated that 16,940 gallons of fuel would be consumed related to construction vendor trips during full construction of the Project. It should be noted that construction vendor trips would represent a "single-event diesel fuel demand and would not require on-going or permanent commitment of diesel fuel resources for this purpose. (Urban Crossroads, 2023d, pp. 33, 35)

6. Construction Energy Efficiency/Conservation Measures

Starting in 2014, CARB adopted the nation's first regulation aimed at cleaning up off-road construction equipment such as bulldozers, graders, and backhoes. These requirements ensure fleets gradually turnover the oldest and dirtiest equipment to newer, cleaner models and prevent fleets from adding older, dirtier equipment. As such, the equipment used for Project construction would conform to CARB regulations and California emissions standards. It should also be noted that there are no unusual Project characteristics or construction

processes that would require the use of equipment that would be more energy intensive than is used for comparable activities, or equipment that would not conform to current emissions standards (and related fuel efficiencies). Equipment employed in construction of the Project would therefore not result in inefficient, wasteful, or unnecessary consumption of fuel. (Urban Crossroads, 2023d, pp. 35-36)

Construction contractors would be required to comply with applicable CARB regulations regarding retrofitting, repowering, or replacement of diesel off-road construction equipment. Additionally, CARB has adopted the Airborne Toxic Control Measure to limit heavy-duty diesel motor vehicle idling in order to reduce public exposure to diesel particulate matter and other Toxic Air Contaminants. Compliance with anti-idling and emissions regulations would result in a more efficient use of construction-related energy and the minimization or elimination of wasteful or unnecessary consumption of energy. Idling restrictions and the use of newer engines and equipment would result in less fuel combustion and energy consumption. (Urban Crossroads, 2023d, p. 36)

Additional construction-source energy efficiencies would occur due to required California regulations and best available control measures (BACM). For example, CCR Title 13, Motor Vehicles, section 2449(d)(3), *Idling*, limits idling times of construction vehicles to no more than five minutes, thereby precluding unnecessary and wasteful consumption of fuel due to unproductive idling of construction equipment. Section 2449(d)(3) requires that "grading plans shall reference the requirement that a sign shall be posted on-site stating that construction workers need to shut off engines at or before five minutes of idling." In this manner, construction equipment operators are required to be informed that engines are to be turned off at or prior to five minutes of idling. Enforcement of idling limitations is realized through periodic site inspections conducted by County building officials, and/or in response to citizen complaints. (Urban Crossroads, 2023d, p. 36)

B. Operational Energy Demands

Energy consumption in support of or related to Project operations would include transportation energy demands. (energy consumed by passenger car and truck vehicles accessing the Project site) and facilities energy demands (energy consumed by building operations and site maintenance activities). (Urban Crossroads, 2023d, p. 36)

1. Transportation Energy Demands

Energy that would be consumed by Project-generated traffic is a function of total VMT and estimated vehicle fuel economies of vehicles accessing the Project site. The VMT per vehicle class can be determined by evaluated in the vehicle fleet mix and the total VMT. As with worker and vendors trips, operational vehicle fuel efficiencies were estimated using information generated within EMFAC2021 developed by CARB. EMFAC2021 was run for the Riverside South Coast sub-area for calendar years 2024, 2025, 2026, 2027. Data from EMFAC2021 is shown in Appendix 4.4 to the Project's EA (*Technical Appendix E*). As shown in Table 4.6-7, *Project-Generated Traffic Annual Fuel Consumption*, the Project would result in 8,735,466 annual VMT and an estimated annual fuel consumption of 334,817 gallons of fuel. (Urban Crossroads, 2023d, p. 36)

Table 4.6-7 Project-Generated Traffic Annual Fuel Consumption

Vehicle Type	Annual Miles Traveled[1]	Average Vehicle Fuel Economy (mpg)	Estimated Annual Fuel Consumption (gallons)
LDA	4,329,740	34.29	126,283
LDT1	323,067	26.22	12,322
LDT2	1,821,355	26.63	68,401
MDV	1,371,864	21.39	64,136
LHD1	269,871	17.30	15,599
LHD2	77,119	16.30	4,732
MHDT	129,971	8.87	14,646
HHDT	143,344	6.45	22,221
OBUS	5,173	6.88	752
UBUS	3,348	4.56	735
MCY	199,228	42.17	4,725
SBUS	11,648	6.46	1,804
MH	49,736	5.88	8,461
TOTAL (ALL VEHICLES)	***8,735,466***		***334,817***

[1] Total VMT may not match CalEEMod output due to rounding.
(Urban Crossroads, 2023d, Table 4-9)

2. Energy Demands

The Project operational activities would result in the consumption of natural gas and electricity. Natural gas would be supplied to the Project by SoCalGas and electricity would be supplied to the Project by SCE. As previously stated, the analysis herein assumes compliance with the 2022 Title 24 and CALGreen standards. Annual natural gas and electricity demands of the Project are summarized in Table 4.6-8, *Project Annual Operational Natural Gas Demand Summary*, and provided in Appendix 4.3 of the Project's EA (*Technical Appendix E* to this EIR).

3. Operational Energy Efficiency/Conservation Measures

Energy efficiency/energy conservation attributes of the Project would be complemented by increasingly stringent State and federal regulatory actions addressing vehicle fuel economies and vehicle emissions standards, as well as enhanced building/utilities energy efficiencies mandated under California building codes (e.g., Title 24, California Green Building Standards Code). (Urban Crossroads, 2023d, p. 37)

Project annual fuel consumption estimates presented previously herein represent likely potential maximums that would occur for the Project. Under subsequent future conditions, average fuel economies of vehicles accessing the Project site can be expected to improve as older, less fuel-efficient vehicles are removed from circulation, and in response to fuel economy and emissions standards imposed on newer vehicles entering the circulation system. (Urban Crossroads, 2023d, p. 38)

Table 4.6-8 Project Annual Operational Natural Gas Demand Summary

Land Use	Natural Gas Demand (kBTU/year)	Electricity Demand (kWh/year)
Single Family Housing	8,286,485	2,176,044
TOTAL PROJECT ENERGY DEMAND	***8,286,485***	***2,176,044***

kBTU – kilo-British Thermal Units
(Urban Crossroads, 2023d, Table 4-10)

Enhanced fuel economies realized pursuant to federal and State regulatory actions, and related transition of vehicles to alternative energy sources (e.g., electricity, natural gas, biofuels, hydrogen cells) would likely decrease future gasoline fuel demands per VMT. Location of the Project proximate to regional and local roadway systems tends to reduce VMT within the region, acting to reduce regional vehicle energy demands. (Urban Crossroads, 2023d, p. 38)

C. Summary of Energy Demands

1. Construction Energy Demands

The estimated power cost of on-site electricity usage during the construction of the Project is assumed to be approximately $488,717.10. Additionally, based on the assumed power cost, it is estimated that the total electricity usage during construction, after full Project build-out, is calculated to be approximately 3,113,443 kWh. (Urban Crossroads, 2023d, p. 38)

Construction equipment used by the Project would result in single event consumption of approximately 258,475 gallons of diesel fuel. Construction equipment use of fuel would not be atypical for the type of construction proposed because there are no aspects of the Project's proposed construction process that are unusual or energy-intensive, and Project construction equipment would conform to the applicable CARB emissions standards, acting to promote equipment fuel efficiencies. (Urban Crossroads, 2023d, p. 38)

CCR Title 13, Title 13, Motor Vehicles, section 2449(d)(3) Idling, limits idling times of construction vehicles to no more than 5 minutes, thereby precluding unnecessary and wasteful consumption of fuel due to unproductive idling of construction equipment. BACMs inform construction equipment operators of this requirement. Enforcement of idling limitations is realized through periodic site inspections conducted by County building officials, and/or in response to citizen complaints. (Urban Crossroads, 2023d, p. 38)

Construction worker trips for full construction of the Project would result in the estimated fuel consumption of 37,764 gallons of fuel. Additionally, fuel consumption from construction hauling and vendor trips (MHDTs and HHDTs) would total approximately 16,940 gallons. Diesel fuel would be supplied by local and regional commercial vendors. Indirectly, construction energy efficiencies and energy conservation would be achieved using bulk purchases, transport and use of construction materials. The 2022 IEPR released by the CEC has shown that fuel efficiencies are getting better within on and off-road vehicle engines due to more stringent government requirements. As supported by the preceding discussions, Project construction energy consumption would not be considered inefficient, wasteful, or otherwise unnecessary. (Urban Crossroads, 2023d, p. 38)

2. Operational Energy Demands

Transportation Energy Demands

Annual vehicular trips and related VMT generated by the operation of the Project would result in a fuel demand of 334,817 gallons of fuel. Fuel would be provided by current and future commercial vendors. Trip generation and VMT generated by the Project are consistent with other single-family and attached residential and middle school uses of similar scale and configuration, as reflected respectively in the Institute of Transportation Engineers (ITE) Trip Generation Manual (11th Ed., 2021) and CalEEMod. As such, Project operations would not result in excessive and wasteful vehicle trips and VMT, nor excess and wasteful vehicle energy consumption compared to similar uses. (Urban Crossroads, 2023d, p. 39)

It should be noted that the State strategy for the transportation sector for medium- and heavy-duty trucks is focused on making trucks more efficient and expediting truck turnover rather than reducing VMT from trucks. This is in contrast to the passenger vehicle component of the transportation sector where both per-capita VMT reductions and an increase in vehicle efficiency are forecasted to be needed to achieve the overall State emissions reductions goals. (Urban Crossroads, 2023d, p. 39)

Enhanced fuel economies realized pursuant to federal and state regulatory actions, and related transition of vehicles to alternative energy sources (e.g., electricity, natural gas, biofuels, hydrogen cells) would likely decrease future gasoline fuel demands per VMT. Location of the Project proximate to regional and local roadway systems tends to reduce VMT within the region, acting to reduce regional vehicle energy demands. The Project would implement sidewalks, facilitating and encouraging pedestrian access. Facilitating pedestrian and bicycle access would reduce VMT and associated energy consumption. As supported by the preceding discussions, Project transportation energy consumption would not be considered inefficient, wasteful, or otherwise unnecessary. (Urban Crossroads, 2023d, p. 39)

Facility Energy Demands

Project facility operational energy demands are estimated at 8,286,485 kBTU/year of natural gas and 2,176,044 kWh/year of electricity. Natural gas would be supplied to the Project by SoCalGas; electricity would be supplied by SCE. The Project Applicant proposes conventional residential and educational reflecting contemporary energy efficient/energy conserving designs and operational programs. The Project does not propose uses that are inherently energy intensive and the energy demands in total would be comparable to other residential and educational uses of similar scale and configuration. (Urban Crossroads, 2023d, p. 39)

Lastly, the Project would comply with the applicable Title 24 standards. Compliance itself with applicable Title 24 standards would ensure that the Project energy demands would not be inefficient, wasteful, or otherwise unnecessary. (Urban Crossroads, 2023d, p. 39)

D. Conclusion

As supported by the preceding analyses, Project construction and operations would not result in the inefficient, wasteful, or unnecessary consumption of energy. Further, the energy demands of the Project can be accommodated within the context of available resources and energy delivery systems. The Project would be required to comply with the applicable Title 24 standards. As such, energy consumed by the Project's

operation is calculated to be comparable to, or less than, energy consumed by other older residential uses of similar scale and intensity that are constructed and operating in California. The Project would therefore not cause or result in the need for additional energy producing or transmission facilities. The Project would not engage in wasteful or inefficient uses of energy and aims to achieve energy conservations goals within the State of California. Accordingly, the Project would not result in the wasteful, inefficient, or unnecessary consumption of energy resources, and impacts would be less than significant.

Threshold b.: ***Would the Project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?***

A summary of the Project's consistency with applicable regulations and requirements is provided below.

1. Consistency with Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA)

Transportation and access to the Project site is provided by the local and regional roadway systems. The Project would not interfere with, nor otherwise obstruct intermodal transportation plans or projects that may be realized pursuant to the ISTEA because SCAG is not planning for intermodal facilities on or through the Project site. (Urban Crossroads, 2023d, p. 41)

2. Consistency with the Transportation Equity Act for the 21st Century (TEA-21)

The Project site is located in an area with proximate access to the Interstate freeway system. The site selected for the Project facilitates access, acts to reduce vehicle miles traveled, takes advantage of existing infrastructure systems, and promotes land use compatibilities through collocation of similar uses. The Project supports the strong planning processes emphasized under TEA-21. The Project is therefore consistent with, and would not otherwise interfere with, nor obstruct implementation of TEA-21. (Urban Crossroads, 2023d, p. 41)

3. Consistency with 2022 Integrative Energy Policy Report (IEPR)

Electricity would be provided to the Project by SCE. SCE's Clean Power and Electrification Pathway (CPEP) white paper builds on existing state programs and policies. As such, the Project is consistent with, and would not otherwise interfere with, nor obstruct implementation the goals presented in the 2022 IEPR. Additionally, the Project would comply with the applicable Title 24 standards which would ensure that the Project energy demands would not be inefficient, wasteful, or otherwise unnecessary. As such, development of the proposed Project would support the goals presented in the 2022 IEPR. (Urban Crossroads, 2023d, p. 41)

4. Consistency with State of California Energy Plan

The Project site is located in an area with proximate access to the Interstate freeway system. The site selected for the Project facilitates access and takes advantage of existing infrastructure systems. The Project therefore supports urban design and planning processes identified under the State of California Energy Plan, is consistent with, and would not otherwise interfere with, nor obstruct implementation of the State of California Energy Plan. (Urban Crossroads, 2023d, p. 42)

5. Consistency with California Code Title 24, Part 6, Energy Efficiency Standards

The 2022 version of Title 24 was adopted by the CEC and will become effective on January 1, 2023. As the Project building construction is anticipated in 2024, it is presumed that the Project would be required to comply with the Title 24 standards in place at that time. Therefore, the Project would not result in a significant impact on energy resources. (Urban Crossroads, 2023d, p. 42)

6. Consistency with California Code Title 24, Part 11, CALGreen

CCR, Title 24, Part 11: CALGreen is a comprehensive and uniform regulatory code for all residential, commercial, and school buildings that went in effect on January 1, 2009, and is administered by the California Building Standards Commission. CALGreen is updated on a regular basis, with the most recent approved update consisting of the 2022 California Green Building Code Standards that were published on July 1, 2022 and will become effective on January 1, 2023. The Project would be required to comply with the applicable standards in place at the time plan check submittals are made. Thus, the Project would not conflict with the provisions of CALGreen. (Urban Crossroads, 2023d, p. 42)

7. Consistency with AB 1493

AB 1493 is not applicable to the Project as it is a Statewide measure establishing vehicle emissions standards. No feature of the Project would interfere with implementation of the requirements under AB 1493. (Urban Crossroads, 2023d, p. 42)

8. Consistency with Renewable Portfolio Standard (RPS)

California's RPS is not applicable to the Project as it is a Statewide measure that establishes a renewable energy mix. No feature of the Project would interfere with implementation of the requirements under RPS. (Urban Crossroads, 2023d, p. 42)

9. Consistency with Senate Bill 350 (SB 350) and Senate Bill 100 (SB 100)

The proposed Project would use energy from SCE, which have committed to diversify their portfolio of energy sources by increasing energy from wind and solar sources. No feature of the Project would interfere with implementation of SB 350 and SB 100. Additionally, the Project would be designed and constructed to implement the energy efficiency measures for new residential and educational developments and would include several measures designed to reduce energy consumption in accordance with Title 24. (Urban Crossroads, 2023d, p. 42)

Conclusion

As indicated above, the Project would not conflict with any of the state or local plans. As such, a less-than-significant impact is expected.

4.6.5 Cumulative Impact Analysis

As indicated under the analysis of Threshold a., there are no components of the proposed Project that would result in the wasteful, inefficient, or unnecessary consumption of energy resources. Although it is possible other cumulative developments could result in the wasteful, inefficient, or unnecessary consumption of energy

resources, the Project's projected energy demand during operations would be less-than-cumulatively considerable with mandatory compliance with applicable regulations.

As indicated under the analysis of Threshold b., the Project would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency. As such, the Project has no potential to result in cumulatively-considerable impacts due to a conflict with or obstruction of such plans.

4.6.6 Significance of Impacts Before Mitigation

Threshold a.: Less-than-Significant Impact. Project construction and operations would not result in the inefficient, wasteful, or unnecessary consumption of energy. Further, the energy demands of the Project can be accommodated within the context of available resources and energy delivery systems. The Project would therefore not cause or result in the need for additional energy producing or transmission facilities. The Project would not engage in wasteful or inefficient uses of energy and aims to achieve energy conservation goals within the State of California. As such, Project impacts due to wasteful, inefficient, or unnecessary consumption of energy resources would be less than significant requiring no mitigation.

Threshold b.: Less-than-Significant Impact. Energy consumed by the Project's operation is calculated to be comparable to, or less than, energy consumed by other single-family residential projects of similar scale and intensity that are operating in California, as the Project would be subject to current regulatory requirements, such as the 2022 version of Title 24, which was not in effect when most existing residential developments were constructed. Based on the analysis presented herein, the Project would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency, and impacts would be less than significant.

4.6.7 County Regulations, Design Requirements, and Mitigation

A. Applicable Regulations and Design Requirements

The following are applicable regulations and design requirements within the County of Riverside. Although these requirements technically do not meet CEQA's definition for mitigation, they are imposed herein to ensure Project compliance with applicable City regulations and design requirements.

- Renewable Portfolio Standards (SB 100): Increases California's RPS requirement to 50% renewable resources target by December 31, 2026, and to achieve a 60% target by December 31, 2030. SB 100 also requires that retail sellers and local publicly owned electric utilities procure a minimum quantity of electricity products from eligible renewable energy resources so that the total kilowatt hours (kWh) of those products sold to their retail end-use customers achieve 44% of retail sales by December 31, 2024, 52% by December 31, 2027, and 60% by December 31, 2030. In addition to targets under AB 32 and SB 32, Executive Order B-55-18 establishes a carbon neutrality goal for the state of California by 2045; and sets a goal to maintain net negative emissions thereafter. The Executive Order directs the California Natural Resources Agency (CNRA), California Environmental Protection Agency (CalEPA), the Department of Food and Agriculture (CDFA), and CARB to include sequestration targets in the Natural and Working Lands Climate Change Implementation Plan consistent with the carbon neutrality goal.

- CCR Title 13, Motor Vehicles, Section 2449(d)(3): *Idling*. Grading plans shall reference the requirement that a sign shall be posted on-site stating that construction workers need to shut off engines at or before five minutes of idling.

B. Mitigation

Project impacts due to energy consumption would be less than significant; therefore, mitigation is not required.

4.7 GEOLOGY AND SOILS

This Subsection assesses the existing surface and subsurface geologic conditions and features of the Project site and determines the potential for impacts associated with these features. The analysis in this Subsection is based, in part, on information from the report titled, "Updated Geotechnical Evaluation, Proposed Single-Family Residential Development, APNs 245-300-001 and -004, Northwest of Iris Avenue and Chicago Avenue, Woodcrest Area of Riverside County, California" (herein, "Geotechnical Update"), prepared by GeoTek, Inc. (herein, "GeoTek"), dated September 21, 2021, and included as *Technical Appendix F1* to this EIR (GeoTek, 2021)~~(GeoTek, 2021b)~~. The Project's geotechnical evaluation is an update to a report previously prepared for Assessor's Parcel Number (APN) 245-300-001, which encompasses the northeastern ± 119 acres of the Project site. The prior geotechnical evaluation was prepared by Earth-Strata, Inc. (Earth-Strata), is entitled, "Revised Geotechnical Interpretive Report," is dated April 27, 2015, and is included as *Technical Appendix F2* to this EIR (Earth-Strata, 2015). Refer to Section 7.0*, References*, for a complete list of these and other reference sources.

4.7.1 EXISTING CONDITIONS

A. *Regional Geology*

The Project site is situated in the Peninsular Ranges geomorphic province. The Peninsular Ranges province is one of the largest geomorphic units in western North America. It extends from the point of contact with the Transverse Ranges geomorphic province, southerly to the tip of Baja California. This province varies in width from about 30 to 100 miles. It is bounded on the west by the Pacific Ocean, on the south by the Gulf of California and on the east by the Colorado Desert Province. The Peninsular Ranges are essentially a series of northwest-southeast oriented fault blocks. Several major fault zones are found in this province. The Elsinore Fault zone and the San Jacinto Fault zone trend northwest-southeast and are mostly found near the middle of the province. The San Andreas Fault zone borders the northeasterly margin of the province, and the San Jacinto fault borders the province adjacent the Colorado Desert province (GeoTek, 2021, p. 6)~~(GeoTek, 2021b, p. 6)~~.

Specifically, the Project site is located within a large structural mass known as the Perris Block of the Peninsula Ranges providence. The Perris Block is a relatively stable mass of granitic bedrock that in places is overlain by alluvium and thin sedimentary and volcanic units. After formation of granitic rocks, the Perris Block experienced vertical movements that produced nearly flat erosional surfaces. Sediments emanating from the elevated portions of the Perris Block filled low lying areas of the region. The project area is in an area geologically mapped by others to be underlain by granitic bedrock. (GeoTek, 2021, p. 6)~~(GeoTek, 2021b, p. 6)~~

B. *Earth Materials*

A brief description of the earth materials reported to be on the Project site is provided below.

- Disturbed Soil/Undocumented Fill/Topsoils. Topsoil and disturbed soil/undocumented fill ("surficial") soils occur throughout the Project site. The surficial soils generally consist of silty and clayey sands and sandy silts (SM, SC, and ML soil types based upon the Unified Soil Classification System) which are predominately brown in color and loose/very soft to medium dense/stiff in consistency. The

thickness of the surficial soils ranged from about 1 to 3 feet. However, the composition and thickness of the on-site surficial soils could be highly variable. (GeoTek, 2021, p. 7)~~(GeoTek, 2021b, p. 7)~~

- Quaternary Alluvium. Quaternary-aged alluvium was encountered in most of the explorations conducted on the Project site. These alluvial deposits consist predominately of brown, fine to coarse-grained sands, silty sands, clayey sands, and sandy silts (SP, SM, SC and ML soil types). These deposits were found to be in a loose/soft to medium dense/stiff state. The thickness of the alluvium ranged up to approximately 7 feet near the toes of slopes and 8 feet in the drainage courses. (GeoTek, 2021, p. 7)~~(GeoTek, 2021b, p. 7)~~

- Cretaceous Val Verde Tonalite. The Val Verde Tonalite was mapped within the site and underlies the surficial and alluvial deposits. Tonalite has a similar chemical composition to gabbro but includes a higher percentage of quartz. The Val Verde Tonalite was generally noted to be light gray to yellowish tan and was found to be in a moderately hard to very hard state. The bedrock was generally massive and lacks significant structural planes. Typically, the upper approximately three to four feet of the bedrock was found to be moderately to severely weathered and not as hard. The weathered granitic material consisted of massive, slightly friable fine to very coarse-grained sand when excavated ("Decomposed Granite" (DG)). The bedrock becomes less weathered with depth. Most of GeoTek's trench excavations were terminated due to refusal in the tonalite. (GeoTek, 2021, p. 7)~~(GeoTek, 2021b, p. 7)~~

In addition, GeoTek's seismic refraction survey performed within planned deep cut areas or areas with deep utilities proposed, as shown on Figure 2 of the Project's Geotechnical Update (*Technical Appendix F1*), identified three layers of subsurface materials. The uppermost zone comprises alluvial soil (colluvium) and is estimated to extend up to 10 feet below grade. The middle layer was noted to correspond to weathered bedrock with velocities ranging from 3,027 to 4,408 feet per second (fps). The bottom layer was noted to comprise slightly weathered to unweathered bedrock. Results of the seismic refraction survey are provided in Appendix C to the Project's Geotechnical Update. (GeoTek, 2021, p. 7)~~(GeoTek, 2021b, p. 7)~~

Earth-Strata's seismic refraction survey was performed within APN 245-300-001, as shown on Figure 2 of the Project's Geotechnical Update (*Technical Appendix F1*), identified three major layers of subsurface materials. The uppermost zone comprises alluvial and colluvium and/or completely weathered bedrock and was estimated to extend up to 10 feet below grade. This layer was estimated to be excavatable with only minor difficulties. However, localized boulders should be anticipated based on surficial exposures which may require more significant excavation techniques. (GeoTek, 2021, p. 8)~~(GeoTek, 2021b, p. 8)~~

The middle layer, which starts as shallow as 2 to 5 feet and extended in excess of 40 feet below existing grade, consists of slightly to highly weathered bedrock. This layer is expected to be excavated with moderate conditions, assuming appropriately sized good working equipment. Isolated floaters (i.e., boulders, corestones, etc.) should be expected to be present within this second layer which could produce somewhat difficult conditions locally. (GeoTek, 2021, p. 8)~~(GeoTek, 2021b, p. 8)~~

The third layer starts at depths of 2 to 30 feet below existing grade, consists of moderately to unweathered bedrock. Placement of infrastructure within this layer may require some localized blasting to obtain desired grades. (GeoTek, 2021, p. 8)~~(GeoTek, 2021b, p. 8)~~

C. Site Topography

As previously shown on EIR Figure 2-7, the Project site exhibits undulating topography with elevations generally decreasing from southeast to northwest. A prominent drainage traverses the Project site in a northwesterly/southeasterly orientation, and runoff generated on a majority of the site sheet flows into this drainage. Elevations on site range from approximately 1,401 feet above mean sea level (amsl) at the northwest corner of the site to 1,579 feet amsl near the southeastern corner of the site. (Google Earth, 2024)

D. Surface Water and Groundwater

Surface water was not noted during GeoTek's field investigation. However, water was observed within the drainages during Earth Strata's field exploration. Overall site area drainage is generally to the north/northwest, as directed by site topography. A "blue-line" drainage trends northwest through the central portion of the Project site. (GeoTek, 2021, pp. 8-9)~~(GeoTek, 2021b, pp. 8-9)~~

Groundwater was encountered at a depth of approximately 6.5 feet below the existing ground surface in Trench T-5 at the time of exploration. This groundwater appears to be the result of a perched condition. Groundwater was not encountered in any other trenches excavated by GeoTek for the Project site. Groundwater was not encountered by Earth Strata to an explored depth of 10 feet. The California Department of Water Resources, Water Data Library indicates that the presence of various groundwater wells within a one-mile radius from the site. Records for these wells show depths to groundwater in excess of 100 feet. Based on the above, seasonally perched groundwater is expected to underlie portions of the Project site. (GeoTek, 2021, p. 9)~~(GeoTek, 2021b, p. 9)~~

E. Faulting and Seismicity

1. Faulting

The geologic structure of the entire southern California area is dominated mainly by northwest-trending faults associated with the San Andreas system. The Project site is located in a seismically active region. No active or potentially active fault is known to exist at the Project site nor is the site situated within a State of California designated "Alquist-Priolo" Earthquake Fault Zone. In addition, County of Riverside mapping indicates that the Project site is "not in a fault zone" and "not in a fault line." The nearest known active faults are the Elsinore fault zone and the San Jacinto fault zone located approximately 11.4 and 11.2 miles to the southwest and northeast of the site, respectively. (GeoTek, 2021, p. 9)~~(GeoTek, 2021b, p. 9)~~

2. Secondary Seismic Effects

Secondary effects of seismic activity normally considered as possible hazards to a site include several types of ground failure, as discussed below.

❑ Landslides

Evidence of ancient landslides or slope instabilities at this site was not observed during the field investigation. Thus, the potential for landslides is considered negligible. Thus, the potential for landslides is considered negligible. Accordingly, impacts due to landslide hazards would be less than significant. (GeoTek, 2021, p. 10)~~(GeoTek, 2021b, p. 10)~~

❑ Seiches and Tsunamis

The potential for secondary seismic hazard such as a tsunami is considered negligible due to the Project site elevation and great distance to the ocean. The Project site is located approximately 35 miles northeast of the Pacific Ocean, and the Project site is therefore too far away from the Pacific Ocean to be subject to tsunami hazards. Lake Mathews is located approximately 4.2 miles southwest of the Project site, and occurs at an elevation of approximately 1,387 feet amsl, whereas the Project site occurs at elevations ranging from 1,401 feet amsl to 1,579 feet amsl; thus, due to the elevation difference and the distance between the Project site and Lake Mathews, the Project site is not subject to inundation by seiches that may be produced in association with Lake Mathews (Google Earth, 2024). In addition, Lake Perris occurs approximately 8.9 miles southeast of the Project site, and occurs at an elevation of approximately 1,582 feet amsl. However, according to mapping information available from the California Division of Safety of Dams (DSOD), the Project site is not located within areas subject to flooding as a result of a failure of the Lake Perris Dam; thus, the Project site also is not subject to inundation from seiches that may be produced at Lake Perris (DSOD, n.d.; GeoTek, 2021, p. 11)~~(DSOD, n.d.; GeoTek, 2021b, p. 11)~~.

❑ Liquefaction and Seismically-Induced Settlement

The County of Riverside has designated the site as being "not in a liquefaction area" and "not in a subsidence area." Liquefaction is not considered to be a hazard at the Project site due the lack of a true groundwater level within the site and presence of shallow bedrock. Also, the potential for seismically induced settlement at the property is considered to be nil to very low due to the presence of shallow bedrock. (GeoTek, 2021, p. 10)~~(GeoTek, 2021b, p. 10)~~

F. Expansive Soils

Based on the results of laboratory testing by Earth-Strata and GeoTek, the surficial soils at the Project site are considered to have a "very low" (Expansion Index [EI] rating ranging from 0-20) to "low" (EI rating ranging from 21-50) expansion potential (ASTM D 4829). (GeoTek, 2021, p. 8)~~(GeoTek, 2021b, p. 8)~~

G. Soil Types and Erosion Potential

EIR Table 2-1 (previously presented) provides a summary of the soils present on the Project site, and identifies the attendant rate of runoff and erosion susceptibility. As shown, approximately 0.2% of the Project site has a "Slow" rate of runoff and a "Slight" susceptibility to erosion. Approximately 3.5% of the Project site has a "Slow to Medium" rate of runoff and a "Slight to Moderate" susceptibility to erosion. Approximately 1.2% of the Project site has a "Slow" rate of runoff and a "Slight" susceptibility to erosion. Approximately 67.5% of the Project site has a "Medium" rate of runoff and a "Moderate" susceptibility to erosion. Approximately 28.0% of the Project site has a "Rapid" rate of runoff and a "High" susceptibility to erosion. Areas with a "Rapid" rate of runoff and a "High" susceptibility to erosion primarily occur in the northwest portions of the

site, and around the northwest/southeast oriented drainage that traverses the site. (USDA, 1971, pp. 17, 24, 32-33, 40, 46, and 65; USDA, 2021)

4.7.2 Applicable Environmental Regulations

The following is a brief description of the federal, state, and local environmental laws and related regulations governing issues related to geology and soils.

A. Federal Regulations

1. Clean Water Act

The Clean Water Act (CWA) establishes the basic structure for regulating discharges of pollutants into the waters of the United States and regulating quality standards for surface waters. The basis of the CWA was enacted in 1948 and was called the Federal Water Pollution Control Act, but the Act was substantially reorganized and expanded in 1972. "Clean Water Act" became the Act's common name with amendments in 1972. Under the CWA, the Environmental Protection Agency (EPA) has implemented pollution control programs such as setting wastewater standards for industry, and also has set water quality standards for all contaminants in surface waters. The CWA made it unlawful to discharge any pollutant from a point source into navigable waters, unless a permit was obtained. EPA's National Pollutant Discharge Elimination System (NPDES) permit program controls discharges. Point sources are discrete conveyances such as pipes or man-made ditches. Individual homes that are connected to a municipal system, use a septic system, or do not have a surface discharge do not need an NPDES permit; however, industrial, municipal, and other facilities must obtain permits if their discharges go directly to surface waters. (EPA, 2020e)

B. State Regulations

1. Alquist-Priolo Earthquake Fault Zoning Act (A-P Act)

The Alquist-Priolo Earthquake Fault Zoning Act (A-P Act) was passed in 1972 to mitigate the hazard of surface faulting to structures for human occupancy. The A-P Act's main purpose is to prevent the construction of buildings used for human occupancy on the surface trace of active faults. The A-P Act only addresses the hazard of surface fault rupture and is not directed toward other earthquake hazards. (CA Legislative Info, n.d.)

The A-P 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. ["Earthquake Fault Zones" were called "Special Studies Zones" prior to January 1, 1994.] The maps are distributed to all affected cities, counties, and state agencies for their use in planning and controlling new or renewed construction. Local agencies must regulate most development projects within the zones. Projects include all land divisions and most structures for human occupancy. Single family wood-frame and steel-frame dwellings up to two stories not part of a development of four units or more are exempt. However, local agencies can be more restrictive than state law requires. (CA Legislative Info, n.d.)

Before a project can be permitted, cities and counties must require a geologic investigation to demonstrate that proposed buildings will not be constructed across active faults. An evaluation and written report of a specific site must be prepared by a licensed geologist. If an active fault is found, a structure for human occupancy

cannot be placed over the trace of the fault and must be set back from the fault (generally 50 feet). (CA Legislative Info, n.d.)

2. Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act (SHMA) of 1990 (Public Resources Code, Chapter 7.8, § 2690-2699.6) directs the Department of Conservation, California Geological Survey to identify and map areas prone to liquefaction, earthquake-induced landslides, and amplified ground shaking. The purpose of the SHMA is to minimize loss of life and property through the identification, evaluation, and mitigation of seismic hazards. (CDC, n.d.)

Staff geologists in the Seismic Hazards Program gather existing geological, geophysical, and geotechnical data from numerous sources to produce the Seismic Hazard Zone Maps. They integrate and interpret these data regionally in order to evaluate the severity of the seismic hazards and designate as Zones of Required Investigation (ZORI) those areas prone to liquefaction and earthquake–induced landslides. Cities and counties are then required to use the Seismic Hazard Zone Maps in their land use planning and building permit processes. (CDC, n.d.)

The SHMA requires site-specific geotechnical investigations be conducted within the ZORI to identify and evaluate seismic hazards and formulate mitigation measures prior to permitting most developments designed for human occupancy. (CDC, n.d.)

3. Natural Hazards Disclosure Act

The Natural Hazards Disclosure Act, effective June 1, 1998 (as amended June 9, 1998), requires that sellers of real property and their agents provide prospective buyers with a "Natural Hazard Disclosure Statement" when the property being sold lies within one or more state-mapped hazard areas, including a Seismic Hazard Zone. (CA Legislative Info, n.d.)

The law requires the State Geologist to establish regulatory zones (Zones of Required Investigation) and to issue appropriate maps (Seismic Hazard Zone maps). These maps are distributed to all affected cities, counties, and state agencies for their use in planning and controlling construction and development. Single-family frame dwellings up to two stories not part of a development of four or more units are exempt from the state requirements. However, local agencies can be more restrictive than state law requires. (CA Legislative Info, n.d.)

Before a development permit can be issued or a subdivision approved, cities and counties must require a site-specific investigation to determine whether a significant hazard exists at the site and, if so, recommend measures to reduce the risk to an acceptable level. The investigation must be performed by state-licensed engineering geologists and/or civil engineers. (CA Legislative Info, n.d.)

4. Essential Services Buildings Seismic Safety Act

In 1986, the California Legislature determined that buildings providing essential services should be capable of providing those services to the public after a disaster. Their intent in this regard was defined in legislation known as the Essential Services Buildings Seismic Safety Act of 1986 and includes requirements that such

buildings shall be "…designed and constructed to minimize fire hazards and to resist…the forces generated by earthquakes, gravity, and winds." This enabling legislation can be found in the California Health and Safety Code, Chapter 2, § 16000 through 16022. In addition, the California Building Code defines how the intent of the act is to be implemented in Title 24, Part 1 of the California Building Standards Administrative Code, Chapter 4, Articles 1 through 3. (CAB, n.d.)

5. California Building Standards Code (Title 24)

California Code of Regulations (CCR) Title 24 is reserved for state regulations that govern the design and construction of buildings, associated facilities, and equipment. These regulations are also known as building standards (reference California Health and Safety Code § 18909). Health and Safety Code (state law) § 18902 gives CCR Title 24 the name California Building Standards Code (CBSC). (CBSC, 2019, p. 1)

The CBSC in CCR Title 24 is published by the California Building Standards Commission and it applies to all building occupancies (see Health and Safety Code §§ 18908 and 18938) throughout the State of California. Cities and counties are required by state law to enforce CCR Title 24 (reference Health and Safety Code §§ 17958, 17960, 18938(b), and 18948). Cities and counties may adopt ordinances making more restrictive requirements than provided by CCR Title 24, because of local climatic, geological, or topographical conditions. Such adoptions and a finding of need statement must be filed with the California Building Standards Commission (Reference Health and Safety Code §§ 17958.7 and 18941.5). (CBSC, 2019, p. 1)

6. Porter-Cologne Water Control Act

The Porter-Cologne Act is the principal law governing water quality regulation in California. It establishes a comprehensive program to protect water quality and the beneficial uses of water. The Porter-Cologne Act applies to surface waters, wetlands, and ground water and to both point and nonpoint sources of pollution. Pursuant to the Porter-Cologne Act (California Water Code § 13000 *et seq*.), the policy of the State is as follows:

- That the quality of all the waters of the State shall be protected;
- That all activities and factors affecting the quality of water shall be regulated to attain the highest water quality within reason; and
- That the State must be prepared to exercise its full power and jurisdiction to protect the quality of water in the State from degradation. (SWRCB, 2014)

The Porter-Cologne Act established nine Regional Water Boards (based on hydrogeologic barriers) and the State Water Board, which are charged with implementing its provisions and which have primary responsibility for protecting water quality in California. The State Water Board provides program guidance and oversight, allocates funds, and reviews Regional Water Boards decisions. In addition, the State Water Board allocates rights to the use of surface water. The Regional Water Boards have primary responsibility for individual permitting, inspection, and enforcement actions within each of nine hydrologic regions. The State Water Board and Regional Water Boards have numerous non-point source (NPS) related responsibilities, including monitoring and assessment, planning, financial assistance, and management.

The Regional Water Boards regulate discharges under the Porter-Cologne Act primarily through issuance of National Pollutant Discharge Elimination System (NPDES) permits for point source discharges and waste discharge requirements (WDRs) for NPS discharges. Anyone discharging or proposing to discharge materials that could affect water quality (other than to a community sanitary sewer system regulated by an NPDES permit) must file a report of waste discharge. The Storm Water Resources Control Board (SWRCB) and the Regional Water Quality Control Boards (RWQCBs) can make their own investigations or may require dischargers to carry out water quality investigations and report on water quality issues. The Porter-Cologne Act provides several options for enforcing WDRs and other orders, including cease and desist orders, cleanup and abatement orders, administrative civil liability orders, civil court actions, and criminal prosecutions. (SWRCB, 2014)

The Porter-Cologne Act also implements many provisions of the Clean Water Act, such as the NPDES permitting program. The Porter-Cologne Act also requires adoption of water quality control plans that contain the guiding policies of water pollution management in California. In addition, regional water quality control plans (basin plans) have been adopted by each of the Regional Water Boards and get updated as necessary and practical. These plans identify the existing and potential beneficial uses of waters of the State and establish water quality objectives to protect these uses. The basin plans also contain implementation, surveillance, and monitoring plans. (SWRCB, 2014) The Project site is located in the Santa Ana River Watershed, which is within the purview of the Santa Ana Regional Water Quality Control Board (RWQCB). The Santa Ana River Basin Plan ("Basin Plan") is the governing water quality plan for the region.

7. California Administrative Code, Title 14, Section 4308

Section 4308, *Archaeological Features*, of Title 14 of the California Administrative Code provides that: "No person shall remove, injure, disfigure, deface, or destroy any object of archaeological, or historical interest or value." (Westlaw, n.d.)

8. California Public Resources Code

Public Resources Code § 5097.5 states that "A person shall not knowingly and willfully excavate upon, or remove, destroy, injure, or deface, any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, rock art, or any other archaeological, paleontological or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over the lands." (FindLaw, n.d.)

Public Resources Code § 30244 states that, "Where development would adversely impact archaeological or paleontological resources as identified by the State Historic Preservation Officer, reasonable mitigation measures shall be required." (FindLaw, n.d.)

C. Local Regulations

1. Riverside County Ordinance No. 457 – Riverside County Building and Fire Codes

Every three years, Riverside County's Building and Fire Codes are adapted from the California Building Standards Code (CCR Title 24), which includes both building and fire codes. These codes establish site-specific investigation requirements, construction standards and inspection procedures to ensure that

development authorized by the County of Riverside does not pose a threat to the health, safety, or welfare of the public. The California Building Standards Code contains minimum baseline standards to guard against unsafe development. This ordinance also adopts, in some cases with modification to a stricter standard, a number of California State's Title 24 codes (fire, building, plumbing, electrical, etc.). The Riverside County Department of Building and Safety provides technical expertise in reviewing and enforcing these codes. (Riverside County, 2015, p. 4.12-25)

2. Riverside County Ordinance No. 547 - Implementation of the Alquist-Priolo Earthquake Fault Zoning Act

This ordinance establishes the policies and procedures used by the County of Riverside to implement the A-P Act. Among other things, it requires all projects proposed within an "earthquake fault zone," as shown on the maps prepared by the State Geologist to comply with the provisions of the A-P Act. It establishes regulations for construction, including for grading, slopes and compaction, erosion control, retaining wall design and earthquake fault zone setbacks. (Riverside County, 2015, p. 4.12-25)

3. Riverside County Ordinance 484 – Control of Blowing Dust

This ordinance establishes requirements for the control of blowing sand within county-designated "Agricultural Dust Control Areas." It defines activities that may contribute to wind erosion, identifies restrictions on activities within these areas, establishes penalties for violation of the ordinance and identifies procedures necessary to obtain a valid permit. (Riverside County, 2015, p. 4.12-25)

4.7.3 Basis For Determining Significance

Section VII of Appendix G to the State CEQA Guidelines addresses typical adverse effects due to geological conditions, and includes the following threshold questions to evaluate the Project's impacts resulting from geologic or soil conditions (OPR, 2018a):

- *Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:*
  - *Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.*
  - *Strong seismic ground shaking?*
  - *Seismic-related ground failure, including liquefaction?*
  - *Landslides?*
- *Would the project result in substantial soil erosion or the loss of topsoil?*
- *Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?*

- *Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?*
- *Would the project have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?*
- *Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?*

Significance thresholds are set forth in Riverside County's Environmental Assessment Checklist, as modified based on the 2018 updates to Section VII of Appendix G to the State CEQA Guidelines (listed above), and indicate significant impacts would occur if the Project or any Project-related component would:

a. *Be subject to 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;*
b. *Be subject to seismic-related ground failure, including liquefaction;*
c. *Be subject to strong seismic ground shaking;*
d. *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, collapse, or rockfall hazards;*
e. *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 ground subsidence;*
f. *Be subject to geologic hazards, such as seiche, mudflow, or volcanic hazard;*
g. *Change topography or ground surface relief features;*
h. *Create cut or fill slopes greater than 2:1 or higher than 10 feet;*
i. *Result in grading that affects or negates subsurface sewage disposal systems;*
j. *Result in substantial soil erosion or the loss of topsoil;*
k. *Be located on expansive soil, as defined in Section 1803.5.3 of the California Building Code (2019), creating substantial direct or indirect risks to life or property;*
l. *Have soils incapable of adequately supporting use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water;*
m. *Be impacted by or result in an increase in wind erosion and blow sand, either on or off site.*

The significance thresholds set forth in Riverside County's Environmental Assessment Checklist, as modified by the 2018 updates to the State CEQA Guidelines, were used to evaluate the significance of the proposed Project's impacts on geology and soils. It should be noted that the Project's potential impacts to paleontological resources are addressed separately in Subsection 4.14, *Paleontological Resources*, of this EIR.

4.7.4 IMPACT ANALYSIS

Threshold a.:	***Would the Project be subject to 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?***
Threshold c.:	***Would the Project be subject to strong seismic ground shaking?***

The Project is located in a seismically-active region; however, no active or potentially active fault is known to exist at the Project site nor is the site situated within an Alquist-Priolo Earthquake Fault Zone. No faults are identified on geologic maps readily available and reviewed as part of the Project's Geotechnical Update (*Technical Appendix F1* to this EIR). The nearest known active fault zones are the Elsinore fault zone and the San Jacinto fault zone located approximately 11.4 and 11.2 miles to the southwest and northeast of the site, respectively. Therefore, impacts due to rupture of a known earthquake would be less-than-significant. (GeoTek, 2021, p. 9)~~(GeoTek, 2021b, p. 9)~~

As previously stated, the Project site is located in a seismically active area of southern California and is expected to experience moderate to severe ground shaking during the lifetime of the Project. The risk is not considered substantially different than that of other similar properties in the southern California area. The Project would be required to construct all proposed structures in accordance with the California Building Standards Code (CBSC, Title 24) and the Riverside County Building Code. The CBSC and Riverside County Building Code have been designed to preclude significant adverse effects associated with strong seismic ground shaking. Additionally, the Project's Geotechnical Update (*Technical Appendix F1*) includes site-specific recommendations to attenuate seismic-related hazards.

However, a significant impact could occur if the Project did not comply with the site-specific recommendations of the Project's Geotechnical Update (*Technical Appendix F1*). The Project's Geotechnical Update includes recommendations that would reduce seismic risks to an "acceptable level" as defined by the California Code of Regulations. Accordingly, prior to mitigation implementing the Geotechnical Update recommendations, the proposed Project has the potential to expose people or structures to substantial adverse effects, including loss, injury, or death, as a result of strong seismic ground shaking. This is evaluated as a significant impact for which mitigation would be required.

Threshold b.:	***Would the Project be subject to seismic-related ground failure, including liquefaction?***

Seismically-induced liquefaction is a phenomenon in which cyclic stresses, produced by earthquake-induced ground motion, create excess pore pressures in soils. The soils may thereby acquire a high degree of mobility, and lead to lateral movement, sliding, sand boils, consolidation and settlement of loose sediments, and other damaging deformations. This phenomenon occurs only below the water table; but after liquefaction has developed, it can propagate upward into overlying, non-saturated soil as excess pore water dissipates. Typically, liquefaction has a relatively low potential at depths greater than 45 feet and is virtually unknown below a depth of 60 feet.

The condition of liquefaction has two principal effects. One is the consolidation of loose sediments with resultant settlement of the ground surface. The other effect is lateral sliding. Significant permanent lateral movement generally occurs only when there is significant differential loading, such as fill on natural ground

slopes. Liquefaction susceptibility is related to numerous factors and the following conditions should be present for liquefaction to occur: 1) sediments must be relatively young in age and not have developed a large amount of cementation; 2) sediments generally consist of medium to fine grained, relatively cohesionless sands; 3) the sediments must have low relative density; 4) free groundwater must be present in the sediment; and 5) the site must experience a seismic event of a sufficient duration and magnitude, to induce straining of soil particles.

Based on site observations and subsurface investigations conducted by GeoTek, liquefaction is not considered to be a hazard at the Project site due the lack of a true groundwater level within the site and presence of shallow bedrock. Also, the potential for seismically-induced settlement at the property is considered to be nil because of the minimal thickness of soil atop bedrock. Accordingly, the Project would not be subject to seismic-related ground failure, including liquefaction, and impacts would therefore be less than significant. (GeoTek, 2021, p. 10)~~(GeoTek, 2021b, p. 10)~~

Threshold d.: ***Would the Project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, collapse, or rockfall hazards?***

❑ Landslide Hazards

Evidence of ancient landslides or slope instabilities at this site was not observed during the field investigation. Thus, the potential for landslides is considered negligible and no impact would occur. (GeoTek, 2021, p. 10)~~(GeoTek, 2021b, p. 10)~~

❑ Lateral Spreading

Lateral spreading is a type of liquefaction-induced ground failure associated with the lateral displacement of surficial blocks of sediment resulting from liquefaction in a subsurface layer. Once liquefaction transforms the subsurface layer into a fluid mass, gravity plus the earthquake inertial forces may cause the mass to move downslope towards a free face (such as a river channel or an embankment). Lateral spreading may cause large horizontal displacements and such movement typically damages pipelines, utilities, bridges, and structures.

Due to the low probability of liquefaction to occur on site due the presence of shallow bedrock materials and minimal thickness of soil atop bedrock, the potential for lateral spreading also is considered low. Nonetheless, impacts could occur if proposed grading activities are not conducted in accordance with the site-specific recommendations of the Project's Geotechnical Update (*Technical Appendix F1*). This is evaluated as a potentially significant direct impact of the proposed Project for which mitigation would be required.

❑ Collapse Hazards

Static settlement of the site would be induced by subjecting the existing grades to design grades (adding fill) and by the proposed structural building loads. Impacts due to collapse hazards could occur if proposed grading activities are not conducted in accordance with the site-specific recommendations of the Project's Geotechnical Update (*Technical Appendix F1*). This is evaluated as a potentially significant direct impact of the proposed Project for which mitigation would be required.

Rockfall Hazards

A rockfall is a fragment of rock, or block of rocks, that detaches from a vertical to sub-vertical cliff or bluff in a downward motion. Although rock outcroppings occur on portions of the Project site and in areas to the west of the Project site, these rock outcroppings occur at the lower elevations on-site and along the western face of the existing hillside to the west of the Project site, thereby indicating that any potential rockfall hazards would not affect future development on site. Accordingly, impacts due to rockfall hazards would be less than significant.

Threshold e.: ***Would the Project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in ground subsidence?***

According to mapping information available from Riverside County Geographic Information Systems (GIS), the Project site is not "susceptible" to ground subsidence. The nearest lands subject to subsidence hazards occurs approximately 0.7-mile west of the Project site. (RCIT, n.d.) Accordingly, the Project would not 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 ground subsidence, and no impact would occur.

Threshold f.: ***Would the Project be subject to geologic hazards, such as seiche, mudflow, or volcanic hazard?***

There are no volcanoes in the Project region; thus, no impacts due to volcanic hazards would occur.

A seiche is an underwater wave that oscillates through a body of water which may be triggered by earthquakes or landslides. In general, seiches are small (on the order of a few inches) and are present in larger lakes as a result of the depth, temperature, and contours of the body of water. As previously discussed in subsection 4.7.1.E.2, although there are two large bodies of water in the Project vicinity capable of producing seiches (i.e., Lake Mathews and Lake Perris), the Project site either is located at a higher elevation and/or is located outside of areas subject to inundation due to a failure of the Lake Mathews or Lake Perris dams. Due to the lack of an onsite body of water or other bodies of water within close proximity to the site that have the potential to result in site inundation, the potential for the subject site to be impacted by seiches is considered low. As such, impacts due to seiches would be less than significant.

Although the Project site and surrounding areas consist of undulating topography, due to the relatively shallow depth to bedrock that occurs across the Project site, the risk of mudflow associated with these hill forms would be low. As such, impacts due to mudflow hazards would be less than significant.

Threshold g.: ***Would the Project change topography or ground surface relief features?***

As discussed in EIR Section 3.0, the Project site would be graded in a manner that largely approximates the site's existing topographic conditions. The grading generally would follow the existing drainage patterns and the grading design boundaries for a nearly balanced rough graded condition with raw cut and fill quantities of approximately 520,000 cubic yards (cy). It is anticipated that the Project's grading concept would result in balanced earthwork on-site without no need to export excess materials or to import materials from off-site areas. Thus, the Project would not result in a substantial change in topography or ground surface relief features, and impacts would be less-than-significant.

Threshold h.: ***Would the Project create cut or fill slopes greater than 2:1 or higher than 10 feet?***

As previously shown on EIR Figure 3-4, *Conceptual Grading Plan*, all slopes proposed as part of the Project would have a maximum gradient of 2:1 (horizontal:vertical). However, as shown on Figure 3-4, the Project would require slopes measuring up to approximately 72 feet in height (proposed slope behind Lots 87 and 88 of TTM No. 38510. Although the slopes would exceed a height of 10 feet, site-specific recommendations are provided in the Project's Geotechnical Update *(Technical Appendix F1)* which would ensure that proposed slopes are grossly stable. However, a significant impact could occur if the Project did not comply with the site-specific recommendations of the Project's Geotechnical Update. Accordingly, this is evaluated as a potentially significant direct impact of the Project for which mitigation would be required.

Threshold i.: ***Would the Project result in grading that affects or negates subsurface sewage disposal systems?***

Although field visits conducted by GeoTek as part of the Project's Phase I and Limited Phase II Environmental Site Assessment ("Phase I/II ESA"; EIR *Technical Appendix H*) did not identify the presence of any septic systems, it likely that a septic system is present on site due to the age of the existing residence in the central portion of the Project site (GeoTek, 2025, p. 9)~~(GeoTek, 2021a, p. 9)~~. If present, this septic system would need to be removed as part of Project site development. Accordingly, a potentially significant impact could occur if the presumed septic system on site is not removed in a manner consistent with Riverside County Department of Environmental Health (DEH) requirements.

Threshold l.: ***Would the Project have soils incapable of adequately supporting use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?***

Sewer service to the proposed Project would be provided by the Western Municipal Water District (WMWD), and no septic tanks or alternative waste disposals are proposed as part of the Project. As such, no impact associated with septic tanks or alternative wastewater disposal systems would occur.

Threshold j.: ***Would the Project result in substantial soil erosion or the loss of topsoil?***

Threshold m.: ***Would the Project be impacted by or result in an increase in wind erosion and blow sand, either on or off site?***

Implementation of the Project has the potential to result in soil erosion. The analysis below summarizes the Project's potential to result in substantial soil erosion during temporary construction activities and long-term operation.

❑ Construction-Related Impacts

Proposed grading and construction activities at the Project site would expose underlying soils and disturb surficial soils. Exposed soils would be subject to erosion during rainfall events or high winds due to the removal of stabilizing vegetation and exposure of these erodible materials to wind and water.

Pursuant to the requirements of the State Water Resources Control Board, the Project Applicant is required to obtain a NPDES permit for construction activities, including proposed grading. The NPDES permit is required for all projects that include construction activities such as clearing, grading, and/or excavation that disturb at least one (1) acre of total land area. The County's Municipal Separate Storm Sewer System (MS4) NPDES

Permit requires the Project Applicant to prepare and submit to the County for approval a Project-specific Storm Water Pollution Prevention Plan (SWPPP). The SWPPP would identify a combination of erosion control and sediment control measure (i.e., Best Management Practices [BMPs]) to reduce or eliminate sediment discharge to surface water from storm water and non-stormwater source discharges during construction.

In addition, proposed construction activities would be required to comply with South Coast Air Quality Management District (SCAQMD) Rule 403, which would reduce the amount of particulate matter in the air and minimize the potential for wind erosion. Rule 403 requires that certain construction practices be following that limit dust and dirt from leaving the construction site. For example, no dust is allowed to be tracked out of the site by more than 25 feet. In addition, proposed construction activities would be required to comply with applicable County ordinances (e.g., Ordinance Nos. 457 and 460) to protect and enhance the water quality of the County, which requires the Project Applicant to prepare an erosion control plan to be used during the rainy season. With mandatory compliance to the requirements noted in the Project's SWPPP, as well as mandatory compliance to applicable regulatory requirements including but not limited to SCAQMD Rule 403 and Riverside County Ordinance Nos. 457 and 460, the potential for water and/or wind erosion impacts during Project construction would be reduced to less-than-significant levels.

❑ Long-Term Operational Impacts

Following construction, wind and water erosion on the Project site would be minimized, as the disturbed areas would be landscaped or covered with impervious surfaces, and drainage would be controlled through a storm drain system. As discussed in detail in EIR Subsection 4.10, *Hydrology and Water Quality,* the Project would reduce the rate of runoff leaving the site, as compared to existing conditions. As discussed in Subsection 4.10, construction of the proposed bioretention basins on-site would ensure that post-development rates and amounts of runoff are reduced as compared to those occurring under existing conditions. Accordingly, implementation of the Project would not increase the risk of siltation or erosion in stormwater discharged from the Project site. In addition, and pursuant to Riverside County Ordinance No. 475 (Building Codes & Fees Ordinance), Water Quality Management Plans (WQMPs) would be required for future implementing developments within the Project site, which would identify post-construction measures to ensure on-going protection against erosion. Compliance with the WQMP would be required as a condition of approval for future implementing developments, and long-term maintenance of on-site water quality features also would be required. Based on the foregoing, implementation of the Project would not significantly increase the risk of long-term wind or water erosion on- or off-site, and impacts would be less-than-significant.

Threshold k: Would the Project be located on expansive soil, as defined in Section 1803.5.3 of the California Building Code (2019), creating substantial risks to life or property?

Based on the results of laboratory testing by Earth-Strata and GeoTek, the surficial soils at the Project site are considered to have a "very low" (Expansion Index [EI] rating ranging from 0-20) to "low" (EI rating ranging from 21-50) expansion potential (ASTM D 4829). (GeoTek, 2021, p. 8)~~(GeoTek, 2021b, p. 8)~~ However, results of expansion testing at finish grades would need to be utilized to confirm final foundation design. Accordingly, impacts due to expansive soils could occur if proposed grading activities are not conducted in accordance with the site-specific recommendations of the Geotechnical Update prepared for the Project and/or the recommendations of future geotechnical studies that will be required in association with grading and building

permits. This is evaluated as a potentially significant direct impact of the proposed Project for which mitigation would be required.

4.7.5 Cumulative Impact Analysis

With exception of erosion hazards, potential geologic and soils effects are inherently restricted to the areas proposed for development and would not contribute to cumulative impacts associated with other existing, planned, or proposed development. That is, thresholds including fault rupture, seismic ground shaking, liquefaction, landslides, expansive soils, and other geologic hazards would involve effects to (and not from) the proposed Project, and are specific to on-site conditions. Accordingly, addressing these potential hazards for the proposed development would involve using measures to conform to existing requirements, and/or site-specific design and construction efforts that have no relationship to, or impact on, off-site areas. Because of the site-specific nature of these potential hazards and the measures to address them, there would be no connection to similar potential issues or cumulative effects to or from other properties. Cumulatively-considerable impacts would be less-than-significant.

As discussed under Thresholds j. and m., during both near-term construction and long-term operation, measures would be incorporated into the Project's design to ensure that significant erosion hazards do not occur. Other developments within the cumulative study area would be required to comply with similar requirements, such as the need to obtain an NPDES permit and mandatory compliance with the resulting SWPPPs. All projects in the cumulative study area also would be required to demonstrate that measures have been incorporated to ensure that development does not result in substantial increases in the amount or rate of runoff under long-term operating conditions, which could in turn increase soil erosion. Further, all projects in the cumulative study area also would be required to comply with Riverside County Ordinance Nos. 457 and 460 (or similar ordinances from other local jurisdictions), as well as SCAQMD Rule 403, which would preclude water- and wind-related erosion hazards during construction. Therefore, because the Project would result in less-than-significant erosion impacts, and because other projects within the cumulative study area would be subject to similar requirements to control erosion hazards during construction and long-term operation, cumulatively-considerable impacts associated with wind and water erosion hazards are evaluated as less-than-significant.

4.7.6 Significance of Impacts Before Mitigation

Thresholds a. & c.: Significant Direct Impact. The potential for surface fault rupture to occur at the site is considered low. Impacts due to rupture of a known earthquake would therefore be less than significant. However, the Project site is located in a seismically active area of southern California and is expected to experience moderate to severe ground shaking during the lifetime of the Project. A significant impact could occur if the Project did not comply with the site-specific recommendations of the Project's Geotechnical Update (*Technical Appendix F1*). Therefore, impacts would be potentially significant and mitigation is required to ensure compliance with the site-specific recommendations of the Project's Geotechnical Update.

Threshold b.: Less-than-Significant Impact. Based on site observations and subsurface investigations conducted by GeoTek, liquefaction is not considered to be a hazard at the Project site due the lack of a true groundwater level within the site and presence of shallow bedrock. Also, the potential for seismically-induced settlement at the property is considered to be nil because of the minimal thickness of soil atop bedrock.

Accordingly, the Project would not be subject to seismic-related ground failure, including liquefaction, and impacts would therefore be less than significant.

Threshold d.: Significant Direct Impact. The Project site is not susceptible to landslide or rockfall hazards, and impacts would be less than significant. Impacts due to lateral spreading and collapse hazards could occur if proposed grading and development is not conducted in accordance with the site-specific recommendations of the Project's Geotechnical Update (*Technical Appendix F1*). This is evaluated as a potentially significant direct impact of the proposed Project for which mitigation would be required.

Threshold e.: No Impact. According to mapping information available from Riverside County GIS, the Project site is not "susceptible" to ground subsidence. The nearest lands subject to subsidence hazards occurs approximately 0.7-mile west of the Project site. Accordingly, the Project would not 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 ground subsidence, and no impact would occur.

Threshold f.: Less-than-Significant Impact. The Project site is not subject to volcanic hazards or hazards associated with seiches. Although the Project site and surrounding areas exhibit undulating topography, due to the relatively shallow depth to bedrock that occurs across the Project site, the risk of mudflow associated with these hill forms would be low. As such, impacts due to mudflow hazards would be less than significant.

Threshold g.: Less-than-Significant-Impact. The Project site would be graded in a manner that largely approximates the site's existing topographic conditions. The Project would require a total of approximately 520,000 cy of cut and fill. Earthwork activities are expected to balance on site and no import or export of soils would be required. Thus, the Project would not result in a substantial change in topography or ground surface relief features, and impacts would be less than significant.

Threshold h.: Significant Direct Impact. All proposed slopes on site would be constructed at a gradient of 2:1. Although proposed manufactured slopes would measure up to 72 feet in in height, site-specific recommendations are provided in the Project's Geotechnical Update (*Technical Appendix F1*) which would minimize impacts. However, a significant impact could occur if the Project did not comply with the site-specific recommendations of the Project's Geotechnical Update. Accordingly, prior to mitigation implementing the Geotechnical Update recommendations, the Project has the potential to cause significant impacts as a result of creating slopes higher than 10 feet. This is evaluated as a potentially significant impact for which mitigation would be required.

Threshold i.: Significant Direct Impact. Although field visits conducted by GeoTek as part of the Project's Phase I/II ESA (EIR *Technical Appendix H*) did not identify the presence of any septic systems, it is likely that a septic system is present on site due to the age of the existing residence in the central portion of the Project site. If present, this septic system would need to be removed as part of Project site development. Accordingly, a potentially significant impact could occur if the presumed septic system on site is not removed in a manner consistent with applicable regulatory requirements.

Threshold l.: No Impact. Sewer service to the proposed Project would be provided by the WMWD, and no septic tanks or alternative wastewater disposal systems are proposed as part of the Project. Accordingly, no impact would occur.

Thresholds j. and m.: Less-than-Significant Impacts. The Project would not result in substantial soil erosion or loss of topsoil. The Project Applicant would be required to obtain an NPDES permit for construction activities and adhere to a Stormwater Pollution Prevention Plan (SWPPP) as well as SCAQMD Rule 403 and Riverside County Ordinance Nos. 457 and 460. With mandatory compliance to these regulatory requirements, the potential for water and wind erosion impacts during construction would be less than significant. Following development, wind and water erosion on the Project site would be minimized, as the areas disturbed during construction would be landscaped or covered with impervious surfaces and drainage would be controlled through a storm drain system. Furthermore, the Project is required by law to implement a WQMP during operation, which would preclude substantial erosion impacts in the long-term. Accordingly, impacts would be less-than-significant.

Threshold k.: Significant Direct Impact. Impacts due to expansive soils could occur if proposed grading activities are not conducted in accordance with the site-specific recommendations of the of the Project's Geotechnical Investigation (*Technical Appendix F1*). This is evaluated as a potentially significant impact for which mitigation would be required.

4.7.7 County Regulations, Design Requirements, and Mitigation

Applicable County Regulations and Design Requirements

The following are applicable regulations and design requirements within Riverside County. Although these requirements technically do not meet CEQA's definition for mitigation, they are imposed herein to ensure Project compliance with applicable County regulations and design requirements.

- The Project is required to comply with the provisions of County Ordinance Nos. 457 and 460. Ordinance No. 457 requires that all projects comply with California Building Codes and the International Building Codes. These codes establish site-specific investigation requirements, construction standards, and inspection procedures to ensure that development does not pose a threat to the health, safety, and welfare of the public, and includes requirements related to erosion. Ordinance No. 460 sets forth soil erosion control requirements and requires preparation and implementation of a wind erosion control plan.

- The Project is required to comply with the provisions of SCAQMD Rule 403, by addressing blowing dust from the Project's construction activities.

- The Project is required to comply with the provisions of the County's National Pollution Discharge Elimination System (NPDES) permit, and the future-required Storm Water Pollution Prevention Plan (SWPPP). Compliance with the NPDES permit and the future-required SWPPPs would ensure an effective combination of erosion control and sediment control measures (i.e., Best Management Practices) are implemented to reduce or eliminate sediment discharge to surface water from stormwater and non-stormwater discharges.

Mitigation

MM 4.7-1 Prior to issuance of grading or building permits, the Riverside County Building and Safety Department shall verify that all of the recommendations given in the Project's September 21, 2021 Updated Geotechnical Evaluation, Proposed Single-Family Residential Development, APNs 245-300-001 and -004, Northwest of Iris Avenue and Chicago Avenue, Woodcrest Area of Riverside County, California," prepared by GeoTek, Inc. and included as *Technical Appendix F1* to the Project's EIR, are incorporated into the construction and grading plans. Alternatively, the Project shall comply with the findings and recommendations of any geotechnical studies that may be required in association with future grading and/or building permits.

MM 4.7-2 Prior to issuance of building permits, the Project Applicant shall provide evidence to the Riverside County Department of Environmental Health (DEH) that the existing septic system presumed to be associated with the existing single-family home on the Project site has been removed in accordance with Section H1101.0 (Abandoned Sewers and Sewage Disposal Facilities) of the 2022 California Plumbing Code, as required pursuant to Section 5 of Riverside County Ordinance No. 592 (Sewer Use).

4.7.8 Significance of Impacts After Mitigation

Thresholds a. & c.: Less-than-Significant Impact with Mitigation Incorporated. Implementation of Mitigation Measure MM 4.7-1 would ensure that appropriate measures are incorporated into future grading and/or building permit applications to address seismic-related hazards in conformance with the CBSC and the Riverside County Building Code. With implementation of the required mitigation, impacts due to strong seismic ground shaking would be reduced to less-than-significant levels.

Threshold d.: Less-than-Significant Impact with Mitigation Incorporated. Implementation of Mitigation Measure MM 4.7-1 would ensure that appropriate measures are incorporated into future grading and/or building permit applications to address the potential for lateral spreading and collapse hazards. With implementation of the required mitigation, impacts due to lateral spreading and collapse would be reduced to less-than-significant levels.

Threshold h.: Less-than-Significant Impact with Mitigation Incorporated. Implementation of Mitigation Measure MM 4.7-1 would ensure that appropriate measures are incorporated into future grading and/or building permit applications to ensure that any slopes higher than 10 feet would be grossly stable. With implementation of the required mitigation, impacts associated with unstable slopes would be reduced to less-than-significant levels.

Threshold i.: Less-than-Significant Impact with Mitigation Incorporated. Implementation of Mitigation Measure MM 4.7-2 would ensure that the existing septic system presumed to be located on site in association with the existing single-family residence is removed in accordance with Section H1101.0 (Abandoned Sewers and Sewage Disposal Facilities) of the 2022 California Plumbing Code, as required pursuant to Section 5 of

Riverside County Ordinance No. 592 (Sewer Use). Implementation of the required mitigation would reduce potential impacts associated with the removal of the existing septic system to below a level of significance.

Threshold k.: Less-than-Significant Impact with Mitigation Incorporated. Implementation of Mitigation Measure MM 4.7-1 would ensure that appropriate measures are incorporated into future grading and/or building permit applications to address expansive soils on site. With implementation of the required mitigation, impacts associated with expansive soils would be reduced to less-than-significant levels.

4.8 GREENHOUSE GAS EMISSIONS

The analysis in this Subsection primarily is based in part on a Greenhouse Gas Analysis (GHGA) prepared by Urban Crossroads, Inc., which is entitled, "Arroyo Vista Greenhouse Gas Analysis," is dated April 27, 2023, and is included as *Technical Appendix G* to this EIR (Urban Crossroads, 2023b)~~(Urban Crossroads, 2023e)~~. It should be noted that the Project's GHGA assumes the Project site would be developed with 233 dwelling units, while only 231 are proposed; thus, the analysis in *Technical Appendix G* provides a "worst case" analysis of the Project's potential impacts due to greenhouse gases (GHGs). Refer to Section 7.0, *References*, for a complete list of reference sources.

4.8.1 EXISTING CONDITIONS

A. *Introduction to Global Climate Change*

Global Climate Change (GCC) is defined as the change in average meteorological conditions on the earth with respect to temperature, precipitation, and storms. The majority of scientists believe that the climate shift taking place since the Industrial Revolution is occurring at a quicker rate and magnitude than in the past. Scientific evidence suggests that GCC is the result of increased concentrations of GHGs in the earth's atmosphere, including carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and fluorinated gases. The majority of scientists believe that this increased rate of climate change is the result of GHGs resulting from human activity and industrialization over the past 200 years. (Urban Crossroads, 2023b, p. 5)~~(Urban Crossroads, 2023e, p. 5)~~

An individual project like the proposed Project evaluated in this EIR cannot generate enough GHG emissions to affect a discernible change in global climate. However, the proposed Project may participate in the potential for GCC by its incremental contribution of GHGs combined with the cumulative increase of all other sources of GHGs, which when taken together constitute potential influences on GCC. (Urban Crossroads, 2023b, p. 5)~~(Urban Crossroads, 2023e, p. 5)~~

GCC refers to the change in average meteorological conditions on the earth with respect to temperature, wind patterns, precipitation, and storms. Global temperatures are regulated by naturally occurring atmospheric gases such as water vapor, CO_2, N_2O, CH_4, hydrofluorocarbons (HFC), perfluorocarbons (PFC), and sulfur hexafluoride (SF_6). These particular gases are important due to their residence time (duration they stay) in the atmosphere, which ranges from 10 years to more than 100 years. These gases allow solar radiation into the earth's atmosphere, but prevent radioactive heat from escaping, thus warming the earth's atmosphere. GCC can occur naturally as it has in the past with the previous ice ages. (Urban Crossroads, 2023b, p. 5)~~(Urban Crossroads, 2023e, p. 5)~~

Gases that trap heat in the atmosphere are often referred to as GHGs. GHGs are released into the atmosphere by both natural and anthropogenic activity. Without the natural GHG effect, the earth's average temperature would be approximately 61 degrees Fahrenheit (°F) cooler than it is currently. The cumulative accumulation of these gases in the earth's atmosphere is considered to be the cause for the observed increase in the earth's temperature. (Urban Crossroads, 2023b, p. 5)~~(Urban Crossroads, 2023e, p. 5)~~

B. Greenhouse Gases

1. Greenhouse Gases and Health Effects

GHGs trap heat in the atmosphere, creating a GHG effect that results in global warming and climate change. Many gases demonstrate these properties and areas discussed below. For the purposes of this analysis, emissions of CO_2, CH_4, and N_2O were evaluated because these gases are the primary contributors to GCC from development projects. Although there are other substances such as fluorinated gases that also contribute to GCC, these fluorinated gases were not evaluated as their sources are not well-defined and do not contain accepted emissions factors or methodology to accurately calculate these gases. (Urban Crossroads, 2023b, pp. 5-6)~~(Urban Crossroads, 2023e, pp. 5-6)~~

❑ Water

Water is the most abundant, important, and variable GHG in the atmosphere. Water vapor is not considered a pollutant; in the atmosphere it maintains a climate necessary for life. Changes in its concentration primarily are considered to be a result of climate feedbacks related to the warming of the atmosphere rather than a direct result of industrialization. A climate feedback is an indirect, or secondary, change, either positive or negative, that occurs within the climate system in response to a forcing mechanism. The feedback loop in which water is involved is critically important to projecting future climate change. (Urban Crossroads, 2023b, Table 2-1)~~(Urban Crossroads, 2023e, Table 2-1)~~

As the temperature of the atmosphere rises, more water is evaporated from ground storage (rivers, oceans, reservoirs, soil). Because the air is warmer, the relative humidity can be higher (in essence, the air is able to 'hold' more water when it is warmer), leading to more water vapor in the atmosphere. As a GHG, the higher concentration of water vapor is then able to absorb more thermal indirect energy radiated from the Earth, thus further warming the atmosphere. The warmer atmosphere can then hold more water vapor and so on. This is referred to as a "positive feedback loop." The extent to which this positive feedback loop will continue is unknown as there are also dynamics that hold the positive feedback loop in check. As an example, when water vapor increases in the atmosphere, more of it will eventually condense into clouds, which are more able to reflect incoming solar radiation (thus allowing less energy to reach the Earth's surface and heat it up). (Urban Crossroads, 2023b, Table 2-1)~~(Urban Crossroads, 2023e, Table 2-1)~~

The main source of water vapor is evaporation from the oceans (approximately 85%). Other sources include evaporation from other water bodies, sublimation (change from solid to gas) from sea ice and snow, and transpiration from plant leaves. (Urban Crossroads, 2023b, Table 2-1)~~(Urban Crossroads, 2023e, Table 2-1)~~

There are no known direct health effects related to water vapor at this time. It should be noted however that when some pollutants react with water vapor, the reaction forms a transport mechanism for some of these pollutants to enter the human body through water vapor. (Urban Crossroads, 2023b, Table 2-1)~~(Urban Crossroads, 2023e, Table 2-1)~~

❑ Carbon Dioxide (CO_2)

Carbon Dioxide (CO_2) is an odorless and colorless GHG. Since the industrial revolution began in the mid-1700s, the sort of human activity that increases GHG emissions has increased dramatically in scale and

distribution. Data from the past 50 years suggests a corollary increase in levels and concentrations. Prior to the industrial revolution, CO_2 concentrations were fairly stable at 280 parts per million (ppm). Today, they are around 370 ppm, an increase of more than 30%. Left unchecked, the concentration of CO_2 in the atmosphere is projected to increase to a minimum of 540 ppm by the year 2100 as a direct result of anthropogenic sources. (Urban Crossroads, 2023b, Table 2-1)~~(Urban Crossroads, 2023e, Table 2-1)~~

CO_2 is emitted from natural and man-made sources. Natural sources include the decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungus; evaporation from oceans; and volcanic outgassing. Anthropogenic sources include the burning of coal, oil, natural gas, and wood. CO_2 is naturally removed from the air by photosynthesis, dissolution into ocean water, transfer to soils and ice caps, and chemical weathering of carbonate rocks. (Urban Crossroads, 2023b, Table 2-1)~~(Urban Crossroads, 2023e, Table 2-1)~~

Outdoor levels of CO_2 are not high enough to result in negative health effects. According to the National Institute for Occupational Safety and Health (NIOSH), high concentrations of CO_2 can result in health effects such as headaches, dizziness, restlessness, difficulty breathing, sweating, increased heart rate, increased cardiac output, increased blood pressure, coma, asphyxia, and/or convulsions. While current concentrations of CO_2 in the Earth's atmosphere are estimated to be approximately 370 ppm, the actual reference exposure level (level at which adverse health effects typically occur) is at exposure levels of 5,000 ppm averaged over 10 hours in a 40-hour work week and short-term reference exposure levels of 30,000 ppm averaged over a 15-minute period. (Urban Crossroads, 2023b, Table 2-1)~~(Urban Crossroads, 2023e, Table 2-1)~~

❑ Methane (CH_4)

Methane (CH_4) is an extremely effective absorber of radiation, although its atmospheric concentration is less than CO_2 and its lifetime in the atmosphere is brief (10-12 years) compared to other GHGs. CH_4 has both natural and anthropogenic sources. It is released as part of animal digestion and the biological processes in low oxygen environments, such as in swamplands or in rice production (at the roots of the plants). Over the last 50 years, human activities such as growing rice, raising cattle, using natural gas, and mining coal have added to the atmospheric concentration of CH_4. Other anthropocentric sources include fossil-fuel combustion and biomass burning. (Urban Crossroads, 2023b, Table 2-1)~~(Urban Crossroads, 2023e, Table 2-1)~~

CH_4 is extremely reactive with oxidizers, halogens, and other halogen-containing compounds. Exposure to high levels of CH_4 can cause asphyxiation, loss of consciousness, headache, dizziness, nausea, vomiting, weakness, loss of coordination, and an increased breathing rate. (Urban Crossroads, 2023b, Table 2-1)~~(Urban Crossroads, 2023e, Table 2-1)~~

❑ Nitrous Oxide (N_2O)

Nitrous oxide (N_2O), also known as laughing gas, is a colorless GHG. Concentrations of N_2O also began to rise at the beginning of the industrial revolution. In 1998, the global concentration was 314 parts per billion (ppb). N_2O is produced by microbial processes in soil and water, including those reactions which occur in fertilizer containing nitrogen. In addition to agricultural sources, some industrial processes (fossil fuel-fired power plants, nylon production, nitric acid production, and vehicle emissions) also contribute to its atmospheric load. It is used as an aerosol spray propellant (i.e., in whipped cream bottles), in potato chip bags to keep chips fresh, and in rocket engines and race cars. N_2O can be transported into the stratosphere, be

deposited on Earth's surface, or be converted to other compounds by chemical reaction. (Urban Crossroads, 2023b, Table 2-1)~~(Urban Crossroads, 2023e, Table 2-1)~~

N_2O can cause dizziness, euphoria, and sometimes slight hallucinations. In small doses, it is considered harmless. However, in some cases, heavy and extended use can cause Olney's Lesions (brain damage). (Urban Crossroads, 2023b, Table 2-1)~~(Urban Crossroads, 2023e, Table 2-1)~~

❑ Chlorofluorocarbons (CFCs)

Chlorofluorocarbons (CFCs) are gases formed synthetically by replacing all hydrogen atoms in CH_4 or ethane (C_2H_6) with chlorine and/or fluorine atoms. CFCs are nontoxic, nonflammable, insoluble, and chemically unreactive in the troposphere (the level of air at Earth's surface). CFCs have no natural source but were first synthesized in 1928. They were used for refrigerants, aerosol propellants, and cleaning solvents. Due to the discovery that they are able to destroy stratospheric ozone, a global effort to halt their production was undertaken and was extremely successful, so much so that levels of the major CFCs are now remaining steady or declining. However, their long atmospheric lifetimes mean that some of CFCs will remain in the atmosphere for over 100 years. (Urban Crossroads, 2023b, Table 2-1)~~(Urban Crossroads, 2023e, Table 2-1)~~

In confined indoor locations, working with CFC-113 or other CFCs is thought to result in death by cardiac arrhythmia (heart frequency too high or too low) or asphyxiation. (Urban Crossroads, 2023b, Table 2-1)~~(Urban Crossroads, 2023e, Table 2-1)~~

❑ Hydrofluorocarbons (HFCs)

Hydrofluorocarbons (HFCs) are synthetic, man-made chemicals that are used as a substitute for CFCs. Out of all the GHGs, they are one of three groups with the highest global warming potential ("GWP," described below). The HFCs with the largest measured atmospheric abundances are (in order), fluoroform (CHF_3), 1,1,1,2-tetrafluoroethane (CH_2FCF), and 1,1-difluoroethane (CH_3CF_2). Prior to 1990, the only significant emissions were of CHF_3. CH_2FCF emissions are increasing due to its use as a refrigerant. HFCs are man-made for applications such as automobile air conditioners and refrigerants. No health effects are known to result from exposure to HFCs. (Urban Crossroads, 2023b, Table 2-1)~~(Urban Crossroads, 2023e, Table 2-1)~~

❑ Perfluorocarbons (PFCs)

Perfluorocarbons (PFCs) have stable molecular structures and do not break down through chemical processes in the lower atmosphere. High-energy ultraviolet rays, which occur about 60 kilometers above Earth's surface, are able to destroy the compounds. Because of this, PFCs have very long lifetimes, between 10,000 and 50,000 years. Two common PFCs are tetrafluoromethane (CF_4) and hexafluoroethane (C_2F_6). The United States Environmental Protection Agency (EPA) estimates that concentrations of CF_4 in the atmosphere are over 70 parts per trillion (ppt). The two main sources of PFCs are primary aluminum production and semiconductor manufacture. No health effects are known to result from exposure to PFCs. (Urban Crossroads, 2023b, Table 2-1)~~(Urban Crossroads, 2023e, Table 2-1)~~

❑ **Sulfur Hexafluoride (SF_6)**

Sulfur Hexafluoride (SF_6) is an inorganic, odorless, colorless, nontoxic, nonflammable gas. It also has the highest GWP of any gas evaluated (23,900). The EPA indicates that concentrations in the 1990s were about 4 ppt. SF_6 is used for insulation in electric power transmission and distribution equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas for leak detection. In high concentrations in confined areas, the gas presents the hazard of suffocation because it displaces the oxygen needed for breathing. (Urban Crossroads, 2023b, Table 2-1)~~(Urban Crossroads, 2023e, Table 2-1)~~

❑ **Nitrogen Trifluoride (NF_3)**

Nitrogen Trifluoride (NF_3) is a colorless gas with a distinctly moldy odor. The World Resources Institute (WRI) indicates that NF_3 has a 100-year GWP of 17,200. NF_3 is used in industrial processes and is produced in the manufacturing of semiconductors, Liquid Crystal Display (LCD) panels, types of solar panels, and chemical lasers. Long-term or repeated exposure may affect the liver and kidneys and may cause fluorosis. (Urban Crossroads, 2023b, Table 2-1)~~(Urban Crossroads, 2023e, Table 2-1)~~

2. Potential Global Warming Effects

The potential health effects related directly to the emissions of CO_2, CH_4, and N_2O as they relate to development projects such as the proposed Project are still being debated in the scientific community. Their cumulative effects to GCC have the potential to cause adverse effects to human health. Increases in Earth's ambient temperatures would result in more intense heat waves, causing more heat-related deaths. Scientists also purport that higher ambient temperatures would increase disease survival rates and result in more widespread disease. Climate change will likely cause shifts in weather patterns, potentially resulting in devastating droughts and food shortages in some areas. Figure 4.8-1, *Summary of Project Global Warming Impact 2070-2099 (As Compared with 1961-1990),* presents the potential impacts of global warming. (Urban Crossroads, 2023b, p. 11)~~(Urban Crossroads, 2023e, p. 11)~~

3. Global Warming Potential (GWP)

GHGs have varying GWP values. GWP of a GHG indicates the amount of warming a gas causes over a given period of time and represents the potential of a gas to trap heat in the atmosphere. CO_2 is utilized as the reference gas for GWP, and thus has a GWP of 1. CO_2 equivalent (CO_2e) is a term used for describing the difference GHGs in a common unit. CO_2e signifies the amount of CO_2 which would have the equivalent GWP. (Urban Crossroads, 2023b, p. 11)~~(Urban Crossroads, 2023e, p. 11)~~

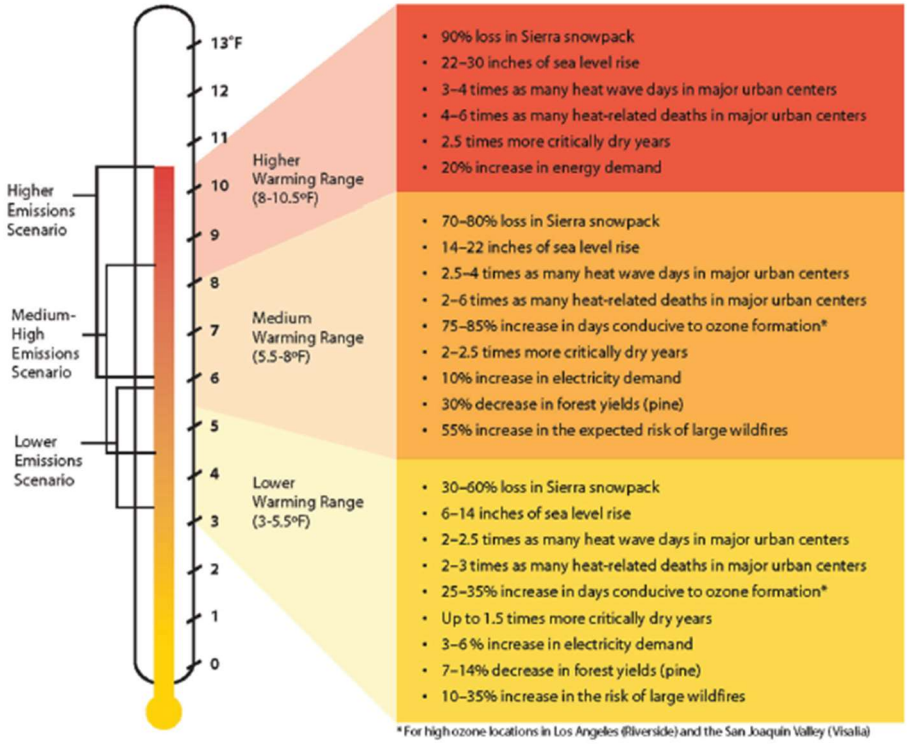
The atmospheric lifetime and GWP of selected GHGs are summarized in Table 4.8-1, *GWP and Atmospheric Lifetime of Select GHGs*. As shown, the GWP for the 6th Assessment Report, the Intergovernmental Panel on Climate Change (IPCC)'s scientific and socio-economic assessment on climate change, ranges from 1 for CO_2 to 25,200 for SF_6. (Urban Crossroads, 2023b, p. 11)~~(Urban Crossroads, 2023e, p. 11)~~

C. Greenhouse Gas Inventories

1. Global

Worldwide anthropogenic GHG emissions are tracked by the IPCC for industrialized nations (referred to as Annex I) and developing nations (referred to as Non-Annex I). Human GHG emissions data for Annex I nations are available through 2020. Based on the latest available data, the sum of these emissions totaled approximately 28,026,643 gigagram (Gg) CO_2e as summarized on Table 4.8-2, *Top GHG Producing Countries and the European Union*. (Urban Crossroads, 2023b, p. 13)~~(Urban Crossroads, 2023e, p. 13)~~

Figure 4.8-1 Summary of Project Global Warming Impact 2070-2099 (As Compared with 1961-1990)



(Urban Crossroads, 2023b, Exhibit 2-A)~~(Urban Crossroads, 2023e, Exhibit 2-A)~~

Table 4.8-1 GWP and Atmospheric Lifetime of Select GHGs

Gas	Atmospheric Lifetime (years)	GWP (100-year time horizon)
		6th Assessment Report
CO_2	Multiple	1
CH_4	12 .4	28
N_2O	121	273
HFC-23	222	14,600
HFC-134a	13.4	1,526
HFC-152a	1.5	164
SF_6	3,200	25,200

Source: IPCC Second Assessment Report, 1995 and IPCC Sixth Assessment Report, 2022
(Urban Crossroads, 2023b, Table 2-2)~~(Urban Crossroads, 2023e, Table 2-2)~~

Table 4.8-2 Top GHG Producing Countries and the European Union

Emitting Countries	GHG Emissions (Gg CO_2e)
China	12,300,200
United States	5,981,354
European Union (27-member countries)	3,706,110
India	2,839,420
Russian Federation	2,051,437
Japan	1,148,122
Total	**28,026,643**

(Urban Crossroads, 2023b, Table 2-3)~~(Urban Crossroads, 2023e, Table 2-3)~~

2. United States

As noted in Table 4.8-2, the United States, as a single country, was the number two producer of GHG emissions in 2020. According to the United States (U.S.) Environmental Protection Agency (EPA), in 2019, GHG emissions in the U.S. totaled 6,558 million metric tons of carbon dioxide equivalents ($MTCO_2e$), or 5,769 million $MTCO_2e$ after accounting for sequestration from the land sector. Emissions decreased from 2018 to 2019 by 1.7% (after accounting for sequestration from the land sector). This decrease was driven largely by a decrease in emissions from fossil fuel combustion resulting from a decrease in total energy use in 2019 compared to 2018 and a continued shift from coal to natural gas and renewables in the electric power sector. In 2019 U.S. GHG emissions were 13% below 2005 levels. (Urban Crossroads, 2023b, p. 13)~~(Urban Crossroads, 2023e, p. 13)~~

3. State of California

California has significantly slowed the rate of growth of GHG emissions due to the implementation of energy efficiency programs as well as adoption of strict emission controls but is still a substantial contributor to the U.S. emissions inventory total. The California Air Resource Board (CARB) compiles GHG inventories for the State of California. Based upon the 2022 GHG inventory data (i.e., the latest year for which data are available) for the 2000-2020 GHG emissions period, California emitted an average 369.2 million metric tons of CO2e per year ($MMTCO_2e/yr$) or 369,200 Gg CO2e (6.17% of the total United States GHG emissions). (Urban Crossroads, 2023b, pp. 13-14)~~(Urban Crossroads, 2023e, pp. 13-14)~~

D. Effects of Climate Change in California

1. Public Health

Higher temperatures may increase the frequency, duration, and intensity of conditions conducive to air pollution formation. For example, days with weather conducive to ozone formation could increase from 25 to 35% under the lower warming range to 75 to 85% under the medium warming range. In addition, if global background ozone levels increase as predicted in some scenarios, it may become impossible to meet local air quality standards. Air quality could be further compromised by increases in wildfires, which emit fine particulate matter that can travel long distances, depending on wind conditions. The Climate Scenarios report indicates that large wildfires could become up to 55% more frequent if GHG emissions are not significantly reduced. (Urban Crossroads, 2023b, p. 14)~~(Urban Crossroads, 2023e, p. 14)~~

In addition, under the higher warming range scenario, there could be up to 100 more days per year with temperatures above 90°F in Los Angeles and 95°F in Sacramento by 2100. This is a large increase over historical patterns and approximately twice the increase projected if temperatures remain within or below the lower warming range. Rising temperatures could increase the risk of death from dehydration, heat stroke/exhaustion, heart attack, stroke, and respiratory distress caused by extreme heat. (Urban Crossroads, 2023b, p. 14)~~(Urban Crossroads, 2023e, p. 14)~~

2. Water Resources

A vast network of man-made reservoirs and aqueducts captures and transports water throughout the State from northern California rivers and the Colorado River. The current distribution system relies on Sierra Nevada snowpack to supply water during the dry spring and summer months. Rising temperatures, potentially compounded by decreases in precipitation, could severely reduce spring snowpack, increasing the risk of summer water shortages. (Urban Crossroads, 2023b, p. 14)~~(Urban Crossroads, 2023e, p. 14)~~

If temperatures continue to increase, more precipitation could fall as rain instead of snow, and the snow that does fall could melt earlier, reducing the Sierra Nevada spring snowpack by as much as 70 to 90%. Under the lower warming range scenario, snowpack losses could be only half as large as those possible if temperatures were to rise to the higher warming range. How much snowpack could be lost depends in part on future precipitation patterns, the projections for which remain uncertain. However, even under the wetter climate projections, the loss of snowpack could pose challenges to water managers and hamper hydropower generation. It could also adversely affect winter tourism. Under the lower warming range, the ski season at lower elevations could be reduced by as much as a month. If temperatures reach the higher warming range and precipitation

declines, there might be many years with insufficient snow for skiing and snowboarding. (Urban Crossroads, 2023b, p. 14)~~(Urban Crossroads, 2023e, p. 14)~~

The State's water supplies also are at risk from rising sea levels. An influx of saltwater could degrade California's estuaries, wetlands, and groundwater aquifers. Saltwater intrusion caused by rising sea levels is a major threat to the quality and reliability of water within the southern edge of the Sacramento/San Joaquin River Delta – a major fresh water supply. (Urban Crossroads, 2023b, p. 15)~~(Urban Crossroads, 2023e, p. 15)~~

3. Agriculture

Increased temperatures could cause widespread changes to the agriculture industry reducing the quantity and quality of agricultural products statewide. First, California farmers could possibly lose as much as 25% of the water supply needed. Although higher CO_2 levels can stimulate plant production and increase plant water-use efficiency, California's farmers could face greater water demand for crops and a less reliable water supply as temperatures rise. Crop growth and development could change, as could the intensity and frequency of pest and disease outbreaks. Rising temperatures could aggravate ozone pollution, which makes plants more susceptible to disease and pests and interferes with plant growth. (Urban Crossroads, 2023b, p. 15)~~(Urban Crossroads, 2023e, p. 15)~~

Plant growth tends to be slow at low temperatures, increasing with rising temperatures up to a threshold. However, faster growth can result in less-than-optimal development for many crops, so rising temperatures could worsen the quantity and quality of yield for a number of California's agricultural products. Products likely to be most affected include wine grapes, fruits, and nuts. In addition, continued GCC could shift the ranges of existing invasive plants and weeds and alter competition patterns with native plants. Range expansion could occur in many species while range contractions may be less likely in rapidly evolving species with significant populations already established. Should range contractions occur, new or different weed species could fill the emerging gaps. Continued GCC could alter the abundance and types of many pests, lengthen pests' breeding season, and increase pathogen growth rates. (Urban Crossroads, 2023b, p. 15)~~(Urban Crossroads, 2023e, p. 15)~~

4. Forest and Landscapes

GCC 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, the risk of large wildfires in California could increase by as much as 55%, which is almost twice the increase expected if temperatures stay in the lower warming range. 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. In contrast, wildfires in northern California could increase by up to 90% due to decreased precipitation. (Urban Crossroads, 2023b, p. 15)~~(Urban Crossroads, 2023e, p. 15)~~

Moreover, continued GCC has the potential to alter natural ecosystems and biological diversity within the State. For example, alpine and subalpine ecosystems could decline by as much as 60 to 80% by the end of the century as a result of increasing temperatures. The productivity of the State's forests has the potential to decrease as a result of GCC. (Urban Crossroads, 2023b, p. 15)~~(Urban Crossroads, 2023e, p. 15)~~

5. Rising Sea Levels

Rising sea levels, more intense coastal storms, and warmer water temperatures could increasingly threaten the state's coastal regions. Under the higher warming range scenario, sea level is anticipated to rise 22 to 35 inches by 2100. Elevations of this magnitude would inundate low-lying coastal areas with saltwater, accelerate coastal erosion, threaten vital levees and inland water systems, and disrupt wetlands and natural habitats. Under the lower warming range scenario, sea level could rise 12-14 inches. (Urban Crossroads, 2023b, pp. 15-16)~~(Urban Crossroads, 2023c, pp. 15-16)~~

4.8.2 Applicable Environmental Regulations

The following is a brief description of the federal, State, and local environmental laws and related regulations related to GHG emissions.

A. International Regulations

1. Kyoto Protocol

The Kyoto Protocol is an international agreement linked to the United Nations Framework Convention on Climate Change, which commits its Parties by setting internationally binding emission reduction targets. Recognizing that developed countries are principally responsible for the current high levels of GHG emissions in the atmosphere as a result of more than 150 years of industrial activity, the Protocol places a heavier burden on developed nations under the principle of "common but differentiated responsibilities."

The Kyoto Protocol was adopted in Kyoto, Japan, on December 11, 1997 and entered into force on February 16, 2005. On December 8, 2012, in Doha, Qatar, the "Doha Amendment to the Kyoto Protocol" was adopted. The amendment includes:

- New commitments for Annex I Parties to the Kyoto Protocol who agreed to take on commitments in a second commitment period from January 1, 2013 to December 31, 2020;
- A revised list of greenhouse gases (GHG) to be reported on by Parties in the second commitment period; and
- Amendments to several articles of the Kyoto Protocol which specifically referenced issues pertaining to the first commitment period and which needed to be updated for the second commitment period.

On December 21, 2012, the amendment was circulated by the Secretary-General of the United Nations, acting in his capacity as Depositary, to all Parties to the Kyoto Protocol in accordance with Articles 20 and 21 of the Protocol. During the first commitment period, 37 industrialized countries and the European Community committed to reduce GHG emissions to an average of 5% against 1990 levels. During the second commitment period, Parties committed to reduce GHG emissions by at least 18 percent below 1990 levels in the eight-year period from 2013 to 2020; however, the composition of Parties in the second commitment period is different from the first. (UNFCCC, n.d.)

2. The Paris Agreement

The Paris Agreement builds upon the Convention and – for the first time – brings all nations into a common cause to undertake ambitious efforts to combat climate change and adapt to its effects, with enhanced support to assist developing countries to do so. The Paris Agreement's central aim is to strengthen the global response to the threat of climate change by keeping a global temperature rise this century well below 2 degrees Celsius above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius. Additionally, the agreement aims to strengthen the ability of countries to deal with the impacts of climate change. The Paris Agreement requires all Parties to put forward their best efforts through "nationally determined contributions" (NDCs) and to strengthen these efforts in the years ahead. This includes requirements that all Parties report regularly on their emissions and on their implementation efforts. The Paris Agreement entered into force on November 4, 2016, thirty days after the date on which at least 55 Parties to the Convention accounting in total for at least an estimated 55% of the total global greenhouse gas emissions have deposited their instruments of ratification, acceptance, approval, or accession with the Depositary. (UNFCCC, n.d.)

On June 1, 2017, President Donald Trump announced he would begin the process of withdrawing the United States from the Paris Agreement. In accordance with articles within the Paris Agreement, the earliest effective date for the United States' withdrawal from the Agreement was November 4, 2020, at which time the withdraw became official. On January 20, 2021, President Biden signed the executive order for the United States to rejoin the Paris Agreement, which became official on February 19, 2021.

B. Federal Regulations

1. Clean Air Act

Coinciding with the 2009 meeting of international leaders in Copenhagen, on December 7, 2009, the EPA issued an Endangerment Finding under § 202(a) of the Clean Air Act (CAA), opening the door to federal regulation of GHGs. The Endangerment Finding notes that GHGs threaten public health and welfare and are subject to regulation under the CAA. To date, the EPA has not promulgated regulations on GHG emissions, but it has begun to develop them. (EPA, 2020a; DOJ, 2015)

Previously the EPA had not regulated GHGs under the CAA because it asserted that the Act did not authorize it to issue mandatory regulations to address Global Climate Change (GCC) and that such regulation would be unwise without an unequivocally established causal link between GHGs and the increase in global surface air temperatures. In Massachusetts v. Environmental Protection Agency et al. (127 S. Ct. 1438 [2007]); however, the U.S. Supreme Court held that GHGs are pollutants under the CAA and directed the EPA to decide whether the gases endangered public health or welfare. The EPA had also not moved aggressively to regulate GHGs because it expected Congress to make progress on GHG legislation, primarily from the standpoint of a cap-and-trade system. However, proposals circulated in both the House of Representative and Senate have been controversial and it may be some time before the U.S. Congress adopts major climate change legislation. The EPA's Endangerment Finding paves the way for federal regulation of GHGs with or without Congress. (EPA, 2020a; DOJ, 2015)

C. State Regulations

1. Title 24 Building Energy Standards

The California Energy Commission (CEC) first adopted Energy Efficiency Standards for Residential and Nonresidential Buildings (California Code of Regulations, Title 24, Part 6) in 1978 in response to a legislative mandate to reduce energy consumption in the state. Although not originally intended to reduce GHG emissions, increased energy efficiency, and reduced consumption of electricity, natural gas, and other fuels would result in fewer GHG emissions from residential and nonresidential buildings subject to the standard. The standards are updated periodically to allow for the consideration and inclusion of new energy efficiency technologies and methods. The latest revisions (2019 Building Energy Efficiency Standards) became effective on January 1, 2020. The 2019 Building Energy Efficiency Standards are 7 percent more efficient than the previous (2016) Building Energy Efficiency Standards for residential construction and 30 percent more efficient than the previous Standards for non-residential construction. (The 2016 Building Energy Efficiency Standards already were 28 percent more efficient for residential construction and 5 percent more efficient for nonresidential construction than the 2013 Building Energy Efficiency Standards they replaced.) (CEC, 2018)

Part 11 of Title 24 is referred to as the California Green Building Standards Code (CALGreen Code). The purpose of the CALGreen Code is to "improve public health, safety and general welfare by enhancing the design and construction of buildings through the use of building concepts having a positive environmental impact and encouraging sustainable construction practices in the following categories: (1) Planning and design; (2) Energy efficiency; (3) Water efficiency and conservation; (4) Material conservation and resource efficiency; and (5) Environmental air quality." The CALGreen Code is not intended to substitute or be identified as meeting the certification requirements of any green building program that is not established and adopted by the California Building Standards Commission (CBSC). Unless otherwise noted in the regulation, all newly constructed buildings in California are subject of the requirements of the CALGreen Code. (CEC, 2018)

2. California Assembly Bill No. 1493 (AB 1493)

AB 1493 required the California Air Resources Board (CARB) to adopt the nation's first GHG emission standards for automobiles. On September 24, 2009, CARB adopted amendments to the "Pavley" regulations that reduced GHG emissions in new passenger vehicles from model year 2009 through 2016. The U.S. EPA granted California the authority to implement GHG emission reduction standards for new passenger cars, pickup trucks, and sport utility vehicles on June 30, 2009. It is expected that the Pavley regulations reduced GHG emissions from California passenger vehicles by about 22 percent in 2012 and about 30 percent in 2016, all while improving fuel efficiency and reducing motorists' costs. CARB has since adopted a new approach to cars and light trucks by combining the control of smog-causing pollutants and GHG emissions into a single coordinated package of standards. The new approach also includes efforts to support and accelerate the numbers of plug-in hybrids and zero-emission vehicles in California. (CARB, n.d.)

3. Executive Order S-3-05

Executive Order (EO) S-3-05 documents GHG emission reduction goals, creates the Climate Action Team and directs the Secretary of the California EPA to coordinate efforts with meeting the GHG reduction targets with the heads of other state agencies. The EO requires the Secretary to report back to the Governor and Legislature

biannually to report: progress toward meeting the GHG goals; GHG impacts to California; and applicable Mitigation and Adaptation Plans. EO S-3-05 goals for GHG emissions reductions include: reducing GHG emissions to 2000 levels by the year 2010; reducing GHG emissions to 1990 levels by the year 2020; and reducing GHG emissions to 80 percent below 1990 levels by 2050. (CA State Library, 2005)

4. California Assembly Bill 32 – Global Warming Solutions Act of 2006

In September 2006, Governor Schwarzenegger signed Assembly Bill 32 (AB 32), the California Global Warming Solutions Act of 2006. AB 32 required California to reduce its GHG emissions to 1990 levels by 2020, which represented a reduction of approximately 15 percent below emissions expected under a "business as usual" scenario (CARB, 2018). Among other items, AB 32 specifically required that CARB prepare and approve a Scoping Plan for achieving the maximum technologically feasible and cost-effective reductions in GHG emissions from sources or categories of sources of GHGs by 2020 and update the Scoping Plan every five years.

In December 2008, CARB approved the initial Scoping Plan, which included a suite of measures to sharply cut GHG emissions. In May 2014, CARB approved the First Update to the Scoping Plan (Update), which built upon the initial Scoping Plan with new strategies and recommendations. The Update highlighted California's progress toward meeting the near-term 2020 GHG emission reduction goals, highlighted the latest climate change science and provided direction on how to achieve long-term emission reduction goal described in Executive Order S-3-05. In December 2017, CARB adopted the Second Update to the Scoping Plan, which identified the State's post-2020 reduction strategy. The Second Update reflected the 2030 target of a 40 percent GHG emissions reduction below 1990 levels set by SB 32. The Second Update built upon the Cap- and-Trade Regulation; the Low Carbon Fuel Standard; much cleaner cars, trucks and freight movement; cleaner, renewable energy; and strategies to reduce methane emissions from agricultural and other wastes to reduce GHG emissions. (CARB, 2017)

In December 2022, CARB released the *Final 2022 Scoping Plan Update* (*2022 Scoping Plan*), which identifies the State's strategies to reduce GHG emissions by 85% and achieve carbon neutrality by 2045. The *2022 Scoping Plan* reflects an accelerated target of an 85% reduction in GHG emissions compared to 1990 levels by 2045 (33). This third update relies on key programs in place, including the Cap-and-Trade Regulation and the LCFS, while stressing the need to increase their pace and scale.

In order to meet these targets, the *2022 Scoping Plan* would require contributions from all sectors of the economy and includes an enhanced focus on reducing fossil fuel demand by 94% by 2045 compared to 2022 consumption. Major elements of the *2022 Scoping Plan* framework include:

- Maintaining progress on meeting SB 32 GHG reduction targets of at least 40% below 1990 emissions by 2030.
- Implementation of strategies for reducing California's dependence on petroleum by providing consumers with clean energy options.
- Integrating equity and protecting California's most impacted communities.
- Incorporation of natural and working lands to the state's GHG emissions, as well as their role in achieving carbon neutrality.

- Use of all viable tools to address climate change, including carbon capture and sequestration, as well as direct air capture.
- Implementing SB 350, which expands the RPS to 50% RPS and doubles energy efficiency savings by 2030.
- Post-2020 Cap-and-Trade Program that includes declining caps.
- California Sustainable Freight Action Plan, which improves freight system efficiency, utilizes near-zero emissions technology, and deployment of ZEV trucks.
- Implementing the proposed Short-Lived Climate Pollutant Strategy (SLPS), which focuses on reducing CH4 and HCF emissions by 40% and anthropogenic black carbon emissions by 50% by year 2030.
- Continued implementation of SB 375.
- 20% reduction in GHG emissions from refineries by 2030.
- Development of a Natural and Working Lands Action Plan to secure California's land base as a net carbon sink.

In addition to the statewide strategies listed above, the 2022 Scoping Plan also identifies local governments as essential partners in achieving the State's long-term GHG reduction goals and identifies local actions to reduce GHG emissions. As part of the previous 2017 Scoping Plan, CARB recommended that local governments achieve a community-wide goal to achieve emissions of no more than 6 metric tons of CO_2e ($MTCO_2e$) or less per capita by 2030 and 2 $MTCO_2e$ or less per capita by 2050. However, because the state is now pursuing carbon neutrality no later than 2045, CARB now recommends that local governments instead focus on developing locally appropriate, plan-level targets that align with the goal of carbon neutrality rather than focusing on a 2050 target. CARB identifies several "priority areas," including transportation electrification, VMT reduction, and building decarbonization, as these are the GHG reduction opportunities over which local governments have the most authority and the highest GHG reduction potential. (CARB, 2022)

5. California Senate Bill No. 1368 (SB 1368)

In 2006, the State Legislature adopted Senate Bill (SB) 1368 (Perata, Chapter 598, Statutes of 2006), which directs the California Public Utilities Commission (CPUC) to adopt a GHG emission performance standard (EPS) for the future power purchases of California utilities. SB 1368 seeks to limit carbon emissions associated with electrical energy consumed in California by forbidding procurement arrangements for energy longer than five years from resources that exceed specified emissions criteria. Accordingly, SB 1368 effectively prevents California's utilities from investing in, otherwise financially supporting, or purchasing power from new coal plants located in or out of the State. SB 1368 will lead to dramatically lower GHG emissions associated with California energy demand. (CEC, n.d.)

6. Executive Order S-01-07

Executive Order (EO) S-01-07 is effectively known as the Low Carbon Fuel Standard (LCFS). The Executive Order seeks to reduce the carbon intensity of California's passenger vehicle fuels by at least 10 percent by 2020. The LCFS requires fuel providers in California to ensure that the mix of fuel they sell into the California market meet, on average, a declining standard for GHG emissions measured in CO2e grams per unit of fuel energy sold. (CA State Library, 2007)

7. Senate Bill 1078

Senate Bill (SB) 1078 establishes the California Renewables Portfolio Standard Program, which requires electric utilities and other entities under the jurisdiction of the California Public Utilities Commission to meet 20% of their renewable power by December 31, 2017 for the purposes of increasing the diversity, reliability, public health, and environmental benefits of the energy mix. (CA Legislative Info, n.d.)

8. Senate Bill 107

SB 107 directed California Public Utilities Commission's Renewable Energy Resources Program to increase the amount of renewable electricity (Renewable Portfolio Standard) generated per year, from 17% to an amount that equals at least 20% of the total electricity sold to retail customers in California per year by December 31, 2010. (CA Legislative Info, n.d.)

9. Executive Order S-14-08

On November 17, 2008, Governor Schwarzenegger signed Executive Order S-14-08, revising California's existing Renewable Portfolio Standard (RPS) upward to require all retail sellers of electricity to serve 33% of their load from renewable energy sources by 2020. In order to meet this new goal, a substantial increase in the development of wind, solar, geothermal, and other "RPS eligible" energy projects would be needed. Executive Order S-14-08 sought to accelerate such development by streamlining the siting, permitting, and procurement processes for renewable energy generation facilities. To this end, S-14-08 issued two directives: (1) the existing Renewable Energy Transmission Initiative will identify renewable energy zones that can be developed as such with little environmental impact, and (2) the California Energy Commission (CEC) and the California Department of Fish and Wildlife (CDFW) will collaborate to expedite the review, permitting, and licensing process for proposed RPS-eligible renewable energy projects. (CA State Library, 2008)

10. Senate Bill 97

Senate Bill 97 (SB 97) was enacted in in 2007 to recognize the need to analyze GHGs as a part of the CEQA process. SB 97 required the Governor's Office of Planning and Research (OPR) to develop, and the Natural Resources Agency to adopt, amendments to the CEQA Guidelines addressing the analysis and mitigation of GHGs. As part of the administrative rulemaking process, the Natural Resources Agency developed a Final Statement of Reasons explaining the legal and factual bases, intent, and purpose of the CEQA Guidelines amendments. The amendments to the CEQA Guidelines implementing SB 97 became effective on March 18, 2010. Of note, the CEQA Guidelines state that a lead agency has discretion to determine whether to use a quantitative model or methodology, or rely on a qualitative analysis or performance-based standards to evaluate GHGs. (CA Legislative Info, n.d.)

CEQA emphasizes that GHG effects are cumulative, and should be analyzed in the context of CEQA's requirements for cumulative impacts analysis. (See CEQA Guidelines § 15130(f)). CEQ Guidelines § 15064.4(b) provides direction for lead agencies for assessing the significance of impacts of greenhouse gas emissions:

1. The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting;

2. Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project; or
3. The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions. Such regulations or requirements must be adopted by the relevant public agency through a public review process and must include specific requirements that reduce or mitigate the project's incremental contribution of greenhouse gas emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project.

The CEQA Guideline amendments do not identify a threshold of significance for GHG emissions, nor do they prescribe assessment methodologies or specific mitigation measures. Instead, they call for a "good-faith effort, based on available information, to describe, calculate or estimate the amount of greenhouse gas emissions resulting from a project." The amendments encourage lead agencies to consider many factors in performing a CEQA analysis and preserve lead agencies' discretion to make their own determinations based upon substantial evidence. The amendments also encourage public agencies to make use of programmatic mitigation plans and programs from which to tier when they perform individual project analyses.

11. Senate Bill 375

The Sustainable Communities and Climate Protection Act of 2008 (Sustainable Communities Act, SB 375, Chapter 728, Statutes of 2008) supports the State's climate action goals to reduce GHG emissions through coordinated transportation and land use planning with the goal of more sustainable communities. Under the Sustainable Communities Act, CARB set regional targets for GHG emissions reductions from passenger vehicle use. In 2010, CARB established these targets for 2020 and 2035 for each region covered by one of the State's metropolitan planning organizations (MPO). CARB periodically reviews and updates the targets, as needed. (CARB, n.d.)

Each of California's MPOs must prepare a "sustainable communities strategy" (SCS) as an integral part of its regional transportation plan (RTP). The SCS contains land use, housing, and transportation strategies that, if implemented, would allow the region to meet its GHG emission reduction targets. Once adopted by the MPO, the RTP/SCS guides the transportation policies and investments for the region. CARB must review the adopted SCS to confirm and accept the MPO's determination that the SCS, if implemented, would meet the regional GHG targets. If the combination of measures in the SCS would not meet the regional targets, the MPO must prepare a separate "alternative planning strategy" (APS) to meet the targets. (CARB, n.d.)

12. Executive Order B-30-15

On April 29, 2015, Governor Brown issued Executive Order B-30-15, which sets a goal to reduce GHG emissions in California to 40 percent below 1990 levels by 2030. The 2030 target serves as a benchmark goal on the way to achieving the GHG reductions goal set by former Governor Schwarzenegger via Executive Order S-3-05 (i.e., 80 percent below 1990 greenhouse gas emissions levels by 2050). (CA State Library, 2015)

13. Senate Bill 32

On September 8, 2016, Governor Jerry Brown signed the Senate Bill (SB) 32 and its companion bill, Assembly Bill (AB) 197. SB 32 requires the state to reduce statewide GHG emissions to 40% below 1990 levels by 2030, a reduction target that was first introduced in Executive Order B-30-15. The new legislation builds upon the AB 32 goal of 1990 levels by 2020 and provides an intermediate goal to achieving S-3-05, which sets a statewide greenhouse gas reduction target of 80% below 1990 levels by 2050. (CA Legislative Info, n.d.)

14. California Climate Crisis Act (AB 1279)

AB 1279, also known as the California Climate Crisis Act, declares that it is the policy of the State to achieve net zero greenhouse gas emissions as soon as possible, but no later than 2045; to achieve and maintain net negative greenhouse gas emissions thereafter; and to ensure that by 2045, Statewide anthropogenic greenhouse gas emissions are reduced to at least 85% below the 1990 levels. The bill requires the California Air Resources Board (CARB) to work with relevant State agencies to ensure that updates to the CARB Scoping Plan identify and recommend measures to achieve these policy goals and to identify and implement a variety of policies and strategies that enable carbon dioxide removal solutions and carbon capture, utilization, and storage technologies in California. AB 1279 also requires CARB to submit an annual report evaluating progress towards these policies. (CA Legislative Info, n.d.)

15. Clean Energy, Jobs, and Affordability Act of 2022 (Senate Bill 1020)

SB 1020, also known as the Clean Energy, Jobs, and Affordability Act of 2022, revised State policy to include interim targets requiring that eligible renewable energy resources and zero-carbon resources supply 90 percent of all retail sales of electricity to California end-use customers by December 31, 2035, 95 percent of all retail sales of electricity to California end-use customers by December 31, 2040, 100 percent of all retail sales of electricity to California end-use customers by December 31, 2045, and 100 percent of electricity procured to serve all state agencies by December 31, 2035. SB 1020 also requires each State agency to ensure that zero-carbon resources and eligible renewable energy resources supply 100 percent of electricity procured to serve their agency by December 31, 2035. In addition, SB 1020 requires the State Water Project (SWP) to procure eligible renewable energy and zero-carbon resources as necessary to meet the clean energy requirements specified for all State agencies. Finally, SB 1020 requires the California Public Utilities Commission (CPUC) to develop utility affordability metrics for both electricity and gas service. (CA Legislative Info, n.d.)

16. Carbon sequestration: Carbon Capture, Removal, Utilization, and Storage Program (Senate Bill 905)

SB 905 requires CARB to establish a Carbon Capture, Removal, Utilization, and Storage (CCRUS) Program and adopt regulations for a model unified permit program for the construction and operation of CCRUS projects. SB 905 is intended to accelerate the deployment of carbon management technologies and ensuring they are deployed in a safe and equitable way. SB 905 requires the CCRUS Program to ensure that carbon dioxide capture, removal, and sequestration projects include specified components including, among others, certain monitoring activities. In addition, SB 905 requires that by January 1, 2025, CARB shall adopt regulations for a unified permit application for the construction and operation of carbon dioxide capture, removal, or sequestration projects to expedite the issuance of permits or other authorizations for the construction and operation of those projects. SB 905 also requires the establishment of a centralized public

database to track the deployment of carbon capture, utilization, or storage (CCUS) technologies and carbon dioxide removal (CDR) technologies. (CA Legislative Info, n.d.)

17. Assembly Bill 1757

AB 1757 directs the California Natural Resources Agency (CNRA) to determine an ambitious range of targets for natural carbon sequestration, and for nature-based climate solutions, that reduce GHG emissions for 2030, 2038, and 2045 to support State goals to achieve carbon neutrality and foster climate adaptation and resilience. Additionally, AB 1757 requires these targets to be integrated into the CARB Scoping Plan and other State policies. It also includes provisions to avoid double counting emission reductions, updates the Natural and Working Lands Climate Smart Strategy, develops GHG tracking protocols, and biennially post progress made in achieving the targets on CNRA's internet website. In addition, AB 1757 requires CARB to develop standard methods for State agencies to consistently track greenhouse gas emissions and reductions, carbon sequestration, and, where feasible, additional benefits from natural and working lands over time. (CA Legislative Info, n.d.)

D. Regional Regulations

1. Connect SoCal 2024-2050 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS)

The Southern California Association of Governments (SCAG) is a regional agency established pursuant to California Government Code § 6500, also referred to as the Joint Powers Authority law. SCAG is designated as a Council of Governments (COG), a Regional Transportation Planning Agency (RTPA), and a Metropolitan Planning Organization (MPO). The Project Site is within SCAG's regional authority. In April 2024, SCAG adopted the *2024-2050 Regional Transportation Plan (RTP)/Sustainable Communities Strategy (SCS)* ("RTP/SCS"); also referred to herein as "Connect SoCal" with goals to: 1) build and maintain an integrated multimodal transportation network; 2) develop, connect and sustain communities that are livable and thriving; 3) create a healthy region for the people of today and tomorrow; and 4) support a sustainable, efficient and productive regional economic environment that provides opportunities for all residents. Performance measures and funding strategies also are included to ensure that the adopted goals are achieved through implementation of the RTP. (SCAG, 2024)

Connect SoCal includes long-range regional transportation plans, regional transportation improvement programs, regional housing needs allocations, and other plans for the region. Connect SoCal also provides objectives for meeting emissions reduction targets set forth by the California Air Resources Board (CARB); these objectives were provided in a direct response to Senate Bill 375 (SB 375) which was enacted to reduce greenhouse gas emissions from automobiles and light trucks through integrated transportation, land use, housing, and environmental planning. Connect SoCal is updated periodically to allow for the consideration and inclusion of new transportation strategies and methods. (SCAG, 2024)

E. Local Regulations

1. Riverside County Climate Action Plan (CAP)

The County of Riverside Climate Action Plan (CAP), which was adopted in December 2015 and most recently updated in December 2019 ("CAP Update"), was designed under the premise that the County of Riverside,

and the community it represents, is uniquely capable of addressing emissions associated with sources under Riverside County's jurisdiction, and that Riverside County's emission reduction efforts should coordinate with the state strategies of reducing emissions in order to accomplish these reductions in an efficient and cost-effective manner. The 2019 CAP Update establishes GHG emission reduction programs and regulations that correlate with and support evolving state GHG emissions reduction goals and strategies. The CAP Update includes reduction targets for year 2030 and year 2050. These reduction targets require the County to reduce emissions by at least 525,511 $MTCO_2e$/yr below the Adjusted Business As Usual (ABAU) scenario by 2030 and at least 2,982,948 $MTCO_2e$/yr below the ABAU scenario by 2050. To evaluate consistency with the CAP Update, the County has implemented CAP Update Screening Tables (Screening Tables) to aid in measuring the reduction of GHG emissions attributable to certain design and construction measures incorporated in development projects. To this end, the Screening Tables establish categories of GHG Implementation Measures. Under each Implementation Measure category, mitigation or project design features (collectively "features") are assigned point values that correspond to the minimum GHG emissions reduction that would result from each feature. Projects that yield at least 100 points are considered to be consistent with the GHG emissions reduction quantities anticipated in the County's GHG Technical Report and support the GHG emissions reduction targets established under the CAP Update. The potential for such projects to generate direct or indirect GHG emissions that would result in a significant impact on the environment; or conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHG would be considered less than significant. (Riverside County, 2019)

4.8.3 Basis for Determining Significance

A. Significance Thresholds

While estimated Project-related GHG emissions can be quantified, the direct impacts of such emissions on GCC and global warming cannot be determined on the basis of available science. There is no evidence at this time that would indicate that the emissions from a project the size of the proposed Project would directly or indirectly affect the global climate.

AB 32 states, in part, that "[g]lobal 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, the proposed Project would have no potential to result in a direct impact to global warming; rather, Project-related contributions to GCC, if any, only have potential significance on a cumulative basis. Therefore, the analysis below focuses on the Project's potential to contribute to GCC in a cumulatively-considerable way.

Section VIII of Appendix G to the State CEQA Guidelines addresses typical adverse effects due to GHGs, and includes the following threshold questions (OPR, 2018a):

- Would the project generate GHGs, either directly or indirectly, that may have a significant impact on the environment?

- Would the project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs?

The evaluation of an impact under CEQA requires measuring data from a project against both existing conditions and a "threshold of significance." For establishing significance thresholds, the Office of Planning and Research's amendments to the CEQA Guidelines Section 15064.7(c) state "[w]hen adopting thresholds of significance, a lead agency may consider thresholds of significance previously adopted or recommended by other public agencies, or recommended by experts, provided the decision of the lead agency to adopt such thresholds is supported by substantial evidence." (Urban Crossroads, 2023b, p. 36)~~(Urban Crossroads, 2023e, p. 36)~~

CEQA Guidelines Section 15064.4(a) further states, "…A lead agency shall have discretion to determine, in the context of a particular project, whether to: (1) Use a model or methodology to quantify greenhouse gas emissions resulting from a project, and which model or methodology to use…; or (2) Rely on a qualitative analysis or performance-based standards." (Urban Crossroads, 2023b, p. 36)~~(Urban Crossroads, 2023e, p. 36)~~

The following thresholds are derived directly from Section VIII of Appendix G to the State CEQA Guidelines and the County's Environmental Assessment form, and address typical adverse effects associated with GHG emissions. The proposed Project would have a significant impact on GHG emissions if the Project or any Project-related component would:

a. *Generate GHGs, either directly or indirectly, that may have a significant impact on the environment; or*

b. *Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.*

The above-listed thresholds for GHGs do not prescribe specific methodologies for performing an assessment, do not establish specific thresholds of significance, and do not mandate specific mitigation measures. Rather, the State CEQA Guidelines emphasize the lead agency's discretion to determine the appropriate methodologies and thresholds of significance consistent with the manner in which other impact areas are handled in CEQA. With respect to GHG emissions, State CEQA Guidelines Section 15064.4(a) states that lead agencies "shall make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate" GHG emissions resulting from a project. The State CEQA Guidelines note that an agency has the discretion to either quantify a project's GHG emissions or rely on a "qualitative analysis or other performance-based standards." A lead agency may use a "model or methodology" to estimate GHG emissions and has the discretion to select the model or methodology it considers "most appropriate to enable decision makers to intelligently take into account the project's incremental contribution to climate change." Section 15064.4(b) provides that the lead agency should consider the following when determining the significance of impacts from GHG emissions on the environment:

- Consideration #1: The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting.
- Consideration #2: Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.
- Consideration #3: The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas

emissions. Such regulations or requirements must be adopted by the relevant public agency through a public review process and must reduce or mitigate the project's incremental contribution of greenhouse gas emissions. In determining the significance of impacts, the lead agency may consider a project's consistency with the State's long-term climate goals or strategies, provided that substantial evidence supports the agency's analysis of how those goals or strategies address the project's incremental contribution to climate change and its conclusion that the project's incremental contribution is not cumulatively considerable.

In addition, Section 15064.7(c) of the State CEQA Guidelines specifies that "[w]hen adopting or using thresholds of significance, a lead agency may consider thresholds of significance previously adopted or recommended by other public agencies, or recommended by experts, provided the decision of the lead agency to adopt such thresholds is supported by substantial evidence." The State CEQA Guidelines also clarify that the effects of GHG emissions are cumulative and should be analyzed in the context of CEQA's requirements for cumulative impact analyses. As a note, the State CEQA Guidelines were amended in response to SB 97. In particular, the State CEQA Guidelines were amended to specify that compliance with a GHG emissions reduction plan renders a cumulative impact insignificant.

Per State CEQA Guidelines Section 15064(h)(3), a project's incremental contribution to a cumulative impact can be found not cumulatively considerable if the project would comply with an approved plan or mitigation program that provides specific requirements that would avoid or substantially lessen the cumulative problem within the geographic area of the project. To qualify, such plans or programs must be specified in law or adopted by the public agency with jurisdiction over the affected resources through a public review process to implement, interpret, or make specific the law enforced or administered by the public agency. Examples of such programs include a "water quality control plan, air quality attainment or maintenance plan, integrated waste management plan, habitat conservation plan, natural community conservation plans, [and] plans or regulations for the reduction of greenhouse gas emissions." Put another way, State CEQA Guidelines Section 15064(h)(3) allows a lead agency to make a finding of less than significant for GHG emissions if a project complies with adopted programs, plans, policies, and/or other regulatory strategies to reduce GHG emissions.

The County of Riverside CAP Update provides a menu of options for energy efficiency, renewable energy, water conservation measures, and additional measures that provide predictable GHG reductions. Each option within the CAP screening tables includes point values based upon the GHG reduction that each measure can achieve relative to a development project. Projects that achieve at least 100 points from the screening tables are determined to have provided a fair-share contribution of GHG reductions and, therefore, are considered consistent with the County of Riverside CAP Update. Because the County of Riverside CAP Update addresses GHG emissions reductions and is consistent with the requirements of AB 32, SB 32, and international efforts to reduce GHG emissions, Projects that comply with the CAP Update would have a less-than-significant GHG impact. (Urban Crossroads, 2023b, p. 37)~~(Urban Crossroads, 2023e, p. 37)~~

B. Methodology

1. California Emissions Estimator Model

In May 2022 California Air Pollution Control Officers Association (CAPCOA) in conjunction with other California air districts, including SCAQMD, released the latest version of the CalEEMod Version 2022.1. The

purpose of this model is to calculate construction-source and operational-source criteria pollutant (VOCs, NO_X, SO_X, CO, PM_{10}, and $PM_{2.5}$) and GHG emissions from direct and indirect sources, and quantify applicable air quality and GHG reductions achieved from mitigation. Accordingly, the latest version of CalEEMod has been used for this Project to determine construction and operational GHG emissions. CalEEMod outputs for construction and operational scenarios are provided in Appendices 3.1, 3.2 and 3.3 to the Project's GHGA (*Technical Appendix G*). (Urban Crossroads, 2023b, p. 37)~~(Urban Crossroads, 2023e, p. 37)~~

2. Construction and Operational Life-Cycle Analysis Not Required

A full life-cycle analysis (LCA) for construction and operational activity is not included in this analysis due to the lack of consensus guidance on LCA methodology at this time. Life-cycle analysis (i.e., assessing economy-wide GHG emissions from the processes in manufacturing and transporting all raw materials used in the project development, infrastructure and on-going operations) depends on emission factors or econometric factors that are not well established for all processes. At this time, an LCA would be extremely speculative and thus has not been prepared. (Urban Crossroads, 2023b, p. 37)~~(Urban Crossroads, 2023e, p. 37)~~

Additionally, the SCAQMD recommends analyzing direct and indirect project GHG emissions generated within California and not life-cycle emissions because the life-cycle effects from a project could occur outside of California, might not be very well understood or documented, and would be challenging to mitigate. Additionally, the science to calculate life cycle emissions is not yet established or well defined; therefore, SCAQMD has not recommended, and is not requiring, life-cycle emissions analysis. (Urban Crossroads, 2023b, p. 37)~~(Urban Crossroads, 2023e, p. 37)~~

4.8.4 IMPACT ANALYSIS

Threshold a:	***Would the Project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?***

❑ Construction Emissions

Project construction activities would generate CO and CH_4 emissions. The Project's Air Quality Impact Analysis ("AQIA"; EIR *Technical Appendix B*) contains detailed information regarding Project construction activities. As discussed in the AQIA and as summarized in EIR subsection 3.6.1, construction-related emissions are expected from the following construction activities: demolition, site preparation, grading, building construction, paving, and architectural coating. Refer to EIR subsection 3.6.1 for a discussion of construction durations and anticipated construction equipment needed to implement the Project. (Urban Crossroads, 2023b, p. 38)~~(Urban Crossroads, 2023e, p. 38)~~

To evaluate Project construction emissions, GHG emissions are quantified and amortized over the life of the Project and added to the operations emissions. To amortize the emissions over the life of the Project, the SCAQMD recommends calculating the total GHG emissions for the construction activities, dividing it by a 30-year project life then adding that number to the annual operational GHG emissions. Therefore, Project construction emissions have been amortized over a 30-year period and added to the annual operational GHG emissions. The amortized construction emissions are presented in Table 4.8-3, *Construction-Related GHG Emissions*. (Urban Crossroads, 2023b, p. 40)~~(Urban Crossroads, 2023e, p. 40)~~

❑ Operational Emissions

Operational activities associated with the proposed Project will result in emissions of CO_2, CH_4, and N_2O from the following primary sources: area source emissions; energy source emissions; mobile source emissions; water supply, treatment, and distribution; solid waste; and refrigerants. Each is discussed below. (Urban Crossroads, 2023b, pp. 40-41)~~(Urban Crossroads, 2023e, pp. 40-41)~~

Table 4.8-3 Construction-Related GHG Emissions

Year	Emissions (MT/yr)				
	CO_2	CH_4	N_2O	R	Total CO_2e
2024	512.50	0.03	0.02	0.05	514.60
2025	1,287.00	0.05	0.02	0.27	1,294.00
2026	814.00	0.02	0.02	0.27	821.00
2027	403.00	0.01	0.01	0.12	407.00
Total GHG Emissions	**3016.50**	**0.11**	**0.07**	**0.71**	**3036.60**
Amortized Construction Emissions	100.55	0.00	0.00	0.02	101.22

(Urban Crossroads, 2023b, Table 3-3)~~(Urban Crossroads, 2023e, Table 3-3)~~

Area Source Emissions

Landscape Maintenance Equipment

Landscape maintenance equipment are typically the only area sources that would generate emissions GHG emissions, which are primarily due to fuel combustion and evaporation of unburned fuel. Equipment in this category would include lawnmowers, shedders/grinders, blowers, trimmers, chain saws, and hedge trimmers used to maintain the landscaping of the Project. The emissions associated with landscape maintenance equipment were calculated based on standard assumptions included in CalEEMod. (Urban Crossroads, 2023b, p. 41)~~(Urban Crossroads, 2023e, p. 41)~~

Energy Source Emissions

Combustion Emissions Associated with Natural Gas and Electricity

GHGs are emitted from buildings as a result of activities for which electricity and natural gas are typically used as energy sources. Combustion of any type of fuel emits CO_2 and other GHGs directly into the atmosphere; these emissions are considered direct emissions associated with a building; the building energy use emissions do not include street lighting[1]. GHGs also are emitted during the generation of electricity from fossil fuels; these emissions are considered to be indirect emissions. Unless otherwise noted, CalEEMod default parameters were used. (Urban Crossroads, 2023b, p. 41)~~(Urban Crossroads, 2023e, p. 41)~~

[1] The CalEEMod emissions inventory model does not include indirect emission related to street lighting. Indirect emissions related to street lighting are expected to be negligible and cannot be accurately quantified at this time as there is insufficient information as to the number and type of street lighting that would occur.

Mobile Source Emissions

Project mobile source air quality 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 impacts are derived primarily from the 2,198 vehicle trips generated by the Project. Trip characteristics available from the Project's Traffic Analysis ("TA"; EIR *Technical Appendix K2*) report were utilized in the analysis. (Urban Crossroads, 2023b, p. 41)~~(Urban Crossroads, 2023e, p. 41)~~

Water Supply, Treatment, and Distribution

Indirect GHG emissions result from the production of electricity used to convey, treat and distribute water and wastewater. The amount of electricity required to convey, treat and distribute water depends on the volume of water as well as the sources of the water. CalEEMod default parameters were used to estimate GHG emissions associated with water supply, treatment and distribution for the Project scenario. (Urban Crossroads, 2023b, p. 41)~~(Urban Crossroads, 2023e, p. 41)~~

Solid Waste

Residential land uses result in the generation and disposal of solid waste. A large percentage of this waste is diverted from landfills by a variety of means, such as reducing the amount of waste generated, recycling, and/or composting. The remainder of the waste not diverted is disposed of at a landfill. GHG emissions from landfills are associated with the anaerobic breakdown of material. GHG emissions associated with the disposal of solid waste associated with the proposed Project were calculated by CalEEMod using default parameters. (Urban Crossroads, 2023b, pp. 41-42)~~(Urban Crossroads, 2023e, pp. 41-42)~~

Refrigerants

Air conditioning (A/C) and refrigeration equipment associated with the Project's proposed residential uses are anticipated to generate GHG emissions. CalEEMod automatically generates a default A/C and refrigeration equipment inventory for each project land use subtype based on industry data from the EPA. CalEEMod quantifies refrigerant emissions from leaks during regular operation and routine servicing over the equipment lifetime and then derives average annual emissions from the lifetime estimate. Note that CalEEMod does not quantify emissions from the disposal of refrigeration and A/C equipment at the end of its lifetime. Per 17 CCR 95371, new facilities with air conditioning equipment are prohibited from utilizing refrigerants with a GWP of 750 or greater as of January 1, 2025. As such, it was conservatively assumed that air conditioning systems installed in the Project's residential dwelling units would utilize refrigerants with a GWP of 750. Otherwise, GHG emissions associated with refrigerants were calculated by CalEEMod using default parameters. (Urban Crossroads, 2023b, p. 42)~~(Urban Crossroads, 2023e, p. 42)~~

❑ Emissions Summary

The annual GHG emissions associated with construction and long-term operation of the proposed Project are estimated to be approximately 4,146.60 MT CO_2e per year as summarized in Table 4.8-4, *Project Annual GHG Emissions*. Detailed calculations are provided in Appendix 3.3 to the Project's GHGA (*Technical Appendix G*). (Urban Crossroads, 2023b, p. 42)~~(Urban Crossroads, 2023e, p. 42)~~

❑ Evaluation of Project Impacts due to GHGs

The purpose of the CAP Update is to provide guidance on how to analyze GHG emissions and determine significance during the CEQA review of proposed development projects within the County. To address the State's requirement to reduce GHG emissions, the County prepared its CAP Update with the goal of reducing

Table 4.8-4 Project Annual GHG Emissions

Emission Source	Emissions (MT/yr)				
	CO_2	CH_4	N_2O	R	Total CO_2e
Amortized Construction Emissions	100.55	0.00	0.00	0.02	101.22
Mobile Source	3,065.00	0.13	0.15	4.41	3,116.00
Area Source	54.10	< 0.005	< 0.005	0.00	54.20
Energy Source	781.00	0.07	< 0.005	0.00	785.00
Water Usage	13.10	0.31	0.01	0.00	23.10
Waste	19.00	1.90	0.00	0.00	66.60
Refrigerants	0.00	0.00	0.00	0.48	0.48
Total CO_2e (All Sources)	**4,146.60**				

(Urban Crossroads, 2023b, Table 3-4)~~(Urban Crossroads, 2023e, Table 3-4)~~

GHG emissions within the County by 49% below "existing" 2008 levels by the year 2030. The County's target is consistent with the AB 32 target and ensures that the County will be providing GHG reductions locally that will complement state efforts to reduce GHG emissions. The County's target is also consistent with the SB 32 target that expands on AB 32 to reduce GHG emissions to 40% below the 1990 levels by 2030. Because the County's CAP Update addresses GHG emissions reductions and is consistent with the requirements of AB 32, SB 32, and international efforts to reduce GHG emissions, compliance with the CAP Update fulfills the description of mitigation found in the State CEQA Guidelines. (Urban Crossroads, 2023b, pp. 42-43)~~(Urban Crossroads, 2023e, pp. 42-43)~~

The CAP identifies a two-step approach in evaluating GHG emissions. First, a screening threshold of 3,000 $MTCO_2e$/yr is used to determine if additional analysis is required. Projects that exceed the 3,000 $MTCO_2e$/yr will be required to demonstrate and achieve a 25% reduction minimum of GHG emissions from a 2011-year level of efficiency compared to the mitigated Project buildout year or demonstrate at least 100 points (equivalent to an approximate 15% reduction in GHG emissions) through the CAP Screening Tables. (Urban Crossroads, 2023b, p. 43)~~(Urban Crossroads, 2023e, p. 43)~~

As shown on Table 4.8-4, the Project would result in approximately 4,146.60 $MTCO_2e$/yr of GHG emissions; therefore, the proposed Project would exceed the County's screening threshold of 3,000 $MTCO_2e$/yr. Although the Project would be required to achieve 100 points pursuant to the CAP Screening Tables, and in order to provide a conservative analysis of the Project's impacts due to GHGs, it is concluded that the Project's cumulatively-considerable impacts due to GHG emissions would be potentially significant prior to mitigation. (Urban Crossroads, 2023b, pp. 42-43)~~(Urban Crossroads, 2023e, pp. 42-43)~~

Threshold b: ***Would the Project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?***

Pursuant to Section 15604.4 of the CEQA Guidelines, a lead agency may rely on qualitative analysis or performance-based standards to determine the significance of impacts from GHG emissions. As such, the Project's consistency with AB 32, SB 32, and the County's CAP are discussed below. It should be noted that the Project's consistency with the SB 32 (as identified through compliance with the 2022 Scoping Plan) also satisfies consistency with AB 32 since the 2022 Scoping Plan is based on the overall targets established by AB 32. Consistency with the 2008 Scoping Plan is not necessary, since the target year for the 2008 Scoping Plan was 2020 and the Project's buildout year is 2025. As such the 2008 Scoping Plan does not apply and consistency with the 2017 and 2022 Scoping Plans is relevant. Project consistency with the 2017 Scoping Plan, 2022 Scoping Plan, and County's CAP is evaluated in the following discussion.

❑ Project Consistency with SB 32/CARB Scoping Plans

The 2017 Scoping Plan Update reflects the 2030 target of a 40% reduction below 1990 levels, set by Executive Order B-30-15 and codified by SB 32, while the 2022 Scoping Plan lays out a path to achieve targets for carbon neutrality and to reduce GHG emissions by 85 percent below 1990 levels no later than 2045, as directed by Assembly Bill 1279.

Table 4.8-5, *Project Consistency with 2017 CARB Scoping Plan*, summarizes the Project's consistency with the 2017 Scoping Plan. As summarized in Table 4.8-5, the Project would not conflict with any of the provisions of the Scoping Plan and in fact supports several of the action categories. Additionally, any regulations adopted would apply directly or indirectly to the Project. Further, recent studies show that the State's existing and proposed regulatory framework will allow the State to reduce its GHG emissions level to 40% below 1990 levels by 2030.

Table 4.8-5 Project Consistency with 2017 CARB Scoping Plan

Action	Responsible Parties	Project Consistency
Implement SB 350 by 2030		
Increase the Renewables Portfolio Standard to 50% of retail sales by 2030 and ensure grid reliability.	CPUC, CEC, CARB	Consistent. The Project would use energy from Southern California Edison (SCE). SCE has committed to diversify its portfolio of energy sources by increasing energy from wind and solar sources. The Project would not interfere with or obstruct SCE energy source diversification efforts.
Establish annual targets for statewide energy efficiency savings and demand reduction that will achieve a cumulative doubling of statewide energy efficiency savings in electricity and natural gas end uses by 2030.		Consistent. The proposed Project would be designed and constructed to implement the energy efficiency measures, where applicable, by including several measures designed to reduce energy consumption. The proposed Project would include energy efficient lighting and fixtures that meet the applicable Title 24 Standards throughout the Project site and would be a modern development with energy efficient heaters and air conditioning systems.
Reduce GHG emissions in the electricity sector through the implementation of the above measures and other actions as		Consistent. The proposed Project would be designed and constructed to implement the energy efficiency measures, where applicable by including several

Table 4.8-5 Project Consistency with 2017 CARB Scoping Plan

Action	Responsible Parties	Project Consistency
modeled in Integrated Resource Planning (IRP) to meet GHG emissions reductions planning targets in the IRP process. Load-serving entities and publicly-owned utilities meet GHG emissions reductions planning targets through a combination of measures as described in IRPs.		measures designed to reduce energy consumption. The proposed Project would include energy efficient lighting and fixtures that meet the applicable Title 24 Standards throughout the Project site and would be a modern development with energy efficient heaters and air conditioning systems.
Implement Mobile Source Strategy (Cleaner Technology and Fuels)		
At least 1.5 million zero emission and plug-in hybrid light-duty electric vehicles by 2025.	CARB, California State Transportation Agency (CalSTA), Strategic Growth Council (SGC), California Department of Transportation (Caltrans), CEC, OPR, Local Agencies	Consistent. This is a CARB Mobile Source Strategy. The Project would not obstruct or interfere with CARB zero emission and plug-in hybrid light-duty EV 2025 targets. As this is a CARB enforced standard, vehicles that access the Project are required to comply with the standards and will therefore comply with the strategy.
At least 4.2 million zero emission and plugin hybrid light-duty electric vehicles by 2030.		Consistent. This is a CARB Mobile Source Strategy. The Project would not obstruct or interfere with CARB zero emission and plug-in hybrid light-duty EV 2030 targets. As this is a CARB enforced standard, vehicles that access the Project are required to comply with the standards and will therefore comply with the strategy.
Further increase GHG stringency on all light-duty vehicles beyond existing Advanced Clean cars regulations.		Consistent. Consistent. This is a CARB Mobile Source Strategy. The Project would not obstruct or interfere with CARB efforts to further increase GHG stringency on all light-duty vehicles beyond existing Advanced Clean cars regulations. As this is a CARB enforced standard, vehicles that access the Project are required to comply with the standards and will therefore comply with the strategy.
Medium- and Heavy-Duty GHG Phase 2.		Consistent. This is a CARB Mobile Source Strategy. The Project would not obstruct or interfere with CARB efforts to implement Medium- and Heavy-Duty GHG Phase 2. As this is a CARB enforced standard, vehicles that access the Project are required to comply with the standards and will therefore comply with the strategy.
Innovative Clean Transit: Transition to a suite of to-be-determined innovative clean transit options. Assumed 20% of new urban buses purchased beginning in 2018 will be zero emission buses with the penetration of zero-emission technology ramped up to 100% of new sales in 2030. Also, new natural gas buses, starting in 2018, and diesel buses, starting in 2020, meet the optional heavy-duty low-NO_X standard.		Consistent. The Project would not obstruct or interfere with agency efforts to transition to a suite of to-be-determined innovative clean transit options.
Last Mile Delivery: New regulation that would result in the use of low NO_X or cleaner engines and the deployment of increasing numbers of zero-emission trucks primarily for class 3-7 last mile delivery trucks in California. This		Consistent. The Project would not obstruct or interfere with agency efforts to use low NO_X or cleaner engines or the deployment of increasing numbers of zero-emission trucks primarily for class 3-7 last mile delivery trucks in California.

Table 4.8-5 Project Consistency with 2017 CARB Scoping Plan

Action	Responsible Parties	Project Consistency
measure assumes ZEVs comprise 2.5% of new Class 3-7 truck sales in local fleets starting in 2020, increasing to 10% in 2025 and remaining flat through 2030.		
Further reduce VMT through continued implementation of SB 375 and regional Sustainable Communities Strategies; forthcoming statewide implementation of SB 743; and potential additional VMT reduction strategies not specified in the Mobile Source Strategy but included in the document "Potential VMT Reduction Strategies for Discussion."		Consistent. This Project would not obstruct or interfere with implementation of SB 375 and would therefore not conflict with this measure.
Increase stringency of SB 375 Sustainable Communities Strategy (2035 targets).	CARB	Consistent. The Project would not obstruct or interfere with agency efforts to increase stringency of SB 375 Sustainable Communities Strategy.
By 2019, adjust performance measures used to select and design transportation facilities		
Harmonize project performance with emissions reductions and increase competitiveness of transit and active transportation modes (e.g. via guideline documents, funding programs, project selection, etc.).	CalSTA, SGC, OPR, CARB, Governor's Office of Business and Economic Development (GOBiz), California Infrastructure and Economic Development Bank (IBank), Department of Finance (DOF), California Transportation Commission (CTC), Caltrans	Consistent. The Project would not obstruct or interfere with agency efforts to harmonize transportation facility project performance with emissions reductions and increase competitiveness of transit and active transportation modes.
Develop pricing policies to support low-GHG transportation (e.g. low-emission vehicle zones for heavy duty, road user, parking pricing, transit discounts).	CalSTA, Caltrans, CTC, OPR, SGC, CARB	Consistent. The Project would not obstruct or interfere with agency efforts to develop pricing policies to support low-GHG transportation.
Implement California Sustainable Freight Action Plan		
Improve freight system efficiency.	CalSTA, CalEPA, CNRA, CARB, Caltrans, CEC, GO-Biz	Consistent. This measure would apply to any trucks that may access the Project site. The Project would not obstruct or interfere with agency efforts to Improve freight system efficiency.
Deploy over 100,000 freight vehicles and equipment capable of zero emission operation and maximize both zero and		Consistent. The Project would not obstruct or interfere with agency efforts to deploy over 100,000 freight vehicles and equipment capable of zero emission

Table 4.8-5 Project Consistency with 2017 CARB Scoping Plan

Action	Responsible Parties	Project Consistency
near-zero emission freight vehicles and equipment powered by renewable energy by 2030.		operation and maximize both zero and near-zero emission freight vehicles and equipment powered by renewable energy by 2030.
Adopt a Low Carbon Fuel Standard with a Carbon Intensity reduction of 18%.	CARB	Consistent. When adopted, this measure would apply to all fuel purchased and used by the Project in the state. The Project would not obstruct or interfere with agency efforts to adopt a Low Carbon Fuel Standard with a Carbon Intensity reduction of 18%.
Implement the Short-Lived Climate Pollutant Strategy by 2030		
40% reduction in methane and hydrofluorocarbon emissions below 2013 levels.	CARB, CalRecycle, CDFA, SWRCB, Local Air Districts	Consistent. The Project would not obstruct or interfere with agency efforts to reduce SLPS emissions since the Project does not involve any uses associated with methane or hydrofluorocarbon emissions or with the use of black carbon.
50% reduction in black carbon emissions below 2013 levels.		
Develop regulations and programs to support organic waste landfill reduction goals in the SLCP and SB 1383.	CARB, CalRecycle, CDFA SWRCB, Local Air Districts	Consistent. The Project would implement waste reduction and recycling measures consistent with State and County requirements. The Project would not obstruct or interfere with agency efforts to support organic waste landfill reduction goals in the SLCP and SB 1383.
Implement the post-2020 Cap-and-Trade Program with declining annual caps.	CARB	Consistent. The Project would not obstruct or interfere with agency efforts to implement the post-2020 Cap-and-Trade Program.
By 2018, develop Integrated Natural and Working Lands Implementation Plan to secure California's land base as a net carbon sink		
Protect land from conversion through conservation easements and other incentives.	CNRA, Departments Within CDFA, CalEPA, CARB	Consistent. The Project would not obstruct or interfere with agency efforts to protect land from conversion through conservation easements and other incentives. The Project site is not targeted for conservation in any local or State conservation plan.
Increase the long-term resilience of carbon storage in the land base and enhance sequestration capacity		Consistent. The Project site consists of undeveloped lands previously used for agricultural production (orchards), with exception of an existing single-family home in the central portions of the site. The Project accommodates substantial areas of open space (23.82 acres), which would accommodate natural vegetation with the potential for carbon sequestration. The Project would not obstruct or interfere with agency efforts to increase the long-term resilience of carbon storage in the land base and enhance sequestration capacity.
Utilize wood and agricultural products to increase the amount of carbon stored in the natural and built environments		Consistent. The Project is proposed to include up to 231 residential dwelling units, which would be built primarily with wood materials. The Project would not obstruct or interfere with agency efforts to encourage use of wood and agricultural products to increase the amount of carbon stored in the natural and built environments.
Establish scenario projections to serve as the foundation for the Implementation Plan		Consistent. The Project would not obstruct or interfere with agency efforts to establish scenario projections to serve as the foundation for the Implementation Plan.
Establish a carbon accounting	CARB	Consistent. The Project would not obstruct or interfere

Table 4.8-5 Project Consistency with 2017 CARB Scoping Plan

Action	Responsible Parties	Project Consistency
framework for natural and working lands as described in SB 859 by 2018		with agency efforts to establish a carbon accounting framework for natural and working lands as described in SB 859.
Implement Forest Carbon Plan	CNRA, California Department of Forestry and Fire Protection (CAL FIRE), CalEPA	Consistent. The Project would not obstruct or interfere with agency efforts to implement the Forest Carbon Plan.
Identify and expand funding and financing mechanisms to support GHG reductions across all sectors.	State Agencies & Local Agencies	Consistent. The Project would not obstruct or interfere agency efforts to identify and expand funding and financing mechanisms to support GHG reductions across all sectors.

❑ Project Consistency with CARB 2022 Scoping Plan

The Project would not impede the State's progress towards carbon neutrality by 2045 under the 2022 Scoping Plan. The Project would be required to comply with applicable current and future regulatory requirements promulgated through the 2022 Scoping Plan. Some of the current transportation sector policies the Project would comply with (through vehicle manufacturer compliance) include: Advanced Clean Cars II, Advanced Clean Trucks, and the Low Carbon Fuel Standard. As noted below, the Project also would be consistent with the Riverside County CAP (following mitigation). As such, the Project would not be inconsistent with the 2022 Scoping Plan, and impacts would be less than significant. (Urban Crossroads, 2023b, pp. 43-44)~~(Urban Crossroads, 2023e, pp. 43-44)~~

❑ Project Consistency with Riverside County CAP Update

The County of Riverside approved the CAP Update on December 17, 2019. The CAP Update was designed under the premise that the County, and the community it represents, is uniquely capable of addressing emissions associated with sources under Riverside County's jurisdiction, and that Riverside County's emission reduction efforts should coordinate with the state strategies of reducing emissions in order to accomplish these reductions in an efficient and cost-effective manner.

In order to evaluate consistency with the CAP, the County provided Screening Tables to aid in measuring the reduction of GHG emissions attributable to certain design and construction measures incorporated into development projects. The County's CAP currently evaluates and quantifies reductions out to Year 2030. The CAP states that "[t]hrough 2050, Riverside County would continue implementation of the Screening Tables. During this time, the reduction measures implemented through the Screening Tables would continue to reduce GHG missions from new development. Additionally, it is assumed that the State measures would keep being updated and reinforced to further reduce emissions. With these assumptions, Riverside County's emissions would decrease to a level below the reduction target by 2050." Thus, compliance with the CAP would serve to meet and support the reduction targets established Senate Bill 32 and the CARB 2022 Scoping Plan.

Pursuant to the CAP Update and associated Screening Tables, projects that garner at least 100 points (equivalent to an approximate 49% reduction in GHG emissions below 2008 baseline levels) are determined to be consistent with the reduction quantities anticipated in the County's GHG Technical Report, and consequently would be consistent with the CAP. Absent implementation of Screening Table Measures, the Project could be considered inconsistent with the County CAP. This is a potentially significant impact for which mitigation is required.

4.8.5 Cumulative Impact Analysis

As discussed in subsection 4.8.1, there is no evidence at this time that would indicate that the emissions from a project the size of the Project would directly or indirectly affect the global climate. As such, Project impacts due to GHG emissions are inherently cumulative in nature.

As discussed under the analysis of Threshold a., construction and long-term operation of the Project would result in the emissions of 4,146.60 MT CO_2e per year, which would exceed the CAP screening threshold of 3,000 MT CO_2e per year. Other cumulative developments within the region similarly have the potential to exceed the County's screening threshold of 3,000 MTCO_2e/yr. Accordingly, GHG emissions associated with construction and long-term operation of the Project represents a cumulatively-considerable impact for which mitigation would be required.

As discussed under the analysis of Threshold b., the Project would be consistent with or otherwise would not conflict with the CARB 2017 Scoping Plan and the CARB 2022 Scoping Plan. However, the Project has the potential to conflict with the Riverside County CAP Update if the Project were unable to achieve 100 points pursuant to the CAP Screening Tables. This is evaluated as a cumulatively-considerable impact of the proposed Project for which mitigation would be required.

4.8.6 Significance of Impacts Before Mitigation

Threshold a.: Significant Cumulatively-Considerable Impact. The annual GHG emissions associated with construction and long-term operation of the proposed Project are estimated to be approximately 4,146.60 MT CO_2e per year; therefore, the proposed Project would exceed the County's screening threshold of 3,000 MT CO_2e/yr. Although the Project would be required to achieve 100 points pursuant to the CAP Screening Tables, and in order to provide a conservative analysis of the Project's impacts due to GHGs, it is concluded that the Project's cumulatively-considerable impacts due to GHG emissions would be potentially significant prior to mitigation.

Threshold b.: Significant Cumulatively-Considerable Impact. The Project would be consistent with or otherwise would not conflict with the CARB 2017 Scoping Plan and the CARB 2022 Scoping Plan. However, the Project has the potential to conflict with the Riverside County CAP Update if the Project were unable to achieve 100 points pursuant to the CAP Screening Tables. This is evaluated as a cumulatively-considerable impact of the proposed Project.

4.8.7 Applicable Regulations, Design Requirements, and Mitigation

Applicable Regulations and Design Requirements

The following are applicable regulations and design requirements within Riverside County. Although these requirements technically do not meet CEQA's definition for mitigation, they are imposed herein to ensure Project compliance with applicable County regulations and design requirements.

- Prior to issuance of building permits, and in accordance with measure R2-CE1 of the County's Climate Action Plan (CAP) Update, future implementing building permits that involve more than 75 new dwelling units of residential development or one or more new buildings totaling more than 100,000 gross square feet of commercial, office, industrial, or manufacturing development shall be required to offset the energy demand through renewable energy production. Renewable energy production shall be onsite generation of at least 20% of energy demand for commercial, office, industrial or manufacturing development, meet or exceed 20% of energy demand for multi-family residential development, and meet or exceed 30% of energy demand for single-family residential development.

In addition, the Project would be required to comply with all mandates imposed by the State of California and SCAQMD aimed at the reduction of GHG emissions. Those that are applicable to the Project and that would assist in the reduction of greenhouse gas emissions are listed below:

- Global Warming Solutions Act of 2006 (AB32).
- Pavley Fuel Efficiency Standards (AB1493). Establishes fuel efficiency ratings for new vehicles.
- Title 17 California Code of Regulations (Low Carbon Fuel Standard). Requires carbon content of fuel sold in California to be 10% less by 2020.
- Statewide Retail Provider Emissions Performance Standards (SB 1368). Requires energy generators to achieve performance standards for GHG emissions.
- Renewable Portfolio Standards (SB 100). Requires electric corporations to increase the amount of energy obtained from eligible renewable energy resources to achieve a target of 50% renewable resources by December 31, 2026, and to achieve a 60% target by December 31, 2030.. SB 100 also requires that retail sellers and local publicly owned electric utilities procure a minimum quantity of electricity products from eligible renewable energy resources so that the total kilowatt hours (kWh) of those products sold to their retail end-use customers achieve 44% of retail sales by December 31, 2024, 52% by December 31, 2027, and 60% by December 31, 2030.
- Senate Bill 32 (SB 32). Requires the state to reduce statewide greenhouse gas emissions to 40% below 1990 levels by 2030, a reduction target that was first introduced in Executive Order B-30-15.

Mitigation

MM 4.8-1 Prior to issuance of building permits for any of the Project's Plot Plans, the Project Applicant shall demonstrate that appropriate building construction measures shall apply to achieve a minimum of 100 points per Appendix D to the Riverside County 2019 Climate Action Plan (CAP) Update. The conceptual measures anticipated for the Project are listed in Appendix 3.4 to the Project's Greenhouse Gas Analysis (GHGA) technical report (appended to the Project's EIR as *Technical Appendix G*). The conceptual measures may be replaced with other measures

as listed in Appendix D to the 2019 Riverside County CAP Update, as long as they are replaced at the same time with other measures that in total achieve a minimum of 100 points per Appendix D to the 2019 Riverside County CAP Update. The County shall verify implementation of the identified measures prior to final building inspection.

4.8.8 Significance of Impacts After Mitigation

Threshold a.: Less-than-Significant Impact with Mitigation Incorporated. The Riverside County CAP Update (November 2019) qualifies as a "Plan for the Reduction of Greenhouse Gas Emissions," pursuant to State CEQA Guidelines Section 15183.5(b). Pursuant to State CEQA Guidelines Sections 15064(h)(3) and 15130(d), a lead agency may determine that a project's incremental contribution to a cumulative effect is not cumulatively considerable if the project complies with the requirements in a previously-adopted plan or mitigation program. Additionally, Tier 2 of the SCAQMD interim thresholds for GHG emissions indicates that if a project is consistent with a qualifying local GHG reduction plan, it would not result in a significant impact due to GHG emissions. Implementation of Mitigation Measure MM 4.8-1 and Regulatory Requirement RR 4.8-1 would ensure that the proposed Project is fully consistent with the Riverside County CAP Update (November 2019) by requiring the Project Applicant to demonstrate that implementing building permit applications have incorporated measures to achieve a minimum of 100 points pursuant to the CAP Update Screening Tables. Projects that yield at least 100 points are considered to be consistent with the GHG emissions reduction quantities anticipated in the County's GHG Technical Report and support the GHG emissions reduction targets established under the CAP Update. With implementation of Mitigation Measure MM 4.8-1, as well as Regulatory Requirement RR 4.8-1, the Project would not generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment, and the Project's cumulatively-considerable impact due to GHG emissions would be reduced to less-than-significant levels.

Threshold b.: Less-than-Significant Impact with Mitigation Incorporated. Projects that garner at least 100 points through application of the CAP Update Screening Table measures are determined to be consistent with the reduction quantities anticipated in the County's GHG Technical Report, and consequently would be consistent with the CAP Update. Pursuant to Mitigation Measure MM 4.8-1, the Project Applicant would be required to implement Screening Table Measures that would provide a minimum of 100 points pursuant to the CAP Update Screening Tables (Appendix D to the CAP Update). With implementation of Mitigation Measure MM 4.8-1, the Project would be fully consistent with the 2019 CAP Update. The CAP Update evaluates and quantifies reductions out to Year 2030. The CAP Update states that "Through 2050, Riverside County would continue implementation of the Screening Tables. During this time, the reduction measures implemented through the Screening Tables would continue to reduce GHG missions from new development. Additionally, it is assumed that the State measures would keep being updated and reinforced to further reduce emissions. With these assumptions, Riverside County's emissions would decrease to a level below the reduction target by 2050." Thus, compliance with the CAP Update would serve to meet and support the reduction targets established Senate Bill 32, the CARB 2017 Scoping Plan, and the CARB 2022 Scoping Plan. As such, with implementation of the required mitigation, Project impacts due to a conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs would be reduced to less-than-significant levels.

4.9 HAZARDS AND HAZARDOUS MATERIALS

The information and analysis presented in this Subsection is based in part on a technical study that was prepared to determine the presence or absence of hazardous materials on the Project site under existing conditions. This report, entitled, "Phase I and Limited Phase II Environmental Site Assessment, Assessor's Parcel Number's (APNs) 245-300-001 and -004, Woodcrest Area of Riverside County, California 92508" (herein referred to as "Phase I/II ESA"), prepared by GeoTek, Inc. (herein, "GeoTek"), dated May 22, 2025, and included as *Technical Appendix H* to this EIR (GeoTek, 2025). Refer to Section 7.0*, References*, for a complete list of reference sources.

4.9.1 EXISTING CONDITIONS

A. Definition of Toxic Substances and Hazardous Waste

For purposes of this EIR, the term "toxic substance" is defined as a substance which, because of its quantity, concentration, or physical, chemical, or infectious characteristics, may present an unreasonable risk of injury to human health or the environment. Toxic substances include: chemical, biological, flammable, explosive, and radioactive substances.

"Hazardous material" is defined as a substance which, because of its quantity, concentration, or physical, chemical, or infectious characteristics, may: 1) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, disposed of, or otherwise mismanaged; or 2) cause or contribute to an increase in mortality or an increase in irreversible or incapacitating illness.

Hazardous waste is defined in the California Code of Regulations, Title 22, § 66261.3. The defining characteristics of hazardous waste are: ignitability (oxidizers, compressed gases, and extremely flammable liquids and solids), corrosivity (strong acids and bases), reactivity (explosives or generates toxic fumes when exposed to air or water), and toxicity (materials listed by the United States Environmental Protection Agency [USEPA] as capable of inducing systemic damage to humans or animals).

Certain wastes are called "Listed Wastes" and are found in the California Code of Regulations, Title 22, §§ 66261.30 through 66261.35. Wastes appear on the lists because of their known hazardous nature or because the processes that generate them are known to produce hazardous wastes (which are often complex mixtures).

A Recognized Environmental Condition (REC) means the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property. The term is not intended to include de minimis conditions that generally do not present a material risk of harm to public health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies.

B. Historical Review, Regulatory Review, and Field Reconnaissance

As part of the Project's Phase I/II ESA (*Technical Appendix H*), GeoTek conducted a site visit to document the current condition of the Project site and neighboring facilities; a review of a previous report prepared for

the Project site; a review of a regulatory databases and records; questionnaires to the current property owner; a review of historical references including aerial photographs, city directories, and topographic maps; a review of records maintained by local regulatory agencies; and a review of building records maintained by Riverside County. The results of the assessment are summarized below.

1. Site Reconnaissance

A representative of GeoTek conducted a site reconnaissance on August 2, 2021. At the time of the site reconnaissance, the Project site consisted of a cut-down orchard with a residential structure. Additionally, irrigation lines were observed throughout the Project site. Visual evidence of hazardous substances and wastes were not observed during the site reconnaissance conducted by GeoTek. No visual indication of spills or leaks were observed. No pungent or acrid odors were observed emanating from the Project site. GeoTek did not observe evidence of underground or above-ground fuel storage tanks (such as vent pipes, fill pipes, regular-shaped depressions, etc.) on the Project site. GeoTek also did not observe suspect equipment (transformers, elevators, hydraulic lift mechanisms, trash compactors, etc.) which may contain PCBs on the Project site. GeoTek also did not observe evidence of illegal or controlled substances being used or manufactured at the Project site. Some scattered trash, vehicle tires, concrete and wood debris were observed on the Project site. (GeoTek, 2025, pp. 7-8)

No visual indication of other conditions of concern (water wells, drywells, cesspools, etc.) that may indicate a recognized environmental condition was observed during the site reconnaissance. However, four water wells are known to exist on the Project site. Two of the water wells are reportedly located in the general vicinity of the residence; one of the water wells is east of the residence near Chicago Avenue; and the fourth is at an unknown location. (GeoTek, 2025, p. 9)

No evidence of a septic system was observed during our site reconnaissance. However, given the age of the existing residence it is likely that a septic system exists on the Project site. (GeoTek, 2025, p. 9)

2. Property Owner Questionnaire

As a form of interview, Mr. Michael Torres, a representative of the future Project site owner, completed a "User Questionnaire" for the Site in accordance with ASTM E 1527-13. A copy of the completed questionnaire is included in Appendix B to the Project's Phase I/II ESA (*Technical Appendix H*). The results of the questionnaire did not identify any environmental clean-up liens, activity/use limitations, specialized knowledge, commonly known information, or obvious indicators of contamination. (GeoTek, 2025, p. 10)

A previous environmental report was completed by RMA Group (RMA) for Diversified Pacific. Within that report, Mr. Brian Bush of Diversified Pacific completed a questionnaire for the Project site. Mr. Bush was not aware of any environmental liens or any activity or use limitations. Mr. Bush had no specialized knowledge and states there is no value reduction for environmental reasons. Mr. Bush was not aware of any obvious indicators of contamination. Mr. Bush also provided with a list of chemical pesticides previously used on the Site, including Honcho Plus Herbicide, Wilco Gopher Getter Restricted Use Bait, P.C.Q Pelleted Rodent Bair, Admire Pro Systemic Protectant, Glyfos X-tra, Esteem and Ridomil Gold. These containers were not observed during the site visit conducted by GeoTek. (GeoTek, 2025, p. 11)

3. Regulatory Review

GeoTek obtained and reviewed an environmental database report of the federal and State environmental records specified by ASTM E 1527-13. The database report was provided by Environmental Data Resources, Inc. (EDR) of Shelton, Connecticut. Additionally, orphan or unmappable sites listed by EDR were reviewed by GeoTek for the approximate minimum search distances noted and were included if applicable. Refer to Appendix D of the Project's Phase I/II ESA (*Technical Appendix H*) for a copy of the EDR database report. (GeoTek, 2025, p. 14)

The Project site was not identified on the National Priority List (NPL), which identifies confirmed or proposed Superfund sites, and there are no facilities on the NPL within a 1.0-mile distance from the Project site. The Project site and lands near the Project site also do not appear on the Superfund Enterprise Management System (SEMS) list; the Resource Conservation and Recovery Act (RCRA) Generators list; the Emergency Response Notification System (ERNS) list; the Federal Institutional Control/Engineering Control databases; the State Response Sites (RESPONSE) records; the EnviroStor Database; the California Hazardous Material Incident Report Systems (CHMIRS) database; the California Underground Storage Tank (UST) list, Historic UST list, SWEEPs UST list and CA FID UST (collectively the "UST lists"); the Spills, Leaks, Investigation and Cleanup Cost Recovery Listing (SLIC); the State Institutional Control/Engineering Control Registries; tribal databases; or the DRYCLEANERS list. (GeoTek, 2025, pp. 14-20)

The Solid Waste Fill/Landfill (SWF/LF), Waste Management Unit Database System (WMUDS)/Solid Waste Assessment Test (SWAT), and Solid Waste Recycling Facilities (SWRCY) databases (collectively, the "SWLF databases") includes information pertaining to closed and open solid waste facilities operating in the state of California. The SWLF databases are searched for a 0.5-mile distance. The Project site does not appear on the SWLF databases. However, there is one (1) facility listed on the SWLF databases within 0.5-mile of the Project site. The facility is listed as Wade Landfill, located at 11749 Roberts Road, approximately 0.25 to 0.5 (0.366) mile north of the Project site. The facility has an operational status of closed. Due to the operational status and location hydrogeologically down-gradient, this facility is not considered an environmental concern to the Project site. (GeoTek, 2025, p. 18)

The California Leaking Underground Storage Tanks (LUST) list is a compilation of petroleum storage tank sites that have reported a release. The LUST list is searched for a 0.5-mile distance. The Project site does not appear on the LUST list. However, there are five (5) facilities on the LUST list within 0.5-mile of the Project site. The information regarding these facilities is provided in subsection 6.2.10 of the Project's Phase I/II ESA (*Technical Appendix H*). (GeoTek, 2025, p. 18)

EDR compiles information from multiple federal, state, local, and proprietary databases. Most are secondary or tertiary or redundant. Facilities compiled on these other databases are evaluated based on the severity of the listing, distance, and location. The Project site does not appear on the environmental database report obtained for the assessment. However, the results from EDR indicate the presence of the following sites that appear on regulatory databases: (GeoTek, 2025, p. 20)

- Two (2) facilities are listed with EnviroStor that is located greater than 0.5-mile from the Project site.
- Three (3) facilities are listed with CERS HAZ WASTE.
- One (1) facility is listed with SWEEPS UST.

- Two (2) facilities are listed with CERS TANKS.
- One (1) facility is listed with CA FID UST.
- Five (5) facilities are listed with RCRA NonGen / NLR.
- Three (3) facilities are listed Cortese.
- Three (3) facilities are listed with HIST CORTESE.

These facilities are not considered to represent an environmental concern to the Project site due to their distances, locations hydro-geologically down- or cross-gradient, and/or their current regulatory status (GeoTek, 2025, p. 20).

GeoTek also reviewed the listing of "orphan" or unmappable facilities in the database report. There are four (4) unmappable facilities for this Site in the database report. (GeoTek, 2025, p. 21)

The first facility is located at the intersection of Central Avenue and Chicago Avenue in Riverside, California. The facility is listed with CDL, clandestine drug labs. This facility has no name due to the facility being located "in van." After further investigation, this facility is approximately 4.2 miles north of the Project site. Due to the location distance, this facility is not considered an environmental concern to the Project site. (GeoTek, 2025, p. 21)

The second facility is located at Chicago Avenue in Riverside, California. The facility is listed with CIWQS, California Integrated Water Quality System. This facility has a regulatory measure status of "Terminated." Due to the status, this facility is not considered an environmental concern to the Project site. (GeoTek, 2025, p. 21)

The third facility is located at Gentian Avenue and Chicago Avenue in Riverside, California. The facility is listed with CIWQS, California Integrated Water Quality System. This facility has a regulatory measure status of "Terminated." After further investigation, this intersection is located adjacent, northeast, to the Project site. Due to the status and location hydrogeologically cross-gradient, this facility is not considered an environmental concern to the Project site. (GeoTek, 2025, p. 21)

The fourth facility is listed as 7-Eleven Inc. #38520, located at 20625 Van Buren Boulevard. This facility is listed with CERS HAZ WASTE. After further investigation, this facility is located approximately 2.7 miles east of the Project site. Due to location distance, this facility is not considered an environmental concern to the Project site. (GeoTek, 2025, p. 21)

Finally, GeoTek contacted the Riverside County Fire and Sherriff's Departments regarding underground or above ground storage tanks, hazardous material permits or business plans, emergency responses, spills, inspections, or other information of an environmental or hazardous nature. Neither of these agencies had any information for the Project site. (GeoTek, 2025, p. 21)

4. Historical Review

Aerial Photograph Review

In order to construct the history of the Site and the surrounding area, GeoTek reviewed reasonably ascertainable public documents, including aerial photographs, topographic maps, building records, city directories, environmental liens and activity and use limitations (AULs), fire insurance maps, and county assessor history records (GeoTek, 2025, p. 23).

GeoTek reviewed aerial photographs dated 1931, 1938, 1948, 1953, 1961, 1967, 1975, 1978, 1985, 1989, 1994, 2002, 2006, 2009, 2012, 2016 and 2020 (see Appendix B to the Project's Phase I/II ESA, included as *Technical Appendix H* to this EIR). The Project site appears to be vacant land in the aerial photograph dated 1931, 1938, 1948, 1953 and 1961. (GeoTek, 2025, p. 23)

The Project site appears to be land generally utilized for agricultural orchard operations in the aerial photograph dated 1967. Additionally, structures can be observed in the northeast portion of the Project site. The northwest potion of the Project site appears to be vacant land. (GeoTek, 2025, p. 23)

The east portion of the Project site is not photographed in the aerial photograph dated 1975. The northwest portion of the Project site appears to be vacant land. The remaining visible portions of the Project site appear to be land utilized for agriculture. (GeoTek, 2025, p. 23)

The northeast, southeast and southwest portions of the Project site appear to be land utilized for agriculture in the aerial photographs dated 1978, 1985, 1989, 1994, 2002, 2006, 2009, 2012, 2016 and 2020. The northwest potion of the Project site appears to be vacant land. Structures can also be observed in the northeast portion of the Project site. (GeoTek, 2025, p. 23)

Topographic Map Review

GeoTek reviewed the Riverside quadrangle (15-minute series), dated 1901; the Riverside Vicinity (7.5-minute series), dated 1942; the Riverside quadrangle (15-minute series), dated 1947; the Steele Peak, Riverside West, Lake Matthews and Riverside East quadrangles (7.5-minute series), dated 1953, the Riverside East, Steele Peak, Lake Matthews and Riverside West quadrangles (7.5-minute series), dated 1967; the Riverside West, Riverside East and Lake Matthews (7.5-minute series), dated 1980/1982; and the Riverside East, Lake Matthews, Riverside West and Steele Peak (7.5-minute series), dated 2012 (see Appendix B to the Project's Phase I/II ESA, included as *Technical Appendix H* to this EIR). The Project site appears vacant on the topographic map sheets dated 1901, 1942, 1947 and 1953. A structure can be observed in the northeast portion of the Project site on the topographic map sheets dated 1967 and 1980/1982. The northwest portion of the Project site appears to be vacant land. The remaining portions of the Project site appear to be land utilized for agriculture. The 2012 topographic map depicts the Project site as mostly land utilized for agriculture and shows little detail other than streets in the vicinity. (GeoTek, 2025, pp. 23-24)

Building Department Records and City Directory Review

Building department records were obtained by GeoTek as the Project site historically has had a residential structure in the northeast portion from at least 1967 to present day. However, no permits were found for the existing residential address (15701 Chicago Avenue). (GeoTek, 2025, p. 24)

GeoTek also obtained the EDR – City Directory Abstract Report, as obtained from and provided by EDR, and included in Appendix B to the Project's Phase I/II ESA (*Technical Appendix H* to this EIR). Information on the Site findings can be found in subsection 8.1.4 of the Project's Phase I/II ESA. (GeoTek, 2025, p. 24)

Based on the nature of these listings, GeoTek opines that they do not represent an environmental concern to the Project site (GeoTek, 2025, p. 24).

Sanborn Map Review

Sanborn Fire Insurance Maps for the Project site were requested from EDR-Sanborn, which owns and maintains the largest and most complete collection of the maps. Source sheets were not available for the Project site. The Sanborn Map Report is included in Appendix B to the Project's Phase I/II ESA (*Technical Appendix H* to this EIR). (GeoTek, 2025, p. 25)

Historical Immediately Surrounding Property Usage

As documented in Subsection 8.2 of the Project's Phase I/II ESA (*Technical Appendix H* to this EIR), the surrounding properties appear to historically have been land utilized for agriculture from at least 1938 until about 1948. Residential structures can first be observed in the 1948 aerial photograph, primarily to the east and south of the Site. Residential structures can first be observed to the north in the 1978 aerial photograph. No evidence of environmental concerns for the Project site were identified as part of the historical review conducted for surrounding properties.

C. Results of Limited Soil Analysis

Due to past agricultural uses on site, GeoTek conducted soil sampling of soils on the Project site to determine if they contain organo-chlorinated pesticides (OCP). GeoTek obtained soil samples from the Project site for chemical analysis. Twenty-eight (28) composite soil samples were obtained from selected areas of the Project site and submitted to a State-certified laboratory for analysis of OCP testing. In addition, twenty-eight (28) discrete soil samples were obtained from selected areas of the Project site and submitted to a State-certified laboratory for analysis of arsenic testing. (GeoTek, 2025, p. 30)

Soil samples were obtained from a depth of up to approximately six inches below the existing ground surface. The twenty-eight (28) composite soil samples were submitted for analysis of OCP in accordance with United States Environmental Protection Agency (EPA) Method 8081A. In addition, twenty-eight (28) discrete samples were submitted for analysis of arsenic in accordance with EPA Method 6010B. (GeoTek, 2025, p. 30)

Analysis of the soil samples detected measurable quantities of the OCP constituent DDE in ten (10) of the soil samples collected. The OCP constituent DDT was detected in three (3) of the soil samples collected. The OCP constituent chlordane was detected in one (1) of the soil samples collected. The applicable results of the

laboratory analysis are summarized in Table 1 of the Project's Phase I/II ESA (*Technical Appendix H* to this EIR). (GeoTek, 2025, pp. 30-31)

The detected OCP constituents are all in a concentration well below the screening level for residential soils, as determined by EPA Regional Screening Level (RSL) for residential soil. The analysis of the remaining OCP constituents in the soil samples tested were below EPA screening levels for residential soils.

Analysis of the soil samples detected measurable quantities of arsenic in eleven (11) of the soil samples tested and collected from the Project site. The applicable results of the laboratory analysis are summarized on pages 31-32 of the Project's Phase I/II ESA (*Technical Appendix H* to this EIR). (GeoTek, 2025, p. 31)

EPA and the Department of Toxic Substance Control (DTSC) have acknowledged that naturally occurring arsenic in southern California typically exceeds the maximum, with levels recorded up to 12mg/kg in many areas. Therefore, it is GeoTek's opinion that the arsenic detected in samples ARS-2, ARS-6, ARS-7, ARS-8, ARS-17, ARS-18, ARS-24, ARS-25, ARS-26, ARS-27, and ARS-28 is not the result of environmental contamination but is naturally occurring. The laboratory report and Chain-of-Custody documentations are included in Appendix F to the Project's Phase I/II ESA (*Technical Appendix H* to this EIR). (GeoTek, 2025, p. 32)

Based on the laboratory testing completed, there appears to be minor amounts of the OCP constituents DDE, DDT and chlordane, as well as minor concentrations of arsenic. However, the detectable quantities are below the residential screening limits for residential soil. Based on this limited testing, there are no obvious sources of near surface contamination as a result of the previous pesticide use on the Project site. Therefore, it is GeoTek's opinion that additional investigation is not warranted at this time. (GeoTek, 2025, p. 32)

D. Airport Hazards

The Project site is not located within two miles of a public airport or within an airport land use plan. However, the Project site is located within Compatibility Zone D (Primary Traffic Patterns and Runway Buffer Area) of the March Air Reserve Base/Inland Port Airport (herein, "MARB") (RCIT, n.d.). According to the Riverside County Airport Land Use Compatibility Plan Policy Document (herein, "ALUCP"), within Compatibility Zone D residential uses are intended to be developed at an average density of either less than 0.2 dwelling units per acre (du/ac) or greater than 5.0 du/ac, with the number of people generally restricted to an average of 100 people per acre, with any single acre having no more than 100 people. Prohibited uses within Zone D include highly noise-sensitive outdoor recreational uses and hazards to flight. Requirements for Zone D also include airspace review for objects greater than 70 feet in height and deed notices to future property owners advising them of the potential for aircraft overflights. (RCALUC, 2004, Table 2-A) According to the Compatibility Zone Factors identified in the MARB Airport Land Use Compatibility Plan ("MARB ALUCP"), the risk level within Compatibility Zone B is considered "low," with risks primarily concerned with uses for which potential consequences are severe (e.g., very high-intensity activities in a confined area) (RCALUC, 2014).

4.9.2 Applicable Environmental Regulations

The following is a brief description of the federal, State, and local environmental laws and related regulations related to hazards and hazardous materials.

A. *Hazardous Materials Regulations and Plans*

1. *Federal Regulations*

❑ Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and Superfund Amendments and Reauthorization Act (SARA)

The Comprehensive Environmental Response, Compensation, and Liability Act, also known as CERCLA or Superfund, provides a Federal "Superfund" to clean up uncontrolled or abandoned hazardous-waste sites as well as accidents, spills, and other emergency releases of pollutants and contaminants into the environment. Through CERCLA, the Environmental Protection Agency (EPA) was given power to seek out those parties responsible for any release and assure their cooperation in the cleanup. EPA cleans up orphan sites when potentially responsible parties cannot be identified or located, or when they fail to act. Through various enforcement tools, EPA obtains private party cleanup through orders, consent decrees, and other small party settlements. EPA also recovers costs from financially viable individuals and companies once a response action has been completed. (EPA, 2020f)

EPA is authorized to implement the Act in all 50 states and U.S. territories. Superfund site identification, monitoring, and response activities in states are coordinated through the state environmental protection or waste management agencies. (EPA, 2020f)

The Superfund Amendments and Reauthorization Act (SARA) of 1986 reauthorized CERCLA to continue cleanup activities around the country. Several site-specific amendments, definitions clarifications, and technical requirements were added to the legislation, including additional enforcement authorities. Also, Title III of SARA authorized the Emergency Planning and Community Right-to-Know Act (EPCRA). (EPA, 2020f)

❑ Resource Conservation and Recovery Act (RCRA)

The Resource Conservation and Recovery Act (RCRA) gives EPA the authority to control hazardous waste from the "cradle-to-grave." This includes the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also set forth a framework for the management of non-hazardous solid wastes. The 1986 amendments to RCRA enabled EPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances. (EPA, 2020g)

The Federal Hazardous and Solid Waste Amendments (HSWA) are the 1984 amendments to 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 EPA, more stringent hazardous waste management standards, and a comprehensive underground storage tank program. (EPA, 2020g)

❑ Hazardous Materials Transportation Act (HMTA)

The Hazardous Materials Transportation Act of 1975 (HMTA) empowered the Secretary of Transportation to designate as hazardous material any "particular quantity or form" of a material that "may pose an unreasonable risk to health and safety or property." (OSHA, n.d.)

Hazardous materials regulations are subdivided by function into four basic areas:

- Procedures and/or Policies 49 CFR Parts 101, 106, and 107
- Material Designations 49 CFR Part 172
- Packaging Requirements 49 CFR Parts 173, 178, 179, and 180
- Operational Rules 49 CFR Parts 171, 173, 174, 175, 176, and 177 (OSHA, n.d.)

The HMTA is enforced by use of compliance orders [49 U.S.C. 1808(a)], civil penalties [49 U.S.C. 1809(b)], and injunctive relief (49 U.S.C. 1810). The HMTA (Section 112, 40 U.S.C. 1811) preempts state and local governmental requirements that are inconsistent with the statute, unless that requirement affords an equal or greater level of protection to the public than the HMTA requirement. (OSHA, n.d.)

❑ Hazardous Materials Transportation Uniform Safety Act of 1990

In 1990, Congress enacted the Hazardous Materials Transportation Uniform Safety Act (HMTUSA) to clarify the maze of conflicting state, local, and federal regulations. Like the HMTA, the HMTUSA requires the Secretary of Transportation to promulgate regulations for the safe transport of hazardous material in intrastate, interstate, and foreign commerce. The Secretary also retains authority to designate materials as hazardous when they pose unreasonable risks to health, safety, or property. (OSHA, n.d.)

The statute includes provisions to encourage uniformity among different state and local highway routing regulations, to develop criteria for the issuance of federal permits to motor carriers of hazardous materials, and to regulate the transport of radioactive materials. (OSHA, n.d.)

❑ Occupational Safety and Health Act (OSHA)

Congress passed the Occupational and Safety Health Act (OSHA) to ensure worker and workplace safety. Their goal was to make sure employers provide their workers a place of employment free from recognized hazards to safety and health, such as exposure to toxic chemicals, excessive noise levels, mechanical dangers, heat or cold stress, or unsanitary conditions. (EPA, 2019)

In order to establish standards for workplace health and safety, the Act also created the National Institute for Occupational Safety and Health (NIOSH) as the research institution for OSHA. OSHA is a division of the U.S. Department of Labor that oversees the administration of the Act and enforces standards in all 50 states. (EPA, 2019)

❑ Toxic Substances Control Act

The Toxic Substances Control Act (TSCA) of 1976 provides EPA with authority to require reporting, record-keeping and testing requirements, and restrictions relating to chemical substances and/or mixtures. Certain substances are generally excluded from TSCA, including, among others, food, drugs, cosmetics, and pesticides. TSCA addresses the production, importation, use, and disposal of specific chemicals including polychlorinated biphenyls (PCBs), asbestos, radon, and lead-based paint. (EPA, 2020h)

Various sections of TSCA provide authority to:

- Require, under Section 5, pre-manufacture notification for "new chemical substances" before manufacture
- Require, under Section 4, testing of chemicals by manufacturers, importers, and processors where risks or exposures of concern are found
- Issue Significant New Use Rules (SNURs), under Section 5, when it identifies a "significant new use" that could result in exposures to, or releases of, a substance of concern.
- Maintain the TSCA Inventory, under Section 8, which contains more than 83,000 chemicals. As new chemicals are commercially manufactured or imported, they are placed on the list.
- Require those importing or exporting chemicals, under Sections 12(b) and 13, to comply with certification reporting and/or other requirements.
- Require, under Section 8, reporting and record-keeping by persons who manufacture, import, process, and/or distribute chemical substances in commerce.
- Require, under Section 8(e), that any person who manufactures (including imports), processes, or distributes in commerce a chemical substance or mixture and who obtains information which reasonably supports the conclusion that such substance or mixture presents a substantial risk of injury to health or the environment to immediately inform EPA, except where EPA has been adequately informed of such information. EPA screens all TSCA b§8(e) submissions as well as voluntary "For Your Information" (FYI) submissions. The latter are not required by law, but are submitted by industry and public interest groups for a variety of reasons. (EPA, 2020h)

2. State Regulations

❑ Cal/OSHA and the California State Plan

Under an agreement with OSHA, since 1973 California has operated an occupational safety and health program in accordance with Section 18 of the federal OSHA. The State of California's Department of Industrial Relations administers the California Occupational Safety and Health Program, commonly referred to as Cal/OSHA. The State of California's Division of Occupational Safety and Health (DOSH) is the principal agency that oversees plan enforcement and consultation. In addition, the California State program has an independent Standards Board responsible for promulgating State safety and health standards, and reviewing variances. It also has an Appeals Board to adjudicate contested citations and the Division of Labor Standards Enforcement to investigate complaints of discriminatory retaliation in the workplace. (OSHA, n.d.)

Pursuant to 29 CFR 1952.172, the California State Plan applies to all public and private sector places of employment in the state, with the exception of federal employees, the United States Postal Service, private sector employers on Native American lands, maritime activities on the navigable waterways of the United States, private contractors working on land designated as exclusively under federal jurisdiction and employers that require federal security clearances. Cal/OSHA is the only agency in the state authorized to adopt, amend, or repeal occupational safety and health standards or orders. In addition, the Standards Board maintains standards for certain things not covered by federal standards or enforcement, including: elevators, aerial passenger tramways, amusement rides, pressure vessels and mine safety training. The Cal/OSHA enforcement unit conducts inspections of California workplaces in response to a report of an industrial accident, a complaint about an occupational safety and health hazard, or as part of an inspection program targeting industries with high rates of occupational hazards, fatalities, injuries or illnesses. (OSHA, n.d.)

❑ California Hazardous Waste Control Law

The Hazardous Waste Control Law (HWCL) (Health and Safety Code [HSC], Division 20, Chapter 6.5, Section 25100, et seq.) is the primary hazardous waste statute in California. The HWCL implements RCRA as a "cradle-to-grave" waste management system in the state. It specifies that generators have the primary duty to determine whether their wastes are hazardous and to ensure its proper management. The HWCL also establishes criteria for the reuse and recycling of hazardous wastes used or reuse as raw materials. The HWCL exceeds federal requirements by mandating source reduction planning and broadening requirements for permitting facilities that treat hazardous waste. It also regulates a number of waste types and waste management activities not covered by federal law (RCRA). (CA Legislative Info, n.d.)

❑ California Code of Regulations (CCR), Titles 22 and 26

A variety of California Code of Regulation (CCR) titles address regulations and requirements for generators of hazardous waste. Title 22 contains detailed compliance requirements for hazardous waste generators, transporters, and facilities for treatment, storage, and disposal. Because California is a fully-authorized state according to RCRA, most regulations (i.e., 40 CFR 260, et seq.) have been duplicated and integrated into Title 22. However, because the Department of Toxic Substances Control (DTSC) regulates hazardous waste more stringently than the EPA, the integration of state and federal hazardous waste regulations that make up Title 22 does not contain as many exemptions or exclusions as does 40 CFR 260. As with the HSC, Title 22 also regulates a wider range of waste types and waste management activities than does RCRA. To aid the regulated community, California has compiled hazardous materials, waste, and toxics-related regulations from CCR, Titles 3, 8, 13, 17, 19, 22, 23, 24 and 27 into one consolidated listing: CCR Title 26 (Toxics). However, the hazardous waste regulations are still commonly referred to collectively as "Title 22." (DTSC, n.d.; DTSC, 2019)

❑ Safe Drinking Water and Toxic Enforcement Act

Proposition 65, officially known as the Safe Drinking Water and Toxic Enforcement Act of 1986 (Health and Safety Code, Division 20, Chapter 6.6, Section 25249.5, et seq), protects the state's drinking water sources from being contaminated with chemicals known to cause cancer, birth defects, or other reproductive harm, and requires businesses to inform Californians about exposures to such chemicals. Proposition 65 requires the state to maintain and update a list of chemicals known to the state to cause cancer or reproductive toxicity. (CA Legislative Info, n.d.)

❑ California Water Code

The California Water Code is the principal state law regulating water quality in California. Water quality provisions must be complied with as contained in numerous code sections including: 1) the Health and Safety Code for the protection of ground and surface waters from hazardous waste and other toxic substances; 2) the Fish and Game Code for the prevention of unauthorized diversions of any surface water and discharge of any substance that may be deleterious to fish, plant, animal, or bird life; 3) the Harbors and Navigation Code for the prevention of the unauthorized discharge of waste from vessels into surface waters; and 4) the Food and Agriculture Code for the protection of groundwater which may be used for drinking water supplies. The California Department of Fish and Wildlife (CDFW), through provisions of the Fish & Game Code (§§ 1601

- 1603) is empowered to issue agreements for any alteration of a river, stream, or lake where fish or wildlife resources may be adversely affected. CDFW regulates wetland areas only to the extent that those wetlands are part of a river, stream, or lake as defined by CDFW. (CA Legislative Info, n.d.)

Surface water quality is the responsibility of the Regional Water Quality Control Board (RWQCB), water supply and wastewater treatment agencies, and city and county governments. The principal means of enforcement by the RWQCB is through the development, adoption, and issuance of water discharge permits. RWQCB basin plans establish water quality objectives that are defined as the limits or levels of water quality constituents or characteristics for the reasonable protection of beneficial uses of water. (CA Legislative Info, n.d.)

❑ Unified Hazardous Waste and Hazardous Materials Management Regulatory Program

California's Unified Program, overseen but the California Environmental Protection Agency (CalEPA), protect Californians from hazardous waste and hazardous materials by ensuring local regulatory agencies consistently apply statewide standards when they issue permits, conduct inspections, and engage in enforcement activities. The Unified Program is a consolidation of multiple environmental and emergency management programs, including the following:

- Aboveground Petroleum Storage Act (APSA) Program;
- Area Plans for Hazardous Materials Emergencies;
- California Accidental Release Prevention (CalARP) Program;
- Hazardous Materials Release Response Plans and Inventories (Business Plans);
- Hazardous Materials Management Plan (HMMP) and Hazardous Materials Inventory Statements (HMIS) (California Code)
- Hazardous Waste Generator and Onsite Hazardous Waste Treatment (tiered permitting) Programs; and
- Underground Storage Tank Program.

State agency partners involved in the implementation of the Unified Program are responsible for setting program element standards, working with CalEPA to ensure program consistency, and providing technical assistance to the California Unified Program Agencies (CUPAs) and Program Agencies (PAs). The state agencies involved with the Unified Program include CalEPA, Department of Toxic Substances Control (DTSC), the Governor's Office of Emergency Services (Cal OES), CAL FIRE – Office of the State Fire Marshall (CAL FIRE-OSFM), and the State Water Resources Control Board (State Water Board). (CalEPA, 2021)

❑ Uniform Fire Code

The Uniform Fire Code, Article 80 (Section 80.103 of the Uniform Fire Code as adopted by the State Fire Marshal pursuant to HSC Section 13143.9), includes specific requirements for the safe storage and handling of hazardous materials. These requirements are intended to reduce the potential for a release of hazardous materials and for mixing of incompatible chemicals, and specify the following specific design features to reduce the potential for a release of hazardous materials that could affect public health or the environment:

- Separation of incompatible materials with a noncombustible partition;
- Spill control in all storage, handling, and dispensing areas; and

- Separate secondary containment for each chemical storage system. The secondary containment must hold the entire contents of the tank, plus the volume of water needed to supply the fire suppression system for a period of 20 minutes in the event of catastrophic spill. (FindLaw, 2019a)

❑ License to Transport Hazardous Materials

Caltrans regulates hazardous materials transportation on all interstate roads (California Vehicle Code, Section 32000.5, et seq). Within California, the State agencies with primary responsibility for enforcing federal and State regulations and for responding to transportation emergencies are the California Highway Patrol and Caltrans. Together, federal and State agencies determine driver-training requirements, load labeling procedures, and container specifications for vehicles transporting hazardous materials. (FindLaw, 2019b)

❑ California Hazardous Materials Release Response Plan and Inventory Law of 1985

The Business Plan Act requires preparation of Hazardous Materials Business Plans and disclosure of hazardous materials inventories, including an inventory of hazardous materials handled, plans showing where hazardous materials are stored, an emergency response plan, and provisions for employee training in safety and emergency response procedures for businesses that handle, store, or transport hazardous materials in amounts exceeding specified minimums (California Health and Safety Code, Division 20, Chapter 6.95, Article 1). Statewide, DTSC has primary regulatory responsibility for management of hazardous materials, with delegation of authority to local jurisdictions that enter into agreements with the State. Local agencies are responsible for administering these regulations.

Several state agencies regulate the transportation and use of hazardous materials to minimize potential risks to public health and safety, including CalEPA and the California Emergency Management Agency. The California Highway Patrol and California Department of Transportation (Caltrans) enforce regulations specifically related to the transport of hazardous materials. Together, these agencies determine container types used and license hazardous waste haulers for hazardous waste transportation on public roadways. (CA Legislative Info, n.d.)

❑ Senate Bill 1137 (SB 1137)

SB 1137 is intended to protect the public health of California's communities by creating a minimum health and safety distance of 3,200-feet between sensitive receptors, such as a residence, school, childcare facility, playground, hospital, or nursing home and an oil and gas production well. Specifically, the bill prohibits the California Geological Energy Management Division (CalGEM) from approving the drilling, re-drilling, or significant alteration of any oil and gas well within this "health protection zone." SB 1137 also requires oil and gas facility operators in these protection zones to implement strict pollution controls, and to develop response plans to protect the health of Californians currently living within 3,200 feet of an existing oil well. SB 1137 also requires operators of wells/facilities to provide an individual indemnity bond sufficient to pay the full cost of properly plugging and abandoning the well and decommissioning the facility in order to prevent operators from failing to properly decommission. **Invalid source specified.**

B. Airport and Aircraft Hazards Regulations and Plans

1. State Regulations

❑ State Aeronautics Act

The State Aeronautics Commission Act of 1947 created the Division of Aeronautics ("Division"), and was later amended by statute to read the State Aeronautics Act (Aeronautics Act) in 1961. As a result of this legislation, the Division's first priorities are those mandated by the Aeronautics Act, then Caltrans guidance, then Division guidance as expressed through its Policy Element. As directed by the Aeronautics Act, the Division is a steward and advocate of aviation in California. To that end, its efforts are focused on activities that "protect the public interest in aeronautics and aeronautical progress." (§ 21002) (CA Legislative Info, n.d.)

The Aeronautics Act itself is divided into six chapters, the first five of which have not received significant cleanup legislation since its enabling in 1947. The first chapter begins with general provisions and definitions and explains the Legislature's intent for a State aviation program. Chapter two explains Caltrans' role in administering the Division, and explains the role of the California Transportation Commission (CTC). Chapter three includes many of the safety considerations from Federal Aviation Administration (FAA) regulations that help keep airports and the surrounding communities safe and compatible with flight operations. Chapter four deals with airport and heliport permitting, air navigation facilities, noise guidelines, funding, and importantly, the formation and authority of Airport Land Use Commissions (ALUC). Chapter five covers the investigations and hearings on matters covered in the Aeronautics Act. Finally, Chapter six introduces airport planning and specifically introduces the intent of the CASP and how it can be used to support California aviation. (CA Legislative Info, n.d.)

❑ California Environmental Quality Act

The operation of airports and aircraft is the responsibility of the Federal Aviation Administration (FAA), but the requirement to document potential hazards related to airports and air activities when a new project is proposed is contained in CEQA, specifically PRC Section 21096, which states: (CA Legislative Info, n.d.)

> *"(a) If a lead agency prepares an environmental impact report for a project situated within airport land use compatibility plan boundaries, or, if an airport land use compatibility plan has not been adopted, for a project within two nautical miles of a public airport or public use airport, the Airport Land Use Planning Handbook published by the Division of Aeronautics of the Department of Transportation, in compliance with section 21674.5 of the Public Utilities Code and other documents, shall be utilized as technical resources to assist in the preparation of the environmental impact report as the report relates to airport-related safety hazards and noise problems.*
>
> *(b) A lead agency shall not adopt a negative declaration for a project described in subdivision (a) unless the lead agency considers whether the project will result in a safety hazard or noise problem for persons using the airport or for persons residing or working in the project area."*

4.9.3 Basis for Determining Significance

Section IX of Appendix G to the State CEQA Guidelines addresses typical adverse effects due to hazards and hazardous materials, and includes the following threshold questions to evaluate a project's impacts due to hazards and hazardous materials (OPR, 2018a).

- *Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?*
- *Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?*
- *Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?*
- *Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?*
- *For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?*
- *Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?*
- *Would the project expose people or structures, either directly or indirectly, 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?*

Significance thresholds are set forth in Riverside County's Environmental Assessment Checklist, are derived from Section IX of Appendix G to the State CEQA Guidelines (listed above), and state that the proposed Project would have a significant impact from hazards and hazardous materials if construction and/or operation of the Project would:

a. *Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;*

b. *Create a significant hazard to the public, or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment;*

c. *Impair implementation of or physically interfere with an adopted emergency response plan or an emergency evacuation plan;*

d. *Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;*

e. Be located on a site, which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public, or the environment;

f. Result in an inconsistency with an Airport Master Plan;

g. Require review by the Airport Land Use Commission;

h. For a project located within an airport land use plan or, where such a plan has not been adopted, within two (2) miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area; or

i. For a project within the vicinity of a private airstrip, or heliport, would the project result in a safety hazard for people residing or working in the project area.

The significance thresholds set forth in Riverside County's Environmental Assessment Checklist were used to evaluate the significance of the proposed Project's impacts due to hazards and hazardous materials. It should be noted that the issue of loss, injury, or death involving wildland fires is addressed separately in EIR Subsection 4.21, *Wildfire*.

4.9.4 IMPACT ANALYSIS

Threshold a.:	***Would the Project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?***
Threshold b.:	***Would the Project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?***

Implementation of the Project would result in the construction and long-term operation of 231 single-family residential homes, a sewer lift station, water quality basins, a trailhead/parking area, roadways, and open space. The analysis below evaluates the potential for the Project to result in a substantial hazard to people or the environment due to existing site conditions, site demolition activities, construction activities, and long-term operation.

Impact Analysis for Existing Site Conditions

As indicated above under subsection 4.9.1, based on the Phase I ESA prepared by GeoTek (*Technical Appendix H*), based on a review of historical documents and regulatory records, and based on the site reconnaissance, there are no indications of on-site or off-site RECs affecting the Project site. Although the Project site historically has been used for agricultural production, and although the results of the limited soil testing on the Project site determined that although the site contains minor amounts of the OCP constituents DDE, DDT and chlordane, as well as minor concentrations of arsenic, the detectable quantities evaluated are below the residential screening limits for residential soil. Based on this limited testing, there are no obvious sources of near surface contamination as a result of the previous pesticide use on the Project site. (GeoTek, 2025, p. 32) Based on these findings, there are no conditions associated with the Project site's existing condition or surroundings that would create a significant hazard to the public or the environment through the routine

transport, use, disposal, or accidental release of hazardous materials. Accordingly, no impact would occur associated with the Project site's existing conditions.

Impact Analysis for Project Demolition Activities

While not an REC, the existing single-family residence on site is reported to have been built in or around 1967 (GeoTek, 2025, p. 1). The use of asbestos containing materials (ACMs) (a known carcinogen) and lead-based paint (LBP) (a known toxin) was common in building construction prior to 1978. Assuming that ACMs are present in the structure located on the Project site, SCAQMD Rule 1403 would apply to the Project, which requires notification of the SCAQMD prior to commencing any demolition or renovation activities. Rule 1403 also sets forth specific procedures for the removal of asbestos, and requires that an on-site representative trained in the requirements of Rule 1403 be present during the stripping, removing, handling, or disturbing of ACMs. Mandatory compliance with the provisions of Rule 1403 would ensure that construction-related demolition activities do not expose construction workers or nearby sensitive receptors to significant health risks associated with ACMs. Because the Project would be required to comply with AQMD Rule 1403 during demolition activities, impacts due to potential asbestos exposure would be less than significant.

During demolition of the existing residential building on-site, there also is a potential to expose construction workers to health hazards associated with LBPs. Title 17, California Code of Regulations (CCR), Division 1, Chapter 8: *Accreditation, Certification and Work Practices for Lead-Based Paint and Lead Hazards*, defines and regulates lead-based paint. Any detectable amount of lead is regulated. The Project Applicant would be required to comply with Title 17, California Code of Regulations (CCR), Division 1, Chapter 8, which includes requirements such as employer provided training, air monitoring, protective clothing, respirators, and hand washing facilities. Mandatory compliance with these requirements would ensure that construction workers and the public are not exposed to significant LBP health hazards during demolition and/or during transport of demolition waste to an appropriate disposal facility, and would ensure that impacts related to LBP remain less than significant.

As such, impacts due to hazards associated with demolition of the existing single-family home would be less than significant.

Impact Analysis for Temporary Construction-Related Activities

Heavy equipment (e.g., dozers, excavators, tractors) would be operated on the Project site during construction of the Project. This heavy equipment likely would be fueled and maintained by petroleum-based substances such as diesel fuel, gasoline, oil, and hydraulic fluid, which are considered hazardous if improperly stored or handled. In addition, materials such as paints, adhesives, solvents, and other substances typically used in building construction would be used on the Project site during construction. Improper use, storage, or transportation of hazardous materials can result in accidental releases or spills, potentially posing health risks to workers, the public, and the environment. This is a standard risk on all construction sites, and there would be no greater risk for improper handling, transportation, or spills associated with the Project than would occur on any other similar construction site. Construction contractors would be required to comply with all applicable federal, State, and local laws and regulations regarding the transport, use, and storage of hazardous construction-related materials, including but not limited to requirements imposed by the Environmental Protection Agency (EPA) and DTSC, as well as the Santa Ana Regional Water Quality Control Board

(RWQCB) pertaining to water quality as discussed in EIR Subsection 4.10, *Hydrology and Water Quality*. With mandatory compliance with applicable hazardous materials regulations, the Project would not create significant hazard to the public or the environment through routine transport, use, or disposal of hazardous materials during the construction phase. A less-than-significant impact would occur.

Impact Analysis for Long-Term Operation

The Project would entail the future development of 231 single-family residential homes, a sewer lift station, water quality basins, a trailhead/parking area, and roadways. None of the proposed uses are associated with the transport, use, or disposal of significant quantities of hazardous materials. Household and other goods used by residential homes and retail uses that contain toxic substances are usually low in concentration and small in amount; therefore, there is no significant risk to humans or the environment from the use of such household goods. Residents are required to dispose of household hazardous waste, including pesticides, batteries, old paint, solvents, used oil, antifreeze, and other chemicals, at a Household Hazardous Waste Collection Facility. Also, as of February 2006, fluorescent lamps, batteries, and mercury thermostats can no longer be disposed in the trash. Furthermore, the transport, use, and disposal of hazardous materials are fully regulated by the EPA, State, and/or the County of Riverside. With mandatory regulatory compliance, potential hazardous materials impacts associated with the Project's proposed uses under long-term operational conditions would be less than significant.

Threshold c.: ***Would the Project impair implementation of or physically interfere with an adopted emergency response plan or an emergency evacuation plan?***

The Project site does not contain any emergency facilities nor does it serve as an emergency evacuation route. Additionally, there are no emergency response plans or emergency evacuation plans in effect in the local area. During construction and at Project build-out, the proposed Project would be required to maintain adequate access for emergency vehicles. Additionally, a Project-specific Fire Evacuation Analysis (FEA), included as *Technical Appendix L2* to this EIR, was prepared in order to analyze evacuation times for the Project and surrounding areas in the case of wind-driven wildfires. Buildout of the proposed Project was not found to result in unsafe evacuation timeframes. A complete analysis of the FEA is included in Subsection 4.21, *Wildfires*. Refer to *Technical Appendix L2* for a discussion of evaluation methodology and calculations used.

Furthermore, improvements planned as part of the Project are not anticipated to adversely affect traffic operations in the local area, including along nearby segments of Iris Avenue. As part of the County's discretionary review process, Riverside County reviewed the Project's application materials to ensure that appropriate emergency ingress and egress would be available to and from the Project site and that circulation on the Project site was adequate for emergency vehicles. As a result of this review, the Project includes two Emergency Vehicle Access (EVA) points, with one each along the western and eastern boundaries of the Project site. There are no components of the Project that would impair implementation of or physically interfere with an adopted emergency response plan or an emergency evacuation plan. Accordingly, impacts would be less than significant.

Threshold d.:	***Would the Project emit hazardous emissions, or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?***

The nearest public school to the Project site is the Frank Augustus Miller Middle School, located approximately 0.5-mile south of the Project site. However, Woodcrest Christian, a private school, occurs approximately 0.3-mile east of the Project site. Although there are no schools within 0.25-mile of the Project site, the Goddard School of Riverside is located approximately 0.1-mile southeast of the Project site and provides daycare and preschool education services. As described above under the analysis for Thresholds a. and b., the use of and transport of hazardous substances or materials to and from the Project site during construction and long-term operational activities would be required to comply with applicable federal, State, and local regulations that would preclude substantial public safety hazards. Furthermore, the land uses proposed as part of the Project, which primarily consists of proposed residential uses, are not associated with the generation, handling, or use of hazardous or acutely hazardous materials. Accordingly, there would be no potential for existing or proposed schools located within one-quarter mile of the Project site to be exposed to substantial safety hazards associated with emission, handling, or the routine transport of hazardous substances or materials to-and-from the Project site, and impacts would be less than significant.

Threshold e.:	***Would the Project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?***

The Phase I/II ESA prepared for the Project site (*Technical Appendix H*) included a review of regulatory databases, and determined that the Project site is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 (GeoTek, 2025, pp. 14-21). As such, the Project would not create a significant hazard to the public or the environment due to the Project site's inclusion on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5, and no impact would occur.

Threshold f:	***Would the Project result in an inconsistency with an Airport Master Plan?***
Threshold g:	***Would the Project require review by the Airport Land Use Commission?***
Threshold h:	***For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?***

The Project site is not located within the boundaries of any Airport Master Plans, and no impact due to an inconsistency with an Airport Master Plan would occur. As previously indicated, although the Project site is not located within two miles of any airports, the Project site is located within the Airport Influence Area (AIA) for the MARB. More specifically, the Project site is located within Compatibility Zone D (Primary Traffic Patterns and Runway Buffer Area) of the MARB ALUCP. (RCIT, n.d.)

Because the Project site is located within the AIA for the MARB, the Project required review by the Riverside County Airport Land Use Commission (ALUC). In accordance with the MARB ALUCP, the Riverside County ALUC reviewed the Project's applications materials for consistency with the ALUCP on April 13, 2023. Based on the result of the ALUC's review, the Project was determined to be fully consistent with the March ARB ALUCP, subject to certain ALUC standard conditions of approval (refer to subsection 4.9.7). A copy of the ALUC approval letter is included in EIR *Technical Appendix M.* As such, and assuming mandatory

compliance with the standard ALUC conditions of approval, the Project would result in less-than-significant impacts due to a conflict with the MARB ALUCP, and therefore would not result in a safety hazard for people residing or working in the Project area. With mandatory compliance with the standard conditions of approval imposed on the Project by the ALUC, Project impacts associated with airport operations would be less than significant.

Threshold i.:	***For a project within the vicinity of a private airstrip, or heliport, would the Project result in a safety hazard for people residing or working in the project area?***

There are no private airport facilities or heliports within the Project vicinity. The nearest private airport is the Perris Valley Airport, located approximately 10.9 miles southeast of the Project site (Google Earth, 2021). However, according to the Riverside County ALUCP policy document, the Project site is not located within the AIA for the Perris Valley Airport, and also is not identified as being located within any of the Compatibility Zones for the Perris Valley Airport (ALUC, 2010). As such, the Project would not result in a safety hazard for people residing or working in the Project area associated with private airports or heliports, and no impact would occur.

4.9.5 Cumulative Impact Analysis

Because the issue of hazards and hazardous materials tends to be site-specific in nature, the cumulative study area includes existing and planned developments within a one-mile radius of each Project site. A one-mile radius is appropriate because that is the standard distance used in regulatory database searches of properties that may generate or store toxic materials.

As discussed under the analysis of Thresholds a. and b., under existing conditions the Project site does not contain any RECs that could create a significant hazard to the public or the environment. Although the existing single-family residence on site may contain ACMs and/or LBP, compliance with applicable regulations during construction would ensure that Project demolition activities do not expose nearby sensitive receptors or construction workers to significant health risks. There are no other conditions associated with the Project's construction or operations that could result in a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, or conditions that could create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. Accordingly, cumulatively-considerable impacts would be less than significant.

The Project site does not contain any emergency facilities nor would the Project impact an emergency evacuation route. Other cumulative developments would be reviewed by the County of Riverside to ensure no interference with emergency access and evacuation routes would occur. Accordingly, the Project has no potential to result in cumulatively-considerable impacts associated with emergency evacuation plans or evacuation routes, and impacts would be less than significant.

Although there are no schools within 0.25-mile of the Project site, the Goddard School of Riverside is located approximately 0.1-mile southeast of the Project site and provides daycare and preschool education services. However, the Project does not contain any land uses associated with the emissions or handling of hazardous or acutely hazardous materials, substances, or waste. As discussed under Threshold d., the use of and transport

of hazardous substances or materials to and from the Project site during construction and long-term operational activities would be required to comply with applicable federal, State, and local regulations that would preclude substantial public safety hazards. As such, cumulatively-considerable hazardous materials impacts to nearby schools would be less than significant.

As discussed under the analysis of Threshold e., the Project site is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, the Project would not create a significant hazard to the public or the environment. Cumulatively-considerable impacts would not occur.

The Project site is located within Compatibility Zone D (Primary Traffic Patterns and Runway Buffer Area) of the MARB ALUCP. Based on the result of the ALUC's review, the Project was determined to be fully consistent with the MARB ALUCP, subject to certain ALUC standard conditions of approval (refer to subsection 4.9.7). Other cumulative developments within the AIA for the MARB similarly would be required to be reviewed by the ALUC, and would be subject to any conditions of approval that may be imposed by the ALUC. Accordingly, cumulatively-considerable impacts due to an inconsistency with an Airport Master Plan would not occur. Additionally, impacts due to a conflict with an ALUCP would be less-than-cumulatively considerable.

The Project site is located outside of the AIA for the Perris Valley Airport, which is the nearest active private airport facility; thus, cumulatively-considerable impacts would not occur.

4.9.6 Significance of Impacts Before Mitigation

Thresholds a. and b.: Less-than-Significant Impact. Based on the Phase I/II ESA prepared by GeoTek (*Technical Appendix H*), there are no indications of on-site or off-site RECs affecting the Project site under existing conditions. During demolition of the existing single-family residence on site, the Project's construction contractors would be required to comply with SCAQMD Rule 1403 to address potential hazards associated with ACMs and with Title 17, CCR, Division 1, Chapter 8 to address potential hazards associated with LBPs. Thus, with mandatory compliance with applicable regulations, potential impacts associated with Project demolition activities would be less than significant. During Project construction and operation, mandatory compliance with federal, State, and local regulations would ensure that the Project as proposed would not create a significant hazard to the public or environment through the routine transport, use, or disposal of hazardous materials.

Threshold c: Less-than-Significant Impact. The Project would not impair or physically interfere with an adopted emergency response plan or emergency evacuation plan. No emergency facilities exist on the Project site, and the site does not serve as an emergency evacuation route. Thus, impacts would be less than significant.

Threshold d: Less-than-Significant Impact. Although there are no existing or planned schools within one-quarter mile of the Project site, the Goddard School of Riverside is located approximately 0.1-mile southeast of the Project site and provides daycare services. However, the Project does not contain any land uses associated with the emissions or handling of hazardous or acutely hazardous materials, substances, or waste. As discussed under Threshold d., the use of and transport of hazardous substances or materials to and from the Project site during construction and long-term operational activities would be required to comply with applicable federal, State, and local regulations that would preclude substantial public safety hazards. With

mandatory regulatory compliance, the Project would not emit hazardous emissions, or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school, and impacts would be less than significant.

Threshold e: No Impact. The analysis conducted by GeoTek included a review of regulatory databases, and determined that the Project site is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. As such, the Project would not create a significant hazard to the public or the environment due to the Project site's inclusion on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5, and no impact would occur.

Thresholds f., g., and h.: Less-than-Significant Impact. The Project site is not located within two miles of a public airport or within an airport land use plan, and there are no components of the proposed Project that would affect airport operations. However, the Project site is located within the AIA for the MARB, the Project required review by the Riverside County Airport Land Use Commission (ALUC), which determined that the Project would be fully consistent with the March ARB ALUCP, subject to certain ALUC standard conditions of approval (refer to subsection 4.9.7). Therefore, the Project would not result in an inconsistency with an Airport Master Plan, would not require review by the Airport Land Use Commission, and would not result in a safety hazard for people residing or working in the Project area. Impacts would be less than significant.

Threshold i: No Impact. There are no active private airstrips in the Project vicinity. The nearest active private airport is the Perris Valley Airport, located 10.9 miles southeast of the Project site. The Project site is not located within the AIA for this facility, and the Project would not be subject to substantial safety hazards due to aircraft operations at the Perris Valley Airport. As such, the Project would not result in a safety hazard for people residing or working in the Project area, and no impact would occur.

4.9.7 Applicable Regulations, Design Requirements, and Mitigation

Applicable Regulations and Design Requirements

The following are applicable regulations and design requirements within Riverside County. Although these requirements technically do not meet CEQA's definition for mitigation, they are imposed herein to ensure Project compliance with applicable regulations and design requirements.

- Prior to the issuance of demolition permits for the existing on-site structures, the Project Applicant shall contract with a certified Asbestos Consultant to perform an asbestos survey for the existing structures on site. In the event asbestos containing materials (ACMs) are identified on site, the County of Riverside shall condition all demolition permits to comply with South Coast Air Quality Management District (SCAQMD) Rule 1403 with respect to asbestos-containing materials and the demolition contractor shall be required to comply with Rule 403. All asbestos-related work conducted during the demolition process shall be performed by a licensed Asbestos-abatement Contractor under the supervision of a certified Asbestos Consultant. Asbestos-containing construction materials (ACCMs) shall be removed and disposed of in compliance with notification and asbestos-removal procedures outlined in SCAQMD Rule 1403 to reduce asbestos-related health risks. During demolition, the demolition contractor shall maintain all records of compliance with Rule 1403, including, but not limited to, the following: evidence of notification of SCAQMD pursuant to Rule

1403; contact information for the Asbestos-abatement Contractor and Asbestos Consultant; and receipts (or other evidence) of off-site disposal of all ACCMs. These records shall be made available for County inspection upon request.

- Prior to the issuance of demolition permits for the existing on-site structures, the Project Applicant shall retain the services of a California-certified Lead Inspector/Risk Assessor to collect lead paint, dust, and/or soil samples. The samples shall be tested at a qualified facility for the presence of lead based paint (LBP). In the event that LBPs are identified, the County of Riverside shall condition all demolition permits to comply with Title 17, California Code of Regulations (CCR), Division 1, Chapter 8 (LBP Regulations), which addresses requirements for the removal of components painted with LBPs during demolition of existing structures. The demolition contractor shall be required to comply with these provisions. Notification to the California Department of Public Health (CDPH) shall be conducted through completion of an Abatement of Lead Hazards Notification, CDPH Form 8551. The removal of all LBP materials shall be conducted:

    - By a Certified Lead Supervisor or Certified Lead Works, as defined by §§ 35008 and 35009 of the LBP Regulations, respectively;
    - In accordance with the procedures specified in Chapter 12: Abatement, "Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing," U.S. Department of Housing and Urban Development, June 1995;
    - Using containment and in a manner which does not result in contamination of non-work areas with lead-contaminated dust, lead-contaminated soil, or lead-based paint debris; and
    - In accordance with an abatement plan prepared by a certified lead supervisor, certified lead project monitor, or certified lead project designer, which includes all of the requirements as specified in § 36100(4)(A) of the LBP Regulations

    The Certified Lead Supervisor conducting abatement shall retain records of the notification to the CDPH, and shall retain a copy of the abatement plan on-site at all times during demolition activities. The notification and abatement plan shall be made available to the County upon request for review. All demolition activities shall be subject to inspection by the CDPH and/or County officials to ensure compliance with the requirements of the LBP Regulations and abatement plan. Following completion of all abatement activities, a clearance inspection shall be conducted by a certified lead inspector/assessor or certified lead project monitor in accordance with §§ 36000(a) and 36000(c)(3) of Title 17, CCR, Division 1, Chapter 8. A copy of the results of the clearance inspection shall be provided to the County Planning Department upon completion of abatement and inspection activities.

- All future contracts with construction contractors shall comply with all applicable regulations and requirements promulgated by the federal Occupational Safety and Health Administration (OSHA).

- The Project shall comply with Title 22, Division 4.5 of the California Code of Regulations, which requires residents and employees to dispose of household hazardous waste, including pesticides, batteries, old paint, solvents, used oil, antifreeze, and other chemicals, at a Household Hazardous Waste Collection Facility.

- The Project shall comply with Title 22, Division 4.5, Chapter 11 of the California Code of Regulations which requires fluorescent lamps, batteries, and mercury thermostats be recycled or taken to a Household Hazardous Waste Collection Facility.

Mitigation

With mandatory compliance with applicable regulatory requirements, the Project would not result in any impacts due to hazards and hazardous materials; therefore, mitigation measures are not required.

4.10 HYDROLOGY AND WATER QUALITY

The following analysis is based on a study entitled, "Drainage Study for Arroyo Vista," prepared by Rick Engineering Company (herein, "Rick Engineering"), dated May 8, 2024, and included as EIR *Technical Appendix I1* (Rick Engineering, 2024a). The analysis in this Subsection 4.10 also is based in part on a preliminary Water Quality Management Plan (WQMP) titled, "Project Specific Water Quality Management Plan," also prepared by Rick Engineering, dated May 8, 2024, and included as EIR *Technical Appendix I2* (Rick Engineering, 2024b). Additionally, a hydraulic analysis titled "Hydraulic Analysis Report for Goldenstar Creek," dated May 8, 2024, and authored by Rick Engineering is included as EIR *Technical Appendix I3* (Rick Engineering, 2024c). Refer to Section 7.0*, References*, for a complete list of these and other reference sources.

4.10.1 EXISTING CONDITIONS

A. Regional Hydrology

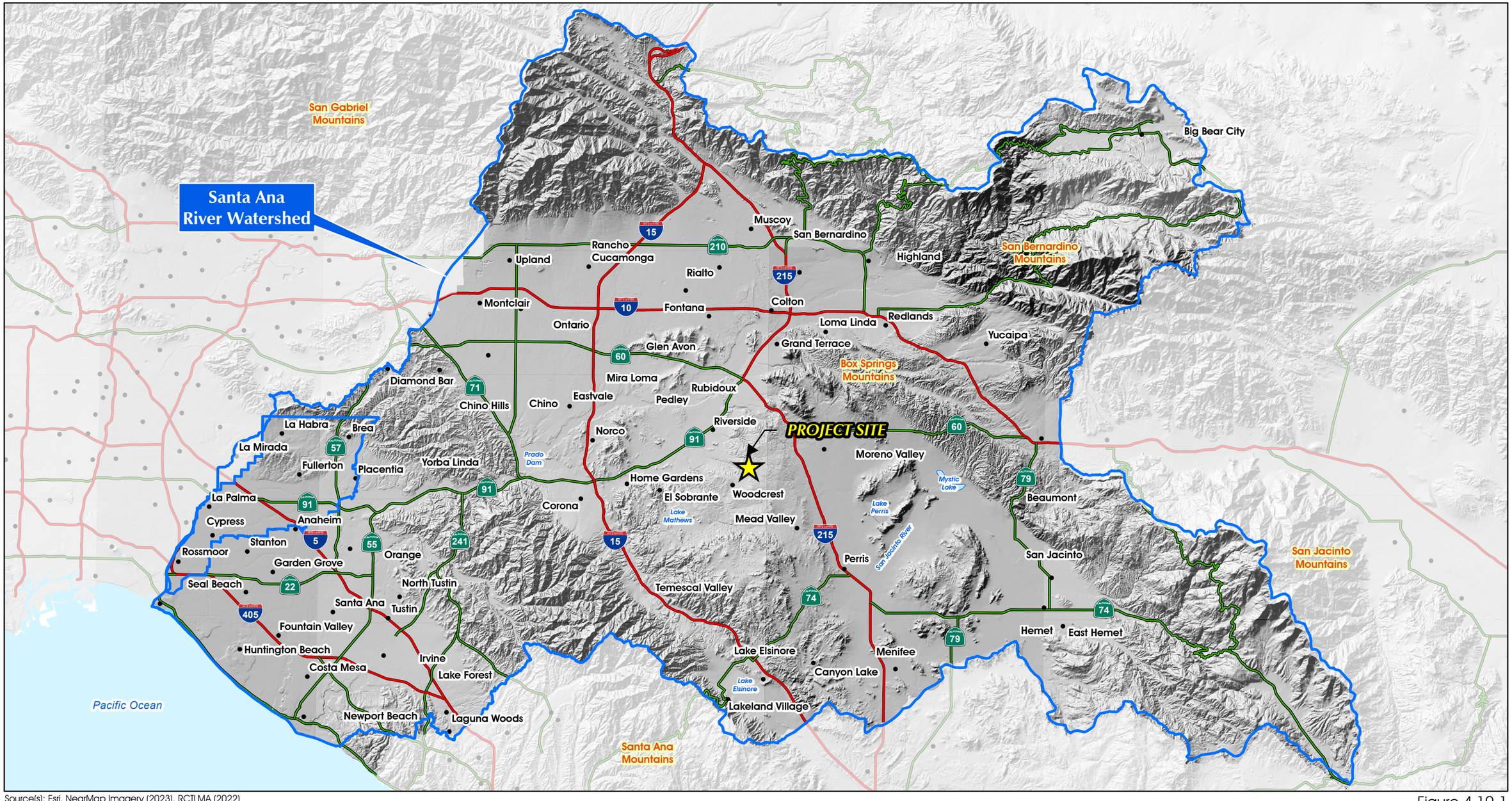
The Project site is located within the Santa Ana River Watershed, which drains a 2,840 square-mile area and is the principal surface flow water body within the region. The Santa Ana River flows over 100 miles and drains the largest coastal stream system in Southern California. It discharges into the Pacific Ocean at the City of Huntington Beach. The total stream length of the Santa Ana River and its major tributaries is about 700 miles. (SAWPA, 2019, p. 4-1). The Project site's location within the Santa Ana River Watershed is depicted on Figure 4.10-1, *Santa Ana River Watershed Map*. The Project site is located within the Arlington Hydrologic Subarea of the Middle Santa Ana Hydrologic Area Split of the Santa Ana River Hydrologic Unit (RWQCB, 2019, p. 4-33).

B. Site Hydrology

Under existing conditions, and as shown on Figure 4.10-2, *Existing Conditions Hydrology Map*, the Project site contains one natural watercourse, Goldenstar Creek, which runs southeast to northwest through the center of the Project site. Runoff from areas to the southeast of the Project site are tributary to Goldenstar Creek. All areas on site are tributary to Goldenstar Creek, with exception of two small drainage areas along the western boundary in the southern portions of the site, which convey flows off site to the west. Flows within Goldenstar Creek converge with an off-site drainage in the northwest portion of the Project site, and flows from both drainages discharge from the Project site at the northwest corner of the site. Peak flows within Goldenstar Creek at the northwest corner of the Project site is approximately 469.9 cubic feet per second (cfs). (Rick Engineering, 2024a, pp. 1-2)

C. Flood Hazards

As shown on Figure 4.10-3, *FEMA Flood Insurance Rate Map No. 06065C0740G*, according to Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) No. 06065C0740G, the Project site is identified within Flood Zone D, which indicates "Area of Undetermined Flood Hazard." The Project site is not located adjacent to areas identified within a zone indicating flood risk. As such, the Project site is not subject to flood hazards under existing conditions. (FEMA, 2008)

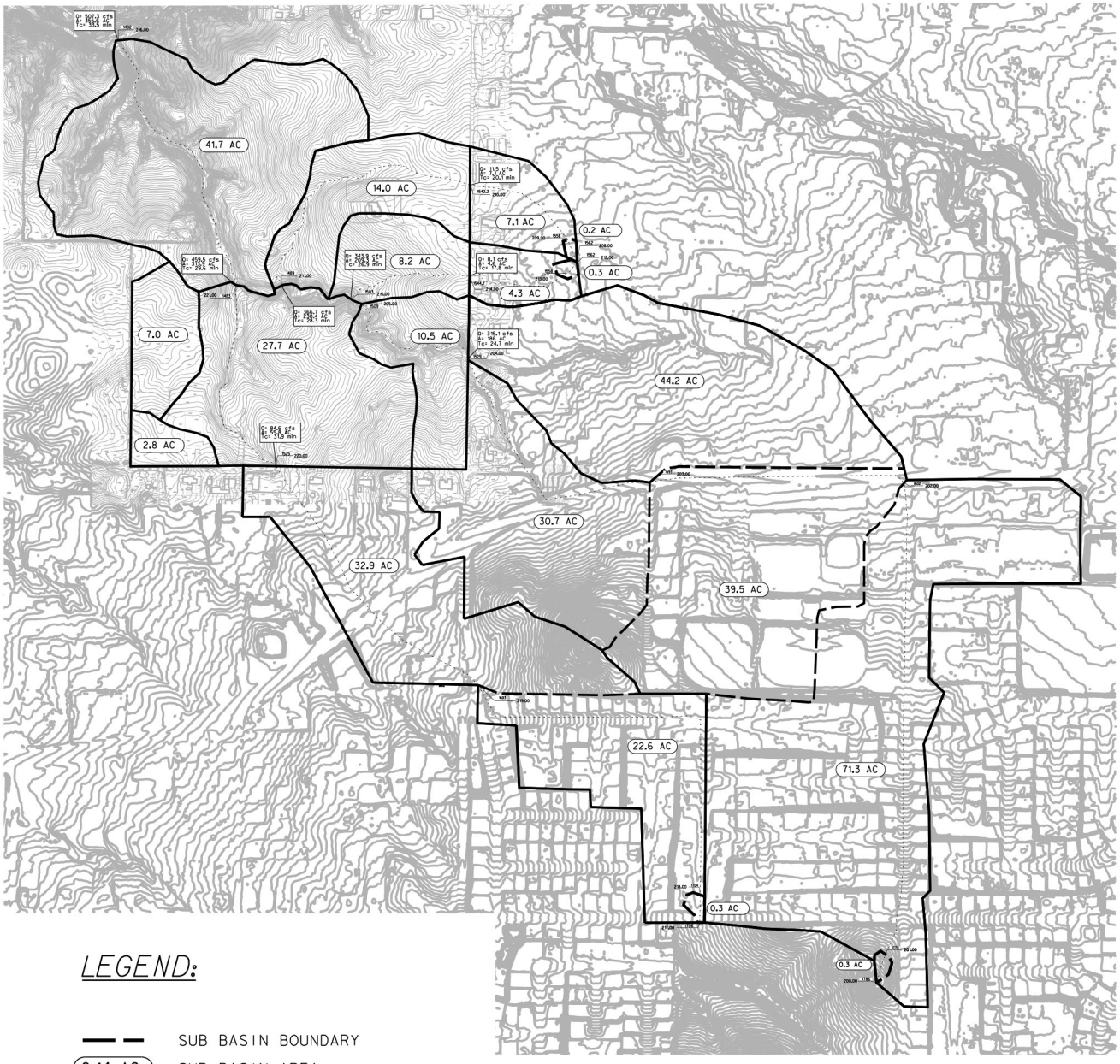


Source(s): Esri, NearMap Imagery (2023), RCTLMA (2022)

Figure 4.10-1

0 1.75 3.5 7 Miles

Santa Ana River Watershed Map

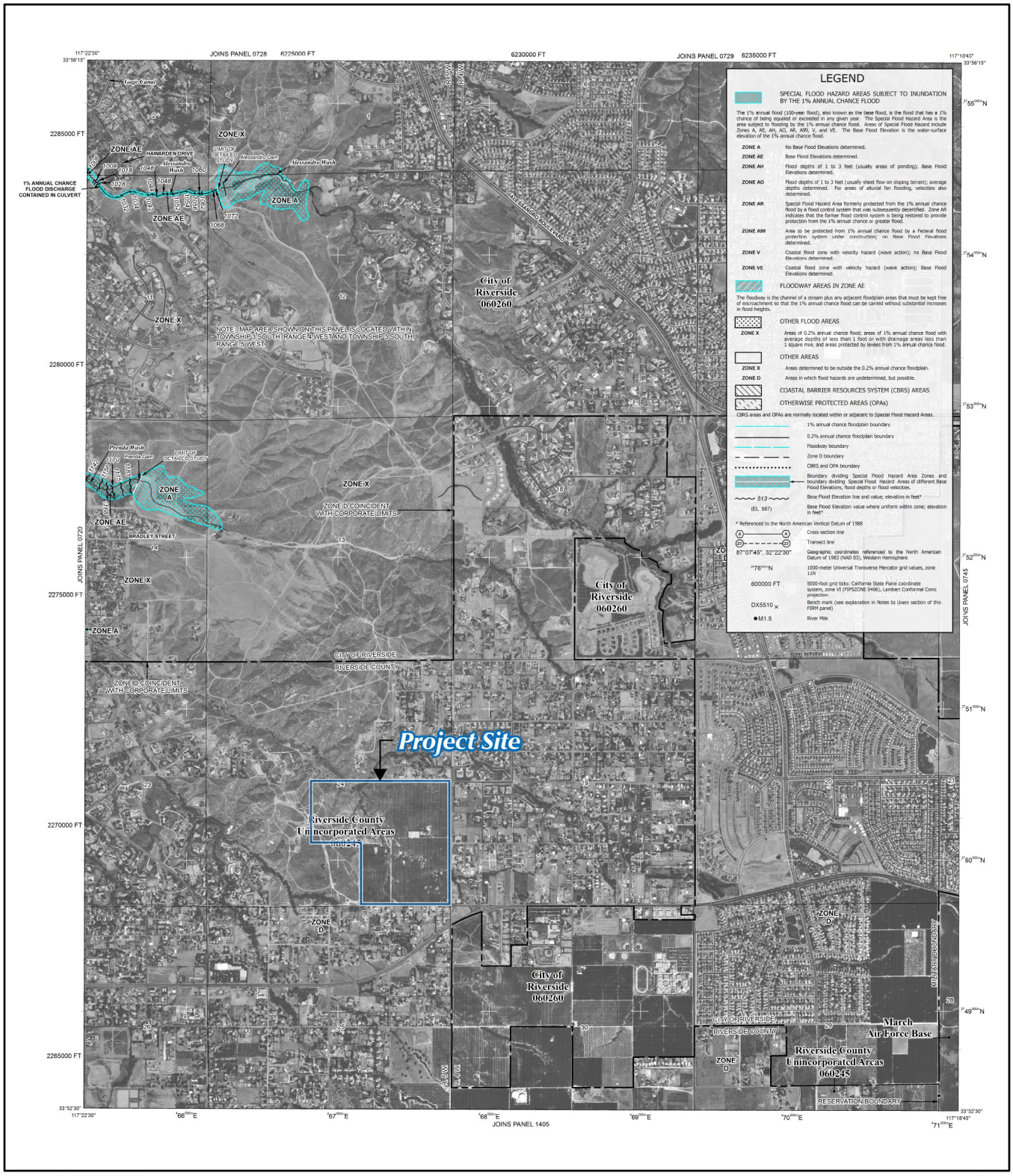


Source(s): Rick Engineering (12-29-2022)

Figure 4.10-2

Not to Scale

Existing Conditions Hydrology Map



Source(s): FEMA (2008)

Figure 4.10-3

Not to Scale

FEMA Flood Insurance Rate Map No. 06065C0740G

D. Water Quality

The Project site is located within the jurisdiction of the Santa Ana Basin Regional Water Quality Control Board (RWQCB). As indicated in Table 4.10-1, *Identification of Receiving Waters*, the receiving waters of flows from the Project site include Goldenstar Creek, Local Drainage to Riverside Canal, Riverside Canal, Temescal Creek Reach 1, Santa Ana River Reach 3, Santa Ana River Reach 2, Santa Ana River Reach 1, and the Pacific Ocean. Of these receiving waters, Local Drainage to Riverside Canal, Riverside Canal, Santa Ana River Reach 1, and the Pacific Ocean are not listed as "impaired" in accordance with the Clean Water Act (CWA) 303(d) list regulations. Goldenstar Creek is impaired by indicator bacteria. Temescal Creek Reach 1 is impaired by pH, acidity, and caustic conditions. Santa Ana River Reach 3 is impaired by lead, copper, and pathogens. Santa Ana River Reach 2 is impaired by pathogens. (Rick Engineering, 2024b, Table A.1)

Table 4.10-1 Identification of Receiving Waters

Receiving Waters	EPA Approved 303(d) List Impairments	Designated Beneficial Uses	Proximity to RARE Beneficial Use
Goldenstar Creek	Indicator Bacteria	REC1	Approximately 0 miles from site
Local Drainage to Riverside Canal			Approximately 2 miles from site
Riverside Canal			Approximately 5 miles from site
Temescal Creek Reach 1	PH, Acidity, Caustic Conditions	REC1,REC2,WARM,WILD	Approximately 14 miles from site
Santa Ana River Reach 3	Lead, Copper, Pathogens	AGR,GWR,REC1,REC2,WARM,WILD,RARE,SPWN	Approximately 16 miles from site A RARE water body.
Santa Ana River Reach 2	Pathogens	AGR,GWR,REC1,REC2,WARM,WILD,RARE	Approximately 34 miles from site A RARE water body.
Santa Ana River Reach 1		Intermittent Beneficial Use; WARM,WILD Present Beneficial Use; Rec1,Rec2,	Approximately 41 miles from site
Pacific Ocean		IND,NAV,REC1,REC2,COMM,FIOL,WILD,RARE,SPWN,MAR,SHEL	Approximately 44 miles from site A RARE water body.

Notes: AGR = Agricultural Supply; GWR = Groundwater Recharge; REC1 = Water Contact Recreation; REC2 = Non-contact Water Recreation; WARM = Warm Freshwater Habitat; WILD = Wildlife Habitat; IND = Industrial Service Supply; RARE = Rare, Threatened or Endangered Species; COMM = Commercial and Sportfishing; MAR = Marine Habitat; NAV = Navigation; SPWN = Spawning, Reproduction and Development; and SHEL = Shellfish Harvesting.
(Rick Engineering, 2024b,Table A.1)

E. Groundwater

According to mapping information available from the California Department of Water Resources (DWR), the Project site is not underlain by a groundwater basin, although runoff from the Project site within Goldenstar

Creek ultimately does infiltrate into the Upper Santa Ana Valley – Riverside-Arlington Groundwater Basin (RAGB). In January 2019, DWR released the Sustainable Groundwater Management Act 2018 Basin Prioritization report. This report outlines the process involved with reassessing the priority of the groundwater basins in California following the 2016 basin boundary modifications. Through this process, the Arlington Basin was designated as very low-priority, and therefore not requiring a Groundwater Sustainability Plan (GSP). Although the Western Municipal Water District (WMWD) is currently working on preparing the Arlington Basin Groundwater Sustainability Plan, under existing conditions there is no adopted GSP for the RAGB. (WMWD, n.d.)

As documented by the Project's geotechnical investigation (EIR *Technical Appendix F1*), groundwater was encountered at a depth of approximately 6.5 feet below the existing ground surface in one of the trenches explored by GeoTek. This groundwater appears to be the result of a perched condition. Groundwater was not encountered in any other trenches excavated by GeoTek. The California Department of Water Resources, Water Data Library indicates that the presence of various groundwater wells within a one-mile radius from the site. Records for these wells show depths to groundwater in excess of 100 feet. (GeoTek, 2021, p. 9)

4.10.2 Applicable Regulatory Requirements

The following is a brief description of the federal, State, and local environmental laws and related regulations related to hydrology and water quality.

A. Federal Regulations

1. Clean Water Act

The Clean Water Act (CWA) establishes the basic structure for regulating discharges of pollutants into the waters of the United States and regulating quality standards for surface waters. The basis of the CWA was enacted in 1948 and was called the Federal Water Pollution Control Act, but the Act was substantially reorganized and expanded in 1972. "Clean Water Act" became the Act's common name with amendments in 1972. Under the CWA, the Environmental Protection Agency (EPA) has implemented pollution control programs such as setting wastewater standards for industry, and also has set water quality standards for all contaminants in surface waters. The CWA made it unlawful to discharge any pollutant from a point source into navigable waters, unless a permit was obtained. EPA's National Pollutant Discharge Elimination System (NPDES) permit program controls discharges. Point sources are discrete conveyances such as pipes or man-made ditches. Individual homes that are connected to a municipal system, use a septic system, or do not have a surface discharge do not need an NPDES permit; however, industrial, municipal, and other facilities must obtain permits if their discharges go directly to surface waters. (EPA, 2024e)

2. Federal Flood Insurance Program

The U.S. Congress established the National Flood Insurance Program (NFIP) with the passage of the National Flood Insurance Act of 1968. The NFIP is a Federal program enabling property owners in participating communities to purchase insurance as a protection against flood losses in exchange for State and community floodplain management regulations that reduce future flood damages. Participation in the NFIP is based on an agreement between communities and the Federal Government. If a community adopts and enforces a floodplain management ordinance to reduce future flood risk to new construction in floodplains, the Federal

Government will make flood insurance available within the community as a financial protection against flood losses. This insurance is designed to provide an insurance alternative to disaster assistance to reduce the escalating costs of repairing damage to buildings and their contents caused by floods. The Federal Insurance and Mitigation Administration (FIMA) within FEMA is responsible for administering the NFIP and administering programs that provide assistance for mitigating future damages from natural hazards. (FEMA, 2023)

3. Executive Order 11988 – Floodplain Management

Executive Order 11988 requires federal agencies to avoid to the extent possible the long- and short-term adverse impacts associated with the occupancy and modification of flood plains and to avoid direct and indirect support of floodplain development wherever there is a practicable alternative. In accomplishing this objective, "each agency shall provide leadership and shall take action to reduce the risk of flood loss, to minimize the impact of floods on human safety, health, and welfare, and to restore and preserve the natural and beneficial values served by flood plains in carrying out its responsibilities" for the following actions: (FEMA, 2020b)

- acquiring, managing, and disposing of federal lands and facilities;
- providing federally-undertaken, financed, or assisted construction and improvements; and
- conducting federal activities and programs affecting land use, including but not limited to water and related land resources planning, regulation, and licensing activities.

B. State Regulations

1. Porter-Cologne Water Control Act

The Porter-Cologne Act is the principal law governing water quality regulation in California. It establishes a comprehensive program to protect water quality and the beneficial uses of water. The Porter-Cologne Act applies to surface waters, wetlands, and ground water and to both point and nonpoint sources of pollution. Pursuant to the Porter-Cologne Act (California Water Code § 13000 et seq.), the policy of the State is as follows: (SWRCB, 2014)

- That the quality of all the waters of the State shall be protected;
- That all activities and factors affecting the quality of water shall be regulated to attain the highest water quality within reason; and
- That the State must be prepared to exercise its full power and jurisdiction to protect the quality of water in the State from degradation.

The Porter-Cologne Act established nine Regional Water Boards (based on hydrogeologic barriers) and the State Water Board, which are charged with implementing its provisions and which have primary responsibility for protecting water quality in California. The State Water Board provides program guidance and oversight, allocates funds, and reviews Regional Water Boards decisions. In addition, the State Water Board allocates rights to the use of surface water. The Regional Water Boards have primary responsibility for individual permitting, inspection, and enforcement actions within each of nine hydrologic regions. The State Water Board and Regional Water Boards have numerous non-point source (NPS) related responsibilities, including monitoring and assessment, planning, financial assistance, and management. (SWRCB, 2014)

The Regional Water Boards regulate discharges under the Porter-Cologne Act primarily through issuance of NPDES permits for point source discharges and waste discharge requirements (WDRs) for NPS discharges. Anyone discharging or proposing to discharge materials that could affect water quality (other than to a community sanitary sewer system regulated by an NPDES permit) must file a report of waste discharge. The State Water Resources Control Board (SWRCB) and the Regional Water Quality Control Boards (RWQCBs) can make their own investigations or may require dischargers to carry out water quality investigations and report on water quality issues. The Porter-Cologne Act provides several options for enforcing WDRs and other orders, including cease and desist orders, cleanup and abatement orders, administrative civil liability orders, civil court actions, and criminal prosecutions. (SWRCB, 2014)

The Porter-Cologne Act also implements many provisions of the Clean Water Act, such as the NPDES permitting program. The Porter-Cologne Act also requires adoption of water quality control plans that contain the guiding policies of water pollution management in California. In addition, regional water quality control plans (basin plans) have been adopted by each of the Regional Water Boards and get updated as necessary and practical. These plans identify the existing and potential beneficial uses of waters of the State and establish water quality objectives to protect these uses. The basin plans also contain implementation, surveillance, and monitoring plans. (SWRCB, 2014) The Project site is located in the Santa Ana River Watershed, which is within the purview of Santa Ana Regional Water Quality Control Board (RWQCB). The Santa Ana River Basin Plan is the governing water quality plan for the region.

2. California Water Code

The California Water Code is the principal state law regulating water quality in California. Water quality provisions must be complied with as contained in numerous code sections including: 1) the Health and Safety Code for the protection of ground and surface waters from hazardous waste and other toxic substances; 2) the Fish and Game Code for the prevention of unauthorized diversions of any surface water and discharge of any substance that may be deleterious to fish, plant, animal, or bird life; 3) the Harbors and Navigation Code for the prevention of the unauthorized discharge of waste from vessels into surface waters; and 4) the Food and Agriculture Code for the protection of groundwater which may be used for drinking water supplies. The California Department of Fish and Wildlife (CDFW), through provisions of the Fish & Game Code (§§ 1601 - 1603) is empowered to issue agreements for any alteration of a river, stream, or lake where fish or wildlife resources may be adversely affected. CDFW regulates wetland areas only to the extent that those wetlands are part of a river, stream, or lake as defined by CDFW. (CA Legislative Info, n.d.)

Surface water quality is the responsibility of the Regional Water Quality Control Board (RWQCB), water supply and wastewater treatment agencies, and city and county governments. The principal means of enforcement by the RWQCB is through the development, adoption, and issuance of water discharge permits. RWQCB basin plans establish water quality objectives that are defined as the limits or levels of water quality constituents or characteristics for the reasonable protection of beneficial uses of water. (CA Legislative Info, n.d.)

3. California Toxics Rule (CTR)

The California Toxics Rule (CTR) fills gap in California's water quality standards necessary to protect human health and aquatic life beneficial uses. The CTR criteria are similar to those published in the National Recommended Water Quality Criteria. The CTR supplements, and does not change or supersede, the criteria that EPA promulgated for California waters in the National Toxics Rule (NTR). The human health NTR and CTR criteria that apply to drinking water sources (those water bodies designated in the Basin Plans as municipal and domestic supply) consider chemical exposure through consumption of both water and aquatic organisms (fish and shellfish) harvested from the water. For waters that are not drinking water sources (e.g., enclosed bays and estuaries), human health NTR and CTR criteria only consider the consumption of contaminated aquatic organisms. The CTR and NTR criteria, along with the beneficial use designations in the Basin Plans and the related implementation policies, are the directly applicable water quality standards for toxic priority pollutants in California waters. (SWRCB, 2016, pp. 14-15)

4. CDFG Code Section 1600 et seq. (Lake- or Streambed Alteration Agreement Program)

Fish and Game Code § 1602 requires an entity to notify CDFW prior to commencing any activity that may do one or more of the following: (CDFW, n.d.)

- Substantially divert or obstruct the natural flow of any river, stream, or lake;
- Substantially change or use any material from the bed, channel or bank of any river, stream, or lake; or
- Deposit debris, waste or other materials that could pass into any river, stream, or lake.

It should be noted that "any river, stream or lake" includes those that are episodic (they are dry for periods of time) as well as those that are perennial (they flow year-round). This includes ephemeral streams, desert washes, and watercourses with a subsurface flow. It may also apply to work undertaken within the flood plain of a body of water. (CDFW, n.d.)

CDFW requires a Lake and Streambed Alteration (LSA) Agreement when it determines that the activity, as described in a complete LSA Notification, may substantially adversely affect existing fish or wildlife resources. An LSA Agreement includes measures necessary to protect existing fish and wildlife resources. CDFW may suggest ways to modify a project that would eliminate or reduce harmful impacts to fish and wildlife resources. Before issuing an LSA Agreement, CDFW must comply with CEQA. (CDFW, n.d.)

5. Watershed Management Initiative (WMI)

The State and Regional Water Boards are currently focused on looking at entire watersheds when addressing water pollution. The Water Boards adopted the Watershed Management Initiative (WMI) to further their goals. The WMI establishes a broad framework overlying the numerous federal and State mandated priorities. As such, the WMI helps the Water Boards achieve water resource protection, enhancement and restoration while balancing economic and environmental impacts. (SWRCB, 2017) The integrated approach of the WMI involves three main ideas:

- Use water quality to identify and prioritize water resource problems within individual watersheds. Involve stakeholders to develop solutions.

- Better coordinate point source and nonpoint source regulatory efforts. Establish working relationships between staff from different programs.
- Better coordinate local, state, and federal activities and programs, especially those relating to regulations and funding, to assist local watershed groups. (SWRCB, 2017)

6. Sustainable Groundwater Management Act (SGMA)

The 2014 Sustainable Groundwater Management Act (SGMA) requires governments and water agencies of high and medium priority basins to halt overdraft and bring groundwater basins into balanced levels of pumping and recharge. Under SGMA, these basins should reach sustainability within 20 years of implementing their sustainability plans. The DWR categorizes the priority of groundwater basins. For critically over-drafted basins, that will be 2040. For the remaining high and medium priority basins, 2042 is the deadline. The SGMA also requires local public agencies and Groundwater Sustainability Agencies (GSAs) in high- and medium-priority basins to develop and implement Groundwater Sustainability Plans (GSPs) or Alternatives to GSPs. GSPs are detailed road maps for how groundwater basins will reach long term sustainability. (DWR, n.d.) (DWR, 2020)

7. SWRCB Trash Amendments

On April 7, 2015, the SWRCB adopted an amendment to control trash that applies to the Water Quality Control Plan for Ocean Waters of California and the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California. They are collectively referred to as the "Trash Amendments." The Trash Amendments do the following: (a) establish a narrative water quality objective for trash, (b) corresponding applicability, (c) establish a prohibition on the discharge of trash, (d) provide implementation requirements for permitted storm water and other discharges, (e) set a time schedule for compliance, and (f) provide a framework for monitoring and reporting requirements. The Trash Amendments apply to all surface waters of California and include a land-use-based compliance approach to focus trash controls on areas with high trash-generation rates. Areas such as high density residential, industrial, commercial, mixed urban, and public transportation stations are considered priority land uses. The Santa Ana RWQCB implements the statewide Trash Amendments through Water Code Section 13383 Orders that contain region specific requirements. There are two compliance tracks:

- Track 1. Permittees must install, operate, and maintain a network of certified full capture systems in storm drains that capture runoff from priority land uses.

- Track 2. Permittees must implement a plan with a combination of full capture systems, multi-benefit projects, institutional controls, and/or other treatment methods that have the same effectiveness as Track 1 methods. (SWRCB, 2022)

The Project would be required to comply with the latest State Trash Amendments and the MS4 Permit by installing the appropriate Full Capture System or equivalent.

4.10.3 Basis for Determining Significance

Section X of Appendix G to the CEQA Guidelines addresses typical adverse effects to hydrology and water quality, and includes the following threshold questions to evaluate a Project's impacts (OPR, 2018a):

- Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?

- Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

- Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:
  - Result in substantial erosion or siltation on or off site?
  - Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off site? or
  - 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?

- In flood hazard, tsunami, or seiche zones, would the project risk release of pollutants due to project inundation?

- Would the project conflict with or otherwise obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Significance thresholds are set forth in Riverside County's Environmental Assessment Checklist, are derived from Section X of Appendix G to the CEQA Guidelines (listed above), and state that the proposed Project would have a significant impact to hydrology and water quality if construction and/or operation of the Project would:

a. *Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality;*

b. *Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin;*

c. *Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces;*

d. *Result in substantial erosion or siltation on-site or off-site;*

e. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on-site or off-site;

f. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff;

g. Impede or redirect flood flows;

h. In flood hazard, tsunami, or seiche zones, risk the release of pollutants due to project inundation; or

i. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

The significance thresholds set forth in Riverside County's Environmental Assessment Checklist were used to evaluate the significance of the proposed Project's impacts on hydrology and water quality.

4.10.4 IMPACT ANALYSIS

Threshold a.:	***Would the Project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?***
Threshold b.:	***Would the Project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?***
Threshold i.:	***Would the Project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?***

Potable water service to the Project site would be provided by the WMWD and the Project would not involve direct groundwater extraction via existing or proposed groundwater wells. Additionally, although the Project would result in an increase in impervious surfaces on the site, the total amount of runoff from the site would be similar to existing conditions, and all runoff would be conveyed to downstream facilities where groundwater infiltration would continue to occur (i.e., Goldenstar Creek). Although the WMWD relies in part on groundwater extracted from the RAGB, the analysis of Threshold b. in EIR Subsection 4.20, *Utilities and Service Systems*, demonstrates that the WMWD would have adequate water supplies to serve the Project and other cumulative developments through at least 2045 during various drought conditions, including water supplies from groundwater resources. Thus, the Project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin. Impacts would be less than significant.

As previously noted, there is no adopted sustainable groundwater management plan in effect for the RAGB. As such, the Project has no potential to conflict with or obstruct implementation of a sustainable groundwater management plan, and no impact would occur (WMWD, n.d.).

The Project site is located within the jurisdiction of the Santa Ana RWQCB. Water quality information for the Santa Ana River watershed is contained in the Santa Ana Region Basin Plan ("Basin Plan"), as most recently

updated in June 2019 (RWQCB, 2019). Provided below is an analysis of the Project's consistency with the Basin Plan.

Santa Ana Region Basin Plan

The California Porter-Cologne Water Quality Control Act (§ 13000 "Water Quality") et seq., of the California Water Code), and the CWA require that comprehensive water quality control plans be developed for all waters within the State of California. The Project site is located within the jurisdiction of the Santa Ana RWQCB. Water quality information for the Santa Ana River Watershed is contained in the Santa Ana Region Basin Plan (as most recently updated in June 2019). This document is herein incorporated by reference and is available for public review at the Santa Ana RWQCB office located at 3737 Main Street, Suite 500, Riverside, CA 92501-3348. (RWQCB, 2019)

The CWA requires all states to conduct water quality assessments of their water resources to identify water bodies that do not meet water quality standards. Water bodies that do not meet water quality standards are placed on a list of impaired waters pursuant to the requirements of Section 303(d) of the CWA. The Project site resides within the Santa Ana Watershed and receiving waters for the property's drainage are Goldenstar Creek, Local Drainage to Riverside Canal, Riverside Canal, Temescal Creek Reach 1, Santa Ana River Reach 3, Santa Ana River Reach 2, Santa Ana River Reach 1, and the Pacific Ocean. Receiving waters listed on the Section 303(d) list include Goldenstar Creek (impaired by indicator bacteria), Temescal Creek Reach 1 (impaired by pH, acidity, and caustic conditions), Santa Ana River Reach 3 (impaired by lead, copper, and pathogens), and Santa Ana River Reach 2 (impaired by pathogens). The Local Drainage to Riverside Canal, Riverside Canal, Santa Ana River Reach 1, and the Pacific Ocean are not listed as impaired. (Rick Engineering, 2024b, Table A.1)

Specific provision of the CWA applicable to the proposed Project is CWA Section 402, which authorizes the NPDES permit program that covers point sources of pollution discharging to a water body. The NPDES program also requires operators of construction sites one acre or larger to prepare a Stormwater Pollution Prevention Plan (SWPPP) and obtain authorization to discharge stormwater under an NPDES construction stormwater permit.

Provided below is a discussion of the Project's potential to conflict with the Santa Ana Region Basin Plan during both construction and long-term operation.

Construction-Related Water Quality

Construction of the proposed Project would involve clearing, grading, paving, utility installation, building construction, and landscaping activities, which would result in the generation of potential water quality pollutants such as silt, debris, chemicals, paints, and other solvents with the potential to adversely affect water quality. As such, short-term water quality impacts have the potential to occur during construction of the Project in the absence of any protective or avoidance measures.

Pursuant to the requirements of the Santa Ana RWQCB and Riverside County, the Project Applicant would be required to obtain a NPDES Municipal Stormwater Permit for construction activities. The NPDES permit is required for all projects that include construction activities, such as clearing, grading, and/or excavation that

disturb at least one acre of total land area. In addition, the Project would be required to comply with the RWQCB's Basin Plan. Compliance with the NPDES permit and the Basin Plan involves the preparation and implementation of a SWPPP for construction-related activities. The SWPPP is required to specify the Best Management Practices (BMPs) that the Project would be required to implement during construction activities to ensure that all potential pollutants of concern are prevented, minimized, and/or otherwise appropriately treated prior to being discharged from the subject property. Mandatory compliance with the SWPPP would ensure that the proposed Project does not violate any water quality standards or waste discharge requirements during construction activities. Therefore, with mandatory adherence to the future required SWPPP, runoff associated with Project-related construction activities would not conflict with the Santa Ana Region Basin Plan requirements, and impacts would be less than significant.

Operational Water Quality Impacts

As noted above, receiving waters for the property's drainage are Goldenstar Creek, Local Drainage to Riverside Canal, Riverside Canal, Temescal Creek Reach 1, Santa Ana River Reach 3, Santa Ana River Reach 2, Santa Ana River Reach 1, and the Pacific Ocean. Receiving waters listed on the Section 303(d) list include Goldenstar Creek (impaired by indicator bacteria), Temescal Creek Reach 1 (impaired by pH, acidity, and caustic conditions), Santa Ana River Reach 3 (impaired by lead, copper, and pathogens), and Santa Ana River Reach 2 (impaired by pathogens). In order to assess the Project's potential for water quality impacts, Project-specific Hydrology and Water Quality Technical Appendices were prepared for the Project and are included as *Technical Appendices I1* and *I2*, respectively.

To meet NPDES requirements, the Project's proposed storm drain system would be designed to route first flush runoff to treatment Best Management Practices (BMPs) for each of the Project's proposed drainage basins. One drainage basin would drain to a central point of confluence south of Goldenstar Creek (Basin 100), one drainage basin would drain to a central point of confluence north of Goldenstar Creek (Basin 200), and the third drainage basin would drain to a northwest point of confluence (Basin 300). Runoff within each of these drainage basins would be treated by one of three proposed bioretention basins on site, with two of the basins occurring in the central portion of the Project site to the north and south of Goldenstar Creek, and the third bioretention basin occurring in the northwestern corner of the proposed development. The proposed drainage improvements have been designed to detain runoff and provide water quality treatment, and would reduce pollutants of concern in runoff leaving the Project site, such as bacterial indicators, metals, nutrients, pesticides, toxic organic compounds, sediments, trash/debris, and oil/grease (Rick Engineering, 2024b). Because all runoff generated on site would be appropriately treated prior to ultimate discharge into the Goldenstar Creek or other local area drainage facilities, the proposed Project would not conflict with the Santa Ana Region Basin Plan, and impacts would therefore be less than significant.

Threshold c.: ***Would the Project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces?***

Threshold f.: ***Would the Project create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?***

Please refer to the analysis of Thresholds a., b, and i. As indicated in the analysis, with implementation of the Project's proposed drainage system, the Project would not generate substantial additional sources of polluted runoff. Accordingly, impacts associated with water quality would be less than significant.

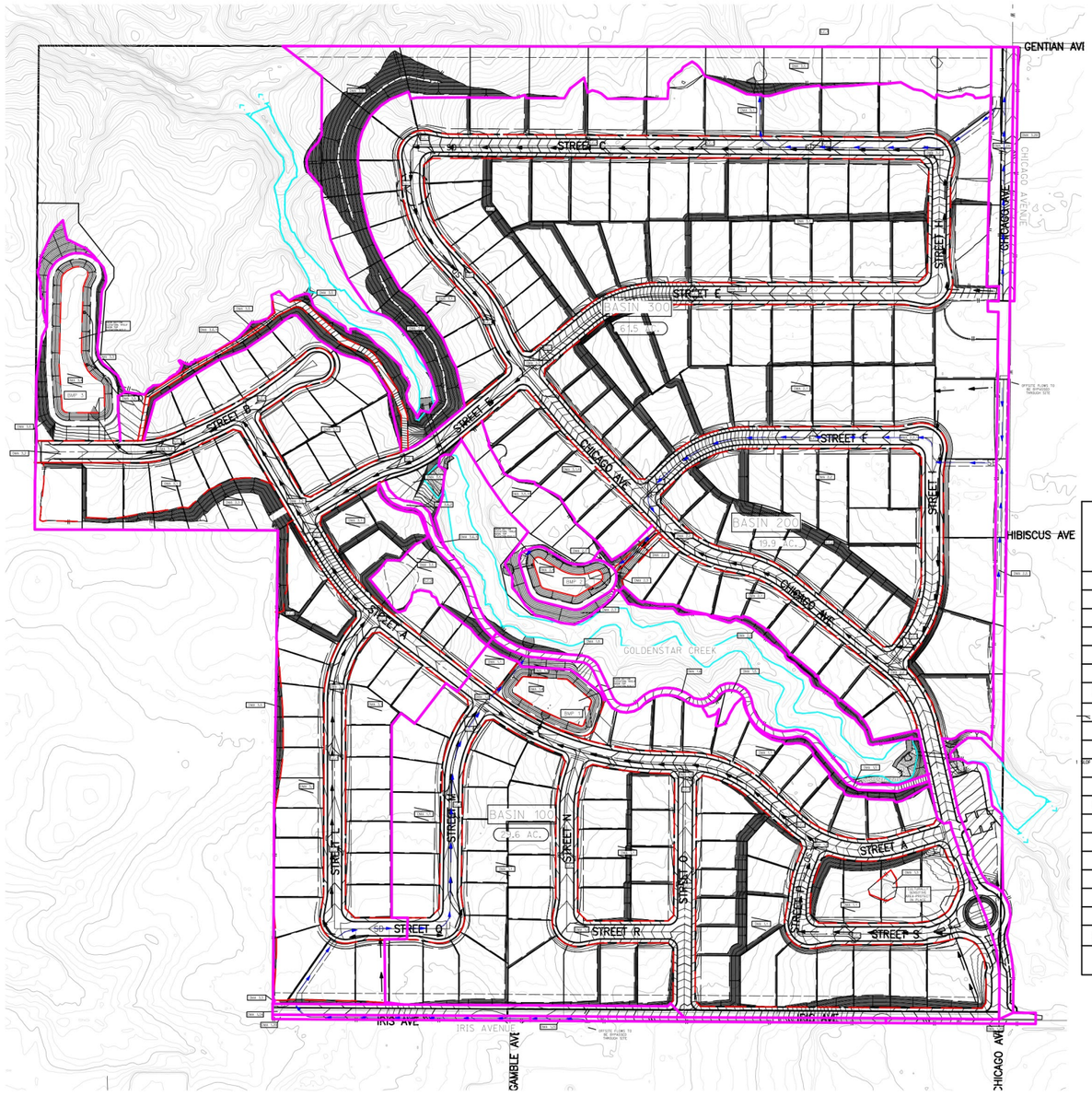
As previously shown on EIR Figure 3-4 (Conceptual Grading Plan) and as depicted on Figure 4.10-4, *Proposed Conditions Hydrology Map*, grading proposed as part of the Project would not substantially alter the existing topography of the Project site. Grading activities associated with the Project largely would be limited to the establishment of the on-site roadways and grading of proposed residential lots. Runoff generated within the developed portions of the Project site would be collected via a series of on-site catch basins and storm drain lines, which would convey runoff towards one of three proposed drainage basins, with two of the basins occurring in the central portion of the Project site to the north and south of Goldenstar Creek, and the third bioretention basin occurring in the northwestern corner of the proposed development. Following water quality treatment, all flows generated on the developed portions of the Project site, as well as runoff that is tributary to the developed portions of the Project site, would be discharged directly into Goldenstar Creek.

Table 4.10-2, *Detention Summary for the 10-Year and 2-year 24 Hour Storm Events*, presents a summary of the Project's bioretention basins during the 10-year and 1-year 24-hour storm events. Based on the preliminary detention analysis, it is anticipated adequate detention volume has been provided and that the post-project un-detained peak flow rates would be mitigated to the pre-project peak flow rate level (equal or less) for the applicable design storms. As such, implementation of the proposed Project would not result in an increase in peak runoff from the Project site and therefore would not result in the alteration of any downstream receiving waters. Additionally, because existing drainage facilities downstream are adequately sized to accommodate peak runoff from the Project site and surrounding areas under existing conditions, and because peak runoff from the Project site would be reduced with development of the Project site as proposed, the Project would not contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems. Impacts would be less than significant. (Rick Engineering, 2024a, p. 8)

Threshold d.: ***Would the Project result in substantial erosion or siltation on-site or off-site?***

A. Construction-Related Erosion Impacts

As shown on EIR Figure 3-4 (Conceptual Grading Plan), the Project has been designed to generally maintain the existing topography of the site, with minor modifications as necessary to accommodate site development and proposed drainage conditions. Nonetheless, construction of the proposed Project would involve substantial ground disturbance during clearing and grading of the site. In addition, on-site erosion could occur if graded slopes are not stabilized prior to ultimate development and/or landscaping. The proposed grading activities



LEGEND

BASIN ID — BASIN 200
MAJOR DMA BOUNDARY
MINOR DMA BOUNDARY
DMA AREA — 5.6 AC.
DMA LABEL — DMA 2.1
BMP LABEL — BMP 2
PROPOSED 100-YEAR WATER SURFACE ELEVATION
FLOWPATH
OFFSITE BY-PASS FLOWPATH

DMA	AREA (SF)	AREA (AC)	LANDUSE/SURFACE TYPES	%IMPERVIOUS	IMPERVIOUS AREA DRAINING TO BMP (SF)	IMPERVIOUS AREA DRAINING TO BMP (AC)	PERVIOUS AREA DRAINING TO BMP (SF)	PERVIOUS AREA DRAINING TO BMP (AC)	AREA DRAINING TO BMP (AC)
1.1	904,912	20.8	DETACHED RESIDENTIAL	55%	497,702	11.4	407,210	9.3	20.8
1.2	343,449	7.9	ROAD SURFACE/SIDEWALK	100%	343,449	7.9	0	0.0	7.9
1.3	23,248	0.5	ORNAMENTAL LANDSCAPING	10%	2,325	0.1	20,923	0.5	0.5
1.4	17,683	0.4	BMP WQ	100%	17,683	0.4	0	0	0.4
1.5	25,822	0.6	VEGETATED SLOPE	SELF-TREATING	-	-	-	-	-
1.6	26,509	0.6	DECOMPOSED GRANITE	SELF-TREATING	-	-	-	-	-
DMA 1 TOTALS	1,341,623	30.8	-	64%	861,158	19.8	428,134	9.8	29.6
2.1	642,705	14.8	DETACHED RESIDENTIAL	55%	353,488	8.1	289,217	6.6	14.8
2.2	186,113	4.3	ROAD SURFACE/SIDEWALK	100%	186,113	4.3	0	0.0	4.3
2.3	27,823	0.6	ORNAMENTAL LANDSCAPING	10%	2,782	0.1	25,041	0.6	0.6
2.4	10,247	0.2	BMP WQ	100%	10,247	0.2	0	0.0	0.2
2.5	79,245	1.8	VEGETATED SLOPE	SELF-TREATING	-	-	-	-	-
DMA 2 TOTALS	946,133	21.7	-	59%	552,630	12.7	314,258	7.2	19.9
3.1	1,470,016	33.7	DETACHED RESIDENTIAL	55%	808,509	18.6	661,507	15.2	33.7
3.2	580,045	13.3	ROAD SURFACE/SIDEWALK	100%	580,045	13.3	0	0.0	13.3
3.3	597,397	13.7	ORNAMENTAL LANDSCAPING	10%	59,740	1.4	537,657	12.3	13.7
3.4	29,917	0.7	BMP WQ SURFACE	100%	29,917	0.7	0	0.0	0.7
3.5	499,172	11.5	VEGETATED SLOPE	SELF-TREATING	-	-	-	-	-
3.6.2	28,102	0.6	DECOMPOSED GRANITE	SELF-TREATING	-	-	-	-	-
DMA 3 TOTALS	4,150,782	95.3	-	49%	1,478,211	46.6	1,199,165	27.5	61.5
TOTALS =	6,438,538	147.8	-	54%	2,891,999	79.1	1,941,556	44.6	111.0

Source(s): Rick Engineering (01-16-2025)

Figure 4.10-4

Not to Scale

Proposed Conditions Hydrology Map

Table 4.10-2 Detention Summary for the 10-Year and 2-year 24 Hour Storm Events

		Pre-Project Flow Rate (cfs)	Post-Project Flow Rate (Undetained) (cfs)	Post-Project Flow Rate (Detained) (cfs)	Post-Project Peak Storage (acre-feet)
Basin 100	2YR	0.6	2.6	0.5	0.29
	10 YR	4.2	6.5	4.0	0.99
Basin 200	2 YR	0.4	1.7	0.4	0.15
	10 YR	2.8	4.3	2.8	0.57
Basin 300	2 YR	1.1	4.4	0.9	0.61
	10 YR	7.7	11.4	7.0	1.83

(Rick Engineering, 2024a, Table 4.1)

would generate fair amounts of silt which could be carried off-site during a heavy rainfall event. Should such an event occur in the absence of any preventative measures to contain silt and other soils on-site, erosion and/or siltation downstream could result.

However, pursuant to requirements of the SWRCB and the Santa Ana River Basin Plan, the Project Applicant would be required to obtain a NPDES permit for construction activities on-site. The NPDES permit is required for all projects that include construction activities, such as clearing, grading, and/or excavation that disturb at least one (1) acre of total land area. Compliance with the NPDES permit involves the preparation and implementation of a SWPPP for construction related activities. The SWPPP would specify BMPs to minimize the potential for erosion and siltation to occur and would include specific Project site measures to address the potential for the caving in of temporary excavations. Typical BMPs that are implemented at construction sites to protect water quality include the implementation of straw bale barriers, plastic sheeting/erosion control blankets, and outlet protection measures. With mandatory adherence to the SWPPP requirements, effects associated with construction-related erosion, siltation, water quality, and flooding on downstream water sources and flood control systems would be maintained at a level below significance.

B. Post-Development Erosion Impacts

Implementation of the proposed Project would result in the conversion of the site from undeveloped land to that of a large-lot residential community. With development of the Project site, portions of the Project site, including proposed roadways and residential building pads, would consist of impervious surfaces, with large portions of the Project site, including proposed open space areas and the portions of individual lots that would not be developed with residential homes, consisting of pervious surfaces. Specifically, approximately 68.3 acres of the Project site would consist of impervious surfaces, with the remaining 72.5 acres of the Project site consisting of pervious surfaces (including pervious surfaces on undeveloped portions of individual residential lots). Thus, as compared to existing conditions, the potential for erosion hazards on site would be decreased due to the introduction of impervious surface areas. The remaining areas on site containing pervious surfaces either would be landscaped as part of the Project, or would continue to contain natural vegetation, either of which would serve to preclude erosion hazards on site. As such, long-term erosion impacts on site would be less than significant.

However, due to the increase in impervious surfaces on site, runoff from the site following development has the potential to contribute to erosion hazards downstream. As previously discussed under Thresholds c. and f., peak flows from the Project site following site development would not exceed the total peak flows from the Project site that occurs under existing conditions (refer to Table 4.10-2). As such, and as compared to the existing condition, the Project would not result in an increase in peak runoff from the site, and therefore runoff from the Project site would not cause or contribute to any increased erosion hazards downstream. Impacts would be less than significant.

Threshold e.: ***Would the Project substantially increase the rate or amount of surface runoff in a manner which would result in flooding on-site or off-site?***

Threshold g.: ***Would the Project impede or redirect flood flows?***

According to mapping information available from FEMA, the Project site is located within Flood Zone D, "Area of Undetermined Flood Hazard" and the areas on site proposed for development with residential uses are located outside of mapped floodplains. As such, the Project site is not subject to inundation due to flood hazards. Additionally, there are no components of the Project that would impede or redirect flood flows. Impacts would be less than significant. (FEMA, 2008)

The Project's proposed drainage system has been designed to preclude the potential for flooding hazards on site, in accordance with standard County requirements. As previously indicated under the analysis of Thresholds c. and f., and as shown in Table 4.10-2, with implementation of the Project's proposed drainage system the peak runoff from the Project site would not exceed the peak rate of runoff that occurs under existing conditions. As such, the Project would not substantially increase the rate of surface runoff in a manner which would result in flooding on-site or off-site, and impacts would be less than significant. (Rick Engineering, 2024a, p. 8)

Threshold h.: ***In flood hazard, tsunami, or seiche zones, would the Project risk the release of pollutants due to Project inundation?***

The Project site is located approximately 35 miles northeast of the Pacific Ocean, and as such there is no potential for the Project site to be inundated with tsunamis. According to Figure 10 of the Lake Mathews/Woodcrest Area Plan (LMWAP), the Project site is not located within a dam inundation area. As such, it can be concluded that the Project site also would not be subject to seiche hazards associated with nearby bodies of water, including Lake Mathews (Riverside County, 2021b, Figure 10). With respect to flood hazards, and as indicated under the analysis of Thresholds e. and g., the Project site is not located within a mapped floodplain, indicating that the Project site is not subject to inundation due to flood hazards (FEMA, 2008). Therefore, the Project would not result in the risk of pollutants due to site inundation and no impact would occur.

4.10.5 Cumulative Impact Analysis

The cumulative impact analysis considers construction and operation of the proposed Project in conjunction with other development projects in the vicinity of the Project site and resulting from full buildout of the

Riverside County General Plan and the general plans of other local jurisdictions that are located within the Santa Ana River watershed.

As discussed under the analysis of Thresholds a., b., and i., the Project would result in less-than-significant impacts to surface and groundwater quality during construction because the Project Applicant would be required to obtain a NPDES Municipal Stormwater Permit for construction activities. Compliance with the NPDES permit and the Santa Ana River Basin Plan involves the preparation and implementation of a SWPPP for construction-related activities. The SWPPP is required to specify BMPs that the Project would be required to implement during construction activities to ensure that all potential pollutants of concern are prevented, minimized, and/or otherwise appropriately treated prior to being discharged from the subject property. Other cumulative developments within the cumulative study area also would be required to comply with the NPDES Municipal Stormwater Permit and would be required to implement BMPs during construction activities to preclude water quality impacts that could impair downstream waters or groundwater. As such, construction-related surface and groundwater quality impacts, as well as impacts due to a conflict with the Santa Ana River Basin Plan, would be less-than-cumulatively considerable during construction. With respect to long-term impacts to water quality, the Project's proposed storm drain system is designed to route first flush runoff to one of three proposed bioretention basins on site. The bioretention basins have been designed to detain runoff and provide water quality treatment and would reduce pollutants of concern in runoff leaving the Project site. Other cumulative developments would similarly be required to incorporate BMPs to treat water quality pollutants of concern. Accordingly, the Project's impacts would be less than significant on a cumulatively-considerable basis.

As indicated under the analysis of Thresholds c. and f., although grading would be required to implement the proposed Project, grading proposed as part of the Project generally would maintain the site's existing drainage patterns, with runoff continuing to flow in a southeasterly to northwesterly direction. As such, the Project would not substantially alter the existing drainage pattern of the Project site or surrounding areas, and impacts would be less than significant on a cumulatively-considerable basis. Additionally, implementation of the proposed Project would not result in an increase in peak runoff from the Project site as compared to existing conditions, and therefore the Project would not result in the alteration of any downstream receiving waters on either a direct or cumulatively-considerable basis. Additionally, because the Project would not result in an increase in peak runoff from the Project site, the Project would not contribute runoff water that could exceed the capacity of existing or planned stormwater drainage systems, and cumulatively-considerable impacts would not occur.

As discussed under the analysis of Threshold d., during construction the Project would be subject to compliance with the applicable NPDES permit, which requires the preparation and implementation of a SWPPP to address erosion hazards associated with construction activities. Other cumulative developments similarly would be required to prepare and implement a SWPPP. As such, erosion-related hazards during construction activities would be less-than-cumulatively considerable. With development of the Project site, portions of the Project site, including proposed roadways and residential building pads, would consist of impervious surfaces, with large portions of the Project site, including proposed open space areas and the portions of individual lots that would not be developed with residential homes, consisting of pervious surfaces. Thus, the potential for erosion hazards on site would be decreased as compared to existing conditions with buildout of the Project site. Areas that would consist of pervious surfaces either would be landscaped as part of the Project, or would continue to

contain natural vegetation, either of which would serve to preclude erosion hazards on site. Additionally, because peak runoff from the Project site would not increase as compared to existing conditions, the Project has no potential to cause or cumulatively contribute to erosion hazards downstream. As such, long-term erosion impacts would be less than significant on a cumulatively-considerable basis.

The Project site is not subject to inundation during the 1% annual chance flood. As such, the Project would not impede or redirect flood flows, and cumulatively-considerable impacts would not occur.

Areas planned for development on site are not subject to inundation due to floods, tsunamis, or seiche zones. As such, cumulatively-considerable impacts associated with the release of pollutants due to Project site inundation would not occur.

4.10.6 Significance of Impacts Before Mitigation

Thresholds a., b., and i.: Less-than-Significant Impact. The Project would be served potable water by the WMWD, and no groundwater wells are proposed on site; thus, Project direct impacts to groundwater supplies would be less than significant. Additionally, the total amount of runoff from the site would not change with Project development, and as such Project-related runoff would be conveyed to downstream facilities where groundwater recharge would continue to occur. Additionally, water quality impacts during construction, including potential impacts due to a conflict with the Santa Ana River Basin Plan and potential impacts to groundwater quality, would be less than significant. In addition, with implementation of the proposed Project, all runoff generated on site would be appropriately treated by the Project's BMPs prior to ultimate discharge into the Santa Ana River watershed. Thus, the Project would not adversely affect surface or groundwater quality. Accordingly, the proposed Project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality; would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge; and would not conflict with the Santa Ana River Basin Plan or result in adverse groundwater quality impacts. Impacts would be less than significant.

Thresholds c. and f.: Less-than-Significant Impact. Grading proposed as part of the Project generally would maintain the site's existing drainage patterns, with runoff continuing to flow into Goldenstar Creek, which would continue to convey runoff in a northwesterly direction. In addition, the Project improvements would not result in an increase in the total peak flows from the Project site under post-development conditions; therefore, the Project would not result in the alteration of the existing alignment of any downstream receiving waters. Additionally, because existing drainage facilities downstream are adequately sized to accommodate peak runoff from the Project site and surrounding areas under existing conditions, and because peak runoff from the Project site would not increase with development of the Project site as proposed, the Project would not contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems. Impacts would be less than significant.

Threshold d.: Less-than-Significant Impact. With mandatory adherence to the SWPPP requirements, effects associated with construction-related erosion, siltation, water quality, and flooding on downstream water sources and flood control systems would be maintained at a level below significance. With development of the Project site, portions of the Project site, including proposed roadways and residential building pads, would consist of impervious surfaces, with large portions of the Project site, including proposed open space areas and

the portions of individual lots that would not be developed with residential homes, consisting of pervious surfaces. Thus, the potential for erosion hazards on site would be substantially decreased as compared to existing conditions with buildout of the Project site. Additionally, implementation of the Project's proposed drainage system would not result in an increase in peak flows from the Project site, indicating that the Project would not result in increased erosion hazards in areas tributary to the Project site. As such, long-term erosion impacts would be less than significant.

Thresholds e. and g.: Less-than-Significant Impact. The portions of the Project site proposed for residential development are located outside of mapped floodplains and are not subject to inundation due to flood hazards. The Project's proposed drainage system has been designed to preclude the potential for flooding hazards on site, in accordance with standard County requirements. With implementation of the Project's proposed drainage system, the peak runoff from the Project site would not increase as compared to existing conditions. As such, the Project would not substantially increase the rate of surface runoff in a manner which would result in flooding on-site or off-site and would not impede or redirect flood flows, and impacts would be less than significant.

Threshold h. No Impact: The Project site is located approximately 35 miles northeast of the Pacific Ocean, and as such there is no potential for the Project site to be inundated with tsunamis. According to Figure 10 of the LMWAP, the Project site is not located within the dam inundation area for any bodies of water. As such, it can be concluded that the Project site also would not be subject to seiche hazards associated with nearby bodies of water, such as Lake Mathews. Additionally, and as discussed more fully under the analysis of Threshold g., areas planned for development on site are not located in areas subject to inundation during the 1% annual chance flood. Accordingly, the Project would not risk the release of pollutants due to inundation from floods, tsunamis, or seiches, and no impact would occur.

4.10.7 County Regulations, Design Requirements, And Mitigation

Applicable County Regulations and Design Requirements

The following are applicable regulations and design requirements within Riverside County. Although these requirements technically do not meet CEQA's definition for mitigation, they are imposed herein to ensure Project compliance with applicable County regulations and design requirements.

- The Project Applicant is required to comply with the provisions of the Project's NPDES permit, and the Project's SWPPP. Compliance with the NPDES permit and the SWPPP would identify and implement an effective combination of erosion control and sediment control measures (i.e., Best Management Practices) to reduce or eliminate discharge to surface water from storm water and non-stormwater discharges during construction activities.

Mitigation

Impacts to hydrology and water quality would be less than significant; therefore, mitigation measures are not required.

4.11 LAND USE AND PLANNING

This Subsection 4.11 discusses consistency of the proposed Project with applicable land use and planning policies adopted by Riverside County and other governing agencies for the purpose of reducing adverse effects on the physical environment. This subsection also addresses present and future land uses, zoning, and the physical arrangement of uses on the land. Information used to support the analysis in this subsection was also obtained in part from the Riverside County General Plan (Riverside County, 2021a), the Lake Mathews/Woodcrest Area Plan (LMWAP) (Riverside County, 2021b), and the Riverside County GIS database (RCIT, n.d.).

4.11.1 EXISTING CONDITIONS

A. *Existing On-Site and Adjacent Land Uses*

The Project site appears to have been vacant land up until around 1967. From approximately 1967 until at least 2020, the Project site appears to have been utilized for agricultural uses (orchards), with a single-family home occurring in the central portions of the Project site. In 2020/2021, the existing orchards were removed from the Project site and were run through a chipper on site. The chip material was subsequently spread evenly over the former agricultural portions of the site, which have kept these portions of the Project site from revegetating. Chips were not placed on the western potions of the Project site that consist of open space areas that largely were not subject to past agricultural uses on site. The existing single-family home still occurs in the central portions of the Project site, and is surrounded by ornamental trees and vegetation. There is an existing underground septic tank associated with the existing residence on site. The Project site also is bisected by a large arroyo that supports native riparian habitat (southern willow scrub) and wetland habitat (freshwater marsh), as well as Riversidean sage scrub along the banks of the arroyo. Several dirt roadways traverse the property in an east-west and north-south orientation. A large concrete pad also occurs in the southwestern portion of the Project site. The northwest portions of the Project site are vacant and undeveloped, and contains several prominent drainages as well as informal dirt pathways. The Project site also contains three existing water wells in the northeast portion of the Project site.

Land uses to the west consist of natural open space on hilly terrain, beyond which are rural and very low-density residential uses. To the north of the Project site are open space and very low-density residential uses. To the east of the Project site are very low-density residential uses, along with several commercial retail uses along the northern side of Van Buren Boulevard. Land uses to the south of the Project site consist of very low-density residential uses and Van Buren Boulevard, to the south of which are additional very low-density residential uses located within unincorporated Riverside County. Lands to the southeast of the Project site and south of Van Buren Boulevard are located in the City of Riverside and consist of medium-density residential uses, several schools (Woodcrest Christian, Martin Luther King High School, and Frank Augustus Miller Middle School), and commercial land uses along the south side of Van Buren Boulevard.

B. *Existing On-Site and Surrounding Land Use Designations*

The prevailing planning document for the Project site and its surrounding area is the Riverside County General Plan. The Project site is located within the LMWAP portion of the Riverside County General Plan. As previously depicted on EIR Figure 2-4, the County's General Plan and LMWAP designate the 140.8-acre Project site for "Rural Community – Very Low Density Residential (RC-VLDR)" land uses. The RC-VLDR

land use designation is intended to allow for single-family detached residences on large parcels of 1 to 2 acres, while limited agriculture, intensive equestrian, and animal keeping uses are expected and encouraged. (Riverside County, 2021b, Table 1; RCIT, n.d.)

As also previously depicted on EIR Figure 2-4, lands immediately to the west, north, east, and south of the Project site also are designated for RC-VLDR land uses, with lands immediately to the southeast designated for "Commercial Retail (CR)" land uses. Lands further to the west are designated for "Rural Mountainous (RM)" land uses, a portion of the area to the northeast of the Project site is designated for "Open Space – Conservation (OS-C)" land uses, and lands along the north side of Van Buren Boulevard are designated for "Light Industrial (LI)" and CR land uses. The CR land use designation is intended to accommodate Local and regional serving retail and service uses. The RM land use designation is intended to accommodate single-family residences with a minimum lot size of five acres along with limited agricultural uses. The OS-C land use designation is intended to provide for the protection of open space for natural hazard protection, cultural preservation, and natural and scenic resource preservation, and allows for continued agricultural production on sites already used for such purposes. The LI land use designation is intended to accommodate industrial and related uses including warehousing/distribution, assembly and light manufacturing, repair facilities, and supporting retail uses. (Riverside County, 2021b, Table 1; RCIT, n.d.)

C. *Existing On-Site and Surrounding Zoning Classifications*

The Riverside County Land Use Ordinance (Ordinance No. 348) is intended to implement the Riverside County General Plan's land use plan. As previously shown on EIR Figure 2-5, under existing conditions the Project site is zoned "Light Agriculture (A-1)" with minimum 10-acre lot sizes. The A-1 zoning classification allows for single-family dwellings, and also allows for a range of agricultural and equestrian uses. (RCIT, n.d.; Riverside County, 2021c)

Under existing conditions, lands to the west and north of the Project site are zoned for "Residential Agriculture (R-A)" with minimum 2.0 or 2.5-acre lot sizes, lands to the east of the Project site are zoned for A-1 (minimum 1-acre and 10-acre lot sizes), and lands to the south of the Project site are zoned R-A, "Scenic Highway Commercial (C-P-S)," and "Manufacturing Service – Commercial (M-SC)." The R-A zoning classification is intended to allow for one-family dwellings along with a range of agricultural uses. The C-P-S zoning classification is intended to accommodate a range of commercial retail uses. The M-SC zoning classification allows for most light manufacturing and industrial uses defined under the Standard Industrial Classification Code (SIC) with Plot Plan approval. (RCIT, n.d.; Riverside County, 2021c)

D. *Applicable Land Use and Planning Policies*

1. *Riverside County General Plan*

The Riverside County General Plan is a policy document that reflects the Riverside County's vision for the future. The General Plan was comprehensively revised in 2003 and most recently updated in 2021. The General Plan is organized into nine separate elements, including Land Use, Circulation, Multipurpose Open Space, Safety, Noise, Housing, Air Quality, Healthy Communities (including Environmental Justice), and Administration. Each General Plan Element is instrumental to achieving the County's long-term development goals. Each element contains a series of policies that guide the course of action the County must take to achieve the County's vision for future development. (Riverside County, 2021a)

In addition, the General Plan divides the County into 19 Area Plans. The purpose of these Area Plans is to provide more detailed land use and policy direction regarding local issues such as land use, circulation, open space, and other topical areas. The Project site is located within the LMWAP of the General Plan. The LMWAP was most recently updated on September 18, 2021. The following subsection provides a summary of each General Plan Element, while the LMWAP is discussed below in subsection 4.11.1.D.2. (Riverside County, 2021b)

Land Use Element

The General Plan Land Use Element functions as a guide to planners, the general public, and decision makers as to the ultimate pattern of development. The Land Use Element designates the general distribution, general location, and extent of land uses, such as housing, business, industry, open space, agriculture, natural resources, recreation, and public/quasi-public uses. These designations are reflected on the General Plan Land Use Map, which categorizes individual parcels of land into five basic categories known as "Foundation Components": Rural, Rural Community, Community Development, Agriculture, and Open Space. As reflected on the General Plan Land Use Map, the Land Use Element provides for a balanced mixture of land uses, including commercial, office, industrial, agriculture, and open space. For each of the various land use designations, the General Plan provides standards for residential density and non-residential intensity, and provides specific policies intended to ensure that product types, densities, and intensities respond to a multitude of market segments. The Land Use Element governs how land is to be utilized; therefore, many of the issues and policies contained in other plan elements are linked in some degree to this element. The Project site is currently located in the Rural Community Foundation Component. The Project site is designated by the General Plan Land Use Plan for RC-VLDR land uses. The Project Applicant proposes to redesignate the Project site for "Rural Community – Low Density Residential (RC-LDR)." (Riverside County, 2021a, p. LU-1)

Circulation Element

The purpose of the Circulation Element is to provide for the movement of goods and people, including pedestrians, bicycles, transit, train, air, and automobile traffic flows within and through the community. Efficient traffic circulation is important to economic viability and the creation and preservation of a quality living environment (Riverside County, 2021a, p. C-1). The Circulation Element designates future road improvements and extensions; addresses non-motorized transportation alternatives; and identifies funding options. The various roadway improvements and extensions contemplated by the Circulation Element are reflected on the General Plan Circulation Plan. The various roadway classifications depicted on the Circulation Plan correspond to specific roadway cross-sections, which provide specific standards for right-of-way (ROW) widths, lane configurations, medians, and landscaping requirements. As shown on LMWAP Figure 7 (Lake Mathews/Woodcrest Area Plan Circulation), the Riverside County General Plan and LMWAP classify Van Buren Boulevard as an "Urban Arterial (152-foot Right-of-Way [ROW])," Washington (north of Van Buren Boulevard) is classified as an "Arterial (128-foot ROW)," and Washington Street south of Van Buren Boulevard is classified as a "Major Roadway (118-foot ROW)." (Riverside County, 2021b, Figure 7)As shown on LMWAP Figure 8 (LMWAP Trails and Bikeway System), the General Plan and LMWAP do not

identify any planned trails on or adjacent to the Project site. The nearest designated trail is a "Community Trail" planned along Prairie Way, Gentian Avenue, and Dauchy Avenue, approximately 0.5-mile east of the Project site. (Riverside County, 2021b, Figure 8)

Multipurpose Open Space Element

The Multipurpose Open Space Element addresses forms of open space in the County, including scenic, habitat, and recreation. This element has the purpose of addressing the protection and preservation of natural resources, agriculture, and open space areas; managing mineral resources; preserving and enhancing cultural resources; and providing recreational opportunities for the residents of Riverside County. The Multipurpose Open Space Element also contains figures that detail the locations of water resources, vegetation communities, parks, forests, recreation areas, mineral resources, and cultural resources within the County. Together with the MSHCP, the Multipurpose Open Space Element seeks to preserve and protect identified open space areas in order to maintain or improve environmental quality. (Riverside County, 2021a, p. OS-1)

Safety Element

The Safety Element has the primary objective of reducing death, injuries, property damage, and economic and social impact of potential hazards within the County. The Safety Element serves to develop a framework by which safety considerations are introduced into the land use planning process; facilitate the identification and mitigation of hazards for new development; strengthen existing codes, project review, and permitting processes; present policies directed at identifying and reducing hazards in existing development; and strengthen earthquake, flood, inundation, and wildland fire preparedness planning and post-disaster reconstruction policies. Within the Safety Element, policies are presented which pertain to seismic, slope and soil instability; flood and inundation; fire safety; hazardous waste and materials; and disaster preparedness, response, and recovery hazards. The Safety Element was last updated in September 2021 to address California Senate Bill 379, which required the County to include climate adaptation and resiliency strategies in its Safety Element. (Riverside County, 2021a, pp. S-1 - S-2)

Noise Element

The purpose of the Noise Element is to identify sources of noise generation in the County and provide policies to ensure development does not expose people to unacceptable noise levels. The establishment of desirable maximum noise levels and implementation of noise regulations are also included as part of the Noise Element. The Noise Element provides a systematic approach to identifying and managing noise problems in the community; quantifies existing and projected noise levels; addresses excessive noise exposure; and directs community planning for regulation of noise. The Noise Element includes policies, standards, criteria, programs, diagrams, a reference to action items, and maps related to the protection of public health and welfare with respect to noise. (Riverside County, 2021a, p. N-3)

Housing Element

The 2021-2029 Housing Element identifies and establishes County policies intended to fulfill the housing needs of existing and future residents in Riverside County. It establishes policies that guide

County decision-making and sets forth an action plan to implement its housing goals. The Housing Element includes a review of previous housing goals, an assessment of the effectiveness of those goals, and an assessment of housing needs. Additionally, the Housing Element includes an inventory of resources and constraints related to meeting housing needs in the County; an analysis of affordable housing developments and programs intended to preserve such housing; community goals for the maintenance, preservation, improvement, and development of housing; and a program which sets forth a five-year schedule of actions that the County is undertaking or intends to undertake in implementing the polices set forth in the Housing Element. (Riverside County, 2021d, p. H-3)

Air Quality Element

The intent of the Air Quality Element is to provide background information on the physical and regulatory environment affecting air quality in the County. This element also identifies goals, policies, and programs that are meant to balance the County's actions regarding land use, circulation, and other issues potentially affecting air quality. This element works in conjunction with local and regional air quality planning efforts to address ambient air quality standards set forth by the United States (U.S.) Environmental Protection Agency (EPA) and the California Air Resources Board (CARB). The Air Quality Element sets ambient air quality standards for various air pollutants based on State and federal standards. The Element also contains policies regarding sensitive receptors, mobile and stationary pollution sources, energy efficiency and conservation, jobs and housing, and transportation. (Riverside County, 2021a, pp. AQ-3 - AQ-31)

Healthy Communities Element

The Healthy Communities Element provides a framework for translating the General Plan vision for a healthy Riverside County into reality by identifying policies aimed at achieving that vision. The Element addresses areas where public health and planning intersect, including transportation and active living; access to nutritious foods; access to health care; mental health; quality of life; and environmental health. This Element addresses overall health; land uses and community design; transportation system (with an emphasis on non-motorized transportation); arts and culture; social capital; complete communities; parks, trails, and open space; access to healthy foods and nutrition; healthcare and mental healthcare; schools, recreational centers, and daycare centers; and environmental health. The County of Riverside incorporated environmental justice polices into the General Plan Healthy Communities Element in September 2021. The environmental justice policies apply to the Environmental Justice Communities identified in the Land Use Element Figure LU-4.1. The Project site is not within an Environmental Justice Community boundary. (Riverside County, 2021a, pp. HC-1 - HC-12)

Administration Element

The Administration Element focuses on the administration of the General Plan, which is the sole responsibility of Riverside County, under the authority of the Board of Supervisors. Administration of the General Plan policies includes establishing, maintaining, and applying tools and procedures for interpreting the intent of the General Plan and applying the interpretation to a variety of circumstances. This Element details the vision for Riverside County, General Planning Principles, Countywide

Elements and Planning Policies/Area Plan, Appendices of the General Plan, and other administrative topics. (Riverside County, 2021a, pp. AQ-1 - AQ-20)

2. *Lake Mathews/Woodcrest Area Plan (LMWAP)*

As noted above, the Project site is located within the LMWAP of the Riverside County General Plan. The LMWAP guides the evolving character of the area, and uses the Riverside County General Plan vision to establish policies for development and conservation within the specific area of Riverside County. The LMWAP provides a description of the location, physical characteristic, and special features, in addition to a Land Use Plan, policies, and exhibits to better understand the physical, environmental, and regulatory characteristics that comprise the area. Each section of the LMWAP addresses critical issues facing the Lake Mathews/Woodcrest community. The LMWAP includes sections detailing the features, policy areas, land use, circulation, multipurpose open space, and hazards. (Riverside County, 2021b)

As shown on LMWAP Figure 4, *Lake Mathews/Woodcrest Area Plan Overlays and Policy Areas*, the Project site is located in the Airport Influence Area (AIA) for the March Air Reserve Base (MARB), and is therefore subject to review by the Riverside County Airport Land Use Commission (ALUC) and is subject to compliance with the "March Air Reserve Base/Inland Port Airport Land Use Compatibility Plan (ALUCP)." The Project site is not subject to any other overlays or policy areas. Additionally, LMWAP Figure 6 (LMWAP Mt. Palomar Night Time Lighting Policy Area) shows that the Project site is not located within the Mount Palomar Night Time Lighting Policy Area and is therefore not subject to compliance with Riverside County Ordinance No. 655 (Regulating Light Pollution). (Riverside County, 2021b, Figures 5 and 6)

3. *Riverside County Land Use Ordinance*

The Riverside County Land Use Ordinance is intended to implement the Riverside County General Plan's Land Use Plan. Under existing conditions, the Project site is zoned "Light Agriculture (A-1)" with minimum 10-acre lot sizes. Refer to Subsection 4.11.1.C for a more thorough discussion of the site's existing zoning classifications.

4. *Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP)*

Riverside County has adopted a MSHCP, which is a comprehensive, multi-jurisdictional Habitat Conservation Plan (HCP). The MSHCP promotes conservation of species and their associated habitats in Riverside County through implementation of several HCPs that affect lands within the County. The Western Riverside County MSHCP and the Coachella Valley MSHCP are the two dominant plans that impact the largest portions of the County. These plans coordinate multi-jurisdictional habitat-planning and conservation efforts in the region to promote biological and ecological diversity while accommodating the appropriate construction of new development and infrastructure projects. Riverside County catalogs acquisitions and conservation of lands with respect to the HCPs, and periodically updates the General Plan Land Use maps accordingly. (Riverside County, 2015, p. 4.2-27)

The Project site is located within the Western Riverside County MSHCP. The Project site is not located within any MSHCP Criteria Cells or Cell Groups, indicating that the Project site is not targeted for conservation under the MSHCP. In addition to conservation criteria within areas designated to be included within the MSHCP Reserve System, the MSHCP also identifies a number of additional survey and conservation requirements that

apply to the Project area. Refer to EIR Subsection 4.4, *Biological Resources*, for a more thorough discussion of the MSHCP and the Project site's relationship thereto.

5. Stephen's Kangaroo Rat Habitat Conservation Plan (SKR HCP)

The Stephens' Kangaroo Rat Habitat Conservation Plan (SKR HCP) was prepared under the direction of the Riverside County Habitat Conservation Agency (RCHCA) Board of Directors, in consultation with U.S. Fish and Wildlife Service (USFWS) and the California Department of Fish and Wildlife (CDFW). Riverside County is a member agency of the RCHCA. The 30-year SKR HCP was designed to acquire and permanently conserve, maintain, and fund the conservation, preservation, restoration, and enhancement of Stephens' kangaroo rat-occupied habitat. The SKR HCP covers approximately 534,000 acres within the member jurisdictions and includes an estimated 30,000 acres of occupied Stephens' kangaroo rat habitat. The SKR HCP requires members to preserve and manage 15,000 acres of occupied habitat in seven core reserves encompassing over 41,000 acres. (Riverside County, 2015, p. 4.8-52)

On May 3, 1996, the USFWS issued a permit to the Riverside County Habitat Conservation Agency to incidentally take the federally endangered Stephens' kangaroo rat ("SKR"; *Dipodomys stephensi*). Similarly, the CDFW issued a California Endangered Species Act Management Authorization for Implementation of the SKR HCP on May 6, 1996. To date, more than $50 million has been dedicated to the establishment and management of a system of regional preserves designed to ensure the survival of SKR in the plan area. This effort resulted in the permanent conservation of approximately 50% of the SKR-occupied habitat remaining in the HCP 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. Core reserves were deemed complete in December of 2003. (Riverside County, 2015, p. 4.8-52)

Although the Project site is not targeted for conservation as part of the SKR HCP, the Project site is located within the SKR HCP fee area. Thus, the Project Applicant would be required to contribute fee payments pursuant to Riverside County Ordinance No. 663.

6. Southern California Association of Governments (SCAG)

The Southern California Association of Governments (SCAG) is a regional agency established pursuant to California Government Code § 6500, also referred to as the Joint Powers Authority law. SCAG is designated as a Council of Governments (COG), a Regional Transportation Planning Agency (RTPA), and a Metropolitan Planning Organization (MPO). The Project Site is within SCAG's regional authority (SCAG, 2018, p. ES-1). In April 2024, SCAG adopted the *2024-2050 Regional Transportation Plan (RTP)/Sustainable Communities Strategy (SCS)* ("RTP/SCS"); also referred to herein as "Connect SoCal" with goals to: 1) build and maintain an integrated multimodal transportation network; 2) develop, connect and sustain communities that are livable and thriving; 3) create a healthy region for the people of today and tomorrow; and 4) support a sustainable, efficient and productive regional economic environment that provides opportunities for all residents. Performance measures and funding strategies also are included to ensure that the adopted goals are achieved through implementation of the RTP. (SCAG, 2024)

Connect SoCal includes long-range regional transportation plans, regional transportation improvement programs, regional housing needs allocations, and other plans for the region. Connect SoCal also provides

objectives for meeting emissions reduction targets set forth by the California Air Resources Board (CARB); these objectives were provided in a direct response to Senate Bill 375 (SB 375) which was enacted to reduce greenhouse gas emissions from automobiles and light trucks through integrated transportation, land use, housing, and environmental planning. Connect SoCal is updated periodically to allow for the consideration and inclusion of new transportation strategies and methods.

7. South Coast Air Quality Management District Air Quality Management Plan (SCAQMD AQMP)

California Health & Safety Code § 40702 et seq., the California Clean Air Act (CCAA), requires that an Air Quality Management Plan (AQMP) be developed and then updated every three years for air basins with non-attainment status. As discussed in EIR Section 4.3, *Air Quality*, the Project site is located in the South Coast Air Basin (SCAB). The SCAB is within the jurisdiction of the South Coast Air Quality Management District (SCAQMD), the agency charged with bringing air quality in the SCAB into conformity with federal and State air quality standards. Air quality within the SCAB is regulated by the SCAQMD and standards for air quality are documented in the SCAQMD's 2022 AQMP. Although air quality in the SCAB has improved over the past several decades, according to the SCAQMD, the SCAB currently does not meet National Ambient Air Quality Standards (NAAQS) attainment status for ozone (O_3) and particulate matter less than 2.5 microns ($PM_{2.5}$). The SCAB currently is considered non-attainment under the California Ambient Air Quality Standards (CAAQS) due to levels of ozone (O_3), $PM_{2.5}$, and particulate matter less than 10 microns (PM_{10}). (SCAQMD, 2017)

The SCAQMD 2022 AQMP is a plan for the regional improvement of air quality. Projects such as the proposed Project relate to the air quality planning process through the growth forecasts that were used as inputs into the regional transportation model. If a proposed project is consistent with these growth forecasts, and if all available emissions reduction strategies are implemented as effectively as possible on a project-specific basis, then the project is consistent with the AQMP.

4.11.2 Applicable Regulatory Requirements

The following is a brief description of the federal, State, and local environmental laws and related regulations related to land use and planning.

A. Federal Regulations

1. Clean Water Act

The Clean Water Act (CWA) establishes the basic structure for regulating discharges of pollutants into the waters of the United States and regulating quality standards for surface waters. The basis of the CWA was enacted in 1948 and was called the Federal Water Pollution Control Act, but the Act was substantially reorganized and expanded in 1972. "Clean Water Act" became the Act's common name with amendments in 1972. Under the CWA, the Environmental Protection Agency (EPA) has implemented pollution control programs such as setting wastewater standards for industry, and also has set water quality standards for all contaminants in surface waters. The CWA made it unlawful to discharge any pollutant from a point source into navigable waters, unless a permit was obtained. EPA's National Pollutant Discharge Elimination System

(NPDES) permit program controls discharges. Point sources are discrete conveyances such as pipes or man-made ditches. Individual homes that are connected to a municipal system, use a septic system, or do not have a surface discharge do not need an NPDES permit; however, industrial, municipal, and other facilities must obtain permits if their discharges go directly to surface waters. (EPA, 2020e)

2. Federal Aviation Regulations Part 77

Federal Regulation Title 14 Part 77 establishes standards and notification requirements for objects affecting navigable airspace. This notification serves as the basis for: (FAA, 2020a)

- Evaluating the effect of the construction or alteration on operating procedures;
- Determining the potential hazardous effect of the proposed construction on air navigation;
- Identifying mitigating measures to enhance safe air navigation; and
- Charting of new objects.

Notification allows the Federal Aviation Administration (FAA) to identify potential aeronautical hazards in advance to prevent or minimize the adverse impacts to the safe and efficient use of navigable airspace. Any person/organization who intends to sponsor any of the following construction or alterations must notify the Administrator of the FAA: (FAA, 2020a)

- Any construction or alteration exceeding 200 feet above ground level.
- Any construction or alteration:
  - within 20,000 feet of a public use or military airport which exceeds a 100:1 surface from any point on the runway of each airport with at least one runway more than 3,200 feet.
  - within 10,000 feet of a public use or military airport which exceeds a 50:1 surface from any point on the runway of each airport with its longest runway no more than 3,200 feet.
  - within 5,000 feet of a public use heliport which exceeds a 25:1 surface.
- Any highway, railroad, or other traverse way whose prescribed adjusted height would exceed that above noted standards.
- When requested by the FAA.
- Any construction or alteration located on a public use airport or heliport regardless of height or location. (FAA, 2020a)

Persons failing to comply with the provisions of FAR Part 77 are subject to Civil Penalty under Section 902 of the Federal Aviation Act of 1958, as amended and pursuant to 49 U.S.C. Section 46301(a). (FAA, 2020a)

B. State Regulations

1. Porter-Cologne Water Control Act

The Porter-Cologne Act is the principal law governing water quality regulation in California. It establishes a comprehensive program to protect water quality and the beneficial uses of water. The Porter-Cologne Act applies to surface waters, wetlands, and ground water and to both point and nonpoint sources of pollution. Pursuant to the Porter-Cologne Act (California Water Code § 13000 et seq.), the policy of the State is as follows: (SWRCB, 2014)

- That the quality of all the waters of the State shall be protected;
- That all activities and factors affecting the quality of water shall be regulated to attain the highest water quality within reason; and
- That the State must be prepared to exercise its full power and jurisdiction to protect the quality of water in the State from degradation.

The Porter-Cologne Act established nine Regional Water Boards (based on hydrogeologic barriers) and the State Water Board, which are charged with implementing its provisions and which have primary responsibility for protecting water quality in California. The State Water Board provides program guidance and oversight, allocates funds, and reviews Regional Water Boards decisions. In addition, the State Water Board allocates rights to the use of surface water. The Regional Water Boards have primary responsibility for individual permitting, inspection, and enforcement actions within each of nine hydrologic regions. The State Water Board and Regional Water Boards have numerous non-point source (NPS) related responsibilities, including monitoring and assessment, planning, financial assistance, and management. (SWRCB, 2014)

The Regional Water Boards regulate discharges under the Porter-Cologne Act primarily through issuance of NPDES permits for point source discharges and waste discharge requirements (WDRs) for NPS discharges. Anyone discharging or proposing to discharge materials that could affect water quality (other than to a community sanitary sewer system regulated by an NPDES permit) must file a report of waste discharge. The State Water Resources Control Board (SWRCB) and the Regional Water Quality Control Boards (RWQCBs) can make their own investigations or may require dischargers to carry out water quality investigations and report on water quality issues. The Porter-Cologne Act provides several options for enforcing WDRs and other orders, including cease and desist orders, cleanup and abatement orders, administrative civil liability orders, civil court actions, and criminal prosecutions. (SWRCB, 2014)

The Porter-Cologne Act also implements many provisions of the Clean Water Act, such as the NPDES permitting program. The Porter-Cologne Act also requires adoption of water quality control plans that contain the guiding policies of water pollution management in California. In addition, regional water quality control plans (basin plans) have been adopted by each of the Regional Water Boards and get updated as necessary and practical. These plans identify the existing and potential beneficial uses of waters of the State and establish water quality objectives to protect these uses. The basin plans also contain implementation, surveillance, and monitoring plans. (SWRCB, 2014)

2. California Water Code

The California Water Code is the principal state law regulating water quality in California. Water quality provisions must be complied with as contained in numerous code sections including: 1) the Health and Safety Code for the protection of ground and surface waters from hazardous waste and other toxic substances; 2) the Fish and Game Code for the prevention of unauthorized diversions of any surface water and discharge of any substance that may be deleterious to fish, plant, animal, or bird life; 3) the Harbors and Navigation Code for the prevention of the unauthorized discharge of waste from vessels into surface waters; and 4) the Food and Agriculture Code for the protection of groundwater which may be used for drinking water supplies. The California Department of Fish and Wildlife (CDFW), through provisions of the Fish & Game Code (§§ 1601

- 1603) is empowered to issue agreements for any alteration of a river, stream, or lake where fish or wildlife resources may be adversely affected. CDFW regulates wetland areas only to the extent that those wetlands are part of a river, stream, or lake as defined by CDFW. (CA Legislative Info, n.d.)

Surface water quality is the responsibility of the Regional Water Quality Control Board (RWQCB), water supply and wastewater treatment agencies, and city and county governments. The principal means of enforcement by the RWQCB is through the development, adoption, and issuance of water discharge permits. RWQCB basin plans establish water quality objectives that are defined as the limits or levels of water quality constituents or characteristics for the reasonable protection of beneficial uses of water. (CA Legislative Info, n.d.)

3. California Planning and Zoning Law

The legal framework in which California cities and counties exercise local planning and land use functions is set forth in the California Planning and Zoning Law, §§ 65000 - 66499.58. Under State of California planning law, each city and county must adopt a comprehensive, long-term general plan. State law gives cities and counties wide latitude in how a jurisdiction may create a general plan, but there are fundamental requirements that must be met. These requirements include the inclusion of seven mandatory elements described in the Government Code, including a section on land use. Each of the elements must contain text and descriptions setting forth objectives, principles, standards, policies, and plan proposals; diagrams and maps that incorporate data and analysis; and mitigation measures. (OPR, n.d.)

4. Subdivision Map Act

The Subdivision Map Act ("Map Act") vests in the cities and counties the power to regulate and control the design and improvement of subdivisions within its boundaries. Each city must adopt an ordinance regulating and controlling subdivisions for which the Map Act requires a tentative and final or parcel map. The authority for a city or county to regulate land use, including subdivisions, flows from the general police power. However, the Map Act sets forth certain mandates that must be followed for subdivision processing. A city can impose conditions on the subdivision process when the Map Act is silent, but it cannot regulate contrary to specific provisions contained in the Map Act. (Curtin, Jr. & Merritt, 2002, p. 1) The Map Act's primary goals are:

- To encourage orderly community development by providing for the regulation and control of the design and improvement of the subdivision, with a proper consideration of its relation to adjoining areas;
- To ensure that the areas within the subdivision that are dedicated for public purposes will be properly improved by the subdivider so that they will not become an undue burden on the community; and
- To protect the public and individual transferees from fraud and exploitation. (Curtin, Jr. & Merritt, 2002, p. 1)

The Map Act is applied in conjunction with other state land use laws such as the general plan, specific plans, zoning, CEQA, and the Permit Streamlining Act. The Map Act provides for regulation of land divisions by a city or county and is interpreted and enforced by the city or county. (Curtin, Jr. & Merritt, 2002, p. 2)

5. Office of Planning and Research (OPR) General Plan Guidelines

Each city and county in California must prepare a comprehensive, long term general plan to guide its future. To assist local governments in meeting this responsibility, the Governor's Office of Planning and Research (OPR) is required to adopt and periodically revise guidelines for the preparation and content of local general plans pursuant to Government Code § 65040.2. The General Plan Guidelines are advisory, not mandatory. Nevertheless, it is the state's only official document explaining California's legal requirements for general plans. Planners, decision-making bodies, and the public depend upon the General Plan Guidelines for help when preparing local general plans. The courts have periodically referred to the General Plan Guidelines for assistance in determining compliance with planning law. For this reason, the General Plan Guidelines closely adheres to statute and case law. It also relies upon commonly accepted principles of contemporary planning practice. (OPR, 2017a, p. 1)

6. State Aeronautics Act

The State Aeronautics Commission Act of 1947 created the Division of Aeronautics ("Division"), and was later amended by statute to read the State Aeronautics Act (Aeronautics Act) in 1961. As a result of this legislation, the Division's first priorities are those mandated by the Aeronautics Act, then Caltrans guidance, then Division guidance as expressed through its Policy Element. As directed by the Aeronautics Act, the Division is a steward and advocate of aviation in California. To that end, its efforts are focused on activities that "protect the public interest in aeronautics and aeronautical progress." (§ 21002) (CA Legislative Info, n.d.)

The Aeronautics Act itself is divided into seven chapters, the first five of which have not received significant cleanup legislation since its enabling in 1947. The first chapter begins with general provisions and definitions and explains the Legislature's intent for a State aviation program. Chapter two explains Caltrans' role in administering the Division, and explains the role of the California Transportation Commission (CTC). Chapter three includes many of the safety considerations from Federal Aviation Administration (FAA) regulations that help keep airports and the surrounding communities safe and compatible with flight operations. Chapter four deals with airport and heliport permitting, air navigation facilities, noise guidelines, funding, and importantly, the formation and authority of Airport Land Use Commissions (ALUC). Chapter five covers the investigations and hearings on matters covered in the Aeronautics Act. Chapter six introduces airport planning and specifically introduces the intent of the CASP and how it can be used to support California aviation. Finally, Chapter 7 covers skydiving or sport parachuting operations to ensure they are in compliance with federal safety laws. (CA Legislative Info, n.d.)

7. Senate Bill 375 (SB 375)

SB 375 contains five major components. The first is regional GHG emissions targets: California ARB's Regional Targets Advisory Committee guides the adoption of targets to be met by 2035 for each Metropolitan Planning Organization (MPO) in the state. These targets, which MPOs may propose themselves, are updated every eight years in conjunction with the revision schedule of housing and transportation elements.

Second, MPOs are required to prepare a Sustainable Communities Strategy (SCS) that provides a plan for meeting regional targets. The SCS and the Regional Transportation Plan (RTP) must be consistent with each other, including action items and financing decisions. If the SCS does not meet the regional target, the MPO must produce an Alternative Planning Strategy that details an alternative plan to meet the target.

Third, SB 375 requires that regional housing elements and transportation plans be synchronized on 8-year schedules. In addition, Regional Housing Needs Assessment (RHNA) allocation numbers must conform to the SCS. If local jurisdictions are required to rezone land as a result of changes in the housing element, rezoning must take place within three years.

Fourth, SB 375 provides CEQA streamlining incentives for preferred development types. Certain residential or mixed-use projects qualify if they conform to the SCS. Transit-oriented developments (TODs) also qualify if they (1) are at least 50% residential, (2) meet density requirements, and (3) are within 0.5-mile of a transit stop. The degree of CEQA streamlining is based on the degree of compliance with these development preferences.

Finally, MPOs must use transportation and air emissions modeling techniques consistent with guidelines prepared by the California Transportation Commission (CTC). Regional Transportation Planning Agencies, cities, and counties are encouraged, but not required, to use travel demand models consistent with the CTC guidelines. (CA Legislative Info, n.d.)

8. SCAG Connect SoCal

The Southern California Association of Governments (SCAG) is a Joint Powers Authority (JPA) under California State law, established as an association of local governments and agencies that voluntarily convene as a forum to address regional issues. Under federal law, SCAG is designated as a MPO and under State law as a Regional Transportation Planning Agency and a Council of Governments. The SCAG region encompasses six counties (Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura) and 191 cities in an area covering more than 38,000 square miles. SCAG develops long-range regional transportation plans including sustainable communities strategy and growth forecast components, regional transportation improvement programs, regional housing needs allocations and other plans for the region. (SCAG, n.d.1)

As an MPO and public agency, SCAG develops transportation and housing strategies that transcend jurisdictional boundaries that affect the quality of life for southern California as a whole. In April 2024, SCAG's Regional Council adopted *Connect SoCal (2024-2050 Regional Transportations Plan/Sustainable Communities Strategy* (herein, "RTP/SCS"). The RTP/SCS includes long-range regional transportation plans, regional transportation improvement programs, regional housing needs allocations, and other plans for the region. The RTP/SCS also provides objectives for meeting emissions reduction targets set forth by CARB; these objectives were provided in a direct response to Senate Bill 375 (SB 375) which was enacted to reduce greenhouse gas emissions from automobiles and light trucks through integrated transportation, land use, housing and environmental planning. (SCAG, 2024) The RTP/SCS is updated periodically to allow for the consideration and inclusion of new transportation strategies and methods.

4.11.3 Basis for Determining Significance

Section XI of Appendix G to the CEQA Guidelines, as updated in December 2018, addresses typical adverse effects on land use and planning, and includes the following threshold questions to evaluate the Project's impacts on land use and planning (OPR, 2018a):

- Would the project physically divide an established community?

- Would the project cause a significant environmental impact due to a conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

Significance thresholds are set forth in Riverside County's Environmental Assessment Checklist, and have been updated to reflect the 2018 updates to Section XI of Appendix G to the CEQA Guidelines (listed above). Accordingly, the proposed Project would have a significant impact on land use and planning if construction and/or operation of the Project would:

a. *Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect; or*

b. *Disrupt or divide the physical arrangement of an established community (including a low-income or minority community).*

The significance thresholds set forth in Riverside County's Environmental Assessment Checklist, as modified/updated per the 2018 updates to the CEQA Guidelines, were used to evaluate the significance of the proposed Project's impacts on land use and planning. It should be noted that the Project's consistency with the Western Riverside County MSHCP and the SKR HCP, which are the only habitat conservation plans or natural community conservation plans applicable to the Project site, is evaluated in EIR Subsection 4.4, *Biological Resources*, under the analysis of Threshold a., and the analysis concludes that impacts due to a conflict with the MSHCP and SKR HCP would be less than significant with mitigation. Additionally, the Project's consistency with the SCAQMD AQMP is addressed under EIR Subsection 4.3, *Air Quality*. Project consistency with the MSHCP, SKR HCP, and the SCAQMD AQMP is not further discussed in this Subsection.

4.11.4 Impact Analysis

Threshold a.: ***Would the Project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?***

The proposed Project has the potential to conflict with the Riverside County General Plan and LMWAP, as well as Connect SoCal. Additionally, the Project's consistency with the SCAQMD AQMP is addressed under EIR Subsection 4.3, *Air Quality*. Similarly, the Project's consistency with the Western Riverside County MSHCP and the SKR HCP are addressed in EIR Subsection 4.4, *Biological Resources*. In addition, the Project's consistency with Riverside County's Climate Action Plan (CAP) is addressed in EIR Subsection 4.8, *Greenhouse Gas Emissions*. As discussed in Subsection 4.3, the Project would be fully consistent with the 2022 SCAQMD AQMP. As indicated in EIR Subsections 4.4 and 4.8, the Project would not conflict with the MSHCP, the SKR HCP, or the Riverside County CAP with implementation of mitigation measures; thus, impacts due to a conflict with the MSHCP, SKR HCP, and CAP would be less than significant. The Project's consistency with the SCAQMD AQMP, MSHCP, SKR HCP, and the County's CAP is not further discussed below.

A. Project Consistency with the Riverside County General Plan and LMWAP

1. General Plan and LMWAP Land Use Consistency

Under existing conditions, the General Plan and LMWAP designate the Project site for RC-VLDR land uses. The Project Applicant proposes General Plan Amendment No. 220009 (GPA 220009) to modify the land use designations assigned to the 140.8-acre Project site. As part of GPA 220009, the Project site would be redesignated for RC-LDR land uses. With approval of GPA 220009, the Project would be fully consistent with the General Plan and LMWAP land use designations for the 140.8-acre property. Moreover, impacts associated with the proposed land uses have been evaluated throughout this EIR. Where significant impacts are identified, mitigation measures are identified to reduce impacts to the maximum feasible extent. Based on the foregoing analysis, the proposed Project would not result in a significant environmental impact due to a conflict with any land use plan adopted for the purpose of avoiding or mitigating an environmental effect, and impacts would be less than significant.

2. General Plan and LMWAP Policy Consistency

A General Plan Policies Consistency Analysis was prepared for the proposed Project in order to demonstrate the Project's consistency with applicable General Plan and LMWAP policies, and is included as *Technical Appendix N.* For more information regarding the Project's consistency with specific applicable Riverside County General Plan and LMWAP policies, please refer to *Technical Appendix N*. As concluded therein, the Project would not conflict with any of the applicable General Plan or LMWAP policies adopted for the purpose of avoiding or reducing significant environmental effects. Accordingly, impacts due to a conflict with applicable General Plan or LMWAP policies would be less than significant.

B. Project Consistency with SCAG's 2024-2050 RTP/SCS

As previously noted, in April 2024, SCAG adopted the *2024-2050 Regional Transportation Plan (RTP)/Sustainable Communities Strategy (SCS)* ("RTP/SCS"); also referred to herein as "Connect SoCal." The RTP/SCS seeks to improve mobility, promote sustainability, facilitate economic development, and preserve the quality of life for the residents in the region. The long-range visioning plan balances future mobility and housing needs with goals for the environment, the regional economy, social equity and environmental justice, and public health. The goals included in the RTP/SCS are pertinent to the proposed Project. These goals are meant to provide guidance for considering the proposed Project within the context of regional goals and policies. An analysis of the Project's consistency with the relevant goals of the RTP/SCS is presented below in *Table 4.11-1, Analysis of Consistency with SCAG Draft 2024-2050 Regional Transportation Plan/Sustainable Communities Strategy Goals.* As indicated the Project would not conflict with any of the RTP/SCS goals, and no impact would occur.

C. Land Use Compatibility

The Project as evaluated herein would provide for the future development of the 140.8-acre Project site with a residential land uses on lot sizes ranging from 0.25-acre to 1.1 acre. Under existing conditions, land uses to the west consist of natural open space on hilly terrain, beyond which are rural and very low-density residential uses. To the north of the Project site are open space and very low-density residential uses. To the east of the Project site are very low-density residential uses, along with several commercial retail uses along the northern side of Van Buren Boulevard. Land uses to the south of the Project site consist of very low-density residential

uses and Van Buren Boulevard, to the south of which are additional very low-density residential uses located within unincorporated Riverside County. Lands to the southeast of the Project site and south of Van Buren Boulevard are located in the City of Riverside and consist of medium-density residential uses, several schools (Woodcrest Christian, Martin Luther King High School, and Frank Augustus Miller Middle School), and commercial land uses along the south side of Van Buren Boulevard.

Table 4.11-1 Analysis of Consistency with SCAG Draft 2024-2050 Regional Transportation Plan/Sustainable Communities Strategy Goals

DRAFT RTP/SCS GOAL	GOAL STATEMENT	PROJECT CONSISTENCY DISCUSSION
Mobility		
01.	Prioritize repair, maintenance and preservation of the SCAG region's existing transportation assets, following a "Fix-It-First" principle.	Not Applicable. RTP/SCS Policy 01 provides direction to County and regional agency staff and decision makers and is not applicable to the proposed Project.
02.	Promote transportation investments that advance progress toward the achievement of asset management targets, including the condition of the National Highway System pavement and bridges, and transit access (rolling stock, equipment, facilities, and infrastructure)	Not Applicable. RTP/SCS Policy 02 provides direction to County and regional agency staff and decisionmakers and is not applicable to the proposed Project.
Complete Streets		
03.	Pursue the development of Complete Streets that comprise a safe, multimodal network with flexible use of public rights-of-way for people of all ages and abilities using a variety of modes (e.g., people walking, biking, rolling, driving, taking transit)	Consistent. As part of the Project, the Project Applicant would accommodate improvements to Iris Road adjacent to the Project site and along Chicago Avenue between the Project's emergency access and Genitian Avenue, which would include five-foot-wide curb separated sidewalks. These improvements would promote non-vehicular modes of transportation in the local areas.
04.	Ensure the implementation of Complete Streets that are sensitive to urban, suburban or rural contexts and improve transportation safety for all, but especially for vulnerable road users (e.g., people, especially older adults and children, walking and biking)	Not Applicable. RTP/SCS Policy 04 provides direction to County and regional agency staff and decision makers, and is not applicable to the proposed Project.
05.	Facilitate the implementation of Complete Streets and curb space management strategies that accommodate and optimize new technologies, micromobility devices and first/last mile connections to transit and last-mile delivery.	Not Applicable. RTP/SCS Policy 05 provides direction to County and regional agency staff and decision makers, and is not applicable to the proposed Project.

Table 4.11-1 Analysis of Consistency with SCAG Draft 2024-2050 Regional Transportation Plan/Sustainable Communities Strategy Goals

DRAFT RTP/SCS GOAL	GOAL STATEMENT	PROJECT CONSISTENCY DISCUSSION
06.	Support implementation of Complete Streets improvements in Priority Equity Communities, particularly with respect to Transportation Equity Zones, as a way to enhance mobility, safety, and access to opportunities.	Not Applicable. RTP/SCS Policy 06 provides direction to County and regional agency staff and decision makers, and is not applicable to the proposed Project.
Transit and Multimodal Integration		
07.	Encourage and support the implementation of projects, both physical and digital, that facilitate multimodal connectivity, prioritize transit and shared mobility, and result in improved mobility, accessibility, and safety.	Not Applicable. RTP/SCS Policy 07 provides direction to County and regional agency staff and decision makers, and is not applicable to the proposed Project.
08.	Support connections across the public, private and nonprofit sectors to develop transportation projects and programs that result in improved connectivity.	Not Applicable. RTP/SCS Policy 08 provides direction to County and regional agency staff and decision makers, and is not applicable to the proposed Project.
09.	Encourage residential and employment development in areas surrounding existing and planned transit/rail stations	Not Applicable. RTP/SCS Policy 09 provides direction to County and regional agency staff and decision makers, and is not applicable to the proposed Project.
10.	Support the implementation of transportation projects in Priority Equity Communities, particularly with respect to Transportation Equity Zones, as a way to enhance mobility, safety, and access to opportunities.	Not Applicable. RTP/SCS Policy 10 provides direction to County and regional agency staff and decision makers, and is not applicable to the proposed Project.
11.	Create a resilient transportation system by preparing for emergencies and the impacts of climate change.	Not Applicable. RTP/SCS Policy 11 provides direction to County and regional agency staff and decision makers, and is not applicable to the proposed Project.
Transportation System Management		
12.	Pursue efficient use of the transportation system using a set of operational improvement strategies that maintain the performance of the existing transportation system instead of adding roadway capacity, where possible	Not Applicable. RTP/SCS Policy 12 provides direction to County and regional agency staff and decision makers, and is not applicable to the proposed Project.
13.	Prioritize transportation investments that increase travel time reliability, including build-out of the regional express lanes network	Not Applicable. RTP/SCS Policy 13 provides direction to County and regional agency staff and decision makers, and is not applicable to the proposed Project.

Table 4.11-1 Analysis of Consistency with SCAG Draft 2024-2050 Regional Transportation Plan/Sustainable Communities Strategy Goals

DRAFT RTP/SCS GOAL	GOAL STATEMENT	PROJECT CONSISTENCY DISCUSSION
Transportation Demand Management		
14.	Encourage the development of transportation projects that provide convenient, cost-effective and safe alternatives to single-occupancy vehicle travel (e.g., trips made by foot, on bikes, via transit, etc.)	Not Applicable. RTP/SCS Policy 14 provides direction to County and regional agency staff and decision makers and relates to transportation projects, and is not applicable to the proposed Project.
15.	Encourage jurisdictions and TDM practitioners to develop and expand local plans and policies to promote alternatives to single occupancy vehicle travel for residents, workers and visitors	Not Applicable. RTP/SCS Policy 15 provides direction to County and regional agency staff and decision makers, and is not applicable to the proposed Project.
16.	Encourage municipalities to update existing (legacy) TDM ordinances by incorporating new travel modes and new technology and by incorporating employment and residential sites of certain populations – for example, employers who have less than 250 employees (below the 250 or more employees threshold identified in AQMD's Rule 2202)	Not Applicable. RTP/SCS Policy 16 provides direction to County and regional agency staff and decision makers, and is not applicable to the proposed Project.
Technology Integration		
17.	Support the implementation of technology designed to provide equal access to mobility, employment, economic opportunity, education, health and other quality-of-life opportunities for all residents within the SCAG region	Not Applicable. RTP/SCS Policy 17 provides direction to County and regional agency staff and decision makers, and is not applicable to the proposed Project.
18.	Advocate for data sharing between the public and private sectors to effectively evaluate the services' benefits and impacts on communities while protecting data security and privacy	Not Applicable. RTP/SCS Policy 18 provides direction to County and regional agency staff and decision makers, and is not applicable to the proposed Project.
19.	Advocate for technology that is adaptive and responsive to ensure it remains up to date and meets the evolving needs of users and stakeholders	Not Applicable. RTP/SCS Policy 19 provides direction to County and regional agency staff and decision makers, and is not applicable to the proposed Project.
20.	Promote technology that has the capacity to facilitate economic growth, improve workforce development opportunities, and enhance safety and security	Not Applicable. RTP/SCS Policy 20 provides direction to County and regional agency staff and decision makers, and is not applicable to the proposed Project.

Table 4.11-1 Analysis of Consistency with SCAG Draft 2024-2050 Regional Transportation Plan/Sustainable Communities Strategy Goals

DRAFT RTP/SCS GOAL	GOAL STATEMENT	PROJECT CONSISTENCY DISCUSSION
21.	Proactively monitor and plan for the development, deployment and commercialization of new technology as it relates to integration with transportation infrastructure	Not Applicable. RTP/SCS Policy 21 provides direction to County and regional agency staff and decision makers, and is not applicable to the proposed Project.
Safety		
22.	Eliminate transportation-related fatalities and serious injuries (especially those involving vulnerable road users, such as people, especially older adults and children, walking and biking) on the regional multimodal transportation system	Not Applicable. RTP/SCS Policy 22 provides direction to County and regional agency staff and decision makers, and is not applicable to the proposed Project.
23.	Integrate the assessment of equity into the regional transportation safety and security planning process, focusing on the analysis and mitigation of disproportionate impacts on disadvantaged communities	Not Applicable. RTP/SCS Policy 23 provides direction to County and regional agency staff and decision makers, and is not applicable to the proposed Project. Additionally, the Project does not include any components related to regional transportation safety or security.
24.	Support innovative approaches for addressing transit safety and security issues so that impacts to transit employees and the public are minimized and those experiencing issues (e.g., unhoused persons) are supported	Not Applicable. RTP/SCS Policy 24 provides direction to County and regional agency staff and decision makers, and is not applicable to the proposed Project.
25.	Support the use of transportation safety and system security data in investment decision-making, including consideration of new highway and transit/rail investments that would address safety and security needs	Not Applicable. RTP/SCS Policy 25 provides direction to County and regional agency staff and decision makers, and is not applicable to the proposed Project.
Funding the System/User Fees		
26.	Promote stability and sustainability for core state and federal transportation funding sources	Not Applicable. RTP/SCS Policy 26 provides direction to County and regional agency staff and decision makers, and is not applicable to the proposed Project.

Table 4.11-1 Analysis of Consistency with SCAG Draft 2024-2050 Regional Transportation Plan/Sustainable Communities Strategy Goals

DRAFT RTP/SCS GOAL	GOAL STATEMENT	PROJECT CONSISTENCY DISCUSSION
27.	Establish a user fee–based system that better reflects the true cost of transportation, provides firewall protection for new and existing transportation funds, and represents equitable distribution of costs and benefits	Not Applicable. RTP/SCS Policy 27 provides direction to County and regional agency staff and decision makers, and is not applicable to the proposed Project. Additionally, the Project's Traffic Analysis (EIR *Technical Appendix K2*) identifies improvements, fair share contributions, and fee contributions to the County's DIF and/or TUMF programs, which would ensure that all study area intersections would operate at an acceptable Level of Service (LOS).
28.	Pursue funding tools that promote access to opportunity and support economic development through innovative mobility programs	Not Applicable. RTP/SCS Policy 28 provides direction to County and regional agency staff and decision makers, and is not applicable to the proposed Project.
29.	Promote national and state programs that include return-to-source guarantees while maintaining the flexibility to reward regions that continue to commit substantial local resources.	Not Applicable. RTP/SCS Policy 29 provides direction to County and regional agency staff and decision makers, and is not applicable to the proposed Project.
30.	Leverage locally available funding with innovative financing tools to attract private capital and accelerate project delivery	Not Applicable. RTP/SCS Policy 30 provides direction to County and regional agency staff and decision makers, and is not applicable to the proposed Project.
31.	Promote local funding strategies that maximize the value of public assets while improving mobility, sustainability and resilience	Not Applicable. RTP/SCS Policy 31 provides direction to County and regional agency staff and decision makers, and is not applicable to the proposed Project.
Communities		
Priority Development Areas		
32.	Promote the growth of origins and destinations, with a focus on future housing and population growth, in areas with existing and planned urban infrastructure that includes transit and utilities	Not Applicable. RTP/SCS Policy 32 provides direction to County and regional agency staff and decision makers, and is not applicable to the proposed Project.
33.	Promote the growth of origins and destinations, in areas with a proclivity toward multimodal options like transit and active transportation, to reduce single occupant vehicle (SOV) dependency and vehicle miles traveled	Not Applicable. RTP/SCS Policy 33 provides direction to County and regional agency staff and decision makers, and is not applicable to the proposed Project.

Table 4.11-1 Analysis of Consistency with SCAG Draft 2024-2050 Regional Transportation Plan/Sustainable Communities Strategy Goals

DRAFT RTP/SCS GOAL	GOAL STATEMENT	PROJECT CONSISTENCY DISCUSSION
34.	Seek to realize scale economies or a critical mass of jobs and destinations in areas across the region that can support non-SOV options and shorter trip distances, combined trips and reduced vehicle miles traveled	Not Applicable: The proposed Project includes 231 multi-family residential homes, and the Project does not include any commercial or industrial uses
Housing the Region		
35.	Encourage housing development in areas with access to important resources and amenities (economic, educational, health, social and similar) to further fair housing access and equity across the region	Consistent. The Project Applicant proposes to develop 231 single residential homes, which would develop housing in an area with access to important resources and amenities and increase housing access across the region.
36.	Encourage housing development in transit-supportive and walkable areas to create more interconnected and resilient communities	Consistent. The Project Applicant proposes to develop 231 single-family residential homes, which would contribute to housing development that could support future transit in the local area.
37.	Support local, regional, state and federal efforts to produce and preserve affordable housing while meeting additional housing needs across the region	Consistent. The Project Applicant proposes to develop 231 single-family residential homes, which would contribute to meeting additional housing needs in the region.
38.	Prioritize communities that are vulnerable to displacement pressures by supporting community stabilization and increasing access to housing that meets the needs of the region	Not Applicable. RTP/SCS Policy 38 provides direction to County and regional agency staff and decision makers, and is not applicable to the proposed Project.
39.	Promote innovative strategies and partnerships to increase homeownership opportunities across the region with an emphasis on communities that have been historically impacted by redlining and other systemic barriers to homeownership for people of color and other marginalized groups	Not Applicable. RTP/SCS Policy 39 provides direction to County and regional agency staff and decision makers, and is not applicable to the proposed Project.
40.	Advocate for and support programs that emphasize reducing housing cost burden (for renters and homeowners), with a focus on the communities with the greatest needs and vulnerabilities	Not Applicable. RTP/SCS Policy 40 provides direction to County and regional agency staff and decision makers, and is not applicable to the proposed Project.
41.	Support efforts to increase housing and services for people experiencing homelessness across the region.	Not Applicable. RTP/SCS Policy 41 provides direction to County and regional agency staff and decision makers, and is not applicable to the proposed Project.

Table 4.11-1 Analysis of Consistency with SCAG Draft 2024-2050 Regional Transportation Plan/Sustainable Communities Strategy Goals

DRAFT RTP/SCS GOAL	GOAL STATEMENT	PROJECT CONSISTENCY DISCUSSION
15-Minute Communities		
42.	Promote 15-minute communities as places with a mix of complementary land uses and accessible mobility options that align with and support the diversity of places (or communities) across the region. These are communities where residents can either access their most basic, day-to-day needs within a 15-minute walk, bike ride or roll from their home or as places that result in fewer and shorter trips because of the proximity of complementary land uses	Consistent. The Project Applicant proposes to develop 231 single-family residential homes, which would increase housing opportunities in the local area and would establish development intensities that could support future transit in the local area.
43.	Support communities across the region to realize 15-minute communities through incremental changes that improve equity, quality of life, public health, mobility, sustainability, resilience and economic vitality	Not Applicable. RTP/SCS Policy 43 provides direction to County and regional agency staff and decision makers, and is not applicable to the proposed Project.
44.	Encourage efforts that elevate innovative approaches to increasing access to neighborhood destinations and amenities through an array of people-centered mobility options	Not Applicable. RTP/SCS Policy 44 provides direction to County and regional agency staff and decision makers, and is not applicable to the proposed Project.
Equitable Engagement and Decision-Making		
45.	Advance community-centered interventions, resources and programming that serve the most disadvantaged communities and people in the region, like Priority Equity Communities, with strategies that can be implemented in the short-to-long-term	Not Applicable. RTP/SCS Policy 45 provides direction to County and regional agency staff and decision makers, and is not applicable to the proposed Project.
46.	Promote racial equity that is grounded in the recognition of the past and current harms of systemic racism and one that advances restorative justice	Not Applicable. RTP/SCS Policy 46 provides direction to County and regional agency staff and decision makers, and is not applicable to the proposed Project.
47.	Increase equitable, inclusive, and meaningful representation and participation of people of color and disadvantaged communities in the planning process.	Not Applicable. RTP/SCS Policy 47 provides direction to County and regional agency staff and decision makers, and is not applicable to the proposed Project.
Environment		

Table 4.11-1 Analysis of Consistency with SCAG Draft 2024-2050 Regional Transportation Plan/Sustainable Communities Strategy Goals

DRAFT RTP/SCS GOAL	GOAL STATEMENT	PROJECT CONSISTENCY DISCUSSION
Sustainable Development		
48.	Promote sustainable development and best practices that enhance resource conservation, reduce resource consumption and promote resilience	Consistent. As presented throughout this EIR, the Project's impacts to the environment would be less than significant or would be reduced to the maximum feasible extent with the implementation of mitigation measures. Additionally, the analysis presented in EIR Subsection 4.6, *Energy*, with mandatory compliance with applicable federal and State regulations and requirements, including the provisions of the Title 24 Building Energy Standards, Project construction and operation would not result in the inefficient, wasteful, or unnecessary consumption of energy.
49.	Support communities across the region to advance innovative sustainable development practices	Not Applicable. RTP/SCS Policy 49 provides direction to County and regional agency staff and decision makers, and is not applicable to the proposed Project.
50.	Recognize and support the diversity of communities across the region by promoting local place-making, planning and development efforts that advance equity, mobility, resilience and sustainability	Not Applicable. RTP/SCS Policy 50 provides direction to County and regional agency staff and decision makers, and is not applicable to the proposed Project.
Air Quality		
51.	Reduce hazardous air pollutants and greenhouse gas emissions and improve air quality throughout the region through planning and implementation efforts	Consistent. As evaluated herein and in EIR Subsections 4.3, *Air Quality,* and 4.8, *Greenhouse Gas Emissions,* mitigation measures have been imposed on the Project to reduce the Project's air quality and GHG emissions to less-than-significant levels.
52.	Support investments that reduce hazardous air pollutants and greenhouse gas emissions	Not Applicable. RTP/SCS Policy 52 provides direction to County and regional agency staff and decision makers, and is not applicable to the proposed Project.
53.	Reduce the exposure and impacts of emissions and pollutants and promote local and regional efforts that improve air quality for vulnerable populations, including but not limited to Priority Equity Communities and the AB 617 Communities	Not Applicable. RTP/SCS Policy 53 provides direction to County and regional agency staff and decision makers, and is not applicable to the proposed Project.
Clean Transportation		

Table 4.11-1 Analysis of Consistency with SCAG Draft 2024-2050 Regional Transportation Plan/Sustainable Communities Strategy Goals

DRAFT RTP/SCS GOAL	GOAL STATEMENT	PROJECT CONSISTENCY DISCUSSION
54.	Accelerate the deployment of a zero-emission transportation system and use near-zero-emission technology to offer short-term benefits where zero-emissions solutions are not yet feasible or commercially viable	Not Applicable. RTP/SCS Policy 54 provides direction to County and regional agency staff and decision makers, and is not applicable to the proposed Project.
55.	Promote equitable use of and access to clean transportation technologies so that all may benefit from them	Not Applicable. RTP/SCS Policy 55 provides direction to County and regional agency staff and decision makers, and is not applicable to the proposed Project.
56.	Consider the full environmental life cycle of clean transportation technologies, including upstream production and end of life as an important part of meeting SCAG's objectives in economic development and recovery, resilience planning and achievement of equity	Not Applicable. RTP/SCS Policy 56 provides direction to County and regional agency staff and decision makers, and is not applicable to the proposed Project.
57.	Maintain a technology-neutral approach in the study of, advancement of and investment in clean transportation technology	Not Applicable. RTP/SCS Policy 57 provides direction to County and regional agency staff and decision makers, and is not applicable to the proposed Project.
Natural and Agricultural Lands Preservation		
58.	Prioritize the climate mitigation, adaptation, resilience and economic benefits of natural and agricultural lands in the region	Not Applicable. RTP/SCS Policy 58 provides direction to County and regional agency staff and decision makers, and is not applicable to the proposed Project.
59.	Support conservation of habitats that are prone to hazards exacerbated by climate change, such as wildfires and flooding	Not Applicable. RTP/SCS Policy 59 provides direction to County and regional agency staff and decision makers, and is not applicable to the proposed Project.
60.	Support regional conservation planning and collaboration across the region	Not Applicable. RTP/SCS Policy 60 provides direction to County and regional agency staff and decision makers, and is not applicable to the proposed Project.
61.	Encourage the protection and restoration of natural habitat and wildlife corridors	Not Applicable. RTP/SCS Policy 49 provides direction to County and regional agency staff and decision makers, and is not applicable to the proposed Project. Additionally, as evaluated in EIR Subsection 4.4, *Biological Resources*, mitigation measures have been imposed on the Project to reduce the Project's impacts to biological resources to below a level of significance.

Table 4.11-1 Analysis of Consistency with SCAG Draft 2024-2050 Regional Transportation Plan/Sustainable Communities Strategy Goals

DRAFT RTP/SCS GOAL	GOAL STATEMENT	PROJECT CONSISTENCY DISCUSSION
62.	Encourage the conservation and viability of agricultural lands to protect the regional and local food supply and ensure the sustainability of local agriculture as a vital part of the region's economy	Not Applicable. RTP/SCS Policy 49 provides direction to County and regional agency staff and decision makers, and is not applicable to the proposed Project. In addition, the Project site is located in an area that is planned for future development, and the Project site contains no agricultural lands under existing conditions.
63.	Encourage policy development of the link between natural and agricultural conservation with public health	Not Applicable. RTP/SCS Policy 63 provides direction to County and regional agency staff and decision makers, and is not applicable to the proposed Project.
Climate Resilience		
64.	Prioritize the most vulnerable populations and communities subject to climate hazards to help the people, places and infrastructure that are most at risk for climate change impacts. In doing so, recognize that disadvantaged communities are often overburdened	Not Applicable. RTP/SCS Policy 64 provides direction to County and regional agency staff and decision makers, and is not applicable to the proposed Project.
65.	Support local and regional climate and hazard planning and implementation efforts for transportation, land use, and other factors	Not Applicable. RTP/SCS Policy 65 provides direction to County and regional agency staff and decision makers, and is not applicable to the proposed Project.
66.	Support nature-based solutions to increase regional resilience of the natural and built environment	Not Applicable. RTP/SCS Policy 66 provides direction to County and regional agency staff and decision makers, and is not applicable to the proposed Project.
67.	Promote sustainable water use planning, practices and storage that improve regional water security and resilience in a drier environment	Not Applicable. RTP/SCS Policy 67 provides direction to County and regional agency staff and decision makers, and is not applicable to the proposed Project.
68.	Support an integrated planning approach to help local jurisdictions meet housing production needs in a drier environment	Not Applicable. RTP/SCS Policy 68 provides direction to County and regional agency staff and decision makers, and is not applicable to the proposed Project.
Economy		
Goods Movement		
69.	Leverage and prioritize investments, particularly where there are mutual co-benefits to both freight and passenger/commuter rail	Not Applicable. RTP/SCS Policy 69 provides direction to County and regional agency staff and decision makers, and is not applicable to the proposed Project.

Table 4.11-1 Analysis of Consistency with SCAG Draft 2024-2050 Regional Transportation Plan/Sustainable Communities Strategy Goals

DRAFT RTP/SCS GOAL	GOAL STATEMENT	PROJECT CONSISTENCY DISCUSSION
70.	Prioritize community and environmental justice concerns, together with economic needs, and support workforce development opportunities, particularly around deployment of zero-emission and clean technologies and their supporting infrastructure	Not Applicable. RTP/SCS Policy 70 provides direction to County and regional agency staff and decision makers, and is not applicable to the proposed Project.
71.	Explore and advance the transition toward zero-emission and clean technologies and other transformative technologies, where viable	Not Applicable. RTP/SCS Policy 71 provides direction to County and regional agency staff and decision makers, and is not applicable to the proposed Project.
72.	Advance comprehensive, systems-level planning of corridor/supply chain operational strategies that is integrated with road and rail infrastructure and inland port concepts	Not Applicable. RTP/SCS Policy 72 provides direction to County and regional agency staff and decision makers, and is not applicable to the proposed Project.
73.	Ensure continued, significant investment in a safe, secure, clean and efficient transportation system – including both highways and rail – to support the intermodal movement of goods across the region	Not Applicable. RTP/SCS Policy 73 provides direction to County and regional agency staff and decision makers, and is not applicable to the proposed Project.
Broadband		
74.	Support ubiquitous regional broadband deployment and access to provide the necessary infrastructure and capability for Smart Cities strategies—to ensure the benefits of these strategies improve safety and are distributed equitably	Not Applicable. RTP/SCS Policy 74 provides direction to County and regional agency staff and decision makers, and is not applicable to the proposed Project.
75.	Develop networks that are efficient, scalable, resilient and sustainable to support transportation systems management, operations services and "tele-everything" strategies that reduce vehicle miles traveled, optimize efficiency and accommodate future growth of regional economie	Not Applicable. RTP/SCS Policy 75 provides direction to County and regional agency staff and decision makers, and is not applicable to the proposed Project.
76.	Encourage investments that provide access to digital activities that support educational, financial and economic growth	Not Applicable. RTP/SCS Policy 76 provides direction to County and regional agency staff and decision makers, and is not applicable to the proposed Project.

Table 4.11-1 Analysis of Consistency with SCAG Draft 2024-2050 Regional Transportation Plan/Sustainable Communities Strategy Goals

DRAFT RTP/SCS GOAL	GOAL STATEMENT	PROJECT CONSISTENCY DISCUSSION
77.	Advocate for current, accurate data to identify opportunity zones and solutions that support the development of broadband services to community anchor institutions and local businesses	Not Applicable. RTP/SCS Policy 77 provides direction to County and regional agency staff and decision makers, and is not applicable to the proposed Project.
78.	Promote an atmosphere that allows for healthy competition and speed-driven innovative solutions while remaining technologically neutral.	Not Applicable. RTP/SCS Policy 78 provides direction to County and regional agency staff and decision makers, and is not applicable to the proposed Project.
79.	Use a bottom-up approach to identify and support a community's broadband needs	Not Applicable. RTP/SCS Policy 79 provides direction to County and regional agency staff and decision makers, and is not applicable to the proposed Project.
Universal Basic Mobility		
80.	Encourage partnerships and policies to broaden safe and efficient access to a range of mobility services that improve connections to jobs, education and basic services	Not Applicable. RTP/SCS Policy 80 provides direction to County and regional agency staff and decision makers, and is not applicable to the proposed Project. Notwithstanding, the Project site is located in a portion of the County with access to public transit, basic services, and employment opportunities.
81.	Promote increased payment credentials for disadvantaged community members and the transition of cash users to digital payment technologies to address payment barriers	Not Applicable. RTP/SCS Policy 81 provides direction to County and regional agency staff and decision makers, and is not applicable to the proposed Project.
Workforce Development		
82.	Foster a positive business climate by promoting regional collaboration in workforce and economic development between cities, counties, educational institutions and employers	Not Applicable. RTP/SCS Policy 82 provides direction to County and regional agency staff and decision makers, and is not applicable to the proposed Project.
83.	Encourage inclusive workforce development that promotes upward economic mobility	Not Applicable. RTP/SCS Policy 83 provides direction to County and regional agency staff and decision makers, and is not applicable to the proposed Project.
84.	Support entrepreneurial growth with a focus on underrepresented communities	Not Applicable. RTP/SCS Policy 84 provides direction to County and regional agency staff and decision makers, and is not applicable to the proposed Project.
85.	Foster a resilient workforce that is poised to effectively respond to changing economic conditions (e.g., market dynamics, technological advances and climate change)	Not Applicable. RTP/SCS Policy 85 provides direction to County and regional agency staff and decision makers, and is not applicable to the proposed Project.

Table 4.11-1 Analysis of Consistency with SCAG Draft 2024-2050 Regional Transportation Plan/Sustainable Communities Strategy Goals

DRAFT RTP/SCS GOAL	GOAL STATEMENT	PROJECT CONSISTENCY DISCUSSION
86.	Inform and facilitate data-driven decision-making about the region's workforce	Not Applicable. RTP/SCS Policy 86 provides direction to County and regional agency staff and decision makers, and is not applicable to the proposed Project.
Tourism		
87.	Consult and collaborate with state, county and local agencies within the region that are charged with promoting tourism and transportation	Not Applicable. RTP/SCS Policy 87 provides direction to County and regional agency staff and decision makers, and is not applicable to the proposed Project.
88.	Encourage the reduced use of cars by visitors to the region by working with state, county and local agencies (e.g., park services, transportation agencies) to highlight and increase access to alternative options, including transit, passenger rail and active transportation	Not Applicable. RTP/SCS Policy 88 provides direction to County and regional agency staff and decision makers, and is not applicable to the proposed Project.

(SCAG, 2024)

The Riverside County General Plan and LMWAP designate lands immediately to the west, north, east, and south of the Project site for RC-VLDR land uses, with lands immediately to the southeast designated for "Commercial Retail (CR)" land uses.

Impacts associated with the Project's potential land use compatibility with surrounding uses have been evaluated throughout this EIR under the appropriate subject headings. For example, EIR Subsection 4.3, *Air Quality*, includes an assessment of potential localized air quality impacts that could result from Project implementation. As concluded in EIR Subsection 4.3, the Project's localized air quality impacts affecting surrounding sensitive receptors would be less than significant. EIR Subsection 4.9, *Hazards and Hazardous Materials*, includes an analysis of potential hazardous materials impacts that could affect surrounding land uses, and demonstrates that with mandatory regulatory compliance, impacts associated with hazards and hazardous materials would be less than significant. EIR Subsection 4.13, *Noise*, includes an assessment of potential noise impacts associated with the Project, including noise from construction, site operations, and Project-related traffic, and concludes that Project impacts would be less than significant. There are no environmental effects to surrounding existing or planned land uses that have not already been evaluated throughout this EIR, and where necessary mitigation measures have been imposed on the Project to reduce potential impacts to less-than-significant levels. Therefore, the Project's potential impacts due to land use compatibility would be less than significant.

Threshold b.: ***Would the Project disrupt or divide the physical arrangement of an established community (including a low-income or minority community)?***

Under existing conditions, the Project site is mostly undeveloped and includes a single-family home in the central portions of the site. The Project site contains no public thoroughfares, aside from Iris Road along the site's southern boundary which is planned for improvements as part of the Project. Rural single-family residential homes occur in areas surrounding the Project site, along with undeveloped and vacant lands. The Project would accommodate improvements to Iris Road adjacent to the Project site, and along Chicago Avenue between the Project's emergency access and Gentian Avenue, which would facilitate access in the local area. Additionally, the Project's proposed rural residential uses would represent a continuation of the existing development pattern in the local area. There are no components of the proposed Project that would disrupt or divide the physical arrangement of an established community, and no impact would occur.

4.11.5 Cumulative Impact Analysis

As indicated under the analysis of Threshold a., with approval of GPA 220009, the Project's proposed land uses would be fully consistent with the General Plan and LMWAP land use designations for the site. Additionally, the proposed Project would not conflict with any of the policies included in the General Plan or LMWAP, and would not conflict with the SCAG 2024-2050 RTP/SCS. Other developments within the western Riverside County region similarly would be required to demonstrate compliance with applicable General Plan and RTP/SCS policies. Thus, the Project's impacts due to a conflict with a land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect would be less-than-cumulatively considerable.

As indicated under the analysis of Threshold b., the Project would not disrupt or divide the physical arrangement of an established community (including a low-income or minority community). As such, cumulatively-considerable impacts would not occur.

4.11.6 Significance Of Impacts Before Mitigation

Threshold a.: Less-than-Significant Impact. The Project would not conflict with the General Plan, LMWAP, the SCAG 2024-2050 RTP/SCS, or any other land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. Additionally, there are no impacts due to land use incompatibility that have not already been evaluated and mitigated to the maximum feasible extent in relevant sections of this EIR; therefore, Project impacts due to land use incompatibility would be less than significant.

Threshold b.: No Impact. The Project would not disrupt or divide the physical arrangement of an established community (including a low-income or minority community), and impacts would be less than significant.

4.11.7 Applicable Regulations, Design Requirements, And Mitigation

Impacts to land use and planning would be less than significant; therefore, mitigation measures are not required.

4.12 MINERAL RESOURCES

This Subsection 4.12 describes the potential mineral resources that are located on the Project site and in the vicinity and evaluates the potential effects that the Project may have on these resources. The following analysis is based in part on information obtained in the County's General Plan (Riverside County, 2015a). The analysis in this Subsection also is based on information from the report entitled, "Updated Geotechnical Evaluation, Proposed Single-Family Residential Development, APNs 245-300-001 and -004, Northwest of Iris Avenue and Chicago Avenue, Woodcrest Area of Riverside County, California," prepared by GeoTek, Inc. (herein, "GeoTek"), dated September 21, 2021, and included as *Technical Appendix F1* to this EIR (GeoTek, 2021). Refer to Section 7.0*, References*, for a complete list of these and other reference sources.

4.12.1 EXISTING CONDITIONS

A. Geology

The Project site is situated in the Peninsular Ranges geomorphic province. The Peninsular Ranges province is one of the largest geomorphic units in western North America. It extends from the point of contact with the Transverse Ranges geomorphic province, southerly to the tip of Baja California. This province varies in width from about 30 to 100 miles. It is bounded on the west by the Pacific Ocean, on the south by the Gulf of California and on the east by the Colorado Desert Province. The Peninsular Ranges are essentially a series of northwest-southeast oriented fault blocks. Several major fault zones are found in this province. The Elsinore Fault zone and the San Jacinto Fault zone trend northwest-southeast and are mostly found near the middle of the province. The San Andreas Fault zone borders the northeasterly margin of the province, and the San Jacinto fault borders the province adjacent the Colorado Desert province (GeoTek, 2021, p. 6).

Specifically, the Project site is located within a large structural mass known as the Perris Block of the Peninsula Ranges providence. The Perris Block is a relatively stable mass of granitic bedrock that in places is overlain by alluvium and thin sedimentary and volcanic units. After formation of granitic rocks, the Perris Block experienced vertical movements that produced nearly flat erosional surfaces. Sediments emanating from the elevated portions of the Perris Block filled low lying areas of the region. The project area is in an area geologically mapped by others to be underlain by granitic bedrock. (GeoTek, 2021, p. 6)

B. Mineral Resources Potential

The Surface Mining and Reclamation Act of 1975 (SMARA, Public Resources Code, §§ 2710-2796) provides a comprehensive surface mining and reclamation policy with the regulation of surface mining operations to assure that adverse environmental impacts are minimized and mined lands are reclaimed to a usable condition. The SMARA requires the State Geologist to classify land according to the presence, absence, or likely occurrence of significant mineral deposits in certain areas of the State subject to urban expansion or land uses incompatible with mining. The State classification system is broken out into four general zones, as shown below in Table 4.12-1, *Mineral Resources Zones*.

According to mapping information available from the California Department of Conservation (CDC), the Project site is classified as MRZ-3, which indicates that the Project site occurs in an area of undetermined mineral resource significance (CDC, n.d.). Accordingly, the Project site does not contain any areas of known mineral resources.

Table 4.12-1 Mineral Resources Zones

Zone	Significance
MRZ-1	Areas where the available geologic information indicates no significant mineral deposits or a minimal likelihood of significant mineral deposits.
MRZ-2a	Areas where the available geologic information indicates that there are significant mineral deposits.
MRZ-2b	Areas where the available geologic information indicates that there is a likelihood of significant mineral deposits.
MRZ-3a	Areas where the available geologic information indicates that mineral deposits are likely to exist, however, the significance of the deposit is undetermined.
MRZ-4	Areas where there is not enough information available to determine the presence or absence of mineral deposits.

(Riverside County, 2021a, pp. OS-37 to OS-38)

4.12.2 Applicable Environmental Regulations

The following is a brief description of the federal, State, and local environmental laws and related regulations related to mineral resources.

A. State Regulations

1. Surface Mining and Reclamation Act of 1975

The Surface Mining and Reclamation Act of 1975 (SMARA, Public Resources Code, §§ 2710-2796) provides a comprehensive surface mining and reclamation policy with the regulation of surface mining operations to assure that adverse environmental impacts are minimized and mined lands are reclaimed to a usable condition. SMARA also encourages the production, conservation, and protection of the state's mineral resources. Public Resources Code § 2207 provides annual reporting requirements for all mines in the state, under which the State Mining and Geology Board is also granted authority and obligations. (CDC, n.d.)

SMARA, Chapter 9, Division 2 of the Public Resources Code, requires the State Mining and Geology Board to adopt State policy for the reclamation of mined lands and the conservation of mineral resources. These policies are prepared in accordance with the Administrative Procedures Act, (Government Code) and are found in California Code of Regulations, Title 14, Division 2, Chapter 8, Subchapter 1. (CDC, n.d.)

4.12.3 Basis for Determining Significance

Section XII of Appendix G to the State CEQA Guidelines addresses typical adverse effects to mineral resources, and includes the following threshold questions to evaluate the Project's impacts on mineral resources (OPR, 2018a):

- *Would the Project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?*

- *Would the Project result in the loss of availability of a locally-important mineral resource recover site delineated on a local general plan, specific plan, or other land use plan.*

Significance thresholds as implemented by Riverside County are set forth in Riverside County's Environmental Assessment Checklist form, which are derived from Section XII of Appendix G to the State CEQA Guidelines (listed above), and state that the proposed Project would have a significant impact on mineral resources if construction and/or operation of the Project would:

a. *Result in the loss of availability of a known mineral resource that would be of value to the region or the residents of the State;*

b. *Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan;*

c. *Be an incompatible land use located adjacent to a State classified or designated area or existing surface mine; or*

d. *Expose people or property to hazards from proposed, existing or abandoned quarries or mines.*

The significance thresholds set forth in Riverside County's Environmental Assessment Checklist were used to evaluate the significance of the proposed Project's impacts on mineral resources.

4.12.4 Impact Analysis

Threshold a: Result in the loss of availability of a known mineral resource that would be of value to the region or the residents of the State?

According to the CDC, the Project site is classified as Mineral Resources Zone (MRZ) 3, which includes "areas where the available geologic information indicates that mineral deposits are likely to exist, however, the significance of the deposit is undetermined" (CDC, n.d.). Therefore, the Project site does not contain any known mineral resources that would be of value to the region or the residents of the State. Accordingly, with implementation of the proposed Project there would be no impact to known mineral resources.

Threshold b: Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?

The Project site is not designated as a mineral resource recovery site by the County's General Plan or the Lake Mathews/Woodcrest Area Plan (LMWAP), and is not located within the boundaries of any specific plans. There are no other land use plans that identify the site for containing mineral resources. Accordingly, the Project would not result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan, and no impact would occur.

Be an incompatible land use located adjacent to a State classified or designated area or existing surface mine?

As mapped by the CDC, there are no areas surrounding the Project site that contain known mineral resources (CDC, n.d.). No lands in the Project vicinity are classified or designated by the State as containing mineral resource deposits, and there are no known surface mines in the Project vicinity. Accordingly, the Project would

not be an incompatible land use located adjacent to a State classified or designated area or existing surface mine, and no impact would occur.

Threshold d: Expose people or property to hazards from proposed, existing, or abandoned quarries or mines?

Historical records indicate that no quarrying or mining activities ever occurred on the Project site, and there is no evidence of any proposed, existing, or abandoned quarries in the surrounding area (GeoTek, 2021a, pp. 23-28). Accordingly, the Project would not expose people or property to hazards from proposed, existing, or abandoned quarries or mines, and no impact would occur.

4.12.5 Cumulative Impact Analysis

This cumulative impact analysis considers development of the proposed Project in conjunction with other development projects within the western Riverside County region. This cumulative study area was selected because western Riverside County encompasses large areas that include geologic conditions similar to those that occur on the Project site, and because this study area encompasses a large portion of the local market for the production and consumption of mineral resources.

As mapped by the CDC, the Project site is classified as MRZ-3 and contains no known mineral resource deposits. As such, the Project has no potential to result in cumulatively-considerable impacts due to the loss of availability of a known mineral resource that would be of value to the region or residents of the State. No cumulatively-considerable impacts would occur.

Riverside County's General Plan and the LMWAP do not designate the Project site or surrounding areas as a mineral resource recovery site, and there are no other land use plans that identify the site or surrounding areas for containing mineral resources. As such, the Project has no potential to result in cumulatively-considerable impacts due to the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan. No cumulatively-considerable impacts would occur.

There are no lands in the Project vicinity that include State classified or designated areas for mineral resources, and there are no existing surface mines in the Project vicinity. As such, no cumulatively-considerable impacts to State classified or designated areas or existing surface mines would occur.

There are no known proposed, existing, or abandoned quarries or mines in the Project vicinity. As such, the Project has no potential to expose people or property to hazards from proposed, existing, or abandoned quarries or mines, and no cumulatively-considerable impacts would occur.

4.12.6 Significance of Impacts Before Mitigation

Threshold a.: No Impact. The Project site does not contain any known mineral resources that would be of value to the region or the residents of the State. Accordingly, with implementation of the proposed Project there would be no impact to known mineral resources.

Threshold b.: No Impact. The Project would not result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan, and no impact would occur.

Threshold c.: No Impact. The Project would not be an incompatible land use located adjacent to a State classified or designated area or existing surface mine, and no impact would occur.

Threshold d.: No Impact. The Project would not expose people or property to hazards from proposed, existing, or abandoned quarries or mines, and no impact would occur.

4.12.7 Applicable Regulations, Design Requirements, and Mitigation

No impact to mineral resources would occur with implementation of the proposed Project; thus, mitigation measures are not required.

4.13 NOISE

This Subsection 4.13 addresses the environmental issue of noise. The information in this Subsection is based in part on a technical report prepared by Urban Crossroads, Inc. (herein, "Urban Crossroads"), titled, "Arroyo Vista Noise Impact Analysis" (herein, "NIA"), dated ~~May 4, 2023~~June 23, 2025, and included as *Technical Appendix J* to this EIR (Urban Crossroads, 2025)~~(Urban Crossroads, 2023f)~~. Refer to Section 7.0, *References*, for a complete list of reference sources.

4.13.1 NOISE FUNDAMENTALS

A. *Noise Definitions*

Noise has been simply defined as "unwanted sound." Sound becomes unwanted when it interferes with normal activities, when it causes actual physical harm or when it has adverse effects on health. Because the range of intensities that the human ear can detect is so large, the scale frequently used to measure intensity is a scale based on multiples of 10, the logarithmic scale. The scale for measuring intensity is the decibel (dB) scale. A sound increase of 10 dB indicates a sound energy ten times greater than before, which is perceived by the human ear as being roughly twice as loud. A-weighted decibels (dBA) approximate the subjective response of the human ear to broad frequency noise source by discriminating against very low and very high frequencies of the audible spectrum (i.e., frequencies that are not audible to the human ear). The most common sounds vary between 40 dBA (very quiet) to 100 dBA (very loud). Normal conversation at three feet is roughly at 60 dBA, while loud jet engine noises equate to 110 dBA at approximately 1,000 feet. (Urban Crossroads, 2025, pp. 11-12)~~(Urban Crossroads, 2023f, pp. 11-12)~~

B. *Noise Descriptors*

Environmental noise descriptors are generally based on averages, rather than instantaneous, noise levels. The most used metric is the equivalent continuous noise level (Leq). The Leq represents a steady state sound level containing the same total energy as a time varying signal over a given sample period. Leq values are not measured directly but are calculated from sound pressure levels typically measured in dBA. (Urban Crossroads, 2025, p. 12)~~(Urban Crossroads, 2023f, p. 12)~~

Peak hour or average noise levels, while useful, do not completely describe a given noise environment. Noise levels lower than peak hour may be disturbing if they occur during times when quiet is most desirable, namely evening and nighttime (sleeping) hours. To account for this, the Community Noise Equivalent Level (CNEL), representing a composite 24-hour noise level is utilized. The CNEL is the weighted average of the intensity of a sound, with corrections for time of day, and averaged over 24 hours. The time-of-day corrections require the addition of five (5) decibels to sound levels in the evening from 7:00 p.m. to 10:00 p.m., and the addition of 10 decibels to sound levels at night between 10:00 p.m. and 7:00 a.m. These additions are made to account for the noise sensitive time periods during the evening and night hours when noise can become more intrusive. CNEL does not represent the actual sound level heard at any time, but rather represents the total sound exposure. The County of Riverside relies on the 24-hour CNEL level to assess land use compatibility with transportation related noise sources. (Urban Crossroads, 2025, p. 12)~~(Urban Crossroads, 2023f, p. 12)~~

C. Sound Propagation

When sound propagates over a distance, it changes in level and frequency content. The way noise reduces with distance depends on the following factors.

1. Geometric Spreading

Sound from a localized source (i.e., a stationary point source) propagates uniformly outward in a spherical pattern. The sound level attenuates (or decreases) at a rate of 6 dB for each doubling of distance from a point source. Highways consist of several localized noise sources on a defined path and hence can be treated as a line source, which approximates the effect of several point sources. Noise from a line source propagates outward in a cylindrical pattern, often referred to as cylindrical spreading. Sound levels attenuate at a rate of 3 dB for each doubling of distance from a line source. (Urban Crossroads, 2025, pp. 12-13)~~(Urban Crossroads, 2023f, pp. 12-13)~~

2. Ground Absorption

The propagation path of noise from a highway to a receptor is usually very close to the ground. Noise attenuation from ground absorption and reflective wave canceling adds to the attenuation associated with geometric spreading. Traditionally, the excess attenuation has also been expressed in terms of attenuation per doubling of distance. This approximation is usually sufficiently accurate for distances of less than 200 ft. For acoustically hard sites (i.e., sites with a reflective surface between the source and the receptor, such as a parking lot or body of water), no excess ground attenuation is assumed. For acoustically absorptive or soft sites (i.e., those sites with an absorptive ground surface between the source and the receptor such as soft dirt, grass, or scattered bushes and trees), an excess ground attenuation value of 1.5 dB per doubling of distance is normally assumed. When added to the cylindrical spreading, the excess ground attenuation results in an overall drop-off rate of 4.5 dB per doubling of distance from a line source. (Urban Crossroads, 2025, p. 13)~~(Urban Crossroads, 2023f, p. 13)~~

3. 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) 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. (Urban Crossroads, 2025, p. 13)~~(Urban Crossroads, 2023f, p. 13)~~

4. Shielding

A large object or barrier in the path between a noise source and a receptor can substantially attenuate noise levels at the receptor. The amount of attenuation provided by shielding depends on the size of the object and the frequency content of the noise source. Shielding by trees and other such vegetation typically only has an "out of sight, out of mind" effect. That is, the perception of noise impact tends to decrease when vegetation blocks the line-of-sight to nearby resident. However, for vegetation to provide a substantial, or even noticeable, noise reduction, the vegetation area must be at least 15 feet in height, 100 feet wide and dense enough to completely obstruct the line-of sight between the source and the receiver. This size of vegetation may provide

up to 5 dBA of noise reduction. The Federal Highway Administration (FHWA) does not consider the planting of vegetation to be a noise abatement measure.

D. Noise Control

Noise control is the process of obtaining an acceptable noise environment for an observation point or receptor by controlling the noise source, transmission path, receptor, or all three. This concept is known as the source-path-receptor concept. In general, noise control measures can be applied to these three elements. (Urban Crossroads, 2025, p. 13)~~(Urban Crossroads, 2023f, p. 13)~~

E. Noise Barrier Attenuation

Effective noise barriers can reduce noise levels by 10 to 15 dBA, cutting the loudness of traffic noise in half. A noise barrier is most effective when placed close to the noise source or receptor. Noise barriers, however, do have limitations. For a noise barrier to work, it must be high enough and long enough to block the path of the noise source. (Urban Crossroads, 2025, p. 14)~~(Urban Crossroads, 2023f, p. 14)~~

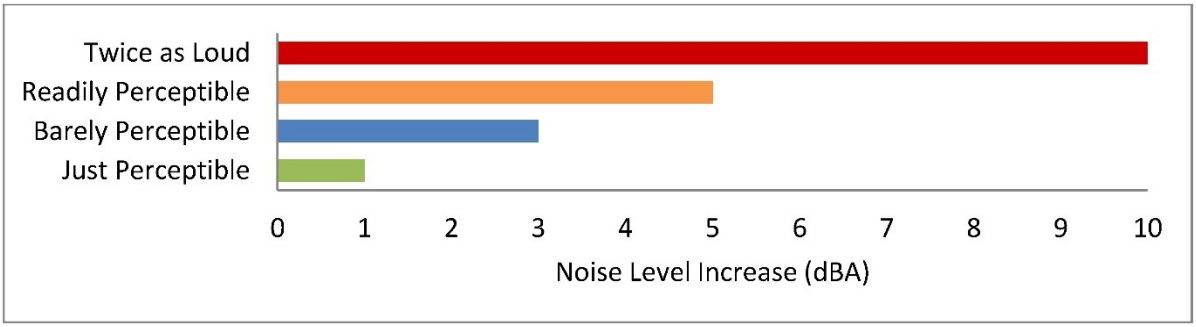
F. Land Use Compatibility With Noise

Some land uses are more tolerant of noise than others. For example, schools, hospitals, churches, and residences are more sensitive to noise intrusion than are commercial or industrial developments and related activities. As ambient noise levels affect the perceived amenity or livability of a development, so too can the mismanagement of noise impacts impair the economic health and growth potential of a community by reducing the area's desirability as a place to live, shop and work. For this reason, land use compatibility with the noise environment is an important consideration in the planning and design process. The FHWA encourages state and local government to regulate land development in such a way that noise-sensitive land uses are either prohibited from being located adjacent to a highway, or that the developments are planned, designed, and constructed in such a way that noise impacts are minimized. (Urban Crossroads, 2025, p. 14)~~(Urban Crossroads, 2023f, p. 14)~~

G. Community Response to Noise

Approximately ten percent of the population has a very low tolerance for noise and will object to any noise not of their making. Consequently, even in the quietest environment, some complaints will occur. Another twenty-five percent of the population will not complain even in very severe noise environments. Thus, a variety of reactions can be expected from people exposed to any given noise environment. Surveys have shown that about ten percent of the people exposed to traffic noise of 60 dBA will report being highly annoyed with the noise, and each increase of one dBA is associated with approximately two percent more people being highly annoyed. When traffic noise exceeds 60 dBA or aircraft noise exceeds 55 dBA, people may begin to complain. Despite this variability in behavior on an individual level, the population can be expected to exhibit the following responses to changes in noise levels as shown on Figure 4.13-1, *Noise Level Increase Perception*. An increase or decrease of 1 dBA cannot be perceived except in carefully controlled laboratory experiments, a change of 3 dBA is considered barely perceptible, and changes of 5 dBA are considered readily perceptible. (Urban Crossroads, 2025, p. 14)~~(Urban Crossroads, 2023f, p. 14)~~

Figure 4.13-1 Noise Level Increase Perception



(Urban Crossroads, 2025, Exhibit 2-B)~~(Urban Crossroads, 2023f, Exhibit 2-B)~~

H. Vibration

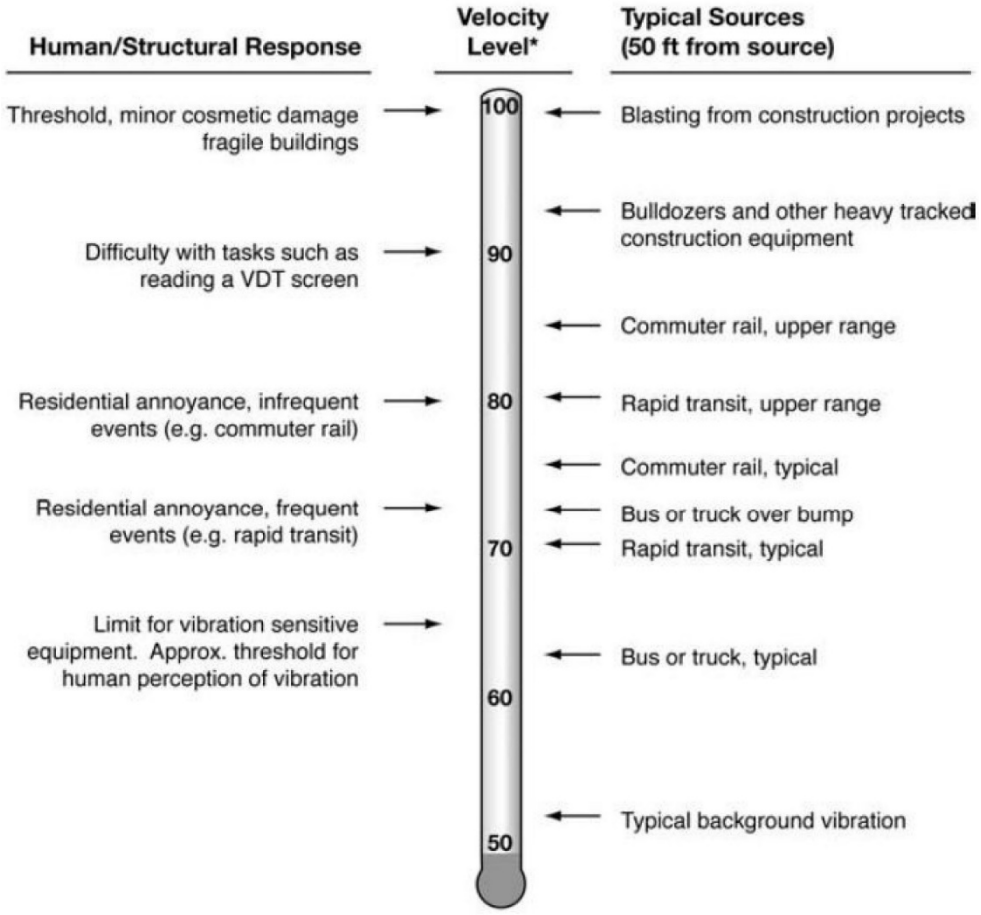
Per the Federal Transit Administration (FTA) *Transit Noise Impact and Vibration Assessment*, vibration is the periodic oscillation of a medium or object. The rumbling sound caused by the vibration of room surfaces is called structure-borne noise. Sources of ground-borne vibrations include natural phenomena (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, ground-borne vibrations may be described by amplitude and frequency. (Urban Crossroads, 2025, p. 15)~~(Urban Crossroads, 2023f, p. 15)~~

There are several different methods that are used to quantify vibration. The peak particle velocity (PPV) is defined as the maximum instantaneous peak of the vibration signal. The PPV is most frequently used to describe vibration impacts to buildings but is not always suitable for evaluating human response (annoyance) because it takes some time for the human body to respond to vibration signals. Instead, the human body responds to average vibration amplitude often described as the root mean square (RMS). The RMS amplitude is defined as the average of the squared amplitude of the signal and is most frequently used to describe the effect of vibration on the human body. However, the RMS amplitude and PPV are related mathematically, and the RMS amplitude of equipment is typically calculated from the PPV reference level. The RMS amplitude is approximately 70% of the PPV. Thus, either can be used on the description of vibration impacts. (Urban Crossroads, 2025, p. 15)~~(Urban Crossroads, 2023f, p. 15)~~

While not universally accepted, vibration decibel notation (VdB) is another vibration notation developed and used by the FTA in their guidance manual to describe vibration levels and provide a background of common vibration levels and set vibration limits. Decibel notation (VdB) serves to reduce the range of numbers used to describe vibration levels and is used in this report to describe vibration levels. As stated in the FTA guidance manual, the background vibration-velocity level in residential areas is generally 50 VdB. Ground-borne 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 ground-borne vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. If a roadway is smooth, the ground-borne 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. Figure 4.13-2, *Typical Levels of Ground-Borne Vibration*, illustrates common vibration sources and the human and structural

response to ground-borne vibration. (Urban Crossroads, 2025, pp. 15-16)~~(Urban Crossroads, 2023f, pp. 15-16)~~

Figure 4.13-2 Typical Levels of Ground-Borne Vibration



** RMS Vibration Velocity Level in VdB relative to 10^{-6} inches/second*

Source: Federal Transit Administration (FTA) Transit Noise and Vibration Impact Assessment Manual.
(Urban Crossroads, 2025, Exhibit 2-C)~~(Urban Crossroads, 2023f, Exhibit 2-C)~~

4.13.2 Existing Conditions

To assess the existing noise level environment, 24-hour noise level measurements were taken at five locations in the Project study area. The receiver locations were selected to describe and document the existing noise environment within the Project study area. Figure 4.13-3, *Noise Measurement Locations*, shows the Project site and the noise level measurement locations. To fully describe the existing noise conditions, noise level measurements were collected by Urban Crossroads, Inc. on Wednesday, March 23, 2022.

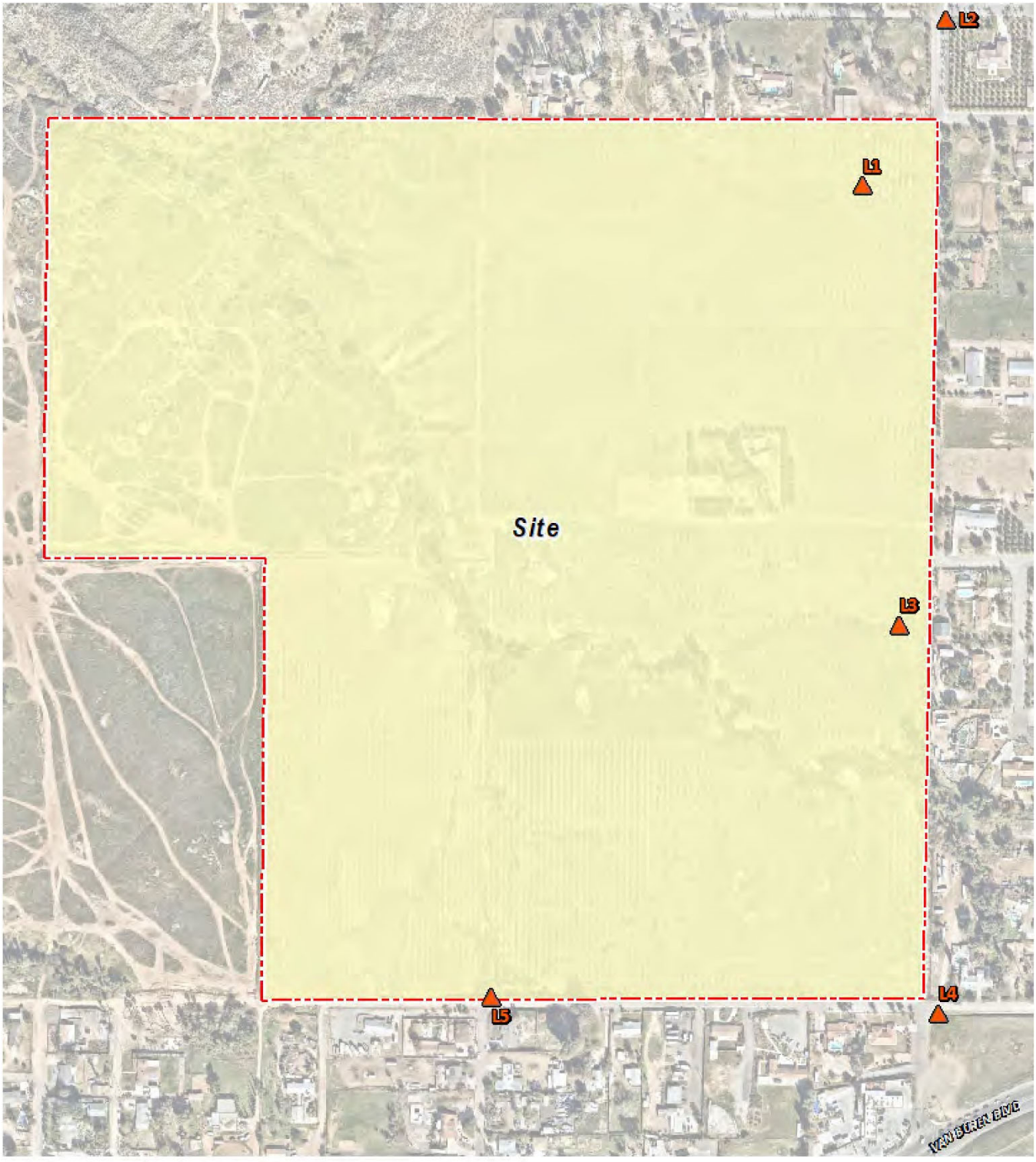


Figure 4.13-3

Noise Measurement Locations

B. Measurement Procedure and Criteria

To describe the existing noise environment, the hourly noise levels were measured during typical weekday conditions over a 24-hour period. By collecting individual hourly noise level measurements, it is possible to describe the daytime and nighttime hourly noise levels and calculate the 24-hour CNEL. The long-term noise readings were recorded using Piccolo Type 2 integrating sound level meter and dataloggers. The Piccolo sound level meters were calibrated using a Larson-Davis calibrator, Model CAL 150. All noise meters were programmed in "slow" mode to record noise levels in "A" weighted form. The sound level meters and microphones were equipped with a windscreen during all measurements. All noise level measurement equipment satisfies the American National Standards Institute (ANSI) standard specifications for sound level meters ANSI S1.4-2014/IEC 61672-1:2013. (Urban Crossroads, 2025, p. 29)~~(Urban Crossroads, 2023f, p. 29)~~

C. Noise Measurement Locations

The long-term noise level measurements were positioned as close to the nearest sensitive receiver locations as possible to assess the existing ambient hourly noise levels surrounding the Project site. Both Caltrans and the FTA recognize that it is not reasonable to collect noise level measurements that can fully represent every part of a private yard, patio, deck, or balcony normally used for human activity when estimating impacts for new development projects. This is demonstrated in the Caltrans general site location guidelines which indicate that *sites must be free of noise contamination by sources other than sources of interest. Avoid sites located near sources such as barking dogs, lawnmowers, pool pumps, and air conditioners unless it is the express intent of the analyst to measure these sources.* Further, FTA guidance states *that it is not necessary nor recommended that existing noise exposure be determined by measuring at every noise-sensitive location in the project area. Rather, the recommended approach is to characterize the noise environment for clusters of sites based on measurements or estimates at representative locations in the community*. (Urban Crossroads, 2025, p. 29)~~(Urban Crossroads, 2023f, p. 29)~~

Based on recommendations of Caltrans and the FTA, it is not necessary to collect measurements at each individual building or residence, because each receiver measurement represents a group of buildings that share acoustical equivalence. In other words, the area represented by the receiver shares similar shielding, terrain, and geometric relationship to the reference noise source. Receivers represent a location of noise sensitive areas and are used to estimate the future noise level impacts. Collecting reference ambient noise level measurements at the nearby sensitive receiver locations allows for a comparison of the before and after Project noise levels and is necessary to assess potential noise impacts due to the Project's contribution to the ambient noise levels. (Urban Crossroads, 2025, pp. 29, 31)~~(Urban Crossroads, 2023f, pp. 29, 31)~~

D. Noise Measurement Results

The noise measurements presented below focus on the average or equivalent sound levels (Leq). The equivalent sound level (Leq) represents a steady state sound level containing the same total energy as a time varying signal over a given sample period. Table 4.13-1, *24-Hour Ambient Noise Level Measurements*, identifies the hourly daytime (7:00 a.m. to 10:00 p.m.) and nighttime (10:00 p.m. to 7:00 a.m.) noise levels at each noise level measurement location. Appendix 5.2 to the Project's NIA (*Technical Appendix J*) provides a summary of the existing hourly ambient noise levels.

Table 4.13-1 provides the (energy average) noise levels used to describe the daytime and nighttime ambient conditions. These daytime and nighttime energy average noise levels represent the average of all hourly noise levels observed during these time periods expressed as a single number. Appendix 5.2 to the Project's NIA (*Technical Appendix J*) provides summary worksheets of the noise levels for each hour as well as the minimum, maximum, L1, L2, L5, L8, L25, L50, L90, L95, and L99 percentile noise levels observed during the daytime and nighttime periods. The background ambient noise levels in the Project study area are dominated by the transportation-related noise associated with nearby surface streets. This includes the auto and heavy truck activities on study area roadway segments near the noise level measurement locations. (Urban Crossroads, 2025, p. 31)~~(Urban Crossroads, 2023f, p. 31)~~

Table 4.13-1 24-Hour Ambient Noise Level Measurements

Location[1]	Description	Energy Average Noise Level (dBA Leq)[2]		CNEL
		Daytime	Nighttime	
L1	Located northeast on the Project site near existing residence at 17975 Twin Lakes Drive.	46.3~~61.2~~	42.4~~56.1~~	50.0
L2	Located northeast of the Project site near existing residence at 18019 Twin Lakes Drive.	51.0~~62.7~~	46.8~~56.6~~	54.2
L3	Located east on the Project site near existing residence at 15795 Cartwright Street.	44.6~~53.5~~	42.3~~49.6~~	49.4
L4	Located southeast corner of the Project site near existing residence at 18010 Iris Avenue	55.0~~60.7~~	53.0~~9.1~~	60.0
L5	Located south of the Project site near existing residence at 16016 Gamble Avenue	55.0~~58.9~~	48.2~~56.1~~	56.7

1 See Figure 4.13-3 for the noise level measurement locations.
2 Energy (logarithmic) average levels. The long-term 24-hour measurement worksheets are included in Appendix 5.2 of the Project's NIA (*Technical Appendix J*).
"Daytime" = 7:00 a.m. to 10:00 p.m.; "Nighttime" = 10:00 p.m. to 7:00 a.m.
(Urban Crossroads, 2025, Table 5-1)~~(Urban Crossroads, 2023f, Table 5-1)~~

4.13.3 Applicable Regulatory Requirements

The following is a brief description of the federal, State, and local environmental laws and related regulations related to noise.

A. Federal Regulations

1. Noise Control Act of 1972

The Noise Control Act of 1972 establishes a national policy to promote an environment for all Americans free from noise that jeopardizes their health and welfare. The Act also serves to (1) establish a means for effective coordination of Federal research and activities in noise control; (2) authorize the establishment of Federal noise emission standards for products distributed in commerce; and (3) provide information to the public respecting the noise emission and noise reduction characteristics of such products. (EPA, 2020i)

While primary responsibility for control of noise rests with State and local governments, Federal action is essential to deal with major noise sources in commerce, control of which require national uniformity of

treatment. The Environmental Protection Agency (EPA) is directed by Congress to coordinate the programs of all Federal agencies relating to noise research and noise control. (EPA, 2020i)

2. Federal Transit Administration

The Federal Transit Administration (FTA) has published a Noise and Vibration Impact Assessment (NVIA), which provides guidance for preparing and reviewing the noise and vibration sections of environmental documents. In the interest of promoting quality and uniformity in assessments, the manual is used by project sponsors and consultants in performing noise and vibration analyses for inclusion in environmental documents. The manual sets forth the methods and procedures for determining the level of noise and vibration impact resulting from most federally-funded transit projects and for determining what can be done to mitigate such impact. (FTA, 2006, p. 1-1)

The NVIA also establishes criteria for acceptable ground-borne vibration, which are expressed in terms of root mean square (rms) velocity levels in decibels and the criteria for acceptable ground-borne noise are expressed in terms of A-weighted sound levels. As shown in Table 4.13-2, *Ground-Borne Vibration and Ground-Borne Noise Impact Criteria for General Assessment*, the FTA identifies three categories of land uses and provides Ground-Based Vibration (GBV) and Ground-Based Noise (GBN) criteria for each category of land use. (FTA, 2006, pp. 8-3 and 8-4)

3. Federal Aviation Administration

The Federal Aviation Administration (FAA) regulates the maximum noise level that an individual civil aircraft can emit through requiring aircraft to meet certain noise certification standards. These standards designate changes in maximum noise level requirements by "stage" designation. The standard requires that the aircraft meet or fall below designated noise levels. For civil jet aircraft, there are four stages identified, with Stage 1 being the loudest and Stage 4 being the quietest. For helicopters, two different stages exist, Stage 1 and Stage 2. As with civil jet aircraft, Stage 2 is quieter than Stage 1. In addition, the FAA is currently working to adopt the latest international standards for helicopters, which will be called Stage 3 and will be quieter than Stage 2. (FAA, 2020b)

The FAA has undertaken a phase out of older, noisier civil aircraft, resulting in some stages of aircraft no longer being in the fleet. Currently within the contiguous US, civil jet aircraft over 75,000 pounds maximum take-off weight must meet Stage 3 and Stage 4 to fly. In addition, aircraft at or under 75,000 pounds maximum take-off weight must meet Stage 2, 3, or 4 to operate within the U.S. In addition, by December 31, 2015, all civil jet aircraft, regardless of weight must meet Stage 3 or Stage 4 to fly within the contiguous U.S. Both Stage 1 and Stage 2 helicopters are allowed to fly within the U.S. (FAA, 2020b)

The U.S. noise standards are defined in the Code of Federal Regulations (CFR) Title 14 Part 36 – *Noise Standards: Aircraft Type and Airworthiness Certification* (14 CFR Part 36). The FAA publishes certificated noise levels in the advisory circular, *Noise Levels for U.S Certificated and Foreign Aircraft*. This advisory circular provides noise level data for aircraft certificated under 14 CFR Part 36 and categorizes aircraft into their appropriate "stages." Any aircraft that is certified for airworthiness in the U.S. needs to also comply with noise standard requirements to receive a noise certification. The purpose of the noise certification process is to

Table 4.13-2 Ground-Borne Vibration and Ground-Borne Noise Impact Criteria for General Assessment

Land Use Category	GBV Impact Levels (VdB re 1 micro-inch /sec)			GBN Impact Levels (dB re 20 micro Pascals)		
	Frequent Events[1]	Occasional Events[2]	Infrequent Events[3]	Frequent Events[1]	Occasional Events[2]	Infrequent Events[3]
Category 1: Buildings where vibration would interfere with interior operations.	65 VdB[4]	65 VdB[4]	65 VdB[4]	N/A[4]	N/A[4]	N/A[4]
Category 2: Residences and buildings where people normally sleep.	72 VdB	75 VdB	80 VdB	35 dBA	38 dBA	43 dBA
Category 3: Institutional land uses with primarily daytime use.	75 VdB	78 VdB	83 VdB	40 dBA	43 dBA	48 dBA

Notes:

1. "Frequent Events" is defined as more than 70 vibration events of the same source per day. Most rapid transit projects fall into this category.
2. "Occasional Events" is defined as between 30 and 70 vibration events of the same source per day. Most commuter trunk lines have this many operations.
3. "Infrequent Events" is defined as fewer than 30 vibration events of the same kind per day. This category includes most commuter rail branch lines.
4. This criterion limit is based on levels that are acceptable for most moderately sensitive equipment such as optical microscopes. Vibration-sensitive manufacturing or research will require detailed evaluation to define the acceptable vibration levels. Ensuring lower vibration levels in a building often requires special design of the HVAC systems and stiffened floors.
5. Vibration-sensitive equipment is generally not sensitive to ground-borne noise.

(FTA, 2006, Table 8-1)

ensure that the latest available safe and airworthy noise reduction technology is incorporated into aircraft design and enables the noise reductions offered by those technologies to be reflected in reductions of noise experienced by communities. As noise reduction technology matures, the FAA works with the international community to determine if a new stringent noise standard is needed. If so, the international community through the International Civil Aviation Organization (ICAO) embarks on a comprehensive analysis to determine what that new standard will be. (FAA, 2016)

The current FAA noise standards applicable to new type certifications of jet and large turboprop aircraft is Stage 4. It is equivalent to the ICAO Annex 16, Volume 1 Chapter 4 standards. Recently, the international community has established and approved a more stringent standard within the ICAO Annex 16, Volume 1 Chapter 14, which became effective July 14, 2014. The FAA adopted this standard and promulgated the rule for Stage 5 effective for new type certificates after December 31, 2017 and December 31, 2020, depending on the weight of the aircraft. The Final Rule for Stage 5 was published in the Federal Register on October 4, 2017. (FAA, 2016)

For helicopters, the FAA has noise standards for a Stage 3 helicopter that became effective on May 5, 2014. These more stringent standards apply to new type helicopters and are consistent with ICAO Annex 16, Volume 1 Chapter 8 and Chapter 11. (FAA, 2016)

The FAA Modernization and Reform Act of 2012, in Section 513, had a prohibition on operating certain aircraft weighing 75,000 pounds or less not complying with Stage 3 noise levels, and on July 2, 2013, the FAA published a Final Rule in the Federal Register for the *Adoption of Statutory Prohibition the Operation of Jets Weighing 75,000 Pounds or Less That Are Not Stage 3 Noise Compliant*. In 1990, Congress passed the Aviation Noise and Capacity Act, which required that by the year 2000 all jet and large turboprop aircraft at civilian airports be Stage 3. (FAA, 2016)

4. Federal Highway Administration

The Federal Highway Administration (FHWA) is the agency responsible for administering the Federal-aid highway program in accordance with Federal statutes and regulations. The FHWA developed the noise regulations as required by the Federal-Aid Highway Act of 1970 (Public Law 91-605, 84 Stat. 1713). The regulation, 23 CFR 772 *Procedures for Abatement of Highway Traffic Noise and Construction Noise*, applies to highway construction projects where a State department of transportation has requested Federal funding for participation in the project. The regulation requires the highway agency to investigate traffic noise impacts in areas adjacent to federally-aided highways for proposed construction of a highway on a new location or the reconstruction of an existing highway to either significantly change the horizontal or vertical alignment or increase the number of through-traffic lanes. If the highway agency identifies impacts, it must consider abatement. The highway agency must incorporate all feasible and reasonable noise abatement into the project design. (FHWA, 2022)

The FHWA regulations for mitigation of highway traffic noise in the planning and design of federally aided highways are contained in Title 23 of the United States Code of Federal Regulations Part 772. The regulations require the following during the planning and design of a highway project:

- Identification of traffic noise impacts;
- Examination of potential mitigation measures;
- The incorporation of reasonable and feasible noise mitigation measures into the highway project; and
- Coordination with local officials to provide helpful information on compatible land use planning and control. (FHWA, 2022)

The regulations contain noise abatement criteria, which represent the upper limit of acceptable highway traffic noise for different types of land uses and human activities. The regulations do not require meeting the abatement criteria in every instance. Rather, they require highway agencies make every reasonable and feasible effort to provide noise mitigation when the criteria are approached or exceeded. Compliance with the noise regulations is a prerequisite for the granting of Federal-aid highway funds for construction or reconstruction of a highway. (FHWA, 2022)

5. Construction-Related Hearing Conservation

The Occupational Safety and Health Administration (OSHA) hearing conservation program is designed to protect workers with significant occupational noise exposures from hearing impairment even if they are subject to such noise exposures over their entire working lifetimes. Standard 29 CFR, Part 1910 indicates the noise levels under which a hearing conservation program is required to be provided to workers exposed to high noise levels. (OSHA, 2002) This analysis does not evaluate the noise exposure of construction workers within the Project site based on CEQA requirements, and instead, evaluates the Project-related construction noise levels at the nearby sensitive receiver locations in the Project study area. Further, periodic exposure to high noise levels in short duration, such as Project construction, is typically considered an annoyance and not impactful to human health. It would take several years of exposure to high noise levels to result in hearing impairment.

B. State Regulations

1. Building Standards Code

The State of California's noise insulation standards are codified in the California Code of Regulations, Title 24, Building Standards Administrative Code, Part 2, and the California Building Standards Code. These noise standards are applied to new construction in California for the purpose of controlling interior noise levels resulting from exterior noise sources. The regulations specify that acoustical studies must be prepared when noise-sensitive structures, such as residential buildings, schools, or hospitals, are developed near major transportation noise sources, and where such noise sources create an exterior noise level of 60 dBA CNEL or higher. Acoustical studies that accompany building plans for noise-sensitive land uses must demonstrate that the structure has been designed to limit interior noise in habitable rooms to acceptable noise levels. For new residential buildings, schools, and hospitals, the acceptable interior noise limit for new construction is 45 dBA CNEL. (BSC, n.d.)

2. California Noise Insulation Standards

The California Noise Insulation Standards (CCR Title 25 Section 1092) establish uniform minimum noise insulation performance standards for new hotels, motels, dormitories, apartment houses, and dwellings other than detached single-family dwellings. Specifically, Title 25 specifies that interior noise levels attributable to exterior sources shall not exceed 45 dBA Ldn/CNEL (i.e., the same levels that the EPA recommends for residential interiors) in any habitable room of a new dwelling. An acoustical study must be prepared for proposed multiple unit residential and hotel/motel structures where outdoor Ldn/CNEL is 60 dBA or greater. The study must demonstrate that the design of the building would reduce interior noise to 45 dBA Ldn/CNEL or lower. Because noise levels can increase over time in developing areas, Title 25 also specifies that dwellings are to be designed so that interior noise levels will meet this standard for at least ten years from the time of building permit application. (MLA, n.d.)

3. OPR General Plan Guidelines

Though not adopted by law, the 2017 California General Plan Guidelines, published by the California Governor's Office of Planning and Research (OPR), provides guidance for local agencies in preparing or updating General Plans. The Guidelines provide direction on the required Noise Element portion of the General Plans. The purpose of the Noise Element is to limit the exposure of the community to excessive noise levels. Local governments must "analyze and quantify" noise levels and the extent of noise exposure through

actual measurement or the use of noise modeling. Technical data relating to mobile and point sources must be collected and synthesized into a set of noise control policies and programs that "minimizes the exposure of community residents to excessive noise." Noise level contours must be mapped and the conclusions of the element used as a basis for land use decisions. The element must include implementation measures and possible solutions to existing and foreseeable noise problems. Furthermore, the policies and standards must be sufficient to serve as a guideline for compliance with sound transmission control requirements. The noise element directly correlates to the Land Use, Circulation, and Housing Elements. The Noise Element must be used to guide decisions concerning land use and the location of new roads and transit facilities since these are common sources of excessive noise levels. The noise levels from existing land uses, including mining, agricultural, and industrial activities, must be closely analyzed to ensure compatibility, especially where residential and other sensitive receptors have encroached into areas previously occupied by these uses. (OPR, 2017a, pp. 131-132)

C. *Local Regulations*

1. *Riverside County General Plan*

The Riverside County General Plan Noise Element was adopted to control and abate environmental noise, and to protect the citizens of Riverside County from excessive exposure to noise. The Noise Element specifies the maximum allowable exterior noise levels for new developments impacted by transportation noise sources such as arterial roads, freeways, airports, and railroads. In addition, the Noise Element identifies several polices to minimize the impacts of excessive noise levels throughout the community and establishes noise level requirements for all land uses. To protect Riverside County residents from excessive noise, the Noise Element contains the following policies related to the Project:

N 1.1 Protect noise-sensitive land uses from high levels of noise by restricting noise-producing land uses from these areas. If the noise-producing land use cannot be relocated, then noise buffers such as setbacks, landscaping, or block walls shall be used.

N 1.2 Guide noise-tolerant land uses into areas irrevocably committed to land uses that are noise producing, such as transportation corridors or within the projected noise contours of any adjacent airports.

N 1.3 Consider the following uses noise sensitive and discourage these uses in areas in excess of 65 CNEL:

- *Schools*
- *Hospitals*
- *Rest Homes*
- *Long Term Care Facilities*
- *Mental Care Facilities*
- *Residential Uses*
- *Libraries*
- *Passive Recreation Uses*
- *Places of Worship*

N 1.4 Determine if existing land uses will present noise compatibility issues with proposed projects by undertaking site surveys.

N 1.5 Prevent and mitigate the adverse impacts of excessive noise exposure on the residents, employees, visitors, and noise-sensitive uses of Riverside County.

N 4.1 Prohibit facility-related noise, received by any sensitive use, from exceeding the following worst-case noise levels:

a. 45 dBA 9-minute L_{eq} between 10:00 p.m. and 7:00 a.m.;

b. 65 dBA 9-minute L_{eq} between 7:00 a.m. and 10:00 p.m.

N 13.1 Minimize the impacts of construction noise on adjacent uses within acceptable standards.

N 13.2 Ensure that construction activities are regulated to establish hours of operation in order to prevent and/or mitigate the generation of excessive or adverse impacts on surrounding areas.

N 13.3 Condition subdivision approval adjacent to developed/occupied noise-sensitive land uses (see policy N 1.3) by requiring the developer to submit a construction-related noise mitigation plan to the [County] for review and approval prior to issuance of a grading permit. The plan must depict the location of construction equipment and how the noise from this equipment will be mitigated during construction of this project, through the use of such methods as:

i. Temporary noise attenuation fences;

ii. Preferential location and equipment; and

iii. Use of current noise suppression technology and equipment.

N 14.1 Enforce the California Building Standards that sets standards for building construction to mitigate interior noise levels to the tolerable 45 CNEL limit. These standards are utilized in conjunction with the Uniform Building Code by the County's Building Department to ensure that noise protection is provided to the public. Some design features may include extra-dense insulation, double-paned windows, and dense construction materials.

N 16.3 Prohibit exposure of residential dwellings to perceptible ground vibration from passing trains as perceived at the ground or second floor. Perceptible motion shall be presumed to be a motion velocity of 0.01 inches/second over a range of 1 to 100 Hz.

To ensure noise-sensitive land uses are protected from high levels of noise (N 1.1), Table N-1 of the Noise Element identifies guidelines to evaluate proposed developments based on exterior and interior noise level limits for land uses and requires a noise analysis to determine needed mitigation measures if necessary. The Noise Element identifies residential use as a noise-sensitive land use (N 1.3) and discourages new development in areas with transportation related levels of 65 dBA CNEL or greater existing ambient noise levels. To prevent and mitigate noise impacts for its residents (N 1.5), County of Riverside requires exterior noise attenuation measures for sensitive land use exposed to transportation related noise levels higher than 65 dBA CNEL. In addition, the County of Riverside had adopted an interior noise level limit of 45 dBA CNEL. (Urban Crossroads, 2025, pp. 20-21)~~(Urban Crossroads, 2023f, pp. 20-21)~~

Policy N 4.1 of the Noise Element sets a stationary-source exterior noise limit to not to be exceeded for a cumulative period of more than ten minutes in any hour of 65 dBA L_{eq} for daytime hours of 7:00 a.m. to 10:00 p.m., and 45 dBA L_{eq} during the noise-sensitive nighttime hours of 10:00 p.m. to 7:00 a.m. To prevent high levels of construction noise from impacting noise-sensitive land uses, policies N 13.1 through 13.3 identify construction noise mitigation requirements for new development located near existing noise-sensitive land uses. Policy 16.3 establishes the vibration perception threshold for rail-related vibration levels, which typically is used in the County as a threshold for determining potential vibration impacts due to construction activities. (Urban Crossroads, 2025, p. 21)~~(Urban Crossroads, 2023f, p. 21)~~

Land Use Compatibility

The noise criteria identified in the County of Riverside Noise Element (Table N-1) are guidelines to evaluate the land use compatibility of transportation related noise. The compatibility criteria, shown on Figure 4.13-4, *Land Use Compatibility for Community Noise Exposure*, provides the County with a planning tool to gauge the compatibility of land uses relative to existing and future exterior noise levels. The Land Use Compatibility for Community Noise Exposure matrix describes categories of compatibility and not specific noise standards. Residential land uses are considered normally acceptable with unmitigated exterior noise levels of less than 60 dBA CNEL. For conditionally acceptable exterior noise levels, approaching 70 dBA CNEL for residential 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. (Urban Crossroads, 2025, p. 21)~~(Urban Crossroads, 2023f, p. 21)~~

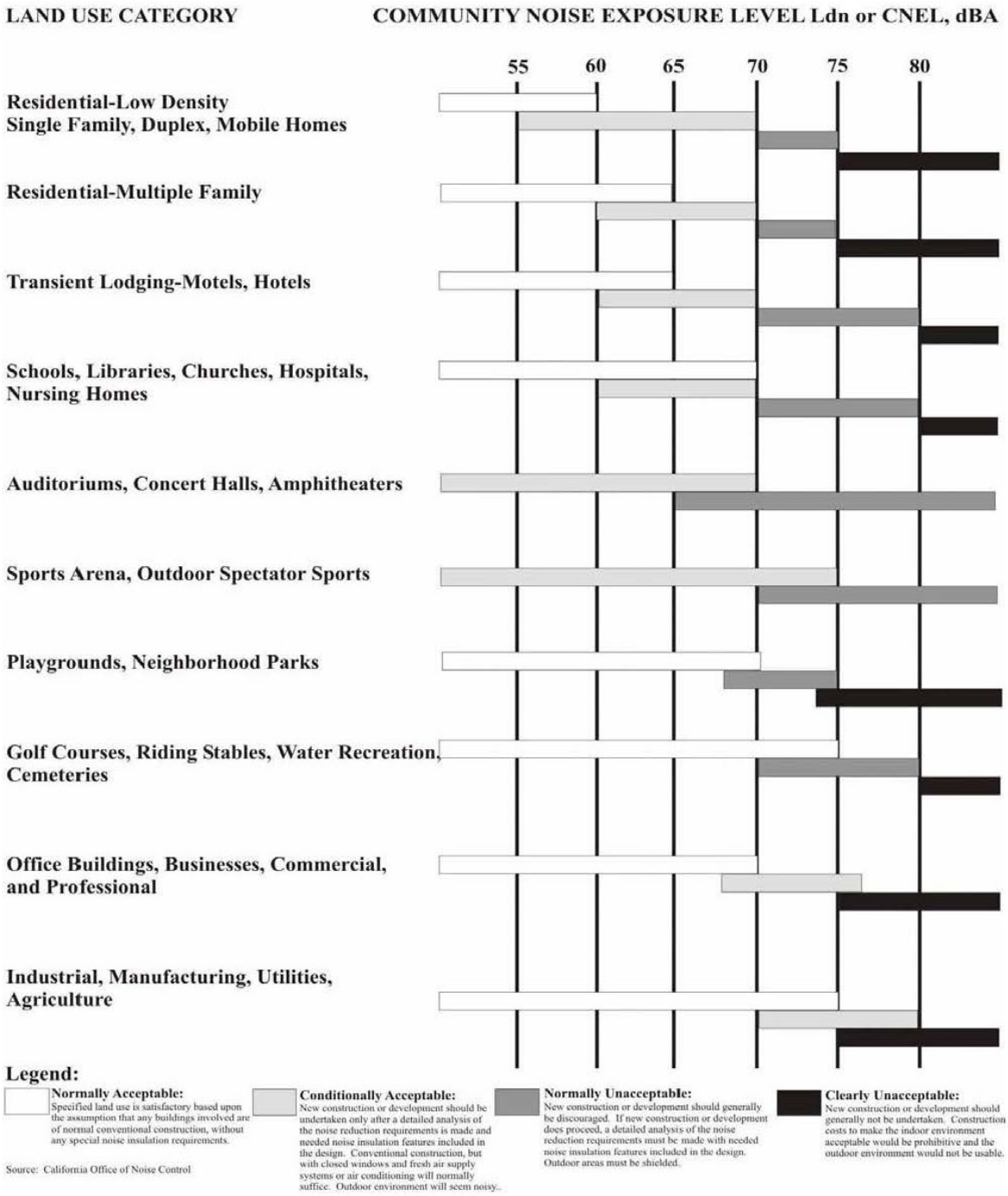
Riverside County Stationary Noise Standards

The County of Riverside has set hourly average Leq exterior noise limits to control the stationary-source noise associated with development projects. The County considers noise generated using motor vehicles to be a stationary noise source when operated on private property such as at a loading dock. These facility-related noises, as projected to any portion of any surrounding property containing a habitable dwelling, hospital, school, library or nursing home, must not exceed the following worst-case noise levels. Policy N 4.1 of the County of Riverside General Plan Noise Element sets a stationary-source average Leq exterior noise limit not to be exceeded for a cumulative period of more than ten minutes in any hour of 65 dBA Leq for daytime hours of 7:00 a.m. to 10:00 p.m., and 45 dBA Leq during the noise-sensitive nighttime hours of 10:00 p.m. to 7:00 a.m. (Urban Crossroads, 2025, p. 21)~~(Urban Crossroads, 2023f, p. 21)~~

Section 4 of Riverside County Ordinance No. 847 (General Sound Level Standards) identify lower, more restrictive exterior noise level standards, which are used to evaluate potential operational noise level limits instead of the higher General Plan exterior noise level standards previously identified. Ordinance No. 847 identifies exterior noise level limits of 55 dBA Leq during the daytime hours of 7:00 a.m. to 10:00 p.m., and 45 dBA Leq during the noise-sensitive nighttime hours of 10:00 p.m. to 7:00 a.m. for noise-sensitive uses. (Urban Crossroads, 2025, p. 23)~~(Urban Crossroads, 2023f, p. 23)~~

Based on several discussions with the County of Riverside Department of Environmental Health (DEH), Office of Industrial Hygiene (OIH), it is important to recognize that the noise level standards established by Ordinance No. 847 incorrectly identify maximum noise level (Lmax) standards that should instead reflect the maximum

Figure 4.13-4 Land Use Compatibility for Community Noise Exposure



(Urban Crossroads, 2025, Exhibit 3-A)~~(Urban Crossroads, 2023f, Exhibit 3-A)~~

Figure 4.13-4

Land Use Compatibility for Community Noise Exposure

hourly average noise levels (Leq). Moreover, the County of Riverside DEH OIH's April 15th, 2015, *Requirements for Determining and Mitigating, Non-Transportation Noise Source Impacts to Residential Properties*, also identifies operational (stationary-source) noise level limits using the Leq metric, consistent with the direction of the County of Riverside General Plan guidelines and standards provided in the Noise Element. Therefore, based no direction from the County of Riverside DEH OIH guidelines and standards, the average Leq noise level metric is used for stationary-source (operational) noise level evaluation. (Urban Crossroads, 2025, p. 23)~~(Urban Crossroads, 2023f, p. 23)~~

2. Construction Noise Standards

To control noise impacts associated with the construction of the proposed Project, the County of Riverside has established limits to the hours of operation. Section 2 of Riverside County Ordinance No. 847 indicates that noise associated with any private construction activity located within one-quarter of a mile from an inhabited dwelling is considered exempt between the hours of 6:00 a.m. and 6:00 p.m., during the months of June through September, and 7:00 a.m. and 6:00 p.m., during the months of October through May. Neither the County's General Plan nor Municipal Code establish numeric maximum acceptable construction source noise levels at potentially affected receivers for CEQA analysis purposes. Therefore, a numerical construction threshold based on Federal Transit Administration (FTA) Transit Noise and Vibration Impact Assessment Manual is used for analysis of daytime construction impacts, as discussed below. (Urban Crossroads, 2025, p. 23)~~(Urban Crossroads, 2023f, p. 23)~~

According to the FTA, local noise ordinances typically are not very useful in evaluating construction noise. They usually relate to nuisance and hours of allowed activity, and sometimes specify limits in terms of maximum levels, but are generally not practical for assessing the impact of a construction project. Project construction noise criteria should account for the existing noise environment, the absolute noise levels during construction activities, the duration of the construction, and the adjacent land use. Due to the lack of standardized construction noise thresholds, the FTA provides guidelines that can be considered reasonable criteria for construction noise assessment. The FTA considers a daytime exterior construction noise level of 80 dBA Leq as a reasonable threshold for noise sensitive residential land use. (Urban Crossroads, 2025, p. 23)~~(Urban Crossroads, 2023f, p. 23)~~

3. Construction Vibration Standards

Construction activity can result in varying degrees of ground-borne 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., generate little or no ground vibration.~~ Occasionally large bulldozers and loaded trucks can cause perceptible vibration levels at close proximity. The County of Riverside does not have vibration standards, but the County's General Plan Noise Element does contain the human reaction to typical vibration levels. Typical vibration levels between 10 and 30 Hertz with peak particle velocity of 0.0787 inches per second are considered readily perceptible and above 0.1968 in/sec are considered annoying to people in buildings. Further, County of Riverside General Plan Policy N 16.3 identifies a motion velocity perception threshold for vibration due to passing trains of 0.01 inches per second (in/sec) over the range of one to 100 Hz.~~ To analyze vibration impacts originating from the operation and construction of the Project, vibration-generating activities are appropriately evaluated against standards established under the Municipal Code if

such standards exist. However, the County of Riverside does not identify specific construction vibration level limits. Therefore, for analysis purposes, the Caltrans *Transportation and Construction Vibration Guidance Manual*, Table 19, vibration damage are used in this noise study to assess potential temporary construction-related impacts at adjacent building locations. The nearest noise sensitive buildings adjacent to the Project site can best be described as "older residential structures" with a maximum acceptable continuous vibration threshold of 0.3 PPV (in/sec). (Urban Crossroads, 2025, p. 24)~~(Urban Crossroads, 2023f, p. 24)~~

4. Construction Blasting Standards

Although the County of Riverside General Plan and Municipal Code do not identify specific construction noise level limits for blasting activities, the Office of Surface Mining Reclamation and Enforcement (OSMRE) and the Code of Federal Regulations (CFR) Airblast Limits (30 CFR 816.67(b)) can be used to evaluate potential noise impacts for blasting activities. Section 816.2 of Title 30 of the CFR indicates that the blasting regulations are intended to ensure that all surface mining activities are conducted in a manner which preserves and enhances environmental and other values in accordance with the Act. While the OSMRE regulates mining activities, the blasting activities at the Project site represent surface mining activities which, to satisfy CEQA guidelines, must demonstrate that they do not adversely affect the existing environment. Therefore, the OSMRE blasting regulations are used for the evaluation of blasting activities. For mining operations, which require larger blasts than that typical of development projects, the lowest noise level threshold identified in the CFR is a maximum noise level 129 dBA Lmax for blasting activity measured at the location of any dwelling, public building, school, church, or community or institutional building outside the permit area. The Lmax threshold is suitable for single-event noise levels, such as blasting activities, since other noise regulations in Leq (energy average), for example, average out a reference noise level over a given time period which reduces the single-event noise level over a longer period of time. The Lmax, therefore, allows for the shorter-duration single-event noise levels to be evaluated against an appropriate threshold. (Urban Crossroads, 2025, p. 24)~~(Urban Crossroads, 2023f, p. 24)~~

4.13.4 Basis for Determining Significance

A. Significance Thresholds

Section XIII of Appendix G to the CEQA Guidelines addresses typical adverse effects to noise, and includes the following threshold questions to evaluate a project's impacts on noise:

- Would the project result in the generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?
- Would the project result in the generation of excessive ground-borne vibration or noise levels?
- For a project located within the vicinity of a private airstrip or an airport land use plan, or where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

Additionally, the following thresholds are derived from Riverside County's Environmental Assessment Checklist and are used to evaluate the significance of the proposed Project's impacts due to noise. Thus, for

purposes of analysis herein, significant impacts to noise would occur if the Project or any Project-related component would:

a. *For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, expose people residing or working in the project area to excessive noise levels;*

b. *For a project within the vicinity of a private airstrip, expose people residing or working in the project area to excessive noise levels;*

c. *Result in the generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan, noise ordinance, or applicable standards of other agencies; or*

d. *Generate excessive ground-borne vibration or ground-borne noise levels.*

B. *Noise Level Increases*

Noise level increases resulting from the Project are evaluated based on Appendix G to the State CEQA Guidelines ~~described above at the closest sensitive receiver locations~~. Under CEQA, consideration must be given to the magnitude of the increase, the existing baseline ambient noise levels, and the location of ~~noise-sensitive~~ receivers to determine if a noise increase represents a significant adverse environmental impact. This approach recognizes that there is no single noise increase that renders the noise impact significant. This is primarily because of the wide variation in individual thresholds of annoyance and 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. (Urban Crossroads, 2025, p. 25)~~(Urban Crossroads, 2023f, p. 25)~~

In general, the more a new noise exceeds the previously existing ambient noise level, the less acceptable the new noise will typically be judged. The Federal Interagency Committee on Noise (FICON) developed guidance to be used for the assessment of project-generated increases in noise levels that consider 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 (CNEL) and equivalent continuous noise level (Leq). (Urban Crossroads, 2025, p. 25)~~(Urban Crossroads, 2023f, p. 25)~~

This approach recognizes that there is no single noise increase that renders a noise impact significant, based on a 2008 California Court of Appeal ruling on *Gray v. County of Madera*. For example, if the ambient noise environment is quiet (<60 dBA) and the new noise source greatly increases the noise levels, an impact may occur if the noise criteria may be exceeded. Therefore, for this analysis, a readily perceptible 5 dBA or greater project-related noise level increase is considered a significant impact when the without project noise levels are below 60 dBA. Per the FICON, in areas where the without project noise levels range from 60 to 65 dBA, a 3 dBA barely perceptible noise level increase appears to be appropriate for most people. When the without project noise levels already exceed 65 dBA, any increase in community noise louder than 1.5 dBA or greater

is considered a significant impact if the noise criteria for a given land use is exceeded, since it likely contributes to an existing noise exposure exceedance. (Urban Crossroads, 2025, p. 25)

The FICON guidance provides an established source of criteria to assess the impacts of substantial temporary or permanent increase in baseline ambient noise levels. Based on the FICON criteria, the amount to which a given noise level increase is considered acceptable is reduced when the without Project (baseline) noise levels are already shown to exceed certain land-use specific exterior noise level criteria. The specific levels are based on typical responses to noise level increases of 5 dBA or readily perceptible, 3 dBA or barely perceptible, and 1.5 dBA depending on the underlying without Project noise levels for noise-sensitive uses. These levels of increases and their perceived acceptance are consistent with guidance provided by both the FHWA and Caltrans. (Urban Crossroads, 2025, pp. 25-26)~~(Urban Crossroads, 2023f, pp. 25-26)~~

C. *Vibration*

Vibration impacts originating from the construction of the Project, vibration-generating activities are appropriately evaluated ~~against~~ using standards established by the Caltrans *Transportation and Construction Vibration Guidance Manual*, Table 19. The Caltrans' vibration thresholds ~~of significance outlined in the County of Riverside General Plan. These guidelines identify a motion velocity perception threshold for vibration due to passing trains of 0.01 inches per second (in/sec) over the range of one to 100 Hz, which is used~~ for building damage are used to assess potential ~~impacts due to Project~~ construction-related impacts at adjacent building locations. A maximum acceptable continuous vibration ~~levels. As the policy is based on human perception, the 0.01 in/sec limit is assumed to be a root means squared (RMS) value. An RMS value of 0.01 in/sec is equivalent to a PPV value of 0.04 in/sec. For purposes of clarity and to reduce the number of terms used in the analysis of vibration impacts, the vibration analysis uses PPV for all sources and calculation. Thus, the impact threshold would be 0.04 in/sec PPV.~~threshold of 0.3 PPV (in/sec) is used to describe the nearest residential building adjacent to the Project site. (Urban Crossroads, 2025, p. 26)~~(Urban Crossroads, 2023f, p. 26)~~

D. *Summary of Significance Criteria*

Noise impacts shall be considered significant if any of the following occur as a direct result of the proposed development. Table 4.13-3 shows the significance criteria summary matrix that includes the allowable criteria used to identify potentially significant incremental noise level increases.

4.13.5 Methodology for Calculating Project-Related Noise Impacts

A. *Sensitive Receiver Locations*

To assess the potential for long-term operational and short-term construction noise impacts, the sensitive receiver locations described below and shown on Figure 4.13-5,*Sensitive Receiver Locations*, were identified as representative locations for analysis. 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,

Table 4.13-3 Significance Criteria Summary

Analysis	Condition(s)	Significance Criteria	
		Daytime	Nighttime
On-Site Traffic[1]	Exterior Noise Level Criteria	65 dBA CNEL	
	Interior Noise Level Standard	45 dBA CNEL	
Off-Site Traffic[2]	If ambient is < 60 dBA CNEL	≥ 5 dBA CNEL Project increase	
	If ambient is 60 - 65 dBA CNEL	≥ 3 dBA CNEL Project increase	
	If ambient is > 65 dBA CNEL	≥ 1.5 dBA CNEL Project increase	
Operational	Exterior Noise Level Standards[3]	55 dBA L_{eq}	45 dBA L_{eq}
	If ambient is < 60 dBA Leq[1]	≥ 5 dBA L_{eq} Project increase	
	If ambient is 60 - 65 dBA Leq[1]	≥ 3 dBA L_{eq} Project increase	
	If ambient is > 65 dBA Leq[1]	≥ 1.5 dBA L_{eq} Project increase	
Construction	Noise Level Threshold[4]	80 dBA L_{eq}	
	Vibration Level Threshold[5]	0.30 in/sec PPV	

[1] County of Riverside General Plan Noise Element.
[2] FICON, 1992.
[3] County of Riverside County Code of Ordinances, Section 9.52.040.
[4] Federal Transit Administration, Transit Noise and Vibration Impact Assessment Manual.
[5] Caltrans Transportation and Construction Vibration Manual, April 2020 Table 19.
"Daytime" = 7:00 a.m. to 10:00 p.m.; "Nighttime" = 10:00 p.m. to 7:00 a.m.
(Urban Crossroads, 2025, Table 4-1)~~(Urban Crossroads, 2023f, Table 4-1)~~

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, undeveloped land, parking lots, warehousing, liquid and solid waste facilities, salvage yards, and transit terminals. (Urban Crossroads, 2025, p. 55)~~(Urban Crossroads, 2023f, p. 55)~~

To describe the potential off-site Project noise levels, five receiver locations in the vicinity of the Project site were identified. All distances are measured from the Project site boundary to the outdoor living areas (e.g., private backyards) or at the building façade, whichever is closer to the Project site. The selection of receiver locations is based on FHWA guidelines and is consistent with additional guidance provided by Caltrans and the FTA, as discussed above. Other sensitive land uses in the Project study area that are located at greater distances than those identified in this noise study would experience lower noise levels than those presented herein due to the additional attenuation from distance and the shielding of intervening structures. Distance is measured in a straight line from the Project boundary to each receiver location. (Urban Crossroads, 2025, pp. 55-56)~~(Urban Crossroads, 2023f, pp. 55-56)~~

- R1: Location R1 represents existing noise sensitive residence at 17795 Twin Lakes Drive., approximately 75 feet north of the Project site. Receiver R1 is placed in the private outdoor living area (backyard) facing the project site. A 24-hour noise measurement was taken near this location, L1, to describe the existing ambient noise environment.
- R2: Location R2 represents the existing noise sensitive residence at 18019 Twin Lakes Drive, approximately 187 feet northeast of the Project site. Receiver R1 is placed in the private outdoor living area (backyard) facing the project site A 24-hour noise measurement was taken near this location, L2, to describe the existing ambient noise environment.

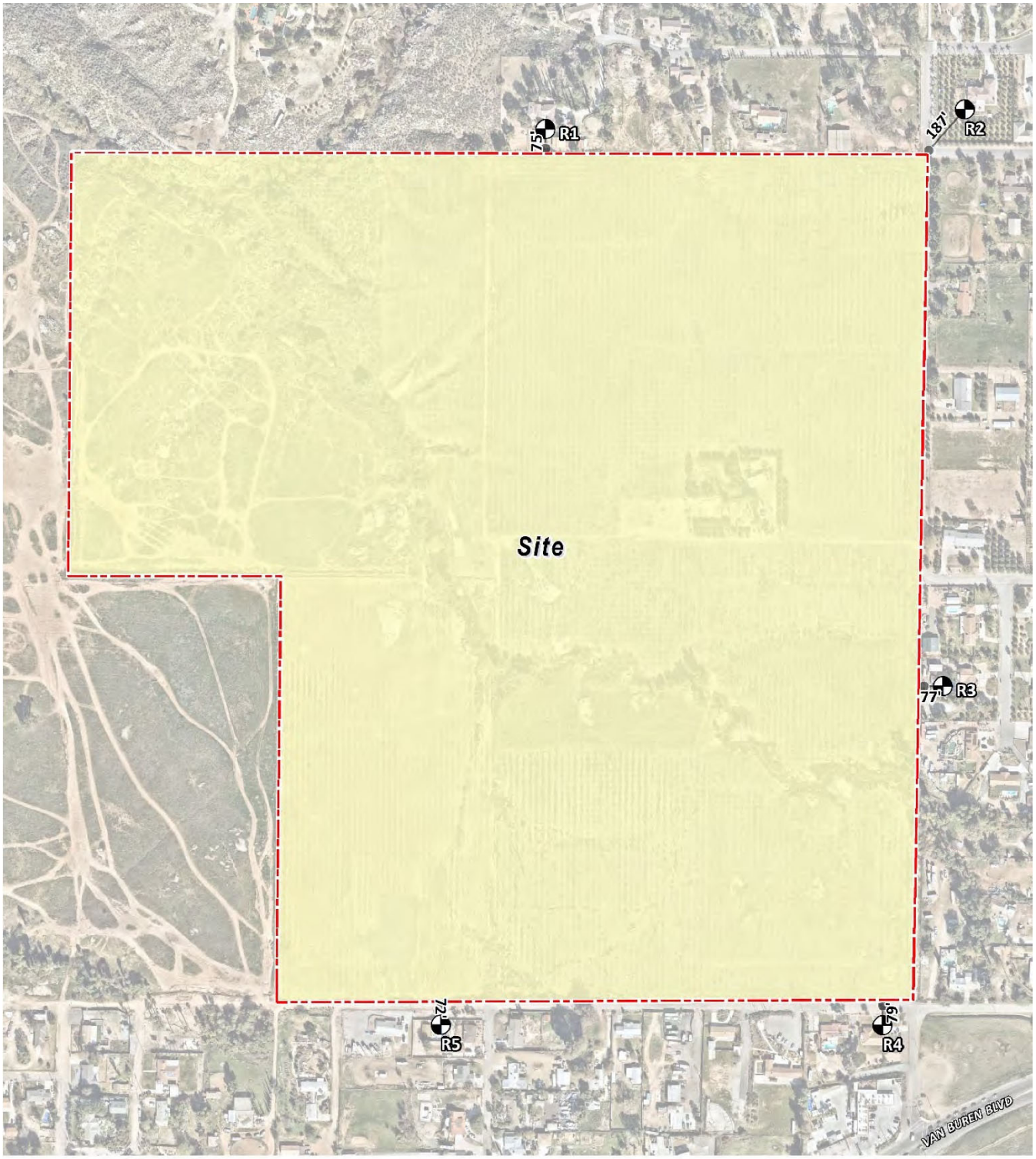


Figure 4.13-5

Sensitive Receiver Locations

- R3: Location R3 represents the existing noise sensitive residence at 15795 Cartwright Street, approximately 77 feet east of the Project site. Receiver R3 is placed in the private outdoor living area (backyard) facing the Project site. A 24-hour noise measurement was taken near this location, L3, to describe the existing ambient noise environment.
- R4: Location R4 represents the existing noise sensitive residence at 17975 Iris Avenue, approximately 79 feet south of the Project site. Receiver R4 is placed in the private outdoor living area (front yard) facing the Project site. A 24-hour noise measurement was taken near this location, L4, to describe the existing ambient noise environment.
- R5: Location R5 represents the existing noise sensitive residence at 16015 Gamble Avenue, approximately 72 feet west of the Project site. Receiver R5 is placed in the private outdoor living area (backyard) facing the Project site. A 24-hour noise measurement was taken near this location, L5, to describe the existing ambient noise environment.

B. Construction Noise and Vibration Methodology

1. Construction Noise Methodology

Because the County of Riverside has not established a numeric maximum acceptable construction source noise levels at potentially affected receivers for CEQA analysis purposes, a numerical construction threshold based on the FTA Transit Noise and Vibration Impact Assessment Manual is used for analysis of daytime construction impacts. The FTA considers a daytime exterior construction noise level of 80 dBA Leq as a reasonable threshold for noise sensitive residential land use.

To describe construction noise activities, the construction noise analysis was prepared using reference construction equipment noise levels from the FHWA published the Roadway Construction Noise Model (RCNM), which includes a national database of construction equipment reference noise emission levels. The RCNM equipment database provides a comprehensive list of the noise generating characteristics for specific types of construction equipment. In addition, the database provides an acoustical usage factor to estimate the fraction of time each piece of construction equipment is operating at full power (i.e., its loudest condition) during a construction operation. (Urban Crossroads, 2025, p. 63)~~(Urban Crossroads, 2023f, p. 63)~~

Using the reference construction equipment noise levels and the CadnaA noise prediction model, calculations of the Project construction noise level impacts at the nearby sensitive receiver locations were completed. Consistent with FTA guidance for general construction noise assessment, Table 4.13-4, *Construction Reference Noise Levels*, presents the combined noise levels for the loudest construction equipment, assuming they operate at the same time.

2. Construction Vibration Methodology

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 ground-borne vibration from Project construction activities would cause only intermittent, localized intrusion. Ground-borne vibration levels resulting from typical construction activities occurring within the Project site were estimated by data published by the FTA. Ground vibration levels associated with various types of construction equipment are

Table 4.13-4 Construction Reference Noise Levels

Construction Stage	Reference Construction Equipmnet[1]	Reference Noise Level @ 50 Feet (dBA L_{eq})	Composite Reference Noise Level (dBA L_{eq})	Reference Power Level (dBA L_w)
Demolition	Concrete Saw	83	86.8	118.4
	Grapple (on backhoe)	83		
	Gradall	79		
Site Preparation	Tractor	80	84.0	115.6
	Backhoe	74		
	Grader	81		
Grading	Scraper	80	83.3	114.9
	Excavator	77		
	Dozer	78		
Rock Crushing	Rock Crusher[2]	89	89.8	121.4
	Front End Loader	75		
	Hydra Break Ram	80		
Building Construction	Crane	73	80.6	112.2
	Generator	78		
	Front End Loader	75		
Paving	Paver	74	77.8	109.5
	Dump Truck	72		
	Roller	73		
Architectural Coating	Man Lift	68	76.2	107.8
	Compressor (air)	74		
	Generator (<25kVA)	70		
Blasting	Blasting	94	94.1	125.7
	Rock Drill	74		
	Front End Loader	75		

[1] FHWA Road Construction Noise Model.
[2] University District Rock Crusher Conditional Use Permit, San Marcos
(Urban Crossroads, 2025, Table 11-1)~~(Urban Crossroads, 2023f, Table 11-1)~~

summarized on Table 4.13-5, *Vibration Source Levels for Construction Equipment*. Based on the representative vibration levels presented for various construction equipment types, it is possible to estimate the potential Project construction vibration levels using the vibration assessment methods defined by the FTA, as more fully described in subsection 11.5 of the Project's NIA (*Technical Appendix J*). (Urban Crossroads, 2025, p. 69)~~(Urban Crossroads, 2023f, p. 69)~~

3. *Blasting and Rock Crushing Noise and Vibration Methodology*

An analysis was completed to assess potential noise level and vibration impacts due to blasting and rock crushing activities (refer to EIR subsection 3.6.1 for a detailed description of proposed blasting and rock crushing activities). Figure 4.13-6, *Blasting Activity and Receiver Locations*, shows the anticipated location of areas that would be subject to blasting during Project construction in relation to the nearest receiver locations. Figure 4.13-7, *Rock Crushing Activity and Receiver Locations*, shows the anticipated location of the crushing activity area in relation to the nearest receiver locations. It should be noted that noise impacts associated with rock crushing activities are included in the analysis of Project impacts due to overall construction-related noise. To evaluate the potential noise levels from blasting activities during Project construction, the FHWA RCNM

Table 4.13-5 Vibration Source Levels for Construction Equipment

Equipment	PPV (in/sec) at 25 feet
Small bulldozer	0.003
Crane	0.008
Jackhammer	0.035
Loaded Trucks	0.076
Large bulldozer	0.089
Hoe Ram (breaker)	0.089

Caltrans, Transportation and Construction Vibration Guidance Manual, 2020.
(Urban Crossroads, 2025, Table 11-4)~~(Urban Crossroads, 2023f, Table 11-4)~~

reference noise level of 94 dBA Lmax is used at a reference distance of 50 feet. The crushing construction noise analysis also was prepared using reference construction equipment noise levels from the FHWA RCNM, which includes a national database of construction equipment reference noise emission levels. Table 4.13-4 (previously presented) provides a summary of the reference average Leq noise levels used to describe blasting and concrete crushing construction activities. The reference noise level summary for rock crushing describes construction activity noise levels with multiple pieces of construction equipment operating simultaneously and includes source noise levels for a hoe ram or breaker representing a percussion hammer fitted to an excavator for breaking rock and a rock crushing activity including jaw crushers, a cone crusher, screens, and a conveyor system. (Urban Crossroads, 2025, pp. 70-73)~~(Urban Crossroads, 2023f, pp. 70-73)~~

C. *Operational Noise Methodology*

Following is a summary of the methodology used to evaluated Project-related operational noise impacts. Refer to Section 10 of the Project's NIA (*Technical Appendix J*) for a complete discussion of the methodology and modeling inputs and assumptions.

1. Reference Noise Levels

To assess the noise levels created by the air conditioning units, reference noise levels from a Carrier model 25HBC5 were used as representative of the air conditioning units that could be used on the Project and have a range of capacity from 1.5 tons to 5 tons. According to the product data sheet a Carrier model 25HBC5 produces a maximum sound power level of 76 dBA, as shown in Table 4.13-6, *Reference Noise Levels*. (Urban Crossroads, 2025, p. 61)~~(Urban Crossroads, 2023f, p. 59)~~

While operating at full power air conditioners operate approximately 15-30 minutes out of an hour in multiple cycles during the nighttime as compared to the daytime where the units typically operate 20-40 minutes in multiple cycles, depending on the ambient temperature. For purposes of analysis, it was assumed the air conditioners would operate 45 minutes out of an hour during the day and 30 minutes out of an hour at night. The acoustic center of each unit was located three feet above ground elevation. As the final location of air conditioning units has not been finalized, the units were placed generally located in the side yard of each lot. (Urban Crossroads, 2025, p. 58)~~(Urban Crossroads, 2023f, p. 58)~~

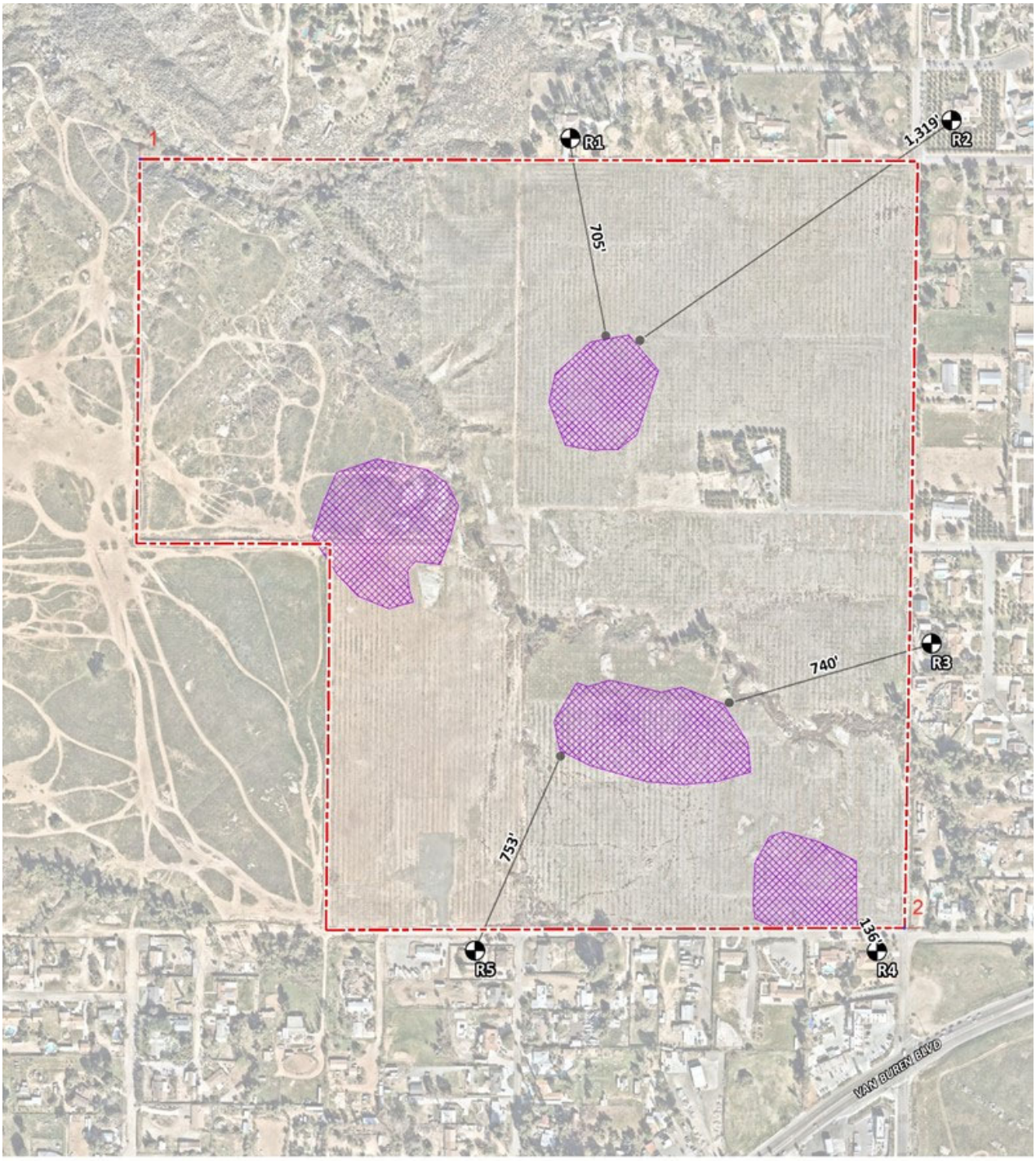


Figure 4.13-6

Blasting Activity and Receiver Locations

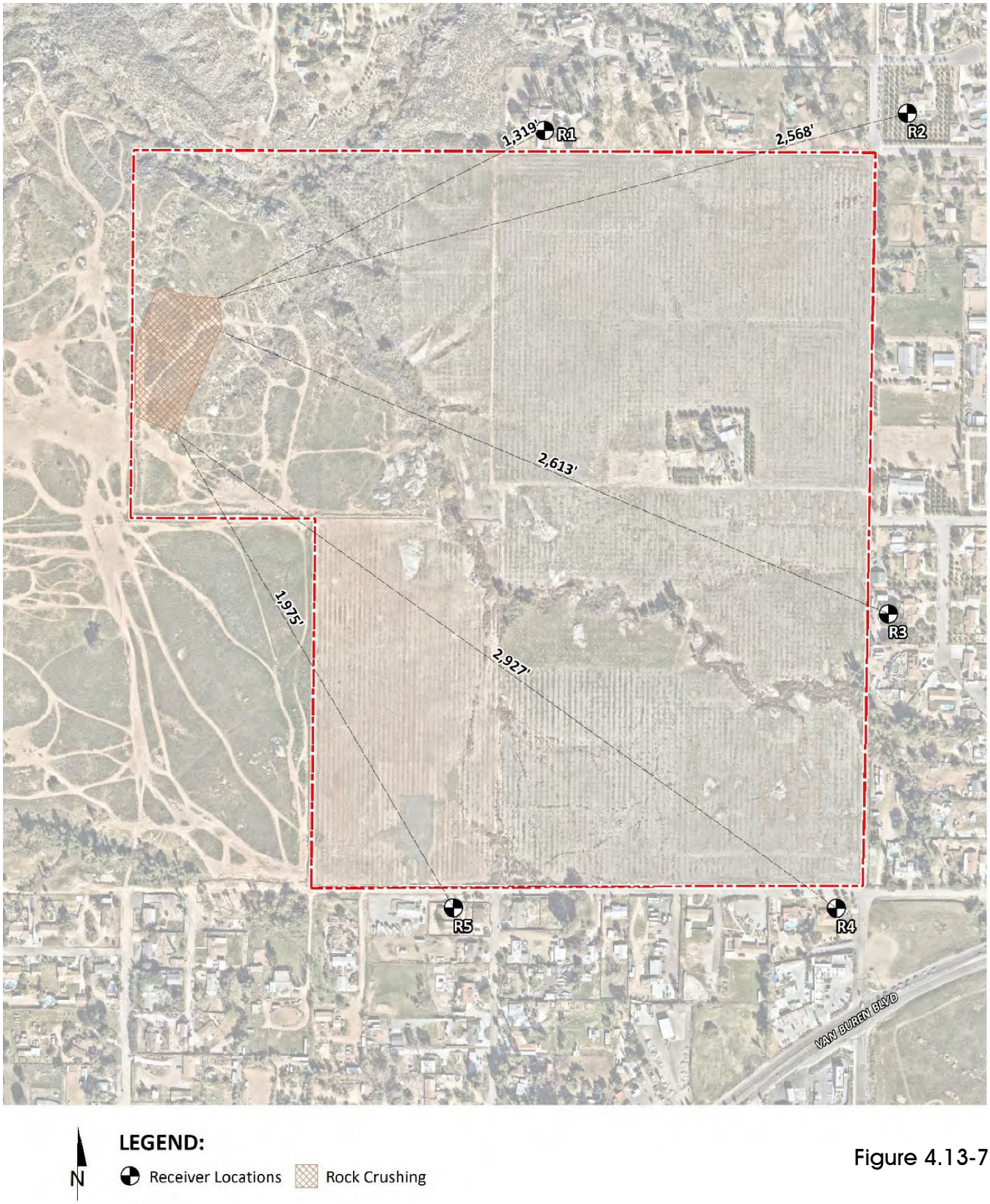


Figure 4.13-7

Rock Crushing Activity and Receiver Locations

Table 4.13-6 Reference Noise Levels

Noise Source	Noise Source Height (Feet)	Min./Hour[2]		Reference Noise Level (dBA L_{eq})		Sound Power Level (dBA)[6]
		Day	Night	@ Ref. Dist.	@ 50 Feet	
Air Conditioning Units[1]	3'	45	30	77.2	44.4	76.0

1 Carrier 25HBC5 air conditioning unit, as indicated in Appendix 10.1 to the Project's NIA (*Technical Appendix J*).

2 Anticipated duration (minutes within the hour) of noise activity during typical hourly conditions expected at the Project site.

"Daytime" = 7:01 a.m. to 10:00 p.m.; "Nighttime" = 10:01 p.m. to 7:00 a.m.

(Urban Crossroads, 2025, Table 10-1)~~(Urban Crossroads, 2023f, Table 10-1)~~

2. CadnaA Noise Prediction Model

To fully describe the exterior operational noise levels from the Project, Urban Crossroads developed a noise prediction model using the CadnaA (Computer Aided Noise Abatement) computer program. CadnaA can analyze multiple types of noise sources using the spatially accurate Project site plan, georeferenced Nearmap aerial imagery, topography, buildings, and barriers in its calculations to predict outdoor noise levels. Using the ISO 9613-2 protocol, CadnaA will calculate the distance from each noise source to the noise receiver locations, using the ground absorption, distance, and barrier/building attenuation inputs to provide a summary of noise level at each receiver and the partial noise level contributions by noise source. (Urban Crossroads, 2025, p. 59)~~(Urban Crossroads, 2023f, p. 59)~~

Consistent with the ISO 9613-2 protocol, the CadnaA noise prediction model relies on the reference sound power level (Lw) to describe individual noise sources. While sound pressure levels (e.g., Leq) quantify in decibels the intensity of given sound sources at a reference distance, sound power levels (Lw) are connected to the sound source and are independent of distance. Sound pressure levels vary substantially with distance from the source and diminish because of intervening obstacles and barriers, air absorption, wind, and other factors. Sound power is the acoustical energy emitted by the sound source and is an absolute value that is not affected by the environment. The operational noise level calculations provided herein account for the distance attenuation provided due to geometric spreading, when sound from a localized stationary source (i.e., a point source) propagates uniformly outward in a spherical pattern. A default ground attenuation factor of 0.5 was used in the noise analysis to account for mixed ground representing a combination of hard and soft surfaces. Appendix 10.1 to the Project's NIA (*Technical Appendix J*) includes the detailed noise dBA Lmax model inputs. (Urban Crossroads, 2025, pp. 59-60)~~(Urban Crossroads, 2023f, pp. 59-60)~~

D. Off-Site Traffic Modeling Methodology

1. FHWA Traffic Noise Prediction Model

The estimated roadway noise impacts from vehicular traffic were calculated using a computer program that replicates the 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 national REMELs are substituted with the California Vehicle Noise (Calveno) Emission Levels. 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 which flows each hour throughout a 24-hour period. (Urban Crossroads, 2025, p. 33)~~(Urban Crossroads, 2023f, p. 33)~~

2. Off-Site Traffic Noise Prediction Model Inputs

Table 6-4 of the Project's NIA (*Technical Appendix J*) identifies the eighteen off-site study area roadway segments, the distance from the centerline to adjacent land use based on the functional roadway classifications per the County of Riverside General Plan Circulation Element, and the posted vehicle speeds. Consistent with the Project's Traffic Analysis ("TA"; EIR *Technical Appendix J*), the off-site traffic noise analysis includes the following traffic scenarios: (Urban Crossroads, 2025, p. 35)~~(Urban Crossroads, 2023f, p. 35)~~

- Existing Conditions Without Project: This scenario refers to the existing present-day noise conditions (as of ~~May 2022~~April 2025) without the proposed Project.
- Existing plus Project Conditions – Project Buildout: This scenario refers to the existing present-day noise conditions with the proposed Project. It should be noted that this scenario would not actually occur, as full occupancy of Phase 1 of the proposed Project is not expected to occur until November 2028~~5~~ while the "Existing" conditions evaluated in the NIA reflects existing traffic as of ~~May 2022~~April 2025, when traffic count data was collected.
- Existing plus Ambient Growth plus Cumulative (EAC) ~~2027~~ 2030 Conditions Without Project: This scenario includes near-term noise conditions from ambient growth and cumulative developments without traffic from the proposed Project.
- Existing plus Ambient Growth plus Project plus Cumulative (EAPC) (~~2027~~2030) Conditions – Project Buildout: This scenario includes Project-related traffic, ambient growth, and all cumulative projects identified in the Project's TA (as summarized in EIR Section 4.0).
- Horizon Year (2045) Conditions Without Project: This scenario refers to cumulative horizon year noise conditions without traffic from the proposed Project.
- Horizon Year (2045) Conditions With Project: This scenario includes all horizon year noise conditions including traffic from the proposed Project.

The average daily traffic (ADT) volumes used for this study are presented on Table 6-5 of the Project's NIA (*Technical Appendix J*). Table 6-2 of the Project's NIA provide the time of day (daytime, evening, and nighttime) vehicle splits used for calculating CNEL values. (Urban Crossroads, 2025, pp. 33-34)~~(Urban Crossroads, 2023f, pp. 33-34)~~

4.13.6 IMPACT ANALYSIS

Threshold a.: ***For a project located within an airport land use plan or, where such a plan has not been adopted, within two (2) miles of a public airport or public use airport, would the Project expose people residing or working in the Project area to excessive noise levels?***

There are no public airports or public use airports within two miles of the Project site. However, the Project site occurs approximately 4.5 miles west of the March Air Reserve Base/Inland Port Airport (MARB/IPA), and is located within the Airport Influence Area (AIA) for this facility. According to the Airport Land Use Compatibility Plan (ALUCP) prepared for the MARB/IPA, the Project site occurs within Compatibility Zone "D," which the ALUCP indicates is "mostly within the 55-CNEL contour." According to Table 2B of the Countywide ALUCP Policy Document, the Project's residential land uses are considered "clearly acceptable" with exterior noise levels below 55 dBA CNEL, and are considered "normally acceptable" with exterior noise levels up to 60 dBA CNEL. These noise compatibility levels also are consistent with Table N-1 of the General Plan Noise Element. Therefore, because the Project's proposed residential uses would not be exposed to airport-related noise levels exceeding 60 dBA CNEL, the Project would not expose people residing or working in the Project area to excessive airport-related noise levels, and impacts would be less than significant. (RCIT, n.d.; ALUC, 2014, Map MA-1 and Table MA-1; ALUC, 2004, Table 2B; Riverside County, 2021a, Table N-1)

Threshold b.: ***For a project located within the vicinity of a private airstrip, would the Project expose people residing or working in the Project area to excessive noise levels?***

There are no private airstrips within the Project vicinity. The nearest private airstrip to the Project site is the Perris Valley Airport, located approximately 10.9 miles southeast of the Project site. According to the ALUCP prepared for the Perris Valley Airport, the Project site is located well outside of the 55 dBA CNEL contour for this facility. As indicated under the analysis of Threshold a., the Project's residential land uses are considered "clearly acceptable" with exterior noise levels below 55 dBA CNEL. As such, the Project would not expose people residing or working in the Project area to excessive noise levels associated with private airstrips, and impacts would therefore be less than significant. (ALUC, 2010, Map PV-3)

Threshold c.: ***Would the Project result in the generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan, noise ordinance, or applicable standards of other agencies?***

The Project has the potential to result in the generation of substantial noise levels associated with construction activities, site operations, and Project-related traffic. Each is discussed below.

A. Construction Noise Impacts

The following is an analysis of potential impacts resulting from the short-term construction activities associated with the development of the Project. Figure 4.13-8, *Construction Noise Source Locations*, shows the construction noise source locations in relation to the nearest sensitive receiver locations previously described in subsection 4.13.5.A. Section 2 of Riverside County Ordinance No. 847 states that construction

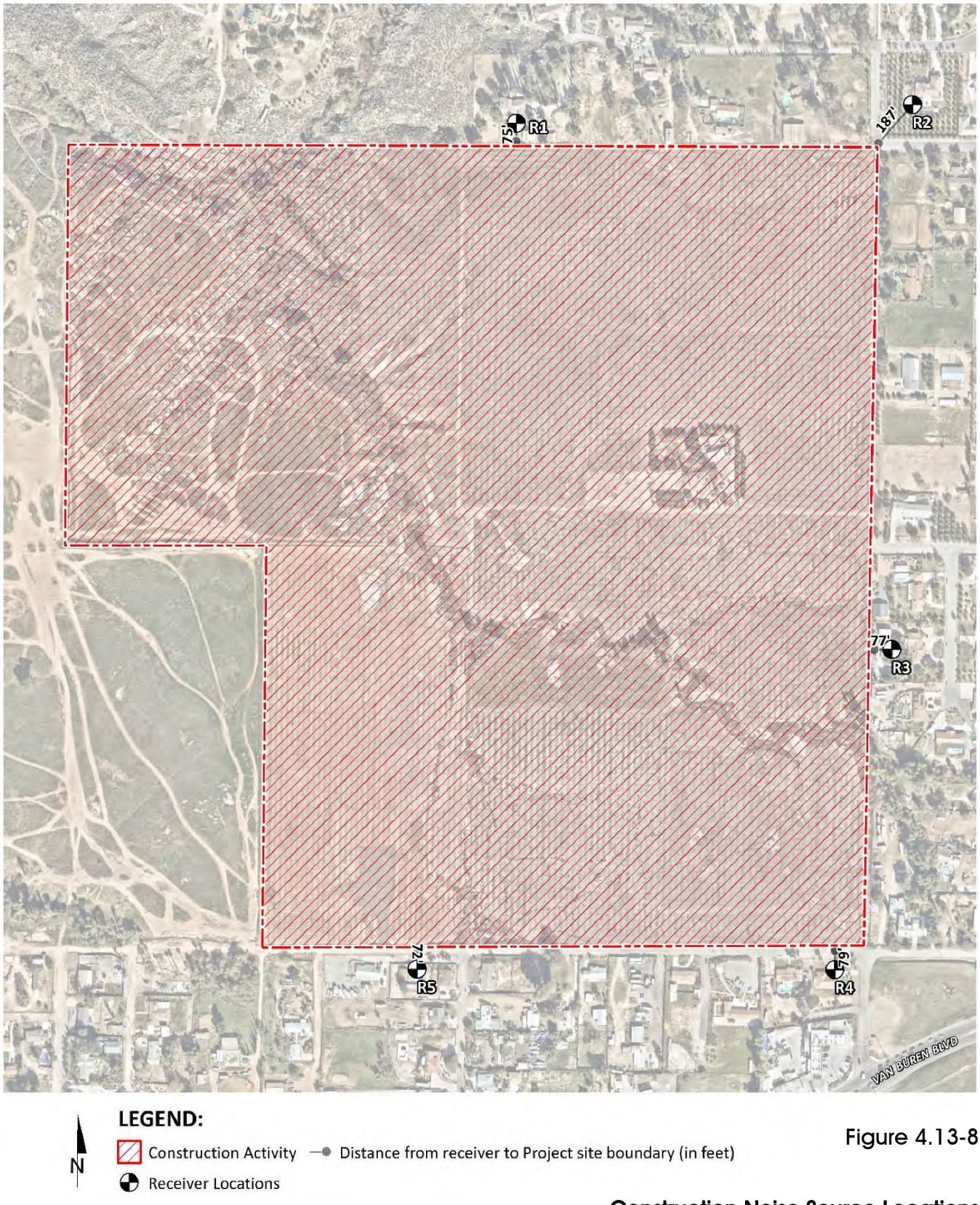


Figure 4.13-8

Construction Noise Source Locations

activities are exempted from the noise ordinance if located ¼-mile or greater from inhabited dwelling units; or if within a quarter mile, if it occurs between the hours of 6:00 a.m. to 6:00 p.m. Monday through Friday from June 1st to September 30th, or 7:00 a.m. to 6:00 p.m. Monday through Friday from October 1st to May 30th. In addition, and as previously noted, since the County of Riverside has not established a numeric maximum acceptable construction source noise levels at potentially affected receivers for CEQA analysis purposes, a numerical construction threshold based on the FTA Transit Noise and Vibration Impact Assessment Manual is used for analysis of daytime construction impacts. The FTA considers a daytime exterior construction noise level of 80 dBA Leq as a reasonable threshold for noise sensitive residential land use. (Urban Crossroads, 2025, p. 63)~~(Urban Crossroads, 2023f, p. 63)~~

Noise generated by the Project construction equipment would include a combination of trucks, power tools, concrete mixers, and portable generators that when combined can reach high levels. The number and mix of construction equipment are expected to occur in the following stages: (1) site preparation; (2) grading; (3) rock crushing; (4) building construction; (5) paving; and (6) architectural coating. (Urban Crossroads, 2025, p. 63)~~(Urban Crossroads, 2023f, p. 63)~~

2. Construction Noise Analysis

Using the reference construction equipment noise levels and the CadnaA noise prediction model, calculations of the Project construction noise level impacts at the nearby sensitive receiver locations were completed. To assess the worst-case construction noise levels, the Project construction noise analysis relies on the highest noise level impacts when the equipment with the highest reference noise level is operating at the closest point from the edge of primary construction activity (Project site boundary) to each receiver location. To assess a reasonable worst-case construction scenario Project rock crushing is assumed to be conducted during site preparation and grading stages. However, this analysis conservatively combines rock crushing noise with all construction stages. ~~C~~As shown in Table 4.13-7, *Construction Equipment Noise Level Summary*, construction noise levels are expected to range from 47.4~~8.6~~ to 61.3 dBA Leq, and the highest construction levels are expected to range from 56.4 to 61.3 dBA Leq at the nearby receiver locations, as shown in. Appendix 11.1 to the Project's NIA (*Technical Appendix J*) includes the detailed CadnaA construction noise model inputs. (Urban Crossroads, 2025, pp. 67-68)~~(Urban Crossroads, 2023f, pp. 67-68)~~

Table 4.13-7 Construction Equipment Noise Level Summary

Receiver Location[1]	Construction Noise Levels (dBA L_{eq})						
	Demolition	Site Preparation	Grading	Building Construction	Paving	Architectural Coating	Highest Levels[2]
R1	61.3	~~60.6~~58.5	~~60.6~~57.8	55.1~~7.9~~	52.3~~5.2~~	50.7~~3.5~~	61.3
R2	56.4	53.6~~5.7~~	52.9~~5.7~~	50.2~~3.0~~	47.4~~50.3~~	45.8~~8.6~~	56.4
R3	60.3	~~60.3~~57.5	56.8~~9.6~~	54.1~~6.9~~	51.3~~4.2~~	49.7~~52.5~~	60.3
R4	59.3	~~58.6~~56.5	55.8~~8.6~~	53.1~~5.9~~	50.3~~3.2~~	48.7~~51.5~~	59.3
R5	60.4	~~60.4~~57.6	56.9~~9.7~~	54.2~~7.0~~	51.4~~4.3~~	49.8~~52.6~~	60.4

1 Construction noise source and receiver locations are shown on Figure 4.13-5 and Figure 4.13-8.

2 Construction noise level calculations based on distance from the project site boundaries (construction activity area) to nearby receiver locations. CadnaA construction noise model inputs are included in Appendix 11.1 to the Project's NIA (*Technical Appendix J*).

(Urban Crossroads, 2025, Table 11-2)~~(Urban Crossroads, 2023f, Table 11-2)~~

3. Construction Noise Level Compliance

To evaluate whether the Project would generate potentially significant short-term noise levels at nearest receiver locations, a construction-related daytime noise level threshold of 80 dBA Leq is used as a reasonable threshold to assess the daytime construction noise level impacts. The construction noise analysis shows that the nearest receiver locations would satisfy the reasonable daytime 80 dBA Leq significance threshold during Project construction activities as shown on Table 4.13-8, *Construction Noise Level Compliance*. Therefore, the noise impacts due to Project construction noise would be less than significant at all receiver locations. (Urban Crossroads, 2025, p. 68)~~(Urban Crossroads, 2023f, p. 68)~~

Table 4.13-8 Construction Noise Level Compliance

Receiver Location[1]	Construction Noise Levels (dBA L_{eq})		
	Highest Construction Noise Levels[2]	Threshold[3]	Threshold Exceeded?[4]
R1	61.3	80	No
R2	56.4	80	No
R3	60.3	80	No
R4	59.3	80	No
R5	60.4	80	No

1 Noise receiver locations are shown on Figure 4.13-8.
2 Highest construction noise level operating at the Project site boundary to nearby receiver locations (Table 4.13-7).
3 Federal Transit Administration, Transit Noise and Vibration Impact Assessment Manual.
4 Do the estimated Project construction noise levels exceed the construction noise level threshold?
(Urban Crossroads, 2025, Table 11-3)~~(Urban Crossroads, 2023f, Table 11-3)~~

4. Construction-Related Rock Crushing Noise Analysis and Compliance

The Project would require rock crushing activities near the western Project site boundary. Figure 4.13-7 (previously presented) shows the location of the planned rock crushing activity area in relation to the nearest receiver locations. The rock crushing construction noise analysis was prepared using reference construction equipment noise levels from the FHWA RCNM and describes construction activity noise levels with multiple pieces of construction equipment operating simultaneously in the same location. This is considered conservative since this equipment is typically spaced further apart and occurs in different locations. As shown in Table 4.13-9, *Rock Crushing Construction Noise Levels*, the rock crushing construction noise levels are estimated to range from 49.0 to 55.7 dBA L_{eq} at the nearest receiver locations. The rock crushing construction noise analysis shows that the nearest receiver locations will satisfy the reasonable daytime 80 dBA L_{eq} significance threshold. Therefore, the noise impacts due to the Project's rock crushing activity are considered less than significant at all receiver locations. (Urban Crossroads, 2025, p. 73)

~~4.~~5. Construction-Related Blasting Noise Analysis and Compliance

As previously described in EIR subsection 3.6.1, the Project would require blasting activities in order to facilitate grading activities in portions of the Project site. Refer to Figure 4.13-6 (previously presented), which depicts the areas where blasting is anticipated.

Table 4.13-9 Rock Crushing Construction Noise Levels

Receiver Location[1]	Rock Cushing Noise Levels (dBA L_{eq})		
	Noise Levels[2]	Threshold[3]	Threshold Exceeded?[4]
R1	55.7	80	No
R2	50.1	80	No
R3	50.3	80	No
R4	49.0	80	No
R5	52.4	80	No

[1] Noise receiver locations are shown on Figure 4.13-7
[2] CadnaA construction noise model inputs are included in Appendix 11.2 to the Project's NIA (*Technical Appendix J*).
[3] Federal Transit Administration, Transit Noise and Vibration Impact Assessment Manual.
[4] Do the estimated Project construction noise levels exceed the construction noise level threshold?
(Urban Crossroads, 2025, Table 11-6)~~(Urban Crossroads, 2025)~~

To evaluate the potential noise levels from blasting activities during Project construction, the FHWA RCNM reference noise level of 94 dBA Lmax is used at a reference distance of 50 feet. Each blast represents a point-source of noise which attenuates at a rate of 6 dB for each doubling of distance from the source. The closest residential homes to the areas subject to blasting activities is represented by receiver location R1 at a distance of 136 feet. With the distance attenuation from the closest blasting activities, the unmitigated noise levels at nearby receiver locations would range from approximately 57.1 dBA Lmax to 70.2 dBA Lmax based on the RCNM reference noise level, as shown in Table 4.13-10, *Blasting Construction Noise Levels*. However, since the type of blasting techniques planned within the Project site ~~were~~ are unknown at the time of this analysis, the noise levels presented at the nearby sensitive receiver locations represent the worst-case conditions based on the RCNM reference noise level, and therefore likely overstates that actual noise levels during blasting activities at the nearest sensitive receptor locations. (Urban Crossroads, 2025, p. 74)~~(Urban Crossroads, 2023f, p. 74)~~

~~Table 4.13-8~~Table 4.13-10 Blasting Construction Noise Levels

Receiver Location	Distance To Construction Activity (Feet)[2]	Construction Noise Level (dBA L_{max})
R1	705'	61.1
R2	1,319'	57.1
R3	740'	62.4
R4	136'	70.2
R5	753'	61.8

[1] FHWA Roadway Construction Noise Model.
[2] Distance from the nearest point of construction activity to the nearest receiver.
[3] Point (stationary) source drop off rate of 6.0 dBA per doubling of distance.
(Urban Crossroads, 2025, Table 11-6)~~(Urban Crossroads, 2023f, Table 11-6)~~

The County of Riverside General Plan and Municipal Code do not identify specific construction noise level limits for blasting activities. Therefore, the OSMRE and CFR lowest maximum Airblast Limit (30 CFR 816.67(b)) of 129 dBA Lmax at nearby sensitive uses is used in this analysis. Based on the reference blasting noise level, the closest residential receiver would experience noise levels approaching 70.2 dBA Lmax over the course of the blast, which likely would occur for only a few seconds. While some blasting noise may be noticeable by nearby residents, the single-event, temporary noise levels generated by the blast would not

exceed the OSMRE and the CFR standards for airblasts at the nearest sensitive receptor. Therefore, the noise levels due to blasting activities would result in a less-than-significant noise impact. (Urban Crossroads, 2025, p. 74)~~(Urban Crossroads, 2023f, p. 74)~~

B. Operational Noise Impacts

1. Project Operational Noise Levels and Compliance

Using the reference noise levels to represent the proposed Project operations that include air condition units, Urban Crossroads calculated the operational source noise levels that are expected to be generated at the Project site and the Project-related noise level increases that would be experienced at each of the sensitive receiver locations. Table 4.13-11, *Daytime Project Operational Noise Levels*, shows the Project operational noise levels during the daytime hours of 7:01 a.m. to 10:00 p.m. The daytime hourly noise levels at the off-site receiver locations are expected to range from 29.6 to 35.5 dBA Lmax. Table 4.13-12, *Nighttime Project Operational Noise Levels*, shows the Project operational noise levels during the nighttime hours of 10:01 p.m. to 7:00 a.m. The nighttime hourly noise levels at the off-site receiver locations are expected to range from 26.8 to 32.8 dBA Lmax. (Urban Crossroads, 2025, p. 60)~~(Urban Crossroads, 2023f, p. 60)~~

~~Table 4.13-9~~Table 4.13-11 Daytime Project Operational Noise Levels

Noise Source[1]	Operational Noise Levels by Receiver Location (dBA L_{eq})				
	R1	R2	R3	R4	R5
Air Conditioning Units	33.7	29.6	34.5	32.9	35.5
Total (All Noise Sources)	**33.7**	**29.6**	**34.5**	**32.9**	**35.5**

[1] See Figure 4.13-8 for the noise source locations. CadnaA noise model calculations are included in Appendix 10.2 of *Technical Appendix J*.
(Urban Crossroads, 2025, Table 10-2)~~(Urban Crossroads, 2023f, Table 10-2)~~

~~Table 4.13-10~~Table 4.13-12 Nighttime Project Operational Noise Levels

Noise Source[1]	Operational Noise Levels by Receiver Location (dBA L_{eq})				
	R1	R2	R3	R4	R5
Air Conditioning Units	31.0	26.8	31.8	30.2	32.8
Total (All Noise Sources)	**31.0**	**26.8**	**31.8**	**30.2**	**32.8**

[1] See Figure 4.13-8 for the noise source locations. CadnaA noise model calculations are included in Appendix 10.2 of the Project-specific NIA (*Technical Appendix J*).
(Urban Crossroads, 2025, Table 10-3)~~(Urban Crossroads, 2023f, Table 10-3)~~

To demonstrate compliance with local noise regulations, the Project-only operational noise levels are evaluated against exterior noise level thresholds based on the County of Riverside exterior noise level standards at nearby noise-sensitive receiver locations. Table 4.13-13, *Operational Noise Level Compliance*, shows the operational noise levels associated with the proposed Project would not exceed the County of Riverside 55 dBA Leq daytime or the 45 dBA Leq nighttime exterior noise level standards at any nearby receiver locations. Therefore, the operational noise impacts would be less than significant at the nearby noise-sensitive receiver locations. (Urban Crossroads, 2025, p. 60)~~(Urban Crossroads, 2023f, p. 60)~~

~~Table 4.13-11~~Table 4.13-13 Operational Noise Level Compliance

Receiver Location[1]	Project Operational Noise Levels (dBA L_{eq})[2]		Exterior Noise Level Standards (dBA L_{eq})[3]		Noise Level Standards Exceeded?[4]	
	Daytime	Nighttime	Daytime	Nighttime	Daytime	Nighttime
R1	33.7	31.0	55	45	No	No
R2	29.6	26.8	55	45	No	No
R3	34.5	31.8	55	45	No	No
R4	32.9	30.2	55	45	No	No
R5	35.5	32.8	55	45	No	No

1 See Figure 4.13-5 for the receiver locations.
2 Proposed Project operational noise levels as shown on Table 4.13-11and Table 4.13-12.
3 Exterior noise level standard for residential land use as shown on Table 4.13-3.
4 Do the estimated Project operational noise source activities exceed the noise level standards?
5 Non-residential land use with no expected nighttime occupancy.
"Daytime" = 7:01 a.m. to 10:00 p.m.; "Nighttime" = 10:01 p.m. to 7:00 a.m.
(Urban Crossroads, 2025, Table 10-4)~~(Urban Crossroads, 2023f, Table 10-4)~~

2. *Project Operational Noise Level Increases*

To describe the Project operational noise level increases, the Project operational noise levels are combined with the existing ambient noise levels measurements for the nearest receiver locations potentially impacts by Project operational noise sources. Since the dB units used to measure noise are logarithmic units, the Project-operational and existing ambient noise levels cannot be combined using standard arithmetic equations. Instead, they must be logarithmically added using the formula presented in Subsection 10.6~~5~~ of the Project's NIA (*Technical Appendix J*). (Urban Crossroads, 2025, p. 61)~~(Urban Crossroads, 2023f, p. 61)~~

The difference between the combined Project and ambient noise levels describes the Project noise level increases to the existing ambient noise environment. Noise levels that would be experienced at receiver locations when Project-source noise is added to the daytime and nighttime ambient conditions are presented on Table 4.13-14, *Daytime Project Operational Noise Level Increases*, and Table 4.13-15, *Nighttime Operational Noise Level Increases*, respectively. As indicated on Table 4.13-14, the Project would generate daytime operational noise level increases ranging from 0.0 to 0.4 dBA Leq at the nearest receiver locations. Table 4.13-15 shows that the Project would generate nighttime operational noise level increases ranging from 0.0 to 0.4 dBA Leq at the nearest receiver locations. Project-related operational noise level increases would satisfy the operational noise level increase significance criteria presented in Table 4.13-3, and the increases at the sensitive receiver locations would be less than significant. (Urban Crossroads, 2025, p. 61)~~(Urban Crossroads, 2023f, p. 61)~~

C. *Off-Site Transportation Noise Impacts*

Noise contours were used to assess the Project's incremental 24-hour dBA CNEL traffic-related noise impacts at land uses adjacent to roadways conveying Project traffic. The noise contours represent the distance to noise levels of a constant value and are measured from the center of the roadway for the 70, 65, and 60 dBA CNEL noise levels. The noise contours do not consider the effect of any existing noise barriers or topography that may attenuate ambient noise levels. In addition, because the noise contours reflect modeling of vehicular noise

~~Table 4.13-12~~Table 4.13-14 Daytime Project Operational Noise Level Increases

Receiver Location[1]	Total Project Operational Noise Level[2]	Measurement Location[3]	Reference Ambient Noise Levels[4]	Combined Project and Ambient[5]	Project Increase[6]	Increase Criteria[7]	Increase Criteria Exceeded?
R1	33.7	L1	46.3	46.5	0.2	5	No
R2	29.6	L2	51.0	51.0	0.0	5	No
R3	34.5	L3	44.6	45.0	0.4	5	No
R4	32.9	L4	55.0	55.0	0.0	5	No
R5	35.5	L5	55.0	55.0	0.0	5	No

1 See Figure 4.13-5 for the receiver locations.
2 Total Project daytime operational noise levels as shown on Table 4.13-13.
3 Reference noise level measurement locations as shown on Table 4.13-6.
4 Observed daytime ambient noise levels as shown on Table 4.13-1.
5 Represents the combined ambient conditions plus the Project activities.
6 The noise level increase expected with the addition of the proposed Project activities.
7 Significance increase criteria as shown on Table 4.13-3.
(Urban Crossroads, 2025, Table 10-5)~~(Urban Crossroads, 2023f, Table 10-5)~~

~~Table 4.13-13~~Table 4.13-15 Nighttime Operational Noise Level Increases

Receiver Location[1]	Total Project Operational Noise Level[2]	Measurement Location[3]	Reference Ambient Noise Levels[4]	Combined Project and Ambient[5]	Project Increase[6]	Increase Criteria[7]	Increase Criteria Exceeded?
R1	31.0	L1	42.4	42.7	0.3	5	No
R2	26.8	L2	46.8	46.8	0.0	5	No
R3	31.8	L3	42.3	42.7	0.4	5	No
R4	30.2	L4	53.0	53.0	0.0	5	No
R5	32.8	L5	48.2	48.3	0.1	5	No

1 See Figure 4.13-5 for the receiver locations.
2 Total Project nighttime operational noise levels as shown on Table 4.13-13.
3 Reference noise level measurement locations as shown on Table 4.13-6.
4 Observed daytime ambient noise levels as shown on Table 4.13-1.
5 Represents the combined ambient conditions plus the Project activities.
6 The noise level increase expected with the addition of the proposed Project activities.
7 Significance increase criteria as shown on Table 4.13-3.
(Urban Crossroads, 2025, Table 10-6)~~(Urban Crossroads, 2023f, Table 10-6)~~

on area roadways, they appropriately do not reflect noise contributions from the surrounding stationary noise sources within the Project study area. Tables 8-1 through 8-64 of the Project's NIA (*Technical Appendix J*) present a summary of the exterior dBA CNEL traffic noise levels. Roadway segments are analyzed in each of the timeframes studied by the Project's TA (as described previously in subsection 4.13.5.D). Appendix 8.1 to the Project's NIA includes a summary of the dBA CNEL traffic noise level contours for each of the traffic scenarios. (Urban Crossroads, 2025, p. 43)~~(Urban Crossroads, 2023f, p. 43)~~

2. Existing Traffic Noise Level Increases

Table 8-1 of the Project's NIA (*Technical Appendix J*) shows the Existing without Project conditions CNEL noise levels. The Existing without Project exterior noise levels are expected to range from 41.0 to 76.6 dBA CNEL, without accounting for any noise attenuation features such as noise barriers or topography. Table 8-2

of the Project's NIA shows the Existing plus Project conditions would range from 41.0 to 76.6 dBA CNEL. Table 4.13-16, *Existing With Project Traffic Noise Increases*, increases would range from 0.0 to 8.2 dBA CNEL. As shown, only one roadway segment, Gamble Avenue south of Iris Avenue (Segment #8), would be subject to traffic-related noise increases exceeding the significance criteria; however, and for the reasons discussed below, Project traffic-related noise increases under Existing Plus Project conditions would be less than significant at all receiver locations. (Urban Crossroads, 2023f, p. 50)

Based on the significance criteria for off-site traffic noise presented in subsection 4.13.4, land uses adjacent to the roadway segment of Gamble Avenue south of Iris Avenue would experience significant noise level increases due to unmitigated Project-related traffic noise levels. However, the data presented in Table 4.13-16 shows that with the addition of Project traffic, sensitive receptors along this roadway segment only would be exposed to traffic-related noise of 52.6 dBA. As indicated in Table N-1 of the General Plan Noise Element, residential uses are considered "Normally Acceptable" at noise levels up to 60 dBA CNEL; thus, the Project's traffic-related noise increases along this segment of Gamble Avenue would not expose nearby sensitive receptors to a substantial permanent increase in noise levels (Riverside County, 2021a, Table N-1). In addition, it should be noted that the "No Project" noise levels presented in Table 4.13-16 show lower noise levels along Gamble Avenue than the noise measurements that were collected by Urban Crossroads. As previously shown in Table 4.13-1, the existing noise measurements collected by Urban Crossroads near the intersection of Iris Avenue and Gamble Avenue (Location L5) shows an existing ambient noise level of 56.7~~8.9~~ dBA CNEL~~Leq during daytime hours and 56.1 dBA Leq during nighttime hours~~, whereas the data presented in Table 4.13-16 shows that traffic-related noise along this segment of Gamble without the addition of Project traffic would be 44.4 dBA (56.7 dBA). Thus, ~~if the analysis were to assume the actual measured ambient noise levels in estimating Project related traffic noise increases, noise increases due to Project traffic along this roadway segment would be less than 1 dBA,~~noise level increases due to Project traffic along this roadway segment would be less than 2.0 dBA CNEL, which would be below the significance criteria. Furthermore, the scenario in which Project traffic is added to existing traffic volumes would not actually occur, as Phase 1 of the Project would not be fully constructed and operated until November ~~2025~~2028, while the "Existing" conditions evaluated in the NIA reflects existing traffic as of ~~May 2022~~April 2025, when traffic count data was collected. Thus, this scenario is provided for information purposes only in order to fully analyze all of the traffic scenarios identified in the Project's Traffic Study (EIR *Technical Appendix J*). ~~Finally, and as shown in Table 4.13-16 and discussed below, under EAPC 2027 conditions the Project would not result in any noise increases along this segment of Gamble Avenue.~~ Accordingly, and for the reasons noted above, Project-related traffic increases under Existing plus Project conditions would be less than significant. (Urban Crossroads, 2025, p. 50)~~(Urban Crossroads, 2023f, p. 50)~~

3. *Existing Plus Ambient Plus Project Plus Cumulative (EAPC) ~~2027~~ 2030 Traffic Noise Level Increases*

Table 8-3 of the Project's NIA (*Technical Appendix J*) presents the EAPC Year 2030~~27~~ without Project conditions CNEL noise levels. The EAPC Year ~~2027~~ 2030 without Project exterior noise levels are expected to range from 41.~~5~~0 to 77.80 dBA CNEL, without accounting for any noise attenuation features such as noise barriers or topography. Table 8-4 of the Project's NIA shows the EAPC Year ~~2027~~ 2030 with Project conditions would range from 41.0 to 77.8 dBA CNEL. Table 4.13-17, *EAPC 2030 With Project Noise Increases*, shows that the Project off-site traffic noise level increases would range from -0.0~~5~~ to ~~0.8~~6.4 dBA

~~Table 4.13-14~~Table 4.13-16 Existing With Project Traffic Noise Increases

ID	Road	Segment	Receiving Land Use[1]	CNEL at Receiving Land Use (dBA)[2]			Noise-Sensitive Land Use?	Incremental Noise Level Increase Threshold[3]	
				No Project	With Project	Project Addition		Limit	Exceeded?
1	Van Buren Bl.	n/o Victoria Av.	Sensitive	71.0	71.1	0.1	Yes	1.5	No
2	Van Buren Bl.	s/o Victoria Av.	Sensitive	74.2	74.3	0.1	Yes	1.5	No
3	Mockingbird Canyon Rd.	s/o Van Buren Bl.	Sensitive	74.8	74.9	0.1	Yes	1.5	No
4	Washington St.	n/o Van Buren Bl.	Sensitive	76.6	76.6	0.0	Yes	1.5	No
5	Washington St.	s/o Van Buren Bl.	Sensitive	72.3	72.4	0.0	Yes	1.5	No
6	Chicago Av./Alta Cresta Av.	n/o Van Buren Bl.	Sensitive	54.2	58.0	3.8	Yes	5.0	No
7	Chicago Av./Alta Cresta Av.	s/o Van Buren Bl.	Sensitive	58.2	58.4	0.2	Yes	5.0	No
8	Gamble Av.	s/o Iris Av.	Sensitive	44.4	52.6	8.2	Yes	5.0	**Yes**
9	Wood Rd.	n/o Van Buren Bl.	Sensitive	67.4	67.4	0.1	Yes	1.5	No
10	Wood Rd.	s/o Van Buren Bl.	Sensitive	68.7	68.7	0.1	Yes	1.5	No
11	Trautwein Rd./Cole Av.	n/o Van Buren Bl.	Sensitive	72.9	72.9	0.0	Yes	1.5	No
12	Trautwein Rd./Cole Av.	s/o Van Buren Bl.	Sensitive	70.8	70.8	0.0	Yes	1.5	No
13	Victoria Av.	w/o Van Buren Bl.	Sensitive	70.5	70.6	0.0	Yes	1.5	No
14	Victoria Av.	e/o Van Buren Bl.	Non-Sensitive	66.9	67.0	0.1	Yes	1.5	No
15	Van Buren Bl.	w/o Washington St.	Non-Sensitive	71.8	71.9	0.1	Yes	1.5	No
16	Van Buren Bl.	e/o Washington St.	Non-Sensitive	72.7	72.9	0.1	Yes	1.5	No
17	Van Buren Bl.	w/o Chicago Av./Alta Cresta Av.	Sensitive	72.7	72.8	0.0	Yes	1.5	No
18	Van Buren Bl.	e/o Chicago Av./Alta Cresta Av.	Sensitive	72.5	72.7	0.1	Yes	1.5	No
19	Van Buren Bl.	e/o Wood Rd.	Non-Sensitive	72.3	72.4	0.1	Yes	1.5	No
20	Van Buren Bl.	e/o Trautwein Rd./Cole Av.	Sensitive	71.9	72.0	0.1	Yes	1.5	No
21	Iris Av.	w/o Gamble Av.	Sensitive	41.0	41.0	0.0	Yes	5.0	No
22	Iris Av.	w/o Chicago Av./Alta Cresta Av.	Sensitive	48.0	51.6	3.5	Yes	5.0	No
23	Iris Av.	e/o Chicago Av./Alta Cresta Av.	Sensitive	47.4	47.4	0.0	Yes	5.0	No

[1] Based on a review of existing aerial imagery. Noise sensitive uses limited to existing residential land uses.
[2] The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the receiving land use.
[3] Does the Project create an incremental noise level increase exceeding the significance criteria?
(Urban Crossroads, 2025, Table 8-7)~~(Urban Crossroads, 2023f, Table 8-7)~~

~~Table 4.13-15~~Table 4.13-17 EAPC ~~2027~~ 2030 With Project Noise Increases

ID	Road	Segment	Receiving Land Use[1]	CNEL at Receiving Land Use (dBA)[2]			Noise-Sensitive Land Use?	Incremental Noise Level Increase Threshold[3]	
				No Project	With Project	Project Addition		Limit	Exceeded?
1	Van Buren Bl.	n/o Victoria Av.	Sensitive	71.5	71.5	0.0	Yes	1.5	No
2	Van Buren Bl.	s/o Victoria Av.	Sensitive	~~74.7~~75.0	75.0	0.~~3~~0	Yes	1.5	No
3	Mockingbird Canyon Rd.	s/o Van Buren Bl.	Sensitive	75.~~3~~7	75.8	0.~~5~~1	Yes	1.5	No
4	Washington St.	n/o Van Buren Bl.	Sensitive	77.~~0~~8	77.8	0.~~8~~0	Yes	1.5	No
5	Washington St.	s/o Van Buren Bl.	Sensitive	~~72.8~~73.1	73.1	0.~~3~~0	Yes	1.5	No
6	Chicago Av./Alta Cresta Av.	n/o Van Buren Bl.	Sensitive	~~58.1~~54.2	58.0	~~-0.1~~3.8	Yes	5.0	No
7	Chicago Av./Alta Cresta Av.	s/o Van Buren Bl.	Sensitive	58.~~8~~7	58.8	0.~~0~~1	Yes	5.0	No
8	Gamble Av.	s/o Iris Av.	Sensitive	~~53.0~~46.6	53.0	~~0.0~~6.4	Yes	5.0	~~No~~**Yes**
9	Wood Rd.	n/o Van Buren Bl.	Sensitive	67.~~9~~4	67.4	-0.~~5~~0	Yes	1.5	No
10	Wood Rd.	s/o Van Buren Bl.	Sensitive	69.~~2~~1	69.2	0.~~0~~1	Yes	1.5	No
11	Trautwein Rd./Cole Av.	n/o Van Buren Bl.	Sensitive	~~73.3~~72.9	72.9	-0.40	Yes	1.5	No
12	Trautwein Rd./Cole Av.	s/o Van Buren Bl.	Sensitive	71.2	71.2	0.0	Yes	1.5	No
13	Victoria Av.	w/o Van Buren Bl.	Sensitive	~~71.0~~70.5	70.6	-0.41	Yes	1.5	No
14	Victoria Av.	e/o Van Buren Bl.	Non-Sensitive	~~67.4~~66.9	67.0	-0.41	No	n/a	No
15	Van Buren Bl.	w/o Washington St.	Non-Sensitive	72.3	72.4	0.1	No	3.0	No
16	Van Buren Bl.	e/o Washington St.	Non-Sensitive	73.3	73.4	0.1	No	3.0	No
17	Van Buren Bl.	w/o Chicago Av./Alta Cresta Av.	Sensitive	~~73.2~~72.7	72.8	-0.41	Yes	1.5	No
18	Van Buren Bl.	e/o Chicago Av./Alta Cresta Av.	Sensitive	~~73.1~~72.5	72.7	-0.42	Yes	1.5	No
19	Van Buren Bl.	e/o Wood Rd.	Non-Sensitive	72.8~~3~~	72.4	-0.41	No	3.0	No
20	Van Buren Bl.	e/o Trautwein Rd./Cole Av.	Sensitive	~~72.4~~71.9	72.0	-0.41	Yes	1.5	No
21	Iris Av.	w/o Gamble Av.	Sensitive	41.~~5~~0	41.0	-0.~~5~~0	Yes	5.0	No
22	Iris Av.	w/o Chicago Av./Alta Cresta Av.	Sensitive	~~51.8~~48.0	51.6	~~-0.2~~3.6	Yes	5.0	No
23	Iris Av.	e/o Chicago Av./Alta Cresta Av.	Sensitive	47.~~9~~4	47.4	-0.~~5~~0	Yes	5.0	No

[1] Based on a review of existing aerial imagery. Noise sensitive uses limited to existing residential land uses.
[2] The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the receiving land use.
[3] Does the Project create an incremental noise level increase exceeding the significance criteria (Table 4-1 of *Technical Appendix J*)?
(Urban Crossroads, 2025, Table 8-8)~~(Urban Crossroads, 2023f, Table 8-8)~~

CNEL. ~~The decreases in noise levels shown in Table 4.13-16 are due to other projects and improvements~~ As with the Existing plus Project condition, land uses adjacent to the study area roadway ~~segments~~ of Gamble Avenue south of Iris Avenue would experience would experience ~~less than~~ significant noise level increases due to unmitigated Project-related traffic noise level~~s under EAPC 2027 traffic conditions~~ increases. Traffic noise increases along all other segments would be less than significant.

Although Project-related traffic noise increases along Gamble Avenue (Segment #8) would exceed the identified threshold of significance, the data presented in Table 8-4 of the Project-specific NIA indicates that with the addition of Project traffic, sensitive receptors along this roadway segment only would be exposed to traffic-related noise of 53.0 dBA CNEL. As indicated in Table N-1 of the General Plan Noise Element, residential uses are considered "Normally Acceptable" at noise levels up to 60 dBA CNEL; thus, the Project's traffic-related noise increases along this segment of Gamble Avenue would not expose nearby sensitive receptors to unacceptable noise levels. In addition, as with the existing conditions, the existing noise level near the intersection of Iris Avenue and Gamble Avenue shows an existing ambient noise level of 56.7 dBA CNEL, whereas the data presented in Table 8-3 shows that traffic-related noise along this segment of Gamble without the addition of Project traffic would be 46.6 dBA. Thus, accounting for the measured ambient noise levels (56.7 dBA CNEL) in evaluating Project-related traffic noise levels (53.0 dBA CNEL), noise level increases due to Project traffic along this roadway segment would be less than 2.0 dBA CNEL, which would be below the significance criteria. Therefore, Project-related traffic noise increases under EAPC (2030) conditions would be less than significant.

4. Horizon Year (2045) Traffic Noise Level Increases

Table 8-3 of the Project's NIA (*Technical Appendix J*) presents the Horizon Year 2045 without Project conditions CNEL noise levels. The Horizon Year 2045 without Project exterior noise levels are expected to range from 41.0~~5~~ to 78.4 dBA CNEL, without accounting for any noise attenuation features such as noise barriers or topography. Table 8-6~~4~~ of the Project's NIA shows the Horizon Year 2045 with Project conditions would range from 41.0 to 78.4~~6~~ dBA CNEL. Table 4.13-18, *Horizon Year 2045 With Project Traffic Noise Increases*, shows that the Project off-site traffic noise level increases would range from less than-0.1~~5~~ to 6.1 dBA CNEL. (Urban Crossroads, 2025, p. 50)~~(Urban Crossroads, 2023f, p. 50)~~

Based on the significance criteria for off-site traffic noise presented in Table 4.13-3, land uses adjacent to the study area roadway of Gamble Avenue south of Iris Avenue (Segment #8) would experience significant noise level increases due to unmitigated Project-related traffic noise level increases. Traffic noise increases along all other segments would be less than significant. Although Project-related traffic noise increases along Segment #8 would exceed the identified threshold of significance, the data presented in Table 4.13-18 shows that with the addition of Project traffic, sensitive receptors along this roadway segment only would be exposed to traffic-related noise of 53.1 dBA CNEL. As indicated in Table N-1 of the General Plan Noise Element, residential uses are considered "Normally Acceptable" at noise levels up to 60 dBA CNEL; thus, the Project's traffic-related noise increases along this segment of Gamble Avenue would not expose nearby sensitive receptors to a substantial permanent increase in noise levels (Riverside County, 2021a, Table N-1). ~~In addition, it should be noted that the "No Project" noise levels presented in Table 4.13-17 show lower noise levels along Gamble Avenue than the noise measurements that were collected by Urban Crossroads.~~ As previously shown in Table 4.13-1, the existing noise measurements collected by Urban Crossroads near the intersection of Iris Avenue and Gamble Avenue (Location L5) shows an existing ambient noise level of 56.7~~8.9~~ dBA Leq ~~during daytime~~

~~hours and 56.1 dBA Leq during nighttime hours~~CNEL, whereas the data presented in Table 4.13-18 shows that traffic-related noise along this segment of Gamble without the addition of Project traffic ~~only~~ would be 4~~6.6~~7.0 dBA. Thus, accounting for the measured ambient noise levels (56.7 dBA CNEL) in evaluating Project-related traffic noise levels (53.1 dBA CNEL), noise level increases due to Project traffic along this roadway segment would be less than 2.0 dBA CNEL, which would be below the significance criteria. –Therefore, Project-related traffic noise increases under Horizon Year (2045) conditions would be ~~Thus, if the analysis were to assume the actual measured ambient noise levels in estimating Project related traffic noise increases, noise increases due to Project traffic along this roadway segment would be less than 1 dBA, which would be below the significance criteria. Therefore, Project related traffic noise increases under Horizon Year 2045 conditions would be l~~ess than significant. (Urban Crossroads, 2025, p. 50)~~(Urban Crossroads, 2023f, p. 50)~~

D. On-Site Transportation Noise Impacts

An on-site exterior noise impact analysis has been completed to determine the traffic noise exposure and to identify potential necessary noise abatement measures for the Project. The primary source of noise impacts to the Project site would be traffic noise from Chicago Avenue and Iris Avenue. The Project also would experience some background traffic noise from the Project's internal local streets; however, due to low traffic volume/speed, traffic noise from these roads would not make a significant contribution to the noise environment. (Urban Crossroads, 2025, p. 39)~~(Urban Crossroads, 2023f, p. 39)~~

1. On-Site Exterior Noise Analysis

Using the FHWA traffic noise prediction model and the parameters outlined in Tables 6-1 to 6-4 of the Project's NIA (*Technical Appendix J*), the expected future exterior noise levels for individual lots were calculated. Table 4.13-19, *Future Exterior Noise Levels*, presents a summary of future exterior noise levels in the outdoor living areas (backyards) within the Project site. The on-site traffic noise level impacts indicate that the outdoor living areas adjacent to Chicago Avenue and Iris Avenue would experience unshielded exterior noise levels ranging from 61.3 to 64.2 dBA CNEL. As shown in Table 4.13-19, lots adjacent to Chicago Avenue and Iris Avenue would satisfy the County of Riverside exterior noise level standards for residential land uses; thus, traffic-related noise would not expose the exterior of future Project homes to noise levels exceeding the County's standard of 65 dBA CNEL, and impacts would be less than significant. The on-site traffic noise analysis calculations are provided in Appendix 7.1 to the Project's NIA. (Urban Crossroads, 2025, p. 39)~~(Urban Crossroads, 2023f, p. 39)~~

2. On-Site Interior Noise Analysis

The future noise levels were calculated at the façades of future on-site homes to ensure that the interior noise levels would comply with the County of Riverside 45 dBA CNEL interior noise standards. 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 Reduction (NR) of approximately 12 dBA with "windows open" and a minimum 25 dBA noise reduction with "windows closed." However, sound leaks, cracks and openings within the window assembly can greatly diminish its effectiveness in reducing noise. Several methods are used to improve interior noise reduction, including: [1] weather-stripped solid core exterior doors; [2] upgraded dual glazed windows; [3] mechanical ventilation/air conditioning; and [4] exterior wall/roof assemblies free of cut-outs or openings.

~~Table 4.13-16~~Table 4.13-18 Horizon Year 2045 With Project Traffic Noise Increases

ID	Road	Segment	Receiving Land Use[1]	CNEL at Receiving Land Use (dBA)[2]			Noise-Sensitive Land Use?	Incremental Noise Level Increase Threshold[3]	
				No Project	With Project	Project Addition		Limit	Exceeded?
1	Van Buren Bl.	n/o Victoria Av.	Sensitive	72.3	72.4	0.1	Yes	1.5	No
2	Van Buren Bl.	s/o Victoria Av.	Sensitive	75.3	75.4	0.1	Yes	1.5	No
3	Mockingbird Canyon Rd.	s/o Van Buren Bl.	Sensitive	76.1	76.1	0.0	Yes	1.5	No
4	Washington St.	n/o Van Buren Bl.	Sensitive	78.4	78.6	0.2	Yes	1.5	No
5	Washington St.	s/o Van Buren Bl.	Sensitive	73.5	73.5	0.0	Yes	1.5	No
6	Chicago Av./Alta Cresta Av.	n/o Van Buren Bl.	Sensitive	55.1	58.3	3.2	Yes	5.0	No
7	Chicago Av./Alta Cresta Av.	s/o Van Buren Bl.	Sensitive	59.1	59.2	0.1	Yes	5.0	No
8	Gamble Av.	s/o Iris Av.	Sensitive	47.0	53.1	6.1	Yes	5.0	**Yes**
9	Wood Rd.	n/o Van Buren Bl.	Sensitive	67.4	67.4	0.0	Yes	1.5	No
10	Wood Rd.	s/o Van Buren Bl.	Sensitive	69.1	69.2	0.1	Yes	1.5	No
11	Trautwein Rd./Cole Av.	n/o Van Buren Bl.	Sensitive	72.9	72.9	0.0	Yes	1.5	No
12	Trautwein Rd./Cole Av.	s/o Van Buren Bl.	Sensitive	71.2	71.2	0.0	Yes	1.5	No
13	Victoria Av.	w/o Van Buren Bl.	Sensitive	70.5	70.6	0.1	Yes	1.5	No
14	Victoria Av.	e/o Van Buren Bl.	Non-Sensitive	66.9	67.0	0.1	No	n/a	No
15	Van Buren Bl.	w/o Washington St.	Non-Sensitive	72.3	72.4	0.1	No	3.0	No
16	Van Buren Bl.	e/o Washington St.	Non-Sensitive	73.3	73.4	0.1	No	3.0	No
17	Van Buren Bl.	w/o Chicago Av./Alta Cresta Av.	Sensitive	72.7	72.8	0.1	Yes	1.5	No
18	Van Buren Bl.	e/o Chicago Av./Alta Cresta Av.	Sensitive	72.5	72.7	0.2	Yes	1.5	No
19	Van Buren Bl.	e/o Wood Rd.	Non-Sensitive	72.3	72.4	0.1	No	3.0	No
20	Van Buren Bl.	e/o Trautwein Rd./Cole Av.	Sensitive	71.9	72.0	0.1	Yes	1.5	No
21	Iris Av.	w/o Gamble Av.	Sensitive	41.0	41.0	0.0	Yes	5.0	No
22	Iris Av.	w/o Chicago Av./Alta Cresta Av.	Sensitive	48.0	51.6	3.6	Yes	5.0	No
23	Iris Av.	e/o Chicago Av./Alta Cresta Av.	Sensitive	47.4	47.4	0.0	Yes	5.0	No

[1] Based on a review of existing aerial imagery. Noise sensitive uses limited to existing residential land uses.
[2] The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the receiving land use.
[3] Does the Project create an incremental noise level increase exceeding the significance criteria (Table 4-1 of *Technical Appendix J*)?
(Urban Crossroads, 2025, Table 8-9)~~(Urban Crossroads, 2023f, Table 8-9)~~

~~Table 4.13-17~~Table 4.13-19 Future Exterior Noise Levels

Lot	Roadway	Unmitigated Exterior Noise Level (dBA CNEL)[1]			
		1st Floor	2nd Floor	3rd Floor	4th Floor
11	Chicago Av.	61.3	62.3	61.9	61.3
227	Iris Av.	64.2	64.0	63.6	63.0
200		64.2	64.1	63.7	63.2
165		62.9	62.7	62.3	61.9

[1] Exterior noise level calculations are included Appendix 5.1 of the Project's NIA (EIR *Technical Appendix J*).
(Urban Crossroads, 2025, Table 7-1)~~(Urban Crossroads, 2023f, Table 7-1)~~

Tables 7-2 and 7-3 of the Project's NIA (*Technical Appendix J*) show that the lots facing Chicago Avenue and Iris Avenue will experience future unmitigated noise levels ranging from ~~63.2 to 65.9~~ 61.3 to 64.2 at the first-floor building façade, and 6~~2~~1.3 to 64.1~~2~~ dBA CNEL at the second-floor building façade. The interior noise level analysis shows that the interior noise areas would require a 16.3 to ~~20.9~~19.2 dBA CNEL reduction to comply with the County of Riverside 45 dBA CNEL interior noise level standard, which is greater than the minimum 12 dBA reduction with windows open and will require a windows-closed condition and mechanical ventilation (e.g., air conditioning). The Project Applicant intends to provide each unit in the development with mechanical ventilation, thus the windows can be kept in a closed position. Based on standard construction techniques, interior noise standards can be satisfied using standard windows and construction techniques. Therefore, the Project would satisfy the County of Riverside 45 dBA CNEL interior noise level standards for residential development. (Urban Crossroads, 2025, p. 40) ~~(Urban Crossroads, 2023f, p. 40)~~

***Threshold d.:* Would the Project result in the generation of excessive ground-borne vibration or ground-borne noise levels?**

The Project only has the potential to result in the generation of excessive ground-borne vibration or ground-borne noise levels during construction, as the residential uses proposed as part of the Project are not associated with excessive ground-borne vibration or ground-borne noise levels. Accordingly, the analysis below focuses on potential vibration impacts during typical construction activities, vibration impacts associated with blasting activities during site grading, and vibration impacts associated with the proposed rock crushing activities on site that would occur during grading activities.

A. Typical Construction Vibration Impacts

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 ground-borne vibration from Project construction activities would cause only intermittent, localized intrusion. Ground-borne vibration levels resulting from typical construction activities occurring within the Project site were estimated by data published by the FTA. Ground vibration levels associated with various types of construction equipment previously were summarized in Table 4.13-5. Based on the representative vibration levels presented for various construction equipment types, it is possible to estimate the potential Project construction vibration levels using the vibration assessment methods defined by ~~the~~ Caltrans (and as discussed in more detail in Subsection 11.5 of the Project's NIA, included as *Technical Appendix J*). (Urban Crossroads, 2025, p. 69)~~(Urban Crossroads, 2023f, p. 69)~~

Using the vibration source level of construction equipment provided on Table 4.13-5 and the construction vibration assessment methodology published by the FTA, it is possible to estimate the Project vibration impacts. Table 4.13-20, *Project General Construction Vibration Levels*, presents the expected Project-related vibration levels at the nearby receiver locations. At distances ranging from 72 to 187 feet from Project construction activities, construction vibration velocity levels are estimated to range from less than 0.01 to 0.01 in/sec PPV and would not exceed the County of Riverside threshold of 0.~~04~~30 in/sec PPV at off-site receivers, as shown on Table 4.13-20. Therefore, the Project-related vibration impacts during typical construction activities would be less than significant. (Urban Crossroads, 2025, p. 69)~~(Urban Crossroads, 2023f, p. 69)~~

~~Table 4.13-18~~Table 4.13-20 Project General Construction Vibration Levels ~~(Unmitigated)~~

Receiver Location[1]	Distance to Const. Activity (Feet)[2]	Typical Construction Vibration Levels PPV (in/sec)[3]						Thresholds PPV (in/sec)[4]	Thresholds Exceeded?[5]
		Small bulldozer	Crane	Jack-hammer	Loaded Trucks	Large Bulldozer	Highest Vibration Level		
R1	75'	0.00	0.00	0.01	0.01	0.02	0.02	0.30~~0.04~~	No
R2	187'	0.00	0.00	0.00	0.00	0.00	0.00	0.30~~0.04~~	No
R3	77'	0.00	0.00	0.01	0.01	0.02	0.02	0.30~~0.04~~	No
R4	79'	0.00	0.00	0.01	0.01	0.02	0.02	0.30~~0.04~~	No
R5	72'	0.00	0.00	0.01	0.02	0.02	0.02	0.30~~0.04~~	No

[1] Construction receiver locations are shown on Figure 4.13-8.
[2] Distance from receiver location to Project construction boundary.
[3] Based on the Vibration Source Levels of Construction Equipment (Table 4.13-5).
[4] Caltrans 2020.
[5] Does the peak vibration exceed the acceptable vibration thresholds?
"PPV" = Peak Particle Velocity
(Urban Crossroads, 2025, Table 11-5)~~(Urban Crossroads, 2023f, Table 11-5)~~

B. Blasting Vibration Analysis

Blasting associated with Project construction is expected to occur in the areas previously were shown on Figure 4.13-6, near existing residential homes surrounding the Project site. The major source of vibration due to rock blasting is expected to be from the individual charges placed in each drill hole within an 8-millisecond delay. Caltrans' *Transportation and Construction Vibration Guidance Manual* provides the human perception thresholds for vibration due to blasting at a peak particle velocity (PPV) level of 0.30~~02~~ in/sec and provides vibration velocity levels for various building materials susceptible to damage. For residential structures, the threshold of damage for vibration is approximately 0.5 in/sec PPV for cosmetic cracking and damage. (Urban Crossroads, 2025, p. 75)~~(Urban Crossroads, 2023f, p. 75)~~

Based on Caltrans's *Transportation and Construction Vibration Guidance Manual*, it is unusual for damage to be caused to residential structures from the vibrations due to blasting activities as other agencies' (U.S. Bureau of Mines and the Office of Surface Mining and Reclamation Enforcement) maximum vibration level limits have been shown to fail to cause any damage to existing homes. Often existing damage is perceived to have been due to nearby blasting operations as the detonation of the blast causes closer examination by homeowners of the structural integrity of their home. Determining the vibration levels from the blasting operations at the Project site is difficult due to the variability of conditions at the site, and the precise amount of blasting that would be required won't be known until grading activities at the Project site commence.

Without controls, vibration from blasting could exceed the identified threshold of significance of 0.04 in/sec PPV at any distance. This is evaluated as a potentially significant impact for which mitigation would be required. (Urban Crossroads, 2025, pp. 74-75)~~(Urban Crossroads, 2023f, pp. 74-75)~~

C. *Rock Crushing Vibration Analysis*

Using the vibration source level of construction equipment list provided on Table 4.13-4 that includes source levels for a rock crusher unit with conveyor and screens, a loader for loading the rock, and a hoe ram/breaker/hydraulic hammer fitted to an excavator for breaking rock, ~~for a hoe ram or breaker representing a percussion hammer fitted to an excavator for breaking rock~~ and the construction vibration assessment methodology published by the FTA, it is possible to estimate the Project rock crushing construction vibration impacts. Table 4.13-21, *Rock Crushing Equipment Vibration Levels*, presents the expected rock crushing construction equipment vibration levels when the equipment with the highest reference vibration activity operating at the closest point from the edge of rock crushing activity to each receiver location. At distances ranging from 1,319 feet to 2,927 feet from the rock crushing activities as shown on Figure 4.13-7, construction vibration levels are estimated to be below 0.01 PPV (in/sec) and would remain below the be below the 0.3 in/sec PPV threshold for vibration at all receiver locations. ~~County of Riverside 0.04 in/sec PPV threshold for vibration at all receiver locations~~. Therefore, the vibration impacts would be less than significant at all sensitive receptor locations during Project rock crushing construction activities at the Project site. (Urban Crossroads, 2025, p. 73)~~(Urban Crossroads, 2023f, p. 71)~~

~~Table 4.13-19~~Table 4.13-21 Rock Crushing Equipment Vibration Levels

Receiver Location[1]	Distance to Const. Activity (Feet)[2]	Typical Construction Vibration Levels PPV (in/sec)[3]						Thresholds PPV (in/sec)[4]	Thresholds Exceeded?[5]
		Small bulldozer	Crane	Jack-hammer	Loaded Trucks	Large Bulldozer	Highest Vibration Level		
R1	1,319'	0.00	0.00	0.00	0.00	0.00	0.00	~~0.04~~0.30	No
R2	2,568'	0.00	0.00	0.00	0.00	0.00	0.00	~~0.04~~0.30	No
R3	2,613'	0.00	0.00	0.00	0.00	0.00	0.00	~~0.04~~0.30	No
R4	2,927'	0.00	0.00	0.00	0.00	0.00	0.00	~~0.04~~0.30	No
R5	1,975'	0.00	0.00	0.00	0.00	0.00	0.00	~~0.04~~0.30	No

[1] Construction receiver locations are shown on Figure 4.13-7.
[2] Distance from receiver location to Project construction boundary.
[3] Based on the Vibration Source Levels of Construction Equipment (Table 4.13-5).
[4] County of Riverside General Plan.
[5] Does the peak vibration exceed the acceptable vibration thresholds?
"PPV" = Peak Particle Velocity
(Urban Crossroads, 2025, Table 11-7)~~(Urban Crossroads, 2023f, Table 11-7)~~

4.13.7 Cumulative Impact Analysis

The cumulative study area for the issue of noise includes the Project vicinity as well as areas adjacent to roadways evaluated by the Project's TA (*Technical Appendix J*). Areas outside of the cumulative study area are too far away to be adversely impacted by noise and ground-borne vibration generated as a result of the proposed Project.

As indicated under the analysis of Thresholds a. and b., the Project would not be subject to excessive noise levels associated with public airports, public use airports, or private airstrips. There are no components of the proposed Project that would cause or contribute to increased airport-related noise in the area. As such, impacts would be less-than-cumulatively considerable.

As indicated under the analysis of Threshold c., typical Project-related construction activities would not expose any nearby sensitive receptors to noise levels exceeding the identified threshold of significance of 80 dBA Leq. While it is possible that Project construction activities could occur simultaneously with construction activities from cumulative developments, based on the list of cumulative developments identified by the Project's TA, which were previously depicted on EIR Figure 4.0-1, the only cumulative developments that could be under simultaneous construction occur along Van Buren Boulevard. The Project's highest construction-related noise levels at the nearest sensitive receptors would be 61.3 dBA Leq, as previously shown in Table 4.13-8, which is far below the identified threshold of significance of 80 dBA Leq. Thus, even if Project construction-related noise levels were to be combined with construction noise from cumulative developments, the resulting noise levels would not have the potential to exceed 80 dBA Leq. Thus, cumulatively-considerable impacts due to construction-related noise would be less than significant.

In addition, the analysis under Threshold c. demonstrates that noise from Project-related blasting activities would not expose nearby sensitive receptors to noise levels in excess of the OSMRE and the CFR standards for airblasts at the nearest sensitive receptor. Blasting activities consist of a single-event source of noise that would be very short in duration, and thus there is no potential for Project-related blasting activities to result in cumulatively-considerable noise increases at nearby sensitive receptors. Accordingly, cumulatively-considerable noise impacts during construction-related blasting activities would be less than significant.

The analysis under Threshold c. also demonstrates that the highest Project-related operational noise levels at nearby sensitive receptors would be 35.5 dBA Leq during the daytime and 32.8 dBA Leq during the nighttime (as previously shown on Table 4.13-13), which is well below the daytime and nighttime thresholds of 55 dBA Leq and 45 dBA Leq, respectively. In addition, the Project's increase in ambient noise level due to Project operations would be 0.4 dBA Leq during daytime hours and 0.3 dBA Leq during nighttime hours, which is far below the 5.0 dBA Leq increase that is identified as the threshold of significance for Project-related operational noise increases. Accordingly, the Project has no potential to result in cumulatively-considerable noise impacts during long-term operations, and impacts would therefore be less than significant on a cumulatively-considerable basis.

The analysis of Threshold c. also discloses the Project's potential cumulatively-considerable traffic-related noise impacts. As indicated in Table 4.13-17, under EAPC (~~2027~~2030) conditions, Project-related traffic noise, when considered in the context of traffic from ambient growth and cumulative developments, would not expose any nearby sensitive receptors to traffic-related noise levels exceeding the identified thresholds of significance. Thus, Project traffic-related noise impacts under EAPC (~~2027~~2030) conditions would be less than significant on a cumulatively-considerable basis.

As indicated in Table 4.13-18 under the analysis of Threshold c., under Horizon Year (2045) conditions Project-related traffic noise, when considered in the context of traffic from buildout of the Riverside County General Plan and the general plans of other local jurisdictions, would result in a noise increase of 6.1 dBA

along the segment of Gamble Avenue south of Iris Avenue, which would exceed the identified 5.0 dBA threshold of significance. Although Project-related traffic noise increases would exceed the identified threshold of significance, the data presented in Table 4.13-18 shows that with the addition of Project traffic and traffic from cumulative developments, sensitive receptors along this roadway segment only would be exposed to traffic-related noise of 53.1 dBA. As indicated in Table N-1 of the General Plan Noise Element, residential uses are considered "Normally Acceptable" at noise levels up to 60 dBA CNEL; thus, the Project's traffic-related noise increases along this segment of Gamble Avenue would not expose nearby sensitive receptors to a substantial permanent increase in noise levels (Riverside County, 2021a, Table N-1). In addition, it should be noted that the "No Project" noise levels presented in Table 4.13-18 show lower noise levels along Gamble Avenue than the noise measurements that were collected by Urban Crossroads. As previously shown in Table 4.13-1, the existing noise measurements collected by Urban Crossroads near the intersection of Iris Avenue and Gamble Avenue (Location L5) shows an existing ambient noise level of 58.9 dBA Leq during daytime hours and 56.1 dBA Leq during nighttime hours, whereas the data presented in Table 4.13-18 shows that traffic-related noise along this segment of Gamble without the addition of Project traffic only would be 47.0 dBA. Thus, if the analysis were to assume the actual measured ambient noise levels in estimating Project-related traffic noise increases, noise increases due to Project traffic along this roadway segment would be less than 1 dBA, which would be below the significance criteria. Therefore, Project-related traffic noise increases under Horizon Year 2045 conditions would be less than significant. (Urban Crossroads, 2025, p. 50)~~(Urban Crossroads, 2023f, p. 50)~~

The analysis of potential impacts due to on-site exterior and interior traffic-related noise levels as presented under the analysis of Threshold c. shows potential traffic-related noise impacts affecting future residential dwelling units on site. Thus, there is no potential for cumulatively-considerable impacts associated with traffic-related noise affecting future residential uses on site.

The analysis under Threshold d. shows that typical Project-related construction activities would not expose any nearby sensitive receptors to construction-related vibration exceeding the identified threshold of significance of 0.~~04~~30 in/sec PPV, as the highest Project-related vibration levels at nearby sensitive receptors only would be 0.02 in/sec PPV. While it is possible that Project construction activities could occur simultaneously with construction activities from cumulative developments, based on the list of cumulative developments identified by the Project's TA, which were previously depicted on EIR Figure 4.0-1, the only cumulative developments that could be under simultaneous construction occur along Van Buren Boulevard, while the nearest sensitive receptors to the Project site occur immediately north, east, and south of the Project site boundary. Due to distance between the Project site and nearby cumulative developments, the Project has no potential to expose nearby sensitive receptors to cumulative construction-related vibration levels exceeding 0.04 in/sec PPV. Accordingly, Project vibration-related impacts during typical construction activities would be less than significant on a cumulatively-considerable basis.

Although the analysis of Threshold d. shows that vibration-related impacts associated with Project blasting activities would be potentially significant prior to mitigation, blasting activities consist of a single-event source of vibration and each blasting event would be of very short in duration. The nearest cumulative developments occur along Van Buren Avenue and much farther from the nearest sensitive receptors than the Project site (as previously shown on Figure 4.0-1), and vibration levels decrease rapidly with distance from the source. Thus, it is highly unlikely that other sources of vibration from cumulative developments, when combined with

Project-related blasting vibration levels, would expose nearby sensitive receptors to vibration levels exceeding the identified threshold of significance of 0.04 in/sec PPV. Notwithstanding, and in an effort to provide a conservative evaluation of the Project's impacts, because the Project has the potential to result in significant impacts due to blasting-related vibration levels, there is a remote potential that other cumulative sources of vibration could occur in the local area and contribute to vibration levels at the sensitive receptors nearest to the Project site. Accordingly, Project impacts due to blasting-related vibration during construction would be cumulatively considerable prior to mitigation.

As indicated in the analysis of vibration impacts associated with rock crushing equipment during construction, vibration from rock crushing equipment during Project construction is not expected to expose any nearby sensitive receptors to vibration levels greater than 0.02~~0~~ in/sec PPV. Due to the distance between the proposed rock crushing activities and the nearest cumulative developments along Van Buren Boulevard, there is no potential for the Project to contribute to cumulative vibration levels from rock crushing activities that would exceed 0.~~04~~ 30 in/sec PPV. Accordingly, cumulatively-considerable vibration impacts associated with rock crushing activities would be less than significant.

4.13.8 Significance of Impacts Before Mitigation

Threshold a.: Less-than-Significant Impact. The Project site occurs approximately 4.5 miles west of the MARB/IPA, and is located within the AIA for this facility. According to the ALUCP prepared for the MARB/IPA, the Project site occurs within Compatibility Zone "D," which the ALUCP indicates is "mostly within the 55-CNEL contour." According to Table 2B of the Countywide ALUCP Policy Document, the Project's residential land uses are considered "clearly acceptable" with exterior noise levels below 55 dBA CNEL, and are considered "normally acceptable" with exterior noise levels up to 60 dBA CNEL. These noise compatibility levels also are consistent with Table N-1 of the General Plan Noise Element. Therefore, because the Project's proposed residential uses would not be exposed to airport-related noise levels exceeding 60 dBA CNEL, the Project would not expose people residing or working in the Project area to excessive airport-related noise levels, and impacts would be less than significant.

Threshold b.: Less-than-Significant Impact. The nearest private airstrip to the Project site is the Perris Valley Airport, located approximately 10.9 miles southeast of the Project site. According to the ALUCP prepared for the Perris Valley Airport, the Project site is located well outside of the 55 dBA CNEL contour for this facility. As indicated under the analysis of Threshold a., the Project's residential land uses are considered "clearly acceptable" with exterior noise levels below 55 dBA CNEL. As such, the Project would not expose people residing or working in the Project area to excessive noise levels associated with private airstrips, and impacts would therefore be less than significant.

Threshold c.: Less-than-Significant Impact. The maximum Project-related noise levels from typical construction activities would be 61.3 dBA Leq at the nearest sensitive receptor, which is well below the threshold of significance of 80 dBA Leq; thus, noise impacts during typical construction activities would be less than significant. During blasting activities, the nearest sensitive receptor would be exposed to blasting-related noise levels up to 70.2 dBA Lmax, which would not exceed the OSMRE and CFR lowest maximum Airblast Limit (30 CFR 816.67(b)) of 129 dBA Lmax; thus, noise from Project-related blasting activities would be less than significant. Accordingly, Project construction-related noise impacts would be less than significant.

Under long-term operating conditions, and as indicated on Table 4.13-13 through Table 4.13-15, the Project would generate daytime operational noise levels of up to 35.5 dBA Leq during daytime hours and 32.8 dBA Leq during nighttime hours at the nearest sensitive receptors, with a maximum increase in noise levels of 0.4 dBA Leq during daytime hours and 0.4 dBA Leq during nighttime hours at nearby sensitive receptors. Noise from long-term Project operations would not exceed the identified thresholds of significance at the nearest sensitive receptor of 55 dBA Leq during daytime hours and 45 dBA Leq during nighttime hours, and the Project-related noise level increase would not exceed the identified threshold of significance of 5.0 dBA Leq. Accordingly, noise from long-term Project operations would be less than significant at all sensitive receptor locations.

Based on the significance criteria for off-site traffic noise presented in subsection 4.13.4, land uses adjacent to the roadway segment of Gamble Avenue south of Iris Avenue would experience significant noise level increases due to unmitigated Project-related traffic noise levels under Existing plus Project conditions. However, the data presented in Table 4.13-16 shows that with the addition of Project traffic, sensitive receptors along this roadway segment only would be exposed to traffic-related noise of 52.6 dBA, while noise levels up to 60 dBA CNEL are considered "Normally Acceptable" for residential uses; thus, the Project's traffic-related noise increases along this segment of Gamble Avenue would not expose nearby sensitive receptors to a substantial permanent increase in noise levels. In addition, it should be noted that the "No Project" noise levels presented in Table 4.13-16 show lower noise levels along Gamble Avenue than the noise measurements that were collected by Urban Crossroads as shown in Table 4.13-1. Thus, if the analysis were to assume the actual measured ambient noise levels in estimating Project-related traffic noise increases, noise increases due to Project traffic along this roadway segment would be less than ~~1~~ 2.0 dBA, which would be below the significance criteria. Furthermore, the scenario in which Project traffic is added to existing traffic volumes would not actually occur, as Phase 1 of the Project would not be fully constructed and operated until November ~~2025~~2028, while the "Existing" conditions evaluated in the NIA reflects existing traffic as of ~~May 2022~~April 2025, when traffic count data was collected. Thus, this scenario is provided for information purposes only in order to fully analyze all of the traffic scenarios identified in the Project's Traffic Analysis (EIR *Technical Appendix J*). Accordingly, and for the reasons noted above, Project-related traffic increases under Existing plus Project conditions would be less than significant. (Urban Crossroads, 2025, p. 50)~~(Urban Crossroads, 2023f, p. 50)~~

As shown in Table 4.13-17, Project off-site traffic noise level increases would range from -0.~~5 to 0.8~~0 to 6.4 dBA CNEL under EAPC 2027 traffic conditions. Based on the significance criteria for off-site traffic noise presented in Table 4.13-3, land uses adjacent to the study area roadway segments would experience less-than-significant noise level increases due to unmitigated Project-related traffic noise levels under EAPC 2027 traffic conditions.

Table 4.13-18 shows that the Project off-site traffic noise level increases would range from -0.5 to 6.1 dBA CNEL under Horizon Year 2045 conditions. Based on the significance criteria for off-site traffic noise presented in Table 4.13-3, land uses adjacent to the study area roadway of Gamble Avenue south of Iris Avenue (Segment #8) would experience significant noise level increases due to unmitigated Project-related traffic noise level increases. However, the data presented in Table 4.13-18 shows that with the addition of Project traffic, sensitive receptors along this roadway segment only would be exposed to traffic-related noise of 53.1 dBA, while noise levels up to 60 dBA CNEL are considered "Normally Acceptable" for residential uses; thus, the

Project's traffic-related noise increases along this segment of Gamble Avenue would not expose nearby sensitive receptors to a substantial permanent increase in noise levels. In addition, it should be noted that the "No Project" noise levels presented in Table 4.13-18 show lower noise levels along Gamble Avenue than the noise measurements that were collected by Urban Crossroads as shown in Table 4.13-1. Thus, if the analysis were to assume the actual measured ambient noise levels in estimating Project-related traffic noise increases, noise increases due to Project traffic along this roadway segment would be less than 1 dBA, which would be below the significance criteria. Therefore, Project-related traffic noise increases under Horizon Year 2045 conditions would be less than significant.

Although not a significant impact under CEQA, the analysis shows that future homes on site adjacent to Chicago Avenue and Iris Avenue would satisfy the County of Riverside exterior noise level standards for residential land uses; thus, traffic-related noise would not expose the exterior of future Project homes to noise levels exceeding the County's standard of 65 dBA CNEL, and impacts would be less than significant. However, the analysis shows that future interior noise levels for homes along Chicago Avenue and Iris Avenue could exceed the County's interior noise standard of 45 dBA CNEL. The Project Applicant intends to provide each unit in the development with mechanical ventilation, thus the windows can be kept in a closed position. Based on standard construction techniques, interior noise standards can be satisfied using standard windows and construction techniques. Therefore, the Project would satisfy the County of Riverside 45 dBA CNEL interior noise level standards for residential development

Threshold d.: Significant Direct and Cumulatively-Considerable Impact. The residential uses proposed as part of the Project are not associated with excessive ground-borne vibration or ground-borne noise levels; thus, impacts due to excessive ground-borne vibration or ground-borne noise levels would be less than significant under long-term operating conditions. During normal construction activities, construction vibration velocity levels are estimated to range from less than 0.01 to 0.02~~1~~ in/sec PPV and would not exceed the County of Riverside threshold of 0.~~04~~ 30 in/sec PPV at off-site receivers, as shown on Table 4.13-20; therefore, the Project-related vibration impacts during typical construction activities would be less than significant. In addition, vibration from rock crushing activities on site during Project construction at the nearest sensitive receptor would range from less than 0.01 to 0.02 ~~be below 0.01~~ PPV (in/sec) and would remain below the County of Riverside 0.~~04~~ 30 in/sec PPV threshold for vibration; thus, vibration impacts from rock crushing activities would be less than significant. However, determining the vibration levels from the blasting operations at the Project site is difficult due to the variability of conditions at the site, and the precise amount of blasting that would be required won't be known until grading activities at the Project site commence. Without controls, vibration from blasting could exceed the identified threshold of significance of 0.~~04~~ 30 in/sec PPV at any distance. This is conservatively evaluated as a potentially significant direct and cumulatively-considerable impact for which mitigation would be required.

4.13.9 County Regulations, Design Requirements, and Mitigation

Applicable County Regulations and Design Requirements

The following are applicable regulations and design requirements within Riverside County. Although these requirements technically do not meet CEQA's definition for mitigation, they are imposed herein to ensure Project compliance with applicable County regulations and design requirements.

- All construction activities and haul truck deliveries shall adhere to Section 2.i of Riverside County Ordinance No. 847, which prohibits construction activities that make loud noise from occurring between 6:00 p.m. and 6:00 a.m. during the months of June through September, and between 6:00 p.m. and 7:00 a.m. during the months of October through May, and on Sundays and federal holidays. Exceptions to these time restrictions may be granted pursuant to Section 7 of Ordinance No. 847 (e.g., if needed to accommodate nighttime concrete pouring activities).

- Prior to approval of grading permits involving rock crushing activities, Riverside County shall condition the grading permit to require that the rock crushing equipment is located in the northwestern portion of the Project site in the location depicted on EIR Figure 4.13-7 for the duration of rock crushing activities.

Mitigation

MM 4.13-1 Prior to approval of any grading permits that require blasting activities and a blasting permit, the Project Applicant shall prepare and submit for County review and approval of a Blasting Noise and Vibration Monitoring and Abatement Plan ("Noise and Vibration Abatement Plan"). The required Noise and Vibration Abatement Plan shall include the name and qualifications of the person(s) responsible for monitoring and reporting blast vibrations. In addition, the Noise and Vibration Abatement Plan shall require a minimum of three seismographs for monitoring peak ground vibration and air-overpressure. The Noise and Vibration Abatement Plan also shall require that equipment and its use shall conform fully to the standards developed by the Vibration Section of the International Society of Explosive Engineers (ISEE). For all blasts, the Noise and Vibration Abatement Plan shall require monitoring of ground motion and air-overpressure at the nearest residential properties or other structure of concern. The Noise and Vibration Abatement Plan also shall specify a minimum trigger level for monitoring of 0.05 in/s for ground motion and 120 dB for air-overpressure. Additionally, the Noise and Vibration Abatement Plan shall require regular reporting of blasting and measurements to Riverside County, and shall include a copy of the instrument/software-generated blast monitoring report at each instrument location that includes measured peak particle velocity in inches per second, peak air-overpressure in linear-scale decibels, and vibration and air-overpressure event plots, with date and time of event recording. In addition, the Noise and Vibration Abatement Plan shall include the following requirements:

- Prior to commencement of any blasting, a pre-blast survey of the conditions of all existing property and aboveground utilities located within 300 feet of any potential blasting areas shall be conducted. The pre-blast survey shall include a photographic record of all visible and accessible structures, facilities, utilities, or other improvements. The survey shall document the interior and exterior conditions of all residential property and associated structures located within 500 feet of blasting areas. If property owners refuse surveys, provide copies of certified-mail letters documenting attempts to provide the survey by a third-party professional survey company. The required surveys shall include a description of the interior and exterior condition of the various structures examined. Descriptions shall include the locations of any cracks, damage, or other existing defects and shall include

information needed to identify and describe the defect, if any, and to evaluate the construction operations on the defect. Survey records shall include photos of all cracks and other damaged, weathered, or otherwise deteriorated structural conditions. If necessary, macro lenses and flash illumination shall be used to ensure defects are shown clearly in the photographs. Photos shall contain an accurate date stamp. No blasting shall occur prior to completion of surveys of surrounding residential properties. Surveys also shall be repeated at facilities or properties where damage concerns have been expressed by individual residents, property owners, or other concerned parties. Details of any observed changes to surveyed structures and documenting photos shall be reported and submitted to Riverside County.

- Blasting only shall be allowed Monday through Friday only between the hours of 8:00 a.m. and 5:00 p.m.
- No blasting shall occur closer than 100 feet from residential structures. In the event that non-rippable materials are encountered within 100 feet from any residential structure, alternative methods shall be employed to reduce blasting-related noise and vibration impacts. Alternative rock blasting within 100 feet of residential homes may include methods such as the drilling of holes in the largest area of rock, inserting expansive grout or small charges into each whole to fragment the rock into smaller pieces, and then crushing the pieces for transport or other use.
- No more than a total of 2,000 pounds of explosive shall be detonated each day, excluding detonators.
- All blasts located within 500 feet of any structures or above ground utilities shall be covered with woven steel cable or steel-cable and rubber-tire blasting mats with a minimum weight of 30 pounds per square foot. Woven polypropylene or similar weed-barrier fabric, covered with at least 6 inches of soil or sand shall be placed over blast areas to protect initiators before mats are placed. Mats shall be overlapped at least 3 feet and shall completely cover the blast area and extend at least three feet beyond the blast area in all directions. If any flyrock or blasted material is thrown more than 10 feet or half the distance to the nearest structure, whichever is less, blasting shall be suspended until the County's has approved a revised blasting plan showing revisions to assure adequate ground movement control.
- Before blasts are covered, all loose soils above the blast shall be removed where feasible. Remaining ground located within 20 feet of the blast shall be thoroughly wetted with water to suppress airborne dust. Sand or soils placed over weed-barrier fabric shall be similarly wetted before placing blast mats.
- If specified vibration limits are exceeded, blasting operations shall cease immediately and a revised blasting plan shall be submitted to the County. Blasting shall not resume until a revised blasting plan has been reviewed and the Contractor has expressed in writing the conditions that will be applied to further blasting work.

Project grading and blasting contractors shall be required to ensure compliance with the Noise and Vibration Abatement Plan requirements and shall permit periodic inspection of the

construction site by County of Riverside staff or its designee to confirm compliance. The requirements of the Noise and Vibration Abatement Plan also shall be specified in bid documents issued to prospective construction contractors. Riverside County shall review all monitoring reports to ensure compliance with the Noise and Vibration Abatement Plan, and shall have the authority to stop all blasting activities on site if it is determined that blasting activities are not being conducted in conformance with Noise and Vibration Abatement Plan and/or the above-listed requirements.

4.13.10 Significance of Impacts After Mitigation

Threshold d.: Less-than-Significant Impact with Mitigation Incorporated. Implementation of Mitigation Measure MM 4.13-1 would ensure that all future blasting activities occur on site in conformance with a County-approved blasting Noise and Vibration Abatement Plan. The mitigation would ensure that any potentially affected structures or utilities would be subject to inspections prior to commencement of any blasting activities, and additional surveys would be required where damage concerns have been expressed by individual residents, property owners, or other concerned parties. The provisions of the Noise and Vibration Abatement Plan also would impose restrictions on blasting activities within 100 feet and within 500 feet of residential structures, and would require monitoring of vibration levels during blasting. In the event that blasting activities exceed the specified vibration limit of 0.05 in/s for ground motion and 120 dB for air-overpressure, then all blasting activities would cease until a revised blasting plan is prepared and approved by Riverside County. Implementation of Mitigation Measure MM 4.13-1 would ensure that vibration-related impacts during construction-related blasting activities do not adversely affect any existing structures, and would reduce blasting-related vibration impacts to less-than-significant levels.

4.14 PALEONTOLOGICAL RESOURCES

This Subsection 4.14 evaluates the Project's potential to result in direct, indirect, or cumulatively-considerable impacts to paleontological resources. The analysis in this subsection is based, in part, on information from the report titled, "Updated Geotechnical Evaluation, Proposed Single-Family Residential Development, APNs 245-300-001 and -004, Northwest of Iris Avenue and Chicago Avenue, Woodcrest Area of Riverside County, California," prepared by GeoTek, Inc. (herein, "GeoTek"), dated September 21, 2021, and included as *Technical Appendix F1* to this EIR (GeoTek, 2021). Refer to Section 7.0*, References*, for a complete list of these and other reference sources.

4.14.1 EXISTING CONDITIONS

A. Geology

The Project site is situated in the Peninsular Ranges geomorphic province. The Peninsular Ranges province is one of the largest geomorphic units in western North America. It extends from the point of contact with the Transverse Ranges geomorphic province, southerly to the tip of Baja California. This province varies in width from about 30 to 100 miles. It is bounded on the west by the Pacific Ocean, on the south by the Gulf of California and on the east by the Colorado Desert Province. The Peninsular Ranges are essentially a series of northwest-southeast oriented fault blocks. Several major fault zones are found in this province. The Elsinore Fault zone and the San Jacinto Fault zone trend northwest-southeast and are mostly found near the middle of the province. The San Andreas Fault zone borders the northeasterly margin of the province, and the San Jacinto fault borders the province adjacent the Colorado Desert province (GeoTek, 2021, p. 6).

Specifically, the Project site is located within a large structural mass known as the Perris Block of the Peninsula Ranges providence. The Perris Block is a relatively stable mass of granitic bedrock that in places is overlain by alluvium and thin sedimentary and volcanic units. After formation of granitic rocks, the Perris Block experienced vertical movements that produced nearly flat erosional surfaces. Sediments emanating from the elevated portions of the Perris Block filled low lying areas of the region. The project area is in an area geologically mapped by others to be underlain by granitic bedrock. (GeoTek, 2021, p. 6)

B. Paleontological Resources

Paleontological resources represent the remains of prehistoric life, exclusive of any human remains, and include the localities where fossils were collected as well as the sedimentary rock formations in which they were found. The defining character of fossils or fossil deposits is their geologic age, typically older than recorded human history and/or older than the middle Holocene Epoch, which dates to circa 5,000 radiocarbon years.

Fossils, which are nonrenewable paleontological resources, are important for dating sedimentary rocks and thus determining the time of movement of faults against which those sediments lie. Eastern and western Riverside County have fossiliferous sediments that occur in various settings. In the western portion of Riverside County, fossils occur in sediments lying on the surface of crystalline bedrock or are deposited in or between the major fault zones. The eastern desert portions of Riverside County are marked by fault block mountains that contain older fossil-bearing sediments with younger fossil-containing deposits found around

dry lakes, along high stands of the Salton Sea and in terraces left by the Colorado River. (Riverside County, 2015a, p. 4.9-9)

Riverside County has an extensive record of fossil life. The record starts in Jurassic times, 150 million years ago, with diverse marine mollusks. The oldest Tertiary flora in Southern California is found east of Lake Elsinore and dates to around 60 million years ago. Fossils of 23 million-year-old oreodonts and camels, as well as camel tracks, were found in the Orocopia Mountains in central Riverside County. (Riverside County, 2015a, p. 4.9-10)

Marine advances are recorded in Corona and the Salton Trough. Marine sandstones of the Imperial Formation in the Salton Trough are found as far northwest as Cabazon. Three million years ago, near the present Interstate 15/Highway 91 interchange, a white sand beach lapped at the edge of the Pacific Ocean. The subsequent Ice Ages left fossils of giant sloths, mammoths, camels and bison that were preyed upon by giant bear, American lion and sabercats. (Riverside County, 2015a, p. 4.9-10)

Fossil resources generally occur only in areas of sedimentary rock (e.g., sandstone, siltstone, mudstone, claystone, or shale). Because of the infrequency of fossil preservation, fossils, particularly vertebrate fossils, are considered nonrenewable paleontological resources. Occasionally fossils may be exposed at the surface through the process of natural erosion or because of human disturbances; however, they generally lay buried beneath the surficial soils. Thus, the absence of fossils on the surface does not preclude the possibility of their being present within subsurface deposits, while the presence of fossils at the surface is often a good indication that more remains may be found in the subsurface.

C. Paleontological Sensitivity

According to Riverside County GIS, the Project site and surrounding areas are mapped as having a "Low Potential (L)" for containing paleontological resources. Areas identified as having "Low Potential (L)" include lands for which previous field surveys and documentation demonstrate as having a low potential for containing significant paleontological resources subject to adverse impacts. (Riverside County, 2015a, p. 4.9-11)

4.14.2 Applicable Regulatory Requirements

A. Federal Regulations

1. Paleontological Resources Preservation Act

The Paleontological Resources Preservation Act (PRPA) was signed into law on March 30, 2009 (Public Law 111-11, Title VI, Subtitle D; 16 U.S.C. §§ 470aaa - 470aaa-11). PRPA directs the Department of Agriculture (U.S. Forest Service) and the Department of the Interior (National Park Service, Bureau of Land Management, Bureau of Reclamation, and Fish and Wildlife Service) to implement comprehensive paleontological resource management programs. Section 6310 of PRPA specifically states, "as soon as practical after the date of enactment of this Act, the Secretary shall issue such regulations as are appropriate to carry out this subtitle, providing opportunities for public notice and comment." (NPS, 2020b)

B. State Regulations

1. California Administrative Code, Title 14, Section 4308

Section 4308, *Archaeological Features*, of Title 14 of the California Administrative Code provides that: "No person shall remove, injure, disfigure, deface, or destroy any object of archaeological or historical interest or value." (Westlaw, n.d.)

2. California Public Resources Code

Public Resources Code § 5097.5 states that a "person shall not knowingly and willfully excavate upon, or remove, destroy, injure, or deface, any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, rock art, or any other archaeological, paleontological or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over the lands." Public Resources Code § 30244 states that, "where development would adversely impact archaeological or paleontological resources as identified by the State Historic Preservation Officer, reasonable mitigation measures shall be required." (FindLaw, n.d.)

C. Local Regulations

1. Riverside County Planning Department Procedures

In order to ensure the review and protection of paleontological resources for projects subject to the California Environmental Quality Act (CEQA) and not otherwise categorically exempt, the Riverside County Geologist performs an initial review of Riverside County's database and mapped information for the subject site. When existing information indicates that a site proposed for development has high paleontological sensitivity, a paleontological resource impact mitigation program (PRIMP) is required for the project. The PRIMP shall specify the steps to be taken to mitigate impacts to paleontological resources. If the site warrants protection, then an Environmental Constraint is placed on the approved map for the project, stating that (Riverside County, 2015a, pp. 4.9-26 and -27):

> "This site, as delineated on this [Environmental Constraint Sheet] map and as indicated in the county's General Plan, has been mapped as having a high potential for containing significant nonrenewable fossil material. The proposed project's potential to impact paleontological resources has been determined to be possible. Therefore, mitigation of this potential impact in the form of monitoring of all site earth-moving activities and collection/curation of all significant fossils unearthed is required unless proven unnecessary through comprehensive literature research and site inspection."

When existing information indicates that a site proposed for development has low paleontological sensitivity, no direct mitigation is required unless a fossil is encountered during site development. Should a fossil be encountered, the Riverside County Geologist must be notified and a paleontologist must be retained by the project proponent. The paleontologist documents the extent and potential significance of the paleontological resources on the site and establishes appropriate mitigation measures for further site development. (Riverside County, 2015a, p. 4.9-27)

When existing information indicates that a site proposed for development has undetermined paleontological sensitivity, a report is filed with the Riverside County Geologist documenting the extent and potential

significance of the paleontological resources on site and identifying mitigation measures for the fossil and for impacts to significant paleontological resources. (Riverside County, 2015a, p. 4.9-27)

4.14.3 Basis for Determining Significance

Section VII of Appendix G to the CEQA Guidelines addresses typical adverse effects on paleontological resources, and includes the following threshold question to evaluate the Project's impacts to paleontological resources (OPR, 2018a):

- Would the Project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Significance thresholds are set forth in Riverside County's Environmental Assessment Checklist, as modified based on the 2018 updates to Section VII of Appendix G to the CEQA Guidelines, and indicate significant impacts would occur if the Project or any Project-related component would:

a. Directly or indirectly destroy a unique paleontological resource, site, or unique geologic feature.

The significance threshold set forth in Riverside County's Environmental Assessment Checklist, as modified by the 2018 updates to the CEQA Guidelines, was used to evaluate the significance of the proposed Project's impacts on paleontological resources.

4.14.4 Impact Analysis

Threshold a.:	***Would the Project directly or indirectly destroy a unique paleontological resource, site, or unique geologic feature?***

Under existing conditions, the Project site exhibits a moderate amount of topographic variability with elevations generally decreasing from southeast to northwest. A prominent drainage traverses the Project site in a northwesterly/southeasterly orientation, and runoff generated on a majority of the site sheet flows into this drainage. However, there are no unique geologic features within the Project boundaries.

Based on mapping information provided by Riverside County Geographic Information Systems (GIS), the Project site is mapped as having a "Low Potential (L)" for containing paleontological resources (RCIT, n.d.). Areas identified as having "Low Potential (L)" include lands for which previous field surveys and documentation demonstrate as having a low potential for containing significant paleontological resources subject to adverse impacts (Riverside County, 2015a, p. 4.9-11). As such, paleontological monitoring during Project-related grading and ground-disturbing activities would not be required for the Project. However, there is a remote potential that fossils may be discovered during grading and earthmoving activities, which is evaluated as a potentially significant impact of the proposed Project.

4.14.5 Cumulative Impact Analysis

This cumulative impact analysis considers development of the proposed Project in conjunction with other development projects and planned development in the vicinity of the Project site, including buildout of the

Riverside County General Plan Land Use Plan and the general plans of cities within the Project vicinity. This cumulative study area was selected for analysis because it encompasses a region in which geological conditions, and thus paleontological sensitivity, are similar to what occurs in the immediate vicinity of the Project site.

As indicated under the analysis of Threshold a., the Project site is mapped as having a "Low Potential (L)" for containing paleontological resources, indicating that monitoring for paleontological resources during Project construction is not warranted (RCIT, n.d.). However, there is a remote potential that fossils may be discovered during grading and earthmoving activities. As other cumulative developments within the region also have the potential to result in impacts to paleontological resources, the Project's remote potential for impacting paleontological resources is evaluated as potentially significant on a cumulatively-considerable basis.

4.14.6 Significance of Impacts Before Mitigation

Threshold a.: Significant Direct and Cumulatively-Considerable Impact. The Project would not impact any known paleontological resources or unique geological features. However, there is a remote potential that fossils may be discovered during grading and earthmoving activities. This is considered a potentially significant impact on both a direct and cumulatively-considerable basis.

4.14.7 County Regulations, Design Requirements, and Mitigation

Mitigation

MM 4.14-1 Prior to grading permit issuance, the Riverside County shall verify that the following applicable notes are included on the grading plans. Project contractors shall be required to ensure compliance with these notes and permit periodic inspection of the construction site by Riverside County staff or its designee to confirm compliance. These notes also shall be specified in bid documents issued to prospective construction contractors. These requirements only shall apply in the event that a paleontological resource(s) is uncovered during Project grading and earthmoving activities.

1. *If paleontological resources are discovered during earth disturbance activities, the discovery shall be cordoned off with a 100-foot radius buffer so as to protect the discovery from further potential damage, and a county-qualified paleontologist shall be consulted to assess the discovery. If the discovery is determined to be significant by the paleontologist, a Mitigation Monitoring and Reporting Program (MMRP) shall be initiated, which shall include notification of appropriate personnel involved and monitoring of earth disturbance activities:*

    a. *If a paleontological resource(s) are uncovered, monitoring of mass grading and excavation activities in areas identified as likely to contain paleontological resources shall be performed by a qualified paleontologist or paleontological monitor. Monitoring shall be conducted full-time in areas of grading or excavation in undisturbed sedimentary deposits.*

b. *Paleontological monitors shall be equipped to salvage fossils as they are unearthed to avoid construction delays. 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. The monitor shall notify the project paleontologist, who will then notify the concerned parties of the discovery.*

c. *Paleontological salvage during trenching and boring activities is typically from the generated spoils and does not delay the trenching or drilling activities. Fossils shall be collected and placed in cardboard flats or plastic buckets and identified by field number, collector, and date collected. Notes shall be taken on the map location and stratigraphy of the site, which is photographed before it is vacated, and the fossils are removed to a safe place. On mass grading projects, discovered fossil sites shall be protected by flagging to prevent them from being overrun by earthmovers (scrapers) before salvage begins. Fossils shall be collected in a similar manner, with notes and photographs being taken before removing the fossils. Precise location of the site shall be determined with the use of handheld GPS units. If the site involves remains from a large terrestrial vertebrate, such as large bone(s) or a mammoth tusk, that is/are too large to be easily removed by a single monitor, a fossil recovery crew shall excavate around the find, encase the find within a plaster and burlap jacket, and remove it after the plaster is set. For large fossils, use of the contractor's construction equipment may be solicited to help remove the jacket to a safe location.*

d. *Isolated fossils shall be collected by hand, wrapped in paper, and placed in temporary collecting flats or five-gallon buckets. Notes shall be taken on the map location and stratigraphy of the site, which is photographed before it is vacated, and the fossils are removed to a safe place.*

e. *Particularly small invertebrate fossils typically represent multiple specimens of a limited number of organisms, and a scientifically suitable sample can be obtained from one to several five-gallon buckets of fossiliferous sediment. If it is possible to dry screen the sediment in the field, a concentrated sample may consist of one or two buckets of material. For vertebrate fossils, the test is usually the observed presence of small pieces of bones within the sediments. If present, as many as 20 to 40 five-gallon buckets of sediment can be collected and returned to a separate facility to wet-screen the sediment.*

f. *In accordance with the "Microfossil Salvage" section of the Society of Vertebrate Paleontology guidelines (2010:7), bulk sampling and screening of fine-grained sedimentary deposits (including carbonate-rich paleosols) must be performed if the deposits are identified to possess indications of producing fossil "microvertebrates" to test the feasibility of the deposit to yield fossil bones and teeth.*

g. In the laboratory, individual fossils shall be cleaned of extraneous matrix, any breaks shall be repaired, and the specimen, if needed, shall be stabilized by soaking in an archivally approved acrylic hardener (e.g., a solution of acetone and Paraloid B-72).

h. Recovered specimens shall be prepared to a point of identification and permanent preservation (not display), including screen-washing sediments to recover small invertebrates and vertebrates. Preparation of individual vertebrate fossils is often more time-consuming than for accumulations of invertebrate fossils.

i. Identification and curation of specimens into a professional, accredited public museum repository with a commitment to archival conservation and permanent retrievable storage (e.g., Western Science Center [WSC], Natural History Museum of Los Angeles County [LACM], San Diego Natural History Museum [SDNHM], San Bernardino County Museum [SBCM], or Riverside Municipal Museum [RMM]) shall be conducted. The paleontological program shall include a written repository agreement prior to the initiation of mitigation activities. Prior to curation, the lead agency (i.e., Riverside County) shall be consulted on the repository/museum to receive the fossil material.

j. *A final 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(s). The report, when submitted to, and accepted by, the appropriate lead agency, 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.*

4.14.8 Significance of Impacts After Mitigation

Threshold a.: Less-than-Significant Impact with Mitigation Incorporated. Although not anticipated, in the remote event that paleontological resources are uncovered during grading and earthmoving activities, Mitigation Measure MM 4.14-1 would ensure that the area where the resource(s) was identified is subject to monitoring, and would further ensure that any uncovered fossils are appropriately treated. With implementation of Mitigation Measure MM 4.14-1, the Project's potential impacts to previously-undiscovered paleontological resources would be reduced to less-than-significant levels.

4.15 POPULATION AND HOUSING

This Subsection provides analysis that discloses existing population and housing data from Riverside County and assess the potential for impacts on population and housing associated with implementation of the Project. The analysis in this Subsection is based on information contained in the Riverside County General Plan (including the Housing Element and Lake Mathews/Woodcrest Area Plan) and the Southern California Association of Governments (SCAG) 6th Cycle Final Regional Housing Needs Assessment (RHNA) Allocation Plan (SCAG, 2021). Refer to Section 7.0, *References*, for a complete list of reference sources.

4.15.1 EXISTING CONDITIONS

A. *Existing Site Conditions*

Under existing conditions, a majority of the Project site is currently being used for agricultural production (orchards). A single-family home and several ancillary structures occur in the east-central portions of the Project site. Several dirt roadways traverse the eastern portions of the property in an east-west and north-south orientation. A large concrete pad also occurs in the southwestern portion of the Project site. The northwest portions of the Project site are vacant and undeveloped, and contain several prominent drainages as well as informal dirt pathways. Although the Project site contains only one single-family residence under existing conditions, the General Plan and Lake Mathews/Woodcrest Area Plan (LMWAP) designate the property for "Rural Community – Very Low Density Residential (RC-VLDR)" land uses. Based on the "midpoint" density range of 0.75 for RC-VLDR land uses, the General Plan and LMWAP assumed the 140.8-acre Project site would be developed with up to 106 dwelling units ("du"; 0.75 du/ac x 140.8 acres = 105.6 du). (RCIT, n.d.; Riverside County, 2021a, Appendix E, Table E-1)

B. *Population Projections*

The Project site is located within the Woodcrest community of unincorporated Riverside County. According to SCAG's 2024-2050 Regional Transportation Plan/Sustainable Communities Strategy ("Connect SoCal"), and as shown in Table 4.15-1, *SCAG Region Projected 2020-2050 Growth Forecast*, in 2020 the SCAG region had a population of approximately 18,830,000 persons. The population within the SCAG region is expected to increase to 20,909,000 persons by 2050, reflecting a 11.0% increase in population over the 30-year period. Generally, the forecast anticipates higher rates of household growth in counties with a historical job surplus, recognizing that, like at the regional scale, a county experiences practical limits to employment growth without being able to house the working population. Notably, Riverside County, which has historically provided space to house workers whose jobs are elsewhere, is expected to have a slightly higher rate of job growth than household growth. (SCAG, 2024, Demographics and Growth Forecast Technical Appendix)

Table 4.15-1 SCAG Region Projected 2020-2050 Growth Forecast

	2020	2025	2030	2035	2040	2045	2050
Population	18,830,000	19,068,000	19,476,000	19,946,000	20,346,000	20,684,000	20,909,000

(SCAG, 2024, Demographics and Growth Forecast Technical Appendix, Table 12)

Within the unincorporated portions of Riverside County, SCAG estimates that the total number of households would increase from 119,000 households in 2019 to 161,400 households in 2050, representing an increase of

35.6%, or 42,400 households. . (SCAG, 2024, Demographics and Growth Forecast Technical Appendix, Table 14)

4.15.2 Applicable Environmental Regulations

A. Federal Plans, Policies, and Regulations

1. Fair Housing Act

The federal Fair Housing Act protects people from discrimination when they are renting or buying a home, getting a mortgage, seeking housing assistance, or engaging in other housing-related activities. Additional protections apply to federally-assisted housing. (HUD, n.d.)

2. U.S. Census Bureau

The U.S. Census Bureau is the leading source of statistical information about the nation's people. Population statistics come from decennial censuses, which count the entire U.S. population every ten years, along with several other surveys. The American Community Survey (ACS) is an ongoing annual survey intended to help communities decide where to target services and resources. Demographic surveys measure income, poverty, education, health insurance coverage, housing quality, crime victimization, computer usage, and many other subjects. Economic surveys are conducted monthly, quarterly, and yearly, and cover selected sectors of the nation's economy. (USCB, n.d.)

B. State and Regional Plans, Policies, and Regulations

1. State Housing Law

The State law regulating residential occupancies is entitled the "State Housing Law" and is found in Division 13, Part 1.5 of the California Health and Safety Code (HSC), Sections 17910 to 17998.3 Regulations implementing the State Housing Law mandate statewide residential building standards for new construction, which are found in the California Code of Regulations, Title 24, also referred to as the California Green Building Standards Code (CalGreen). (CA Legislative Info, n.d.)

2. Southern California Association of Governments (SCAG)

SCAG determines regional housing needs and the share of the regional needs to be addressed by Riverside County and its constituent cities. SCAG is a Joint Powers Agency and is the designated Council of Governments (COG), Regional Transportation Planning Agency (RTPA), and Metropolitan Planning Organization (MPO) for the six-county region of Los Angeles, Orange, Ventura, San Bernardino, Riverside, and Imperial counties. SCAG's Regional Comprehensive Plan and Guide (RCPG) and Regional Housing Needs Assessment (RHNA) are tools for coordinating regional planning and housing development strategies in southern California. (SCAG, 2021)

3. Regional Housing Needs Assessment (RHNA)

State Housing Law (California Government Code Article 10.6, Sections 65580-65590) mandates that local governments, through COGs, identify existing and future housing needs in a Regional Housing Needs Assessment (RHNA). The RHNA provides recommendations and guidelines to identify housing needs within

counties and cities. The County of Riverside addresses its RHNA allocation through its General Plan Housing Element. The RHNA prepared by SCAG projects the unincorporated County's share of regional housing need for 2021-2029 as 40,647 homes, as summarized in Table 4.15-2, *Regional Housing Needs Allocation Unincorporated County (2021-2029).* (SCAG, 2021)

Table 4.15-2 Regional Housing Needs Allocation Unincorporated County (2021-2029)

Income Category	Allocation
Very Low	10,371
Low	6,627
Moderate	7,347
Above Moderate	16,302
Total	**40,647**

(SCAG, 2021)

4. Senate Bill 330 (Housing Accountability Act)

The Housing Accountability Act prohibits a local agency from disapproving, or conditioning approval in a manner that renders infeasible, a housing development project for very low, low-, or moderate-income households or an emergency shelter unless the local agency makes specified written findings based on a preponderance of the evidence in the record. The act specifies that one way to satisfy that requirement is to make findings that the housing development project or emergency shelter is inconsistent with both the jurisdiction's zoning ordinance and general plan land use designation as specified in any element of the general plan as it existed on the date the application was deemed complete. The act requires a local agency that proposes to disapprove a housing development project that complies with applicable, objective general plan and zoning standards and criteria that were in effect at the time the application was deemed to be complete, or to approve it on the condition that it be developed at a lower density, to base its decision upon written findings supported by substantial evidence on the record that specified conditions exist, and places the burden of proof on the local agency to that effect.

C. Regional and Local Plans, Policies, and Regulations

1. Riverside County General Plan Housing Element

The 2021-2029 Housing Element identifies and establishes policies intended to fulfill the housing needs of existing and future residents in Riverside County. It establishes policies that guide County decision-making and set forth an action plan to implement its housing goals. The Housing Element includes a review of previous housing goals, an assessment of the effectiveness of those goals, and an assessment of housing needs. Additionally, the Housing Element includes an inventory of resources and constraints related to meeting housing needs in Riverside County; an analysis of affordable housing developments and programs intended to preserve such housing; community goals for the maintenance, preservation, improvement and development of housing; and a program which sets forth a five-year schedule of actions that the County is undertaking or intends to undertake in implementing the polices set forth in the Housing Element. (Riverside County, 2021d, p. H-3)

2. SCAG Regional Transportation Plan/Sustainable Communities Strategy (Connect SoCal)

SCAG is a JPA under California State law, established as an association of local governments and agencies that convene as a forum to address regional issues. In April 2024,, SCAG's Regional Council adopted *Connect SoCal (2024-2050 Regional Transportation Plan/Sustainable Communities Strategy*). Connect SoCal is intended to create a plan for defining and solving regional problems including housing, traffic, water, air quality, and other regional challenges. Connect SoCal builds upon the elements of existing local general plans and provides a blueprint for where and how the southern California area will grow. (SCAG, 2024)

4.15.3 Basis For Determining Significance

Section XIV of Appendix G to the State CEQA Guidelines addresses typical adverse effects due to population and housing, and includes the following threshold questions to evaluate the Project's impacts due to population and housing (OPR, 2018a)

- *Would the project induce substantial unplanned population growth in an area, either directly (for example by proposing new homes and businesses) or indirectly (for example, through the extension of infrastructure)?*

- *Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?*

Significance thresholds are set forth in Riverside County's Environmental Assessment Checklist, are derived from Section XIV of Appendix G to the State CEQA Guidelines (listed above), and state that the proposed Project would have a significant impact to population and housing if construction and/or operation of the Project would:

a. *Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere;*
b. *Create a demand for additional housing, particularly housing affordable to households earning 80% or less of the County's median income; or*
c. *Induce substantial unplanned 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).*

The significance thresholds set forth in Riverside County's Environmental Assessment Checklist were used to evaluate the significance of the proposed Project's impacts on population and housing.

4.15.4 Impact Analysis

Threshold a:	***Would the Project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?***

Under existing conditions, there is one existing occupied residential home in the east-central portions of the Project site, along with several ancillary buildings. Implementation of the proposed Project would result in

the demolition of this existing home. However, as part of the Project a total of 231 single-family homes would be constructed on site, which would more than offset the loss of one single-family residence. Additionally, because there is only one single-family home on site under existing conditions, the Project would not displace "substantial" numbers of existing people or housing. As such, no impact would occur.

Threshold b.: Would the Project create a demand for additional housing, particularly housing affordable to households earning 80% or less of the County's median income?

The Project would entail development of the140.8-acre Project site with 231 single-family homes. As such, the Project would accommodate new housing opportunities within the County. The Project does not include any land uses, such as commercial retail or light industrial land uses, that would generate new employees or an increased demand for additional housing. Although the Project would not accommodate housing affordable to households earning 80% or less of the County's median income, the Project site is not designated for higher-density residential uses and is not identified as a site that is planned to help meet the County's RHNA obligations by the General Plan Housing Element. The Project would have no effect on the portions of the County that are planned to accommodate housing for lower-income households. Therefore, the Project would not create a demand for additional housing, particularly housing affordable to households earning 80% or less of the County's median income, and no impact would occur.

Threshold c: Would the Project induce substantial unplanned 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)?

As previously indicated, under existing conditions, the General Plan and LMWAP designate the property for "Rural Community – Very Low Density Residential (RC-VLDR)" land uses. Based on the "midpoint" density range of 0.75 for RC-VLDR land uses, the General Plan and LMWAP assumed the 140.8-acre Project site would be developed with up to 106 dwelling units ("du"; 0.75 du/ac x 140.8 acres = 105.6 du). Based on the persons per household (pph) estimate provided in Appendix E to the County's General Plan, the average household size in the LMWAP area is 3.34 pph. Thus, based on the site's mid-point density, the General Plan and LMWAP anticipate that the Project site would generate approximately 354 residents (106 households x 3.34 pph = 354.0 persons). As part of the Project, the Project site's General Plan and LMWAP land use designation would be changed to "Rural Community – Very Low Density Residential (RC-VLDR)" and the Project site would be developed with 231 single-family dwelling units. Based on the above-cited pph rate of 3.34 pph, the Project is anticipated to result in a future population on site of approximately 772 persons (231 household x 3.34 persons/household = 771.54 persons). (RCIT, n.d.; Riverside County, 2021a, Appendix E, Tables E-1 and E-2)

As with any residential development, the construction of new homes is considered a pull-factor or lure for new homeowners from outside the area, thereby having the potential to directly induce growth. However, the proposed Project would not result in substantial population growth to the area. The expected population increase of 421 persons as compared to the population anticipated based on the site's existing General Plan and LMWAP land use designations represents only 0.27% of the expected 155,100 person increase anticipated in the unincorporated portions of Riverside County between 2016 and 2045. Similarly, the increase in the number of dwelling units on site by 106 units as compared to the site's existing General Plan and LMWAP

land use designations represents only 0.30% of the expected 42,400 new households anticipated in unincorporated Riverside County by 2050.

Accordingly, although the projected population of the proposed Project is greater than anticipated by the site's existing General Plan and LMWAP land use designations, population growth on-site would not be substantial within the overall scale of unincorporated Riverside County or the various jurisdictions within the SCAG region. The increase in population associated with the proposed Project has been addressed under the relevant issue areas identified throughout this EIR (e.g., public services, recreation, transportation and traffic, etc.). Under each of these topics, Project-related impacts are determined to be less than significant, or mitigation measures have been imposed to reduce impacts to the maximum feasible extent. There are no components of the proposed population increase that have not already been addressed and accounted for throughout this EIR for the Project site. Therefore, the proposed Project would not directly induce substantial unplanned population growth in the area or otherwise result in growth that would result in significant adverse environmental effects not already addressed throughout this EIR. Additionally, the Project's proposed roadway and other infrastructure (e.g., water, sewer, etc.) improvements have been designed and sized to serve the proposed Project, and would not indirectly induce growth in the local area. Thus, a less-than-significant impact would occur.

4.15.5 Cumulative Impact Analysis

For purposes of analysis, the cumulative study area for the issue of population and housing encompasses western Riverside County as well as the various cities within western Riverside County. This study area is appropriate because growth in the region is largely controlled by the Riverside County General Plan and the general plans of the various cities within the County.

Under existing conditions, there is one existing occupied residential homes in the east-central portions of the Project site, along with several ancillary buildings. Implementation of the proposed Project would result in the demolition of this existing home. However, as part of the Project a total of 231 single-family homes would be constructed on site, which would more than offset the loss of one single-family residence. Accordingly, the Project would not result in any cumulatively-considerable impacts due to the displacement of substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.

The Project would entail development of the 140.8-acre Project site with 231 single-family homes. As such, the Project would accommodate new housing opportunities within the County. The Project does not include any land uses, such as commercial retail or light industrial land uses, that would generate new employees or an increased demand for additional housing. Accordingly, the Project would not result in any cumulatively-considerable impacts through the creation of a demand for additional housing, including housing affordable to households earning 80% or less of the County's median income.

With respect to unplanned population growth, as compared to the Project site's existing General Plan and LMWAP land use designation the Project would result in an increase in the expected population by 421 persons and an increase in the number of dwelling units on site by 126 units. Although the projected population of the proposed Project is greater than anticipated by the General Plan and LMWAP, population growth on-site would not be substantial within the overall scale of unincorporated Riverside County or the various jurisdictions within the SCAG region. Cumulatively-considerable impacts associated with the increase in population has

been addressed under the relevant issue areas identified throughout this EIR (e.g., public services, recreation, transportation, etc.). Under each of these topics, cumulatively-considerable impacts are determined to be less than significant, or mitigation measures have been imposed to reduce impacts to the maximum feasible extent. There are no components of the proposed population increase that have not already been addressed and accounted for throughout this EIR for the Project site. Additionally, the Project's proposed roadway and other infrastructure (e.g., water, sewer, etc.) improvements have been designed and sized to serve the proposed Project, and would not indirectly induce growth in the local area. Thus, Project impacts due to unplanned population growth would be less than significant on a cumulatively-considerable basis.

4.15.6 Significance Of Impacts Before Mitigation

Threshold a: No Impact. Under existing conditions, there is one existing occupied residential home in the east-central portions of the Project site, along with several ancillary buildings. Implementation of the proposed Project would result in the demolition of this existing home. However, as part of the Project a total of 231 single-family homes would be constructed on site, which would more than offset the loss of one single-family residence. Additionally, because there is only one single-family home on site under existing conditions, the Project would not displace "substantial" numbers of existing people or housing. As such, the Project would not displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere, and no impact would occur.

Threshold b: No Impact. The Project would entail development of the 140.8-acre Project site with 231 single-family homes, thereby accommodating new housing opportunities within the County. The Project does not include any land uses, such as commercial retail or light industrial land uses, that would generate new employees or an increased demand for additional housing. Therefore, the Project would not create a demand for additional housing, particularly housing affordable to households earning 80% or less of the County's median income, and no impact would occur.

Threshold c: Less-than-Significant Impact. Although the projected population of the proposed Project is greater than anticipated by the site's existing General Plan and LMWAP land use designations, population growth on-site would not be substantial within the overall scale of unincorporated Riverside County or the various jurisdictions within the SCAG region. The increase in population associated with the proposed Project has been addressed under the relevant issue areas identified throughout this EIR (e.g., public services, recreation, transportation and traffic, etc.). Under each of these topics, Project-related impacts are determined to be less than significant, or mitigation measures have been imposed to reduce impacts to the maximum feasible extent. There are no components of the proposed population increase that have not already been addressed and accounted for throughout this EIR for the Project site. Therefore, the proposed Project would not directly or indirectly induce substantial unplanned population growth in the area or otherwise result in growth that would result in significant adverse environmental effects not already addressed throughout this EIR. Additionally, the Project's proposed roadway and other infrastructure (e.g., water, sewer, etc.) improvements have been designed and sized to serve the proposed Project, and would not indirectly induce growth in the local area. Thus, a less-than-significant impact would occur.

4.15.7 County Regulations, Design Requirements, and Mitigation

No significant environmental impacts related to population and housing would occur due to the Project. No mitigation measures are required.

4.16 PUBLIC SERVICES

This Subsection provides information on existing public services and service levels for fire protection, police protection, schools, libraries, and public health facilities, and evaluates impacts to the environment that may result from the demand the Project may have on such services.

4.16.1 EXISTING CONDITIONS

A. Fire Protection/Emergency Medical Services

Fire protection services for the Project site are provided by the Riverside County Fire Department (RCFD). The RCFD provides a full range of fire services within the County and contracting cities. The level of service provided is dependent on response times, travel distance, and staffing workload levels established in the Riverside County Fire Protection and Emergency Medical Aid Plan. The Fire Protection and Emergency Medical Aid Plan contains four fire response categories that are used to determine the response times/travel distances for primary and secondary fire stations. The response categories are based on the amount of community build-out presumed in the Fire Protection and Emergency Medical Aid Plan. The Fire Department assumes in any given region that three or more fire engines respond to any reported fire.

The fire stations that would serve the Project as the first responder are RCFD Station #8 (Woodcrest), located approximately 1.6 roadway miles southwest of the Project site at 16533 Trisha Way, Riverside, CA 92504, and RCFD Station #11 (Orange Crest) located approximately 2.2 roadway miles northeast of the Project site at 19595 Orange Terrace Parkway, Riverside CA 92508 (Firewise, 2023, p. 19). According to Riverside County GIS, the Project site is not located within a State Responsibility Area/Federal Responsibility Area (RCIT, n.d.).

B. Sheriff Services

The Riverside County Sheriff's Department (RCSD) provides community policing for the Project area. The Sheriff Station serving the Project area is the Moreno Valley Station, located at 22850 Calle San Juan De Los Lagos, Moreno Valley, CA 92553, or approximately 5.0 miles northeast of the Project site (Google Earth, 2021). In addition to community policing, other services provided by the Sheriff's Department include, but are not limited to, operating of the emergency 911 system, operating correctional facilities, performing traffic control, and providing crime prevention education. Also, the Sheriff's Department coordinates with volunteer groups such as Neighborhood Watch Programs and the Community Oriented and Policing Problem Solving (COPPS) Program and the Community Oriented Policing (COP) Program. COPPS shifts the focus of police work from a solely reactive mode by supplementing traditional law enforcement methods with proactive problem-solving approaches that involve the community as well as the police.

Unincorporated Riverside County has set a minimum standard of 1.0 deputy per 1,000 residents. This standard was adopted as part of the "Commitment to Public Safety and Citizens' Option for Public Safety," by the Board of Supervisors on September 17, 1996. The Sheriff's Department has indicated that their desired staffing level is 1.2 deputies per 1,000 residents, while Mitigation Measure 4.15.C of EIR No. 441 establishes a standard of 1.5 sworn peace officers per 1,000 population.

C. Schools

The Project site is located in the attendance boundary of the Riverside Unified School District (RUSD), which provides K-12 educational services. The nearest schools to the Project site include Woodcrest Elementary School, located approximately 0.8-mile southwest of the Project site; Frank Augustus Miller Middle School, located approximately 0.5-mile south of the Project site; and Martin Luther King High School, located approximately 0.6-mile southeast of the Project site (Google Earth, 2021). According to the RUSD's 2016 Long Range Facilities Master Plan and the RUSD's April 15, 2024 School Fee Justification Study, the Woodcrest Elementary School had an enrollment of 656 students in the 2023/2024 school year with a total capacity of 750 students; Frank Augustus Miller Middle School had an enrollment of 842 students in the 2023/2024 school year and a capacity of 1,200 students; and Martin Luther King High School had a total enrollment of 2,817 students in the 2023/2024 school year and a capacity of 3,400 students (RUSD, 2016, pp. 153, 173, and 193; RUSD, 2024, Appendix C).

D. Libraries

The Project site is located within the Riverside County Public Library System (RCPLS) service area. The County of Riverside operates a system of 35 libraries and two book mobiles (one serving Coachella Valley and one serving western Riverside County) to serve unincorporated populations. In addition, the Riverside County Library System operates an automated network that currently deploys over 350 computer/terminal workstations in the library branches of the Riverside County Library System, Riverside Public Library, Moreno Valley Library, Murrieta Public Library, Murrieta Valley High School, and College of the Desert. The network can also be accessed by Riverside County residents via the Internet. The library system manages the library catalog of the 1.3 million items in the library system and the annual checkout of over 3.5 million books, audios, and videos. For 2010, the Riverside County Library System reported a total of 681,117 'registered borrowers' utilizing County library services. (Riverside County, 2015, pp. 4.17-65 and 4.17-66)

The Riverside County library system does not maintain a specific numerical factor to analyze the needs created by new development. However, the American Library Association suggests that an appropriate service criterion would be availability of convenient library facilities and book reserves at a rate of 0.5 square foot of library space and 2.5 volumes per capita. The County's ability to support the needs of future growth is dependent upon its ability to secure sites for, construct, and stock new libraries on a timely basis. As of 2015, there was no specific funding mechanism for expansion of library facilities. Based on 2010 reported registered borrowers (681,117) and current square footage of library facilities available (333,884), as of 2015 facilities provided approximately 0.49 square feet of space per registered borrower (not the Riverside County population as a whole). (Riverside County, 2015, p. 4.17-66)

The nearest library servicing the proposed Project site is the Woodcrest Library, located at 16625 Krameria Avenue, Riverside, CA 92504, or approximately 1.1 miles southwest of the Project site (Google Earth, 2024).

E. Health Services

Public health services in Riverside County are provided by the County Department of Public Health. However, most health services are provided by the private sector. The nearest medical facility to the Project site is the Riverside Urgent Care located at 18876 Van Buren Boulevard, Riverside, CA 92508, or approximately 0.9-

mile east of the Project site (Google Earth, 2024). The Riverside Urgent Care provides a comprehensive range of emergency health services.

4.16.2 Applicable Environmental Regulations

The following is a brief description of the federal, State, and local environmental laws and related regulations related to public services.

A. State Regulations

1. Fire Protection Services Regulations and Plans

- Public Resources Code (PRC) Sections 4290-4299

These sections establish minimum statewide fire safety provisions pertaining to: roads for fire equipment access; signs identifying streets, roads, and buildings; minimum private water supply reserves for emergency fire use; and fire fuel breaks and greenbelts. With certain exceptions, all new construction after July 1, 1991, in potential wildland fire areas, is required to meet these statewide standards. The state requirements, however, do not supersede more restrictive local regulations. (CA Legislative Info, n.d.)

As defined by CalFire, wildland areas defined as State Responsibility Areas (SRAs) may contain substantial wildfire risks and hazards. They consist of lands exclusive of cities, and federal lands regardless of ownership. The primary financial responsibility for preventing and suppressing fires within wildlands belongs to the State of California. However, it is not the State of California's responsibility to provide fire protection services to buildings or structures located within the wildlands unless CalFire has entered into a cooperative agreement with a local agency for those purposes pursuant to PRC Section 4142. As such, wildland areas require disclosure of these fire hazards in real estate transactions, and owners of properties in wildland areas are subject to PRC Section 4291 maintenance requirements. The law requires CalFire every five years (1991, 1996, 2001, etc.) to provide maps identifying the boundaries of lands classified as SRAs to the Riverside County Assessor. (CA Legislative Info, n.d.)

- PRC Sections 4102 and 4127 - State Responsibility Areas (SRAs)

PRC Section 4102 specifies that "'State responsibility areas' means areas of the state in which the financial responsibility of preventing and suppressing fires has been determined by the [State Fire] Board pursuant to Section 4125, to be primarily the responsibility of the state." These areas may contain state or privately-owned forest, watershed, and rangeland. §§ 4126-4127 of the PRC further specify the standards that define what does and does not constitute an SRA. (CA Legislative Info, n.d.)

- California Code of Regulations (CCR) Title 24, Parts 2 and 9 – Fire Codes

Part 2 of Title 24 of the CCR refers to the California Building Code which contains complete regulations and general construction building standards of State of California adopting agencies, including administrative, fire and life safety and field inspection provisions. Part 2 was updated in 2008 to reflect changes in the base document from the Uniform Building Code to the International Building Code. Part 9 refers to the California Fire Code, which contains other fire safety-related building standards. In particular, Chapter 7A, "Materials and Construction Methods for Exterior Wildfire Exposure," in the 2010 California Building Code addresses

fire safety standards for new construction and Section 701A.3.2 addresses "New Buildings Located in Any Fire Hazard Severity Zone." (BSC, n.d.)

❑ CCR Title 14 – Natural Resources

These regulations constitute the basic wildland fire protection standards of the California Board of Forestry. They were prepared and adopted to establish minimum wildfire protection standards in conjunction with building, construction, and development within SRAs. Among other things, Title 14 requires the design and construction of structures, subdivisions, and developments in an SRA provide for basic emergency access and perimeter wildfire protection measures (fire fuel modification zones, etc.). (Westlaw, n.d.)

❑ California Government Code (CGC) Sections 51178-51179 – Very High Fire Hazard Severity Zones

Section 51178 specifies that the Director of CalFire, in cooperation with local fire authorities, must identify areas that are Very High Fire Hazard Severity Zones (VHFHSZs) in Local Responsibility Areas (LRAs), based on consistent statewide criteria and the expected severity of fire hazard. It further specifies that VHFHSZs "shall be based on fuel loading, slope, fire weather and other relevant factors," including areas subject to Santa Ana winds which are a "major cause of wildfire spread." Section 51179 states that a local agency (such as a county) must also designate (and map) the VHFHSZs in its jurisdiction by ordinance. (See the discussion on Ordinance No. 787, below, regarding Riverside County's VHFHSZs). Other portions of the Government Code outline when a local agency may use its discretion to exclude areas from VHFHSZ requirements or add areas not designated by the State of California to its VHFHSZ areas. (CA Legislative Info, n.d.)

❑ CGC Section 51182 – Defensible Space

Pursuant to this code, a person who "owns, leases, controls, operates or maintains an occupied dwelling or occupied structure in, upon or adjoining a mountainous area, forest-covered land, brush-covered land, grass-covered land or land that is covered with flammable material" in a very high fire hazard severity zone designated by the local agency pursuant to § 51179, shall at all times maintain a specified amount of "defensible space" to protect structures in high fire hazard areas. (CA Legislative Info, n.d.)

❑ PRC Section 4213 - Fire Prevention Fees

Pursuant to PRC Section 4213, in July of 2011, the State of California began assessing an annual "Fire Prevention Fee" for all habitable structures within the State's Responsibility Area (SRA) to pay for fire prevention services. The SRA is the portion of the state where the State of California is financially responsible for the prevention and suppression of wildfires. The SRA does not include lands within incorporated city boundaries, Tribal or federally owned land. As a result of AB 398, California Global Warming Solutions Act of 2006, the fire prevention fee was suspended as of July 1, 2017. (FindLaw, n.d.)

2. School Services Regulations and Plans

❑ Assembly Bill (AB) 16

In 2002, AB 16 created the Critically Overcrowded School Facilities program, which supplements the new construction provisions within the School Facilities Program (SFP). The SFP provides State of California

funding assistance for new facility construction projects and modernization projects. The Critically Overcrowded School Facilities program allows school districts with critically overcrowded school facilities, as determined by the California Department of Education (CDE), to apply for new construction projects in advance of meeting all SFP new construction program requirements. Districts with SFP new construction eligibility and school sites included on a CDE list of source schools may apply. (CA Legislative Info, n.d.)

- ❑ Leroy F. Greene School Facilities Act of 1998 (Senate Bill [SB] 50)

Senate Bill 50 (SB 50) was enacted by the State Legislature in 1998, which amended existing state law governing school fees. In particular, SB 50 amended prior California Government Code (CGC) Section 65995(a) to prohibit state or local agencies from imposing school impact mitigation fees, dedications, or other requirements in excess of those provided in the statute in connection with "any legislative or adjudicative act...by any state or local agency involving...the planning, use, or development of real property...." (CA Legislative Info, n.d.)

The legislation also amended CGC Section 65996(b) to prohibit local agencies from using the inadequacy of school facilities as a basis for denying or conditioning approvals of any "legislative or adjudicative act [involving] the planning, use or development of real property." Further, SB 50 established the base amount of allowable developer fees: $1.93 per square foot for residential construction and $0.31 per square foot for commercial. These base amounts are commonly called "Level 1 fees" and are the same caps that were in place at the time SB 50 was enacted. Level 1 fees are subject to inflation adjustment every two years. (CA Legislative Info, n.d.)

In certain circumstances, for residential construction, school districts can impose fees that are higher than Level 1 fees. School districts can impose Level 2 fees, which are equal to 50% of land and construction costs if they: (1) prepare and adopt a school needs analysis for facilities; (2) are determined by the State Allocation Board to be eligible to impose these fees; and (3) meet at least two of the following four conditions: (CA Legislative Info, n.d.)

- At least 30% of the district's students are on a multi-track year-round schedule.
- The district has placed on the ballot within the previous four years a local school bond that received at least 50% of the votes cast.
- The district has passed bonds equal to 30% of its bonding capacity.
- Or, at least 20% of the district's teaching stations are relocatable classrooms.

Additionally, if the State of California's bond funds are exhausted, a school district that is eligible to impose Level 2 fees is authorized to impose even higher fees. Commonly referred to as "Level 3 fees," these fees are equal to 100% of land and construction costs of new schools required as a result of new developments. (CA Legislative Info, n.d.)

4.16.3 Basis for Determining Significance

Section XV of Appendix G to the State CEQA Guidelines addresses typical adverse effects to public services, and includes the following threshold question to evaluate a project's impacts to public services (OPR, 2018a):

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

    - Fire Services;
    - Sheriff Services;
    - Schools;
    - Parks; or
    - Other Public Facilities?

Significance thresholds are set forth in Riverside County's Environmental Assessment Checklist, have been updated to reflect the 2018 revisions to Appendix G to the State CEQA Guidelines, and state that the proposed Project would result in a significant impact to public services if the Project or any Project-related component would:

a. *Result in substantial adverse physical impacts associated with the provision of new or physically altered fire protection facilities or the need for new or physically altered fire protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection facilities;*

b. *Result in substantial adverse physical impacts associated with the provision of new or physically altered sheriff facilities or the need for new or physically altered sheriff facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for sheriff services;*

c. *Result in substantial adverse physical impacts associated with the provision of new or physically altered school facilities or the need for new or physically altered school facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for school services;*

d. *Result in substantial adverse physical impacts associated with the provision of new or physically altered library facilities or the need for new or physically altered library facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for library services; or*

e. *Result in substantial adverse physical impacts associated with the provision of new or physically altered health care facilities or the need for new or physically altered health care facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for health care services.*

The significance thresholds set forth in Riverside County's Environmental Assessment Checklist, as modified/updated per the 2018 updates to the State CEQA Guidelines, were used to evaluate the significance of the proposed Project's impacts on public services.

4.16.4 Impact Analysis

Threshold a.:	***Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered fire protection facilities or the need for new or physically altered fire protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection facilities?***

The Project would entail development of 231 residential lots on approximately 88.09 acres of the 140.8-acre Project site. The Project would place additional demand on the RCFD, which provides fire protection services in the Project area. Implementation of the Project would cumulatively affect the Department's ability to service the planned population.

The Project would require an "Urban – Category II" level of service as defined by the Riverside County Fire Protection Master Plan. This classification requires a fire station to be within three roadway miles of all areas of the Project and a full first alarm assignment team operating on the scene of a fire within 15 minutes of dispatch. The primary station serving the Project area (RCFD Station #8) is located approximately 2.7 roadway miles and seven (7) minutes driving time to the furthest point in the Project site, while RCFD Station #11, located approximately 2.7 roadway miles northeast of the Project site and seven (7) minutes driving time to the furthest point in the Project site, would provide secondary fire protection services to the Project site (Google Earth, 2021). Accordingly, the RCFD would be able meet the Urban Land Use protection goals of the Fire Protection Master Plan for the Project.

As a condition of Project approval, the proposed Project would be required to conform to all mandatory local, State, and federal laws, ordinances, and standards relating to fire safety. Among other items, these requirements include conformance with Chapter 7A of the California Building Code, which requires that all buildings be constructed with fire retardant roofing material. The Project would accommodate emergency access via the Project's proposed roadway system, and the Project accommodates two Emergency Vehicle Access (EVA) along the western and eastern boundaries of the Project site. Additionally, the Project would be subject to the fire code standards established as part of Riverside County Ordinance No. 787 (Fire Code Standards).

Nonetheless, development of the proposed Project would impact fire services by placing an additional demand on existing County Fire Department resources and personnel. In accordance with the Riverside County Fire Protection Master Plan, a new fire station and/or appropriate fire company is required for the development of 2,000 dwelling units or more. The Project proposes the development of only 231 dwelling units, and as such, the Project would not result in the need for a new fire station in the local area. The Project would result in an increased number of emergency and public service calls due to the increased presence of structures, traffic, and residents. Although new fire protection facilities ultimately may be needed in the Project area to serve the Project and other future development in the area, it is not possible to identify environmental impacts that may be associated with the development of any new fire protection facilities until a specific proposal and design

for the facility is prepared by the RCFD. Accordingly, impacts due to the construction of new or expanded fire protection facilities are too speculative for evaluation in this EIR (State CEQA Guidelines § 15145). Environmental effects of such fire protection facilities and any associated mitigation would be identified through a future CEQA process required in association with any future proposals for new or expanded fire protection facilities.

The Project also would be required to adhere to Riverside County Ordinance No. 659, which requires payment of a Development Impact Fee (DIF) to assist the County in providing for fire protection facilities, including fire stations. Payment of the DIF fee would ensure that funds are available for capital improvements, such as land/equipment purchases and fire station construction. Accordingly, Project-related impacts to fire protection services are evaluated as less than significant and no mitigation beyond payment of DIF fees would be required.

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

The Project would result in an approximate population increase of 772 residents. The incremental increase in population to the region could result in an incremental increase in criminal activity such as burglaries, thefts, auto thefts, vandalism, etc. However, according to the RCSD, there is not a direct correlation between population growth, the number of crimes committed, and the number of RCSD personnel needed to respond to these increases. As the population and use of an area increases, however, additional financing of equipment and manpower needs are required to meet the increased demand.

The proposed Project would result in an increase in the cumulative demand for services from the RCSD, which provides police protection services to the Project area. Specifically, the Project would generate a demand for approximately one new sworn officer (772 residents x 1.5 officers/1,000 population = 1.2 officers), based on the 1.5 per 1,000 population service standard (Riverside County, 2015, Table 4.17-H). Staff necessary to support the additional deputies would include an appropriate level of civilian, investigation, and supervisory personnel. The proposed Project would not, however, in and of itself result in the need for new or expanded sheriff facilities.

The Project is required to adhere to Riverside County Ordinance No. 659, which requires payment of DIF fees to assist the County in providing for sheriff protection services, including new or expanded facilities. Payment of the DIF fee would ensure that funds are available for capital improvements, such as land/equipment purchases and fire station construction. Accordingly, Project-related impacts to fire protection services are evaluated as less than significant and no mitigation beyond payment of DIF fees would be required.

Therefore, implementation of the Project would not result in the need for new or expanded sheriff facilities, and impacts would be less than significant. The Project's incremental demand for sheriff protection services also would be less than significant because the Project would be required to contribute DIF fees. Accordingly, a less-than-significant impact would occur with respect to sheriff protection services or facilities as a result of implementation of the proposed Project.

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

The Project would result in the development of 231 residential dwelling units on site. The construction of 231 single-family dwelling units as planned under the proposed Project would increase the population in the County of Riverside and would consequently place greater demand on the existing public-school system by generating additional students to be served by the RUSD.

According to student generation rates published as part of the RUSD's 2022 School Fee Justification Study, and as summarized in Table 4.16-1, *Project-Related Student Generation*, the Project would generate approximately 124 students on an annual basis, including 52 elementary school students, 29 middle school students, and 43 high school students (RUSD, 2024, Table 3).

Table 4.16-1 Project-Related Student Generation

School Type	Grades Served	Student Generation Rate	Dwelling Units	Project-Generated Students
Elementary School	K-6	0.2264 students/du	231	52
Middle School	7-9	0.1240 students/du	231	29
High School	10-12	0.1841 students/du	231	43
		Totals:	**231 du**	**124 students**

Note: du = dwelling units.
(RUSD, 2024, Table 3)

Based on the scale of the proposed Project, there is a potential that existing elementary, middle, and high schools within the Project vicinity would not be able to accommodate students generated by the proposed Project. New school facilities may be needed to either serve future students generated by the Project, or to shift attendance boundaries to free up capacity at one or all of the schools that may serve the Project. Although the RUSD may need to construct new school facilities to meet the growing demand within this portion of unincorporated Riverside County, there are no current publicly-available plans detailing where such facilities would be built. Although the Project may cause or contribute to the need for new or expanded school facilities, it is not possible to identify environmental impacts that may be associated with the construction of new or expanded school facilities until a specific proposal and design for the facility is prepared by the applicable school district, and an analysis of potential physical environmental impacts resulting from the construction and operation of new or expanded school facilities would be speculative in nature (see State CEQA Guidelines § 15145). Environmental effects of such school facilities and any associated mitigation would be identified through a future CEQA process required in association with any future proposals for new or expanded school facilities. Any mitigation measures required for new or expanded school facilities could be funded, in part, from property taxes and/or through payment of school impact fees (as discussed below).

Although it is not possible to identify physical environmental effects that may result from new or expanded school facilities, the Project would be required to contribute school impact fees to the RUSD in accordance with Riverside County Ordinance No. 575. As of April 2024, the RUSD assesses $5.17 per square foot of new

residential development. Pursuant to the Leroy F. Greene School Facilities Act of 1998, payment of school impact fees constitutes full and complete mitigation for project-related impacts to school services. Although the Project's demand for school services may not be accommodated by existing facilities or staffing levels, mandatory payment of school impact fees still would be required and would ensure that the Project's impacts to school facilities and services would be less than significant.

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

Development of the proposed Project would increase the region's population, creating an additional demand for library facilities and services. Development of the site with 231 residential homes would result in an increase in the area's population by approximately 772 residents (Riverside County, 2021a, Appendix E, Table E-2).

Although use of the internet has resulted in decreased demand being placed on library services nation-wide, the County continues to maintain its standards for book titles and library square footage. Library services in the County of Riverside are provided by the Riverside County Public Library System (RCPLS). To attain the RCPLS level of service standard of 2.5 titles-per-capita, the Project-generated population would require an additional 1,930 book titles (2.5 titles-per-capita x 772 residents = 1,9370 titles). To attain the RCPLS standard of 0.5 square foot of library space per capita, the Project would create the demand for 386 square feet of additional library space (0.5 s.f. of library space per capita x 772 residents = 386 s.f. of library space). (Riverside County, 2015, Table 4.17-W)

Development of the Project would contribute to an existing deficiency in library service standards. The provision of additional library space would be addressed through the County's compliance with the adopted level of service standards. Additionally, mandatory compliance with Riverside County Ordinance No. 659 would require the payment of DIF fees. These fees would provide funding for library books and library expansion projects. Although new library facilities may be under consideration by the RCPLS in the Project area, it is not possible to identify environmental impacts that may be associated with the development of any new library facilities until a specific proposal and design for the facility is prepared by the RCPLS. Accordingly, impacts due to the construction of new or expanded library facilities are too speculative for evaluation in this EIR (State CEQA Guidelines § 15145). Environmental effects of such library facilities and any associated mitigation would be identified through a future CEQA process required in association with any future proposals for new or expanded library facilities. Any mitigation measures required for new or expanded library facilities could be funded, in part, from property taxes, including increased property taxes resulting from buildout of the Project site. As such, Project impacts to library facilities and resources are evaluated as less than significant.

Threshold e:	***Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered health care facilities or the need for new or physically altered health care facilities, the construction of which could cause significant environmental impacts, in order***

to maintain acceptable service ratios, response times or other performance objectives for health care services?

The nearest medical facility to the Project site is the Riverside Urgent Care located at 18876 Van Buren Boulevard, Riverside, CA 92508, or approximately 0.9-mile east of the Project site (Google Earth, 2024). The Project would introduce approximately 1,288 new residents and 352 employees to the area. According to Section 4.17, *Public Facilities*, of EIR No. 521, a population of 1,000 persons generates the need for 1.9 hospital beds (Riverside County, 2015, p. 4.17-79). Using the 1.9 hospital beds per 1,000 persons generation factor, the Project would generate the need for approximately two additional hospital beds (772 residents x 1.9 beds/1,000 population = 1.47 hospital beds).

The provision of private health care is largely based on economic factors and demand and is beyond the scope of analysis required for this EIR. However, EIR No. 521 concluded impacts associated with buildout of the General Plan would be less than significant, and further notes that: "compliance with…existing General Plan policy and existing Mitigation Measures 4.15.7A and 4.15.7B from EIR No. 441, would further reduce or avoid the insignificant impacts…" (Riverside County, 2015, p. 4.17-18). Mitigation Measure 4.15.7A requires the County to perform periodic medical needs assessments to evaluate the current medical demand and level of medical service provided within each Area Plan every three years. Mitigation Measure 4.15.7B requires the County to fund the new construction and/or expansion of existing medical facilities according to the level of demand for medical services based on the needs assessment required as part of Mitigation Measure 4.15.7A.

Furthermore, mandatory compliance with County Ordinance No. 659 requires a DIF fee payment to the County that is partially allocated to public health services and facilities. While new or expanded health care facilities may ultimately be needed within the County due to the anticipated growth in population, it is not possible to identify environmental impacts that may be associated with the development of any new health care facilities until a specific proposal and design for the facility is prepared. Accordingly, impacts due to the construction of new or expanded health care facilities are too speculative for evaluation in this EIR (State CEQA Guidelines § 15145). As such, impacts to public medical facilities and resources associated with the proposed Project would be less than significant.

4.16.5 Cumulative Impact Analysis

The cumulative study area for public services encompasses the service area of the RCFD, RCSD, RUSD, and/or RCPLS, and assumes full buildout of the General Plans for jurisdictions within these service areas.

Although the proposed Project would be adequately served by fire protection services, based on the response times estimated from nearby fire station facilities, the Project would nonetheless result in an incremental increase in requests for service, which would affect the fire department's ability to provide acceptable levels of service. These impacts include an increased number of emergency and public service calls due to the increased presence of structures, increased traffic volumes, and increased population. When considered in the context of on-going cumulative development throughout western Riverside County, such impacts would be cumulatively considerable. However, the proposed Project and all cumulative developments within unincorporated Riverside County would be required to contribute DIF fees pursuant to County Ordinance No. 659. Mandatory DIF fee contributions by the Project and cumulative developments would ensure that adequate funding is provided to the Riverside County Fire Department for the acquisition of additional facilities,

equipment, and personnel. Accordingly, the proposed Project's impact to the RCFD is evaluated as less-than-cumulatively considerable.

Although the Project site would be adequately served by sheriff facilities, the increased population that would be generated by the Project, when considered in conjunction with other on-going development throughout western Riverside County, has the potential to adversely affect service response times. However, the proposed Project and all cumulative developments would be required to contribute DIF fees pursuant to County Ordinance No. 659, which would help to provide for adequate equipment and personnel in the Project area. Therefore, with mandatory payment of DIF fees, Project impacts to police protection services would be less-than-cumulatively considerable.

The proposed Project would generate approximately 124 school-age children on an annual basis, and thus would result in an increase in demand for school services. The proposed Project, when considered in conjunction with on-going development throughout the service area for the RUSD would cumulatively affect the ability of the RUSD to provide school services. However, the Project and all cumulative developments would be required to contribute fees to these school districts in accordance with Riverside County Ordinance No. 575. Pursuant to the Leroy F. Greene School Facilities Act of 1998, payment of school impact fees constitutes complete mitigation for project-related impacts to school services. Therefore, although the Project's impacts to school services would be cumulatively considerable, cumulatively-considerable impacts would be less than significant with contribution of mandatory school impact fees.

The proposed Project, when considered in conjunction with on-going development throughout western Riverside County, would cumulatively affect the ability of the RCPLS to serve the local community with library services. It is not possible to identify environmental impacts that may be associated with such new or expanded library facilities until a specific proposal and design for such facilities are prepared by the RCPLS. Accordingly, impacts due to the construction of new or expanded library facilities are too speculative for evaluation in this EIR (State CEQA Guidelines § 15145). Environmental effects of such library facilities and associated mitigation would be identified through a future CEQA process required in association with any future proposals for new or expanded library facilities. However, the Project and all cumulative developments would contribute property taxes and would be required to contribute DIF fees to Riverside County pursuant to County Ordinance No. 659, which could be used for the purpose of acquiring book titles and/or additional library square footage. Any mitigation measures required for new or expanded library facilities also could be funded, in part, from property taxes allocated by Riverside County to such purposes. Therefore, because environmental impacts associated with new or expanded library facilities cannot be known at this time and would be determined in the future once Riverside County identifies a specific proposal for new or expanded library facilities, Project impacts to library services and facilities are evaluated as less than significant on a cumulatively-considerable basis.

The proposed Project, when considered in conjunction with on-going growth and development in western Riverside County, would cumulatively impact the ability of local medical facilities that provide health services. However, the Project and all cumulative developments would be required to comply with County Ordinance No. 659, which requires a development impact fee payment to the County that is partially allocated to public health services and facilities. With mandatory compliance with Ordinance No. 659, the Project's impacts to health services and facilities would be less than significant on a cumulatively-considerable basis.

4.16.6 Significance Of Impacts Before Mitigation

Threshold a: Less-than-Significant Impact. With payment of mandatory DIF fees, the proposed Project's potential direct and cumulatively-considerable impacts to the Riverside County Fire Department would be reduced to less-than-significant levels, and the Project would not result in or require the construction of new fire protection facilities that could result in a significant impact to the environment.

Threshold b: Less-than-Significant Impact. With payment of mandatory DIF fees, the proposed Project's potential direct and cumulatively-considerable impacts to the Riverside County Sheriff's Department would be reduced to less-than-significant levels, and the Project would not result in or require the construction of new police protection facilities that could result in a significant impact to the environment.

Threshold c: Less-than-Significant Impact. The Project would generate approximately 124 students on an annual basis. Although the RUSD may need to construct new school facilities to meet the growing demand within this part of Riverside County, the payment of mandatory school impact fees would ensure that the Project would not result in significant direct or cumulatively-considerable impacts to the ability of the RUSD to provide for school services. As such, the Project impacts would be less than significant.

Threshold d: Less-than-Significant Impact. Although the Project would contribute to a need for new or expanded library facilities, the Project would be required to contribute DIF fees, which would be used in part to provide for library space and/or new book volumes. Accordingly, with payment of DIF fees, Project impacts to library services and facilities are evaluated as less than significant on both a direct and cumulatively-considerable basis.

Threshold e: Less-than-Significant Impact. With payment of mandatory DIF fees, the Project would result in less-than-significant direct and cumulatively-considerable impacts to health services facilities, and the Project would not result in or require the construction of new health services facilities that could result in a significant impact to the environment.

4.16.7 County Regulations, Design Requirements, and Mitigation

Applicable County Regulations and Design Requirements

The following are applicable regulations and design requirements within Riverside County. Although these requirements technically do not meet CEQA's definition for mitigation, they are imposed herein to ensure Project compliance with applicable County regulations and design requirements.

- As a condition of Project approval, the proposed Project would be required to conform to all mandatory local, State, and federal laws, ordinances, and standards relating to fire safety. Among other items, these requirements include conformance with the Uniform Building Code Section 1503, which requires that all buildings be constructed with fire retardant roofing material, as well as standard Riverside County Fire Department conditions of approval (COAs) for specific plans, which prohibit flag lots and require alternative/secondary access routes to neighborhoods. The alternative/secondary access routes would be required to be maintained throughout construction and buildout of the proposed Project.

- The Project would be required to adhere to Riverside County Ordinance No. 659, which requires payment of a development impact fee (DIF) to assist the County in providing for fire protection facilities (including fire stations), sheriff protection facilities (including sheriff stations), library facilities, and health facilities.

- The Project is required to comply with Riverside County Ordinance No. 575, which requires mandatory payment of school impact fees pursuant to Public Education Code § 17072.10-18.

Mitigation

Impacts would be less-than-significant; therefore, no mitigation is required.

4.17 RECREATION

This Subsection provides an overview of the existing parks and recreational facilities that exist within the Project vicinity and that could potentially be directly or indirectly physically affected by implementation of the proposed Project. The analysis herein is based in part on the Riverside County General Plan Multipurpose Open Space Element and Healthy Communities Element. Refer to Section 7.0, *References*, for a complete list of reference sources.

4.17.1 EXISTING CONDITIONS

A. Federal Parks

The nearest federal park is the Cleveland National Forest located approximately 11.4 miles southwest of the Project site. There are no other federal parks in the Project vicinity.'

B. State Parks

There are no State parks within the Project vicinity. The nearest State Park is the California Citrus State Historic Park, located approximately 2.9 miles west of the Project site, which consists of an open-air museum featuring museum exhibits and interpretive features related to the historic role of the citrus industry within this portion of Riverside County. In addition, the Lake Perris State Recreation Area is located approximately 8.3 miles southeast of the Project site. The Lake Perris State Recreation Area comprises 9,615 acres and provides recreational activities such as hiking, horseback riding, camping and bird watching as well as numerous recreational water activities on Lake Perris. (Riverside County, 2015, p. 4.16-8; Google Earth, 2021)

C. Regional and Local Parks

The only local or regional parks within two miles of the Project site are Bergamont Park, located approximately 1.4 miles east of the Project site, and Orange Terrace Community Park, located approximately 1.9 miles east of the Project site (Google Earth, 2021). Bergamont Park features two tot lots, two half-court basketball courts, picnic benches, restrooms, and open field play areas. Orange Terrace Community Park features a community center, six softball fields, two full court basketball courts, three half court basketball courts, a tot lot, walking paths, and open play areas.

D. Regional Trails and Bikeway Systems

The Lake Mathews/Woodcrest Area Plan (LMWAP) identifies the County's long-term objectives for recreational trails and bikeways within the Temescal Canyon area. As shown on LMWAP Figure 8 (Trails and Bikeway System), the Project site and immediate surroundings are not identified for future development with trails or bikeways. The nearest designated trail is a "Community Trail" planned along Prairie Way, Gentian Avenue, and Dauchy Avenue, approximately 0.5-mile east of the Project site. (Riverside County, 2021b, Figure 8)

4.17.2 APPLICABLE ENVIRONMENTAL REGULATIONS

The following is a brief description of the State and local environmental laws and related regulations related to recreation.

A. State Regulations

1. Quimby Act, California Government Code § 66477

The State of California's Quimby Act was established by the California Legislature for the purpose of preserving open space and providing park facilities for California's growing communities. The Quimby Act allows local agencies to establish ordinances requiring residential subdivisions to provide land or "in-lieu-of" fees for park and recreation purposes. This State Act requires the dedication of land and/or imposes a requirement of fees for park and recreational purposes as a condition of approval of tentative tract map or parcel map. (CA Legislative Info, n.d.)

B. Local Regulations

1. Riverside County Ordinance No. 460

Riverside County Ordinance No. 460, Section 10.35 (Park and Recreation Fees and Dedications) implements the Quimby Act by establishing a requirement for dedication of three acres of parkland per 1,000 residents, or payment of a fee in lieu of such dedication. An exception exists in cases where a Community Parks and Recreation Plan, as approved by the Board of Supervisors, applies and has determined that the amount of existing neighborhood and community park area exceeds that limit, in which case the Board may determine that the public interest, convenience, health, welfare, and safety requires that a higher standard, not to exceed five acres of land per 1,000 persons residing within the County, shall be devoted to neighborhood and community park purposes. There are no Community Parks and Recreation Plans applicable to the Project area.

4.17.3 Basis for Determining Significance

Section XVI of Appendix G to the California Environmental Quality Act (CEQA) Guidelines addresses typical adverse effects to parks and recreation, and includes the following threshold questions to evaluate a project's impacts to recreational resources (OPR, 2018b):

- Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

- Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

Significance thresholds are set forth in Riverside County's Environmental Assessment Checklist, are derived from Section XVI of Appendix G to the State CEQA Guidelines (listed above), and state that the proposed Project would have a significant impact to parks and recreation if construction and/or operation of the Project would:

a. *Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment;*
b. *Increase the use of existing neighborhood or regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated;*

c. Be located within a Community Service Area (CSA) or recreation and park district with a Community Parks and Recreation Plan (Quimby fees); or

d. Include the construction or expansion of a trail system.

The significance thresholds set forth in Riverside County's Environmental Assessment Checklist were used to evaluate the significance of the proposed Project's impacts on parks and recreation.

4.17.4 IMPACT ANALYSIS

Threshold a:	***Would the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?***
Threshold d:	***Would the Project include the construction or expansion of a trail system?***

Recreational facilities planned as part of the Project include a proposed a proposed trailhead/parking area on approximately 0.55 acres, and a series of trails planned through the central portions of the Project site. The proposed on-site trails would vary in width from 8 feet to 16 feet, and primarily would occur along the southern edge of the existing drainage that traverses the Project site in a northwest/southeast oriented direction. A small trail segment also is proposed along a portion of the eastern boundary, providing pedestrian access from Hibiscus Avenue to the Project's on-site trail system, with an additional trail segment proposed along the open space in the northwest portion of the Project site. The proposed trails would feature a variety of amenities, including interpretive signage, picnic tables, benches, and seating/gathering areas. In total, trails proposed on site would measure approximately 3,740 feet in length and would encompass approximately 1.1 acres of the Project site. The physical construction of the on-site recreational facilities is addressed under the relevant issue areas identified throughout this EIR (e.g., air quality, biological resources, cultural resources). Under each relevant topic, the Project's impacts are determined to be less than significant, or mitigation measures are identified to reduce impacts to the maximum feasible extent. There are no components of the proposed recreational facilities that would result in physical environmental impacts that have not already been addressed and accounted for throughout this EIR. Accordingly, Project impacts due to parkland development on-site would be less than significant, requiring no mitigation beyond that which is identified in other portions of the EIR.

Threshold b:	***Would the Project include the use of existing neighborhood or regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?***
Threshold c:	***Is the Project located within a Community Service Area (CSA) or recreation and park district with a Community Parks and Recreation Plan (Quimby fees)?***

The Project site is not located within the boundaries of any Community Service Areas (CSAs) and is not subject to a recreation or park district with a Community Parks and Recreation Plan. Accordingly, parkland requirements within the Project area are as set forth in Riverside County Ordinance No. 460 (Regulating the Division of Land), which specifically applies to land subdivisions. Specifically, pursuant to item C. of Section 10.35, Ordinance No. 460 establishes a parkland standard of three acres of land for each 1,000 residents, and also provides for the payment of fees in cases where adequate parkland facilities are not accommodated on site.

The Project Applicant is proposing to develop the Project site with a total of 231 single-family dwelling units. Based on the persons per household (pph) estimate provided in Appendix E to the County's General Plan, the average household size in the LMWAP area is 3.34 pph. Thus, the Project is anticipated to result in a future population on site of approximately 772 persons (231 household x 3.34 persons/household = 771.5 persons). Based on the standard of three acres of parkland per 1,000 residents, the Project would therefore result in a demand for approximately 2.3 acres of parkland (772 persons x 3.0 acres/1,000 persons = 2.32 acres). (Riverside County, 2021a, Appendix E, Tables E-1 and E-2)

As part of the Project, TTM 38510 would accommodate a 0.55-acre parking area/trailhead in the southeastern portion of the Project site, and would accommodate trails measuring approximately 3,740 feet in ranging in width from 8 to 16 feet. The trails primarily would occur along the southern edge of the existing drainage that traverses the Project site in a northwest/southeast oriented direction. A small trail segment also is proposed along a portion of the eastern boundary, providing pedestrian access from Hibiscus Avenue to the Project's on-site trail system, with an additional trail segment proposed along the open space in the northwest portion of the Project site. Trails planned as part of the Project would encompass approximately 1.1 acres of the Project site. In addition to the parking/trailhead areas, the Project also accommodates approximately 23.75 acres of natural open space in the throughout the Project site, which would provide for passive recreational amenities. In total, the Project would accommodate approximately 24.3 acres of parking/trailhead, trails, open space, and passive recreational opportunities.

The Project would not meet the County requirement to provide a minimum of 2.3 acres of dedicated parkland. Thus, the Project Applicant would be required to pay fees pursuant to Section 10.35 of Ordinance No. 460, which would provide funding to allow Riverside County to acquire and/or improve new parkland within the County.

Accordingly, with the dedication of the proposed on-site trail system, trailhead/parking area, and passive open space areas, and with payment of in-lieu fees for any parkland requirements not credited on site, the Project would not conflict with the parkland standard of 3.0 acres of parkland per 1,000 residents, as established by Ordinance No. 460. Additionally, because the Project either would accommodate adequate parkland on site, or would be conditioned to require the payment of parkland in-lieu fees, it can be concluded that future Project residents would not increase the use of existing neighborhood or regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated. That is, because the Project Applicant would be required to provide for adequate parkland either on site or through in-lieu fees, any increase in the use of existing recreational facilities within the County by future Project residents would be off-set by existing County residents utilizing the Project's proposed recreational amenities and/or the recreational amenities to be accommodated by the Project Applicant's payment of in-lieu fees pursuant to Ordinance No. 460. Thus, the Project would not include the use of existing neighborhood or regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated, and impacts would be less than significant.

Therefore, and based on the foregoing analysis, the Project would not include the use of existing neighborhood or regional parks or other recreational facilities such that substantial physical deterioration of the facility would

occur or be accelerated and the Project would not conflict with the parkland requirements as set forth in Riverside County Ordinance No. 460. Impacts would be less than significant.

4.17.5 Cumulative Impact Analysis

This cumulative impact analysis considers development of the proposed Project in conjunction with other development projects and planned development within two miles of the Project site. This study area was selected because any use of local recreation facilities by future Project residents likely would occur in close proximity to the Project site.

As discussed under the analysis of Thresholds a. and d., cumulatively-considerable impacts associated with the construction of the proposed on-site trail system and trailhead/parking area have been evaluated throughout this EIR under the appropriate subject heading (e.g., air quality, biological resources, etc.). Where cumulatively-considerable impacts have been identified associated with Project implementation, mitigation measures have been identified to reduce construction-related impacts to the maximum feasible extent. There are no components of the planned trails or pedestrian facilities on site that have not already been addressed and accounted for throughout this EIR for the Project site. Accordingly, cumulatively-considerable impacts due to the construction of on-site trails and pedestrian facilities would be less than significant.

As discussed under the analysis of Thresholds b. and c., the Project would accommodate approximately 24.3 acres of parking/trailhead, trails, and passive recreational opportunities, which would exceed the Project's parkland demand of 2.3 acres. In the event that the RPOSD does not credit all or a portion of the Project's on-site recreational amenities towards the Project's parkland dedication requirements, then the Project Applicant would be required to pay fees pursuant to Section 10.35 of Ordinance No. 460, which would provide funding to allow Riverside County to acquire and/or improve new parkland within the County. Other developments within the region similarly would be required to accommodate adequate parkland on site, or to pay in-lieu fees to be used for acquiring and improving recreational resources within the County. As such, cumulatively-considerable impacts due to a conflict with the County's parkland dedication requirements and due to the physical deterioration of existing off-site recreational resources would be less than significant.

4.17.6 Significance Of Impacts Before Mitigation

Thresholds a and d: Less-than-Significant Impact. The physical construction of the on-site recreational facilities has been addressed under the relevant issue areas identified throughout this EIR (e.g., air quality, biological resources, cultural resources). Under each of these topics, Project impacts are determined to be less than significant, or mitigation measures have been identified to reduce impacts to the maximum feasible extent. There are no components of the planned recreational facilities on site that have not already been addressed and accounted for throughout this EIR. Accordingly, Project impacts due to parkland development on site would be less than significant, requiring no mitigation beyond that which is identified in other portions of this EIR.

Thresholds b. and c.: Less-than-Significant Impact. The Project Applicant would be required to pay fees pursuant to Section 10.35 of Ordinance No. 460, which would provide funding to allow Riverside County to acquire and/or improve new parkland within the County. Thus, impacts due to a conflict with Riverside County's parkland dedication requirements would be less than significant. Additionally, because the Project Applicant would be required to provide for adequate parkland either on site or through in-lieu fees, any increase

in the use of existing recreational facilities within the County by future Project residents would be off-set by existing County residents utilizing the Project's proposed recreational amenities and/or the recreational amenities to be accommodated by the Project Applicant's payment of in-lieu fees pursuant to Ordinance No. 460. Thus, the Project would not include the use of existing neighborhood or regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated, and impacts would be less than significant.

4.17.7 County Regulations, Design Standards, and Mitigation

Applicable County Regulations and Design Requirements

The following are applicable regulations and design requirements within Riverside County. Although these requirements technically do not meet CEQA's definition for mitigation, they are imposed herein to ensure Project compliance with applicable County regulations and design requirements.

- Prior to the issuance of building permits, Riverside County shall verify that the Project has met the requirements of Section 10.35 of Riverside County Ordinance No. 460, which specifies requirements related to parkland dedications and payment of fees in lieu of parkland dedication.

Mitigation

Impacts to parks and recreation facilities as a result of Project implementation would be less than significant, and mitigation is not required.

4.18 TRANSPORTATION

The following analysis is based on a technical study prepared by Urban Crossroads, Inc. (herein, "Urban Crossroads") entitled "Arroyo Vista Vehicle Miles Traveled (VMT) Analysis" (herein, "VMT Analysis"), dated January 12, 2023, and included as *Technical Appendix K1* to this EIR (Urban Crossroads, 2023a). It should be noted that the Project's VMT Analysis evaluates a total of 233 single family residential dwelling units, rather than the 231 dwelling units proposed by the Project, and therefore provides a "worst case" analysis of the Project's impacts due to VMT. Additionally, and although not relied upon to evaluate the Project's potential impacts to Transportation, Urban Crossroads also prepared a traffic analysis technical study to evaluate the Project's potential contributions to traffic congestion, which identifies required circulation improvements, impact fee programs, and fair-share contributions required to achieve an acceptable Level of Service (LOS) at all study area intersections. This report is entitled, "Arroyo Vista Traffic Analysis" (herein, "TA"), is dated June 23, 2025, and is included as *Technical Appendix K2* to this EIR (Urban Crossroads, 2025b). Refer to Section 7.0, *References,* for a complete list of reference sources.

On December 28, 2018, updates to the California Environmental Quality Act (CEQA) Guidelines were approved by the Office of Administrative Law (OAL). As part of the updates to the CEQA Guidelines, thresholds of significant for evaluation of impacts to transportation have changed. As required by Senate Bill (SB) 743, new Threshold b. of the CEQA Guidelines for Transportation requires an evaluation of impacts due to VMT, which replaced the Level of Service (LOS) criteria (i.e., automobile delay) that has been utilized in the past to evaluate potential effects to transportation under CEQA. Pursuant to CEQA Guidelines Section 15064.3(a), "…a project's effect on automobile delay shall not constitute a significant environmental impact."

4.18.1 EXISTING CONDITIONS

A. *Existing Vehicle Miles Traveled (VMT)*

VMT is obtained from the Riverside Transportation Analysis Model (RIVTAM) model using the Production/Attraction (PA) method for calculating VMT, which sums all weekday VMT generated by trips with at least one trip end in the study area (i.e., Project's Traffic Analysis Zone [TAZ]). Productions are land use types that generate trips (residences) and attractions are land use types that attract trips (employment). For the County of Riverside, the countywide average VMT per capita is noted in the County's "Transportation Analysis Guidelines for Level of Service Vehicle Miles Traveled Guidelines" ("County Guidelines") as 15.2 VMT per capita (Urban Crossroads, 2023a, p. 3)

B. *Existing Transportation System*

1. *Existing Roadway System*

Under existing conditions, the 140.8-acre Project site abuts Iris Avenue to the south and Chicago Avenue to the east. Pursuant to the Lake Mathews/Woodcrest Area Plan (LMWAP) and Riverside County General Plan Circulation Element, Chicago Avenue and Iris Avenue are not identified as General Plan Circulation Element roadways. Van Buren Boulevard, located approximately 0.1-mile south of the Project site, is classified by the Circulation Element as an "Urban Arterial," which are six-lane divided roadways (typically divided by a raised median or painted two-way turn-lane) with a 152-foot right-of-way and a 110-foot curb-to-curb measurement. The portion of Washington Street north of Van Buren Boulevard, located approximately 0.7-mile west of the Project site, is classified by the Circulation Element as an "Arterial," which are four-lane roadways and may

include a painted median and typically have a 128-foot right-of-way and an 82-to-86-foot curb-to-curb measurement. The portion of Washington Street located south of Van Buren Boulevard, which is located approximately 0.7-mile southwest of the Project site, is classified by the Circulation Element as a "Major Roadway," which are four-lane roadways and may include a painted median that typically have a 118-foot right-of-way and a 76-foot curb-to-curb measurement. (Urban Crossroads, 2025b, p. 27)

2. Transit Service

The Project area currently is served by the Riverside Transit Agency (RTA), a public transit agency serving various jurisdictions within Riverside County. Existing transit routes in the vicinity of the Project site are illustrated on Exhibit 3-6 of the Project's TA (*Technical Appendix K2*). As shown, the existing RTA Route 27 runs along Van Buren Boulevard to the south of the Project site. There is an existing bus stop on Van Buren Boulevard near Gamble Avenue. 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. (Urban Crossroads, 2025b, p. 31)

3. Bicycle and Pedestrian Facilities

Exhibit 3-4 of the Project's TA (*Technical Appendix K2)* illustrates the LMWAP's planned Trails and Bikeway System. Existing pedestrian facilities within the Project area are shown on Exhibit 3-5 of the Project's TA. As shown, there are limited pedestrian facilities in the vicinity of the Project site. Field observations and traffic counts conducted in May 2022 by Urban Crossroads indicate light pedestrian and bicycle activity within the Project area. (Urban Crossroads, 2025b, p. 31)

4.18.2 Applicable Regulatory Requirements

A. State Regulations

1. Assembly Bill 1358 (AB 1358) – Complete Streets Act

In September 2008, Governor Schwarzenegger signed into law Assembly Bill 1358 (AB 1358), the Complete Streets Act. AB 1358 requires that the legislative body of a city or county, upon any substantive revision of the circulation element of the general plan, modify the circulation element to plan for a balanced, multimodal transportation network that meets the needs of all users of streets, roads, and highways, defined to include motorists, pedestrians, bicyclists, children, persons with disabilities, seniors, movers of commercial goods, and users of public transportation, in a manner that is suitable to the rural, suburban, or urban context of the general plan. By requiring new duties of local officials, AB 1358 imposes a State-mandated local program (CA Legislative Info, 2008). AB 1358 required the Office of Planning and Research (OPR) to prepare or amend guidelines for a legislative body to accommodate the safe and convenient travel of users of streets, roads, and highways in a manner that is suitable to the rural, suburban, or urban context of the general plan, and in doing so to consider how appropriate accommodation varies depending on its transportation and land use context. AB 1358 authorized OPR, in developing these guidelines, to consult with leading transportation experts, including, but not limited to, bicycle transportation planners, pedestrian planners, public transportation planners, local air quality management districts, and disability and senior mobility planners. (CA Legislative Info, n.d.)

2. Statewide Transportation Improvement Program (STIP)

The Statewide Transportation Improvement Program (STIP) is a multi-year capital improvement program of transportation projects on and off the State Highway System, funded with revenues from the Transportation Investment Fund and other funding sources. STIP programming generally occurs every two years. The programming cycle begins with the release of a proposed fund estimate in July of odd-numbered years, followed by California Transportation Commission (CTC) adoption of the fund estimate in August (odd years). The fund estimate serves to identify the amount of new funds available for the programming of transportation projects. Once the fund estimate is adopted, Caltrans and the regional planning agencies prepare transportation improvement plans for submittal by December 15th (odd years). Caltrans prepares the Interregional Transportation Improvement Plan (ITIP) and regional agencies prepare Regional Transportation Improvement Plans (RTIPs). Public hearings are held in January (even years) in both northern and southern California. The STIP is adopted by the CTC by April (even years). (Caltrans, n.d.)

3. Senate Bill 743 (SB 743)

Senate Bill 743 (SB 743, Steinberg, 2013), which was codified in Public Resources Code Section 21099, required changes to the implementing CEQA Guidelines regarding the analysis of transportation impacts. As one appellate court explained: "During the last 10 years, the Legislature has charted a course of long-term sustainability based on denser infill development, reduced reliance on individual vehicles and improved mass transit, all with the goal of reducing greenhouse gas emissions. Section 21099 is part of that strategy…" (*Covina Residents for Responsible Development v. City of Covina* (2018) 21 Cal.App.5th 712, 729.) Pursuant to Section 21099, the criteria for determining the significance of transportation impacts must "promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses." (*Id*., subd. (b)(1); see generally, adopted CEQA Guidelines, § 15064.3, subd. (b) [Criteria for Analyzing Transportation Impacts].) To that end, in developing the criteria, OPR has proposed, and the California Natural Resources Agency (CRNA) has certified and adopted, changes to the CEQA Guidelines that identify VMT as the most appropriate metric to evaluate a project's transportation impacts. With the CRNA's certification and adoption of the changes to the CEQA Guidelines, automobile delay, as measured by LOS and other similar metrics, generally no longer constitutes a significant environmental effect under CEQA as of July 1, 2020. (Public Resources Code § 21099, subd. (b)(3).) (OPR, 2018b)

4. Senate Bill 325 (SB 325) - Transportation Development Act (TDA, Mills-Alquist-Deddeh Act)

The Mills-Alquist-Deddeh Act (SB 325) was enacted by the California Legislature to improve existing public transportation services and encourage regional transportation coordination. Known as the Transportation Development Act (TDA) of 1971, this law provides funding to be allocated to transit and non-transit related purposes that comply with regional transportation plans. TDA established two funding sources; the Local Transportation Fund (LTF), and the State Transit Assistance (STA) fund. Providing certain conditions are met, counties with a population under 500,000 (according to the 1970 federal census) may also use the LTF for local streets and roads, construction, and maintenance. The STA funding can only be used for transportation planning and mass transportation purposes. (Caltrans, n.d.)

5. Road Repair and Accountability Act of 2017 (Senate Bill 1 (SB 1))

On April 28, 2017, Governor Brown signed Senate Bill 1 (SB 1) (Chapter 5, Statutes of 2017), known as the Road Repair and Accountability Act of 2017. SB 1 augments the base of the State Transit Assistance program essentially doubling the funding for this program. To provide for SB 1 reporting and transparency, transit agencies are asked to work with Caltrans to report on planned expenditures for these augmented funds. (Caltrans, n.d.)

B. Regional Regulations

1. SCAG Regional Transportation Plan/Sustainable Communities Strategy (Connect SoCal)

The Southern California Association of Governments (SCAG) is a regional agency established pursuant to California Government Code § 6500, also referred to as the Joint Powers Authority law. SCAG is designated as a Council of Governments (COG), a Regional Transportation Planning Agency (RTPA), and a Metropolitan Planning Organization (MPO). The Project Site is within SCAG's regional authority. In April 2024, SCAG adopted the *2024-2050 Regional Transportation Plan (RTP)/Sustainable Communities Strategy (SCS)* ("RTP/SCS"); also referred to herein as "Connect SoCal" with goals to: 1) build and maintain an integrated multimodal transportation network; 2) develop, connect and sustain communities that are livable and thriving; 3) create a healthy region for the people of today and tomorrow; and 4) support a sustainable, efficient and productive regional economic environment that provides opportunities for all residents. Performance measures and funding strategies also are included to ensure that the adopted goals are achieved through implementation of the RTP. (SCAG, 2024)

Connect SoCal includes long-range regional transportation plans, regional transportation improvement programs, regional housing needs allocations, and other plans for the region. Connect SoCal also provides objectives for meeting emissions reduction targets set forth by the California Air Resources Board (CARB); these objectives were provided in a direct response to Senate Bill 375 (SB 375) which was enacted to reduce greenhouse gas emissions from automobiles and light trucks through integrated transportation, land use, housing, and environmental planning. Connect SoCal is updated periodically to allow for the consideration and inclusion of new transportation strategies and methods. (SCAG, 2024)

2. Riverside County Congestion Management Program (CMP)

The intent of a Congestion Management Program (CMP) is to more directly link land use, transportation, and air quality, thereby prompting reasonable growth management programs that will effectively utilize new transportation funds, alleviate traffic congestion and related deficiencies, and improve air quality. The Riverside County CMP became effective with the passage of Proposition 111 in 1990 and updated most recently in 2019 as part of the Riverside County Long Range Transportation Study. The Riverside County Transportation Commission (RCTC) adopted the 2019 CMP for Riverside County in December 2019. There are no Project study area intersections identified as a Riverside County CMP facility. (Urban Crossroads, 2025b, p. 14)

C. *Western Riverside County Association of Governments Transportation Uniform Mitigation Fee*

The Western Riverside Council of Governments (WRCOG) established a consolidated Transportation Uniform Mitigation Fee (TUMF) program for all of western Riverside County, which commenced in 2003. The establishment of TUMF was based on the desire to establish a single, uniform fee program to mitigate the cumulative impacts of new development on the western Riverside County sub-region's arterial highway system rather than having multiple and potentially uncoordinated fee programs across the region. WRCOG is responsible for establishing and updating TUMF payment rates, based on a TUMF Program Nexus Study, which is periodically updated to consider the impact of future development on the subregion's system of highways and arterial roads. The most recent Nexus Study update was approved by the WRCOG Executive Committee in July 2017. The updated Nexus Study continues to demonstrate the relationship between the TUMF fee levels and the cost of anticipated improvements to the Regional System of Highways and Arterials (RSHA) necessitated by new development throughout western Riverside County. (WRCOG, 2018, p. 3)

D. *Local Regulations*

Ordinances specifically applicable to the circulation system are presented below (Riverside County, 2015, p. 4.18-28):

- Ordinance No. 413 – Vehicle Parking: Ordinance No. 413 establishes regulations to vehicle parking on Riverside County roadways.

- Ordinance No. 452 – Speed Limits: Ordinance No. 452 pertains to prima facie speed limits on Riverside County roadways and establishes or amends prima facie speed limits on certain Riverside County roads.

- Ordinance No. 460 – Subdivision of Land: Ordinance No. 460, in conjunction with the Subdivision Map Act, establishes regulations for the division of land and describes procedures. The ordinance also includes the provisions for the establishment of Road and Bridge Benefit Districts and associated fees.

- Ordinance No. 461 – Road Improvement Standards and Specifications: Ordinance No. 461 adopts Road Improvement Standards and Specifications.

- Ordinance No. 499 – Encroachments in County Highways: Ordinance No. 499, subject to the control of the Board of Supervisors, delegates to the Riverside County Transportation Director the administration of the use of county highways, including county roads, for excavations and encroachments; construction, operation, and maintenance of utility facilities; planting, maintenance, and removal of trees; and the issuance, modification, and revocation of permits for such uses.

- Ordinance No. 659 – Development Mitigation Fee for Residential Development (DIF Program): Ordinance No. 659 establishes a development impact fee (DIF) for the development of infrastructure, including County roadways and the installation of traffic signals.

- Ordinance No. 671 – Consolidated Fees for Land Use and Related Functions: Ordinance No. 671 establishes a consolidated fee program for land use and related functions. This is a deposit-based fee program and provides for unused fees to be refunded to the applicant.

- Ordinance No. 748 – Mitigation of Traffic Congestion Through Signalization: Ordinance No. 748 establishes a fee program for the installation of traffic signals based on a priority list. The fee would also have a component for the installation of traffic signal interconnect, and a component for the application of intelligent transportation systems technologies.

- Ordinance No. 824 – Western Riverside County Transportation Uniform Mitigation Fee (TUMF) Program: Ordinance No. 824 establishes a TUMF program for western Riverside County. The fees are collected by Riverside County and administered by WRCOG to make roadway improvements in the WRCOG area. TUMF funds are intended for use solely for the engineering, construction, and right-of-way acquisition for regional facilities. TUMF funds may not be used to defray operational and maintenance expenses. Facilities eligible for TUMF are designated by WRCOG and updated periodically. They include streets, arterials, and road improvements as defined in the ordinance.

4.18.3 Basis for Determining Significance

A. *Thresholds of Significance*

Section XVII of Appendix G to the CEQA Guidelines addresses typical adverse effects related to transportation, and includes the following threshold questions to evaluate a project's impacts to transportation (OPR, 2018a):

- Would the project conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?

- Would the project conflict with or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b)?

- Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

- Would the project result in inadequate emergency access or access to nearby uses?

The following thresholds are derived from Riverside County's Environmental Assessment Checklist, which incorporate the current Appendix G thresholds pursuant to the 2018 changes to the CEQA Guidelines, in order to evaluate the significance of the proposed Project's impacts on transportation. The proposed Project would result in a significant impact to transportation if the Project or any Project-related component would:

a. *Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities;*

b. *Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b);*

c. *Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment);*

d. *Cause an effect upon, or a need for new or altered maintenance of roads;*

e. *Cause an effect upon circulation during the project's construction;*

f. *Result in inadequate emergency access or access to nearby uses;*

g. *Include the construction or expansion of a bike system or bike lanes; or*

The significance thresholds set forth in Riverside County's Environmental Assessment Checklist, as modified/updated per the 2018 updates to the CEQA Guidelines, were used to evaluate the significance of the proposed Project's impacts on transportation.

B. Thresholds of Significance for Vehicle Miles Traveled (VMT)

1. Project Level Screening

The County Guidelines state that a project may be determined to have a less-than-significant impact and screen from the need to prepare a project-level VMT analysis if it meets one or more eligible screening criteria. The County's adopted VMT screening criteria are described in Table 4.18-1, *Screening for Land Use Projects Exempt from VMT Calculations*, along with a determination of each screening criteria's applicability to the Project. As shown, the Project does not meet any of the screening criteria. As such, a Project-specific analysis of potential impacts to VMT was conducted. (Urban Crossroads, 2023a, p. 1)

2. VMT Metric and Significance Threshold

As outlined in the County Guidelines, residential land uses should be evaluated based on the efficiency metric VMT per capita and utilize an impact threshold of existing countywide average VMT per capita. For the County of Riverside, the countywide average VMT is noted in the County Guidelines as 15.2 VMT per capita. To estimate Project-generated VMT, land use information must be converted into a RIVTAM compatible dataset. The RIVTAM model utilizes socio-economic data (SED) instead of land use information. Although the Project includes only 231 dwelling units and would result in the generation of only 772 persons (as discussed in EIR subsection 3.6.2.A), as previously noted the Project's VMT Analysis assumes the Project site would be developed with 233 dwelling units, thereby resulting in an estimated population of 778 persons. (Urban Crossroads, 2023a, p. 3)

Table 4.18-1 Screening for Land Use Projects Exempt from VMT Calculations

Screening Criteria	Description	Result
Small Projects Screening	Projects that generate fewer than 110 daily vehicle trips or projects that are below 3,000 Metric Tons of Carbon Dioxide Equivalent ($MTCO_2e$) per year.	Does not meet.
High Quality Transit Areas (HQTA) Screening	High quality transit provides a viable option for many to replace automobile trips with transit trips resulting in an overall reduction in VMT.	Does not meet.
Local Serving Retail	The introduction of new Local serving retail has been determined to reduce VMT by shortening trips that will occur.	Does not meet.
Affordable Housing	Lower-income residents make fewer trips on average, resulting in lower VMT overall.	Does not meet.
Local Essential Service	As with Local-Serving Retail, the introduction of new Local Essential Services shortens non-discretionary trips by putting those goods and services closer to residents, resulting in an overall reduction in VMT.	Does not meet.
Map-Based Screening	This method eliminates the need for complex analyses, by allowing existing VMT data to serve as a basis for the screening smaller developments. Note that screening is limited to residential and office projects.	Does not meet.
Redevelopment Project	Projects with lower VMT than existing on-site uses, can under limited circumstances, be presumed to have a non-significant impact. In the event this screening does not apply, projects should be analyzed as though there is no existing uses on site (project analysis cannot take credit for existing VMT).	Does not meet.

(Urban Crossroads, 2023a, Table 1)

C. *Methodology for Estimating VMT*

The County Guidelines identifies RIVTAM as the appropriate tool for conducting VMT analysis for land development projects in the County of Riverside. RIVTAM is a useful tool to estimate VMT as it considers interaction between different land uses based on socio-economic data such as population, households, and employment. RIVTAM is a travel forecasting model that represents a sub-area (Riverside County) of the Southern California Association of Governments (SCAG) regional traffic model. RIVTAM was designed to provide a greater level of detail and sensitivity in the Riverside County area as compared to the regional SCAG model. (Urban Crossroads, 2023a, p. 2)

4.18.4 IMPACT ANALYSIS

Threshold a: ***Would the Project conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?***

This response provides an analysis of the Project's potential to result in a conflict with plans, programs, ordinances, or policies that address the circulation system, including transit, roadway, bicycle, and pedestrian facilities. A project that generally conforms with, and does not obstruct, applicable plans, programs,

ordinances, and policies is considered to be consistent with such plans, programs, ordinances, and policies. The transportation plans, policies, programs, ordinances, and standards that are relevant to the Project are identified in the analysis below.

❑ Connect SoCal

As previously noted, SCAG has published a 2024-2050 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), referred to as "Connect SoCal." Connect SoCal seeks to improve mobility, promote sustainability, facilitate economic development, and preserve the quality of life for the residents in the region. The long-range visioning plan balances future mobility and housing needs with goals for the environment, the regional economy, social equity and environmental justice, and public health. The goals included in Connect SoCal are pertinent to the proposed Project. These goals are meant to provide guidance for considering the proposed Project within the context of regional goals and policies. An analysis of the Project's consistency with the relevant goals of Connect SoCal previously was presented in Table 4.11-1 in EIR Subsection 4.11, *Land Use and Planning*.. As indicated in EIR Table 4.11-1, the Project would not conflict with any Connect SoCal goals, and no impact would occur.

❑ Riverside County Congestion Management Program

The intent of a Congestion Management Program (CMP) is to more directly link land use, transportation, and air quality, thereby prompting reasonable growth management programs that will effectively utilize new transportation funds, alleviate traffic congestion and related deficiencies, and improve air quality. The County of Riverside CMP became effective with the passage of Proposition 111 in 1990 and most recently updated in 2019 as part of the Riverside County Long Range Transportation Study. The Riverside County Transportation Commission (RCTC) adopted the 2019 CMP for the County of Riverside in December 2019. There are no study area intersections identified as a Riverside County CMP intersection (Urban Crossroads, 2025b, p. 14). Accordingly, the Project would not result in a conflict with the Riverside County CMP and impacts would be less than significant.

❑ Riverside County General Plan Circulation Element

The Riverside County General Plan Circulation Element establishes several goals and policies related to transportation network that are applicable to development projects. As indicated in the analysis presented in the Project's General Plan Consistency Analysis, included as EIR *Technical Appendix N*, the Project would not conflict with any applicable policies or requirements of the Riverside County General Plan Circulation Element, including policies and requirements related to transit, roadway, bicycle, and pedestrian facilities. Accordingly, impacts due to a conflict with the General Plan Circulation Element would be less than significant.

Threshold b:	***Would the Project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?***

As previously noted, changes to the State CEQA Guidelines were adopted in December 2018, which require all lead agencies to adopt VMT as a replacement for automobile delay-based LOS as the measure for identifying transportation impacts for land use projects. This Statewide mandate went into effect July 1, 2020,

consistent with Senate Bill 743 (SB 743). To comply with SB 743, the County of Riverside adopted their "Transportation Analysis Guidelines for Level of Service Vehicle Miles Traveled" ("County Guidelines"). The adopted County Guidelines have been utilized to evaluate the Project's potential impacts due to VMT. (Urban Crossroads, 2023a, p. 1)

As previously noted, the County Guidelines state that a project may be determined to have a less-than-significant impact and screen from the need to prepare a project-level VMT analysis if it meets one or more eligible screening criteria. However, as previously shown in Table 4.18-1, the Project does not meet any of the screening criteria. As such, a Project-specific analysis of potential impacts to VMT was conducted. (Urban Crossroads, 2023a, p. 1)

As stated previously, for residential land uses the efficiency metric VMT per capita is used to evaluate the Project's potential impacts due to VMT. VMT per capita is derived by dividing Project-generated Home-Based (HB) VMT by the Project's population. VMT is obtained from the RIVTAM model using the PA method for calculating VMT, which sums all weekday VMT generated by trips with at least one trip end in the study area (the Project's TAZ). As previously noted, although the Project includes only 231 dwelling units and would result in the generation of only 772 persons (as discussed in EIR subsection 3.6.2.A), the Project's VMT Analysis assumes the Project site would be developed with 233 dwelling units, thereby resulting in an estimated population of 778 persons. Table 4.18-2, *Project VMT per Capita*, presents Project-generated PA HB VMT from the RIVTAM model, along with the County's adopted impact threshold for residential land use, the Project's population estimate, and the resulting VMT per capita metric. As shown, Project-generated VMT per capita exceeds the County's impact threshold by 30.8%. Accordingly, prior to mitigation, the proposed Project would result in a significant impact due to VMT. (Urban Crossroads, 2023a, pp. 3-4)

Table 4.18-2 Project VMT per Capita

	Project
HB VMT	16,210
Population	778
Project VMT per Capita	20.8
County Threshold	15.2
Percent Above Threshold	30.8%
Potentially Significant?	Yes

(Urban Crossroads, 2023a, Table 3)

Threshold c: ***Would the Project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment)?***

Roadway improvements proposed as part of the Project would be limited to frontage improvements along Iris Avenue and the portion of Chicago Avenue that would be improved as part of the Project along the eastern Project boundary, and the construction of on-site roadways. All physical improvements planned as part of the Project would be in conformance with applicable Riverside County standards, and there are no components of the Project's proposed frontage improvements that would create hazards due to a geometric design feature. The Project would involve low-density residential development within an area that is characterized by and/or planned for residential uses interspersed with commercial retail uses and open space. As such, the land uses

proposed by the Project would not comprise an incompatible use with existing land uses in the surrounding area. During the County's review process of GPA220009, CZ2200031, and TTM38510, the County reviewed the proposed design plans to ensure that no hazardous roadway features would be implemented. Accordingly, the proposed Project would not create or substantially increase safety hazards due to incompatible use. Therefore, the Project would not substantially increase hazards due to incompatible uses, and impacts would be less than significant.

Threshold d: ***Would the Project cause an effect upon, or a need for new or altered maintenance of roads?***

Implementation of the proposed Project would generate traffic along local roadways, and therefore would incrementally increase the need for maintenance of local roadway facilities. Although the Project would result in the increased maintenance of roadways and would increase traffic on existing and planned roadways, any incremental increase in the need to maintain public roadway facilities would be offset by tax revenue generated by the Project's proposed land use. There are no components of the proposed Project that would result in or require a substantial increase in expenditures by Riverside County for public road maintenance such that environmental impacts would result. As such, Project impacts would be less than significant.

Threshold e: ***Would the Project cause an effect upon circulation during the project's construction?***

The Project has the potential to adversely impact circulation in the local area during the construction of proposed frontage improvements to roadways abutting the Project site, including Iris Avenue and Chicago Avenue. This is conservatively evaluated as a significant impact for which mitigation would be required in the form of a traffic control plan for implementing developments.

Threshold f: ***Would the Project result in inadequate emergency access or access to nearby uses?***

Under long-term operating conditions, the Project would have no effect on emergency access in the local area, and impacts would be less than significant. In addition, and in accordance with Riverside County Fire Department (RCFD) requirements, the Project also accommodates two points of Emergency Vehicle Access (EVA) along the western and eastern Project boundaries, which would ensure adequate access in the event of an emergency (e.g., wildfires). However, during proposed improvements to roadways abutting the Project site, there is a potential that the Project could adversely affect emergency access or access to nearby uses. This is conservatively evaluated as a significant impact for which mitigation would be required in the form of a traffic control plan for implementing developments.

Threshold g: ***Would the Project include the construction or expansion of a bike system or bike lanes?***

As part of the Project, a centrally located,16-foot-wide pedestrian and equestrian trail would be constructed. Impacts associated with the construction of this trail are inherent to the Project's construction phase, and have been evaluated throughout this EIR under the appropriate subject heading (e.g., biological resources and cultural resources). There would be no impacts to the environment specifically related to the construction of this trail that have not already been evaluated and mitigated to the maximum feasible extent throughout this EIR. Accordingly, impacts would be less than significant.

4.18.5 CUMULATIVE IMPACT ANALYSIS

This cumulative impact analysis considers development of the proposed Project in conjunction with other development projects and planned development that would occur with buildout of the Riverside County General Plan and the general plans of local jurisdictions within the County, and that are within the study area identified by the Project's TA (*Technical Appendix K2*).

The analysis of Threshold a. demonstrates that the Project would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities. Specifically, there are no components of the Project that would conflict with Connect SoCal, the Riverside County CMP, or the Riverside County General Plan Circulation Element. Accordingly, the Project has no potential to result in cumulatively-considerable impacts due to a conflict with a program, plan, ordinance, or policy addressing the circulation system.

As indicated under the analysis of Threshold b., the VMT per capita for the Project's proposed residential uses would exceed the County's threshold of significance by 30.8%. Other cumulative developments within the Project region also have the potential to exceed the County's thresholds of significance for VMT. Accordingly, the Project's impacts due to VMT would be cumulatively considerable.

As indicated under the analysis of Threshold c., the Project would involve low-density residential development within an area that is characterized by and/or planned for residential uses interspersed with commercial retail uses and open space. As such, the land use proposed by the Project would not comprise an incompatible use with existing or planned land uses in the surrounding area. Additionally, during the County's review process of GPA220009, CZ2200031, and TTM38510, the County reviewed the proposed design plans to ensure that no hazardous roadway features would be implemented. Other cumulative developments would similarly be required to demonstrate that no hazards would occur due to incompatible land uses or due to a geometric design feature. As such, cumulatively-considerable impacts would be less than significant.

As indicated under the analysis of Threshold d., there are no components of the proposed Project that would result in or require a substantial increase in expenditures by Riverside County for public road maintenance such that environmental impacts would result. As such, cumulatively-considerable impacts would be less than significant.

As indicated under Threshold e., the Project has the potential to adversely impact circulation in the local area during the construction of proposed frontage improvements to roadways abutting the Project site, including Iris Avenue and Chicago Avenue. There is a potential that other cumulative developments could be under simultaneous construction in the local area, and may adversely affect traffic along local roadways, including Iris Avenue and Chicago Avenue. Both the Project and other cumulative developments would be required to implement appropriate traffic control measures during construction so as not to significantly adversely affect the circulation system. Nonetheless, in the absence of mitigation, the Project's potential impacts to circulation during construction would be cumulatively considerable.

As indicated under the analysis of Threshold f., under long-term operating conditions, the Project would have no effect on emergency access in the local area and the Project would accommodate two EVA access points, thereby resulting in less-than-significant impacts to emergency access. However, during proposed

improvements to abutting roads along the Project frontage (i.e., Iris Avenue and Chicago Avenue), there is a potential that temporary lane closures that may occur during the Project's construction phase could overlap with construction activities associated with cumulative developments. Although it is anticipated a less-than-significant impact would occur, out of an abundance of caution, a significant temporary impact is identified. Accordingly, impacts would be cumulatively-considerable prior to mitigation.

As discussed under the analysis of Threshold g., the Project would entail the construction of a pedestrian and equestrian trail ranging in width from 8 feet to 16 feet throughout the Project site. Impacts associated with the construction of this trail are inherent to the Project's construction phase, and cumulatively-considerable impacts associated with the Project's construction phase have been evaluated throughout this EIR. Where impacts are identified, mitigation measures have been identified to reduce impacts to the maximum feasible extent. Accordingly, cumulatively-considerable impacts associated with the construction of the proposed community trail would be less than significant.

4.18.6 Significance of Impacts Before Mitigation

Threshold a.: Less-than-Significant Impact. The proposed Project would be fully consistent with Connect SoCal, the Riverside County CMP, and the Riverside County General Plan Circulation Element. There are no components of the proposed Project that would conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, or pedestrian facilities. Impacts would be less than significant.

Threshold b.: Significant Direct and Cumulatively-Considerable Impact. Buildout of the residential uses proposed as part of the Project would result in a VMT per capita that is 30.8% above the County's VMT per capita threshold of significance. Therefore, the Project would conflict with or be inconsistent with CEQA Guidelines § 15064.3(b), which represents a significant of the proposed Project.

Threshold c.: Less-than-Significant Impact. All physical improvements planned as part of the Project would be in conformance with applicable Riverside County standards, and the Project's residential land uses are compatible with land uses in the surrounding area. The Project would not substantially increase hazards due to a geometric design feature or due to incompatible land uses. Impacts would be less than significant.

Threshold d.: Less-than-Significant Impact. Although the Project would result in the increased maintenance of roadways and would increase traffic on existing and planned roadways, any incremental increase in the need to maintain public roadway facilities would be offset by tax revenue generated by the Project's proposed land use. There are no components of the proposed Project that would result in or require a substantial increase in expenditures by Riverside County for public road maintenance such that environmental impacts would result. As such, Project impacts would be less than significant.

Threshold e.: Significant Direct and Cumulatively-Considerable Impact. The Project has the potential to adversely impact circulation in the local area during the construction of frontage improvements along roads abutting the Project site (i.e., Iris Avenue and Chicago Avenue). The Project's potential impacts to circulation along abutting roads during construction is conservatively evaluated as a significant impact for which mitigation would be required in the form of a traffic control plan for implementing developments.

Threshold f.: Significant Direct and Cumulatively-Considerable Impact. During proposed improvements to Iris Avenue and/or Chicago Avenue along the Project frontage, there is a potential that the Project could adversely affect emergency access or access to nearby uses. This is conservatively evaluated as a significant impact for which mitigation would be required in the form of a traffic control plan for implementing developments.

Threshold g.: Less-than-Significant Impact. As part of the Project, a 16-foot-wide pedestrian and equestrian trail would be constructed on site. Impacts associated with the construction of this trail are inherent to the Project's construction phase, and have been evaluated throughout this EIR under the appropriate subject heading (e.g., biological resources, etc.). There would be no impacts to the environment specifically related to the construction of this community trail that have not already been evaluated and mitigated for throughout this EIR. Accordingly, impacts would be less than significant.

4.18.7 Applicable Regulations, Design Requirements, And Mitigation

Applicable Regulations and Design Requirements

The following are applicable regulations and design requirements within Riverside County. Although these requirements technically do not meet CEQA's definition for mitigation, they are imposed herein to ensure Project compliance with applicable Riverside County regulations and design requirements.

- Prior to issuance of building permits, the Project Applicant shall pay appropriate Development Impact Fee Program (DIF) fees at the rates then in effect in accordance with Riverside County Ordinance No. 659.

- Prior to final building inspection, the Project Applicant shall pay appropriate Western Riverside County Transportation Uniform Mitigation Fee Program Ordinance (TUMF) fees at the rates then in effect in accordance with Riverside County Ordinance No. 824.

- Prior to final building inspection for each phase of the proposed Project, the Project Applicant shall make fair-share contributions towards required transportation improvements, in accordance with Table 1-3 of the Project's Traffic Analysis (*Technical Appendix K2* to this EIR).

Mitigation

MM 4.18-1 Prior to the issuance of grading permits or improvement plans affecting Iris Avenue or Chicago Avenue, the Project Applicant shall prepare and Riverside County shall approve a temporary traffic control plan. The temporary traffic control plan shall comply with the applicable requirements of the California Manual on Uniform Traffic Control Devices (CMUTCD). A requirement to comply with the temporary traffic control plan shall be noted on all grading and building plans and also shall be specified in bid documents issued to prospective construction contractors.

MM 4.18-2 Prior to issuance of building permits for each phase of the proposed development, Riverside County shall review the building plans to ensure that the following measures have been accommodated by the Project:

a. The Project shall provide pedestrian and bicycle network improvements within the development connecting to existing off-site facilities.

b. The Project shall incorporate bicycle lanes, routes, and shared-use paths into street systems, new subdivisions, and large developments.

4.18.8 Significance Of Impacts After Mitigation

Threshold b: Significant and Unavoidable Direct and Cumulatively-Considerable Impact. As noted by the County Guidelines, Transportation Demand Management (TDM) strategies have been evaluated for the purpose of reducing VMT impacts determined to be potentially significant through use of the California Air Pollution Control Officers Association (CAPCOA) Handbook for Analyzing Greenhous Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity (2021 Handbook). For residential land use projects, the 2021 Handbook provides a list of Neighborhood Design measures that reduce VMT. However, the maximum achievable reduction for these measures as noted in the 2021 handbook is limited to 10%. Therefore, even with implementation of all feasible trip reduction measures, including those listed in Mitigation Measure MM 4.18-2, the Project would be unable to reduce its VMT impact to below the impact threshold. It is also recognized that as the Project area and surrounding communities develop as envisioned under the County of Riverside's General Plan, new residential, retail, and other development would be implemented. These actions could collectively alter transportation patterns, improve the region's jobs/housing ratio, reduce VMT, and support implementation of new or alternative TDM measures. There are no means currently, however, to quantify any VMT reductions that could result from such future growth patterns. Accordingly, even with implementation of Mitigation Measure MM 4.18-2, Project impacts due to VMT would remain significant and unavoidable.

Threshold e.: Less-than-Significant Impact with Mitigation Incorporated. Mitigation Measure MM 4.18-1 requires the Project Applicant to prepare and obtain Riverside County approval of a temporary traffic control plan prior to issuance of grading permits or improvement plans affecting public roadways (Iris Avenue and Chicago Avenue). Implementation of the required mitigation would ensure that Project-related construction activities would not substantially affect circulation during the Project's construction. With implementation of the required mitigation, impacts would be reduced to less-than-significant levels.

Threshold f.: Less-than-Significant Impact with Mitigation Incorporated. Mitigation Measure MM 4.18-1 requires the Project Applicant to prepare and obtain Riverside County approval of a temporary traffic control plan prior to issuance of grading permits. With implementation of the required mitigation, the Project would not result in inadequate emergency access or access to nearby uses during the Project's construction phase. Accordingly, with implementation of the required mitigation, impacts would be reduced to less-than-significant levels.

4.19 TRIBAL CULTURAL RESOURCES

The analysis in this Subsection documents the results of the County's consultation with local Native American Tribes. It should be noted that much of the written and oral communication between Native American tribes and Riverside County is considered confidential in respect to places that have traditional tribal cultural significance (Gov. Code § 65352.4), and although relied upon in part to inform the preparation of this EIR Subsection, those communications are treated as confidential and are not available for public review. Under existing law, environmental documents must not include information about the location of archeological sites or sacred lands or any other information that is exempt from public disclosure pursuant to the Public Records Act (Cal. Code Regs. § 15120(d)).

4.19.1 EXISTING CONDITIONS

A. Tribal Cultural Resources Definition

Tribal Cultural Resources (TCRs) are those resources with inherent tribal values that are difficult to identify through the same means as archaeological resources. These resources can be identified and understood through direct consultation with the tribes who attach tribal value to the resource. Tribal cultural resources may include Native American archaeological sites, but they may also include other types of resources such as a cultural landscape. CEQA defines a tribal cultural resource as a site, feature, place, cultural landscape, sacred place, or object with cultural value to a California Native American tribe that is either included or determined to be eligible for inclusion in the CRHC or a local historical register, or determined by the lead agency to be to be one based on substantial evidence (PRC Section 20174(a)). A cultural landscape that meets this definition is a tribal cultural resource to the extent that the landscape is geographically defined in terms of size and scope (PRC Section 20174(b)). A historical resource or archeological resource that meets this definition might also be a tribal cultural resource, if identified as such by a consulting tribe (PRC Section 20174(c)).

Also relevant is the concept of cultural places through consultation under Senate Bill 18 (SB 18). The purpose of SB 18 is to seek ways to preserve and protect cultural places of California Native Americans. SB 18 requires local governments to involve California Native Americans in early stages of land use planning. SB 18 refers to Public Resources Code §5097.9 and 5097.993 to define a cultural place as Native American sanctified cemetery, place of worship, religious or ceremonial site, or sacred shrine (Public Resources Code §5097.9) or a Native American historic, cultural, or sacred site, that is listed or may be eligible for listing in the California Register of Historic Resources pursuant to Section 5024.1, including any historic or prehistoric ruins, any burial ground, any archaeological or historic site (Public Resources Code §5097.993).

Also relevant is the category termed "traditional cultural property" (TCP), which is typically associated with cultural resource management performed under federal auspices. "Traditional" in this context refers to those beliefs, customs, and practices of a living community of people that have been passed down through the generations, usually orally or through practice. The traditional cultural significance of a historic property, then, is significance derived from the role the property plays in a community's historically rooted beliefs, customs, and practices. A TCP can be defined, generally, as one that is eligible for inclusion in the National Register of Historic Places (NRHP) because of its association with cultural practices or beliefs of a living community that (a) are rooted in that community's history, and (b) are important in maintaining the continuing cultural identity of the community. A landscape can be a TCP and by extension a TCR, provided the cultural landscape meets

the criteria and that the landscape is geographically defined in terms of the size and scope. The appropriate treatment of tribal cultural resources is determined through consultation with tribes.

B. Native American Consultation Process

On September 8, 2022, the County determined that it was ready to initiate environmental review under CEQA for the Project and sent project notification letters under AB 52 to the following California Native American tribes, which had previously submitted general notification requests in writing pursuant to § 21080.3.1(d) of the Public Resources Code.

- Twenty-Nine Palms Band of Mission Indians
- Agua Caliente Band of Cahuilla Indians
- Cahuilla Band of Indians
- Colorado River Indian Tribes
- Morongo Band of Mission Indians
- Pala Band of Mission Indians
- Pechanga Band of Indians
- Fort Yuma Quechan Indian Nation
- Ramona Band of Cahuilla Mission Indians
- Rincon Band of Luiseño Indians
- Santa Rosa Band of Cahuilla Indians
- Soboba Band of Luiseño Indians

Subsequently, after receiving the list of tribal contacts from the California Native Heritage Commission for SB 18 consultation (see below), on October 21, 2022, the County sent written notices under AB 52 to the following additional tribes.

- Cabazon Band of Cahuilla Indians
- Augustine Tribe
- Torres-Martinez Desert Cahuilla Indians

Each recipient was provided a brief description of the Project, a Geographic Information System (GIS) shapefile, maps depicting the location, the lead agency contact information, and a notification that the tribe has 30 days to request consultation, pursuant to PRC Section 21080.3.1(d). The 30-day response period for the initial set of tribes concluded on October 8, 2022. The 30-day response period for the three additional tribes concluded on November 20, 2022.

In addition, and as required Senate Bill 18 (SB18), the County contacted the NAHC to request a Sacred Lands File Search and consultation list on September 8, 2022. Based on prior consultation lists, the County anticipated the following tribes and sent tribal notices under SB 18 to each of the following tribes on September 8, 2022.

- Twenty-Nine Palms Band of Mission Indians
- Agua Caliente Band of Cahuilla Indians
- Cahuilla Band of Indians

- Colorado River Indian Tribes
- Morongo Band of Mission Indians
- Pala Band of Mission Indians
- Pechanga Band of Indians
- Fort Yuma Quechan Indian Nation
- Ramona Band of Cahuilla Mission Indians
- Rincon Band of Luiseño Indians
- Santa Rosa Band of Cahuilla Indians
- Soboba Band of Luiseño Indians

On October 20, 2022, the NAHC responded with a contact list that included all of the above plus additional tribes. Therefore, on October 21, 2022, the County sent notices under SB 18 to the following tribes.

- Cabazon Band of Cahuilla Indians
- Augustine Tribe
- Torres-Martinez Desert Cahuilla Indians

The 90-day response period for the initial set of tribes concluded on December 7, 2022. The 90-day response period for the three additional tribes concluded on January 19, 2023.

Because the County initiated consultation with all AB 52 tribes that requested it, the threshold for release of the CEQA document for public review in PRC Section 21080.3.1(b) has been met. The County will conclude consultation with all AB 52 tribes in good faith prior to the certification of this EIR in accordance with PRC § 21082.3(d).

C. Native American Consultation Results

1. NAHC Sacred Lands File Results

On October 20, 2022, the NAHC responded to the County with a list of Native American contacts. In the response, Cultural Resources Analyst Andrew Green from the NAHC reported that "the result of the Sacred Lands File (SFL) check conducted through the Native American Heritage Commission was negative," meaning that no tribes had recorded sacred lands in or near the Project area.

2. Consultation Results

❑ **Pala Band of Mission Indians**

On December 22, 2022, THPO Shasta Gaughen of the Pala Band responded separately by letter to both AB 52 and SB 18 notifications. In each response, THPO Gaughen declined consultation, deferring to more local tribes. Therefore, pursuant to SB 18 and Section 21080.3.2(b)(1) and 21082.3(d)(1) of the California Public Resources Code (AB 52), the County and Pala Band of Mission Indians concluded consultation.

❑ Quechan Indian Nation

On September 9, 2022, THPO H. Jill McCormick of the Fort Yuma Quechan Tribe responded by email to indicate that the tribe has no comments on the project and that they defer consultation to more local tribes, and that they support the decisions of the local tribes. Therefore, pursuant to SB 18 and Section 21080.3.2(b)(1) and 21082.3(d)(1) of the California Public Resources Code (AB 52), the County and Pala Band of Mission Indians concluded consultation.

❑ Colorado River Indian Tribes

The County did not receive any responses under AB 52 or SB 18 within the required response windows. Pursuant to Section 21082.3(d)(3) of the Public Resources Code, the County considers consultation with the Colorado River Indian Tribes concluded; however, the County will still accept comments during the public comment period on the EIR.

❑ Santa Rosa Band of Cahuilla Indians

The County did not receive any responses under AB 52 or SB 18 within the required response windows. Pursuant to Section 21082.3(d)(3) of the Public Resources Code, the County considers consultation with the Santa Rosa Band of Cahuilla Indians concluded; however, the County will still accept comments during the public comment period on the EIR.

❑ Ramona Band of Cahuilla Mission Indians

The County did not receive any responses under AB 52 or SB 18 within the required response windows. Pursuant to Section 21082.3(d)(3) of the Public Resources Code, the County considers consultation with the Ramona Band of Cahuilla Mission Indians concluded; however, the County will still accept comments during the public comment period on the EIR.

❑ Cahuilla Band of Indians

The County did not receive any responses under AB 52 or SB 18 within the required response windows. Pursuant to Section 21082.3(d)(3) of the Public Resources Code, the County considers consultation with the Cahuilla Band of Indians concluded; however, the County will still accept comments during the public comment period on the EIR.

❑ Rincon Band of Luiseño Indians

On October 17, 2022, Tribal Historic Preservation Officer (THPO) Cheryl Madrigal of the Rincon Band of Luiseño Indians responded by email to request consultation. In her response, she requested copies of existing documents and technical reports and grading plans. The County sent the documents on June 27, 2023, and provided updated maps and site forms on April 8, 2024. On August 30, 2023, the County participated in a virtual meeting, during which Rincon informed County staff that one of the sites on the property, CA-RIV-7181, is a Tribal Cultural Resource. The tribe recommended avoidance of all cultural sites and features within the Project area.

The tribe sent another letter dated September 1, 2023, stating, "The Tribal Historic Preservation Office (THPO) has reviewed the provided documents and we are concerned about the proposed impacts to cultural and tribal cultural resources. The THPO understands that the Pechanga Band of Indians and Soboba Band of Luiseño Indians have been engaged throughout the field investigations on the project property. The Rincon Band will therefore defer further consultation to the representatives of these tribes. Please note that the Rincon Band supports all efforts to completely avoid cultural resources as preferred mitigation." Therefore, pursuant to SB 18 and Section 21080.3.2(b)(1) and 21082.3(d)(1) of the California Public Resources Code (AB 52), the County and Rincon Band of Luiseño Indians concluded consultation.

❑ Agua Caliente Band of Cahuilla Indians

On October 4, 2022, Archaeological Technician Nicole Raslich of the Agua Caliente Band of Cahuilla Indians responded in an emailed letter requesting consultation and copies of existing cultural resources technical documentation. The County afforded opportunities for the tribe to participate in Phase II archaeological testing in the Project Area and to review the testing plan in advance of implementation. On December 2, 2022, Roman Dominguez, Cultural Resources Supervisor for the Agua Caliente Band of Cahuilla Indians, notified the County that it is deferring monitoring to the other tribes.

❑ Pechanga Band of Indians

Assistant THPO Juan Ochoa of the Pechanga Band of Indians responded separately to AB 52 and SB 18 in two emailed letters dated October 6, 2022, requesting consultation under both. In both letters, he stated that the Project area is part of *'Ataaxum* (Luiseño), and therefore the Tribe's, aboriginal territory as evidenced by the existence of cultural resources associated with religious practice and an extensive artifact record in the vicinity of the project. He further stated that the culturally sensitive area is affiliated with the Pechanga Band because of the Tribe's cultural ties to this area as well as their extensive history with the County and other projects within the area.

The County afforded opportunities for the Pechanga Band to participate in Phase II archaeological testing in the Project Area and to review the testing plan in advance of implementation. All Phase II testing was monitored by a Pechanga representative. The Tribe had number of meetings with the County along with the applicant discussing impacts to TCRs, requesting avoidance of impacts and assessments of proposed impact. Pechanga representatives also participated in field visits with the County and other tribes, as described further below.

❑ Soboba Band of Luiseño Indians

THPO Joseph Ontiveros of the Soboba Band of Luiseño Indians responded in emailed letters dated October 07, 2022, requesting to consult under both AB52 and SB18.

The County afforded opportunities for the Soboba Band to participate in Phase II archaeological testing in the Project Area and to review the testing plan in advance of implementation. All Phase II testing was monitored by a Soboba representative. Soboba representatives participated in field visits with the County and other tribes, as described further below.

❑ Field and Office Meetings with Pechanga and Soboba

Field visits with tribal representatives occurred on October 24, 2022, throughout December 2022, on July 18, 2023, and on June 4, 2024. During these meetings, the tribes provided information regarding the sensitivity of the area. Tribal representatives informed the County of the sensitivity of the overall project vicinity. During the June 4, 2024, field visit additional previously unrecorded resources, largely bedrock milling features, were identified. These features were documented and incorporated into the project documents. Impacts to TCRs are addressed in this EIR.

Both Pechanga and Soboba identified the presence of a TCR landscape that includes, but is not limited to, the Project area. The County has reviewed and considered the confidential information provided by the tribes and has determined that this landscape is a TCR for the purposes of this Project and its CEQA review. A very limited summary of this TCR landscape that is suitable for public distribution is provided below.

D. Summary of Tribal Cultural Resources

Within the Project area, and based on information provided by the consulting tribes, the County has determined that a TCR landscape, as defined in California Public Resources Code Section 21074.2, is present. The tribes maintain that the TCR landscape is composed of multiple activity areas, represented by Sites P-33-012915/CA-RIV-7181, P-33-012916/CA-RIV-7182, P-33-012917/CA-RIV-7183. P-33-012918/CA-RIV-7184, CA-001, CA-002, CAR-04, CAR-05, CAR-08, CAR-09, CAR-10, CAR-11, CAR-12, and CAR-13-I, which are tangible resources that are contributing elements to a much larger TCR landscape. A discussion of these tangible resources that form a component of the overall landscape previously was provided in EIR Subsection 4.4, *Cultural Resources*; please refer to EIR subsection 4.5.1.E for a complete description of these resources. The County also recognizes that this TCR landscape may be considered eligible for the California Register of Historical Resources and the National Register of Historic Places. Provided below is a description of the TCR landscape as provided by the Luiseño Indians and Cahuilla Indians.

❑ Luiseño Indians

The following is a description of the TCR landscape from the Luiseño perspective as provided by the Pechanga Band:

> "*The Pechanga Band of Indians asserts that the Project area lies within the 'Atáaxum (which means 'the People', historically known as "Luiseño") Aboriginal Territory, which is identified by the existence of cultural resources, place names, tóota yixélval (rock art, pictographs, petroglyphs), and an extensive artifact record. The Project Area falls within this Territory and is a Tribal Cultural Resource (TCR) associated with the 'Atáaxum people. The TCR has vital connections to the Pechanga people through the 'Atáaxum Creation Account and the named places therein, which are documented in the language, songs, and oral tradition. As part of AB 52 consultation, the Pechanga Band stated the TCR located within the project boundary retains religious and cultural significance. Composed of a series of tangible and intangible sites, many of these features located within the project footprint are indicative of everyday use including: food processing, medicinal preparation, and religious observances, which represent a deep understanding of local flora and fauna. The ceremonial sites, marked by rock art [not identified inside the Project Area] and ritual features, underscore the spiritual and cultural practices that were intimately tied to the landscape. Together, these sites provide tangible*

links to the traditional ecological knowledge held by the 'Atáaxum; therefore, preserving interactions with the environment for current and future generations.

"This landscape embodies a comprehensive record of ancient land use and subsistence strategies, illustrating how the 'Atáaxum adeptly navigated the natural world to support their communities. The abundance of water currently [in the drainage] on the property, is a fraction of what was flowing before twentieth century farming diversions. [The tribe maintains that] this location is precisely where our large Ancestral village is situated, as evidenced by the tangible features and a multitude of cultural items found on the surface; indicating the high likelihood of substantial subsurface cultural resource deposits. To meet the challenges of modern-day preservation, the Pechanga Tribe chooses to respond, describe, and actively engage with Lead Agencies and Project Applicants directly. It is the Tribes' hope to honor our 'Atáaxum Ancestor's ingenuity, while maintaining a tangible and true living-connection with our Cultural heritage. Any and all conservation efforts help ensure that future generations will continue engaging, existing, and learning with the wisdoms embedded in our Ancestral Landscapes."

- **Cahuilla**

The following is a description of the TCR landscape from the Cahuilla perspective as provided by the Soboba Band:

"*The Tribal Cultural Resource for the Cahuilla encompasses a sacred landscape marked by numerous tangible and ceremonial sites, as well as an ethnographic trail intricately linked to the Cahuilla origin and the Peet' Wi'kik'mal. Milling features, that extend throughout the landscape, are vital for processing plant materials for both food, and at times for ceremonial purposes, illustrating the Cahuilla's sophisticated understanding of local ecosystems, seasonal cycles, and traditional plant uses (edible, practical, medicinal and ceremonial). The sacred places serve as physical locations for ceremony, and remain tangible evidence of the Cahuilla way of life and traditions that continue to be passed down through generations. The Peet' Wi'kik'mal, which is the trail followed by the Cahuilla after the creation of the world, encompasses physical elements as well as intangible aspects of the Cahuilla world view. It is these oral histories, and the Wi'kik'mal Taxmu'a which connect the physical and spiritual power associated with the Cahuilla way of life.*

"Since time immemorial, this landscape is not only a physical space but, the foundation and basis for Cahuilla existence. Each element of the landscape is a testament to the land use practices and traditional ecological wisdom that has continued since creation. This resource continues to be an integral part of Cahuilla cultural identity, and its traditions maintained and preserved through story and song, stive to continue for future generations, despite overwhelming circumstances. It is difficult to put in modern words how Cahuilla People are connected to the landscape. It is hopeful that non-Indians will accept, or try to understand that if sacred places, features and cultural landscapes are completely erased as a result of development, the impact would be catastrophic to the Cahuilla way of life and existence as a traditional people. It is the preservation of the tangible resources, that preserve the intangible spirituality, power and spirit of the first peoples of this land."

Based on tribal consultation, the County considered whether or not the Tribal Cultural Landscape (TCL) is eligible for inclusion in the California Register of Historical Resources (CRHR) or National Register of Historic Places (NRHP). The eligibility criteria for the NRHP are as follows (36 CFR 60.4): "The quality of significance in American history, architecture, archaeology, and culture is present in districts, sites, buildings, structures, and objects of state and local importance that possess aspects of integrity of location, design, setting, materials, workmanship, feeling, association, and

(a) that are associated with events that have made a significant contribution to the broad patterns of our history; or
(b) that are associated with the lives of persons significant in our past; or
(c) that 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) that have yielded, or may be likely to yield, information important in prehistory or history.

In addition, the resource must be at least 50 years old, except in exceptional circumstances (36 CFR 60.4). Effects to NRHP-eligible resources (historic properties) are adverse if the project may alter, directly or indirectly, any of the characteristics of a Historic Property that qualify the property for inclusion in the NRHP in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association.

Separately, under State law (CEQA), cultural resources are evaluated using CRHR eligibility criteria in order to determine whether any of the sites are Historical Resources, as defined by CEQA. CEQA requires that impacts to Historical Resources be identified and, if the impacts would be significant, that mitigation measures to reduce the impacts be applied.

A Historical Resource is a resource that:

1. is listed in or has been determined eligible for listing in the CRHR by the State Historical Resources Commission;
2. is included in a local register of historical resources, as defined in PRC 5020.1(k);
3. has been identified as significant in a historical resources survey, as defined in PRC 5024.1(g); or
4. is determined to be historically significant by the CEQA lead agency CCR Title 14, § 15064.5(a)]. In making this determination, the CEQA lead agency usually applies the CRHR eligibility criteria.

The eligibility criteria for the CRHR (CCR Title 14, § 4852(b)) state that a resource is eligible if:

1. it is associated with events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the U.S.;
2. it is associated with the lives of persons important to local, California, or national history.
3. it embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master or possesses high artistic values; or
4. it has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the Nation.

In addition, the resource must retain integrity. Integrity is evaluated with regard to the retention of location, design, setting, materials, workmanship, feeling, and association (CCR Title 14, § 4852(c)). Impacts to a Historical Resource (as defined by CEQA) are significant if the resource is demolished or destroyed or if the characteristics that made the resource eligible are materially impaired (CCR Title 14, § 15064.5(a)).

The TCL has vital connections to the Pechanga people through the 'Atáaxum Creation Account and the named places therein, which are documented in the language, songs, and oral tradition. The TCL is also identified by the Soboba as a sacred landscape marked by numerous tangible and ceremonial sites, as well as an ethnographic trail intricately linked to the Cahuilla origin and the Peet' Wi'kik'mal. As such, this TCL is associated with important events in Native American history and therefore, this site is eligible for inclusion in the NRHP under Criterion A or CRHR under Criterion 1.

No information has been provided or located to indicate that this TCL is associated with important persons in history or pre-contact history and therefore, this site is not eligible for inclusion in the NRHP under Criterion B or CRHR under Criterion 2.

As a non-architectural resource, the TCL does not embody the distinctive characteristics of a type, period, region, or method of construction, or represent the work of a master or possess high artistic values, and as such, is not eligible for inclusion in the NRHP under Criterion C or CRHR under Criterion 3.

Many of the tangible elements of the TCL were subjected to archaeological testing to determine significance and the presence or absence of archaeological data that could result in the TCL being significant under NRHP Criterion D and CRHR Criterion 4. Of the features tested, very little archaeological data exists and from a purely archaeological perspective, the TCL is not eligible under NRHP Criterion D or CRHR Criterion 4. However, the presence of tangible features in association with a drainage corridor that collectively have significance to the tribes maintain their original spatial relationship to each other and to the creation stories, thereby conveying information about these associations that is not provided elsewhere. Therefore, as a TCR, this TCL is eligible under NRHP Criterion D or CRHR Criterion 4.

Because sites P-33-12916/CA-RIV-7182 and P-33-012915/CA-RIV-7181 are eligible for the NRHP and CRHR under criterion A and 1 and criterion D and 4 and because they retain sufficient integrity, these sites are considered historical resources under CEQA and historic properties under Section 106. Therefore, this TCL is also a TCR for the purpose of CEQA.

4.19.2 Applicable Regulatory Requirements

The following is a brief description of the State environmental laws and related regulations addressing Tribal Cultural Resources (TCRs). Refer also to EIR subsection 4.5.2 for a complete description of federal, State, and local environmental laws and regulations governing the protection of cultural resources.

A. Traditional Tribal Cultural Places Act (Senate Bill 18, "SB 18")

Senate Bill 18 (SB 18) requires local (city and county) governments to consult with California Native American tribes to aid in the protection of traditional tribal cultural places ("cultural places") through local land use

planning. SB 18 also requires the Governor's Office of Planning and Research (OPR) to include in the General Plan Guidelines advice to local governments for how to conduct these consultations. (OPR, 2005)

The intent of SB 18 is to provide California Native American tribes an opportunity to participate in local land use decisions at an early planning stage, for the purpose of protecting, or mitigating impacts to, cultural places. The purpose of involving tribes at these early planning stages is to allow consideration of cultural places in the context of broad local land use policy, before individual site-specific, project-level land use decisions are made by a local government. (OPR, 2005)

SB 18 requires local governments to consult with tribes prior to making certain planning decisions and to provide notice to tribes at certain key points in the planning process. These consultation and notice requirements apply to adoption and amendment of both general plans (defined in Government Code § 65300 et seq.) and specific plans (defined in Government Code § 65450 et seq.). Although SB 18 does not specifically mention consultation or notice requirements for adoption or amendment of specific plans, existing state planning law requires local governments to use the same processes for adoption and amendment of specific plans as for general plans (see Government Code § 65453). Therefore, where SB 18 requires consultation and/or notice for a general plan adoption or amendment, the requirement extends also to a specific plan adoption or amendment. (OPR, 2005)

B. Assembly Bill 52 (AB 52)

California Assembly Bill 52 (AB 52) (2014) Chapter 532 amended Section 5097.94 of, and added Sections 21073, 21074, 21080.3.1, 21080.3.2, 21802.3, 21083.09, 21084.2 and 21084.3 to the California Public Resources Code, relating to Native Americans. AB 52 was approved on September 25, 2014. By including tribal cultural resources early in the CEQA process, the legislature intended to ensure that local and Tribal governments, public agencies, and project proponents would have information available, early in the project planning process, to identify and address potential adverse impacts to tribal cultural resources. By taking this proactive approach, the legislature also intended to reduce the potential for delay and conflicts in the environmental review process. (OPR, 2017b)

The Public Resources Code now establishes that "[a] project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment." (Pub. Resources Code, § 21084.2.) To help determine whether a project may have such an effect, the Public Resources Code requires a lead agency to consult with any California Native American tribe that requests consultation and is traditionally and culturally affiliated with the geographic area of a proposed project. That consultation must take place prior to the determination of whether a negative declaration, mitigated negative declaration, or environmental impact report is required for a project. (Pub. Resources Code, § 21080.3.1.) (OPR, 2017b)

If a lead agency determines that a project may cause a substantial adverse change to tribal cultural resources, the lead agency must consider measures to mitigate that impact. Public Resources Code § 20184.3 (b)(2) provides examples of mitigation measures that lead agencies may consider to avoid or minimize impacts to tribal cultural resources. These rules apply to projects that have a notice of preparation for an environmental impact report or negative declaration or mitigated negative declaration filed on or after July 1, 2015. (OPR, 2017b)

§ 21074 of the Public Resources Code defines "tribal cultural resources." In brief, in order to be considered a "tribal cultural resource," a resource must be either:

(1) listed, or determined to be eligible for listing, on the national, state, or local register of historic resources, or

(2) a resource that the lead agency chooses, in its discretion, to treat as a tribal cultural resource. (OPR, 2017b)

In the latter instance, the lead agency must determine that the resource meets the criteria for listing in the state register of historic resources. In applying those criteria, a lead agency must consider the value of the resource to the tribe. (OPR, 2017b)

C. *State Health and Safety Code*

California Health and Safety Code (HSC) § 7050.5(b) requires that excavation and disturbance activities must cease "In the event of discovery or recognition of any human remains in any location other than a dedicated cemetery…" until the coroner can determine regarding the circumstances, manner, and cause of any death. The coroner is then required to make recommendations concerning the treatment and disposition of the human remains. Further, this section of the code makes it a misdemeanor to intentionally disturb, mutilate or remove interred human remains. HSC § 7051 specifies that the removal of human remains from "internment or a place of storage while awaiting internment" with the intent to sell them or to dissect them with "malice or wantonness" is a public offense punishable by imprisonment in a state prison. Lastly, HSC §§ 8010-8011 establish the California Native American Graves Protection and Repatriation Act consistent with the federal law addressing the same. The Act stresses that "all California Indian human remains and cultural items are to be treated with dignity and respect." It encourages voluntary disclosure and return of remains and cultural items by publicly funded agencies and museums in California. It also outlines the need for aiding California Indian tribes, including non-federally recognized tribes, in filing repatriation claims. (CA Legislative Information, n.d.)

California Health and Safety Code, Section 5097.98 states that whenever the commission receives notification of a discovery of Native American human remains pursuant to HSC subdivision (c) of Section 7050.5, it shall immediately notify those persons that are the most likely descendants. The descendants may inspect the site and make recommendations to the landowner as to the treatment of the human remains. The landowner shall ensure that the immediate vicinity around the remains is not damaged or disturbed by further development activity until coordination has occurred with the descendants regarding their recommendations for treatment, taking into account the possibility of multiple human remains. The descendants shall complete their inspection and make recommendations within 48 hours of being granted access to the site. (CA Legislative Information, n.d.)

4.19.3 Basis for Determining Significance

Section XVIII of Appendix G to the State CEQA Guidelines addresses typical adverse effects on tribal cultural resources, and includes the following threshold question to evaluate the Project's impacts to tribal cultural resources (OPR, 2018a):

- *Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:*
  - *Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?*
  - *A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?*

Significance thresholds are set forth in Riverside County's Environmental Assessment Checklist, as modified based on the 2018 updates to Section XVIII of Appendix G to the State CEQA Guidelines, and indicate significant impacts would occur if the Project or any Project-related component would:

a. *Cause a substantial adverse change in the significance of a Tribal Cultural Resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American Tribe, and that is*

   1. *Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1 (k); or*
   2. *A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.*

4.19.4 Impact Analysis

Threshold a.: ***Would the Project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:***

1. Listed or eligible for listing in the California Register of Historical resources or in a local register of historical resources as defined in Public Resources Code section 5020.1(k); or

> ***2. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1?***

A. Project Impacts to Tangible Tribal Cultural Resources

As previously discussed, the County has determined that a TCR landscape, as defined in California Public Resources Code Section 21074.2, is present. The tribes maintain that the TCR landscape is composed of multiple activity areas, represented by Sites P-33-012915/CA-RIV-7181, P-33-012916/CA-RIV-7182, P-33-012917/CA-RIV-7183. P-33-012918/CA-RIV-7184, CA-001, CA-002, CAR-04, CAR-05, CAR-08, CAR-09, CAR-10, CAR-11, CAR-12, and CAR-13-I, which are tangible resources that are contributing elements to a much larger TCR landscape. As previously discussed in EIR Subsection 4.5, two of the identified cultural resources sites were determined to be eligible for the CRHR: P-33-012915/CA-RIV-7181, P-33-012916/CA-RIV-7182. In addition, the following sites are being treated as eligible as contributing elements to the TCL for the CRHR for this Project, and that determination cannot be reversed outside of the CEQA process: Sites CA-04, CA-05, CAR-08, CAR-09, CAR-10, CAR-11, CAR-12, and CAR-13-I. Furthermore, tribal consultation with the Rincon Band of Luiseno Indians identified P-33-012915/CA-RIV-7181 as an individual Tribal Cultural Resource.

The Project would result in impacts to approximately 16.39 acres of cultural resources sites. Of this, 14.46 acres would be preserved in place through horizontal avoidance and placement into open space, which constitutes almost 89 percent of the tangible cultural resources area. The balance of the cultural resource areas cannot be preserved in place because of the need for infrastructure, ingress/egress, and engineering constraints. With respect to P-33-012915/CA-RIV-7181 specifically, 95% of the site will be preserved in place and no bedrock milling features will be affected. Notwithstanding, implementation of the proposed Project would result in direct physical impacts to approximately 0.61 acre of the overall 12.17 acres mapped for Site P-33-12915/CA-RIV-7181, and would impact approximately 1.00 acre of the overall 3.80 acres mapped for Site P-33-12916/CA-RIV-7182. In addition, because a Phase II testing program was not conducted for Sites CAR-04, CAR-05, CAR-08, CAR-09, CAR-10, CAR-12, and CAR-13-1, for purposes of analysis herein these sites are considered to comprise potential tribal cultural resources. The Project would result in direct impacts to Sites CAR-04, CAR-05, CAR-08, CAR-10, and CAR-13-1. The Project would not result in any impacts to Sites CAR-02, CAR-09, CAR-11, Features A, B, and C of CA-RIV-7183, and Features A and C of CA-RIV-7184, as the Project would completely avoid impacts to them. Therefore, Project impacts to *portions* of Sites P-33-12915/CA-RIV-7181, P-33-12916/CA-RIV-7182, and CA-RIV-7184, and relocation of CA-01, CAR-04, CAR-05, CAR-08, CAR-10, CAR-12, and CAR-13-1 represent significant tribal cultural resources impacts of the proposed Project for which mitigation would be required.

In addition, excavation and trenching during Project construction could encounter previously unknown buried tribal cultural resources. If encountered, Project activity could result in a substantial adverse change in the significance of a tribal cultural resource. Tribal monitoring during ground disturbing activities, coupled with avoidance and preservation in place and procedures to identity, evaluate, and treat the discoveries, would ensure that tribal cultural resources, if encountered, are treated with care and in a culturally appropriate manner. This is evaluated as a potentially significant impact for which mitigation would be required.

B. Project Impacts to Tribal Cultural Landscape

Tribal consultation under AB 52 and SB 18 resulted in the identification of a tribal cultural landscape, which is a tribal cultural resource for the purposes of this Project and its CEQA review.

According to the Pechanga Band and Soboba Band, the analysis of direct effects on the tribal cultural landscape is based upon a one-mile radius from the Project boundary, and includes effects to tangible archaeological and historical resources, as well as effects on intangible aspects of traditional tribal practices and spirituality. This requires baseline documentation about the available archaeological, historical (including historic trails), ethnographic, environmental, and Tribal cultural information related to the tribal cultural landscape, particularly within, the Tribes' traditions, ceremonial practices and oral histories. A review of historical maps showing trails, hydrologic features, a review and flora and fauna studies as well as geology and hydrology reports, is also important. Finally, the tribes suggested a visual impact analysis from the Project area to assist with this impact assessment.

For Riverside County's purpose in compliance with CEQA for any given project, the scope of analysis must be specific and scaled to the Project area. While information gathering and synthesis of the wider landscape may be desired to provide context for the resource located within a Project area, the County's ability to analyze and mandate mitigation for a Project's impact under CEQA is fairly limited to the Project area and immediately adjacent areas and in no circumstances can it extend outside of the County jurisdiction or onto privately owned property.

The County has considered the limitations of CEQA and has determined that, given the surrounding existing residential developments, the area of potential effects for the proposed Project, aside from cumulative impacts, as discussed below, is limited to the Project site. To determine whether or not there is a visual impact to adjacent or surrounding TCRs outside of the Project area, the County reviewed desktop information available on Google Earth to document the viewshed from various points along the Project Boundary. The desktop visual assessment indicates that the view from the entirety of the eastern and southern boundaries of the Project is obstructed by modern residential development, including buildings, structures, and objects. The view from the eastern portion of the northern boundary also is obstructed by residential structures. The views to the west largely are unobstructed, but largely graded by adjacent land use outside of the Project area. The great majority of the area within a one-mile radius is fully built out and obstructed by modern development, with very little remaining undisturbed.

Within the Project area, and as discussed above, the tangible sites and features associated with the TCR total approximately 16.39 acres. Of this, 14.46 acres would be preserved in place through horizontal avoidance and placement into open space, which constitutes approximately 89 percent of the tangible tribal cultural resources being preserved in place.

In consideration of the information provided by consulting tribes and the analysis summarized herein, the County has determined that the Project will have a significant effect on the TCR landscape within the Project area, but will not have an effect on portions of the TCR landscape that extend beyond the Project site. Accordingly, prior to mitigation, Project impacts to the on-site portions of the TCR landscape would represent a significant impact of the proposed Project.

4.19.5 Cumulative Impact Analysis

This cumulative impact analysis considers development of the proposed Project in conjunction with other development projects and planned development within western Riverside County. This study area was selected for evaluation because it encompasses a broad region with similar geological, biological, and climatic conditions that would potentially yield associated TCRs.

As indicated under the analysis of Threshold a., Project impacts to *portions* of Sites P-33-12915/CA-RIV-7181, P-33-12916/CA-RIV-7182, and CA-RIV-7184, CA-01, CAR-04, CAR-05, CAR-08, CAR-10, CAR-12, and CAR-13-1 represent a significant tribal cultural resources impacts of the proposed Project for which mitigation would be required. Other developments projects in western Riverside County also would have the potential to result in impacts to TCRs, including sites or resources that may be buried beneath the ground surface. As such, potential Project impacts to these tangible TCRs would be cumulatively considerable prior to mitigation.

The development of the proposed Project in combination with other projects within the vicinity of the Project site would cumulatively contribute to impacts to TCR landscapes and ultimately could contribute to loss of these resources in the area. Although the Project and other cumulative developments would be required to follow existing State and federal law or other agency regulations and policies that require tribal consultation, because the Project site is located within an identified TCR landscape, Project impacts to the TCR landscape would be cumulatively considerable prior to mitigation.

In addition, the Project has the potential to result in impacts to TCRs that may be present beneath the ground surface of areas to be disturbed by Project-related construction activities. Other developments projects in western Riverside County similarly have the potential to result in impacts to previously-undiscovered TCRs, including sites or resources that may be buried beneath the ground surface. As such, potential Project impacts to previously-undiscovered TCRs would be cumulatively considerable prior to mitigation.

4.19.6 Significance of Impacts Before Mitigation

Threshold a.: Significant Direct and Cumulatively-Considerable Impact. Implementation of the proposed Project would result in direct physical impacts to approximately 0.61 acre of the overall 12.17 acres mapped for Site P-33-12915/CA-RIV-7181, and would impact approximately 1.00 acre of the overall 3.80 acres mapped for Site P-33-12916/CA-RIV-7182, both of which are considered tribal cultural resources. In addition, the Project would result in direct impacts to Sites CA-01, CAR-04, CAR-05, CAR-08, CAR-10, CAR-10, and CAR-13-1, and *portions* of CA-RIV-7184, all of which are assumed to comprise potential tribal cultural resources. Therefore, Project impacts to Sites P-33-12915/CA-RIV-7181, P-33-12916/CA-RIV-7182, CAR-04, CAR-05, CAR-08, CAR-10, CAR-12, and CAR-13-1 represent significant tribal cultural resources impacts of the proposed Project for which mitigation would be required. The Project site also has been identified as a component of a TCR landscape; thus, development of the Project site with residential uses would result in a potentially significant impact to the TCR landscape and mitigation would be required. Additionally, the Project has the potential to result in impacts to TCRs that may be buried beneath the Project site's surface, resulting in a potentially significant impact prior to mitigation.