I-215/Keller Road New Interchange Project

RIVERSIDE COUNTY, CALIFORNIA
DISTRICT 08-RIV-215 (PM R14.10/R15.26)
08-0Q220/PN0800020339

Draft Environmental Impact Report/ Environmental Assessment



Prepared by the
State of California, Department of Transportation
and the City of Murrieta

The environmental review, consultation, and any other actions required by applicable Federal environmental laws for this project are being, or have been, carried out by Caltrans pursuant to 23 U.S.C. 327 and the Memorandum of Understanding dated May 27, 2022, and executed by FHWA and Caltrans.

May 2025

General Information about this Document

What's in this document:

The California Department of Transportation (Caltrans), as assigned by the criteria Federal Highway Administration (FHWA), has prepared this Environmental Impact Report/Environmental Assessment (EIR/EA), which examines the potential environmental impacts of the alternatives being considered for the proposed Project located in Riverside County, California. Caltrans is the lead agency under the National Environmental Policy Act (NEPA) and under the California Environmental Quality Act (CEQA). This document tells you why the proposed Project is being proposed, what alternatives have been considered for the proposed Project, how the existing environment could be affected by the proposed Project, the potential impacts of each of the alternatives, and the proposed avoidance, minimization, and/or mitigation measures.

What you should do:

- Please read this document.
- Additional copies of this document and the related technical studies are available for review at the City of Murrieta, Office of the City Clerk, City Hall, Town Square, Murrieta, CA, 92562. (Available for review Monday through Friday from 8:00 a.m. to 5:00 p.m.; please call the City of Murrieta at (951) 304-2489 to confirm availability of hard copies for review). This document may be downloaded at the following website: https://www.murrietaca.gov/1224/I-215Keller-Road-Interchange-Project.
- Attend the public meeting July 8, 2025 from 6:00-8:00pm, Murrieta City Hall, Council Chambers Room, Town Square, Murrieta, CA, 92562.
- We would like to hear what you think. If you have any comments about the proposed Project, please attend the public meeting on July 8, 2025 (see above) and/or send your written comments via postal mail or email within the 45 day comment period (June 13-July 29, 2025) to Caltrans.

- Send comments via postal mail to:
  Hannah Duarte, Acting Branch Chief
  Caltrans, District 8, Environmental Studies D
  464 West 4th Street, 6th Floor, MS 820
  San Bernardino, CA 92401-1400

- Send comments via email to: 215NewKellerRdIC@dot.ca.gov

- Be sure to send comments by the deadline: July 29, 2025

What happens next:

After comments are received from the public and reviewing agencies, Caltrans, as assigned by the FHWA, may: (1) give environmental approval to the proposed Project, (2) do additional environmental studies, or (3) abandon the proposed Project. If the proposed Project is given environmental approval and funding is obtained, Caltrans could design and construct all or part of the proposed Project.

Alternative Formats

For individuals with sensory disabilities, this document can be made available in Braille, in large print, on audiocassette, or on computer disk. To obtain a copy in one of these alternate formats, please call or write to Department of Transportation, Attn: Eric Dionne, Chief, Public and Media Affairs, 464 W 4th Street, San Bernardino, CA 92401, or use the California Relay Service 1 (800) 735-2929 (TTY to Voice), 1 (800) 735-2922 (Voice to TTY), 1 (800) 855-3000 (Spanish TTY to Voice and Voice to TTY), 1-800-854-7784 (Spanish and English Speech-to-Speech) or 711.

SCH# 2022090376
DISTRICT 08-RIV-215 (PM R14.10/R15.26)
EA 08-0Q220/PN0800020339

Construct I-215/Keller Rd Interchange (Postmile R14.10/R15.26) in City of Murrieta, Riverside County, CA.

DRAFT ENVIRONMENTAL IMPACT REPORT/ENVIRONMENTAL ASSESSMENT

Submitted Pursuant to: (State) Division 13, California Public Resources Code
(Federal) 42 U.S.C. 4332(2)(C)

THE STATE OF CALIFORNIA
Department of Transportation
and
City of Murrieta

5/20/2025
Date

Antonia Toledo
Acting District Deputy Director
Environmental Planning
District 8
California Department of Transportation

The following persons may be contacted for more information about this document:

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Caltrans, District 8
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(909) 472-5756

Summary

S.1 NEPA Assignment

California participated in the “Surface Transportation Project Delivery Pilot Program” (Pilot Program) pursuant to 23 USC 327, for more than five years, beginning July 1, 2007, and ending September 30, 2012. MAP-21 (P.L. 112-141), signed by President Obama on July 6, 2012, amended 23 USC 327 to establish a permanent Surface Transportation Project Delivery Program. As a result, the Department entered into a Memorandum of Understanding pursuant to 23 USC 327 (NEPA Assignment MOU) with FHWA. The NEPA Assignment MOU became effective October 1, 2012, and was renewed on May 27, 2022, for a term of ten years. In summary, the Department continues to assume FHWA responsibilities under NEPA and other federal environmental laws in the same manner as was assigned under the Pilot Program, with minor changes. With NEPA Assignment, FHWA assigned and the Department assumed all of the United States Department of Transportation (USDOT) Secretary's responsibilities under NEPA. This assignment includes projects on the State Highway System and Local Assistance Projects off the State Highway System within the State of California, except for certain categorical exclusions that FHWA assigned to the Department under the 23 USC 326 CE Assignment MOU, projects excluded by definition, and specific project exclusions.

S.2 Introduction

The California Department of Transportation (Caltrans, or the Department), as assigned by FHWA, has prepared this EIR/EA, which examines the potential environmental impacts of the alternatives being considered for the Interstate 215 (I-215)/Keller Road New Interchange Project (proposed Project) in Murrieta, within Riverside County, California. Caltrans is the lead agency under the NEPA and the CEQA.

The existing Keller Road is a paved two-lane undercrossing with no direct connections to the I-215. Areas east of the I-215 within the proposed Project limits are within Murrieta with land uses that include Regional Conservation Authority (RCA) mitigation land, vacant land, residential, commercial, and medical. Areas to the north of Keller Road and west of the I-215 are in Menifee and consist of rural residential, commercial, and vacant land. Areas to the south of Keller Road and west of the I-215 are under the jurisdiction of the City of

Murrieta and include the Murrieta Hills Specific Plan Amendment (MHSPA) area allowing for mixed uses. The proposed Project limits from south to north are from Post Miles R14.10 to R15.26, between the I-215/Clinton Keith Road interchange and the I-215/Scott Road interchange.

S.3 Purpose and Need

S.3.1 Project Purpose

The City of Murrieta, in cooperation with Caltrans District 8, proposes to construct a new I-215/Keller Road interchange.

The purposes of the new I-215/Keller Road interchange are as follows:

- Improve connectivity to the regional transportation system and for future economic development.
- Improve mobility for all users between the I-215, the cities of Murrieta and Menifee, and the unincorporated Riverside County.
- Improve both goods movement along Keller Road and the I-215, and emergency response times to the medical hospital east of the interchange, by reducing delays at intersections.
- Improve local road access to the I-215 in the proposed Project site.
- Promote travel options by providing multimodal facilities traversing the proposed Project site, such as continuous facilities for pedestrian and bicycle traffic, which include new sidewalks and Class II bicycle lanes.
- Improve safety for the new interchange and along Keller Road, by providing new lighting, curbs and gutters, sidewalks, and standard vertical clearance under the Keller Road undercrossing.
- Provide interregional continuity and consistency with Caltrans' *District 8 Active Transportation Plan 2022* (Caltrans 2022a), the Southern California Association of Governments' (SCAG's) *Regional Transportation Plan* [RTP]/*Sustainable Communities Strategy* [SCS] (also known as Connect SoCal 2024) (SCAG 2024b), and *the County Integrated Project Plans* for the cities of Murrieta and Menifee and Riverside County.

S.3.2 Project Need

The I-215/Keller Road interchange is needed due to the following key factors:

- Forecasted population growth and future economic development in the proposed Project vicinity, such as the North Murrieta Business Corridor Focus Area, would result in operational challenges at existing adjacent interchanges.

- Consistent with the adopted land use plans for the cities of Murrieta and Menifee and Riverside County, planned development in the proposed Project vicinity is anticipated to require infrastructure improvements to accommodate future growth (for example, development of the Kaiser Permanente Murrieta Medical Campus and Murrieta Hills Community). Operational challenges at Keller Road, as well as the I-215/Clinton Keith and I-215/Scott Road interchanges, are anticipated based on forecasted population growth and planned development.

- Pedestrian and multimodal connectivity are limited in the proposed Project site. There are locations without sidewalks and areas where existing sidewalks and bicycle lanes are discontinuous. Such limitations could increase both community reliance on vehicular travel to access goods and services and traffic delays in the future.

S.4 Proposed Action

The proposed Project would construct a new interchange and auxiliary lanes at the I-215 and Keller Road in Riverside County. Major improvements would include:

- The construction of northbound (NB) and southbound (SB) on- and off-ramps for accessing the I-215 from the existing Keller Road undercrossing.

- The construction of auxiliary lanes in the NB and SB direction of the I-215.

- The removal of Antelope Road from between Brians Way and Mapleton Avenue. Antelope Road, adjacent to the I-215, would have a cul-de-sac

constructed to the south of Mapleton Avenue and to the north of Brians Way to accommodate the proposed interchange.

- The removal of Scenic View Drive on the western side of the future interchange, due to a conflict with the SB on-ramp. Scenic View Drive would not be replaced.

The proposed Alternatives developed for consideration in this Draft EIR/EA are Alternative 1 (the No-Build Alternative) and Build Alternatives 2, 3, and 5. Build Alternative 2 proposes to construct a spread diamond interchange at the existing I-215 undercrossing of Keller Road and auxiliary lanes on the I-215. Build Alternative 3 proposes to construct a partial cloverleaf interchange at the existing I-215 undercrossing of Keller Road and auxiliary lanes on the I-215. Build Alternative 5 proposes to construct a compact diamond interchange with double roundabouts at the ramp intersections at the existing Keller Road undercrossing at the I-215 and auxiliary lanes on the I-215. The No-Build Alternative, the three Build Alternatives, and their differences are described in further detail in Table S-1 (all tables are provided at the end of the Summary text).

After comparing and weighing the benefits and impacts of all feasible alternatives, the proposed Project proponent (City or Murrieta) has identified Build Alternative 5 as the Locally Preferred Alternative because it best meets the City of Murrieta's current and forecasted mobility needs at Keller Road and minimizes environmental and right-of-way (ROW) impacts. All Build Alternatives were evaluated at the same level of detail in this Draft EIR/EA, allowing for a determination of the impacts and/or effects on the environment. The designation of a Locally Preferred Alternative in the Draft EIR/EA is intended to convey the City of Murrieta's preference for a specific alternative based on the information available prior to public review of the Draft EIR/EA, including potential impacts and reasonable avoidance, minimization, and/or mitigation measures.

S.5 Joint CEQA/NEPA Documentation

The proposed project is a joint project by the California Department of Transportation (Department) and the Federal Highway Administration (FHWA), and is subject to state and federal environmental review requirements. Project documentation, therefore, has been prepared in compliance with both the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA). The Department is the lead agency under NEPA. The

Department is the lead agency under CEQA. In addition, FHWA's responsibility for environmental review, consultation, and any other actions required by applicable Federal environmental laws for this project are being, or have been, carried out by Caltrans pursuant to 23 United States Code Section 327 (23 USC 327) and the Memorandum of Understanding dated May 27, 2022, and executed by FHWA and Caltrans.

Some impacts determined to be significant under CEQA may not lead to a determination of significance under NEPA. Because NEPA is concerned with the significance of the project as a whole, often a "lower level" document is prepared for NEPA. One of the most common joint document types is an Environmental Impact Report/Environmental Assessment (EIR/EA).

After receiving comments from the public and reviewing agencies, a Final EIR/EA will be prepared. The Department may prepare additional environmental and/or engineering studies to address comments. The Final EIR/EA will include responses to comments received on the Draft EIR/EA and will identify the preferred alternative. If the decision is made to approve the project, a Notice of Determination will be published for compliance with CEQA, and the Department will decide whether to issue a Finding of No Significant Impact (FONSI) or require an Environmental Impact Statement (EIS) for compliance with NEPA. A Notice of Availability (NOA) of the FONSI will be sent to the affected units of federal, state, and local government, and to the State Clearinghouse in compliance with Executive Order 12372.

S.6 Project Impacts

Table S-1 summarizes the criteria used to evaluate the proposed Project, including design features, operational improvements, and environmental impacts. Avoidance, minimization, and/or mitigation measures are described in detail in Chapter 2. CEQA mitigation measures are proposed to reduce significant impacts pursuant to CEQA for the following resource areas to less than significant with mitigation:

- **Biological Resources:** The proposed Project is located within the Western Riverside County *Multiple Species Habitat Conservation Plan* (MSHCP) area and contains threatened or endangered species, migratory bird species, sensitive habitats including wetlands/riparian/riverine areas, and wildlife linkages. MSHCP-covered species that were either observed,

or could occur due to suitable habitat within the proposed Project site, include golden eagle *(Aquila chrysaetos*), white-tailed kite *(Elanus leucurus*), California horned lark (*Eremophila alpestris actia*), burrowing owl (*Athene cunicularia*), coastal California gnatcatcher (*Polioptila californica californica*), least Bell's vireo (*Vireo bellii pusillus*), Stephens' kangaroo rat *(Dipodomys stephensi),* western spadefoot toad (*Spea hammondii*), red diamond rattlesnake (*Crotalus ruber*), Blainville's horned lizard (*Phrynosoma blainvillii*), and small-flowered microseris (*Microseris douglasii* ssp. *platycarpha*). With the implementation of mitigation measures BIO-8, BIO-12, BIO-14, and BIO-21, impacts on biological resources would be less than significant with mitigation incorporated under CEQA.

- **Paleontology (Geology and Soils):** Ground-disturbing activities associated with the construction of the proposed Project could disturb sedimentary deposits with a high paleontological resource potential (e.g., Pleistocene older alluvium) and could cause significant impacts on nonrenewable paleontological resources, if present. To mitigate potential significant construction impacts on paleontological resources, mitigation measure PAL-1 requires the preparation of a *Paleontological Mitigation Plan* (PMP) during final design for implementation during construction. Additionally, measures PAL-2 and PAL-3 would be implemented to address worker awareness and unanticipated discoveries to further avoid and minimize potential impacts. With the implementation of mitigation measure PAL-1, impacts on paleontological resources would be less than significant with mitigation incorporated under CEQA.

S.7 Coordination with Public and Other Agencies

Early and continuing coordination with the general public and appropriate public agencies is an essential part of the environmental process. It helps planners determine the necessary scope of environmental documentation and the level of analysis required, as well as identify potential impacts and avoidance, minimization, and/or mitigation measures, and related environmental requirements. Agency and Tribal consultation and public participation for the proposed Project have been accomplished through a variety of formal and informal methods, including Project Development Team (PDT) meetings, interagency coordination meetings, and consultation with interested parties. Chapter 4, Comments and Coordination, summarizes the results of Caltrans'

efforts to fully identify, address, and resolve proposed Project-related issues through early and continuing coordination.

The community was informed of the proposed Project status during the Notice of Preparation period for the EIR/EA. The Notice of Preparation review period began on October 5, 2022, and concluded on November 21, 2022, for a total of 47 days. A public scoping meeting was held on October 19, 2022. A summary of comments, issues, and concerns raised during the scoping process is included in Table 4.1-1 in Chapter 4, Comments and Coordination.

The formulation of the Build Alternatives and measures to avoid, minimize, and/or mitigate potential impacts has been carried out through a cooperative dialogue among representatives of the following agencies or organizations:

- California Department of Fish and Wildlife (CDFW)
- California Highway Patrol (CHP)
- City of Menifee
- City of Murrieta
- City of Murrieta Fire Department
- U.S. Environmental Protection Agency (U.S. EPA)
- Native American Heritage Commission (NAHC)
- Native American Tribal Representatives
- Riverside County Transportation Commission (RCTC)
- Riverside Transit Agency (RTA)
- SCAG
- State Historic Preservation Officer (SHPO)
- U.S. Fish and Wildlife Service (USFWS)

Table S-2 summarizes the permits, licenses, agreements, and certifications that would be required for proposed Project construction.

Table S-1. Summary of Alternatives and Impacts

Issue	Alternative 1 (No-Build Alternative)	Build Alternative 2 (Spread Diamond Interchange)	Build Alternative 3 (Partial Cloverleaf Interchange)	Build Alternative 5 (Compact Diamond Interchange)
Design Features and Roadway Improvements	None	• NB and SB on/off-ramps to and from the I-215 mainline • NB auxiliary lane from the Keller Road NB on-ramp • SB auxiliary lane to the Keller Road SB off-ramp • SB auxiliary lane from the Keller Road SB on-ramp	• NB and SB on/off-ramps to and from the I-215 mainline (including a NB and SB loop on-ramp at the northwest and southeast quadrants) • NB auxiliary lane from the Keller Road NB on-ramp • SB auxiliary lane to the Keller Road SB off-ramp • SB auxiliary lane from the Keller Road SB on-ramp • Widening of the existing I-215/Keller Road undercrossing to accommodate the proposed ramps	• NB and SB on/off-ramps at Keller Road in a double roundabout configuration • NB auxiliary lane from the Keller Road NB on-ramp • SB auxiliary lane to the Keller Road SB off-ramp • Widening of the existing I-215/Keller Road undercrossing to accommodate the proposed ramps
Number of Parcels Impacted	None	3 Full Acquisitions 23 Partial Acquisitions 3 TCEs	3 Full Acquisitions 22 Partial Acquisitions 3 TCEs	1 Full Acquisition 25 Partial Acquisitions 3 TCEs
Total Project Cost	**None**	**$65,900,000**	**$73,800,000**	**$61,700,000**
Potential Environmental Impacts				
Land Use	No impact	Build Alternative 2 would require 3 TCEs, primarily at the edges of affected parcels. Upon completion of the proposed Project, the remainder of the partially acquired parcels could be developed with land uses consistent with existing general plan and zoning designations, and all parcels requiring TCEs would be restored to their existing condition.	Build Alternative 3 would require 3 TCEs, primarily at the edges of affected parcels. Upon completion of the proposed Project, the remainder of the partially acquired parcels could be developed with land uses consistent with existing general plan and zoning designations, and all parcels requiring TCEs would be restored to their existing condition.	Build Alternative 5 would require 3 TCEs, primarily at the edges of affected parcels. Upon completion of the proposed Project, the remainder of the partially acquired parcels could be developed with land uses consistent with existing general plan and zoning designations, and all parcels requiring TCEs would be restored to their existing condition.
Consistency with State, Regional, and Local Plans and Programs	A new interchange at Keller Road/I-215 is included in state, regional, and local plans and programs. The No-Build Alternative would be inconsistent with approved development and transportation plans covering the proposed Project vicinity.	Construction and operation of Build Alternative 2 would accommodate additional traffic associated with planned growth and is consistent with applicable state, regional, and local plans and programs.	Construction and operation of Build Alternative 3 would accommodate additional traffic associated with planned growth and is consistent with applicable state, regional, and local plans and programs.	Construction and operation of Build Alternative 5 would accommodate additional traffic associated with planned growth and is consistent with applicable state, regional, and local plans and programs.
Parks and Recreation	No impact	Build Alternative 2 would have no impacts on parks and recreation, and includes elements to enhance existing nonmotorized and pedestrian features.	Build Alternative 3 would have no impacts on parks and recreation, and includes elements to enhance existing nonmotorized and pedestrian features.	Build Alternative 5 would have no impacts on parks and recreation, and includes elements to enhance existing nonmotorized and pedestrian features.
Growth	The No-Build Alternative would have no impact on the rate, location, type, or amount of planned growth for future developments that would occur on land around Keller Road.	Build Alternative 2 would have no impact on the location, type, or amount of planned growth for future developments that would occur on lands around Keller Road. Due to the improved access, land around Keller Road interchange may become more attractive to developers, and completion of the interchange could increase the rate at which future development occurs.	Build Alternative 3 would have no impact on the location, type, or amount of planned growth for future developments that would occur on lands around Keller Road. Due to the improved access, land around Keller Road interchange may become more attractive to developers and completion of the interchange could increase the rate at which future development occurs.	Build Alternative 5 would have no impact on the location, type, or amount of planned growth for future developments that would occur on lands around Keller Road. Due to the improved access, land around Keller Road interchange may become more attractive to developers and completion of the interchange could increase the rate at which future development occurs.

Issue	Alternative 1 (No-Build Alternative)	Build Alternative 2 (Spread Diamond Interchange)	Build Alternative 3 (Partial Cloverleaf Interchange)	Build Alternative 5 (Compact Diamond Interchange)
Community Character and Cohesion	The No-Build Alternative would not result in any construction impacts on the community. There would be no improvements to access or travel times to get on the freeway from areas adjacent to the proposed Project site.	Build Alternative 2 would result in temporary impacts on residents and businesses near the proposed Project site, including construction equipment noise and emissions, access constraints, and detours. Road detours would result in minor travel delays for local residents and businesses near the proposed Project site and the driveway of one property would be affected. Access would be maintained with implementation of measure COM-1. Overall, improved mobility would benefit communities with improved travel times and multimodal connectivity, community character and cohesion, and quality of life for existing and future developments.	Build Alternative 3 would result in temporary impacts on residents and businesses near the proposed Project site, including construction equipment noise and emissions, access constraints, and detours. Road detours would result in minor travel delays for local residents and businesses near the proposed Project site and the driveway of one property would be affected. Access would be maintained with implementation of measure COM-1. Overall, improved mobility would benefit the communities with improved travel times and multimodal connectivity, community character and cohesion and quality of life for existing and future developments.	Build Alternative 5 would result in temporary impacts on residents and businesses near the proposed Project site, including construction equipment noise and emissions, access constraints, and detours. Road detours would result in minor travel delays for local residents and businesses near the proposed Project site and the driveway of one property would be affected. Access would be maintained with implementation of measure COM-1. Overall, improved mobility would benefit the communities with improved travel times and multimodal connectivity, community character and cohesion, and quality of life for existing and future developments.
Relocations and Real Property Acquisition	No impacts	Build Alternative 2 would require 1,243,536 square feet (sq. ft.) (28.55 acres) of ROW acquisition, affecting a total of 26 properties. Among these, there would be 23 partial acquisitions, 3 full acquisitions, and 3 TCEs. Build Alternative 2 would require the displacement/relocation of one existing residential building located in the southeast quadrant of the proposed Project. The NB on-ramps for Build Alternative 2 would also require displacement/relocation of a Kaiser Permanente Hospital outbuilding located in the northeast quadrant of the proposed Project. The main hospital building would not be impacted. Acquisitions and compensation to property owners would occur consistent with the Uniform Relocation Act, as discussed in measure REL-1.	Build Alternative 3 would require 1,305,020 sq. ft. (29.96 acres) of ROW acquisition, affecting a total of 25 properties. Among these, there would be 22 partial acquisitions, 3 full parcel acquisitions, and 3 TCEs. Build Alternative 3 would require the displacement/relocation of one existing residential building located in the southeast quadrant of the proposed Project. The NB on-ramps for Build Alternative 3 would also require displacement/relocation of a Kaiser Permanente Hospital outbuilding located in the northeast quadrant of the proposed Project. The main hospital building would not be impacted. Acquisitions and compensation to property owners would occur consistent with the Uniform Relocation Act, as discussed in measure REL-1.	Build Alternative 5 would require 801,405 sq. ft. (18.39 acres) of ROW acquisition, which would affect a total of 25 properties. Among these, there would be 24 partial acquisitions, 1 full acquisition, and 3 TCEs. No businesses or residences would be displaced as a result of the proposed Alternative. Acquisitions and compensation to property owners would occur consistent with the Uniform Relocation Act, as discussed in measure REL-1.
Utilities and Emergency Services	No impact	Build Alternative 2 would result in temporary construction-related impacts on public services, including fire department vehicle access to adjacent sites. However, the proposed design would implement a TMP under minimization measure T-1. Subsequent to construction, the proposed Project would provide new direct access from the I-215 to residences and businesses located off of Keller Road that would improve access for emergency responders to provide police, fire and ambulance service to the adjacent areas.	Build Alternative 3 would result in temporary construction-related impacts on public services, including fire department vehicle access to adjacent sites. However, the proposed design would implement a TMP under minimization measure T-1. Subsequent to construction, the proposed Project would provide new direct access from the I-215 to residences and businesses located off of Keller Road that would improve access for emergency responders to provide police, fire and ambulance service to the adjacent areas.	Build Alternative 5 would result in temporary construction-related impacts on public services, including fire department vehicle access to adjacent sites. However, the proposed design would implement a TMP under minimization measure T-1. Subsequent to construction, the proposed Project would provide new direct access from the I-215 to residences and businesses located off of Keller Road that would improve access for emergency responders to provide police, fire and ambulance service to the adjacent areas.

Issue	Alternative 1 (No-Build Alternative)	Build Alternative 2 (Spread Diamond Interchange)	Build Alternative 3 (Partial Cloverleaf Interchange)	Build Alternative 5 (Compact Diamond Interchange)
Traffic and Transportation/ Pedestrian and Bicycle Facilities	All proposed Project vicinity freeway segments and ramps are projected to operate at an acceptable LOS D or better in opening year 2027 and design year 2047, without the proposed Project. Three intersections in 2027 and nine intersections in 2047 would operate at LOS E or worse.	Build Alternative 2 would potentially result in traffic delays, temporary ramp and freeway mainline lane closures, and detours during proposed Project construction. Minimization measure T-1 states that a TMP would be prepared during the final design of the proposed Project, and would be implemented during construction. Connectivity and access for vehicle trips will improve markedly. Traffic operations will be similar to the No-Build Alternative and the two other Build Alternatives. New pedestrian and bicycle facilities will improve safety and connectivity for these modes.	Build Alternative 3 would potentially result in traffic delays, temporary ramp and freeway mainline lane closures, and detours during proposed Project construction. Minimization measure T-1 states that a TMP would be prepared during the final design of the proposed Project, and implemented during construction. Connectivity and access for vehicle trips will improve markedly. Traffic operations will be similar to the No-Build Alternative and the two other Build Alternatives. New pedestrian and bicycle facilities will improve safety and connectivity for these modes.	Build Alternative 5 would potentially result in traffic delays, temporary ramp and freeway mainline lane closures, and detours during proposed Project construction. Minimization measure T-1 states that a TMP would be prepared during the final design of the proposed, Project and implemented during construction. Connectivity and access for vehicle trips will improve markedly. Traffic operations will be similar to the No-Build Alternative and the two other Build Alternatives. New pedestrian and bicycle facilities will improve safety and connectivity for these modes.
Visual/Aesthetics	No impact	Build Alternative 2 would alter the visible form and scale of the I-215/Keller Road interchange because of the proposed surface road improvements that include on- and off-ramps, auxiliary lanes, etc. However, the proposed design is a natural extension with similar visual features that would be visually compatible with the existing character of the I-215 and Keller Road corridors.	Build Alternative 3 would alter the visible form and scale of the I-215/Keller Road interchange because of the proposed surface road improvements that include on- and off-ramps, auxiliary lanes, etc. However, the proposed design is a natural extension with similar visual features that would be visually compatible with the existing character of the I-215 and Keller Road corridors.	Build Alternative 5 would alter the visible form and scale of the I-215/Keller Road interchange because of the proposed surface road improvements that include on- and off-ramps, auxiliary lanes, etc. However, the proposed design is a natural extension with similar visual features that would be visually compatible with the existing character of the I-215 and Keller Road corridors.
Cultural Resources	No impact	Build Alternative 2 would potentially impact CA-RIV-645, a site within the APE that has been determined to be eligible for listing in the CRHR. However, implementation of avoidance measure CR-3 would establish an ESA and an AMA, and avoidance measure CR-5 would implement dust control measures. Implementation of measures CR-1 through CR-5 would avoid and minimize potential impacts on the site.	Build Alternative 3 would potentially impact CA-RIV-645, a site within the APE that has been determined to be eligible for listing in the CRHR. However, implementation of avoidance measure CR-3 would establish an ESA and an AMA, and avoidance measure CR-5 would implement dust control measures. Implementation of measures CR-1 through CR-5 would avoid and minimize potential impacts on the site.	Build Alternative 5 would potentially impact CA-RIV-645, a site within the APE that has been determined to be eligible for listing in the CRHR. However, implementation of avoidance measure CR-3 would establish an ESA and an AMA, and avoidance measure CR-5 would implement dust control measures. Implementation of measures CR-1 through CR-5 would avoid and minimize potential impacts on the site.
Hydrology and Floodplain	No impact	Build Alternative 2 is within FEMA Zone X. The proposed construction activities would include vegetation removal, the introduction of fill, and construction of the Keller Road/I-215 and supporting roadways. Permanent features would lead to an increased impervious surface area, which can result in an increase in flow discharges. The proposed Project would include new cross culverts under the ramps, stormwater quality BMPs and replacement storm drains, inlets, and ditches. Overall, these modifications would maintain existing drainage patterns and hydraulic conditions within the proposed Project site. Therefore, no substantial impacts on hydrology and floodplains would occur.	Build Alternative 3 is within FEMA Zone X. The proposed construction activities would include vegetation removal, the introduction of fill, and construction of the Keller Road/I-215 and supporting roadways. Permanent features would lead to an increased impervious surface area, which can result in an increase in flow discharges. The proposed Project would include new cross culverts under the ramps, stormwater quality BMPs, and replacement storm drains, inlets, and ditches. Overall, these modifications would maintain existing drainage patterns and hydraulic conditions within the proposed Project site. Therefore, no substantial impacts on hydrology and floodplains would occur.	Build Alternative 5 is within FEMA Zone X. The proposed construction activities would include vegetation removal, the introduction of fill, and construction of the Keller Road/I-215 and supporting roadways. Permanent features would result in an increased impervious surface area, which can lead to an increase in flow discharges. The proposed Project would include new cross culverts under the ramps, stormwater quality BMPs and replacement storm drains, inlets, and ditches. Overall, these modifications would maintain existing drainage patterns and hydraulic conditions within the proposed Project site. Therefore, no substantial impacts on hydrology and floodplains would occur.

Issue	Alternative 1 (No-Build Alternative)	Build Alternative 2 (Spread Diamond Interchange)	Build Alternative 3 (Partial Cloverleaf Interchange)	Build Alternative 5 (Compact Diamond Interchange)
Water Quality and Stormwater Runoff	No impact	During construction of Build Alternative 2, pollutants of concern include sediments, trash, petroleum products, concrete waste, sanitary waste, liquid products, and chemicals. These pollutants could be spilled, leaked, or transported via stormwater runoff into drainages adjacent to the proposed Project site, and thereby into downstream receiving waters. Additionally, exposed areas could result in an increased potential for soil erosion compared to existing conditions. Build Alternative 2 would excavate soil and could result in temporary impacts such as soil erosion, siltation, and flooding. However, the proposed design would adhere to NPDES permits, BMPs, and minimization measure WQ-1. Build Alternative 2 would not result in any adverse impacts on water quality or stormwater runoff during construction. During operation of Build Alternative 2, the proposed Project would result in a net increase in impervious area of 4.7 acres, and would thereby increase the volume of runoff during a storm, increasing the potential for the transport of operational pollutants of concern to receiving waters. Treatment BMPs within the proposed Project limits would remove pollutants that have entered stormwater runoff and offset flows associated with the increase in impervious surface. With implementation of minimization measure WQ-2, preservation of existing vegetation, concentrated flow conveyance systems, slope/surface protection systems, and treatment BMPs, Build Alternative 2 would not result in any adverse impacts on water quality or stormwater runoff during operation.	During construction of Build Alternative 3, pollutants of concern include sediments, trash, petroleum products, concrete waste, sanitary waste, liquid products, and chemicals. These pollutants could be spilled, leaked, or transported via storm runoff into drainages adjacent to the proposed Project site, and thereby into downstream receiving waters. Additionally, exposed areas could result in an increased potential for soil erosion compared to existing conditions. Build Alternative 3 would excavate soil and could result in temporary impacts such as soil erosion, siltation, and flooding. However, the proposed design would adhere to NPDES permits, BMPs, and minimization measure WQ-1. Build Alternative 3 would not result in any adverse impacts on water quality or stormwater runoff during construction. During operation of Build Alternative 3, the proposed Project would result in a net increase in impervious area of 4.7 acres, and would thereby increase the volume of runoff during a storm, increasing potential for the transport of operational pollutants of concern to receiving waters. Treatment BMPs within the proposed Project limits would remove pollutants that have entered stormwater runoff and offset flows associated with the increase in impervious surface. With implementation of minimization measure WQ-2, preservation of existing vegetation, concentrated flow conveyance systems, slope/surface protection systems, and treatment BMPs, Build Alternative 3 would not result in any adverse impacts on water quality or stormwater runoff during operation.	During construction of Build Alternative 5, pollutants of concern include sediments, trash, petroleum products, concrete waste, sanitary waste, liquid products, and chemicals. These pollutants could be spilled, leaked, or transported via storm runoff into drainages adjacent to the proposed Project site, and thereby into downstream receiving waters. Additionally, exposed areas could result in an increased potential for soil erosion compared to existing conditions. Build Alternative 5 would excavate soil and could result in temporary impacts such as soil erosion, siltation, and flooding. However, the proposed design would adhere to NPDES permits, BMPs, and minimization measure WQ-1. Build Alternative 5 would not result in any adverse impacts on water quality or stormwater runoff during construction. During operation of Build Alternative 5, the proposed Project would result in a net increase in impervious area of 4.7 acres, and would thereby increase the volume of runoff during a storm, increasing potential for the transport of operational pollutants of concern to receiving waters. Treatment BMPs within the proposed Project limits would remove pollutants that have entered stormwater runoff and offset flows associated with the increase in impervious surface. With implementation of minimization measure WQ-2, preservation of existing vegetation, concentrated flow conveyance systems, slope/surface protection systems, and treatment BMPs, Build Alternative 5 would not result in any adverse impacts on water quality or stormwater runoff during operation.
Geology/Soils/ Seismic/ Topography	No impact	Build Alternative 2 would include grading, utility relocation, bridge widening, paving, and striping. There are no large cut slopes, and Build Alternative 2 would have no impact on natural landmarks or forms. Construction would disturb soil, and on-site soils are inherently subject to erosion, particularly if exposed to rainfall or irrigation. Unpaved slopes that are susceptible to erosion within the proposed Project limits include the bridge approach embankments and on- and off-ramps. Provisions for site drainage, slope planting, and other measures would be required in accordance with Caltrans requirements to provide protection against short- and long-term erosion. Build Alternative 2 would not result in substantial long-term impacts on geology, soils, seismic, and topography.	Build Alternative 3 would include grading, utility relocation, bridge widening, paving, and striping. There are no large cut slopes, and Build Alternative 3 would have no impact on natural landmarks or forms. Construction would disturb soil, and on-site soils are inherently subject to erosion, particularly if exposed to rainfall or irrigation. Unpaved slopes that are susceptible to erosion within the proposed Project limits include the bridge approach embankments and on- and off-ramps. Provisions for site drainage, slope planting, and other measures would be required in accordance with Caltrans requirements to provide protection against short- and long-term erosion. Build Alternative 3 would not result in substantial long-term impacts on geology, soils, seismic, and topography.	Build Alternative 5 would include grading, utility relocation, bridge widening, paving, and striping. There are no large cut slopes, and Build Alternative 5 would have no impact on natural landmarks or forms. Construction would disturb soil, and on-site soils are inherently subject to erosion, particularly if exposed to rainfall or irrigation. Unpaved slopes that are susceptible to erosion within the proposed Project limits include the bridge approach embankments and on- and off-ramps. Provisions for site drainage, slope planting, and other measures would be required in accordance with Caltrans requirements to provide protection against short- and long-term erosion. Build Alternative 5 would not result in substantial long-term impacts on geology, soils, seismic, and topography.

Issue	Alternative 1 (No-Build Alternative)	Build Alternative 2 (Spread Diamond Interchange)	Build Alternative 3 (Partial Cloverleaf Interchange)	Build Alternative 5 (Compact Diamond Interchange)
Paleontology	No impact	Build Alternative 2, during ground-disturbing activities associated with construction of the roadway improvements (for example, excavation for the new interchange), could result in adverse impacts on sedimentary deposits with a high paleontological resource potential (such as Pleistocene older alluvium) and have the potential to impact paleontological resources. Impacts would be avoided and minimized with implementation of mitigation measure PAL-1, and minimization measure PAL-2 and PAL-3.	Build Alternative 3, during ground-disturbing activities associated with construction of the roadway improvements (for example, excavation for the new interchange), could result in adverse impacts on sedimentary deposits with a high paleontological resource potential (such as Pleistocene older alluvium) and have the potential to impact paleontological resources. Impacts would be avoided and minimized with implementation of mitigation measure PAL-1, and minimization measures PAL-2 and PAL-3.	Build Alternative 5, during ground-disturbing activities associated with construction of the roadway improvements (for example, excavation for the new interchange), could result in adverse impacts on sedimentary deposits with a high paleontological resource potential (such as Pleistocene older alluvium) and have the potential to impact paleontological resources. Impacts would be avoided and minimized with implementation of mitigation measure PAL-1, and minimization measures PAL-2 and PAL-3.
Hazardous Wastes/Materials	No impact	Build Alternative 2 could disturb soils containing ADL, arsenical pesticides, and organochlorine pesticide (OCPs) in the former agricultural areas of the proposed Project site. Construction may also disturb ACM, lead-based paints, termiticide pesticides, and roadway striping containing lead and chromium. Implementation of minimization measures HAZ-1 through HAZ-6 would avoid and minimize potential impacts associated with identification and disturbance of hazardous wastes and materials during construction.	Build Alternative 3 could disturb soils containing ADL, arsenical pesticides, and OCPs in the former agricultural areas of the proposed Project site. Construction may also disturb ACMs, lead-based paints, and termiticide pesticides, and roadway striping containing lead and chromium. Implementation of minimization measures HAZ-1 through HAZ-6 would avoid and minimize potential impacts associated with identification and disturbance of hazardous wastes and materials during construction.	Build Alternative 5 could disturb soils containing ADL, arsenical pesticides, and OCPs in the former agricultural areas of the proposed Project site. Construction may also disturb ACMs, lead-based paints, and termiticide pesticides, and roadway striping containing lead and chromium. Implementation of minimization measures HAZ-1 through HAZ-6 would avoid and minimize potential impacts associated with identification and disturbance of hazardous wastes and materials during construction.
Air Quality	No impact	Build Alternative 2 would result in temporary, short-term odors and construction-related increases in pollutant concentrations, specifically associated with fugitive dust and construction equipment emissions. However, the proposed design would not result in any adverse permanent effects with regard to air quality and would comply with SCAQMD Rule 403 and implement avoidance and minimization measures AQ-1 through AQ-12 for construction-related air quality impacts.	Build Alternative 3 would result in temporary, short-term odors and construction-related increases in pollutant concentrations, specifically associated with fugitive dust and construction equipment emissions. However, the proposed design would not result in any adverse permanent effects with regard to air quality and would comply with SCAQMD Rule 403 and implement avoidance and minimization measures AQ-1 through AQ-12 for construction-related air quality impacts.	Build Alternative 5 would result in temporary, short-term odors and construction-related increases in pollutant concentrations, specifically associated with fugitive dust and construction equipment emissions. However, the proposed design would not result in any adverse permanent effects with regard to air quality and would comply with SCAQMD Rule 403 and implement measures avoidance and minimization AQ-1 through AQ-12 for construction-related air quality impacts.

Issue	Alternative 1 (No-Build Alternative)	Build Alternative 2 (Spread Diamond Interchange)	Build Alternative 3 (Partial Cloverleaf Interchange)	Build Alternative 5 (Compact Diamond Interchange)
Noise	No impact	Build Alternative 2 would result in temporary, construction-related noise impacts. Construction equipment is expected to generate noise levels ranging from 80 to 89 dB at a distance of 50 feet from the proposed Project construction areas and may be subject to short-term noise reaching 89 dBA (the L_{max}) or higher. The proposed Project would implement minimization measure NOI-1, which limits construction activities within the City right-of-way to the allowed construction hours specified by the City's Noise Ordinance (7:00 a.m. to 8:00 p.m. on weekdays and weekends), and the control of noise from construction activities within the Caltrans right-of-way will conform to Caltrans' *Standard Specification SSP-14-8.02*, *Noise Control*. Potential long-term noise impacts associated with Build Alternative 2 operations are solely from traffic noise. The traffic noise modeling results indicate traffic noise levels within 500 feet of the proposed Project site are predicted to be in the range of 56 to 76 dBA $L_{eq(h)}$ in the design year. The maximum increase at receivers for Build Alternative 2 over the No-Build Alternative condition in the design year would be 4 dB. None of the evaluated receivers would approach or exceed the respective NACs, nor would the proposed Project result in a substantial increase in noise from existing conditions; therefore, no operational traffic noise impacts are predicted to occur, and noise abatement is not required at noise-sensitive receivers within 500 feet of the proposed Project site.	Build Alternative 3 would result in temporary construction-related noise impacts. Construction equipment is expected to generate noise levels ranging from 80 to 89 dB at a distance of 50 feet from the proposed Project construction areas and may be subject to short-term noise reaching 89 dBA L_{max} or higher. The proposed Project would implement minimization measure NOI-1, which limits construction activities within the City right-of-way to the allowed construction hours specified by the City's Noise Ordinance (7:00 a.m. to 8:00 p.m. on weekdays and weekends), and the control of noise from construction activities within the Caltrans right-of-way will conform to Caltrans' *Standard Specification SSP-14-8.02*, *Noise Control*. Potential long-term noise impacts associated with Build Alternative 3 operations are solely from traffic noise. The traffic noise modeling results indicate traffic noise levels within 500 feet of the proposed Project site are predicted to be in the range of 56 to 75 dBA $L_{eq(h)}$ in the design year. The maximum increase at receivers for Build Alternative 3 over the No-Build Alternative condition in the design year would be 4 dB. None of the evaluated receivers would approach or exceed the respective NACs, nor would the proposed Project result in a substantial increase in noise from existing conditions; therefore, no operational traffic noise impacts are predicted to occur, and noise abatement is not required at noise-sensitive receivers within 500 feet of the proposed Project site.	Build Alternative 5 would result in temporary construction-related noise impacts. Construction equipment is expected to generate noise levels ranging from 80 to 89 dB at a distance of 50 feet from the proposed Project construction areas and may be subject to short-term noise reaching 89 dBA L_{max} or higher. The proposed Project would implement minimization measure NOI-1, which limits construction activities within the City right-of-way to the allowed construction hours specified by the City's Noise Ordinance (7:00 a.m. to 8:00 p.m. on weekdays and weekends), and the control of noise from construction activities within the Caltrans right-of-way will conform to Caltrans' *Standard Specification SSP-14-8.02*, *Noise Control*. Potential long-term noise impacts associated with Build Alternative 5 operations are solely from traffic noise. The traffic noise modeling results indicate traffic noise levels within 500 feet of the proposed Project site are predicted to be in the range of 56 to 75 dBA $L_{eq(h)}$ in the design year. The maximum increase at receivers for Build Alternative 5 over the No-Build Alternative condition in the design year would be 5 dB. None of the evaluated receivers would approach or exceed the respective NACs, nor would the proposed Project result in a substantial increase in noise from existing conditions; therefore, no operational traffic noise impacts are predicted to occur, and noise abatement is not required at noise-sensitive receivers within 500 feet of the proposed Project site.
Energy	No impact	Build Alternative 2 would result in temporary construction-related impacts on energy use. However, the proposed design would avoid or reduce the inefficient, wasteful, and unnecessary consumption of energy. During operation, Build Alternative 2 in both 2027 and 2047 would result in less energy consumption than the No-Build Alternative.	Build Alternative 3 would result in temporary construction-related impacts on energy use. However, the proposed design would avoid or reduce the inefficient, wasteful, and unnecessary consumption of energy. During operation, Build Alternative 3 in both 2027 and 2047 would result in less energy consumption than the No-Build Alternative.	Build Alternative 5 would result in temporary construction-related impacts on energy use. However, the proposed design would avoid or reduce the inefficient, wasteful, and unnecessary consumption of energy. During operation, Build Alternative 5 in both 2027 and 2047 would result in less energy consumption than the No-Build Alternative.

Issue	Alternative 1 (No-Build Alternative)	Build Alternative 2 (Spread Diamond Interchange)	Build Alternative 3 (Partial Cloverleaf Interchange)	Build Alternative 5 (Compact Diamond Interchange)
Natural Communities	No impact	Build Alternative 2 construction would result in temporary impacts on 30.50 acres of vegetation communities and land cover, 0.13 acres Riparian Forest, and 0.66 acres MSHCP Riparian/Riverine. Construction could also have temporary impacts on wildlife movement through MSHCP PCL 16 as a result of construction noise, lighting from construction equipment, and grading to construct the retaining wall on the west side of I-215. Operation of Build Alternative 2 would result in permanent impacts on 10.44 acres of vegetation communities and land cover, 0.13 acres Riparian Forest, and 0.24 acres MSHCP Riparian/Riverine. Implementation of measures BIO-1 through BIO-8 would avoid, minimize, and compensate for temporary and permanent impacts on natural communities.	Build Alternative 3 construction would result in temporary impacts on 32.86 acres of vegetation communities and land cover, 0.07 acres Riparian Forest, and 0.67 acres MSHCP Riparian/Riverine. Construction could also have temporary impacts on wildlife movement through MSHCP PCL 16 as a result of construction noise, lighting from construction equipment, and grading to construct the retaining wall on the west side of I-215. Operation of Build Alternative 3 would result in permanent impacts on 11.71 acres of vegetation communities and land cover, 0.09 acres Riparian Forest, and 0.22 acres MSHCP Riparian/Riverine. Implementation of measures BIO-1 through BIO-8 would avoid, minimize, and compensate for temporary and permanent impacts on natural communities.	Build Alternative 5 construction would result in temporary impacts on 19.10 acres of vegetation communities and land cover, 0.0 acres Riparian Forest, and 0.29 acres MSHCP Riparian/Riverine. Construction could also have temporary impacts on wildlife movement through MSHCP PCL 16 as a result of construction noise, lighting from construction equipment, and grading to construct the retaining wall on the west side of I-215. Operation of Build Alternative 5 would result in permanent impacts on 11.30 acres of vegetation communities and land cover, 0.09 acres Riparian Forest, and 0.20 acres MSHCP Riparian/Riverine. Implementation of measures BIO-1 through BIO-8 would avoid, minimize, and compensate for temporary and permanent impacts on natural communities.
Wetlands and Other Waters	No impact	Build Alternative 2 construction would result in temporary impacts on 0.12 acres of potential wetland waters of the United States and state, 0.12 acres of potential non-wetland waters of the United States and State, 0.28 acres of CDFW riparian habitat, and 0.49 acres of CDFW non-riparian streambed. Operation of Build Alternative 2 would result in no direct permanent impacts on wetland waters of the United States and State. Build Alternative 2 would have direct permanent impacts on 0.18 acres of non-wetland waters of the United States and State, 0.06 acres of CDFW riparian habitat, and 0.18 acres of CDFW non-riparian streambed. Implementation of measures BIO-1, BIO-8 through measure BIO-11, and measure BIO-12 would avoid, minimize, and compensate for temporary and permanent impacts on wetlands and other waters.	Build Alternative 3 construction would result in temporary impacts on 0.12 acres of potential wetland waters of the United States and State, 0.12 acres of potential non-wetland waters of the United States and State, 0.22 acres of CDFW riparian habitat, and 0.56 acres of CDFW non-riparian streambed. Operation of Build Alternative 3 would result in direct permanent impacts on less than 0.01 acres of wetland waters of the United States and State, 0.09 acres of non-wetland waters of the United States and State, 0.09 acres of CDFW riparian habitat, and 0.13 acres of CDFW non-riparian streambed. Implementation of measures BIO-1, BIO-8 through BIO-11, and measure BIO-12 would avoid, minimize, and compensate for temporary and permanent impacts on wetlands and other waters.	Build Alternative 5 construction would result in temporary impacts on 0.08 acres of potential wetland waters of the United States and State, 0.04 acres of potential non-wetland waters of the United States and State, 0.20 acres of CDFW riparian habitat, and 0.17 acres of CDFW non-riparian streambed. Operation of Build Alternative 5 would result in direct permanent impacts on 0.04 acres of wetland waters of the United States and State, 0.09 acres of non-wetland waters of the United States and State, 0.09 acres of CDFW riparian habitat, and 0.14 acres of CDFW non-riparian streambed. Implementation of measures BIO-1, BIO-8 through BIO-11, and measure BIO-12 would avoid, minimize, and compensate for temporary and permanent impacts on wetlands and other waters.
Plant Species	No impact	Build Alternative 2 construction would result in temporary impacts on 0.07 acres of occupied habitat for paniculate tarplant (*Deinandra paniculata*) and impacts on 0.02 acres of occupied habitat for small-flowered microseris (*Microseris douglasii* ssp. *platycarpha*). Operation of Build Alternative 2 would result in no direct permanent impacts on paniculate tarplant or small-flowered microseris. Implementation of measures BIO-13 and BIO-14 would avoid, minimize, and compensate for temporary impacts on plant species.	Build Alternative 3 construction would result in temporary impacts on 0.07 acres of occupied habitat for paniculate tarplant and impacts on 0.02 acres of occupied habitat for small-flowered microseris. Operation of Build Alternative 3 would result in no direct permanent impacts on paniculate tarplant or small-flowered microseris. Implementation of measures BIO-13 and BIO-14 would avoid, minimize, and compensate for temporary impacts on plant species.	Build Alternative 5 construction would result in temporary impacts on 0.07 acres of occupied habitat for paniculate tarplant and impacts on 0.01 acres of occupied habitat for small-flowered microseris. Operation of Build Alternative 5 would not result in permanent impacts on paniculate tarplant but would result in permanent impacts on 0.01 acres of occupied habitat for small-flowered microseris. Implementation of measures BIO-13 and BIO-14 would avoid, minimize, and compensate for temporary impacts on plant species.

Issue	Alternative 1 (No-Build Alternative)	Build Alternative 2 (Spread Diamond Interchange)	Build Alternative 3 (Partial Cloverleaf Interchange)	Build Alternative 5 (Compact Diamond Interchange)
Animal Species	No impact	Build Alternative 2 construction would result in temporary impacts on 0.34 acres of suitable habitat for nesting white-tailed kite (*Elanus leucurus*), 30.5 acres of suitable habitat for non-listed special-status reptiles and amphibians, 26.01 acres of suitable habitat for non-listed special-status mammals, and 19.35 acres of suitable habitat for non-listed special-status birds. Operation of Build Alternative 2 would result in direct permanent impacts on 0.07 acres of suitable habitat for nesting white-tailed kite, 10.44 acres of suitable habitat for non-listed special-status reptiles and amphibians, 8.23 acres of suitable habitat for non-listed special-status mammals, and 6.91 acres of suitable habitat for non-listed special-status birds. Implementation of measures BIO-15 and BIO-16 would avoid and minimize temporary and permanent impacts on animal species.	Build Alternative 3 construction would result in temporary impacts on 0.26 acres of suitable habitat for nesting white-tailed kite, 32.86 acres of suitable habitat for non-listed special-status reptiles and amphibians, 28.53 acres of suitable habitat for non-listed special-status mammals, and 22.09 acres of suitable habitat for non-listed special-status birds. Operation of Build Alternative 3 would result in direct permanent impacts on 0.09 acres of suitable habitat for nesting white-tailed kite, 11.71 acres of suitable habitat for non-listed special-status reptiles and amphibians, 9.21 acres of suitable habitat for non-listed special-status mammals, and 7.46 acres of suitable habitat for non-listed special-status birds. Implementation of measures BIO-15 and BIO-16 would avoid and minimize temporary and permanent impacts on animal species.	Build Alternative 5 construction would result in temporary impacts on 0.21 acres of suitable habitat for nesting white-tailed kite, 19.10 acres of suitable habitat for non-listed special-status reptiles and amphibians, 16.14 acres of suitable habitat for non-listed special-status mammals, and 10.84 acres of suitable habitat for non-listed special-status birds. Operation of Build Alternative 5 would result in direct permanent impacts on 0.09 acres of suitable habitat for nesting white-tailed kite, 11.30 acres of suitable habitat for non-listed special-status reptiles and amphibians, 9.17 acres of suitable habitat for non-listed special-status mammals, and 7.00 acres of suitable habitat for non-listed special-status birds. Implementation of measures BIO-15 and BIO-16 would avoid and minimize temporary and permanent impacts on animal species.
Threatened and Endangered Species	No impact	Build Alternative 2 construction would result in temporary impacts on 7.34 acres of suitable habitat for coastal California gnatcatcher (*Polioptila californica californica*), 0.34 acres of suitable habitat for least Bell's vireo (*Vireo bellii pusillus*), 26.01 acres of suitable habitat for Stephen's kangaroo rat (*Dipodomys stephensi*) and 29.67 acres of suitable habitat for burrowing owl (*Athene cunicularia*). Operation of Build Alternative 2 would result in permanent direct impacts on 1.41 acres of suitable habitat for coastal California gnatcatcher, 0.07 acres of suitable habitat for least Bell's vireo, 8.24 acres of suitable habitat for Stephen's kangaroo rat, and 29.67 acres of suitable habitat for burrowing owl (*Athene cunicularia*). Implementation of measures BIO-17 through BIO-21 would avoid, minimize, and compensate for temporary and permanent impacts on threatened, endangered, and State candidate species.	Build Alternative 3 construction would result in temporary impacts on 7.33 acres of suitable habitat for coastal California gnatcatcher, 0.26 acres of suitable habitat for least Bell's vireo, 28.53 acres of suitable habitat for Stephen's kangaroo rat, and 31.89 acres of suitable habitat for burrowing owl. Operation of Build Alternative 3 would result in permanent direct impacts on 1.83 acres of suitable habitat for coastal California gnatcatcher, 0.09 acres of suitable habitat for least Bell's vireo, 9.21 acres of suitable habitat for Stephen's kangaroo rat, and 11.59 acres of suitable habitat for burrowing owl. Implementation of measures BIO-17 through BIO-21 would avoid, minimize, and compensate for temporary and permanent impacts on threatened, endangered, and State candidate species.	Build Alternative 5 construction would result in temporary impacts on 5.66 acres of suitable habitat for coastal California gnatcatcher, 0.21 acres of suitable habitat for least Bell's vireo, 16.14 acres of suitable habitat for Stephen's kangaroo rat, and 18.75 acres of suitable habitat for burrowing owl. Operation of Build Alternative 5 would result in permanent direct impacts on 2.17 acres of suitable habitat coastal California gnatcatcher, 0.10 acres of suitable habitat for least Bell's vireo, 9.17 acres of suitable habitat for Stephen's kangaroo rat, and 11.21 acres of suitable habitat for burrowing owl. Implementation of measures BIO-17 through BIO-21 would avoid, minimize, and compensate for temporary and permanent impacts on threatened, endangered and State candidate species.
Invasive Species	No impact	Potential introduction of invasive species to previously undisturbed areas would result in permanent impacts on the habitat. Construction of Build Alternative 2 has the potential to introduce or spread invasive species by the improper removal and disposal of existing invasive species, inclusion of invasive species in seed mixtures and mulch, and movement of construction-related equipment that is contaminated by invasive species. With the implementation of measures BIO-1 through BIO-3, Build Alternative 2 would have no adverse impacts related to invasive species.	Potential introduction of invasive species to previously undisturbed areas would result in permanent impacts on the habitat. Construction of Build Alternative 3 has the potential to introduce or spread invasive species by the improper removal and disposal of existing invasive species, inclusion of invasive species in seed mixtures and mulch, and movement of construction-related equipment that is contaminated by invasive species. With the implementation of measures BIO-1 through BIO-3, Build Alternative 3 would have no adverse impacts related to invasive species.	Potential introduction of invasive species to previously undisturbed areas would result in permanent impacts on the habitat. Construction of Build Alternative 5 has the potential to introduce or spread invasive species by the improper removal and disposal of existing invasive species, inclusion of invasive species in seed mixtures and mulch, and movement of construction-related equipment that is contaminated by invasive species. With the implementation of measures BIO-1 through BIO-3, Build Alternative 5 would have no adverse impacts related to invasive species.

Issue	Alternative 1 (No-Build Alternative)	Build Alternative 2 (Spread Diamond Interchange)	Build Alternative 3 (Partial Cloverleaf Interchange)	Build Alternative 5 (Compact Diamond Interchange)
CEQA Cumulative Impacts	No impact	The construction and operation of Build Alternative 2 would result in significant and unavoidable increases in GHGs. Operational CO_2e is expected to be higher in 2027 and 2047 when compared to the existing/baseline conditions and would contribute to cumulative increases in GHGs. Mitigation measures GHG-6 through GHG-13 would be implemented to reduce operational GHG contributions; however, 2027 and 2047 GHG contributions will remain higher than the existing/baseline conditions and would contribute to cumulatively considerable adverse impacts. As discussed in Section 3.5, no other cumulatively considerable significant and/or unavoidable impacts were identified and no additional mitigation is required.	The construction and operation of Build Alternative 3 would result in significant and unavoidable increases in in GHGs. Operational CO_2e is expected to be higher in 2027 and 2047 when compared to the existing/baseline conditions and would contribute to cumulative increases in GHGs. Mitigation measures GHG-6 through GHG-13 would be implemented to reduce operational GHG contributions; however, 2027 and 2047 GHG contributions will remain higher than the existing/baseline conditions and would contribute to cumulatively considerable adverse GHG impacts. As discussed in Section 3.5, no other cumulatively considerable significant and/or unavoidable impacts were identified and no additional mitigation is required.	The construction and operation of Build Alternative 5 would result in significant and unavoidable increases in in GHGs. Operational CO_2e is expected to be higher in 2027 and 2047 when compared to the existing/baseline conditions and would contribute to cumulative increases in GHGs. Mitigation measures GHG-6 through GHG-13 would be implemented to reduce operational GHG contribution; however, 2027 and 2047 GHG contributions will remain higher than the existing/baseline conditions and would contribute to cumulatively considerable adverse GHG impacts. As discussed in Section 3.5, no other cumulatively considerable significant and/or unavoidable impacts were identified and no additional mitigation is required.
CEQA Greenhouse Gas	No impact	Build Alternative 2 would result in temporary, construction-related impacts on GHGs in the form of CO_2e. Mitigation measures GHG-1 through GHG-5 would reduce GHG contributions from construction of the proposed Project. Operational CO_2e contributions are expected to be higher in 2027 and 2047 when compared to the existing/baseline conditions. Mitigation measures GHG-6 through GHG-13 would be implemented to reduce operational GHG contributions; however, 2027 and 2047 GHG contributions will remain higher than the existing/baseline conditions.	Build Alternative 3 would result in temporary, construction-related impacts on GHGs in the form of CO_2e. Mitigation measures GHG-1 through GHG-5 would reduce GHG contributions from construction of the proposed Project. Operational CO_2e contributions are expected to be higher in 2027 and 2047 when compared to the existing/baseline conditions. Mitigation measures GHG-6 through GHG-13 would be implemented to reduce operational GHG contributions; however, 2027 and 2047 GHG contributions will remain higher than the existing/baseline conditions.	Build Alternative 5 would result in temporary, construction-related impacts on GHGs in the form of CO_2e. Mitigation measures GHG-1 through GHG-5 would reduce GHG contributions from construction of the proposed Project. Operational CO_2e contributions are expected to be higher in 2027 and 2047 when compared to the existing/baseline conditions. Mitigation measures GHG-6 through GHG-13 would be implemented to reduce operational GHG contributions; however, 2027 and 2047 GHG contributions will remain higher than the existing/baseline conditions.
Tribal Resources	No impact	Build Alternative 2 could potentially impact CA-RIV-645, a site within the APE that has been determined to be eligible for listing in the CRHR. However, with implementation of avoidance measure CR-3, that would establish an ESA and AMA, and avoidance measure CR-5, that would implement dust control measures, impacts to the site would be avoided.	Build Alternative 3 could potentially impact CA-RIV-645, a site within the APE that has been determined to be eligible for listing in the CRHR. However, with implementation of avoidance measure CR-3, that would establish an ESA and AMA, and avoidance measure CR-5, that would implement dust control measures, impacts to the site would be avoided.	Build Alternative 5 could potentially impact CA-RIV-645, a site within the APE that has been determined to be eligible for listing in the CRHR. However, with implementation of avoidance measure CR-3, that would establish an ESA and AMA, and avoidance measure CR-5, that would implement dust control measures, impacts to the site would be avoided.
Wildfire	No impact	Build Alternative 2 would result in temporary, construction-related impacts on emergency vehicle access. However, the proposed Project would implement a TMP under minimization measure T-1. Additionally, minimization measure WF-1 would require fire prevention practices to minimize risk of wildfire associated with construction activities. Minimization measure WF-2 would reduce potential wildfire risk to the traveling public, and would reduce the possibility of wildfire ignitions from vehicles and travelers. Subsequent to construction, Build Alternative 2 would provide new direct access from the I-215 to Very High Fire Hazard Severity Zone areas located off of Keller Road that would improve access for emergency responders during a wildfire on adjacent lands.	Build Alternative 3 would result in temporary, construction-related impacts on emergency vehicle access. However, the proposed Project would implement a TMP under minimization measure T-1. Additionally, minimization measure WF-1 would require fire prevention practices to minimize risk of wildfire associated with construction activities. Minimization measure WF-2 would reduce potential wildfire risk to the traveling public, and would reduce the possibility of wildfire ignitions from vehicles and travelers. Subsequent to construction, Build Alternative 3 would provide new direct access from the I-215 to Very High Fire Hazard Severity Zone areas located off of Keller Road that would improve access for emergency responders during a wildfire on adjacent lands.	Build Alternative 5 would result in temporary, construction-related impacts on emergency vehicle access. However, the proposed Project would implement a TMP under minimization measure T-1. Additionally, minimization measure WF-1 would require fire prevention practices to minimize risk of wildfire associated with construction activities. Minimization measure WF-2 would reduce potential wildfire risk to the traveling public, and would reduce the possibility of wildfire ignitions from vehicles and travelers. Subsequent to construction, Build Alternative 5 would provide new direct access from the I-215 to Very High Fire Hazard Severity Zone areas located off of Keller Road that would improve access for emergency responders during a wildfire on adjacent lands.

Issue	Alternative 1 (No-Build Alternative)	Build Alternative 2 (Spread Diamond Interchange)	Build Alternative 3 (Partial Cloverleaf Interchange)	Build Alternative 5 (Compact Diamond Interchange)
CEQA Climate Change	GHG contributions would be higher in future years compared to existing conditions due to anticipated regional growth. Because the No-Build Alternative would not reduce GHG contributions from the existing condition, it would not contribute to achieving statewide GHG contributions reduction goals.	The new interchange at Keller Road would help improve traffic operations at adjacent I-215 interchanges (Scott Road and Clinton Keith Road). These adjacent interchanges are forecasted to improve with implementation of the Build Alternatives by attracting traffic volumes that may otherwise use those interchanges. Build Alternative 2 would have higher CO_2e contributions under the future opening year and design year (2027 and 2047) when compared to the existing/baseline (2024) conditions. Mitigation measures GHG-6 through GHG-13 would be implemented to reduce operational GHG contributions; however, 2027 and 2047 GHG contributions will remain higher than the existing/baseline conditions.	The new interchange at Keller Road would help improve traffic operations at adjacent I-215 interchanges (Scott Road and Clinton Keith Road). These adjacent interchanges are forecasted to improve with implementation of the Build Alternatives by attracting traffic volumes that may otherwise use those interchanges. Build Alternative 3 would have higher CO_2e contributions under the future opening year and design year (2027 and 2047) when compared to the existing/baseline (2024) conditions. Mitigation measures GHG-6 through GHG-13 would be implemented to reduce operational GHG contributions; however, 2027 and 2047 GHG contributions will remain higher than the existing/baseline conditions.	The new interchange at Keller Road would help improve traffic operations at adjacent I-215 interchanges (Scott Road and Clinton Keith Road). These adjacent interchanges are forecasted to improve with implementation of the Build Alternatives by attracting traffic volumes that may otherwise use those interchanges. Build Alternative 5 would have higher CO_2e contributions under the future opening year and design year (2027 and 2047) when compared to the existing/baseline (2024) conditions. Mitigation measures GHG-6 through GHG-13 would be implemented to reduce operational GHG contributions; however, 2027 and 2047 GHG contributions will remain higher than the existing/baseline conditions.

Notes:
a.m. = ante meridian
ACM = asbestos-containing material
ADL = aerially deposited lead
BMP = best management practice
CDFW = California Department of Fish and Wildlife
CO_2 = carbon dioxide
CO_2e = carbon dioxide equivalent
dB = decibel(s)
dBA = A-weighted decibel(s)
EO = Executive Order
FEMA = Federal Emergency Management Agency
GHG = greenhouse gas
$L_{eq(h)}$ = hourly equivalent sound level
L_{max} = highest instantaneous sound level measured during a specific period
LOS = level of service
NAC = noise abatement criteria
NPDES = National Pollutant Discharge Elimination System
OCP = organochlorine pesticide
PCL = Proposed Constrained Linkage
SCAQMD = South Coast Air Quality Management District
TCE = temporary construction easement
TMP = Traffic Management Plan

Table S-2. Permits and/or Approvals Needed

Agency	Permit or Approval	Status
USACE	Section 404 Nationwide Permit	Application will be submitted after project approval.
State Water Resources Control Board (Project is in both San Diego and Santa Ana RWQCB)	Section 401 Water Quality Certification	Application will be submitted after project approval.
	NPDES Notice of Construction	Notice will be submitted during construction phase prior to any soil-disturbing work.
	Section 402 Clean Water Act NPDES	The proposed Project will comply with the requirements of the Caltrans Municipal Separate Storm Sewer System (MS4) Permit, Order No. 2022-0033-DWQ, NPDES No. CAS000003.
	SWPPP	The SWPPP will be developed in accordance with the Construction General Permit, Order WQ 2022-0057-DWQ, NPDES No. CAS000002, issued by the State Water Resources Control Board, State of California. A Notice of Intent will be submitted prior to any soil-disturbing work.
CDFW	Section 1602 Lake and Streambed Alteration Agreement	Application will be submitted after project approval.
RCA and Wildlife Agencies	MSHCP Consistency and DBESP Alternative	Approval to be obtained prior to approval of Final Environmental Document.
USFWS	Section 7 Endangered Species Act Consultation	Biological Opinion to be obtained prior to approval of Final Environmental Document.
FHWA	Air Quality Conformity Determination	Determination to be obtained prior to approval of Final Environmental Document.
City of Murrieta	Encroachment Permit	Will be obtained prior to construction.
City of Menifee	Encroachment Permit	Will be obtained prior to construction.
Riverside County	Encroachment Permit	Will be obtained prior to construction.
Caltrans	Encroachment Permit	Will be obtained prior to construction.

Notes:
DBESP = Determination of Biologically Equivalent or Superior Preservation
No. = number
RWQCB = Regional Water Quality Control Board
SWPPP = Stormwater Pollution Prevention Plan
USACE = U.S. Army Corps of Engineers

Table of Contents

Summary ..... **v**

S.1 NEPA Assignment v
S.2 Introduction v
S.3 Purpose and Need vi
S.3.1 Project Purpose vi
S.3.2 Project Need vii
S.4 Proposed Action vii
S.5 Joint CEQA/NEPA Documentation viii
S.6 Project Impacts ix
S.7 Coordination with Public and Other Agencies x

Chapter 1 **Proposed Project** **1-1**

1.1 Introduction 1-1
1.1.1 Existing Facility 1-3
1.2 Purpose and Need 1-4
1.2.1 Project Purpose 1-4
1.2.2 Project Need 1-4
1.2.3 Independent Utility and Logical Termini 1-19
1.3 Project Description 1-20
1.4 Alternatives 1-21
1.4.1 Project Alternatives 1-21
1.4.2 Common Design Features for Build Alternatives 1-21
1.4.3 Unique Features for Build Alternatives 1-26
1.4.4 No-Build Alternative 1-27
1.4.5 Comparison of Alternatives 1-27
1.4.6 Operational Comparison 1-34
1.5 Alternatives Considered but Eliminated from Further Discussion 1-46
1.5.1 Build Alternative 4 (Modified Partial Cloverleaf Interchange) 1-46

1.6 Permits and Approvals Needed 1-46

Chapter 2 **Affected Environment, Environmental Consequences and Avoidance, Minimization, and/or Mitigation Measures 2-1**

Coastal Zone 2-1
Floodplains 2-1
Wild and Scenic Rivers 2-1
Timberlands 2-1
2.1 Human Environment 2-1
2.1.1 Land Use 2-1

2.1.2 Consistency with State, Regional, and Local Plans and Programs 2-17
2.1.3 Parks and Recreational Facilities 2-25
2.1.4 Farmlands 2-33
2.1.5 Growth 2-34
2.1.6 Community Character and Cohesion 2-53
2.1.7 Relocations and Real Property Acquisition 2-73
2.1.8 Utilities/Emergency Services 2-86
2.1.9 Traffic and Transportation/Pedestrian and Bicycle Facilities 2-90
2.1.10 Visual/Aesthetics 2-138
2.1.11 Cultural Resources 2-160
2.2 Physical Environment 2-170
2.2.1 Hydrology and Floodplain 2-170
2.2.2 Water Quality and Stormwater Runoff 2-176
2.2.3 Geology/Soils/Seismic/Topography 2-192
2.2.4 Paleontology 2-203
2.2.5 Hazardous Waste/Materials 2-209
2.2.6 Air Quality 2-216
2.2.7 Noise 2-251
2.2.8 Energy 2-278
2.3 Biological Environment 2-285
2.3.1 Natural Communities 2-285
2.3.2 Wetlands and Other Waters 2-313
2.3.3 Plant Species 2-340
2.3.4 Animal Species 2-348
2.3.5 Threatened and Endangered Species 2-364
2.3.6 Invasive Species 2-380
Chapter 3 **California Environmental Quality Act Evaluation 3-1**
3.1 Determining Significance Under CEQA 3-1
3.2 CEQA Environmental Checklist 3-2
3.2.1 Aesthetics 3-3
3.2.2 Agriculture and Forest Resources 3-6
3.2.3 Air Quality 3-8
3.2.4 Biological Resources 3-11
3.2.5 Cultural Resources 3-16
3.2.6 Energy 3-18
3.2.7 Geology and Soils 3-20
3.2.8 Greenhouse Gas Emissions 3-24
3.2.9 Hazards and Hazardous Materials 3-29
3.2.10 Hydrology and Water Quality 3-33

3.2.11 Land Use and Planning 3-40
3.2.12 Mineral Resources 3-41
3.2.13 Noise 3-42
3.2.14 Population and Housing 3-45
3.2.15 Public Services 3-46
3.2.16 Recreation 3-48
3.2.17 Transportation 3-49
3.2.18 Tribal Cultural Resources 3-52
3.2.19 Utilities and Service Systems 3-54
3.2.20 Wildfire 3-56
3.2.21 Mandatory Findings of Significance 3-60
3.3 Wildfire 3-63
3.3.1 Regulatory Setting 3-63
3.3.2 Affected Environment 3-64
3.3.3 Environmental Consequences 3-64
3.3.4 Avoidance, Minimization, and/or Mitigation Measures 3-68
3.4 Climate Change 3-69
3.4.1 Regulatory Setting 3-70
3.4.2 Environmental Setting 3-70
3.4.3 GHG Inventories 3-71
3.4.4 Regional Plans 3-72
3.4.5 Project Analysis 3-74
3.4.6 Greenhouse Gas Reduction Strategies 3-79
3.4.7 Adaptation 3-84
3.5 Cumulative Impacts 3-89
3.5.1 Regulatory Setting 3-89
3.5.2 Methodology 3-89
3.5.3 Resources Excluded from Cumulative Impact Analysis 3-90
3.5.4 Resources Evaluated for Cumulative Impact Analysis 3-95
3.5.5 Cumulatively Considerable Contributions and Additional Avoidance Minimization and/or Mitigation Measures 3-159
Chapter 4 **Comments and Coordination 4-1**
4.1 Scoping Process 4-1
4.2 Interagency Coordination and Consultation 4-6
4.2.1 Native American Consultation 4-6
4.2.2 State Historic Preservation Officer 4-7
4.2.3 SCAG Transportation Conformity Working Group 4-8

4.2.4 United States Fish and Wildlife Service and California Department of Fish and Wildlife 4-8
4.3 Community Outreach and Public Involvement 4-9
4.4 Agency Coordination Documentation 4-10
Chapter 5 **List of Preparers 5-1**
5.1 California Department of Transportation 5-1
5.2 City of Murrieta 5-1
5.3 City of Menifee 5-2
5.4 Dudek and Associates 5-2
5.5 Iteris, Inc. 5-2
5.6 Jacobs 5-2
5.7 Leighton Consulting, Inc. 5-4
Chapter 6 **Distribution List 6-1**
6.1 Agencies 6-1
6.1.1 Federal Agencies 6-1
6.1.2 State Agencies 6-2
6.1.3 Regional Agencies 4
6.1.4 Local Agencies 6-6
6.1.5 Interested Groups, Organizations, and Individuals 6-7
6.2 Federal Legislators 6-7
6.3 State Legislators 6-7
6.4 Local Elected Officials 6-7
6.5 Utilities and Emergency Services 6-8
6.6 Property Owners with Mailing Addresses 6-8
6.7 Tribal Representatives 6-9
Chapter 7 **References 7-1**

List of Appendices

Appendix A **Resources Evaluated Relative to the Requirements of Section 4(f): No Use Determination**
Appendix B **Title VI/Non-Discrimination Policy Statement**
Appendix C **Summary of Relocation Benefits**
Appendix D **Environmental Commitment Record**
Appendix E **List of Acronyms**
Appendix F **List of Technical Studies**
Appendix G **Notice of Preparation**
Appendix H **Transportation Conformity Working Group Documents**

List of Tables

Table S-1. Summary of Alternatives and Impacts xii
Table S-2. Permits and/or Approvals Needed xxii
Table 1.2-1. Existing (2018), Opening Year (2027), and Design Year (2047) Freeway Mainline and Ramp Volumes 1-7
Table 1.2-2. Existing (2018), Opening Year (2027), and Design Year (2047) Freeway LOS Summary 1-11
Table 1.2-3. Existing (2018), Opening Year (2027), and Design Year (2047) Ramp Densities 1-12
Table 1.2-4. Existing (2018), Opening Year (2027), and Design Year (2047) Ramp LOS Summary 1-13
Table 1.2-5. Existing (2018), Opening Year (2027), and Design Year (2047) Intersection LOS Summary 1-14
Table 1.2-6. TASAS Table B 36 Month Crash Rates 1-16
Table 1.3-1. Comparison of Alternatives 1-31
Table 1.3-2. Opening Year (2027) Intersection LOS Summary 1-36
Table 1.3-3. Design Year (2047) Intersection LOS Summary 1-38
Table 1.3-4. Opening Year (2027) Freeway LOS Summary 1-40
Table 1.3-5. Design Year (2047) Freeway LOS Summary 1-41
Table 1.3-6. Opening Year 2027 Ramp LOS Summary 1-42
Table 1.3-7. Design Year 2047 Ramp LOS Summary 1-44
Table 1.5-1. Permits or Approvals Needed 1-47
Table 2.1.1-1. Reasonably Foreseeable Development Projects 2-7
Table 2.1.1-2. Reasonably Foreseeable Transportation Projects 2-13
Table 2.1.2-1. Summary of Project Consistency with Applicable Riverside County, City of Menifee, and City of Murrieta Plans 2-23
Table 2.1.3-1. Existing Parks and Recreational Facilities 2-29
Table 2.1.5-1 Riverside County Historical and Projected Population Estimates 2-35
Table 2.1.5-2. City of Murrieta Historical and Projected Population Estimates 2-35
Table 2.1.5-3. Design Year 2047 Traffic Volume Comparison (No-Build and Build Alternatives) 2-39
Table 2.1.6-1. 2010, 2015, and 2020 Population 2-55
Table 2.1.6-2. 2020 Population by Race and Ethnicity 2-57
Table 2.1.6-3. 2020 Race and Ethnicity Census Tract Data (Tracts 432.78, 432.79, 507.01, and 507.02) 2-58
Table 2.1.6-4. 2020 Age Distribution 2-59
Table 2.1.6-5. 2020 Gender Distribution 2-60
Table 2.1.6-6. Housing Characteristics 2-61
Table 2.1.6-7. Community Facilities (Within 0.5 Mile of the Proposed Project) 2-62
Table 2.1.6-8. 2020 ACS Economic Characteristics 2-66
Table 2.1.7-1. ROW Acquisitions for Build Alternative 2 2-80
Table 2.1.7-2. ROW Acquisitions for Build Alternative 3 2-82

Table 2.1.7-3. ROW Acquisitions for Build Alternative 5 2-84
Table 2.1.9-1. Potential Utility Relocations Required Under Build Alternatives 2, 3, and 5 2-88
Table 2.1.9-1. Intersection Level of Service Definitions 2-94
Table 2.1.9-2. Roundabout Intersection Level of Service Delay Ranges 2-95
Table 2.1.9-3. Freeway Level of Service Definitions 2-96
Table 2.1.9-4. Existing Baseline (2018) and Future Freeway Mainline and Ramp Volumes 2-96
Table 2.1.9-5. Existing Baseline (2018) Peak Hour Intersection LOS Summary 2-99
Table 2.1.9-6. Existing Baseline (2018) Peak Hour Ramp Merge/Diverge LOS Summary 2-100
Table 2.1.9-7. Existing Baseline (2018) Peak Hour Freeway LOS Summary 2-100
Table 2.1.9-8. Analyzed Opening Year 2027 No-Build Alternative Peak Hour Intersection LOS Summary 2-102
Table 2.1.9-9. Analyzed Opening Year 2027 No-Build Alternative Peak Hour Ramp LOS Summary 2-104
Table 2.1.9-10. Analyzed Opening Year 2027 No-Build Alternative Peak Hour Freeway LOS Summary 2-104
Table 2.1.9-11. Design Year 2047 No-Build Alternative Peak Hour Intersection LOS Summary 2-105
Table 2.1.9-12. Design Year 2047 No-Build Alternative Peak Hour Ramp LOS Summary 2-107
Table 2.1.9-13. Design Year 2047 No-Build Alternative Peak Hour Freeway LOS Summary 2-108
Table 2.1.9-14. Analyzed Opening Year 2027 Build Alternative 2 Peak Hour Intersection LOS Summary 2-109
Table 2.1.9-15. Analyzed Opening Year 2027 Build Alternative 2 Peak Hour Ramp LOS Summary 2-111
Table 2.1.9-16. Analyzed Opening Year 2027 Build Alternative 2 Peak Hour Freeway LOS Summary 2-112
Table 2.1.9-17. Design Year 2047 Build Alternative 2 Peak Hour Intersection LOS Summary 2-113
Table 2.1.9-18. Design Year 2047 Build Alternative 2 Peak Hour Ramp Queue Length Summary 2-116
Table 2.1.9-19. Design Year 2047 Build Alternative 2 Peak Hour Ramp LOS Summary 2-117
Table 2.1.9-20. Design Year 2047 Build Alternative 2 Peak Hour Freeway LOS Summary 2-118
Table 2.1.9-21. Analyzed Opening Year 2027 Build Alternative 3 Peak Hour Intersection LOS Summary 2-119
Table 2.1.9-22. Analyzed Opening Year 2027 Build Alternative 3 Peak Hour Ramp LOS Summary 2-121
Table 2.1.9-23. Analyzed Opening Year 2027 Build Alternative 3 Peak Hour Freeway LOS Summary 2-122

Table 2.1.9-24. Design Year 2047 Build Alternative 3 Peak Hour Intersection LOS Summary 2-123
Table 2.1.9-25. Design Year 2047 Build Alternative 3 Peak Hour Ramp Queue Length Summary 2-125
Table 2.1.9-26. Design Year 2047 Build Alternative 3 Peak Hour Ramp LOS Summary 2-126
Table 2.1.9-27. Design Year 2047 Build Alternative 3 Peak Hour Freeway LOS Summary 2-127
Table 2.1.9-28. Analyzed Opening Year 2027 Build Alternative 5 Peak Hour Intersection LOS Summary 2-128
Table 2.1.9-29. Analyzed Opening Year 2027 Build Alternative 5 Peak Hour Ramp LOS Summary 2-130
Table 2.1.9-30. Analyzed Opening Year 2027 Build Alternative 5 Peak Hour Freeway LOS Summary 2-131
Table 2.1.9-31. Design Year 2047 Build Alternative 5 Peak Hour Intersection LOS Summary 2-132
Table 2.1.9-32. Design Year 2047 Build Alternative 5 Peak Hour Ramp Queue Length Summary 2-135
Table 2.1.9-33. Design Year 2047 Build Alternative 5 Peak Hour Ramp LOS Summary 2-135
Table 2.1.9-34. Design Year 2047 Build Alternative 5 Peak Hour Freeway LOS Summary 2-137
Table 2.2.3-1. Local Active Faults 2-195
Table 2.2.5-1. Sites with Hazardous Waste Concerns 2-212
Table 2.2.6-1. Air Pollutant Effects and Sources 2-222
Table 2.2.6-2. State and Federal Criteria Air Pollutant Standards and Status 2-224
Table 2.2.6-3. Air Quality Concentrations for 5 Years Measured at the Lake Elsinore Monitoring Station – 506 W Flint Street 2-225
Table 2.2.6-4. Air Quality Concentrations for 5 Years Measured at the Temecula Monitoring Station – 33700 Borel Road 2-226
Table 2.2.6-5. Air Quality Concentrations for 5 Years Measured at the Pechanga Monitoring Station – 12705 Pechanga Road 2-228
Table 2.2.6-6. Sensitive Receptors Within 2,000 Feet of the Proposed Project Site 2-230
Table 2.2.6-7. Construction Emissions for Roadways – Build Alternative 2 2-233
Table 2.2.6-8. Construction Emissions for Roadways – Build Alternative 3 2-234
Table 2.2.6-9. Construction Emissions for Roadways – Build Alternative 5 2-234
Table 2.2.6-10. CO Concentrations of Existing (2024) and No-Build and Build Alternatives (2027 and 2047) at Modeled Intersections 2-241
Table 2.2.6-11. Summary of Comparative Emissions Analysis 2-243
Table 2.2.6-12. Estimated Annual Average Daily Traffic Volumes for the Proposed Project 2-246
Table 2.2.6-13. Summary of Comparative MSAT Emissions Analysis 2-248
Table 2.2.7-1. Noise Abatement Criteria 2-252

Table 2.2.7-2. Reaction of People and Damage to Buildings from Continuous or Frequent Intermittent Vibration Levels 2-254
Table 2.2.7-3. Maximum Noise Levels for Short-term Operation (less than 10 days) of Mobile Equipment 2-255
Table 2.2.7-4. Maximum Noise Level for Long-term Operation Periods (3 days or more) of Stationary Equipment 2-255
Table 2.2.7-5. Existing Noise Levels 2-260
Table 2.2.7-6. Construction Equipment Noise 2-263
Table 2.2.7-7. Predicted Future Noise Levels for Build Alternative 2 (Spread Diamond) 2-266
Table 2.2.7-8. Predicted Future Noise Levels for Build Alternative 3 (Partial Cloverleaf) 2-270
Table 2.2.7-9. Predicted Future Noise Levels for Build Alternative 5 (Compact Diamond) 2-274
Table 2.2.8-1. Summary of Existing Traffic Conditions (2024) 2-279
Table 2.2.8-2. Annual Construction Energy Consumption 2-281
Table 2.2.8-3. Annual Operational Energy Consumption 2-282
Table 2.3.1-1. Temporary Impacts on Vegetation Communities and Land Covers from the Proposed Project 2-297
Table 2.3.1-2. Temporary Impacts on Special-status Vegetation Communities from the Proposed Project 2-298
Table 2.3.1-3. Temporary Impacts on MSHCP Riparian/Riverine Habitat 2-298
Table 2.3.1-4. Permanent Impacts on Vegetation Communities and Land Cover from the Proposed Project 2-300
Table 2.3.1-5. Permanent Impacts on Special-status Vegetation Communities from the Proposed Project 2-301
Table 2.3.1-6. Permanent Impacts on MSHCP Riparian/Riverine Habitat 2-301
Table 2.3.2-1. Summary of Jurisdictional Waters of the United States within the 100-foot Biological Study Area 2-319
Table 2.3.2-2. Summary of Jurisdictional Streambed within the 100-foot Biological Study Area 2-321
Table 2.3.2-3. Waters of the United States Impacts Summary for Build Alternative 2 within the 100-foot Biological Study Area 2-324
Table 2.3.2-4. Jurisdictional Streambed Impacts Summary for Build Alternative 2 within the 100-foot Biological Study Area 2-325
Table 2.3.2-5. Waters of the United States Impacts Summary for Build Alternative 3 within the 100-foot Biological Study Area 2-329
Table 2.3.2-6. Jurisdictional Streambed Impacts Summary for Build Alternative 3 within the 100-foot Biological Study Area 2-330
Table 2.3.2-7. Waters of the United States Impacts Summary for Build Alternative 5 within the 100-foot Biological Study Area 2-334
Table 2.3.2-8. Jurisdictional Streambed Impacts Summary for Build Alternative 5 within the 100-foot Biological Study Area 2-335
Table 2.3.3-1. Potential Ground-disturbing Impacts on Occupied Habitat for Non-listed Plant Species from the Proposed Project 2-342

Table 2.3.4-1. Potential Ground-disturbing Impacts on Suitable Habitat for Nesting White-tailed Kite from the Proposed Project 2-356
Table 2.3.4-2. Potential Ground-disturbing Impacts on Suitable Habitat for Non-listed Special-status Birds from the Proposed Project 2-357
Table 2.3.4-3. Potential Ground-disturbing Impacts on Suitable Habitat for Non-listed Special-status Reptiles and Non-listed Special-Status Amphibians from the Proposed Project..... 2-358
Table 2.3.4-4. Potential Ground-disturbing Impacts on Suitable Habitat for Non-listed Special-status Mammals from the Proposed Project 2-359
Table 2.3.5-1. Species with Potential to Occur Within the Proposed Project's BSA 2-366
Table 2.3.5-2. Potential Ground-disturbing Impacts on Suitable Habitat for Coastal California Gnatcatcher from the Proposed Project 2-371
Table 2.3.5-3. Potential Ground-disturbing Impacts on Suitable Habitat for Least Bell's Vireo from the Proposed Project 2-372
Table 2.3.5-4. Potential Ground-disturbing Impacts on Suitable Habitat for Stephens' Kangaroo Rat from the Proposed Project 2-372
Table 2.3.5-5. Potential Ground-disturbing Impacts on Suitable Habitat for Burrowing Owl from the Proposed Project 2-374
Table 3.2.8-1. Modeled Annual CO_2e Emissions by Alternative 3-25
Table 3.4.4-1. Regional and Local Greenhouse Gas Reduction Plans..... 3-73
Table 3.4.4-2. Modeled Annual CO_2 Emissions and VMT, by Build Alternative..... 3-77
Table 3.5.4-1. Resource Study Areas Included in Cumulative Impact Analysis 3-96
Table 3.5.4-2. Past, Present, and Reasonably Foreseeable Development Projects ... 3-99
Table 3.5.4-3. Past, Present, and Reasonably Foreseeable Transportation Projects 3-106
Table 3.5.4-4 Air Quality Construction Emissions and Impacts of Cumulative Projects within 3 Miles..... 3-130
Table 3.5.4-5 Air Quality Operation Emissions and Impacts of Cumulative Projects within 3 Miles..... 3-132
Table 3.5.4-6 GHG Emissions, Impacts, and Mitigation Measures of Cumulative Projects within 3 Miles..... 3-138
Table 4.1-1. Public Comments Received during the Scoping Period (Written)..... 4-2

List of Figures

Figure 1.1-1. Project Location and Regional Vicinity 1-2
Figure 1.3-1. Build Alternative 2 Spread Diamond Interchange 1-28
Figure 1.3-2. Build Alternative 3 Partial Cloverleaf Interchange 1-29
Figure 1.3-3. Build Alternative 5 Compact Diamond Interchange 1-30
Figure 2.1-1. General Plan Land Use 2-4
Figure 2.1-2. Zoning Map 2-5
Figure 2.1-3. Reasonably Foreseeable Development Projects 2-15
Figure 2.1-4. Reasonably Foreseeable Transportation Projects 2-16
Figure 2.1-5. Parks and Recreation 2-28
Figure 2.1-6. Areas Where Project-related Growth Would Likely Occur 2-43
Figure 2.1-7. Census Tracts 2-56
Figure 2.1-8. Build Alternative 2 ROW Impacts 2-77
Figure 2.1-9. Build Alternative 3 ROW Impacts 2-78
Figure 2.1-10. Build Alternative 5 ROW Impacts 2-79
Figure 2.1-11. Existing Conditions 2-143
Figure 2.1-12. Existing View from the I-215 toward San Jacinto Peak 2-144
Figure 2.1-13. Key Observation Point 1: Northbound I-215 near Keller Road Bridge 2-145
Figure 2.1-14. Key Observation Point 1: Build Alternative 2 Visual Simulation 2-151
Figure 2.1-15. Key Observation Point 1: Build Alternative 3 Visual Simulation 2-152
Figure 2.1-16. Key Observation Point 1: Build Alternative 5 Visual Simulation 2-154
Figure 2.2-1. Regional Watersheds 2-172
Figure 2.2-2. Flood Zones 2-173
Figure 2.2-3. Geology Map 2-206
Figure 2.2-4. Map of Air Quality Monitoring Stations Located Near the Project 2-220
Figure 2.2-5. Predominant Wind Patterns Near the Project 2-221
Figure 2.2-6. Sensitive Receptors Located Near the Proposed Project 2-231
Figure 2.2-7. Noise Levels of Common Activities 2-253
Figure 2.2-8. Receiver and Noise Measurement Locations 2-259
Figure 2.3-1. MSHCP Survey Requirements 2-287
Figure 2.3-2. Biological Study Area 2-288
Figure 2.3-3. Biological Resources 2-290
Figure 2.3-4. Jurisdictional Delineation 2-296
Figure 2.3-5. MSHCP Conservation Area 2-304
Figure 2.3-6. Proposed Constrained Linkage 16 Noise and Light Barrier 2-306
Figure 2.3-7a. Impacts on Jurisdictional Waters – Build Alternative 2 2-323
Figure 2.3-7b. Impacts on Jurisdictional Waters – Build Alternative 3 2-328
Figure 2.3-7c. Impacts on Jurisdictional Waters - Build Alternative 5 2-333
Figure 2.3-8a. Impacts on Special-Status Plants – Build Alternative 2 2-344

Figure 2.3-8b. Impacts on Special-Status Plants – Build Alternative 3 2-345
Figure 2.3-8c. Impacts on Special-Status Plants – Build Alternative 5 2-346
Figure 2.3-9a. Impacts on Burrowing Owl and Special-status Wildlife – Build Alternative 2 2-350
Figure 2.3-9b. Impacts on Burrowing Owl and Special-status Wildlife – Build Alternative 3 2-351
Figure 2.3-9c. Impacts on Burrowing Owl and Special-status Wildlife – Build Alternative 5 2-352
Figure 3.3-1. State and Local Fire Hazard Severity Zones 3-65
Figure 3.4-1. California 2021 Greenhouse Gas Emissions by Economic Sector 3-71
Figure 3.4-2. Change in California Gross Domestic Product, Population, and GHG Emissions since 2000 3-72
Figure 3.4-3. Possible Use of Traffic Operation Strategies in Reducing On-road CO_2 Emissions 3-75
Figure 3.5-1 Past, Present, and Reasonably Foreseeable Development Projects 3-105
Figure 3.5-2 Past, Present, and Reasonably Foreseeable Transportation Projects 3-108

Chapter 1 Proposed Project

1.1 Introduction

In cooperation with Caltrans District 8, the County of Riverside, and the City of Menifee, the City of Murrieta proposes to construct a new full interchange and auxiliary lanes at Interstate (I-) 215 and Keller Road in the County of Riverside, California. Most of the proposed Project is in Murrieta. The northwestern quadrant of the proposed Project site is within Menifee. The purposes of the proposed Project are to improve connections and mobility within the proposed Project site, enhance safety along Keller Road, and improve local road access to the I-215 in the proposed Project site. Figure 1.1-1 shows the proposed Project location and regional vicinity.

This proposed Project would be funded with local and other funds. It is also eligible for Federal-aid funding through the Project Approval and Environmental Document (PA&ED) stage and, as such, is required to comply with both CEQA and NEPA. Caltrans, as assigned by the FHWA, is the lead agency under NEPA and CEQA. As such, Caltrans would carry out the environmental review, consultation, and any other action required in accordance with the applicable federal laws for this proposed Project under its assumption of responsibility pursuant to 23 United States Code (USC) 327.

This proposed Project is included in the 2025 Approved Federal Transportation Improvement Program (FTIP) as FTIP ID RIV100107 and described as follows (SCAG 2024a):

> *"In SW Riverside CO. I-215/Keller Rd. IC: Replace existing 2-ln I-215/Keller Rd. underpass with a new 4-ln (2 lns in ea dir), aux lanes at the SB off-ramp (approx. 1550'), add 3-ln NB and 2-Ln SB off-ramps, 2-ln NB/SB on-ramps w/HOV, SWs, and two 2-ln traffic circles at the ramp termini, and realign Antelope Rd approx. 1/4 mi east."*



Figure 1.1-1
Project Location and Regional Vicinity
I-215/Keller Road New Interchange Project
Riverside County, California

The proposed Project is also included in the SCAG *2024 to 2050 Sustainable Communities Strategy [RTP/SCS] Financially Constrained RTP Projects* (3M10WT03) as follows (SCAG 2024b):

> *"In SW Riverside CO. I-215/Keller Rd. IC: Replace existing 2-ln I-215/Keller Rd. underpass with a new 4-ln (2 lns in ea dir), aux lane at the SB off-ramp (approx. 1,550'), add 3-ln NB and 2-ln SB off-ramps, 2-ln NB/SB- on-ramps w/HOV, SWS, and two 2-ln traffic circles at the ramp termini, and realign Antelope Rd approx. 1/4 mi east."*

Construction is anticipated to begin in June 2026 and would be completed in 1.5 years.

1.1.1 Existing Facility

The existing freeway was upgraded to interstate highway standards in 1994 and became the I-215 south of State Route (SR)-60. The existing I-215 freeway is a six-lane divided highway that runs between the Clinton Keith Road and Scott Road overcrossings. The I-215 consists of six 12-foot lanes, a 22-foot median, and 10-foot right and left shoulders in each direction. The existing I-215 undercrossing at Keller Road was recently widened at the center median in conjunction with the RCTC's I-215 widening project (EA 08-0F1614).

The existing Keller Road is a two-lane undercrossing with no direct connections to the freeway. West of Antelope Road, Keller Road is a two-lane paved roadway with no curb and gutter or sidewalk. East of Antelope Road, Keller Road is a two-lane paved roadway with dedicated left-turn and right-turn lanes onto Antelope Road. This roadway section includes curb and gutter and sidewalk on the northern side of Keller Road. The Keller Road and Antelope Road intersection is signalized, and includes Americans with Disabilities Act (ADA)-compliant curb ramps. According to the City of Murrieta's *Murrieta General Plan 2035* (*General Plan)* (City of Murrieta 2020a), Keller Road is classified as an arterial road east of the I-215 to Whitewood Road.

1.2 Purpose and Need

1.2.1 Project Purpose

The purposes of the new I-215/Keller Road interchange are as follows:

- Improve connectivity to the regional transportation system and for future economic development.
- Improve mobility for all users between the I-215, the cities of Murrieta and Menifee, and unincorporated Riverside County.
- Improve both goods movement along Keller Road and the I-215, and emergency response times to the medical hospital east of the interchange by reducing delays at intersections.
- Improve local road access to the I-215 in the proposed Project site.
- Promote travel options by providing multimodal facilities traversing the proposed Project site, such as continuous facilities for pedestrian and bicycle traffic, which include new sidewalks and Class II bicycle lanes.
- Improve safety for the new interchange and along Keller Road, by providing new lighting, curb and gutter, sidewalks, and standard vertical clearance under the Keller Road undercrossing.
- Provide interregional continuity and consistency with Caltrans' District 8 *Active Transportation Plan 2022* (Caltrans 2022a), the SCAG's 2024-2050 RTP/SCS (also known as Connect SoCal) (SCAG 2024b), and the County Integrated Project Plans for the cities of Murrieta and Menifee and Riverside County.

1.2.2 Project Need

The I-215/Keller Road interchange is needed based on the following key factors:

- Forecasted population growth and future economic development in the proposed Project vicinity, such as the North Murrieta Business Corridor Focus Area, would result in operational challenges at existing adjacent interchanges.

- Consistent with the adopted land use plans for the cities of Murrieta and Menifee and Riverside County, planned development in the proposed Project vicinity is anticipated to require infrastructure improvements to accommodate future growth (for example, development of the Kaiser Permanente Murrieta Medical Campus and Murrieta Hills Community). Operational challenges at Keller Road, I-215/Clinton Keith, and I-215/Scott Road interchanges are anticipated based on forecasted population growth and planned development.

- Pedestrian and multimodal connectivity are limited in the proposed Project site. There are locations without sidewalks and areas where existing sidewalks and bike lanes are discontinuous. Such limitations could increase both community reliance on vehicular travel to access goods and services and traffic delays in the future.

CAPACITY, TRANSPORTATION DEMAND, AND SAFETY

Based on traffic forecasts, the daily and peak hour number of vehicles at the freeway segments, ramps, and intersections within the proposed Project vicinity would increase over time, which would increase traffic congestion under the existing configuration.

The future Keller Road interchange along the I-215 is recommended to provide much-needed access to future land uses, and to help relieve congestion at the adjacent interchanges at Clinton Keith Road and Scott Road. West of the I-215 and south of Keller Road, a large development called the *Murrieta Hills Specific Plan* (MHSP) has been approved and may contribute to increased traffic demand. In addition, the Loma Linda University Medical Center-Murrieta has been the catalyst for additional medical development. Such development includes the Kaiser Permanente Murrieta Medical Campus, which was recently constructed in the northeastern quadrant adjacent to the proposed Project site. The Loma Linda and Kaiser Permanente medical facilities would serve both local and regional residents. There would be increased traffic demand associated with the hospital and medical land uses, and the proposed Keller Road interchange would provide additional access for the regional traffic accessing these facilities. This area would also continue to be developed with housing units and commercial development, which only have access to the I-215 via the Scott Road and Clinton Keith Road interchanges.

The demand for interchange access is represented in traffic volumes. The year 2047 was selected to analyze future traffic conditions, based on the minimum 20-year planning horizon required by *California Transportation Plan 2040* (Caltrans 2016a). Traffic conditions in the future design year (2047) are intended to represent the buildout of the land uses in the proposed Project vicinity and, therefore, a cumulative condition scenario. The total traffic volumes for Build Alternatives 2, 3, and 5 would be the same. However, the distribution of these traffic volumes may vary for each of those Build Alternatives because of the differing alignments. Therefore, delay times and the level of service (LOS)[1] may differ for each Build Alternative.

Table 1.2-1 provides traffic projections for the No-Build Alternative design year conditions (2047), which indicate freeway mainline volumes would increase from existing conditions. The design year (2047) includes the improvement to the I--215 freeway mainline with the addition of one high-occupancy vehicle (HOV) lane in each direction. As Table 1.2-2 shows, the design year (2047) No-Build Alternative LOS for the I-215 would deteriorate from its current LOS C to LOS D during the southbound (SB) morning peak hour between Clinton Keith and Scott Roads. Table 1.2-1 also shows that under the No-Build Alternative conditions, the Clinton Keith Road and Scott Road interchange ramp volumes are forecasted to continue to increase through the design year (2047). The Clinton Keith Road and Scott Road interchange ramp LOS is expected to remain the same or worsen under the 2047 No-Build Alternative conditions (Table 1.2-4). Several intersections would operate at LOS E or worse during the opening year (2027) and the design year (2047) under the No-Build Alternative conditions (Table 1.2-5).

[1] Level of Service is a qualitative assessment of how well a transportation facility is operating from a traveler's perspective. It is used to analyze roadways and intersections by categorizing traffic flow and assigning quality levels based on factors such as speed, travel time, maneuverability, delay, and safety. LOS is typically represented by a letter grade from A to F, with LOS A representing the best operating conditions and LOS F representing the worst operating conditions.

Table 1.2-1. Existing (2018), Opening Year (2027), and Design Year (2047) Freeway Mainline and Ramp Volumes

Facility	Peak Hour	Existing (2018) (number of vehicles)	Opening Year (2027) No-Build Alternative (number of vehicles)	Opening Year (2027) Build Alternatives (number of vehicles)	Design Year (2047) No-Build Alternative (number of vehicles)	Design Year (2047) Build Alternatives (number of vehicles)
I-215 SB						
Freeway Mainline North of Scott Road	a.m.	3,590	3,800	3,875	4,865	4,965
	p.m.	2,774	2,850	2,960	3,235	3,580
Scott Road Direct Off-ramp	a.m.	371	445	385	610	530
	p.m.	592	715	575	970	845
Scott Road Loop On-ramp	a.m.	-	480	420	655	570
	p.m.	-	585	470	795	690
Scott Road Direct On-ramp	a.m.	864	565	490	765	665
	p.m.	798	380	305	515	450
Freeway Mainline between Scott Road and Keller Road	a.m.	-	-	4,400	-	5,670
	p.m.	-	-	3,160	-	3,875
Keller Road Direct Off-ramp	a.m.	-	-	985	-	1,385
	p.m.	-	-	705	-	1,005

Facility	Peak Hour	Existing (2018) (number of vehicles)	Opening Year (2027) No-Build Alternative (number of vehicles)	Opening Year (2027) Build Alternatives (number of vehicles)	Design Year (2047) No-Build Alternative (number of vehicles)	Design Year (2047) Build Alternatives (number of vehicles)
Keller Road Direct On-ramp	a.m.	-	-	285	-	400
	p.m.	-	-	695	-	995
Freeway Mainline between Keller Road and Clinton Keith Road	a.m.	-	-	3,700	-	4,685
	p.m.	-	-	3,150	-	3,865
Freeway Mainline between Scott Road and Clinton Keith Road	a.m.	4,083	4,400	-	5,675	-
	p.m.	2,979	3,100	-	3,575	-
Clinton Keith Road Direct Off-ramp	a.m.	498	600	550	1,605	1,430
	p.m.	623	750	620	1,325	1,180
Clinton Keith Road Loop On-ramp	a.m.	-	295	260	425	380
	p.m.	-	145	120	675	600
Clinton Keith Road Direct On-ramp	a.m.	829	700	625	1,030	915
	p.m.	532	495	410	725	645
Freeway Mainline South of Clinton Keith Road	a.m.	4,414	4,795	4,035	5,525	4,550
	p.m.	2,888	2,990	3,060	3,650	3,930

Facility	Peak Hour	Existing (2018) (number of vehicles)	Opening Year (2027) No-Build Alternative (number of vehicles)	Opening Year (2027) Build Alternatives (number of vehicles)	Design Year (2047) No-Build Alternative (number of vehicles)	Design Year (2047) Build Alternatives (number of vehicles)
I-215 NB						
Freeway Mainline South of Clinton Keith Road	a.m.	2,969	3,075	3,390	3,365	4,050
	p.m.	4,006	4,360	4,460	5,060	5,555
Clinton Keith Road Direct Off-ramp	a.m.	629	760	675	1,515	1,345
	p.m.	767	925	770	1,585	1,410
Clinton Keith Road Loop On-ramp	a.m.	-	725	645	1,140	1,015
	p.m.	-	525	435	1,080	960
Clinton Keith Road Direct On-ramp	a.m.	698	120	105	655	585
	p.m.	467	40	35	630	560
Freeway Mainline between Clinton Keith Road and Keller Road	a.m.	-	-	3,465	-	4,275
	p.m.	-	-	4,160	-	5,665
Keller Road Direct Off-ramp	a.m.	-	-	725	-	1,020
	p.m.	-	-	750	-	1,070
Keller Road Direct On-ramp	a.m.	-	-	495	-	695
	p.m.	-	-	660	-	940
Freeway Mainline between Keller Road and Scott Road	a.m.	-	-	3,220	-	3,950
	p.m.	-	-	4,070	-	5,535

Facility	Peak Hour	Existing (2018) (number of vehicles)	Opening Year (2027) No-Build Alternative (number of vehicles)	Opening Year (2027) Build Alternatives (number of vehicles)	Design Year (2047) No-Build Alternative (number of vehicles)	Design Year (2047) Build Alternatives (number of vehicles)
Freeway Mainline between Clinton Keith Road and Scott Road	a.m.	3,038	3,160	-	3,645	-
	p.m.	3,706	4,000	-	5,185	-
Scott Road Direct Off-ramp	a.m.	804	475	415	650	565
	p.m.	782	435	350	590	515
Scott Road Loop Off-ramp	a.m.	-	495	430	670	585
	p.m.	-	510	410	695	605
Scott Road Direct On-ramp	a.m.	679	825	715	1,115	970
	p.m.	586	710	570	960	835
Freeway Mainline North of Scott Road	a.m.	2,913	3,015	3,090	3,440	3,770
	p.m.	3,510	3,765	3,880	4,860	5,250

Source: Caltrans 2018a, Iteris 2025
Notes:
- = not applicable
SB = southbound
NB = northbound
a.m. = ante-meridian (morning)
p.m. = post-meridian (afternoon, evening)

Table 1.2-2. Existing (2018), Opening Year (2027), and Design Year (2047) Freeway LOS Summary

Segment	Existing LOS (2018)		Opening Year LOS (2027) No-Build Alternative		Design Year LOS (2047) No-Build Alternative	
	a.m. Peak Hour	p.m. Peak Hour	a.m. Peak Hour	p.m. Peak Hour	a.m. Peak Hour	p.m. Peak Hour
I-215 SB						
North of Scott Road	C	B	C	B	C	B
Between Scott Road and Clinton Keith Road	C	B	C	B	D	B
South of Clinton Keith Road	C	B	D	B	C	B
I-215 NB						
South of Clinton Keith Road	B	C	B	C	B	C
Between Clinton Keith Road and Scott Road	B	C	C	C	B	C
North of Scott Road	B	C	B	C	B	C

Source: Caltrans 2018a, Iteris 2025

Table 1.2-3. Existing (2018), Opening Year (2027), and Design Year (2047) Ramp Densities

Segment	Existing (2018) Density (veh/hr/ln)		Opening Year (2027) No-Build Alternative Density (veh/hr/ln)		Design Year (2047) No-Build Alternative Density (veh/hr/ln)	
	a.m. Peak Hour	p.m. Peak Hour	a.m. Peak Hour	p.m. Peak Hour	a.m. Peak Hour	p.m. Peak Hour
I-215 SB						
Scott Road Direct Off-ramp	26.5	22.4	27.7	23.1	29.5	22.8
Scott Road Loop On-ramp	[a]	[a]	23.0	17.5	25.0	17.1
Scott Road Direct On-ramp	25.4	19.5	26.2	18.9	28.7	18.8
Clinton Keith Road Direct Off-ramp	29.2	23.6	31.0	24.6	34.6	25.2
Clinton Keith Road Loop On-ramp	[a]	[a]	23.9	15.1	22.6	16.3
Clinton Keith Road Direct On-ramp	27.0	18.2	28.7	18.7	28.6	19.6
I-215 NB						
Clinton Keith Road Direct Off-ramp	23.6	29.4	24.5	31.4	24.6	32.2
Clinton Keith Road Loop On-ramp	[a]	[a]	13.8	23.8	17.6	24.4
Clinton Keith Road Direct On-ramp	19.5	22.3	18.5	22.7	19.4	26.2
Scott Road Off-ramp (Direct and Loop)	24.4	27.9	15.9	12.8	16.5	22.0
Scott Road Direct On-ramp	18.8	21.6	19.7	23.3	19.6	25.5

[a] Future ramps that would be constructed by 2027.
Source: Caltrans 2018a, Iteris 2025
Notes:
veh/hr/ln = vehicle(s) per hour per lane

Table 1.2-4. Existing (2018), Opening Year (2027), and Design Year (2047) Ramp LOS Summary

Segment	Existing LOS (2018)		Opening Year LOS (2027) No-Build Alternative		Design Year LOS (2047) No-Build Alternative	
	a.m. Peak Hour	p.m. Peak Hour	a.m. Peak Hour	p.m. Peak Hour	a.m. Peak Hour	p.m. Peak Hour
I-215 SB						
Scott Road Direct Off-ramp	C	C	C	C	D	C
Scott Road Loop On-ramp	[a]	[a]	C	B	C	B
Scott Road Direct On-ramp	C	B	C	B	D	B
Clinton Keith Road Direct Off-ramp	D	C	D	C	D	C
Clinton Keith Road Loop On-ramp	[a]	[a]	C	B	C	B
Clinton Keith Road Direct On-ramp	C	B	D	B	D	B
I-215 NB						
Clinton Keith Road Direct Off-ramp	C	D	C	D	C	D
Clinton Keith Road Loop On-ramp	[a]	[a]	B	C	B	C
Clinton Keith Road Direct On-ramp	B	C	B	C	B	C
Scott Road Off-ramp (Direct and Loop)	C	C	B	B	B	C
Scott Road Direct On-ramp	B	C	B	C	B	C

* Future ramps that would be constructed by 2027.
Source: Caltrans 2018a, Iteris 2025

Table 1.2-5. Existing (2018), Opening Year (2027), and Design Year (2047) Intersection LOS Summary

Intersection	Existing LOS (2018)		Opening Year LOS (2027) No-Build Alternative		Design Year LOS (2047) No-Build Alternative	
	a.m. Peak Hour	p.m. Peak Hour	a.m. Peak Hour	p.m. Peak Hour	a.m. Peak Hour	p.m. Peak Hour
1. Zeiders Road-Haun Road/Scott Road	E	D	F	D	F	E
2. Bailey Park Road/Scott Road	C	C	Removed in future conditions		Removed in future conditions	
3. I-215 SB Ramps/Scott Road	D	D	B	B	B	C
4. I-215 NB Ramps/Scott Road	D	C	C	C	C	C
5. Antelope Road/Scott Road	E	E	C	C	D	D
6. Menifee Road/Scott Road	D	C	E	F	F	F
7. Zeiders Road/Keller Road	A	A	A	A	E	F
8. Scenic View Drive/Keller Road	A	A	A	A	B	A
9. Antelope Road/Keller Road	D	C	B	A	Intersection relocated	
10. Mapleton Avenue/Keller Road	B	B	B	B	D	E
11. Whitewood Road/Keller Road	B	A	D	D	D	D
12. Antelope Road/Baxter Road	A	C	B	D	E	D
13. McElwain Road/Clinton Keith Road	B	C	C	C	E	F
14. I-215 SB Ramps/Clinton Keith Road	B	A	B	B	D	C
15. I-215 NB Ramps/Clinton Keith Road	B	B	C	C	F	E

Intersection	Existing LOS (2018)		Opening Year LOS (2027) No-Build Alternative		Design Year LOS (2047) No-Build Alternative	
	a.m. Peak Hour	p.m. Peak Hour	a.m. Peak Hour	p.m. Peak Hour	a.m. Peak Hour	p.m. Peak Hour
16. Vista Murrieta High School Driveway/Clinton Keith Road	C	C	F	B	C	C
17. Whitewood Road/Clinton Keith Road	C	C	D	D	F	F
18. Antelope Road/Clinton Keith Road	Future intersection in 2047				E	F
21. Kaiser Driveway/Keller Road	Future intersection		A	A	C	C
22. Meadowlark Lane-Gladiolus Avenue/Keller Road	B	A	B	A	B	B

Source: Caltrans 2018a, Iteris 2025

SAFETY

Traffic crash and safety records are available through the Caltrans Traffic Accident Surveillance and Analysis System (TASAS). Records for the I-215 from Post Miles 12.510 to 15.515 were reviewed for a 3-year period from July 2021 through June 2024 and are summarized in Table 1.2-6.

Table 1.2-6. TASAS Table B 36 Month Crash Rates

Location	Actual Rates (per million vehicles miles)			Statewide Average Rates (per million vehicles miles)		
	Total[a]	Fatal	F+I	Total[a]	Fatal	F+I
I-215 Post Mile R12.510–R15.515 NB	0.36	**0.010**	0.16	0.93	0.007	0.31
I-215 Post Mile R12.510–R15.515 SB	0.32	0.005	0.12	0.93	0.007	0.31

[a] All reported crashes (including Property Damage Only Crashes)
Source: Caltrans TASAS. Data were retrieved on June 5, 2025.
Notes:
Shading denotes crash rates higher than the statewide average for similar facilities.
F+I = fatal + injury crashes

As Table 1.2-6 shows, the actual fatal crash rate on the I-215 SB, between Post Miles 12.510 and 15.515, is greater than the statewide average fatal crash rate for similar facilities. The major types of crashes recorded on the I-215 NB were rear-end,sideswipe and hit object. The major types of crashes on the I-215 SB were rear-end and sideswipe. The data show the crashes likely resulted from congested traffic conditions during peak hours. The proposed improvements, including the additional auxiliary lane, are anticipated to enhance the safety of mainline operations and reduce the frequency of crashes.

Traffic collision records are available from the City of Murrieta's traffic collision retrieval system. These were reviewed for Keller Road, between I-215 and Whitewood Road, for the 3-year period from January 1, 2019 to December 31, 2022. Nine crashes occurred on Keller Road during this period, and did not result in fatalities, but resulted in five injuries. The major types of crashes were identified as broadside crashes. All crashes occurred at controlled intersections. The data show crashes were the result of motorists driving under the influence and violating traffic signals and signs. The proposed improvements are anticipated to provide uniform lane and shoulder width at intersections on Keller Road, consistent with the City of Murrieta's Circulation Element improving the existing condition and contributing to improved safety for all roadway users.

ROADWAY DEFICIENCIES

As discussed in the City of Murrieta's current *General Plan* (adopted July 7, 2020), its population grew from 24,334 in 1992 to 110,949 in 2020, approximately quadrupling in size. The area south of Keller Road is identified as the North Murrieta Business Corridor Focus Area. The corridor is anticipated to add an additional 1.7 million square feet (sq. ft.) of commercial uses. It is also anticipated to add 7.7 million sq. ft. of office and research uses to create a medical corridor and a high technology/office/research employment center, along with commercial uses that support business and employment needs, such as restaurants and hotels. A traffic demand of more than 138,800 vehicles per day is forecasted along the I-215 corridor in 2047 within the proposed Project limits.

The traffic operations of the ramps and the mainline freeway are expected to worsen with future traffic growth and the development of land use-specific plans for the existing vacant land adjacent to the proposed Project. Traffic demands at the adjacent I-215 interchanges at Scott Road and Clinton Keith Road will be reduced because the proposed Keller Road interchange would attract volumes that may otherwise use those interchanges. Without the proposed Project, the operation and efficiency of the adjacent interchanges and intersections would deteriorate over time, resulting in congestion, delays, and decreased LOS.

SOCIAL DEMAND AND ECONOMIC DEVELOPMENT

The future Keller Road interchange along the I-215 is recommended to help relieve congestion at adjacent interchanges. Similar to other areas in the Inland Empire, population growth continues to occur in Murrieta. Major developments in the area have been completed, are under construction, or are in the planning process, and consist of a mixture of residential, commercial, industrial, and office uses. The buildout of the area in accordance with the City of Murrieta's *General Plan* (City of Murrieta 2020a) would increase traffic on the freeway and local streets.

In addition to the transportation uses on the I-215 and Keller Road, the immediate vicinity surrounding the interchange includes the following existing land uses:

- **Northeastern Quadrant:** Kaiser Permanente Murrieta Medical Campus, single-family residences, and commercial properties
- **Northwestern Quadrant:** Vacant land, a few single-family residences, and commercial properties

- **Southwestern Quadrant:** Vacant land
- **Southeastern Quadrant:** Vacant land, a few single-family residences, and commercial properties

The City of Murrieta's *General Plan* Land Use Element identifies the area to the east of the new I-215/Keller Road interchange as Office/Research Park and Business Park land use types (City of Murrieta 2020a).

MODAL INTERRELATIONSHIPS AND SYSTEM LINKAGES

The I-215/Keller Road interchange, in combination with the I-215/Scott Road and I-215/Clinton Keith Road interchanges, would provide regional access to Murrieta. The I-215 is an auxiliary interstate highway, and connects to the I-15, approximately 5.4 miles south of Keller Road. The I-215 provides a regional connection between Riverside and San Bernardino Counties through its interchanges with the I-15, I-10, State Route (SR)-74, SR-60, SR-91, SR-66, and SR-210.

The proposed Project site and its vicinity are served by the RTA, which provides extensive fixed-route bus systems that include bus routes in the interchange area. RTA Routes 23, 61, and 206 operate within Murrieta.

Ontario International Airport (ONT) is a full-service airport with commercial jet service to major United States cities and through-service to many international destinations. Located in Ontario, the airport is less than 0.5 mile south of the I-10, approximately 2.5 miles west of the I-15, and 1.5 miles north of SR-60. ONT is approximately 37 miles northwest of Murrieta, and is the center of a developing freight movement system that includes the airport, two railroads, four major freeways, and an expanding network of freight forwarders. In 2021, 4.5 million passengers used ONT and 890,383 tons of air freight were shipped (ONT Airport 2023).

March Air Reserve Base is an operational Air Force Reserve Base in Riverside County that is headquarters to active-duty units from the Army Reserve, Navy Reserve, Marine Corps Reserve, and Air National Guard. The base provides regional commercial transportation, and facilitates the movement of goods through limited commercial cargo flights. The March Air Reserve Base is approximately 2.0 miles south of SR-60. The I-215 crosses through the western portion of the base.

According to the United States Census Bureau's 2022 American Community Survey, approximately 21.2% of the labor force in Murrieta commutes outside of Riverside County for work. The mean travel time to work for workers aged 16 years and older is approximately 33 minutes (U.S. Census Bureau 2022).

AIR QUALITY IMPROVEMENTS

The forecasted future growth within the proposed Project vicinity would generate more trips and is anticipated to lead to greater congestion within the proposed Project site. The proposed improvements would help alleviate future congestion on the I-215, Keller Road, and at nearby intersections by improving traffic flow through the proposed Project site. The proposed on-ramps would also include ramp metering with one HOV preferential lane for both on-ramps. In accordance with the Caltrans District 8 *Ramp Meter Design Manual* (Caltrans 2022b), all interchange on-ramps would be two-lane or three-lane metered ramps, with sufficient ROW to accommodate vehicle storage and ramp meter equipment.

1.2.3 Independent Utility and Logical Termini

FHWA regulations (23 *Code of Federal Regulations* [CFR] 771.111[f]) require the action to be evaluated for the following three criteria:

1. Connect logical termini and be of sufficient length to address environmental matters on a broad scope.

2. Have independent utility or independent significance (be usable and be a reasonable expenditure even if no additional transportation improvements in the area are made).

3. Do not restrict consideration of alternatives for other reasonably foreseeable transportation improvements.

The proposed Project limits were defined based on a logical and independent set of improvements. Logical termini are the rational end points for transportation improvements and used for the analysis of the potential environmental impacts. A project has independent utility if it meets the purpose of the project in the absence of other improvements in the project limits or in other portions of the corridor.

1.2.3.1 LOGICAL TERMINI

The proposed Project terminus at Keller Road is the rational end point for the connection to the I-215. The proposed terminus at Keller Road would enhance mobility and connectivity to adjacent land uses without significant modifications or disruptions to the transportation network. The I-215 and Keller Road would not experience a degradation in operability from the proposed Project's termini. These considerations support Keller Road as the logical terminus for the Build Alternatives.

1.2.3.2 INDEPENDENT UTILITY

The proposed Project complies with the requirements for independent utility identified in CFR 771.111(f). The proposed Project is not part of a larger plan for transportation improvements, and is operationally functional without dependence on other improvements. The proposed Project does not preclude the implementation of future foreseeable transportation improvements on the I-215 and the adjacent arterial street systems of the City of Murrieta, City of Menifee, or the County of Riverside. The proposed Project is a reasonable expenditure that is essential to enhance connectivity, reduce travel times, and improve access to the surrounding community. These factors have led to the conclusion that the proposed Project has independent utility.

1.3 Project Description

This section describes the proposed Project and the Build Alternatives that were developed to meet the proposed Project's identified purpose and need while avoiding or minimizing environmental impacts. The alternatives are Alternative 1 (No-Build Alternative), Build Alternative 2 (Spread Diamond Interchange), Build Alternative 3 (Partial Cloverleaf Interchange), and Build Alternative 5 (Compact Diamond Interchange).

The proposed Project would construct a new interchange at the I-215 and Keller Road. The Keller Road interchange would be 2.0 miles north of the Clinton Keith Road overcrossing and 1.0 mile south of the Scott Road overcrossing. The proposed Project also includes widening along Keller Road, from Zeiders Road to 265 feet west of Pamplona Avenue. Traffic striping would occur along Keller Road from Pamplona Avenue to Whitewood Road. The proposed improvements to the on- and off-ramps would extend north and south of the undercrossing at Keller Road, on the I-215, for proposed auxiliary lanes in each direction. The purposes of the proposed Project are to improve connectivity to the regional

transportation system, improve mobility for all travelers along the I-215, improve local road access, enhance emergency response times, and enhance safety through new lighting, curb and gutter, sidewalks, and standard vertical clearance under the Keller Road undercrossing.

1.4 Alternatives

1.4.1 Project Alternatives

In addition to Alternative 1 (the No-Build Alternative), three Build Alternatives are under consideration in this Draft EIR/EA:

- Build Alternative 2: Spread Diamond Interchange (Type L-2)
- Build Alternative 3: Partial Cloverleaf Interchange (Type L-9)
- Build Alternative 5: Compact Diamond (Type L-1)

Build Alternatives 2, 3, and 5 are described in further detail, in the following sections.

1.4.2 Common Design Features for Build Alternatives

1.4.2.1 ROADWAY IMPROVEMENTS

The following roadway improvements are common to the three proposed Build Alternatives:

- Antelope Road, adjacent to the I-215, would have a cul-de-sac constructed to the south near Brians Way and a dead-end constructed to the north, at Mapleton Avenue, to accommodate the proposed interchange.

- The Scenic View Drive intersection with Keller Road would be removed to accommodate the proposed interchange.

- A paved connection would be constructed at Warner Lane, south of Keller Road, to accommodate the proposed interchange.

1.4.2.2 NONSTANDARD DESIGN FEATURES

The following nonstandard design exceptions have been identified for the three proposed Build Alternatives:

- For new construction, widening, or where slopes are otherwise being modified, embankment (fill) slopes should be 4H:1V (where H is horizontal and V is vertical) or flatter.
- The minimum median width for freeways and expressways in urban areas should be 36 feet.
- Freeway entrances and exit designs should conform to the standard designs in the Caltrans *Highway Design Manual,* Figure 504.2A-B (single lane), and Figure 504.3K (two-lane entrances and exits) or Figure 504.4 (diverging branch connections), as appropriate (Caltrans 2020a).
- Because of the operational benefits of an auxiliary lane, the merge from the metered entrance ramp to the freeway should include an auxiliary lane with a minimum length of 300 feet beyond the ramp's convergence point.

1.4.2.3 RAMP IMPROVEMENTS

The following ramp improvements are common to the three proposed Build Alternatives:

- The proposed on-ramps at the new Keller Road interchange are anticipated to include ramp metering with one HOV preferential lane for both on-ramps.
- CHP Enforcement Areas are proposed for all on-ramps within the interchange.
- Maintenance vehicle pullouts are proposed for on- and off-ramps within the interchange where frequent access to equipment needing routine maintenance is anticipated.

1.4.2.4 NONMOTORIZED AND PEDESTRIAN ACCESS IMPROVEMENTS

All proposed Build Alternatives include an enhancement of nonmotorized and pedestrian features for the safe transport of individuals to residences and commercial businesses in the proposed Project site. Standard sidewalks and curb returns would be constructed along Keller Road and segments of the

adjacent frontage roads. Painted bicycle lanes would be constructed in each direction along Keller Road. All lighting standards, electrical cabinets, fire hydrants, signs, and other fixed objects would be at least 18 inches from the curb face. Sidewalks would be well-illuminated, using street lighting, to ensure pedestrian safety.

1.4.2.5 NOISE/LIGHT BARRIER

All proposed Build Alternatives include an approximately 1,430-foot-long noise and light barrier for wildlife along the proposed SB on-ramp of each Build Alternative, on the western side of the I-215. The barrier would consist of an earthen berm that varies in width from 31 to 45 feet. Erosion control measures would be implemented to maintain the berm's integrity.

1.4.2.6 STANDARD PROJECT MEASURES

This proposed Project includes a number of standardized project measures that are employed on most, if not all, Caltrans projects and were not developed in response to a specific environmental impact resulting from the proposed Project. These Environmental Consequences sections found in Chapter 2 discuss these in more detail.

Each Build Alternative includes the following standardized measures that form part of the proposed Project description. Standardized measures (such as BMPs) are generally applied to most Caltrans projects. These standardized or pre-existing measures allow little discretion regarding their implementation, and are not specific to the circumstances of a particular project. The applicable sections of Chapter 2 provide more information about each measure.

Air Quality

- AQ-1: The construction contractor must comply with the Department's Standard Specifications in Section 14.

Biological Resources

- BIO-1: A qualified biological monitor will monitor work activities during construction.

- BIO-3: Invasive species control measures will be included in the proposed Project plans and specifications.

- BIO-9: Standard provisions related to wetland protection will be included in the proposed Project plans and specifications.

- BIO-16: Standard provisions related to the discovery of nesting and migratory birds will be included in the proposed Project plans and specifications.

Cultural Resources

- CR-1: Standard provisions dealing with the discovery of unanticipated cultural materials will be included in the proposed Project plans and specifications.

- CR-2: Standard provisions dealing with the discovery of human remains will be included in the proposed Project plans and specifications.

- CR-3: Standard provisions related to environmentally sensitive areas will be included in the proposed Project plans and specifications.

- CR-4: Standard provisions related to archaeological monitoring areas will be included in the proposed Project plans and specifications.

Geology/Soils/Seismic/Topography

- GEO-1: Standard provisions related to a geotechnical investigation will be included in the proposed Project plans and specifications.

Hazardous Waste

- HAZ-1: Standard provisions related to soil sampling for partial and full acquisitions will be included in the proposed Project plans and specifications.

- HAZ-2: A Lead Compliance Plan will be prepared for the proposed Project.

- HAZ-3: Standard provisions related to striping paint removal, containment, and off-site transportation and disposal will be included in the proposed Project plans and specifications.

- HAZ-4: An Asbestos Compliance Plan will be prepared for the proposed Project.

- HAZ-6: Unknown Hazards Procedures described in the Caltrans Construction Manual, Chapter 7, will be followed for hazardous materials discovered during construction.

Noise

- NOI-1: Construction activities within the City right-of-way will comply with the allowed construction hours specified by the City's Noise Ordinance (7:00 a.m. to 8:00 p.m. on weekdays and weekends), and the control of noise from construction activities within the Caltrans right-of-way will conform to Caltrans Standard Specifications, Section 14-8.02, Noise Control.

Relocations

- REL-1: Caltrans and the City of Murrieta will ensure that all property acquisition will be handled in accordance with the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Uniform Act) (Public Law 91-646, 84 Stat. 1894).

Traffic

- T-1: A Transportation Management Plan (TMP) will be prepared for the proposed Project.

Water Quality and Stormwater Runoff

- WQ-1: Construction of the proposed Project will comply with the provisions of the NPDES General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit) Order No. WQ 2022-0057-DWQ (adopted on September 8, 2022 and effective on September 1, 2023).

- WQ-2: Design and operation of the proposed Project will comply with the provisions of the NPDES Permit, Statewide Stormwater Permit, WDRs for the State of California, Department of Transportation Order No. 2022-0033-DWQ, NPDES No. CAS000003 (Caltrans MS4 Permit).

Wildfire

- WF-1: Standard provisions related to fire prevention will be included in the proposed Project plans and specifications.

- WF-2: A standard Caltrans Integrated Vegetation Plan (IVP) to control invasive species would be included in the proposed Project plans and specifications.

1.4.3 Unique Features for Build Alternatives

1.4.3.1 BUILD ALTERNATIVE 2 (SPREAD DIAMOND INTERCHANGE)

Build Alternative 2 proposes to construct a spread diamond interchange at the existing I-215 undercrossing of Keller Road and auxiliary lanes on the I-215. The proposed improvements under Build Alternative 2 include the construction of NB and SB on- and off-ramps to and from the I-215 mainline, a NB auxiliary lane from the Keller Road NB on-ramp, a SB auxiliary lane to the Keller Road SB off-ramp, and a SB auxiliary lane from the Keller Road SB on-ramp. Figure 1.3-1 shows these improvements.

1.4.3.2 BUILD ALTERNATIVE 3 (PARTIAL CLOVERLEAF INTERCHANGE)

Build Alternative 3 proposes to construct a partial cloverleaf interchange at the existing I-215 undercrossing of Keller Road and auxiliary lanes on the I-215. The proposed improvements under Build Alternative 3 include the construction of NB on- and off-ramps to and from the I-215 mainline (including a NB loop on-ramp at the southeastern quadrant), SB on- and off-ramps to and from the I-215 mainline (including a SB loop on-ramp at the northwestern quadrant), a NB auxiliary lane from the Keller Road NB on-ramp, a SB auxiliary lane to the Keller Road SB off-ramp, a SB auxiliary lane from the Keller Road SB on-ramp, and the widening of the existing I-215/Keller Road undercrossing to accommodate the proposed ramps. Figure 1.3-2 shows these improvements.

1.4.3.3 BUILD ALTERNATIVE 5 (COMPACT DIAMOND INTERCHANGE)

Build Alternative 5 proposes to construct a compact diamond interchange with double roundabouts at the ramp intersections at the existing Keller Road undercrossing of I-215 and auxiliary lanes on the I-215. The proposed improvements under Build Alternative 5 include the construction of NB and SB on- and off-ramps at Keller Road in a double roundabout configuration, a NB auxiliary lane from the Keller Road NB on-ramp, and a SB auxiliary lane to the Keller Road SB off-ramp, as well as the widening of the existing I-215/Keller Road

undercrossing to accommodate the proposed ramps. Figure 1.3-3 shows these improvements.

1.4.4 No-Build Alternative

The No-Build Alternative (referred to as Alternative 1 [No-Build Alternative] in this EIR/EA) assumes no improvements would be made to the freeway mainline or the existing Keller Road interchange. Without the planned improvements proposed as part of the proposed Project, traffic operations at the interchange could continue to worsen over time from increased demand from new development in the vicinity of the proposed Project. According to the City of Murrieta's *General Plan* (City of Murrieta 2020a), traffic demand is forecasted to exceed 138,800 vehicles per day along the I-215 corridor by 2047. The LOS for the freeway and local street circulation system could continue to deteriorate. By the year 2047, 9 of the 13 local street intersections within the proposed Project limits are anticipated to operate at LOS E or worse during the a.m. or p.m. peak hour period. Five of the 13 local street intersections would also be noncompliant with the County Congestion Management Program's minimum LOS E requirement. Alternative 1 would not enhance nonmotorized and pedestrian features within the proposed Project site. Overall, Alternative 1 would not meet or satisfy the proposed Project's purpose and need.

1.4.5 Comparison of Alternatives

Table 1.3-1 compares the No-Build Alternative with Build Alternatives 2, 3, and 5. Because the interchange is within a developed area, it is preferred that the Build Alternatives minimize ROW acquisition and displacements, and maintain local circulation while meeting the proposed Project's purpose and need.





Legend

- Striping and Edge of Pavement
- Bridge Structure
- Pedestrian Facilities

Data Source:
Caltrans
Riverside County GIS

0 200 400 600 800
Feet

Figure 1.3-1
Build Alternative 2
Spread Diamond Interchange
I-215/Keller Road New Interchange Project
Riverside County, California





Legend

- Striping and Edge of Pavement
- Bridge Structure
- Pedestrian Facilities

Data Source:
Caltrans
Riverside County GIS

0 200 400 600 800
Feet

Figure 1.3-2
Build Alternative 3
Partial Cloverleaf Interchange
I-215/Keller Road New Interchange Project
Riverside County, California





Legend

- Striping and Edge of Pavement
- Bridge Structure
- Pedestrian Facilities

Data Source:
Caltrans
Riverside County GIS

0 200 400 600 800
Feet

Figure 1.3-3
Build Alternative 5
Compact Diamond Interchange
I-215/Keller Road New Interchange Project
Riverside County, California

Table 1.3-1. Comparison of Alternatives

Build Alternative	Issue		
	ROW Acquisition and Relocations	Traffic and Transportation Facilities	Estimated Cost
Alternative 1 (No-Build Alternative)	No Displacements	The No-Build Alternative would not provide improvements to improve connectivity at the I-215 and Keller Road. Therefore, traffic operations could continue to worsen over time. By the 2047 design year, the No-Build Alternative would result in LOS F operations at the Clinton Keith Road interchange.	None
Build Alternative2	3 Full Acquisitions 23 Partial Acquisitions 1 Residential Displacement 1 Business Displacement 0 Employee Displacements	Geometrics: Build Alternative 2 proposes to construct a spread diamond interchange at the existing I-215 undercrossing of Keller Road and auxiliary lanes on the I-215. The proposed improvements under Build Alternative 2 include the construction of NB and SB on-/off-ramps to and from the I-215 mainline, a NB auxiliary lane from the Keller Road NB on-ramp, a SB auxiliary lane to the Keller Road SB off-ramp, and a SB auxiliary lane from the Keller Road SB on-ramp. LOS: All opening year (2027) intersections at the Scott Road, Clinton Keith Road, and Keller Road interchanges and mainline segments are projected to operate at LOS D or better during the a.m. and p.m. peak periods. All design year (2047) intersections at the Scott Road, Clinton Keith Road, and Keller Road interchanges and most mainline segments are projected to operate at LOS D or better during the a.m. and p.m. peak periods, except for the I-215 NB ramps/Keller Road intersection in the p.m. peak hour, which will be LOS E.	$65,900,000

Build Alternative	Issue		
	ROW Acquisition and Relocations	Traffic and Transportation Facilities	Estimated Cost
Build Alternative 3	3 Full Acquisitions 22 Partial Acquisitions 1 Residential Displacement 1 Business Displacement 0 Employee Displacements	Geometrics: Build Alternative 3 proposes to construct a partial cloverleaf interchange at the existing I-215 undercrossing of Keller Road and auxiliary lanes on the I-215. The proposed improvements under Build Alternative 3 include the construction of NB on-/off-ramps to and from the I-215 mainline (including a NB loop on-ramp at the northwestern and southeastern quadrants), SB on- and off-ramps to and from the I-215 mainline (including a SB loop on-ramp at the northwestern and southeastern quadrants), a NB auxiliary lane from the Keller Road NB on-ramp, a SB auxiliary lane to the Keller Road SB off-ramp, a SB auxiliary lane from the Keller Road SB on-ramp, and the widening of the existing I-215/Keller Road undercrossing to accommodate the proposed ramps. LOS: All opening year (2027) and design year (2047) intersections at the Scott Road, Clinton Keith Road, and Keller Road interchanges and mainline segments are projected to operate at LOS D or better during the a.m. and p.m. peak periods.	$73,800,000
Build Alternative 5	1 Full Acquisition 24 Partial Acquisitions 0 Residential Displacements 0 Business Displacements 0 Employee Displacements	Geometrics: Build Alternative 5 proposes to construct a compact diamond interchange with double roundabouts at the ramp intersections at the existing Keller Road undercrossing at the I-215 and auxiliary lanes on the I-215. The proposed improvements under Build Alternative 5 include the construction of NB and SB on- and off-ramps at Keller Road in a double roundabout configuration, a NB auxiliary lane from the Keller Road NB on-ramp, and a SB auxiliary lane to the Keller Road SB off-ramp, as well as the widening of the existing I-215/Keller Road undercrossing to accommodate the proposed ramps. LOS: All opening year (2027) and design year (2047) intersections at the Scott Road, Clinton Keith Road, and Keller Road interchanges and mainline segments are projected to operate at LOS D or better during the a.m. and p.m. peak periods.	$61,700,000

Sources: Caltrans 2018a, 2024i, Iteris 2025

Under the No-Build Alternative, no roadway improvements would occur. Therefore, no relocations or real property acquisitions would occur that would result in the displacement of businesses or residences.

Partial and full acquisitions of ROW are anticipated for each Build Alternative; for more detail, refer to Section 2.1.7, Relocations. ROW acquisitions are required along Keller Road, both east and west of the interchange, as a result of vertical clearance requirements. ROW acquisitions are also required along Antelope Road, north of Keller Road, to reroute the existing roadway and accommodate the new interchange ramps. Additional ROW would also be required for a proposed utility corridor along the new NB Keller Road off-ramp. However, upon their completion, the remainder of partially acquired parcels would be developable for land uses consistent with existing *General Plan* (City of Murrieta 2020a) and zoning designations. Therefore, improvements under Build Alternatives 2, 3, and 5 are not anticipated to conflict with applicable General Plan (City of Murrieta 2020a) land use and zoning designations. The proposed Project would not impede access to employment centers during operation. Build Alternatives 2 and 3 would displace one residence in the southeastern quadrant, and would require the Kaiser Permanente Murrieta Medical Campus outbuildings to be relocated as a partial displacement that would maintain medical operations. The main hospital building would not be impacted. Build Alternative 5 would not displace any residents or affect the parking lot or outbuildings associated with the Kaiser Permanente Murrieta Medical Campus. Acquisitions and compensation to property owners would be consistent with the Uniform Relocation Act.

As Table 1.3-1 shows, no acquisitions would be required for the No-Build Alternative. Build Alternatives 2 and 3 would each require three full acquisitions, and Build Alternative 5 would require one full acquisition. As Table 1.3-1 shows, Build Alternative 3 would have the greatest cost, Build Alternative 2 would have the second-greatest cost, Build Alternative 5 would have the third-greatest cost, and the No-Build Alternative would cost the least. The total cost includes the escalated cost estimate for the capital outlay support, capital outlay construction, and capital outlay ROW. The table also shows that the I-215/Keller Road new interchange ramp terminus intersections, ramp junctions, and freeway segments are forecasted to operate at an acceptable LOS for all Build Alternatives in opening year (2027). In the design year (2047), with the exception of Build

Alternative 2, the I-215/Keller Road interchange ramp terminus intersections, ramp junctions, and freeway segments are forecasted to operate acceptably.

1.4.6 Operational Comparison

The City of Murrieta's *General Plan* Circulation Element (City of Murrieta 2020a) identifies the need to construct a new east-west corridor and interchange at Keller Road to support the regional transportation system that serves the existing and future travel between Murrieta and southwest Riverside County. The Build Alternatives would improve connectivity to the regional transportation system, and would enhance mobility for all users between the I-215, the cities of Murrieta and Menifee, and other areas of Riverside County. The proposed Project would also improve connectivity for future economic development.

Overall, traffic operations are generally expected to improve with the proposed Project, by providing connectivity and attracting volumes that may otherwise use the Scott Road and Clinton Keith Road interchanges. Tables 1.3-2 and 1.3-3 provide the intersection LOS for all proposed Project alternatives. Most of the intersections in the opening year (2027) would operate at a similar satisfactory LOS D or better for the No-Build and Build Alternatives. The Menifee Road/Scott Road intersection will operate at LOS E (AM) and LOS F (PM) for both the No-Build and Build Alternatives.

In the future design year (2047), many of the intersections would operate at a similar satisfactory LOS D or better for the No-Build and Build Alternatives. However, there are several cases where the No-Build Alternative intersections would operate at LOS E or worse, and the Build Alternative LOS would improve those intersections. Four local road intersections would be LOS E or worse for the No-Build Alternative and LOS D or better for the Build Alternatives: Zeiders Road-Haun Road/Scott Road during the p.m. peak hour, and Zeiders Road/Keller Road, Mapleton Road/Keller Road, and McElwain Road/Clinton Keith Road during the a.m peak hour. The ramp terminal intersection at the I-215 NB ramps/Clinton Keith Road also improves from LOS E and F for the No-Build Alternative to LOS D for the Build Alternatives. The local road intersection at Whitewood Road/Clinton Keith Road improves from LOS F in the AM peak for the No-Build Alternative to LOS E for the Build Alternatives.

Most of the LOS E and LOS F intersections are local jurisdiction intersections outside of the proposed Project construction limits. The congestion is a result of

future economic development. The Build Alternatives will improve operations at many of those intersections.

The proposed Project also will maintain satisfactory operations on the I-215 freeway between the Scott Road and Clinton Keith Road interchanges. Tables 1.3-4 and 1.3-5 indicate acceptable operations (LOS D or better) at freeway segments in the opening year (2027) and design year (2047). Tables 1.3-6 and 1.3-7 indicate that the ramp merge and diverge areas will also operate at an acceptable LOS in the opening year (2027) and design year (2047).

Table 1.3-2. Opening Year (2027) Intersection LOS Summary

Intersection	No-Build Alternative		Build Alternative 2 LOS		Build Alternative 3 LOS		Build Alternative 5 LOS	
	a.m. Peak Hour	p.m. Peak Hour	a.m. Peak Hour	p.m. Peak Hour	a.m. Peak Hour	p.m. Peak Hour	a.m. Peak Hour	p.m. Peak Hour
1. Zeiders Road-Haun Road/Scott Road	F	D	F	D	F	D	F	D
2. Bailey Park Road/Scott Road	Removed in future conditions							
3. I-215 SB Ramps/Scott Road	B	B	B	B	B	B	B	B
4. I-215 NB Ramps/Scott Road	C	C	C	C	C	C	C	C
5. Antelope Road/Scott Road	C	C	C	C	C	C	C	C
6. Menifee Road/Scott Road	E	F	E	F	E	F	E	F
7. Zeiders Road/Keller Road	A	A	D	D	D	D	D	D
8. Scenic View Drive/Keller Road	A	A	Removed as part of the proposed Project					
9. Antelope Road/Keller Road	B	A	Intersection relocated					
10. Mapleton Avenue/Keller Road	B	B	C	C	C	C	C	C
11. Whitewood Road/Keller Road	D	D	D	D	D	D	D	D
12. Antelope Road/Baxter Road	B	D	B	D	B	D	B	D
13. McElwain Road/Clinton Keith Road	C	C	C	C	C	C	C	C
14. I-215 SB Ramps/Clinton Keith Road	B	B	B	C	B	C	B	C
15. I-215 NB Ramps/Clinton Keith Road	C	C	C	C	C	C	C	C
16. Vista Murrieta High School Driveway/Clinton Keith Road	F	B	C	B	C	B	C	B

Intersection	No-Build Alternative		Build Alternative 2 LOS		Build Alternative 3 LOS		Build Alternative 5 LOS	
	a.m. Peak Hour	p.m. Peak Hour	a.m. Peak Hour	p.m. Peak Hour	a.m. Peak Hour	p.m. Peak Hour	a.m. Peak Hour	p.m. Peak Hour
17. Whitewood Road/Clinton Keith Road	D	D	D	D	D	D	D	D
18. Antelope Road/Clinton Keith Road	Future intersection in 2047							
19. I-215 SB Ramps/Keller Road	[a]	[a]	C	C	B	B	A	A
20. I-215 NB Ramps/Keller Road	[a]	[a]	C	C	C	C	A	A
21. Kaiser Driveway/Keller Road	A	A	A	A	A	A	A	A
22. Meadowlark Lane-Gladiolus Avenue/Keller Road	B	A	D	B	D	B	D	B

[a] Ramps would not be constructed in the No-Build Alternative.
Source: Caltrans 2018a, Iteris 2025

Table 1.3-3. Design Year (2047) Intersection LOS Summary

Intersection	No-Build Alternative LOS		Build Alternative 2 LOS		Build Alternative 3 LOS		Build Alternative 5 LOS	
	a.m. Peak Hour	p.m. Peak Hour	a.m. Peak Hour	p.m. Peak Hour	a.m. Peak Hour	p.m. Peak Hour	a.m. Peak Hour	p.m. Peak Hour
1. Zeiders Road-Haun Road/Scott Road	F	E	F	D	F	D	F	D
2. Bailey Park Road/Scott Road	Removed in future conditions							
3. I-215 SB Ramps/Scott Road	B	C	A	C	A	C	A	C
4. I-215 NB Ramps/Scott Road	C	C	C	B	C	B	C	B
5. Antelope Road/Scott Road	D	D	D	D	D	D	D	D
6. Menifee Road/Scott Road	F	F	F	F	F	F	F	F
7. Zeiders Road/Keller Road	E	F	C	D	C	D	C	D
8. Scenic View Drive/Keller Road	B	A	Removed as part of the proposed Project					
9. Antelope Road/Keller Road	Intersection relocated							
10. Mapleton Avenue/Keller Road	D	E	D	D	D	D	D	D
11. Whitewood Road/Keller Road	D	D	D	D	D	D	D	D
12. Antelope Road/Baxter Road	E	D	E	C	E	C	E	C
13. McElwain Road/Clinton Keith Road	E	F	D	F	D	F	D	F
14. I-215 SB Ramps/Clinton Keith Road	D	C	C	B	C	B	C	B
15. I-215 NB Ramps/Clinton Keith Road	F	E	D	D	D	D	D	D
16. Vista Murrieta High School Driveway/Clinton Keith Road	C	C	C	C	C	C	C	C

Intersection	No-Build Alternative LOS		Build Alternative 2 LOS		Build Alternative 3 LOS		Build Alternative 5 LOS	
	a.m. Peak Hour	p.m. Peak Hour	a.m. Peak Hour	p.m. Peak Hour	a.m. Peak Hour	p.m. Peak Hour	a.m. Peak Hour	p.m. Peak Hour
17. Whitewood Road/Clinton Keith Road	F	F	E	F	E	F	E	F
18. Antelope Road/Clinton Keith Road	E	F	E	F	E	F	E	F
19. I-215 SB Ramps/Keller Road	[a]	[a]	C	D	C	B	A	D
20. I-215 NB Ramps/Keller Road	[a]	[a]	D	E	C	D	C	B
21. Kaiser Driveway/Keller Road	C	C	B	B	B	B	B	B
22. Meadowlark Lane-Gladiolus Avenue/Keller Road	B	B	D	D	D	D	D	D

[a] Ramps would not be constructed in the No-Build Alternative.
Source: Caltrans 2018a, Iteris 2025

Table 1.3-4. Opening Year (2027) Freeway LOS Summary

Freeway Segment	No-Build Alternative LOS		Build Alternative 2 LOS		Build Alternative 3 LOS		Build Alternative 5 LOS	
	a.m. Peak Hour	p.m. Peak Hour	a.m. Peak Hour	p.m. Peak Hour	a.m. Peak Hour	p.m. Peak Hour	a.m. Peak Hour	p.m. Peak Hour
I-215 SB								
North of Scott Road	C	B	C	B	C	B	C	B
Between Scott Road and Keller Road	C	B	B	B	B	B	B	B
Between Keller Road and Clinton Keith Road	[a]	[a]	C	B	C	B	C	B
South of Clinton Keith Road	D	B	C	B	C	B	C	B
I-215 NB								
South of Clinton Keith Road	B	C	B	C	B	C	B	C
Between Clinton Keith Road and Keller Road	C	C	B	C	B	C	B	C
Between Keller Road and Scott Road	[a]	[a]	B	B	B	B	B	B
North of Scott Road	B	C	B	C	B	C	B	C

[a] Ramps would not be constructed in the No-Build Alternative.
Source: Caltrans 2018a, Iteris 2025

Table 1.3-5. Design Year (2047) Freeway LOS Summary

Freeway Segment	No-Build Alternative LOS		Build Alternative 2 LOS		Build Alternative 3 LOS		Build Alternative 5 LOS	
	a.m. Peak Hour	p.m. Peak Hour	a.m. Peak Hour	p.m. Peak Hour	a.m. Peak Hour	p.m. Peak Hour	a.m. Peak Hour	p.m. Peak Hour
I-215 SB								
North of Scott Road	C	B	C	B	C	B	C	B
Between Scott Road and Keller Road	D	B	C	B	C	B	C	B
Between Keller Road and Clinton Keith Road	[a]	[a]	C	B	C	B	C	B
South of Clinton Keith Road	C	B	C	B	C	B	C	B
I-215 NB								
South of Clinton Keith Road	B	C	B	C	B	C	B	C
Between Clinton Keith Road and Keller Road	B	C	C	D	C	D	C	D
Between Keller Road and Scott Road	[a]	[a]	B	B	B	B	B	B
North of Scott Road	B	C	B	C	B	C	B	C

[a] Ramps would not be constructed in the No-Build Alternative.
Source: Caltrans 2018a, Iteris 2025

Table 1.3-6. Opening Year 2027 Ramp LOS Summary

Ramp Junction	No-Build Alternative		Build Alternative 2		Build Alternative 3		Build Alternative 5	
	a.m. Peak Hour	p.m. Peak Hour	a.m. Peak Hour	p.m. Peak Hour	a.m. Peak Hour	p.m. Peak Hour	a.m. Peak Hour	p.m. Peak Hour
I-215 SB								
Scott Road Off-ramp	C	C	C	C	C	C	C	C
Scott Road Loop On-ramp	C	B	C	B	C	B	C	B
Scott Road Direct On-ramp	C	B	C	B	C	B	C	B
Keller Road Direct Off-ramp	[a]	[a]	B	B	B	B	B	B
Keller Road Loop On-ramp	[a]	[a]	[a]	[a]	C	B	[a]	[a]
Keller Road Direct On-ramp	[a]	[a]	C	C	C	C	C	C
Clinton Keith Road Off-ramp	D	C	C	C	C	C	C	C
Clinton Keith Road Loop On-ramp	C	B	C	B	C	B	C	B
Clinton Keith Road Direct On-ramp	D	B	C	B	C	B	C	B
I-215 NB								
Clinton Keith Road Direct Off-ramp	C	D	C	D	C	D	C	D
Clinton Keith Road Loop On-ramp	B	C	C	C	C	C	C	C
Clinton Keith Road Direct On-ramp	B	C	C	C	C	C	C	C
Keller Road Direct Off-ramp	[a]	[a]	B	C	B	C	B	C
Keller Road Loop On-ramp	[a]	[a]	[a]	[a]	B	C	[a]	[a]
Keller Road Direct On-ramp	[a]	[a]	B	C	B	C	B	C

Ramp Junction	No-Build Alternative		Build Alternative 2		Build Alternative 3		Build Alternative 5	
	a.m. Peak Hour	p.m. Peak Hour	a.m. Peak Hour	p.m. Peak Hour	a.m. Peak Hour	p.m. Peak Hour	a.m. Peak Hour	p.m. Peak Hour
Scott Road Off-ramp (direct and loop combined)	B	B	B	B	B	B	B	B
Scott Road On-ramp	B	C	B	C	B	C	B	C

[a] Ramps would not be constructed under this Build Alternative.
Source: Caltrans 2018a, Iteris 2025

Table 1.3-7. Design Year 2047 Ramp LOS Summary

Ramp Junction	No-Build Alternative LOS		Build Alternative 2 LOS		Build Alternative 3 LOS		Build Alternative 5 LOS	
	a.m. Peak Hour	p.m. Peak Hour	a.m. Peak Hour	p.m. Peak Hour	a.m. Peak Hour	p.m. Peak Hour	a.m. Peak Hour	p.m. Peak Hour
I-215 SB								
Scott Road Direct Off-ramp	D	C	D	C	D	C	D	C
Scott Road Loop On-ramp	C	B	C	B	C	B	C	B
Scott Road Direct On-ramp	D	B	D	C	D	C	D	C
Keller Road Direct Off-ramp	[a]	[a]	B	B	B	B	B	B
Keller Road Loop On-ramp	[a]	[a]	[a]	[a]	C	B	[a]	[a]
Keller Road Direct On-ramp	[a]	[a]	C	C	C	C	C	C
Clinton Keith Road Direct Off-ramp	D	C	D	C	D	C	D	C
Clinton Keith Road Loop On-ramp	C	B	B	B	B	B	B	B
Clinton Keith Road Direct On-ramp	D	B	C	C	C	C	C	C
I-215 NB								
Clinton Keith Road Direct Off-ramp	C	D	C	D	C	D	C	D
Clinton Keith Road Loop On-ramp	B	C	C	C	C	C	C	C
Clinton Keith Road Direct On-ramp	B	C	C	D	C	D	C	D
Keller Road Direct Off-ramp	[a]	[a]	B	C	B	C	B	C
Keller Road Loop On-ramp	[a]	[a]	[a]	[a]	B	C	[a]	[a]
Keller Road Direct On-ramp	[a]	[a]	C	D	C	D	C	D

Ramp Junction	No-Build Alternative LOS		Build Alternative 2 LOS		Build Alternative 3 LOS		Build Alternative 5 LOS	
	a.m. Peak Hour	p.m. Peak Hour	a.m. Peak Hour	p.m. Peak Hour	a.m. Peak Hour	p.m. Peak Hour	a.m. Peak Hour	p.m. Peak Hour
Scott Road Off-ramp (Direct and Loop)	B	C	B	B	B	B	B	B
Scott Road Direct On-ramp	B	C	C	C	C	C	C	C

[a] Ramps would not be constructed under this Build Alternative.
Source: Caltrans 2018a, Iteris 2025

1.5 Alternatives Considered but Eliminated from Further Discussion

Build Alternative 4 was considered early in the proposed Project study, but was determined to not be viable for further study and was withdrawn from consideration before the preparation of this EIR/EA began.

1.5.1 Build Alternative 4 (Modified Partial Cloverleaf Interchange)

Build Alternative 4 proposed to construct a modified partial cloverleaf interchange at the existing I-215 undercrossing of Keller Road and auxiliary lanes on the I-215. The proposed improvements under Build Alternative 4 included the construction of NB on- and off-ramps to and from the I-215 mainline (including a NB loop on-ramp at the southeastern quadrant), SB on- and off-ramps to and from the I-215 mainline, a NB auxiliary lane from the Keller Road NB on-ramp, and a SB auxiliary lane to the Keller Road SB off-ramp, as well as the widening of the existing I-215/Keller Road undercrossing to accommodate the proposed ramps.

In summary, Build Alternative 4 was no longer considered a viable option because of the nonstandard offset return movement in the NB direction. In addition, plans for future commercial and residential development within the proposed Project vicinity have increased. The proposed Project alternatives were revised by accounting for construction staging and ROW requirements, lane configuration feasibility assessments, and traffic signal phasing refinement. This process led to the withdrawal of Build Alternative 4 from consideration.

1.6 Permits and Approvals Needed

Table 1.5-1 shows the permits, reviews, licenses, and approvals that may be required for the proposed Project construction.

Table 1.5-1. Permits or Approvals Needed

Permit/Approval	Agency	Status
Lake and Streambed Alteration Agreement (Fish and Game Code Section 1602)	CDFW	City of Murrieta/Caltrans will coordinate application with CDFW during the PS&E Phase of the proposed Project.
Water Quality Certification (CWA Section 401)	SWRCB (proposed Project is within both the Santa Ana and San Diego RWQCB jurisdiction)	City of Murrieta/Caltrans will coordinate application with RWQCB during the PS&E Phase of the proposed Project.
Nationwide 14 Section 404 Permit	USACE	City of Murrieta/Caltrans will coordinate application with RWQCB during the PS&E Phase of the proposed Project.
Project-level Air Quality Conformity Approval Letter	FHWA	Caltrans to coordinate with FHWA before approval of the Final Environmental Document.

Notes:
CWA = Clean Water Act
PS&E = plans, specifications, and estimates (project design)

Chapter 2 Affected Environment, Environmental Consequences and Avoidance, Minimization, and/or Mitigation Measures

Topics Considered but Determined Not to be Relevant

As part of the scoping and environmental analysis carried out for the project, the following environmental issues were considered but no adverse impacts were identified. As a result, there is no further discussion about these issues in this document.

Coastal Zone

There will be no effects to coastal resources because the proposed Project is not located within the coastal zone.

Floodplains

The proposed Project is not located within a 100-year base floodplain.

Wild and Scenic Rivers

There will be no effects to wild and scenic rivers because the proposed Project site does not contain any of these designated waterbodies.

Timberlands

There will be no effects to timberlands because the proposed Project site does not contain timberlands.

2.1 Human Environment

2.1.1 Land Use

This section is based on information from the *Community Impact Assessment* (CIA) (Caltrans 2024a). The land use study area is the community within and surrounding the proposed Project site, in which direct and indirect impacts associated with the proposed Project have the potential to occur. This includes the proposed Project site, portions of parcels immediately adjacent to the proposed Project site (areas within 0.5 mile of the proposed Project site), and U.S. Census Tracts 432.78, 432.79, 507.01, and 507.02. The larger regional

component of the study area includes the City of Murrieta, City of Menifee, and unincorporated Riverside County.

2.1.1.1 EXISTING AND FUTURE LAND USE

Existing Land Use Designations and Zoning

Existing land use designations in the study area are shown on Figure 2.1-1, and existing zoning designations are shown on Figure 2.1-2. Most of the area associated with the proposed Project is located within Murrieta, with the portion of the study area west of Interstate (I)-215 extending into Menifee. As shown on Figure 2.1-1, the northwestern quadrant of the proposed Project site would extend into undeveloped lands that are designated as an Economic Development Corridor (EDC) in the City of Menifee's General Plan. Additional land uses in the northwestern quadrant are designated as Single-Family Residential by the City of Menifee's General Plan (City of Menifee 2013a).

Land use designations in the northeastern quadrant include Business Park, Commercial, Parks and Open Space, Civic/Institutional, Single-Family Residential, and Multifamily Residential (MFR) within Murrieta, and Rural Residential within Menifee. Land use designations in the southeastern quadrant include Office and Research Park, Parks and Open Space, Single-Family Residential and Business Park (City of Murrieta 2020a). This area is designated as the North Murrieta Business Corridor Focus Area as shown in Figure 2.1-3. This business corridor is expected to add 1.7 million square feet (sq. ft.) of commercial uses and 7.7 million sq. ft. of office and research uses, creating a medical and high technology/office/research employment center. This area would also include other supporting commercial uses, such as restaurants and hotels.

The southwestern quadrant of the proposed Project site extends into the *MHSP* Amendment area, a 971.8-acre site planned for future residential, neighborhood commercial/office, mixed-use, and open space uses. The MHSP Amendment area, at full buildout, would allow for a maximum of 750 homes. The MHSP Amendment area consists of six land use components: Single Family Residence, Executive Single Family Residence, Mixed-Use, Commercial, Open Space, and Circulation (City of Murrieta 2021). Existing land uses at the proposed Project site include the two-lane Keller Road and the I-215 undercrossing.

As shown on Figure 2.1-2, zoning designations in the northwestern quadrant (in Menifee) include Rural Residential and EDC. Zoning designations in the northeastern quadrant (in Murrieta) include Office, Regional Commercial, Single-Family Residential, Multifamily Residential, Civic/Institutional, and Parks and Recreation. Zoning designations in the southeastern quadrant (in Murrieta) include Office Research Park, Single-Family Residential, Open Space, Business Park, and Neighborhood Commercial.

The area in the southwestern quadrant within the MHSP Amendment area boundary is zoned as Estate Residential, Single-Family Residential, Mixed-Use, Community Commercial, Open Space, and Rural Residential (City of Murrieta 2023).

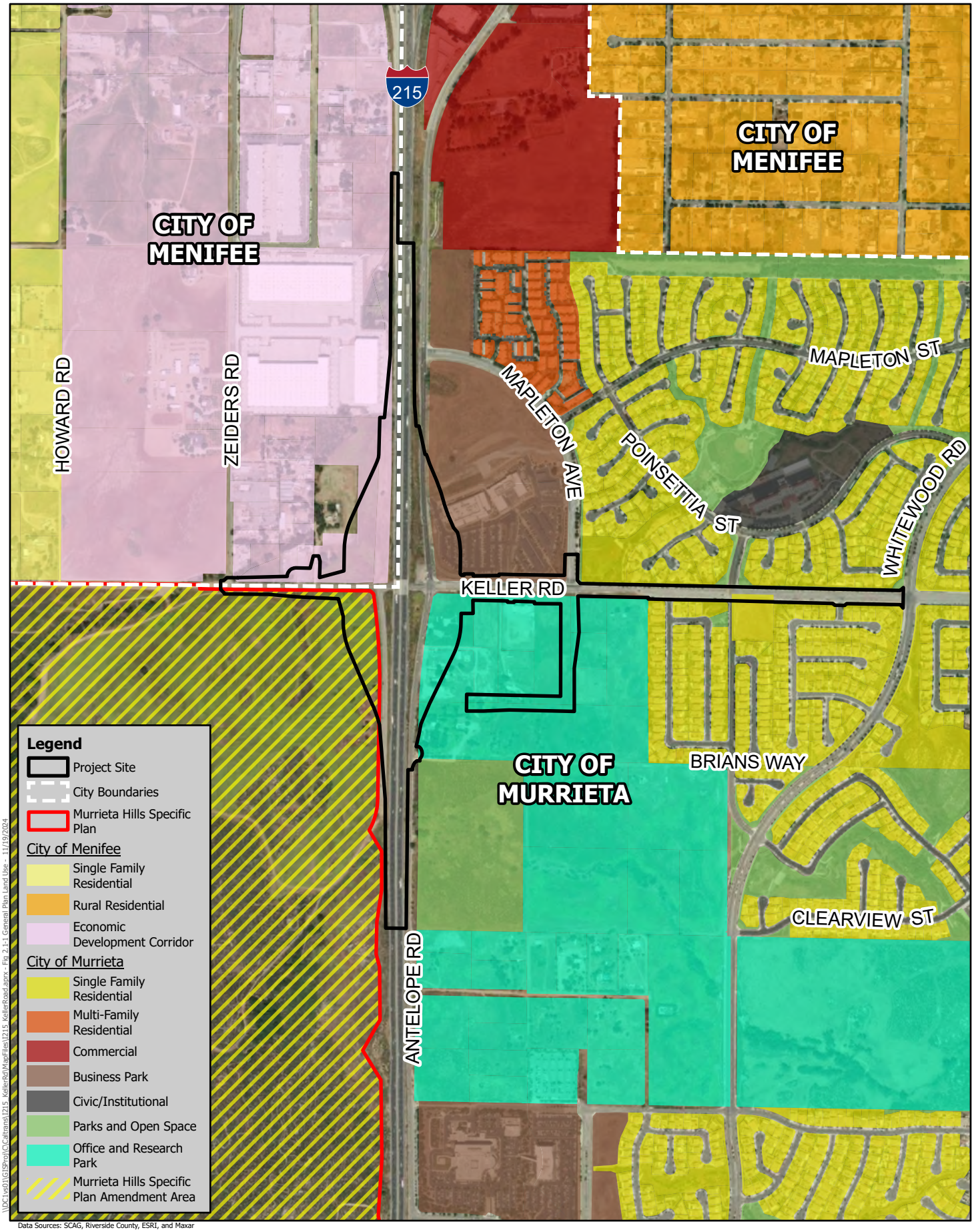


Figure 2.1-1
General Plan Land Use
I-215/Keller Road New Interchange Project

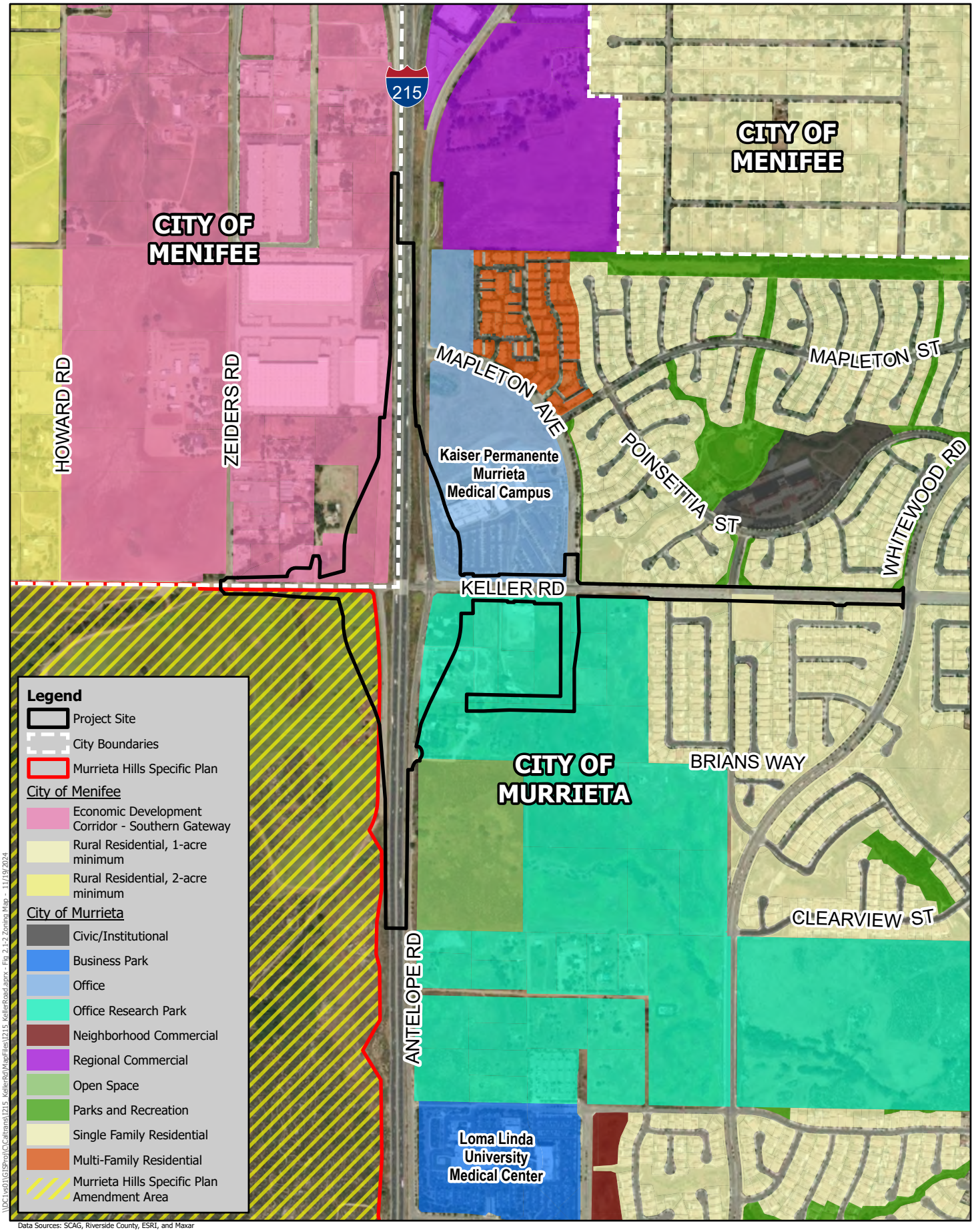


Figure 2.1-2
Zoning Map
I-215/Keller Road New Interchange Project

Future Land Use

General plan designations and zoning for the City of Murrieta, City of Menifee, and County of Riverside intend to guide future development in both cities and the County. The study area is largely undeveloped; however, land use designations and zoning in the City of Murrieta and City of Menifee have been established to promote economic development in the area surrounding the proposed Project.

Table 2.1.1-1 and Figure 2.1-3 list reasonably foreseeable development projects within an approximate 3-mile radius of the proposed Project site. Projects underway in the immediate vicinity of the proposed Project include commercial and residential development, both in Murrieta and in Menifee. The buildout of these projects, along with the planned Southern Gateway EDC and the North Murrieta Business Corridor Focus Area, would increase traffic in the study area and require the development of additional transportation projects. A list of reasonably foreseeable transportation projects is provided in Table 2.1.1-2 and shown on Figure 2.1-4.

Future transportation projects in the area include new roadway connections, on-road transit services, and bicycle routes and lanes near the proposed Project site. The City of Murrieta *General Plan* Circulation Element includes a policy (CIR-5.5) describing future planning for an east-west connection on Keller Road, in cooperation with Caltrans, the County of Riverside, and local developers (City of Murrieta 2020a). Additionally, the proposed Project is identified as a proposed interchange in association with the Riverside County Integrated Project (RCIP) list and is mapped in the *Riverside County General Plan: Draft Sun City/Menifee Valley Area Plan* (Riverside County 2021b).

Table 2.1.1-1. Reasonably Foreseeable Development Projects

Map ID	Project Name	Description	Type	Distance from Project Site (Miles)	Project Status
City of Menifee					
1	Home2Suites	4-story, 65,463 sq. ft. hotel, consisting of 106-rooms	Commercial	3.05	Completed
2	Community Center at La Piedra Road	Design and construction of a community center	Nonresidential	3.01	Completed
3	Quartz Ranch (Lennar)	379 residential lots	Residential	3.04	Under Construction
4	Nautical Cove	239 residential lots on 77.15 acres	Residential	2.45	Under Construction
5	Del Oro North	238 apartments, 100 senior independent living units on 17.2 acres	Residential	2.31	Completed
6	StaxUp Storage Facility Expansion	Storage facility expansion one 14,375 sq. ft. building and two 2,800 sq. ft. buildings	Commercial	2.64	Completed
7	Estrella (formerly Rowland/Menifee 80)	80 residential lots on 30 acres	Residential	1.75	Under Construction
8	Evans Park North, Design & Construction	20 acres of recreational and open space facilities	Nonresidential	1.70	Completed
9	Gale Webb Action Sports Park Restroom	Construction of a park restroom	Nonresidential	1.41	Approved
10	Adler Ranch (Tricon)	327 condominium units on 30.54 acres	Residential	1.31	Completed
11	Garbani North TTM 38683	39-unit tract map with one water quality basin	Residential	1.18	Under Review
12	Garbani South	33 residential lots on 9.8 acres	Residential	1.66	Approved

Map ID	Project Name	Description	Type	Distance from Project Site (Miles)	Project Status
13	Haun and Garbani (SE corner)	291,020 sq. ft. mixed-use light manufacturing and retail	Commercial	1.41	Under Review
14	Fitwell Health	9,000 sq. ft. office building, combined 35,000 sq. ft. fitness center/museum, 34,200 sq. ft. multipurpose center	Commercial	1.28	Under Review
15	Golden Meadows (Richland Comm.)	474 residential lots on 206.8 acres	Residential	1.07	Approved
16	Golden Meadows (Richland Comm.)	552 residential lots	Residential	0.69	Under Review
17	TTM 38372 & TTM 38682	406 residential units of the Cantalena Specific Plan	Residential	0.66	Approved
18	Cantalena (Richland Communities)	296 residential lots on 94.30 acres	Residential	0.52	Approved
19	Freedom Business Park	283,000 sq. ft. light industrial and warehousing on 17.55 acres	Industrial	1.30	Under Construction
20	The Junction	268,824 sq. ft. retail commercial, 85,282 sq. ft. 5-story hotel & 304-unit senior assisted living, independent living, and memory care facility on 54.01 acres	Commercial	1.09	Under Review
21	Walmart	240,980 sq. ft. major retail building, 3,200 sq. ft. & 3,000 sq. ft. quick serve restaurants, 2,800 sq. ft. convenience store/gas station, 6,500 sq. ft. sit-down restaurant, 13,800 retail shops, 6,680 sq. ft. auto service & repair	Commercial	0.34	Under Review

Map ID	Project Name	Description	Type	Distance from Project Site (Miles)	Project Status
22	Sumac Ridge (Meritage Homes), formerly Lindenberger Tract	175 residential lots on 56.58 acres	Residential	0.18	Approved
23	TR 38651	36 single-family lots	Residential	0.12	Under Construction
24	Holiday Inn	4-story, 98-room hotel 68,523 sq. ft.	Commercial	2.87	Pending
25	Bailey Park Irrigation Supply	19,603 sq. ft. warehouse building on 4.26 acres	Commercial	2.40	Pending
26	Commerce Pointe (PacTen)	157,147 sq. ft. total on 10.60 acres	Industrial	2.29	Under Construction
City of Murrieta					
27	Antelope Square SW Pad	3,124 sq. ft. retail building and 2,522 sq. ft. coffee shop on 1 acres	Nonresidential	0.29	Completed
28	Murrieta Medical Office and Life Sciences Project	3-story 82,500 sq. ft. medical office building on 4.73 acres	Nonresidential	0.03	Pending
29	Kaiser Permanente Murrieta Medical Center	824,500 sq. ft. medical facility; 254-bed hospital (364,000 sq. ft. & 180,000 sq. ft.), 3 MOB buildings (82,756 sq. ft., 100,000 sq. ft., and 97,244 sq. ft.) over 5 phases	Nonresidential	0.12	Completed
30	Murrieta Hills Specific Plan Amendment Project	522 single-family residences and 228 condos/apartments, retail, office, and service businesses on 972 acres	Residential	0.10	Approved
31	Loma Linda Hospital	46-acre development of a 490,000 sq. ft. hospital (266 beds) and 160,000 sq. ft. MOB	Nonresidential	1.0	Completed

Map ID	Project Name	Description	Type	Distance from Project Site (Miles)	Project Status
32	Vinca Court / The Adele Holman Greer "B Trust"	single-family residential subdivision of 5 lots	Residential	1.0	Pending
33	Makena Murrieta Medical Office Bldg.	2-story 60,674 sq. ft. medical office building on 5.6 acres	Nonresidential	0.57	Completed
34	Murrieta Baxter Apartments	502 Single-family attached housing units on 36 acres	Residential	0.94	Pending
35	Murrieta-Whitewood Skilled Nursing Facility	59-bed skilled nursing facility totaling 37,000 sq. ft. (for postacute care) located on 4.9 acres	Nonresidential	1.03	Completed
36	Lee Lane Apartments	258 apartments over a total of 14.83 acres	Residential	1.15	Pending
37	Sapphire Hotel and Events Center	120 hotel rooms, 222-unit apartment complex, event center, common recreation area on 14.35 acres	Nonresidential	0.96	Approved
38	Whitewood South Apartment Project	322-unit housing complex	Residential	1.27	Approved
39	Ross at Stone Creek	25,000 sq. ft. retail building	Nonresidential	1.17	Completed
40	Murrieta Greenberg Apartments	Multifamily residential: 162 units on 9.98 acres	Residential	1.38	Pending
41	The Orchard at Stone Creek	103,642 sq. ft. of commercial space	Nonresidential	1.28	Completed
42	Home Depot at Stone Creek	107,891-sq. ft. retail building, 28,216 sq. ft. outdoor garden on 9.76 acres	Nonresidential	1.32	Completed
43	Vineyard Commercial Center (Phase IV)	165,000 sq. ft. retail center with 79,200 sq. ft. hotel	Nonresidential	1.35	Approved

Map ID	Project Name	Description	Type	Distance from Project Site (Miles)	Project Status
44	Development Plan - Whitewood	262 townhomes on 17.26 acres	Residential	1.49	Pending
45	Vineyard Northwest (Curci Property)	32,208 sq. ft. commercial center with 6 buildings	Nonresidential	1.40	Completed
46	Ashdon Development El Toro, Inc.	10,000 sq. ft. daycare center and 4,100 sq. ft. car wash on 2.3 acres	Nonresidential	1.48	Completed
47	SC-2023-2719 (project name unknown)	SC-2023-2719	Nonresidential	1.52	Pending
48	NEC Clinton Keith & Mitchell	6-pump fueling station, 5,158 sq. ft. convenience store on 2.23 acres	Nonresidential	1.55	Pending
49	Vineyards Shopping Center	165,000 sq. ft. retail center, 79,000 sq. ft. hotel	Nonresidential	1.47	Completed
50	76 Gas Station Clinton Keith	3,500 sq. ft. convenience store, 3,600 sq. ft. fueling station and car wash	Nonresidential	1.55	Pending
51	Vintage Farms	330 multifamily units	Residential	1.73	Under Construction
52	Murrieta Marketplace	518,817 sq. ft. of retail space on 49 acres	Nonresidential	2.93	Approved
53	French Valley Crossing	37,800 sq. ft. of retail space	Nonresidential	2.98	Approved
54	EMWD Las Brisas Tank Site	Tank rehabilitation	Nonresidential	2.49	Pending
55	Adobe Springs Specific Plan Amendment Project	Residential, business park, and open space uses – 283 detached residential units on 122 acres	Residential	3.00	Under Construction

Map ID	Project Name	Description	Type	Distance from Project Site (Miles)	Project Status
56	St. Martha's Catholic Church- Development Plan	Removal of an existing 13,600 sq. ft. modular buildings and the construction of 17,034 sq. ft. of admin. buildings	Nonresidential	2.69	Pending
57	U-Stor-It Murrieta	105,508 sq. ft. storage facility on 3.52 acres	Nonresidential	2.94	Approved

Table 2.1.1-2. Reasonably Foreseeable Transportation Projects

Map ID	Project Name	Project Type	Distance from Project (miles)	Project Status
City of Menifee				
1	PMP FY 23-24 Slurry Seal Program	Pavement Management	3.7	Under Construction
2	Brigata Community Slurry Seal Resurfacing	Pavement Management	2.9	Completed
3	Willows Neighborhood Resurfacing	Pavement Management	3.0	Completed
4	La Piedra Road at Bell Mountain Middle School- Road Improvements	Street Improvement	2.8	Completed
5	Lake Ridge Community Resurfacing	Pavement Management	2.8	Completed
6	Antelope Road/MSJC Traffic Signal	Traffic Signal	2.6	Completed
7	Holland Road/I-215 Overcrossing	Transportation	2.4	Completed
8	Bradley Road and Paloma High School Entrance Street Widening	Street Improvement	2.3	In Design
9	Beth Drive Street Improvements, from Murrieta Road to Melvin Street	Street Improvement	2.7	In Design
10	Garbani Road & I-215 Interchange / Overpass	Transportation	1.4	In Design
11	Menifee Road & Garbani Road Traffic Signal	Traffic Signal	1.7	Completed
12	Menifee Road Widening (Scott Road to Garbani Road)	Transportation	1.3	In Design
13	South East Communities Resurfacing (South of Wickerd Road)	Pavement Management	1.4	Completed
14	Bundy Canyon Road/Scott Road Widening	Transportation	1.6	In Design
15	Bailey Park Boulevard Street Widening	Transportation	0.2	In Design
16	Traffic Signal at Murrieta Road and Scott Road	Traffic Signal	2.06	Completed

Map ID	Project Name	Project Type	Distance from Project (miles)	Project Status
17	Scott Road/ I-215 Interchange	Transportation	0.39	Completed
18	Scott Road Improvements	Transportation	0.74	Completed
City of Murrieta				
19	Antelope Road Realignment	Transportation	0.1	Pending
20	I-215 Overcrossing at Linnel Lane	Transportation	1.02	Completed
Caltrans				
21	NB I-215 Outer-Separation Barrier	Transportation	0.17	Completed
County of Riverside				
22	Clinton Keith Extension Project	Transportation	2.98	Completed

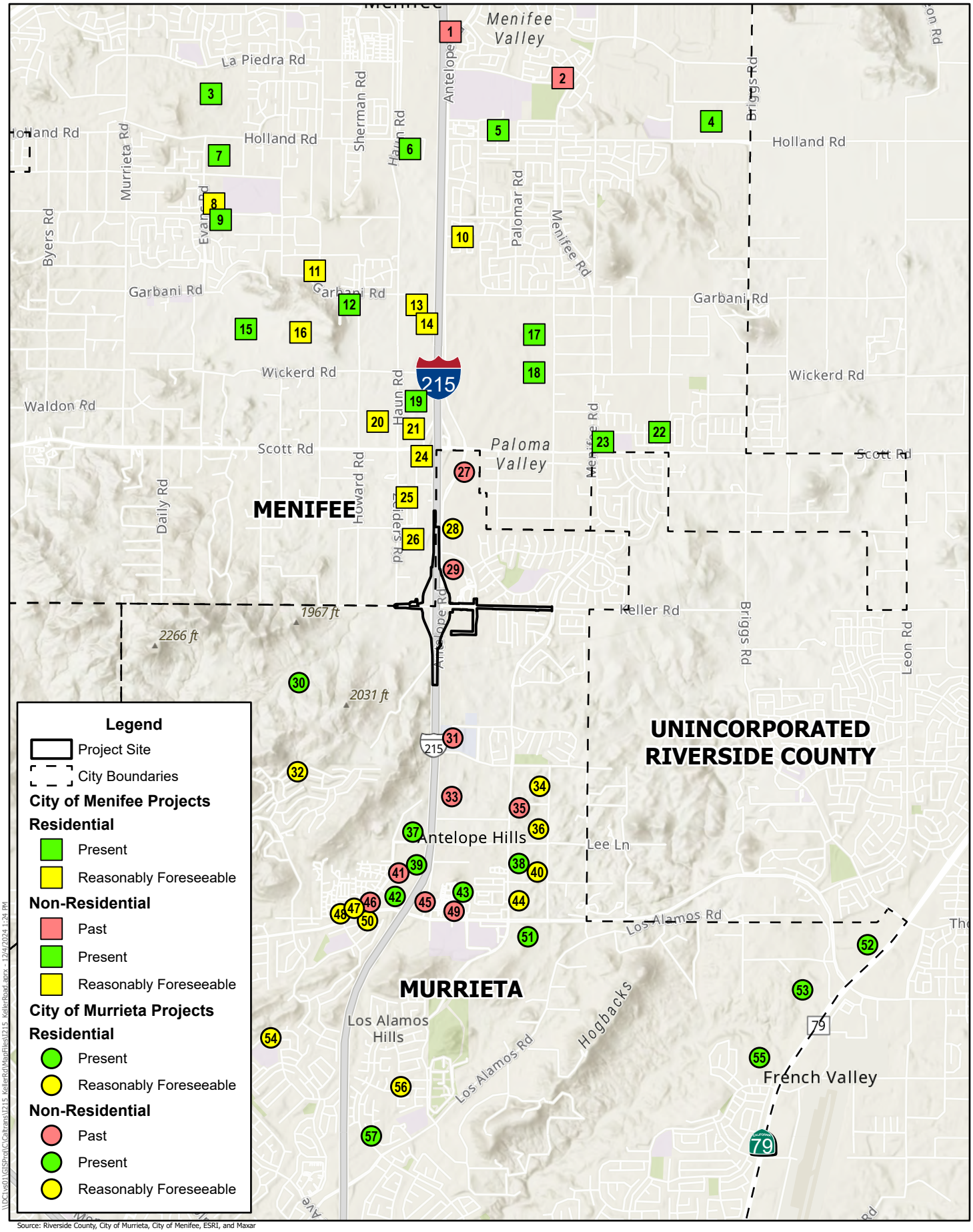


Figure 2.1-3
Reasonably Foreseeable Development Projects

I-215/Keller Road New Interchange Project

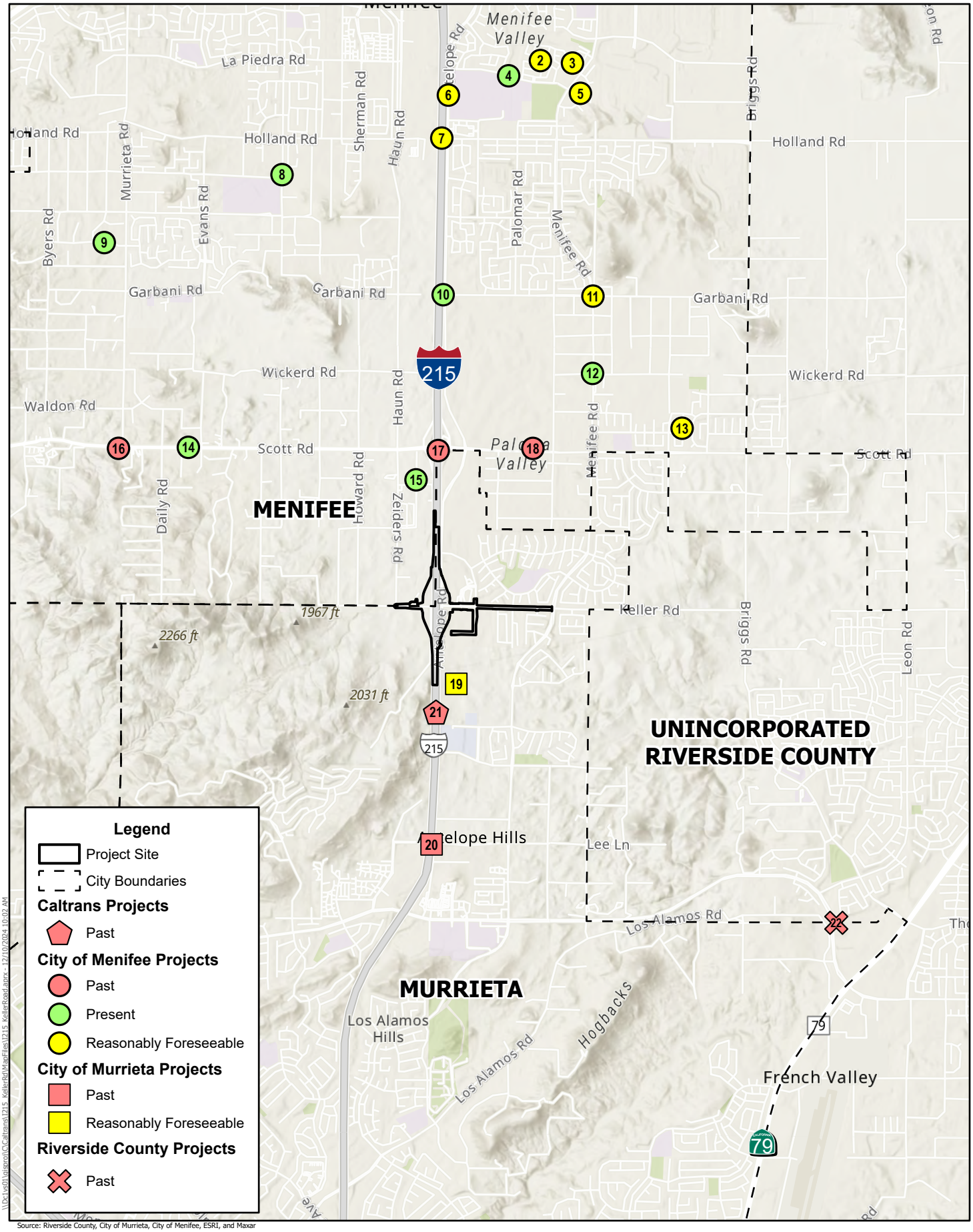


Figure 2.1-4
Reasonably Foreseeable Transportation Projects
I-215/Keller Road New Interchange Project

2.1.1.2 DEVELOPMENT TRENDS

The existing nature of the study area is largely undeveloped. Current general plan designations and zoning promote economic development in the area. The area south of Keller Road within Murrieta is designated as the North Murrieta Business Corridor Focus Area. It is anticipated that 1.7 million sq. ft. of commercial uses and 7.7 million sq. ft. of office and research uses would be developed. Southwest of the proposed Project site is the MHSP Amendment area. This 971.8-acre site proposes residential, commercial, mixed-use, and natural and improved open space areas. The MHSP Amendment identifies three open space areas on 652 acres: a MSHCP natural open space preserve, a linear nature park, and non-MSHCP open space. The MHSP Amendment area is bounded by the I-215 to the east and by Keller Road to the north (City of Murrieta 2021).

Parcels to the northwest of the proposed Project site are designated within the City of Menifee's Southern Gateway EDC. The Southern Gateway EDC calls for a preferred mix of nonresidential and residential uses that generate business activity and economic vitality, with an emphasis on business park (light industrial and office) uses (City of Menifee 2013a).

Approved development projects in the study area include expansions of the Kaiser Permanente Murrieta Medical Campus and the Loma Linda University Hospital, other medical facilities (nursing and rehabilitation), as well as various residential projects (senior living, several single-family, and multifamily residential developments), along with commercial and mixed-use developments.

Projects that are planned, approved, and under construction in the vicinity of the land use study area are shown in Table 2.1.1-1.

2.1.2 Consistency with State, Regional, and Local Plans and Programs

Plans and programs for the jurisdictions that govern the proposed Project and are responsible for planning future growth in the region have been reviewed to determine applicability of transportation and area plans and consistency with land use goals and policies. This section is based on the CIA prepared for the proposed Project (Caltrans 2024a).

AFFECTED ENVIRONMENT

Transportation and area plans that apply to the proposed Project and surrounding region are described in this section. Plan objectives and policies that apply to the proposed Project are discussed in Table 2.1.2-1.

Federal Transportation Improvement Program

The most recent adopted FTIP is the 2025 Approved FTIP (SCAG 2024a), which includes a comprehensive listing of transportation projects proposed over FYs 2024/25 through FYs 2029/30 for the region. The proposed Project is included in the current FTIP as RIV100107.

SCAG Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS)

The Metropolitan Planning Organization (MPO) responsible for the preparation of RTPs is SCAG. The region's RTP/SCS is developed, maintained, and updated by SCAG. Transportation investments in the SCAG region that receive state or federal transportation funds must be consistent with the RTP/SCS and must be included in the Regional Transportation Improvement Program (RTIP) when ready for funding. Among the goals adopted by SCAG in the implementation of the RTP/SCS and the RTIP is to ensure compatibility between land use and growth patterns and transportation investments.

The proposed new interchange at Keller Road is included (as 3M10WT03) in SCAG's 2024-2050 RTP/SCS (known as Connect SoCal 2024), which was adopted on April 4, 2024 (SCAG 2024b).

Riverside County Congestion Management Program

The Riverside County *Congestion Management Plan* (CMP) was prepared by the RCTC in consultation with the County of Riverside, and cities in Riverside County, in an effort to more directly align land use, transportation, and air quality management efforts and to promote reasonable growth management programs that effectively use statewide transportation funds while ensuring that new development pays for its fair share of needed transportation improvements.

All freeways and selected arterial roadways in Riverside County are designated elements of the CMP system of highways and roadways. There are two CMP system roadways in Murrieta: the I-215 and SR-79. RCTC has adopted a minimum LOS threshold of LOS E for CMP facilities (City of Murrieta 2020a).

Riverside County General Plan

The County of Riverside's General Plan establishes zones for different types of development, uses, traffic patterns, and future development, and was last amended in 2021. The 2021 update of the *Riverside General Plan* is a two-tiered

document that addresses the entire unincorporated portion of Riverside County, along with 19 detailed Area Plans in the County (Riverside County 2015).

The *Riverside County General Plan*'s Circulation Element was last updated in 2020 and provides a transportation framework that connects the cities and unincorporated areas within Riverside County. The circulation/ transportation-related policies in the County of Riverside's *General Plan* that are relevant to the proposed Project are shown in Table 2.1.2-1.

Riverside County Sun City/Menifee Valley Area Plan

The County of Riverside's *Sun City/Menifee Valley Area Plan* (last amended in 2021) describes the existing setting along with a land use plan, statistical summaries, and policies for the Menifee Valley area of Western Riverside County (Riverside County 2021b). The circulation/transportation-related policies in the *Sun City/Menifee Area Plan* relevant to the proposed Project are shown in Table 2.1.2-1.

Western Riverside County Multiple Habitat Species Conservation Plan

The Western Riverside County MSHCP is a comprehensive, multi-jurisdictional *Habitat Conservation Plan* (HCP) focusing on the conservation of species and their associated habitats in Western Riverside County. It extends across many bioregions, including the Santa Ana Mountains, Riverside Lowlands, San Jacinto Foothills, San Jacinto Mountains, Agua Tibia Mountains, Desert Transition, and San Bernardino Mountains (Riverside County 2003).

The proposed Project falls within the boundaries of the MSHCP. The policies relevant to the proposed Project are shown in Table 2.1.2-1.

City of Murrieta General Plan

The City of Murrieta's *2035 General Plan* was adopted on July 7, 2020. It provides a framework for all zoning and land use decisions within Murrieta. In accordance with the California Government Code, the *General Plan* includes a Land Use Element that designates the proposed general distribution and general location and extent of uses (City of Murrieta 2020a).

The *General Plan* also includes a Circulation Element, which represents the City of Murrieta's overall transportation plan to accommodate movement of people and goods. It establishes goals and policies to achieve a balanced transportation system that adequately serves the anticipated growth and development within in

the Land Use Element. Specifically, as shown in Table 2.1.2-1, the Circulation Element includes Policy CIR-5.5 to "Actively pursue the construction of a new east-west corridor and interchange at Keller Road in cooperation with Caltrans, the County of Riverside, and local developers" (City of Murrieta 2020a).

City of Menifee General Plan

The *2013 City of Menifee General Plan* provides guidance for anticipated growth and land use within Menifee. The *General Plan* contains eight elements: Land Use, Housing, Circulation, Open Space and Recreation, Community Design, Economic Development, Safety, and Noise (City of Menifee 2013a).

The *General Plan*'s Circulation Element outlines policies and goals to achieve an interconnected circulation system within Menifee while maintaining quality of life. The circulation/transportation-related policies in the City of Menifee's *General Plan* relevant to the proposed Project are shown in Table 2.1.2-1.

Murrieta Hills Specific Plan Amendment No. 012-364 (City of Murrieta)

The MHSP Amendment Number (No.) 012-3164 (MHSPA) guides development in Murrieta Hills, a 971.8-acre site located immediately adjacent to the I-215, to the southwest of the proposed Project. The MHSPA has been prepared in compliance with the regulations, guidelines, and policies of the *City General Plan 2035*. The MHSPA is bounded by the I-215 to the east and partially by Keller Road to the north (City of Murrieta 2021). Policies in the MHSPA relevant to the proposed Project are shown in Table 2.1.2-1.

ENVIRONMENTAL CONSEQUENCES

The proposed Project was analyzed for consistency with land use and applicable transportation and area plans. All identified impacts regarding inconsistencies with applicable plans and programs are considered to be permanent and direct. Consequently, there is no discussion of temporary impacts for consistencies with state, regional, and local plans and programs, and will focus only on impacts to land use.

Temporary Impacts

Alternative 1 (No-Build Alternative)

Under the No-Build Alternative, the construction of the new interchange at the I-215 and Keller Road would not occur. Therefore, the No-Build Alternative would not result in temporary impacts on existing and planned land uses.

Build Alternatives 2, 3, and 5

The construction of Build Alternatives 2, 3, and 5 would result in similar temporary impacts on existing land uses due to construction detours and the use of temporary construction easements (TCEs). As shown on Figures 2.1-8 through 2.1-10, each Build Alternative would require 3 TCEs located at the driveway for the Kaiser Permanente Murrieta Medical Campus, the driveway located across Keller Road from the Kaiser Permanente Murrieta Medical Campus, and by the cul-de-sac near Brians Way to the south of Keller Road. The TCEs would occur at the edges of the affected parcels and access would be maintained to the parcels during construction. Upon completion of the proposed Project, TCE locations would be restored to their pre-Project condition. Minimization measure LU-1, described below, would minimize temporary impacts from construction of any Build Alternative. Impacts related to TCEs are further described in Section 2.1.7, Relocations and Real Property Acquisitions.

Permanent Impacts

Alternative 1 (No-Build Alternative)

Under the No-Build Alternative, no roadway improvements would be constructed. The No-Build Alternative would not constrain the ability of the City of Murrieta to implement planned development in the study area. However, because applicable planning documents include the construction of a new interchange at Keller Road, the No-Build Alternative would be inconsistent with regional transportation and land use plans for the study area.

Build Alternatives 2, 3, and 5

Impacts related to ROW acquisition are described in Section 2.1.7, Relocations and Real Property Acquisitions. The Build Alternatives would require partial ROW acquisitions from properties within the land use study area. Upon completion of the proposed Project, the remainder of the partially acquired parcels have the potential to be developed with land uses consistent with existing general plan and zoning designations.

The implementation of the Build Alternatives would be consistent with the goals, objectives, and policies of applicable general plans, area plans, and transportation plans. The proposed Project is included in SCAG’s 2024-2050 RTP/SCS (known as Connect SoCal 2024), adopted on April 4, 2024 (SCAG 2024b). Furthermore, the proposed Project is identified as an interchange with the RCIP list, as mapped in the County of Riverside’s *General Plan: Draft Sun*

City/Menifee Valley Area Plan (Riverside County 2021b). The proposed Project is also consistent with goals, policies, and objectives included in the general plans of the City of Murrieta and the City of Menifee (Table 2.1.2-1).

The proposed Project was already considered in the development of applicable plans and is consistent with surrounding land use designations and zoning. It is anticipated that undeveloped parcels adjacent to the proposed Project would be developed in the future pursuant to approved land use designations in applicable planning documents. As described in Tables 2.1.1-1 and 2.1.1-2, and shown on Figures 2.1-3 and 2.1-4, many transportation and development projects are pending, approved, or under construction within the study area.

The implementation of the Build Alternatives would also indirectly complement other planned development and transportation projects in the area. Because the development of the new interchange at the I-215 and Keller Road is included in applicable local and regional plans, no direct effects on land use or zoning designations would occur from the implementation of the Build Alternatives. The approved and proposed development projects, combined with existing development pressure in the region, would result in the same type and amount of growth within the proposed Project site with or without the implementation of the proposed Project. The implementation of the Build Alternatives would not conflict with existing or planned land uses in the study area.

Additionally, the proposed Project would support planned future commercial/office and residential development, EDCs, and identified transportation goals to maintain and improve the LOS and support connectivity in the region.

Table 2.1.2-1. Summary of Project Consistency with Applicable Riverside County, City of Menifee, and City of Murrieta Plans

Actions/Goals/Policies	Build Alternative(s)	Alternative 1 (No-Build Alternative)
Riverside County General Plan		
Policy C1.1: Design the transportation system to respond to concentrations of population and employment activities, as designated by the Land Use Element and in accordance with the Circulation Plan, Figure C-1.	Consistent. Construction of the proposed Project Build Alternative(s) would address anticipated growth in population and employment in the area.	Inconsistent. The No-Build Alternative would not construct transportation infrastructure in response to population and employment activities.
Sun City/Menifee Valley Area Plan		
SCMVAP Policy 7.1: Design and develop the vehicular roadway system per Figure 6, Circulation and in accordance with the System Design, Construction, and Maintenance section in the General Plan Circulation Element.	Consistent. Figure 6 of the Sun City/Menifee Valley Area Plan identifies the proposed Project as a proposed interchange.	Inconsistent. The No-Build Alternative would not design or develop the vehicular roadway system per Figure 6, Circulation.
City of Menifee General Plan		
Goal C-1: A roadway network that meets the circulation needs of all residents, employees, and visitors to the City of Menifee.	Consistent. The proposed Project would address traffic/circulation concerns in the study area by providing additional options and means for the traveling public.	Inconsistent. The No-Build Alternative would not design or develop a corridor and interchange at Keller Road, and no improvements to traffic/circulation, providing compatible roadway linkages, would occur.
Policy C-1.3: Work with Caltrans, RCTC, and others to identify, fund, and implement needed improvements to roadways identified in the citywide roadway network.	Consistent. The proposed Project would improve roadways identified in the citywide roadway network.	Inconsistent. The No-Build Alternative would not improve roadways identified in the citywide roadway network.
Policy C-1.4: Promote development of local street patterns that unify neighborhoods and work with neighboring jurisdictions to provide compatible roadway linkages at the city limits.	Consistent. The proposed Project would provide compatible roadway linkages at the city limits.	Inconsistent. The No-Build Alternative would not provide compatible roadway linkages at the city limits.

Actions/Goals/Policies	Build Alternative(s)	Alternative 1 (No-Build Alternative)
City of Murrieta General Plan		
Policy CIR-5.5: Actively pursue the construction of a new east-west corridor and interchange at Keller Road in cooperation with Caltrans, the County of Riverside, and local developers.	Consistent. The proposed Project would construct an east-west corridor and interchange at Keller Road in cooperation with Caltrans, the County of Riverside, and local developers.	Inconsistent. The No-Build Alternative would not design or develop a corridor and interchange at Keller Road.
Murrieta Hills Specific Plan Amendment		
Objective C-1.1: Maintain no worse than an LOS "D" at all intersections during peak hours. Maintain no worse than a LOS "E" at freeway interchanges at peak hours.	Consistent. This objective is directed at the MHSP Amendment. The proposed Project would not preclude the MHSP Amendment development from making improvements to local roads and interchanges to ensure their specific plan would comply with Objective C-1.1.	Consistent. This objective is directed at the MHSP Amendment. The No-Build Alternative would not preclude the MHSP Amendment development from making improvements to local roads and interchanges, to confirm their specific plans would comply with Objective C-1.1.
Objective C-2.1: Interface with appropriate jurisdictions and agencies to encourage the timely improvement of roadway and transit facilities which address area-wide and regional travel needs. Policy C-2.1c: Actively pursue the construction of a new east-west corridor and interchange south of Scott Road in cooperation with Caltrans, the County of Riverside, and local developers.	Consistent. The proposed Project supports these objectives by the development of an interchange south of Scott Road (proposed Project) and does not preclude the MHSP development from complying with Objectives C-2.1 and C-2.1c.	Inconsistent. The No-Build Alternative would not design or develop a corridor and interchange south of Scott Road.

Sources: Riverside County 2015, 2020, 2021b; City of Murrieta, 2020 and 2021; City of Menifee 2013a.
SCMVAP = Sun City/Menifee Valley Area Plan

The proposed Project is identified in applicable transportation and area plans. Therefore, the proposed Project would not conflict with any land uses, general plan, area plan, or transportation plan, and would not interfere with any local, state, or regional policies.

AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES

The construction of the proposed Project would require TCEs within nonresidential properties. Minimization measure LU-1, described as follows, would reduce potential land use conflicts during proposed Project construction.

LU-1 **Restoration of Land Temporarily Used During Construction.** Prior to construction, the Contractor shall generate time-stamped photographic documentation of the preconstruction conditions of all TCEs. All construction access, mobilization, material laydown, and staging areas shall be returned to the property owner in a condition equal to the preconstruction staging condition.

2.1.3 Parks and Recreational Facilities

2.1.3.1 REGULATORY SETTING

The Park Preservation Act (California Public Resources Code [PRC] Sections 5400-5409) prohibits local and state agencies from acquiring any property which is in use as a public park at the time of acquisition unless the acquiring agency pays sufficient compensation, land, or both, to enable the operator of the park to replace the park land and any park facilities on that land.

2.1.3.2 AFFECTED ENVIRONMENT

This section is based on the CIA and Historic Property Survey Report prepared for the proposed Project (Caltrans 2024a and Caltrans 2022c). Discussions specific to Section 4(f) resources are based on Appendix A, Resources Evaluated Relative to the Requirements of Section 4(f): No Use Determination.

The study area for the CIA includes public parks and recreational facilities, including Section 4(f) resources, within and surrounding the proposed Project site. The study area encompasses the combined footprint of the Build Alternatives (proposed Project site) and extends an additional 0.5 mile beyond the proposed Project site (Community Impacts Study Area). Recreational facilities within the study area are discussed in further detail in Section 2.1.1, Land Use, and Section 2.1.6, Community Character and Cohesion, while bicycle trails and paths are discussed in further detail in Section 2.1.9, Traffic and Transportation/Pedestrian and Bicycle Facilities.

Parks and recreational uses in the study area are described in Table 2.1.3-1 and shown on Figure 2.1-5. Although there is an existing bike/hiking trail (Greer Ranch Mountain Bike Trail) located in the southwestern quadrant of the study area at the end of Scenic View Drive, this trail is on private property and is therefore not subject to Section 4(f) or the Park Preservation Act. Currently, there are "No Trespassing" signs posted along the trailhead. Within the study area, public parks and recreation areas include two City of Murrieta community parks, a City of Murrieta trail within one of the parks, a fitness route, bicycle lanes, and City of Murrieta-designated open space and conservation areas on the southwestern and southeastern sides of the I-215 (City of Murrieta 2020a and 2021). Each resource is described in detail below.

Mapleton Park, Trail, and Fitness Route: Mapleton Park is located outside the proposed Project site, approximately 0.45 miles east of the I-215 and 0.20 miles north of the Keller Road/Meadowlark Lane intersection. Mapleton Trail and Mapleton Fitness Route are located within Mapleton Park (refer to Figure 2.1-5). Mapleton Park is a 9.3-acre facility, and features amenities such as an amphitheater, barbeque areas, open grass areas, picnic tables, park benches, a soccer field, a softball field, a volleyball court, a playground, a bicycle path/walking trail, and a remote-control park (MyMurrieta 2023; City of Murrieta 2020a). Mapleton Trail is a bicycle path/walking trail that extends east and west of Mapleton Park, totaling 1.05 miles. Mapleton Fitness Route is a 3.19-mile route that extends outside of Mapleton Park along local roadways in communities surrounding Mapleton Park. Mapleton fitness route is located within the proposed Project site along Keller Road (City of Murrieta 2020a). Mapleton Park and Trail can be accessed via a main parking lot located off Poinsettia Street. Additional access to Mapleton Park and Trail and Mapleton Fitness Route is provided from various local streets in the surrounding community, between Basswood Way and Daffodil Way (Table 2.1.3-1).

Springbrook Park: Springbrook Park is approximately 0.37 miles east of the I-215, just south of Keller Road, at the intersection of Keller Road and Meadowlark Lane. Springbrook Park consists of a 0.5-acre community park with a tot lot and playground, open grass areas, and benches. Springbrook Park can be accessed via Sevilla Street/Albacete Avenue and Meadowlark Lane, both accessible via Keller Road.

Open Space: There are two areas designated for open space in the vicinity of the proposed Project (refer to Figure 2.1-5). There is an approximately 52-acre rectangular area adjacent to the I-215, southeast of the proposed Project site at Brians Way and Antelope Road. This land is designated by the City of Murrieta as Parks and Open Space (City of Murrieta 2020c), and was acquired by the Western Riverside County RCA for MSHCP conservation (refer to Sections 2.3.1 to 2.3.5 for further discussion) (Caltrans 2021a). The City of Murrieta has designated parks and open space within the MHSPA (City of Murrieta 2021), located southwest of the proposed Project site and adjacent to the I-215. The MHSPA proposes mixed-use development. Within the approximately 972-acre MHSPA area, there are three primary open space areas proposed on 652 acres: an MSHCP natural open space preserve, a linear nature park, and a non-MSHCP open space.

The MHSPA area is partially bound by Keller Road to the north and the I-215 to the east (City of Murrieta 2020a, 2021). There are no Riverside County parks or recreational uses within or adjacent to the proposed Project site.

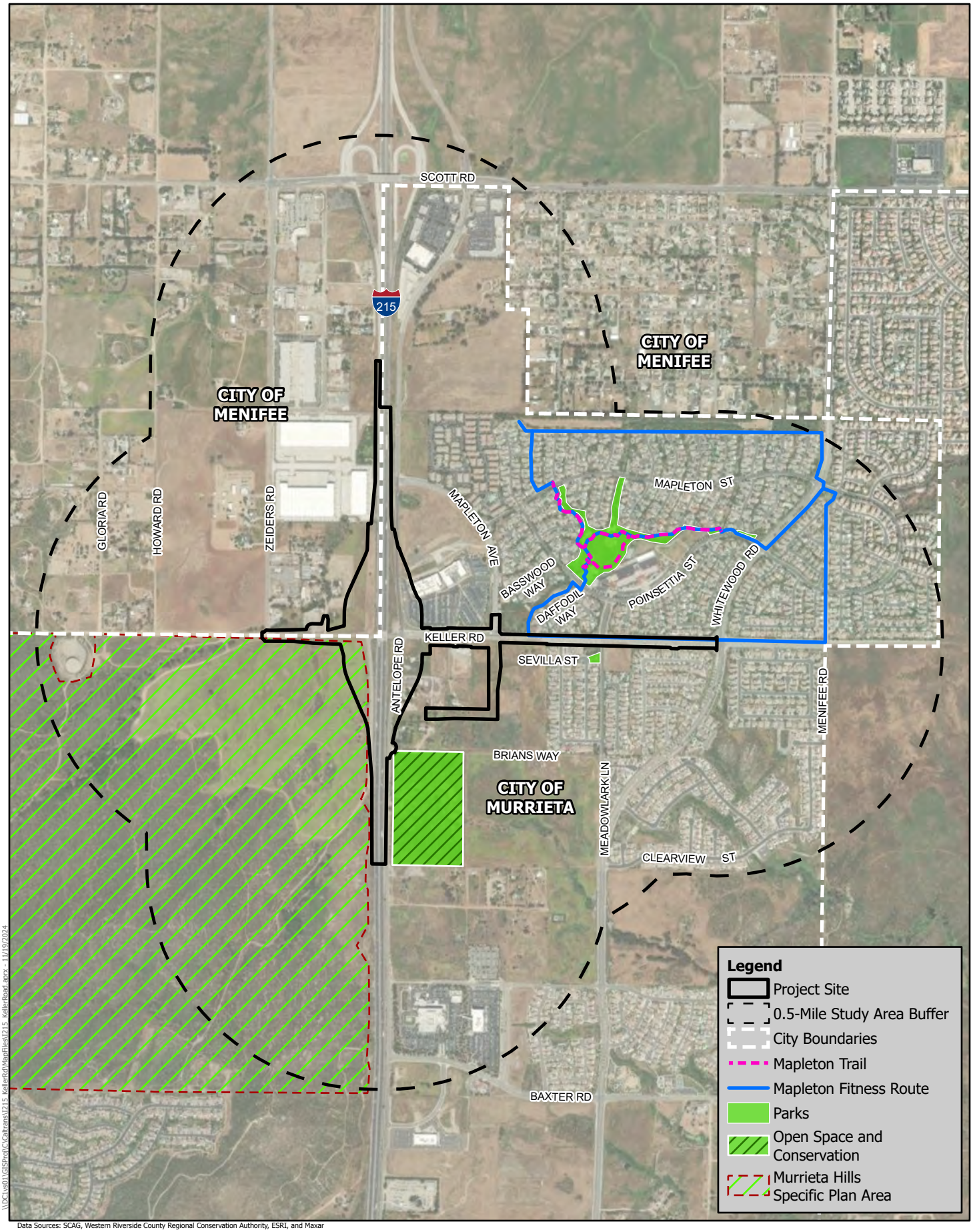


FIGURE 2.1-5
Parks and Recreation
I-215/Keller Road New Interchange Project

Bike Lanes: Existing and planned bicycle lanes are located within the proposed Project site along Keller Road, with existing marked lanes east of the I-215. In Murrieta, Keller Road east of the I-215 is identified as a proposed Class II: On-Road Striped Bike Lane (City of Murrieta 2020a). In Menifee, Keller Road west of the I-215 is identified as Subregional Route–On-Street Bike Lane (Class II) and a Class III Bike Route (City of Menifee 2013a). Based on SCAG bike route mapping, these bike routes are connected to a larger regional bicycle network (SCAG 2023).

The existing bicycle path along Keller Road east of the I-215 is part of the proposed Class I bicycle path and multipurpose trail, as identified in both the Circulation and Recreation & Open Space Elements of the *Murrieta General Plan 2035* (City of Murrieta 2020a). Class I bicycle paths are primarily used for recreation purposes, and meet the definition of a Section 4(f) resource. However, trails, paths, bikeways, and sidewalks that function primarily for transportation as part of the local transportation system are considered exempt, per 23 CFR 774.13(f)(4). The existing bicycle path east of the I-215, along Keller Road, serves primarily as a transportation route for nonmotorized travel, and would be considered non-recreational. This bicycle path is considered a part of the local transportation system, and functions primarily for transportation; therefore, it is not considered a Section 4(f) property.

Table 2.1.3-1. Existing Parks and Recreational Facilities

Park/ Recreational Facility	Amenities	Location	Distance from proposed Project Site
Mapleton Park and Trail	9.3-acre park, barbecue, open grass area, parking lot, picnic tables, restrooms, shelter, tot lot, fountain, basketball court, soccer field, softball field, volleyball court, 1.90-mile bicycle path/fitness trail; trail access.	28586 Poinsettia Street, Murrieta, CA	Mapleton Park and Trail are approximately 0.45 miles outside the proposed Project site, but within the 0.5-mile study area.

Park/ Recreational Facility	Amenities	Location	Distance from proposed Project Site
Mapleton Fitness Route	3.19-acre fitness route (portions overlap with Mapleton Park and Trail); trail access.	East of the I-215, north of Keller Road, along local roadways and within Mapleton Park. Primary access from Mapleton Park via parking lot along Poinsettia Way (between Basswood Way and Daffodil Way).	A portion of the fitness route is within the proposed Project site along Keller Road. Most of the fitness route is outside the proposed Project site, but within the 0.5-mile study area.
Springbrook Park	0.5-acre park, barbecues, open grass areas, picnic table/benches, tot lot/playground, water fountain.	28360 Sevilla Street, Murrieta, CA	Springbrook Park is 0.37 miles from the I-215, south of Keller and west of Meadowlark Lane, outside of the proposed Project site, but within the 0.5-mile study area.
Parks and Open Space-designated conservation area (acquired by Western Riverside County RCA)	52-acre rectangular area, undeveloped; planned for MSHCP conservation.	Southeast of proposed Project; east of the I-215 at the southeastern corner of Brians Way/Antelope Road.	The conservation area is outside the proposed Project site, approximately 0.009 miles (48 feet) south of the southern extent of the proposed Project limits.
Open Space—MHSPA No. 012-3164)	Currently undeveloped, planned for development including open space areas for MSHCP conservation.	Southwestern quadrant of proposed Project footprint; south of Keller and west of the I-215.	The MHSPA open space is outside the proposed Project site but within the 0.5-mile study area.
Bicycle Lanes/ Multipurpose Trail	Existing Class II and III bicycle lanes on Keller Road, west of the I-215. Existing Class II bicycle lane on Keller Road east of the I-215. Proposed Class I bicycle lane and Multipurpose trail along Keller Road east of the I-215.	Keller Road, City of Menifee, and City of Murrieta, CA. City of Menifee ROW between the I-215 and western proposed Project limits (designated Class II and III). City of Murrieta ROW between the I-215 and the eastern proposed Project limits (designated Class II and Proposed Class I/ Multipurpose Trail).	The bicycle lanes and multipurpose trail are within the proposed Project site along Keller Road.

Source(s): Google Earth Pro 2019; City of Murrieta 2006, 2023; City of Menifee 2013a.

ENVIRONMENTAL CONSEQUENCES

Temporary Impacts

Alternative 1 (No-Build Alternative)

Under the No-Build Alternative, no roadway improvements would occur. Because the proposed Project would not be constructed, no temporary direct or indirect impacts on parks and recreational facilities would occur.

Build Alternatives 2, 3, and 5

All proposed construction activities would occur within the proposed Project site and would not directly impact any existing parks or recreation areas. Mapleton Park and Trail, Mapleton Fitness Route, and Springbrook Park can be accessed from Keller Road or other local roadways, and access to all parks and recreation areas would be maintained during construction. Although a portion of the Mapleton Fitness Route occurs along Keller Road between Daffodil Way and Whitewood Road, the only work to be performed in these limits is striping, which would not require the closure of Keller Road. Therefore, users who want to use the Mapleton Fitness Route during striping activities may continue to do so. Minimization measure T-1 would implement a TMP for all Build Alternatives (refer to Section 2.1.9, Traffic and Transportation/Pedestrian and Bicycle Facilities). The TMP would ensure appropriate measures were taken to safely guide motorists, cyclists, and pedestrians in and around the proposed Project site during construction. Because access would be maintained; no temporary adverse effects on existing parks and recreational facilities, including bicycle and pedestrian paths or trails, would occur.

Permanent Impacts

Alternative 1 (No-Build Alternative)

Under the No-Build Alternative, the construction of a new I-215 interchange at Keller Road would not occur. Because the proposed Project would not be constructed, no permanent direct or indirect impacts on parks and recreational facilities would occur.

Build Alternatives 2, 3, and 5

No existing parks or recreational facilities would be permanently or directly affected by the implementation of the Build Alternatives. Proposed improvements to Keller Road from Pamplona Avenue to Whitewood Road would be limited to restriping.

Mapleton Park and Trail, Mapleton Fitness Route, and Springbrook Park are publicly owned parks/recreation areas within 0.5 mile of the proposed Project site, and are therefore Section 4(f) properties. However, no Section 4(f) use of these resources is anticipated by the proposed Project because:

- The land would not be permanently incorporated into a transportation facility.
- No occupancy is anticipated (temporary or permanent) that would adversely impact the functions and activities of the property.
- No constructive use is anticipated.

The proposed Project would not permanently occupy or otherwise impact access to Section 4(f) properties. The parks and recreational facilities would not be affected by proposed Project operations, and access to the Section 4(f) properties would be maintained.

Therefore, no adverse permanent effects on existing parks or recreational facilities would occur.

AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES

No park, recreational, or other Section 4(f) resources would be directly or indirectly affected by implementation of the proposed Project. The implementation of a TMP, as described below, would ensure that appropriate access and circulation to park and recreation facilities were maintained throughout construction of the proposed Project.

T-1 **Transportation Management Plan.** A qualified traffic engineer will develop a TMP and traffic control plans and applicable specifications during final design. The TMP and traffic control plans would be developed in tandem. The TMP would focus on means to reduce traveler delays and enhance traveler, pedestrian, and cyclist safety during proposed Project construction. Key elements in the TMP include:

- Public information/public awareness campaign
- Motorist information strategies
- Incident management
- Construction strategies

- Demand management
- Alternate route Strategies

Traffic control plans would identify the approach for managing traffic during construction to maximize efficiency and safety. The TMP and traffic control plans will be prepared in coordination with the Cities of Menifee, Murrieta and Riverside County, and will be reviewed and approved by Caltrans, District 8 and incorporated into the plans, specifications, and estimates (PS&E).

2.1.4 Farmlands

REGULATORY SETTING

The National Environmental Policy Act (NEPA) and the Farmland Protection Policy Act (FPPA, 7 United States Code [USC] 4201-4209; and its regulations, 7 Code of Federal Regulations [CFR] Part 658) require federal agencies, such as the Federal Highway Administration (FHWA), to coordinate with the Natural Resources Conservation Service (NRCS) if their activities may irreversibly convert farmland (directly or indirectly) to nonagricultural use. For purposes of the FPPA, farmland includes prime farmland, unique farmland, and land of statewide or local importance.

The California Environmental Quality Act (CEQA) requires the review of projects that would convert Williamson Act contract land to non-agricultural uses. The main purposes of the Williamson Act are to preserve agricultural land and to encourage open space preservation and efficient urban growth. The Williamson Act provides incentives to landowners through reduced property taxes to discourage the early conversion of agricultural and open space lands to other uses.

AFFECTED ENVIRONMENT

The proposed Project site is located in an urban and built-up area. No active farming is occurring on or near the proposed Project site, no proposed Project or adjacent parcels are in an agricultural preserve (in a Williamson Act contract), and no parcels where there would be partial or full ROW take are zoned for agricultural use. The proposed Project site does include areas designated as Farmland of Local Importance; however, this land is vacant or in non-agricultural use. None of the parcels within the proposed Project site are identified as Prime Farmland, Farmland of Statewide Importance, or Unique Farmland (DOC 2017).

Furthermore, the land is planned for future development and zoned for Industrial Park, Rural Residential, Single-Family Residential, Office, and Office Research Park uses.

ENVIRONMENTAL CONSEQUENCES

Alternative 1 (No-Build Alternative)

The No-Build Alternative would not result in any ground disturbance and has no potential to affect farmlands.

Build Alternatives 2, 3, and 5

No active farmlands, lands under Williamson Act contracts, or lands zoned for agricultural use would be affected by any of the Build Alternatives.

AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES

No avoidance, minimization, or mitigation measures are required.

2.1.5 Growth

REGULATORY SETTING

The California Environmental Quality Act (CEQA) also requires the analysis of a project's potential to induce growth. The CEQA Guidelines (Section 15126.2[d]) require that environmental documents "…discuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment…"

AFFECTED ENVIRONMENT

This section is based on information from the *Growth-Related Indirect Impacts Study* (Caltrans 2024b) and the CIA (Caltrans 2024a) for the proposed Project.

The proposed Project is located primarily in Murrieta, with some portions extending into the city of Menifee and unincorporated Riverside County. The adjacent areas are primarily undeveloped vacant land, with some interspersed residential, commercial, light industrial, and medical land uses. The area south of Keller Road in Murrieta is designated as the North Murrieta Business Corridor Focus Area. It is an economic business development corridor that is expected to add 1.7 million sq. ft. of commercial uses and 7.7 million sq. ft. of office and research uses to create an employment center. The anticipated future traffic demand on the portion of the I-215 within the proposed Project limits is forecasted to be more than 138,800 vehicles per day in 2047. The proposed new interchange at Keller Road and future growth in the proposed Project vicinity

have been considered in multiple area and transportation plans at the regional and local levels. Population is projected to increase in Riverside County and Murrieta by 32% and 34.9% respectively, by 2035 (SCAG, 2024; Census Bureau 2020a). Historical and projected populations for the County of Riverside and the City of Murrieta are provided in Tables 2.1.5-1 and 2.1.5-2, respectively.

Table 2.1.5-1 Riverside County Historical and Projected Population Estimates

2010	2015	2020	2035
2,109,464	2,298,032	2,437,864	2,784,000
Growth Rate from 2010	8.9%	(15.6%)	32%

Sources: SCAG, 2024; U.S. Census Bureau 2020a (Table ID: DP05). 2010, 2015, and 2020 ACS 5-Year Estimates Data Profiles. Demographics and Housing Estimates.

Table 2.1.5-2. City of Murrieta Historical and Projected Population Estimates

2010	2015	2020	2035
95,668	107,507	114,066	129,100
Growth Rate from 2010	12.3%	19.2%	34.9%

Sources: SCAG 2024; U.S. Census Bureau 2020a (Table ID: DP05). 2010, 2015, and 2020 ACS 5-Year Estimates Data Profiles. Demographics and Housing Estimates.

ENVIRONMENTAL CONSEQUENCES

Growth Analysis—First Cut Screening

Caltrans' *Guidance for Preparers of Growth-related, Indirect Impact Analyses* provides methods for evaluating potential growth-related impacts for proposed highway transportation projects and starts with the First Cut Screening (Caltrans 2023a). The First Cut Screening Analysis for the proposed Project identified several growth factors that indicate potential for proposed Project-related growth impacts that require further analysis. Growth-related factors that were considered include the following:

- Development Pressures—The region has experienced rapid growth since at least 2000, which is projected to continue through 2035. However, presently, growth is anticipated to proceed at a more moderate pace compared to the period from 2000 to 2010. Rapid regional growth is prompting demand and increasing development pressure for a variety of

commercial, health, and technology projects, as well as additional housing to accommodate the growing population.

- Availability of Vacant Land—The proposed Project site includes adjacent vacant land that is appropriately designated to accommodate and promote development, as envisioned by adopted planning documents. Areas with availability of vacant land have a greater growth potential than areas that have been built out. Growth would occur consistent with approved plans.

- Project Location—The proposed Project is in Urban/Suburban fringe areas, which are typically considered to be higher growth areas.

- Land Use Controls—City of Murrieta and County of Riverside land use policies have been aimed at promoting business development within the proposed Project vicinity as part of economic development goals.

- Accessibility—The new interchange would provide new direct access and would improve accessibility from the I-215 to the local street network in Riverside County and the cities of Menifee and Murrieta. Improvements in accessibility could facilitate growth within the proposed Project vicinity.

Growth Analysis—Project-Specific Impacts

Caltrans guidance provides a detailed six-step method for evaluating potential growth-related impacts for a highway transportation project. Project-specific impacts were analyzed during of Steps 1 and 2, as discussed in the following paragraphs. Resources of concern were analyzed as part of Step 3. If a change in growth does not affect resources of concern, the analysis is considered complete. Step 4 documents measures to avoid and minimize growth-related impacts. Step 5 compares analysis results for all alternatives. Step 6 documents the process and analysis findings.

Step 1. Review the previous project information and "right size" the analysis

The availability of quantitative data, such as forecasted traffic volumes, provided by the proposed *Project Traffic Operations Analysis* (Caltrans 2018a) would allow the development of a reasonable growth scenario by examining changes in travel patterns for both the Build and No-Build Alternatives. These transportation models consider future land uses and other economic factors to predict travel patterns based on projected growth for the proposed Project during the planned

opening year (2027) and design year (2047). The County of Riverside and the Cities of Murrieta and Menifee provided information about development trends, local economic drivers, and City of Murrieta policies related to growth. As such, transportation forecasts, combined with a qualitative analysis, were found to be the appropriate method for analyzing growth for the proposed Project.

Step 2. Identify the potential for each alternative to affect growth – will the project change the location, amount, rate, or type of growth?

Each alternative was evaluated to determine its potential impact on growth. The three Build Alternatives would provide similar direct access to Keller Road from the I-215. Access to adjacent lands within the proposed Project site from Keller Road would be similar for all three Build Alternatives. Therefore, the three Build Alternatives are anticipated to have the same effects on the location, amount, type, and rate of growth, and are evaluated together as the Build Alternatives.

The No-Build Alternative would not include the construction of a new interchange and would not provide direct access from the I-215 to Keller Road. Future access to Keller Road would be via the Scott Road and Clinton Keith Road interchanges, which are 1 mile north and 2 miles south of Keller Road, respectively. Access would also be provided from the local transportation system at Menifee Road/Whitewood Road and Antelope Road (existing and future realignment), east of the I-215, and at Zeiders Road, west of the I-215. The type, amount, and location of growth is contingent on local land use and zoning. The No-Build Alternative would not result in changes to land use or zoning, and therefore could not result in a change to the location, amount, or type of growth. Future development would contribute to greater demands on the existing transportation system so local circulation would deteriorate, as discussed in Section 2.1.9, Traffic and Transportation/Pedestrian and Bicycle Facilities. In the future, if travel time to Keller Road increased significantly, adjacent lands may become less attractive for development and the rate of future development could be slower than under the Build Alternatives.

The following key questions evaluated whether the proposed Build Alternatives would change the location, amount, rate, or type of growth.

Would the project change the location of growth?

Access from the I-215 to Keller Road and the surrounding land provided by the three Build Alternatives is very similar. Therefore, all three Build Alternatives are anticipated to have similar effects on the location of growth.

As described previously, the proposed Project region has experienced rapid population growth since 2000, and will continue experiencing an elevated growth rate through the proposed Project's design year. The area surrounding the proposed Project has large parcels of undeveloped land. Zoning and land use designations plan for a mix of residential, commercial, and office uses, and the location of future development would be modulated by zoning requirements and land use policies. Recent and ongoing development in the area immediately surrounding the proposed Project site includes the Kaiser Permanente Murrieta Medical Center, the Loma Linda Hospital, the Healthsouth Rehabilitation Hospital, and several large mixed-use developments, and commercial/retail centers to serve patients, employees, and residents.

Existing land use designations and local plans and policies are geared toward attracting compatible development, such as research and business. Complementary future development is anticipated to continue in the proposed Project vicinity, regardless of whether the proposed Project advances. Specifically, the City of Murrieta's Murrieta General Plan 2035 (City of Murrieta 2020a) establishes the North Murrieta Business Corridor that provides a mix of office, research park, and commercial uses east of the I-215, between Scott Road and Clinton Keith Road (Figure 2.1-3). The Build Alternatives would not change the location of where growth associated with future development will occur.

Would the project change the amount of growth?

A range of factors influence the amount of future development in an area. Factors such as population and economic growth, the desirability of certain locations, the costs and availability of developable land, physical and regulatory constraints, transportation, and the costs of sewer and water services all strongly influence where, when, and what type of development takes place. The proposed Project would widen Keller Road and provide new direct access from the I-215 to Keller Road, consistent with the local land uses and zoning. The construction of the Build Alternatives would not result in any land use or zoning changes that would have the potential to change the amount of growth from future development within the proposed Project vicinity.

The differences in traffic volumes modeled for the 2047 No-Build and Build Alternatives (refer to Table 2.1.5-3) suggest an increase in peak hour traffic in the proposed Project vicinity by 2047.

Table 2.1.5-3. Design Year 2047 Traffic Volume Comparison (No-Build and Build Alternatives)

Facility	a.m. Peak Hour (Difference/%)	p.m. Peak Hour (Difference/%)
I-215 SB		
Freeway Mainline north of Scott Road (No-Build)	4,865	3,235
Freeway Mainline north of Scott Road (Build)	4,965 (+100, 2%)	3,580 (+345, 1.0%)
Freeway Mainline south of Clinton Keith Road (No-Build)	5,525	3,650
Freeway Mainline south of Clinton Keith Road (Build)	4,550 (-975, -1.7%)	3,930 (+280, 7.6%)
I-215 NB		
Freeway Mainline south of Clinton Keith Road (No-Build)	3,365	5,060
Freeway Mainline south of Clinton Keith Road (Build)	4,050 (+685, 20.3%)	5,555 (+495, 9.7%)
Freeway Mainline north of Scott Road (No-Build)	3,440	4,860
Freeway Mainline north of Scott Road (Build)	3,770 (+330, 9.7%)	5,250 (+390, 8%)

Source: Caltrans 2018a.

The traffic volume data provide some quantitative measures to infer the amount of future development that would occur in the proposed Project region, but cannot be meaningfully interpreted to assign a quantitative estimate of growth from future development.

As shown in Table 2.1.5-3, the freeway mainline south of Clinton Keith Road would experience a slight decrease of 1.7%, in traffic volumes in the a.m. hours under the Build Alternatives. Additionally, the a.m. and p.m. traffic volumes also increase slightly from 1.0% to 7.6% SB and 8% to 20.3% NB, compared to the No-Build Alternative condition. This suggests greater traffic volumes on the I-215 SB and NB lanes, associated with future development that would occur within the region under the Build Alternative condition.

Growth projections in the proposed Project vicinity and in the region are from existing forecasting resources, such as those provided by the U.S. Census Bureau and SCAG. Growth rates and forecasts for the proposed Project region indicate that the City of Murrieta, which holds the primary jurisdictional influence over growth in the proposed Project vicinity, is expected to experience

approximately 19.8% growth from 2016 to 2035. Similarly, as shown in the *Traffic Operations Analysis*, traffic volumes on the I-215 would increase over time (Caltrans 2018a). Therefore, the proposed Project would not affect the amount of growth associated with future development.

Would the project change the rate of growth?

As previously discussed, there are a range of factors that influence growth. Economic conditions and land use policies were determined to be the primary determinants associated with the growth rate of future development within the proposed Project vicinity. The proposed Project would not influence economic conditions or land use. The proposed Build Alternatives would improve transportation efficiency by widening Keller Road and providing new direct access from the I-215 to Keller Road. Currently, Keller Road access is provided by the local street network via Scott and Clinton Keith Road Interchanges.

The potential for reduced travel times and direct freeway access may increase the attractiveness to the proposed Project vicinity for developers, potentially resulting in earlier completion dates for future development under the Build Alternatives compared to the No-Build Alternative. The new direct access to the I-215 could accelerate the rate of growth for future development along Keller Road and within other undeveloped lands along the I-215 between Scott Road and Clinton Keith Road.

Would the project change the type of growth?

The proposed Project is envisioned in the land use and zoning elements of the City of Murrieta's and County of Riverside's General Plans and is also included in their transportation plans. Access to areas adjacent to Keller Road and between Scott Road and Clinton Keith Road interchanges, are already accessible via the existing transportation network. The completion of the proposed Project may affect the timing of future development; however, it would not affect the type of future development consistent with approved land use plans and zoning policies.

Growth Analysis—Resources of Concern

Step 3 of the Caltrans growth analysis addresses resources of concern in the context of potential indirect impacts on these resources, stemming from proposed Project-related future development. In general, planned growth is expected to occur along the freeway frontage areas and along Keller Road, as shown on Figure 2.1-6. Indirect growth-related impacts on resources of concern were evaluated in the *Growth Study* for aesthetics, air quality, biological

resources, cultural and paleontological resources, water quality and surface water resources, land use, noise, and socioeconomic and community impacts. Each resource of concern is discussed in detail in various sections of this environmental document, including applicable laws and regulations that pertain to development of the proposed Project. Potential indirect impacts on resources of concern are summarized below (Caltrans 2024b).

Step 3. Assess the growth-related effects of each alternative to resources of concern – will these resources be affected?

As discussed in Step 2, all Build Alternatives would result in the same location, amount, and type of growth in the proposed Project vicinity. However, future development could occur at an accelerated rate based on the assumption that direct access to Keller Road from the I-215 would result in decreases in travel times to Keller Road from beyond Scott Road and Clinton Keith Road, which could make the lands more attractive for development compared to the No-Build Alternative. In general, growth-related to the Build Alternatives is primarily expected to occur along the freeway frontage areas and Keller Road (Figure 2.1-6). Reasonably foreseeable development and transportation projects are identified and discussed in Tables 2.1.1-1 and 2.1.1-2. Growth-related indirect impacts of future development associated with reasonably foreseeable projects in the proposed Project vicinity on resources of concern are evaluated and discussed here.

Visual/Aesthetics

The affected environment and potential visual impacts of the proposed Project were analyzed in the *Visual Impact Assessment* (VIA) prepared in June 2019 (Caltrans 2019a) and the *Visual Impact Assessment Technical Memorandum* prepared in 2024 (Caltrans 2024c) and are discussed in detail in Section 2.1.10, Visual/Aesthetics.

Alternative 1 (No-Build Alternative)

Under the No-Build Alternative, Keller Road would not be widened and there would be no new interchange to provide direct access to Keller Road from the I-215. Therefore, direct visual changes to the I-215 viewshed would not occur or be experienced by interstate motorists, local road motorists, or residents. Visual effects related to the No-Build Alternative include removal of vegetation and a reduction in open space associated with the construction of new commercial and residential structures on vacant lands around Keller Road and the I-215. Future

development would occur whether the proposed Project was constructed or not; however, impacts from future development may occur at a decreased rate due to the increased travel times from Scott Road and Clinton Keith Road interchanges. Future visual resource impacts under the No-Build Alternative would come from future development vegetation removal and structures.

Build Alternatives 2, 3, and 5

Adverse growth-related effects to visual resources would come from land development, and often result in the loss of open space. Growth-related impacts from future development would consist of the construction of commercial and residential development on undeveloped lands along Keller Road and within the proposed Project vicinity resulting in a buildout of the adjacent undeveloped lands in accordance with City of Murrieta and County of Riverside land use and zoning requirements. Future development could result in adverse effects to the visual character within the proposed Project vicinity. These indirect effects would be localized to areas accessible from Keller Road. Indirect visual impacts from future development would be experienced by motorists traveling on the I-215 and those using Keller Road and the local transportation system between Scott Road and Clinton Keith Road interchanges.

Future development would be the same, whether or not the proposed Project was completed; however, it could be accelerated due to the new direct access from the I-215 to Keller Road, reducing travel times. Reduced travel times could make adjacent areas more attractive for development.

Context-sensitive solutions and the incorporation of aesthetically compatible features for future developments would help minimize the visual impacts associated with the loss of open space and associated adverse effects to the visual character within the proposed Project vicinity. The Cities of Murrieta and Menifee and the County of Riverside require developers to implement aesthetics standards and aesthetics improvement requirements for development projects within their jurisdictions. Future development within these areas would conform to these standards and policies to minimize the effects of the loss of open space on the visual character within the proposed Project vicinity. Therefore, potential adverse growth-related effects from future development on visual and aesthetic resources would be minimized and avoided.

Scott Road Interchange

Project Related Growth

Clinton Keith Road Interchange

*The boundary above was drawn taking into consideration land uses in the area, the local street system, topographic and physical limitations to access, and existing adjacent interchanges/roadways.
This is a conceptual depiction of where most of the project-related growth could occur. Project related growth could occur elsewhere.

Project Site
Where Project Related Growth Could Occur
Area Interchanges/Roadways

SOURCE: ESRI 2018

0 1,050 2,100 Feet

FIGURE 2.1-6

Areas Where Project Related Growth Would Likely Occur*

I-215/Keller Road Interchange Project

Air Quality

The affected environment and potential air quality impacts of the proposed Project were analyzed in the *Air Quality Report* (AQR) prepared in April 2019 (Caltrans 2019b) and in the *Air Quality Report* (Caltrans 2025a), and are discussed in detail in Section 2.2.6, Air Quality.

Alternative 1 (No-Build Alternative)

The No-Build Alternative does not include improvements to the I-215/Keller Road interchange or local roads in the proposed Project vicinity. According to the AQR, the No-Build Alternative would not improve operations or reduce congestion at the I-215/Keller Road interchange. No permanent impacts on air quality would occur, and the timely implementation of transportation control measures for the HOV, Transit and Systems Management, and Information-based Transportation strategies identified in the *2016 Air Quality Management Plan State Implementation Plan* (ARB 2017) would not be disrupted. Effects on air quality associated with the No-Build Alternative are limited to construction and operational emissions associated with future development. However, impacts from future development would occur at a decreased rate due to the increased travel times from Scott Road and Clinton Keith Road interchanges. Future emissions under the No-Build Alternative would come from future development and associated traffic growth.

Build Alternatives 2, 3, and 5

As described in the AQR (Caltrans 2019b), ozone (O_3), secondary PM_{10}, and secondary $PM_{2.5}$ are normally regional issues because they are formed by photochemical and chemical reactions over time in the atmosphere. The formation of O_3 and secondary PM are a function of reactive organic gases (ROGs) and nitrogen oxide (NO_x) emissions. Future development would be the same, whether or not the proposed Project was completed; however, it could be accelerated due to the new direct access from the I-215 to Keller Road, potentially reducing travel times. Reduced travel times would potentially make adjacent areas more attractive for development.

The construction of future developments would result in short-term air quality impacts, including temporary emissions of ROG, CO, NO_X, PM_{10}, and $PM_{2.5}$. These emissions would result from exhaust and fugitive dust generated by excavation, grading, hauling, and other activities. However, emissions resulting from localized concentrations would not violate air quality standards and

therefore, would not present an adverse impact. The Cities of Murrieta and Menifee, and the County, would ensure compliance with construction air quality regulations and SCAQMD rules to control and reduce fugitive dust and other emissions.

Long-term air quality impacts associated with future development would include emissions from operation of vehicles in the movement of goods and people and mobile-source air toxics (MSATs) from vehicles using the I-215 and surface streets in the proposed Project vicinity. When calculating emissions, the air quality analysis modeled regional traffic emissions within the study area, including future development anticipated to be approved within the design year. The analysis shows a decrease in operational emissions of ROG and NOx for the Build Alternatives compared to the No-Build Alternative for 2027 and 2047.

The results of the operational emissions analyses have concluded that localized concentrations, including those from future development, would not violate air quality standards.

Air quality emissions resulting from future development would conform with applicable regional, state, and federal Air Quality Management Plans and would not violate air quality standards. Impacts on air quality and growth-related air quality effects from future development would be addressed through compliance with applicable air quality standards. Therefore, potential adverse growth-related effects from future development on air quality would be minimized and avoided.

Biological Resources

Potential biological resource impacts of the proposed Project were analyzed in the *Natural Environmental Study* (NES) and NES Addendum (Caltrans 2021a and Caltrans 2023c, respectively). Biological resources are discussed in detail in Section 2.3.1, Natural Communities; Section 2.3.2, Wetlands and Other Waters; Section 2.3.3, Plant Species; Section 2.3.4, Animal Species; Section 2.3.5, Threatened and Endangered Species; and Section 2.3.6, Invasive Species.

Alternative 1 (No-Build Alternative)

Under the No-Build Alternative, future development slated for adjacent undeveloped lands would likely result in impacts to similar types of biological resources, if present. Presumably, impacts from future development would occur commensurate with the pace of development. Effects related to the No-Build Alternative are limited to future developments, which would be minimized through

compliance with the MSHCP and would occur whether the proposed Project is constructed or not. Future development may occur at a decreased rate due to the increased travel times to Keller Road from Scott Road and Clinton Keith Road interchanges. Future biological resource impacts under the No-Build Alternative would come from future development.

Build Alternatives 2, 3, and 5

Vacant parcels adjacent to Keller Road and the I-215 within unincorporated Riverside County and within the cities of Menifee and Murrieta have been planned for future development. These areas could contain sensitive plant and animal species. Field surveys and habitat assessments of sensitive species were conducted only within the proposed Project's biological study area (BSA); thus, it is unknown whether the species discussed in Section 2.3, Biological Environment, are present outside the BSA. Future development could result in impacts on both sensitive plant and animal communities, potentially leading to a loss of habitat for sensitive species. Future development would be the same, whether or not the proposed Project was completed; however, it could be accelerated due to the new direct access from the I-215 to Keller Road and could potentially result in reduced travel times. Reduced travel times would potentially make adjacent areas more attractive for development.

Development projects in the area are required to comply with state and federal environmental regulations intended to protect natural resources in the area. Through the proper evaluation of impacts on the natural resources in the area for each future development, and through the implementation of required MSHCP measures, adverse effects related to future development would be minimized. Specifically, MSHCP measures address sensitive vegetation communities (including riparian/riverine habitat), jurisdictional waters, special-status animals and their habitats, and special-status plants. Future development would be required to include BMPs and compensatory mitigation to protect these resources from disturbance or destruction. Therefore, potential adverse growth-related effects from future development on biological resources would be minimized and avoided.

Cultural and Paleontological Resources

Potential cultural resource impacts from the proposed Project were analyzed in the *Archaeological Survey Report* (Caltrans 2022d) and *Historic Property Survey Report* (Caltrans 2022c), and are discussed in detail in Section 2.1.11, Cultural

Resources. Potential paleontological resource impacts were analyzed in the *Paleontological Identification Report/Paleontological Evaluation Report* (PIR/PER) (Caltrans 2019c) and are discussed in detail in Section 2.2.4, Paleontology.

Alternative 1 (No-Build Alternative)

Under the No-Build Alternative, future development would occur regardless of whether or not the proposed Project was constructed. However, impacts from future development may occur at a decreased rate due to the increased travel times from Scott Road and Clinton Keith Road interchanges to Keller Road. Future development would occur on adjacent lands that may contain sensitive cultural and paleontological resources, where the discovery of sensitive resources during construction could occur. Future cultural and paleontological resource impacts under the No-Build Alternative would come from future development and associated traffic growth.

Build Alternatives 2, 3, and 5

Future development adjacent to the I-215 and Keller Road could have adverse effects on sensitive cultural resources if artifacts are encountered during construction. Taking into consideration the number of sensitive cultural resources recorded near the proposed Project site, the potential exists for the loss of some of these sites due to future development. Development in previously undeveloped areas and open spaces would be more likely to encounter subsurface archaeological and paleontological resources. Future development would be the same, whether or not the proposed Project was completed; however, it could be accelerated due to the new direct access from the I-215 to Keller Road and could potentially result in reduced travel times. Reduced travel times would potentially make adjacent areas more attractive for development.

The Cities of Murrieta and Menifee and the County of Riverside each have policies that aim to protect cultural resources from disturbance or destruction, including historical, archaeological, and paleontological resources. These include Policy CSV-11.1 in the City of Murrieta's *General Plan 2035* (City of Murrieta 2020a), which states, "*Promote the protection and preservation of archaeological, cultural, historical, and architecturally significant sites, structures, districts, Native American resources, and natural features throughout the community, consistent with the Cultural Resource Preservation Ordinance. Preferred methods of protection include avoidance of impacts, placing resources*

in designated open space and allocation of local resources and/or tax credits as feasible." Menifee General Plan Policy OSC-5.1 states, "*Preserve and protect archaeological and historic resources and cultural sites, places, districts, structures, landforms, objects and native burial sites, traditional cultural landscapes and other features, consistent with state law and any laws, regulations or policies which may be adopted by the City to implement this goal and associated policies*" (City of Menifee 2013a). Furthermore, future developments within unincorporated portions of Riverside County would be reviewed for the possibility of cultural resources and for compliance with County of Riverside's cultural resource program, as required by *County of Riverside General Plan* Policy OS 19.3 (County of Riverside 2003).

Impacts on cultural and paleontological resources associated with the growth-related effects of future development would be addressed through avoidance and minimization measures, and through compliance with state and federal laws and applicable City of Murrieta and County of Riverside policies that aim to protect cultural and paleontological resources from disturbance or destruction. Therefore, potential adverse growth-related effects from future development on cultural and paleontological resources would be avoided and minimized.

Water Quality and Surface Water Resources

Potential water quality and surface water resource impacts were analyzed in the *Jurisdictional Waters Delineation Report* (Caltrans 2018b), the *Conceptual Drainage Report* (Caltrans 2018c), and the *Water Quality Assessment Report* (Caltrans 2017a). These impacts are discussed in detail in Section 2.2.1, Hydrology and Floodplain, and Section 2.2.2, Water Quality and Stormwater Runoff.

Alternative 1 (No-Build Alternative)

Under the No-Build Alternative, impacts from future development on water quality and surface water resources would occur regardless of whether or not the proposed Project was constructed. However, impacts from future development may occur at a decreased rate due to the increased travel times from Scott Road and Clinton Keith Road interchanges to Keller Road. Future water quality and surface water resource impacts under the No-Build Alternative would come from future development and associated traffic growth

Build Alternatives 2, 3, and 5

Growth-related effects from future development would increase stormwater runoff and could have adverse effects on water quality and surface water resources in the proposed Project vicinity. In addition, encroaching development could have adverse effects on the two unnamed tributaries south and north of Keller Road that feed into Warm Springs Creek and Salt Creek, respectively. Potential sources of discharge include exposed slopes/soils and refuse during construction and oil, lubricants, and other pollutants from vehicles traveling on roadways within the proposed Project vicinity. Future development would be the same, whether or not the proposed Project was completed; however, it could be accelerated due to the new direct access from the I-215 to Keller Road and could potentially result in reduced travel times. Reduced travel times would potentially make adjacent areas more attractive for development.

Future developments must show consistency with stormwater quality protection policies and the NPDES requirements. The implementation of BMPs and compliance with local stormwater and water quality requirements would minimize adverse effects to water quality. Growth-related impacts from future development on water quality and surface water resources would be addressed through the incorporation of measures to avoid and minimize impacts, and would comply with applicable local and state laws, regulations, and policies that aim to protect these resources. Therefore, potential adverse growth-related effects from future development on water quality and surface water resources would be avoided and minimized.

Land Use

Potential land use impacts for the proposed Project were analyzed in the CIA (Caltrans 2024a) and are discussed in detail in Section 2.1.1, Land Use.

Alternative 1 (No-Build Alternative)

Under the No-Build Alternative, there would be no changes in land use, and future development would proceed in accordance with City of Murrieta and County of Riverside land use plans regardless of whether or not the proposed Project was constructed. However, impacts from future development may occur at a decreased rate due to the increased travel times from Scott Road and Clinton Keith Road interchanges to Keller Road. Future land use impacts under the No-Build Alternative would come from future development and associated traffic growth.

Build Alternatives 2, 3, and 5

Areas adjacent to the proposed Project have been designated by the City of Murrieta as Business Park and Office and Research Park (Figure 2.1-1). The area south of Keller Road within Murrieta is the North Murrieta Business Corridor Focus Area. The business corridor is expected to add 1.7 million sq. ft. of commercial uses and 7.7 million sq. ft. of office and research uses, creating a medical and high technology/office/research employment center. This area will include other supporting commercial uses, such as restaurants and hotels. Further east along Keller Road within Murrieta, adjacent uses are primarily designated Single-Family Residential, Civic/Institutional, and Parks and Open Space. The southwestern quadrant of the proposed Project footprint extends into the MHSP Amendment area, which has a land use plan allowing for six land use components: Single-Family Residence, Executive Single-Family, Mixed-Use, Commercial, Open Space, and Circulation (City of Murrieta 2021).

Future development would be the same, whether or not the proposed Project was completed; however, it could be accelerated due to the new direct access from the I-215 to Keller Road and could potentially result in reduced travel times. Reduced travel times would potentially make adjacent areas more attractive for development. Reasonably foreseeable and other future development would be completed in compliance with applicable land use and zoning plans and policies. Therefore, potential adverse growth-related effects from future development on land use would be avoided and minimized.

Noise

Potential noise impacts of the proposed Project were analyzed in the *Noise Study Report* (NSR) (Caltrans 2024d) and are discussed in detail in Section 2.2.7, Noise.

Alternative 1 (No-Build Alternative)

Under the No-Build Alternative, noise from the construction and operation of future developments would occur regardless of whether or not the proposed Project was constructed. However, future development and increases in ambient noise may occur at a decreased rate due to increased travel times from Scott Road and Clinton Keith Road interchanges to Keller Road, which may slow development. Future noise impacts under the No-Build Alternative would come from future development and associated traffic growth.

Build Alternatives 2, 3, and 5

Future development could result in adverse effects through an increase in ambient noise related to the buildout of the proposed Project vicinity. Residences adjacent to the areas planned for future development could experience an increase in ambient noise. Future design year traffic in the proposed Project vicinity is expected to increase from existing conditions. The NSR evaluated potential noise increases resulting from the increase in future traffic volumes in the proposed Project vicinity. Estimated future design year noise levels were less than the FHWA's NAC thresholds for potential noise impacts. Future development would be the same, whether or not the proposed Project was completed; however, it could be accelerated due to the new direct access from the I-215 to Keller Road and could potentially result in reduced travel times. Reduced travel times would potentially make adjacent areas more attractive for development.

Additionally, future development would ultimately be regulated by applicable City of Murrieta and County of Riverside ordinances, including those intended to limit noise. Compliance with noise ordinances would limit the levels of development-related noise and minimize adverse effects to adjacent residential properties or other sensitive uses. The consideration of noise-related effects during the review of proposed development in the area would also assist in minimizing development-related noise impacts on noise-sensitive receptors. Therefore, potential adverse growth-related effects from future development ambient noise level increases would be avoided and minimized.

Socioeconomic and Community Impacts

The potential socioeconomic and community impacts of the proposed Project were analyzed in the CIA (Caltrans 2024a). These resources are discussed in detail in Section 2.1.6, Community Character and Cohesion.

Alternative 1 (No-Build Alternative)

The No-Build Alternative does not include any improvements to the I-215/Keller Road interchange or local roads in the proposed Project vicinity. The No-Build Alternative would not improve operations or reduce congestion at the I-215/Keller Road interchange. Effects on socioeconomics and the community associated with the No-Build Alternative are limited to construction and operational emissions from future development, which would occur whether or not the proposed Project was constructed. However, impacts from future development

may occur at a decreased rate due to increased travel times from Scott Road and Clinton Keith Road interchanges.

Build Alternatives 2, 3, and 5

Future development impacts on the community and surrounding areas would include property acquisition, construction equipment noise and emissions, dust, lane and road closures, and travel delays along Keller Road. Future development is expected to contribute to the increase in traffic volumes along local streets in the proposed Project vicinity, as discussed in Section 2.1.9, Traffic and Transportation/Pedestrian and Bicycle Facilities.

Future development would also bring more employment, residential, and recreational opportunities both locally and regionally. Future development would be the same, whether or not the proposed Project was completed; however, it could be accelerated due to the new direct access from the I-215 to Keller Road and could potentially result in reduced travel times. Reduced travel times would potentially make adjacent areas more attractive for development. Impacts related to increases in traffic volumes on local streets could also result from the distribution of traffic on networks from future development. The primary determinants of traffic patterns and distribution on a local street network are the land uses in the area and the capacity of the primary roadway network. Because the proposed Project has been factored into local and regional circulation plans, it is assumed that currently planned traffic measures and infrastructure improvements are adequate to address potential growth from future development.

The City of Murrieta's local circulation plan and planning documents take into account future developments, local and regional population growth trends, and traffic projections. As part of the entitlement process, the Cities of Murrieta and Menifee and the County of Riverside would require future developments to maintain or improve access for existing residential and commercial development, and provide for enhanced capacity and connectivity for future development through improvements to the local transportation system. Future developments would likely include transportation improvements, enhanced pedestrian and bicycle access, and street lighting. The improved connections between the I-215/Keller Road interchange and existing and future developments would enhance connectivity for residents and commercial activities between the eastern and western sides of the I-215, converting primarily rural, undeveloped areas into

mixed-use business and residential communities. Additionally, the widened Keller Road and new direct connection would reduce travel times to access the I-215 for existing and future developments, and would improve emergency response times and enable emergency response and evacuation plans to function more efficiently. The new interchange would improve accessibility for pedestrians and vehicles from the I-215 to the local street network in the cities of Menifee and Murrieta. Therefore, potential adverse growth-related effects from future development on the existing and future community would be avoided and minimized.

SUMMARY OF POTENTIAL INDIRECT GROWTH IMPACT ANALYSIS

The potential for growth in the proposed Project vicinity is consistent with local land use plans and current trends. As individual developments near the proposed Project occur, the local jurisdiction's entitlement and environmental review process will protect resources of concern. Based on the growth analysis in Steps 1 to 3, the proposed Project would not affect the current and planned growth pattern in the Community Impacts Study Area because the amount, location, and type of growth would not change even if the proposed Project was not constructed.

AVOIDANCE, MINIMIZATION, OR MITIGATION MEASURES

The proposed Project would not affect the amount, location, or type of growth within the proposed Project vicinity. Applicable avoidance, minimization, or mitigation measures for future development would be developed as part of the environmental and entitlement process for the governing jurisdiction approving the development. Therefore, no avoidance, minimization, and/or mitigation measures related to indirect growth-related impacts are required.

2.1.6 Community Character and Cohesion

REGULATORY SETTING

The National Environmental Policy Act (NEPA) of 1969, as amended, established that the federal government use all practicable means to ensure for all Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings (42 United States Code [USC] 4331[b][2]). The Federal Highway Administration (FHWA) in its implementation of NEPA (23 USC 109[h]) directs that final decisions on projects are to be made in the best overall public interest. This requires taking into account adverse environmental impacts, such as destruction

or disruption of human-made resources, community cohesion, and the availability of public facilities and services.

Under the California Environmental Quality Act (CEQA), an economic or social change by itself is not to be considered a significant effect on the environment. However, if a social or economic change is related to a physical change, then social or economic change may be considered in determining whether the physical change is significant. Since this project would result in physical change to the environment, it is appropriate to consider changes to community character and cohesion in assessing the significance of the project's effects.

AFFECTED ENVIRONMENT

This section is based on the CIA prepared for the proposed Project (Caltrans 2024a).

The study area for the community impacts analysis is defined in the CIA, and includes residential neighborhoods and community-related facilities and services within and surrounding the proposed Project site. It encompasses the combined footprint for the three Build Alternatives, and an additional 0.5-mile beyond the proposed Project site (Community Impacts Study Area). The Community Impacts Study Area is shown on Figure 2.1-7.

The Community Impacts Study Area includes land under the jurisdiction of the City of Murrieta, the City of Menifee, and unincorporated Riverside County. Community profile data for these jurisdictions, presented in this section, are collected and organized by census tract.

Census data presented in this section are based on detailed demographic data from the U.S. Census Bureau decennial census data for 2010 and 2020, including the American Community Survey (ACS) 5-year estimates for 2015. Additionally, desktop surveys were conducted within the study area to collect information on the types of communities, people, and land uses surrounding the proposed Project. The boundaries of 2020 U.S. Census Tracts 432.78, 432.79, 507.01, and 507.02 are within the Community Impacts Study Area, and are shown on Figure 2.1-7.

Regional Population Characteristics

Population

The most recent data from the U.S. Census ACS 5-Year Estimate Data Profiles are from 2020, and indicate that the City of Murrieta had a population of 114,066, which was 4.7% of the County of Riverside's population. The City of Menifee had a population of 92,968 in 2020, which was 3.8% of the County of Riverside's population. In 2020 the County of Riverside's population was 2,437,864. The populations within Murrieta, Menifee, and Riverside County grew by 6.1%, 11.4%, and 6.1%, respectively, between 2015 and 2020 (this was less than the growth between 2010 and 2015).

Table 2.1.6-1 includes population numbers for the County of Riverside, City of Murrieta, and City of Menifee jurisdictions in 2010, 2015, and 2020.

Table 2.1.6-1. 2010, 2015, and 2020 Population

Jurisdiction	2010 Population	2015 Population	Population Change (%) 2010-2015	2020 Population	Population Change (%) 2015–2020	% Of County's 2020 Population
Riverside County	2,109,464	2,298,032	+188,568 (8.9%)	2,437,864	+139,832 (6.1%)	N/A
City of Murrieta	95,668	107,507	+11,839 (12.3%)	114,066	+6,559 (6.1%)	4.7%
City of Menifee	72,494	83,442	+10,948 (15.1%)	92,968	+9,526 (11.4%)	3.8%

Source: U.S. Census Bureau 2020a (Table ID: DP05). 2010, 2015, and 2020 ACS 5-Year Estimates Data Profiles. Demographics and Housing Estimates.
N/A = not applicable

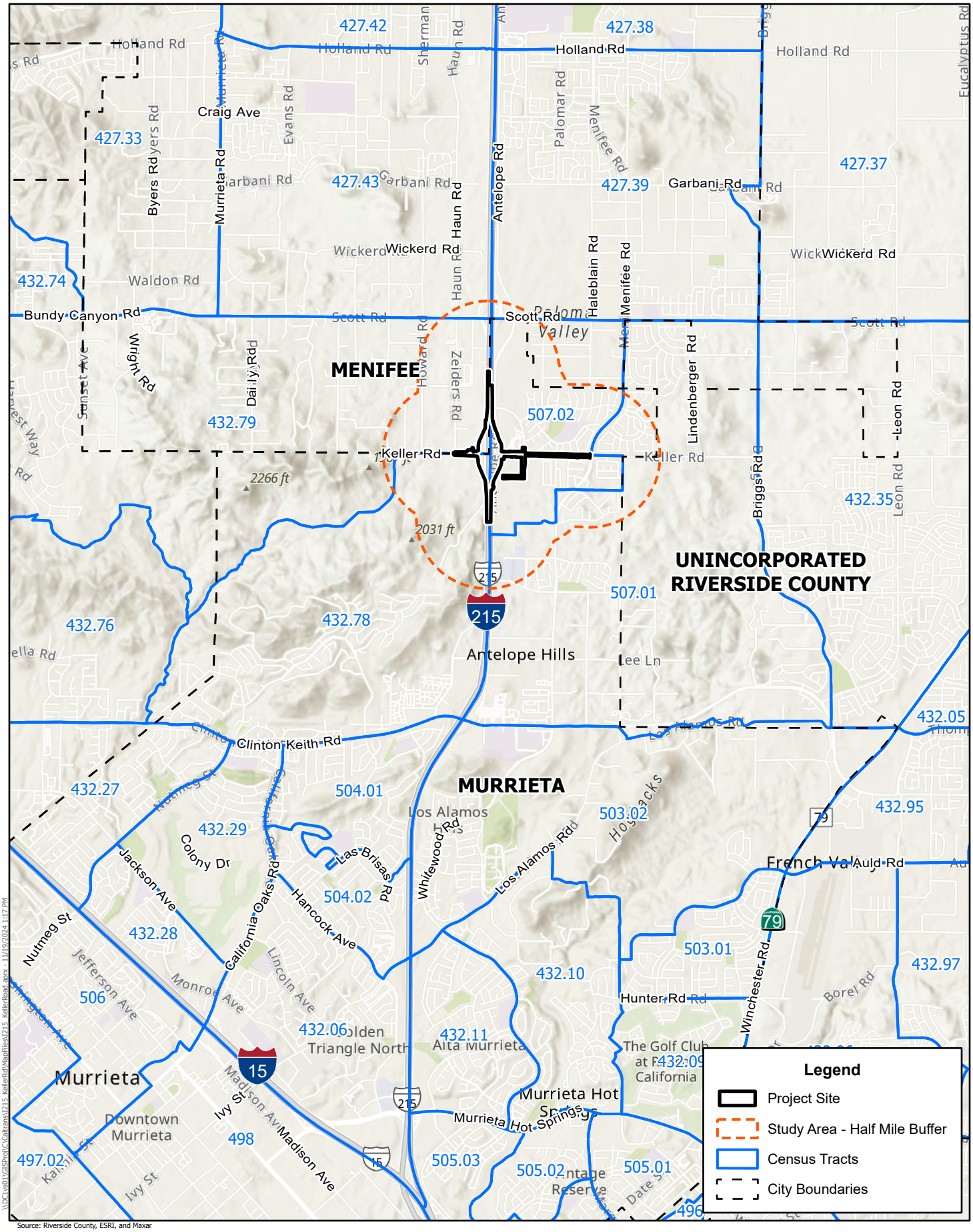


Figure 2.1-7
Census Tracts
I-215/Keller Road New Interchange Project

Ethnicity

Table 2.1.6-2 shows the racial and ethnic population in the cities of Murrieta and Menifee, Riverside County, and in California. The majority of the population in these jurisdictions identifies their race as White, with 63.0% in Murrieta and 59.6% in Menifee; these percentages are greater than 55.7% and 56.1% reported for Riverside County and California, respectively.

The percentages of population that identify as Hispanic or Latino are 32.5% in Murrieta, and 37.5% in Menifee; these percentages are less than 49.4% and 39.1% reported for Riverside County and California, respectively.

Table 2.1.6-2. 2020 Population by Race and Ethnicity

	City of Murrieta	City of Menifee	Riverside County	State of California
Total 2020 Population	114,066	92,968	2,437,864	39,346,023
Race				
White	71,813 (63.0%)	55,410 (59.6%)	1,358,645 (55.7%)	22,053,721 (56.1%)
Black or African American	5,542 (4.9%)	6,222 (6.7%)	157,908 (6.5%)	2,250,962 (5.7%)
American Indian and Alaska Native	598 (0.5%)	852 (0.9%)	18,852 (0.8%)	311,629 (0.8%)
Asian	10,569 (9.3%)	5,280 (5.7%)	164,464 (6.7%)	5,834,312 (14.8%)
Native Hawaiian and Pacific Islander	617 (0.5%)	653 (0.7%)	7,915 (0.3%)	149,636 (0.4%)
Some Other Race	10,956 (9.6%)	16,548 (17.8%)	539,108 (22.1%)	5,623,747 (14.3%)
Two or More Races	13,971 (12.2%)	8,003 (8.6%)	190,963 (7.8%)	3,122,016 (7.9%)
Ethnicity				
Hispanic or Latino	37,065 (32.5%)	34,819 (37.5%)	1,204,521 (49.4%)	15,380,929 (39.1%)
Non-Hispanic or Latino	77,001 (67.5%)	58,149 (62.5%)	1,233,343 (50.6%)	23,965,094 (60.9%)

Source: U.S. Census Bureau 2020a (Table ID: DP05). 2020 ACS 5-Year Estimates Data Profiles. Demographic and Housing Estimates.

The total population by race and ethnicity shown in Table 2.1.6-2 can be compared with the same populations that are presented by census tracts in Table 2.1.6-3. Census Tracts 432.78, 432.79, 507.01, and 507.02 are located within the Community Impacts Study Area and are described in Table 2.1.6-3 and shown on Figure 2.1-7.

Table 2.1.6-3. 2020 Race and Ethnicity Census Tract Data (Tracts 432.78, 432.79, 507.01, and 507.02)

	Census Tract 432.78 Population (% by Ethnicity/Race)	Census Tract 432.79 Population (% by Ethnicity/Race)	Census Tract 507.01 Population (% by Ethnicity/Race)	Census Tract 507.02 Population (% by Ethnicity/Race)
Race				
White	4,428 (70.8%)	4,324 (83.2%)	4,323 (52.0%)	2,739 (57.3%)
Black or African American	385 (6.2%)	18 (0.3%)	440 (5.3%)	460 (9.6%)
American Indian and Alaska Native	8 (0.1%)	53 (1.0%)	0 (0.0%)	60 (1.3%)
Asian	412 (6.6%)	93 (1.8%)	810 (9.7%)	576 (12.1%)
Native Hawaiian and Pacific Islander	95 (1.5%)	0 (0.0%)	45 (0.5%)	0 (0.0%)
Some Other Race	233 (3.7%)	465 (9.0%)	1,283 (15.4%)	457 (9.6%)
Two or More Races	696 (11.1%)	242 (4.7%)	1,419 (17.1%)	487 (10.2%)
Total Population	6,257	5,195	8,320	4,779
Ethnicity				
Hispanic or Latino	1,307 (20.9%)	1,569 (30.2%)	2,553 (30.7%)	1,378 (28.8%)
Non-Hispanic or Latino	4,950 (79.1%)	3,626 (69.8%)	5,767 (69.3%)	3,401 (71.2%)

Source: U.S. Census Bureau 2020a, (Table ID: DP05). 2020 ACS 5-Year Estimates Data Profiles. Demographic and Housing Estimates.

As shown in Tables 2.1.6-2 and 2.1.6-3, majority of the population within the Community Impacts Study Area census tracts identified their race as White, with 70.8% in Census Tract 432.78, 83.2% in Census Tract 432.79, and slightly lower percentages of 52.0% in Census Tract 507.01 and 57.3% in Census Tract 507.02.

Age and Gender

Table 2.1.6-4 includes the distribution of age groups for each census tract, and Table 2.1.6-5 displays the gender distribution. As shown, the median age across census tracts in the Community Impacts Study Area is similar, ranging from 31.2 to 40.4 years old, with no unusually great concentrations of children (people 19 and younger) or the elderly (people 65 and older) (U.S. Census Bureau 2020a). The gender distribution across census tracts is also similar, with slightly more males in Census Tract 432.78 and slightly more females in Census Tracts 432.79, 507.01, and 507.02.

Table 2.1.6-4. 2020 Age Distribution

	Census Tract 432.78	Census Tract 432.79	Census Tract 507.01	Census Tract 507.02	County of Riverside	State of California
Under 5 Years	398 (6.4%)	407 (7.8%)	571 (6.9%)	302 (6.3%)	156,118 (6.4%)	2,409,082 (6.1%)
5 to 9 Years	552 (8.8%)	364 (7.0%)	1,038 (12.5%)	216 (4.5%)	165,641 (6.8%)	2,431,647 (6.2%)
10 to 14 Years	690 (11.0%)	323 (6.2%)	705 (8.5%)	311 (6.5%)	183,687 (7.5%)	2,597,443 (6.6%)
15 to 19 Years	529 (8.5%)	258 (5.0%)	764 (9.2%)	273 (5.7%)	177,309 (7.3%)	2,548,072 (6.5%)
20 to 24 Years	341 (5.4%)	279 (5.4%)	358 (4.3%)	154 (3.2%)	167,306 (6.9%)	2,694,636 (6.8%)
25 to 34 Years	441 (7.0%)	932 (17.9%)	1,384 (16.6%)	894 (18.7%)	340,312 (14.0%)	6,007,913 (15.3%)
35 to 44 Years	896 (14.3%)	602 (11.6%)	1,502 (18.1%)	434 (9.1%)	313,693 (12.9%)	5,233,903 (13.3%)
45 to 54 Years	939 (15.0%)	496 (9.5%)	990 (11.9%)	500 (10.5%)	302,766 (12.4%)	5,039,155 (12.8%)
55 to 59 Years	500 (8.0%)	360 (6.9%)	310 (3.7%)	568 (11.9%)	149,849 (6.1%)	2,485,487 (6.3%)

	Census Tract 432.78	Census Tract 432.79	Census Tract 507.01	Census Tract 507.02	County of Riverside	State of California
60 to 64 Years	289 (4.6%)	307 (5.9%)	174 (2.1%)	399 (8.3%)	128,808 (5.3%)	2,254,188 (5.7%)
65 to 74 Years	420 (6.7%)	354 (6.8%)	400 (4.8%)	405 (8.5%)	200,400 (8.2%)	3,270,380 (8.3%)
75 to 84 Years	175 (2.8%)	316 (6.1%)	112 (1.3%)	121 (2.5%)	109,590 (4.5%)	1,609,373 (4.1%)
85 Years and Older	87 (1.4%)	197 (3.8%)	12 (0.1%)	202 (4.2%)	42,385 (1.7%)	764,744 (1.9%)
Median Age (years)	36.7	35.4	31.2	40.4	35.8	36.7
Total Population	6,257	5,195	8,320	4,779	2,437,864	39,346,023

Source: U.S. Census Bureau 2020a (Table ID: DP05). 2020 ACS 5-Year Estimates Data Profiles. Demographics and Housing Estimates.

Table 2.1.6-5. 2020 Gender Distribution

	Census Tract 432.78	Census Tract 432.79	Census Tract 507.01	Census Tract 507.02	County of Riverside	State of California
Male	3,022 (48.3%)	2,691 (51.8%)	4,053 (48.7%)	2,353 (49.2%)	1,215,233 (49.8%)	19,562,882 (49.7%)
Female	3,235 (51.7%)	2,504 (48.2%)	4,267 (51.3%)	2,426 (50.8%)	1,222,631 (50.2%)	19,783,141 (50.3%)
Total Population	6,257	5,195	8,320	4,779	2,437,864	39,346,023

Source: U.S. Census Bureau 2020a (Table ID: DP05). 2020 ACS 5-Year Estimates Data Profiles. Demographics and Housing Estimates.

Housing

Table 2.1.6-6 shows the number of housing units, occupancy type, median value/rent, and household size in City of Murrieta, City of Menifee, and Riverside County. The median housing values in Murrieta and Menifee were similar to those in Riverside County, with Murrieta being slightly greater. In 2020, Murrieta had owner-occupied units with a median value of $435,700 (or a median rent of $1,859); Menifee's owner-occupied units had a median value of $353,000 (or a

median rent of $1,657), and Riverside County had owner-occupied units with a median value of $368,100 (or a median rent of $1,447).

Table 2.1.6-6. Housing Characteristics

	City of Murrieta	City of Menifee	Riverside County	City of Murrieta	City of Menifee	Riverside County
Year	2010			2020		
Total Housing Units	32,528	28,731	783,116	35,207	31,677	845,066
Occupied Housing Units	29,540 (90.8%)	26,152 (91.0%)	666,906 (85.2%)	33,095 (94%)	29,325 (92.6%)	736,413 (87.1%)
Vacant Housing Units	2,988 (9.2%)	2,579 9.0%)	116,210 (14.8%)	2,112 (6%)	2,352 (7.4%)	108,653 (12.9%)
Owner-occupied Units	22,365 (75.7%)	21,086 (80.6%)	467,086 (70.0%)	21,863 (66.1%)	23.041 (78.6%)	497,259 (67.5%)
Owner Average Household Size	3.28	2.71	3.11	3.54	3.21	3.27
Renter Occupied Units	7,175 (24.3%)	5,066 (19.4%)	199,820 (30.0%)	11,232 (33.9%)	6,284 (21.4%)	239,154 (34.2%)
Renter Average Household Size	3.0	2.97	3.14	3.21	3.01	3.23
Owner-occupied Unit Value (Median $)	$369,600	$252,900	$325,300	$435,700	$353,000	$368,100
Occupied Units Paying Rent (Median $)	$1,365	$1,175	$1,115	$1,859	$1,657	$1,447

Source: U.S. Census Bureau 2020b (Table ID: DP04). 2010 and 2020 ACS 5-Year Estimates Data Profiles. Selected Housing Characteristics.

Neighborhoods/Communities/Community Character

The 0.5-mile Community Impacts Study Area is predominantly undeveloped, with existing adjacent land uses that include vacant land, residential, commercial, medical uses, and MSHCP conservation land. Existing residential neighborhoods within the Community Impacts Study Area include the Mapleton community, located east of the intersection of Mapleton Avenue and Keller Road, and a few scattered residences throughout. An elementary school and Mapleton Park are within the Mapleton community, and these may serve as venues for community events and neighborhood gatherings. There is a shopping center at the Scott Road/I-215 Interchange within the Community Impacts Study Area. However, the proposed Project area is not densely developed with neighborhood-serving land uses (such as childcare centers, banks, churches, libraries, recreation centers, or grocery stores). Due to its undeveloped and rural nature, and general lack of

community facilities, the study area has low community cohesion. Facilities that contribute to community cohesion (for example, schools, libraries, recreation facilities, other service providers) are generally located in the single-family residential neighborhoods to the east of the I-215 or occur as stand-alone entities (for example, medical office buildings). The proposed Project site does not include elements that are formally recognized as contributing to the identity of the surrounding community or a sense of place.

Community Facilities and Services

Notable community facilities and/or services in the 0.5-mile Community Impacts Study Area include hospitals and medical services, a school, parks and recreation areas. These facilities are included in Table 2.1.6-7. A detailed discussion of parks and recreation facilities is provided in Section 2.1.3, Parks and Recreation.

Table 2.1.6-7. Community Facilities (Within 0.5 Mile of the Proposed Project)

Facility Name	Type	Address/Location	Approximate Distance from proposed Project
Kaiser Permanente Murrieta Medical Campus	Hospitals and Medical Services	28150 Keller Road, Murrieta, CA	0.12 mile east of Antelope Road/Keller Road off Keller Road.
Mapleton Park and Trail	Parks and Recreation	28586 Poinsettia Street, Murrieta, CA Primary access via parking lot along Poinsettia Way (between Basswood Way and Daffodil Way); multiple entrances from residential streets in surrounding community.	0.45 mile north of Keller Road outside the proposed Project site, but within the 0.5-mile study area.
Mapleton Fitness Route	Parks and Recreation	Refer to Figure 2.1-5 for exact location. A portion of the fitness route is located within the proposed Project limits. Primary access to the fitness route is from Mapleton Park via a parking lot along Poinsettia Way (between Basswood Way and Daffodil Way); multiple access points from local streets in the surrounding community.	A portion of the fitness route is within the proposed Project site along Keller Road. Most of the fitness route is outside the proposed Project site, but within the 0.5-mile study area.

Facility Name	Type	Address/Location	Approximate Distance from proposed Project
Bike Lanes/ Multipurpose Trail	Parks and Recreation	Keller Road, City of Menifee and City of Murrieta, CA City of Menifee ROW between the I-215 and western proposed Project limits (designated Class II and III). City of Murrieta ROW between the I-215 and the eastern proposed Project limits (designated Class II and Proposed Class 1/Multipurpose Trail).	Within the proposed Project site along Keller Road.
Oak Meadows Elementary School	School	28600 Poinsettia Street, Murrieta, CA	0.10 mile north of Keller Road at the intersection of Poinsettia Street and Gladiolus Avenue
Springbrook Park	Parks and Recreation	28360 Sevilla Street, Murrieta, CA	0.37 mile from the I-215 south of Keller and west of Meadowlark Lane, outside of the proposed Project site, but within the 0.5-mile study area.

Hospitals and Medical Services

The closest hospital/medical service to the proposed Project site is the newly constructed Kaiser Permanente Murrieta Medical Campus located off of Keller Road, approximately 0.12 mile east of the Antelope Road/Keller Road intersection.

Schools

One school is located within the 0.5-mile Community Impacts Study Area. Oak Meadows Elementary School is located east of the proposed Project site, 0.10 mile north of Keller Road at the intersection of Poinsettia Street and Gladiolus Avenue. Oak Meadows is part of the Menifee Union School District.

Parks and Recreation

There are two parks located within 0.5 mile of the proposed Project site: Mapleton Park, located 0.45 mile east of the I-215 and 0.20 mile north of the Keller Road/Meadowlark Lane intersection, and Springbrook Park, located 0.37 mile east of the I-215, on the southwestern corner of Keller Road and Meadowlark Lane. In addition, Mapleton Fitness Route is east of the I-215, and

extends along local roadways in Murrieta, including Keller Road (City of Murrieta 2006, 2020a, and 2023; MyMurrieta 2023). Existing and planned bicycle lanes are located within the proposed Project site along Keller Road, with existing marked lanes located east of the I-215 in the westbound direction between Mapleton Avenue and Antelope Road and in the eastbound direction from approximately 650 feet east of Pamplona Avenue to Gladiolus Avenue (SCAG 2023).

Mapleton Park is an approximately 9.3-acre facility that features amenities such as an amphitheater, barbeque areas, open grass areas, picnic tables, park benches, a soccer field, softball field, volleyball court, a playground, a bicycle path/walking trail, and a remote-control park (City of Murrieta 2020a). Mapleton Trail is a bike path/walking trail that extends east and west of Mapleton Park for a total of 1.05 miles. Mapleton Fitness Route is a 3.19-mile route that extends along local roadways in the Murrieta communities surrounding Mapleton Park, including designated trail and bike path routes along Keller Road (City of Murrieta 2020a, 2023). Springbrook Park is a 0.5-acre community park that includes amenities such as a tot lot, playground, open grass areas, and benches.

ECONOMIC CONDITIONS

Regional Economy

City of Murrieta

Commercial and business areas are primarily concentrated along freeways and major streets, while industrial uses are clustered within the South Murrieta Business Corridor (Figure 2.1-2) and the western portion of Murrieta. A large portion of the City of Murrieta's land remains vacant, which presents future development potential. The Loma Linda University Medical Center and the North Murrieta Business Corridor (Figure 2.1-2) are expected to be major economic catalysts for the City of Murrieta by supporting development and providing jobs.

City of Menifee

Menifee is northwest of Murrieta, along the I-215 in southwestern Riverside County. In 2013, 33% of Menifee was developed with residential uses, 1.2% was commercial, and 50.8% was vacant (either undifferentiated or ROW). The remaining 15% included civic/institutional, agriculture, recreation, industrial, and similar (City of Menifee 2018a). The availability of vacant land to develop has enabled the City of Menifee to emphasize residential growth. That, coupled with its location near job centers in Orange, Riverside, San Diego, and Los Angeles,

has made Menifee an attractive place to live. In response to the increases in population, Menifee is also experiencing widespread growth in commercial/retail development.

Riverside County

Riverside County is inhabited largely by people who commute outside of the area for work; it supplies a portion of the labor pool for the Los Angeles-Orange County and the San Diego County metropolitan areas. Job growth in Riverside County is expected to be concentrated in various industry sectors: transportation, trade, utilities; professional and business services; and leisure and hospitality. Currently, the largest job sectors in Riverside County include educational services, retail trade, information, and arts and entertainment. Hospitals and casinos are major employers in Riverside County).

Employment and Income

Census Tracts

The economic characteristics of the Community Impact Study Area are reported by census tract (Tracts 432.78, 432.79, 507.01, and 507.02) and are shown in Table 2.1.6-8. Census Tract 432.78 has the greatest percentage of employed people at 63.8%, and also has a greater per-capita income of $49,068 and median family income of $142,716 compared to the other census tracts. Generally the study area Census tracts have lower unemployment, greater per-capita and median family income compared to City of Murrieta, City of Menifee, Riverside County and the State.

Table 2.1.6-8. 2020 ACS Economic Characteristics

		Census Tract 432.78	Census Tract 432.79	Census Tract 507.01	Census Tract 507.02	City of Menifee	City of Murrieta	Riverside County	California
Labor Force	16 and Over	4,548	4,073	5,856	3,836	72,597	85,862	1,896,972	31,403,964
	Employed (No. of people)	2,903 (63.8%)	2,343 (57.5%)	3,474 (59.3%)	1,764 (46.0%)	37,703 (51.9%)	49,919 (58.1%)	1,050,497 (55.4%)	18,646,894 (59.4%)
	Unemployed (No. of people)	160 (3.5%)	154 (3.8%)	269 (4.6%)	60 (1.6%)	3,007 (4.1%)	3,763 (4.4%)	82,367 (4.3%)	1,229,079 (3.9%)
Per-Capita Income (Annual $)		$49,068	$28,136	$32,102	$38,777	$30,891	$35,487	$29,913	$38,576
Median Family Income (Annual $)		$142,716	$77,083	$118,317	$120,169	$87,466	$99,755	$81,271	$89,798
Unemployment Rate		5.2%	6.2%	7.2%	3.3%	7.4%	7.0%	7.3%	6.2%
% of Families Below the Poverty Level (All Families)		2.2%	11.1%	10.5%	6.6%	5.1%	4.5%	9.4%	9.0%

Source: U.S. Census Bureau n.d.c.

City of Murrieta

The largest employment sectors in Murrieta are in retail trade, local government, and health care. According to *Murrieta General Plan 2035* (City of Murrieta 2020a), its residents are composed of a highly skilled and educated workforce. Because of this, the City of Murrieta has the potential for growth in export base industries, especially within manufacturing, research and development, professional, scientific and technical, information, medical, and finance and insurance sectors. However, approximately 87% of the labor force commutes outside of Murrieta for work.

Jobs in Murrieta are primarily categorized as lower- to medium-skilled and serve the local area, with average wages generally less than those in Southern California (City of Murrieta 2020a). As shown in Table 2.1.6-8, Murrieta has a labor force of 85,862, an employed population of 49,919 (58.1%), and an unemployed population of 3,763 (4.4%). About 4.5% of families in Murrieta live below the poverty level, compared to 9.4% in Riverside County and 9.0% in the state.

Per-capita and median household income in Murrieta are $35,487 and $99,755, respectively, which is slightly greater than Riverside County and the state.

City of Menifee

As shown in Table 2.1.6-8, Menifee has a labor force of 72,597, of which 37,703 (51.9%) are employed and 3,007 (4.1%) are unemployed.

Per-capita and median household incomes in Menifee are $30,891 and $87,466, respectively, which are less than Murrieta, but comparable with Riverside County and the state.

Riverside County

Riverside County's labor force is estimated to be approximately 1,896,972, with 1,050,497 (55.4%) employed and 82,367 (4.3%) unemployed. By 2026, the number of jobs in Riverside County is expected to reach 1,630,000, an increase of 228,200 jobs, for an annual growth rate of 1.6% (Riverside County 2021c).

Business Activity

The Community Impacts Study Area currently includes scattered businesses, but is predominantly undeveloped. The proposed Project site is bordered to the north, between Antelope Road and Mapleton Avenue by the Kaiser Permanente

Murrieta Medical Campus. The Kaiser Permanente Murrieta Medical Campus acts as a major employment center. In addition, the Loma Linda University Medical Center, located approximately 1.0 mile south of Keller Road and 0.10 mile east of the intersection of Antelope Road and Baxter Road, also acts as a major employment center. The area south of Keller Road, within Murrieta, is designated as the North Murrieta Business Corridor Focus Area, zoned as "Office Research Park." This area is a business corridor expected to add 1.7 million sq. ft. of commercial uses and 7.7 million sq. ft. of office and research uses, creating a medical and high technology/office/research employment center (Figure 2.1-2). This area would also include other supporting commercial uses such as restaurants and hotels.

Parcels adjacent to the proposed Project site in the cities of Murrieta and Menifee have general plan and zoning designations that are intended to promote economic development in the area. Parcels to the northwest of the proposed Project site in the City of Menifee are designated as being within an EDC. Surrounding undeveloped parcels also have land use designations for office and research parks, residential, and business parks (Figure 2.1-2).

ENVIRONMENTAL CONSEQUENCES

Temporary Impacts

Alternative 1 (No-Build Alternative)

Under the No-Build Alternative, Keller Road would not be widened, and no new interchange at the I-215/Keller Road would be constructed. No improvements would occur, and the existing condition would remain unchanged. Therefore, the No-Build Alternative would not result in any adverse, temporary impacts on community character and cohesion.

Build Alternatives 2, 3, and 5

Temporary impacts on residents and businesses within the Community Impacts Study Area associated with the proposed Project, include construction equipment noise and emissions, dust, lane and road closures, travel delays, and TCEs.

Temporary construction noise impacts on the community would be minimized in accordance with Caltrans and City of Murrieta noise control requirements, as described in minimization measure NOI-1. Temporary impacts associated with emissions and dust generated by heavy construction equipment would be avoided and minimized in accordance with Caltrans' standard specifications,

which require compliance with all air quality laws and regulations to minimize construction emissions and dust.

Potential construction detours could result in minor travel delays for local residents and patrons within the Community Impacts Study Area; however, access to the community, businesses, and employment centers must be maintained. Minimization measure T-1 would implement a TMP (refer to Section 2.1.9, Traffic and Transportation/ Pedestrian and Bicycle Facilities) during construction and would include measures to safely guide motorists, cyclists, and pedestrians in and around the proposed Project site, and would ensure access is maintained to residences, businesses, community facilities, and services during construction.

Three TCEs are required for each Build Alternative. TCE areas would be restored to their existing condition after construction. Details of the TCE and TMP are discussed in Sections 2.1.7, Relocations, and 2.1.9, Traffic and Transportation/Pedestrian and Bicycle Facilities. The proposed Project would involve transportation-related improvements only, and would not impact the sense of place or identity of the surrounding community.

The use of, and access to, existing community facilities and services would not be adversely affected during proposed Project construction. Construction of the proposed Project would not impact the existing demographics of the surrounding communities, which are composed of a majority population of white, middle-aged individuals. No unusually great concentrations of children or the elderly are present in the Community Impacts Study Area; therefore, construction activities would not disproportionally impact unusually young or elderly communities. There would be no direct or indirect temporary impacts on community character or cohesion. Temporary road closures during proposed Project construction could result in reduced access to businesses and employment centers within the study area. Therefore, no direct or indirect impacts on the economic characteristics of the community would occur.

Permanent Impacts

Alternative 1 (No-Build Alternative)

Under the No-Build Alternative, Keller Road would not be widened, and no new interchange at the I-215/Keller Road would be constructed. No improvements would occur, and the existing condition would remain unchanged. Therefore, the

No-Build Alternative would not result in any adverse, permanent impacts on community character and cohesion.

Build Alternatives 2, 3, and 5

The new on- and off-ramps would change future access to Keller Road within the proposed Project site. The Build Alternatives require the removal of the portion of Antelope Road between Brians Way and Keller Road, and between Keller Road and Mapleton Avenue. Future access to Keller Road in the NB and SB direction would be via the new Keller Road interchange or the existing local street network. Access to properties between Brians Way and Keller Road would be maintained via a new cul-de-sac accessed from Keller Road across from Mapleton Avenue at Warner Lane. The proposed Project would be consistent with the existing transportation-focused land use within the proposed Project site. The proposed Project would improve circulation and vehicular access to existing neighborhoods, community facilities and services in the area, such as local medical facilities/hospitals, parks, schools, and police and fire protection services. Specifically, access to the existing Kaiser Permanente Murrieta Medical Campus would be improved by providing new direct access from the freeway to Keller Road. The proposed Project is included in applicable local and regional plans, and any increased demand for community facilities and services in the Community Impact Study Area is expected to be the result of ongoing future development as envisioned under the City of Murrieta and City of Menifee's General Plans.

The proposed Project would create improved connections and access for existing residential and commercial development, as well as provide improved capacity and connectivity for planned future developments, such as those discussed in Section 2.1.1, Land Use. The new interchange would improve accessibility from the I-215 to the local street network in the cities of Menifee and Murrieta, and could reduce the barrier created by the I-215 by providing enhanced pedestrian and bicycle access within the proposed Project site, including new sidewalks, bike lanes, and street lighting. The improved connection between the existing Mapleton community on the eastern side of the I-215 and the future planned community within the MHSP on the western side of the I-215 would enhance community cohesion and connectivity between future communities on the eastern and western sides of the I-215. Additionally, the widened Keller Road and the new direct connection would reduce travel times to access the freeway for the existing Mapleton community and future developments, and would

improve emergency response times and enable emergency response and evacuation plans to function more efficiently.

Build Alternatives 2 and 3 would require the displacement/relocation of one existing residential property in the southeastern quadrant of the proposed Project. The NB on-ramps for Build Alternatives 2 and 3 would also impact the outbuildings of the Kaiser Permanente Murrieta Medical Campus in the northeastern quadrant of the proposed Project. The main hospital building would not be impacted (refer to Figures 2.1-8 and 2.1-9). Coordination would take place with both the property owner of the residence being impacted and Kaiser Permanente to ensure fair and consistent treatment, and that the hospital operations are not affected, as described in minimization measure REL-1. A summary of the relocation benefits is provided in Appendix C, Summary of Relocation Benefits. Impacts would occur adjacent and parallel to the existing transportation corridor, and would not result in the division of existing neighborhoods, communities, or community-related facilities.

The proposed Project could make the adjacent undeveloped lands more attractive for development, resulting in the potential for an increase in employment opportunities within the Community Impacts Study Area. An increase in employment opportunities may provide some benefits to the Community Impacts Study Area, as the unemployment rate as of 2020 in the City of Menifee and the City of Murrieta was 7.4% and 7.0%, respectively, compared to a rate of 6.2% statewide. The proposed Project would require the Kaiser Permanente Murrieta Medical Campus outbuildings to be relocated as a partial displacement, but would maintain medical operations, under Build Alternatives 2 and 3. The proposed Project would not impede access to businesses or employment centers during operation, and would not result in changes to regional economic sources, such as airports, universities, and recreational areas.

The proposed Project would provide new direct access to Keller Road from the I-215 and would result in improved future access for areas within Murrieta's technology and health corridor, and areas within Menifee's economic corridor. Currently, access to these areas is via the adjacent interchanges at Scott Road to the north of Keller Road, and Clinton Keith Road to the south of Keller Road. The proposed Project would reduce future congestion at the Scott Road and Clinton Keith Road interchanges, and areas west of the I-215 in unincorporated Riverside County and the City of Menifee. Improved direct access at the I-215

and Keller Road could lead to increased business activity in areas served by Keller Road west of the I-215, where transportation infrastructure is less developed.

Overall, the proposed Project would improve circulation and access to existing and future neighborhoods, community facilities, and services in the Community Impacts Study Area, reduce travel times to access the freeway, and improve emergency response times. The proposed Project is within an existing transportation corridor and would not result in a division of neighborhoods, communities, or community-related facilities. Additionally, the proposed Project does not include any residential or commercial development, and has no potential to result in adverse impacts on existing or future community character and cohesion.

AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES

Construction-related minimization measures and BMPs would be implemented to address impacts on the community during construction, as discussed in Sections 2.2.6, Air Quality, and 2.2.7, Noise. Additionally, the implementation of minimization measure T-1, discussed in Section 2.1.9, Traffic and Transportation/Pedestrian and Bicycle Facilities, would reduce impacts on residences, businesses, and employment centers related to access during the construction of the proposed Project. Minimization measures COM-1 and REL-1 would also be implemented to address impacts on affected driveways and potential access issues due to TCEs and parcel acquisitions.

T-1 **Transportation Management Plan.** A qualified traffic engineer will develop a TMP and traffic control plans and applicable specifications during final design. The TMP and traffic control plans would be developed in tandem. The TMP would focus on means to reduce traveler delays and enhance traveler, pedestrian, and cyclist safety during proposed Project construction. Key elements in the TMP include:

- Public information/public awareness campaign
- Motorist information strategies
- Incident management
- Construction strategies

- Demand management
- Alternate route Strategies

Traffic control plans would identify the approach for managing traffic during construction to maximize efficiency and safety. The TMP and traffic control plans will be prepared in coordination with the Cities of Menifee and Murrieta and Riverside County, and will be reviewed and approved by Caltrans, District 8 and incorporated into the PS&E.

COM-1: During final design, modifications to existing driveways shall be included to re-establish access for the parcels affected by a partial acquisition due to the construction of a new roadway improvement.

REL-1 Before final design, Caltrans and the City of Murrieta ensure that all property acquisition will be handled in accordance with the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Uniform Act) (Public Law 91-646, 84 Stat. 1894). The Uniform Act mandates that certain relocation services and payments by the City be made available to eligible residents, businesses, and nonprofit organizations displaced by its projects. The Uniform Act provides for uniform, fair and consistent treatment by federal or federally assisted programs of persons displaced from their homes, businesses, or farms, and establishes uniform, fair and consistent land acquisition policies.

2.1.7 Relocations and Real Property Acquisition

REGULATORY SETTING

The Department's Relocation Assistance Program (RAP) is based on the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended (Uniform Act), and Title 49 Code of Federal Regulations (CFR) Part 24. The purpose of the RAP is to ensure that persons displaced as a result of a transportation project are treated fairly and consistently so that such persons will not suffer disproportionate injuries as a result of projects designed for the benefit of the public as a whole. Please see Appendix C for a summary of the RAP.

All relocation services and benefits are administered without regard to race, color, national origin, persons with disabilities, religion, age, or sex. Please see Appendix B for a copy of the Department's Title VI Policy Statement.

AFFECTED ENVIRONMENT

This section is based on information on relocations and real property acquisitions from the CIA (Caltrans 2024a) prepared for the proposed Project.

Property acquisitions and easements required for the Build Alternatives are all located within the Community Impacts Study Area.

No households or public facilities in the Community Impacts Study Area are known to have special composition that would require special relocation considerations.

ENVIRONMENTAL CONSEQUENCES

Temporary Impacts

Alternative 1 (No-Build Alternative)

Under the No-Build Alternative, the interchange at the I-215 and Keller Road would not be constructed, and no roadway improvements would occur. The No-Build Alternative does not include any improvements to the interchange or local roads in the proposed Project area, and would not require any TCEs.

Build Alternatives 2, 3, and 5

As shown on Figures 2.1-8 through 2.1-10, three TCEs are required for each of the Build Alternatives. The TCE areas would be temporary and would not require any relocations or displacements of residences or businesses. All TCEs required for construction access, mobilization, material laydown, and staging areas would be returned to the property owners in a condition equivalent to the preconstruction staging condition.

Permanent Impacts

Alternative 1 (No-Build Alternative)

Under the No-Build Alternative, no roadway improvements would occur. No relocations or real property acquisitions resulting in the displacement of businesses or residences would occur.

Build Alternatives 2, 3, and 5

Build Alternatives 2 and 3 would require the displacement/relocation of one existing residential building in the southeastern quadrant of the proposed Project (assessor's parcel number [APN] 384-220-003). The NB on-ramp for Build Alternatives 2 and 3 would require a partial displacement of the Kaiser Permanente Murrieta Medical Campus outbuilding. However, the main hospital building would not be impacted. The Kaiser Permanente Murrieta Medical Campus is in the northeastern quadrant of the proposed Project (APNs 388-120-017 and 388-120-019). Refer to Figures 2.1-8 and 2.1-9 for details. Relocations and real property acquisitions vary based on the design of each Build Alternative.

Build Alternative 2: Spread Diamond

The proposed road improvements under Build Alternative 2 would require 1,243,536 sq. ft. (or 28.55 acres) of ROW acquisition, affecting 26 properties. Among these, there would be 23 partial acquisitions and three full parcel acquisitions.

Of the 23 partial acquisitions, seven parcels are identified as having nonresidential uses (light industrial, materials, and vehicle storage), one parcel contains Kaiser Permanente Murrieta Medical Campus and its parking lots, and the remaining parcels are undeveloped areas, as shown in Table 2.1.7-1. These partial acquisitions would be permanently incorporated into either the Caltrans-owned ROW for the I-215 or the City of Murrieta ROW.

The three full acquisitions would include Scenic View Drive (County-owned: no APN), an undeveloped parcel in the northwestern quadrant (APN 384-160-004), and a residential property in the southeastern quadrant (APN 384-220-003) (refer to Figure 2.1-8).

Build Alternative 3: Partial Cloverleaf

Build Alternative 3 would require 1,305,020 sq. ft. (29.96 acres) of ROW acquisition, affecting 25 properties. Among these, there would be 22 partial acquisitions and three full parcel acquisitions.

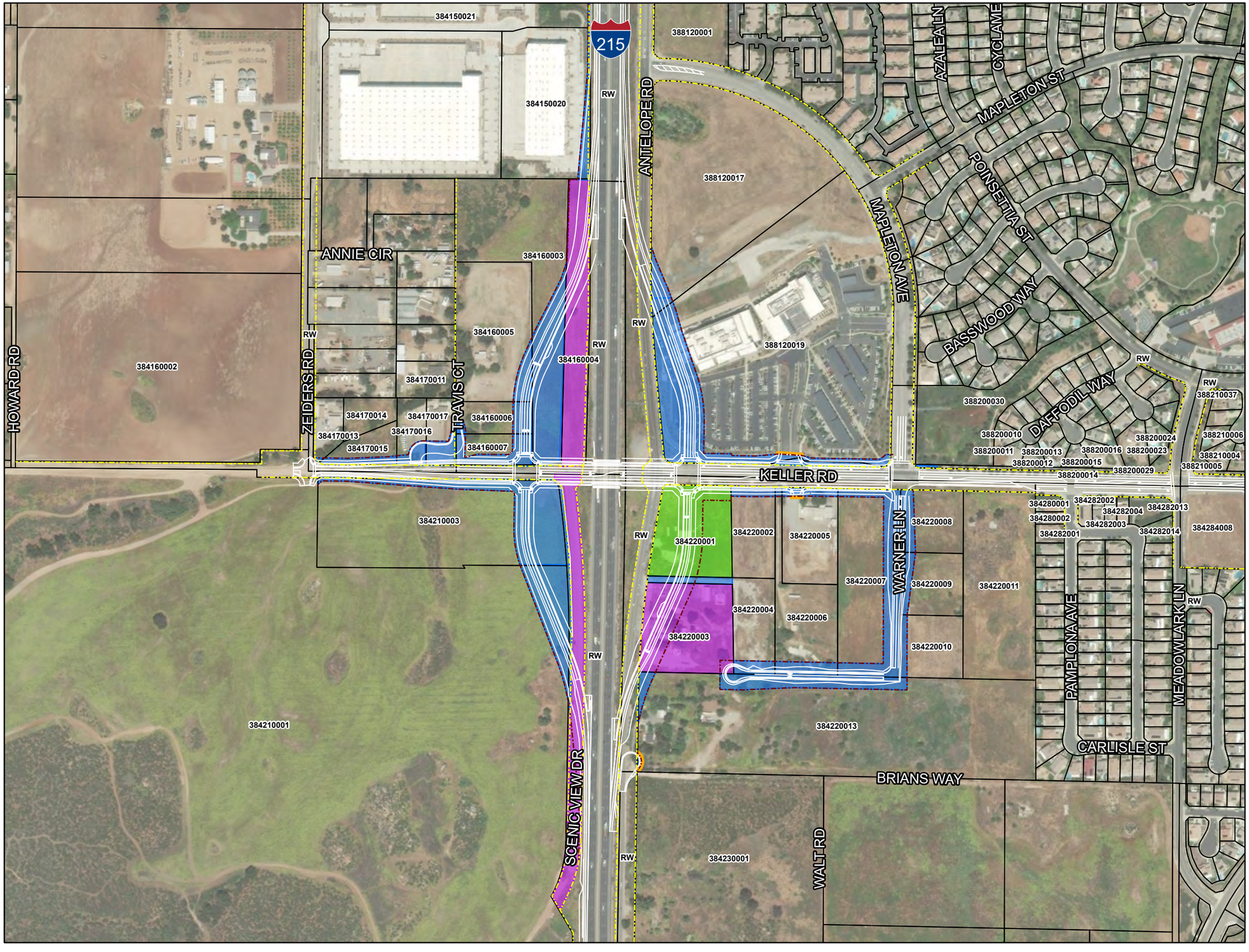
Of the 22 partial acquisitions, seven parcels are identified as having nonresidential uses (light industrial, materials and vehicle storage), one parcel contains Kaiser Permanente Murrieta Medical Campus and parking lots, and the remaining parcels are undeveloped areas, as shown in Table 2.1.7-2. These

partial acquisitions would be permanently incorporated into either the Caltrans-owned ROW for the I-215 or the City of Murrieta ROW.

The three full acquisitions would include Scenic View Drive (County-owned: no APN), an undeveloped parcel in the northwestern quadrant (APN 384-160-004) and a residential property in the southeastern quadrant (APN 384-220-003) (refer to Figure 2.1-9).

Build Alternative 5: Compact Diamond
Build Alternative 5 would require 801,405 sq. ft. (18.39 acres) of ROW acquisition, which would affect 25 properties. Among these, there would be 24 partial acquisitions and one full acquisition, which is Scenic View Drive (County-owned: no APN).

Of the 25 partial acquisitions, seven parcels are identified as having nonresidential uses (light industrial, materials and vehicle storage), one parcel contains Kaiser Permanente Murrieta Medical Campus and parking lots, and the remaining parcels are undeveloped areas, as shown in Table 2.1.7-3.
These partial acquisitions would be permanently incorporated into either the Caltrans-owned ROW for the I-215 or the City of Murrieta ROW (refer to Figure 2.1-10).





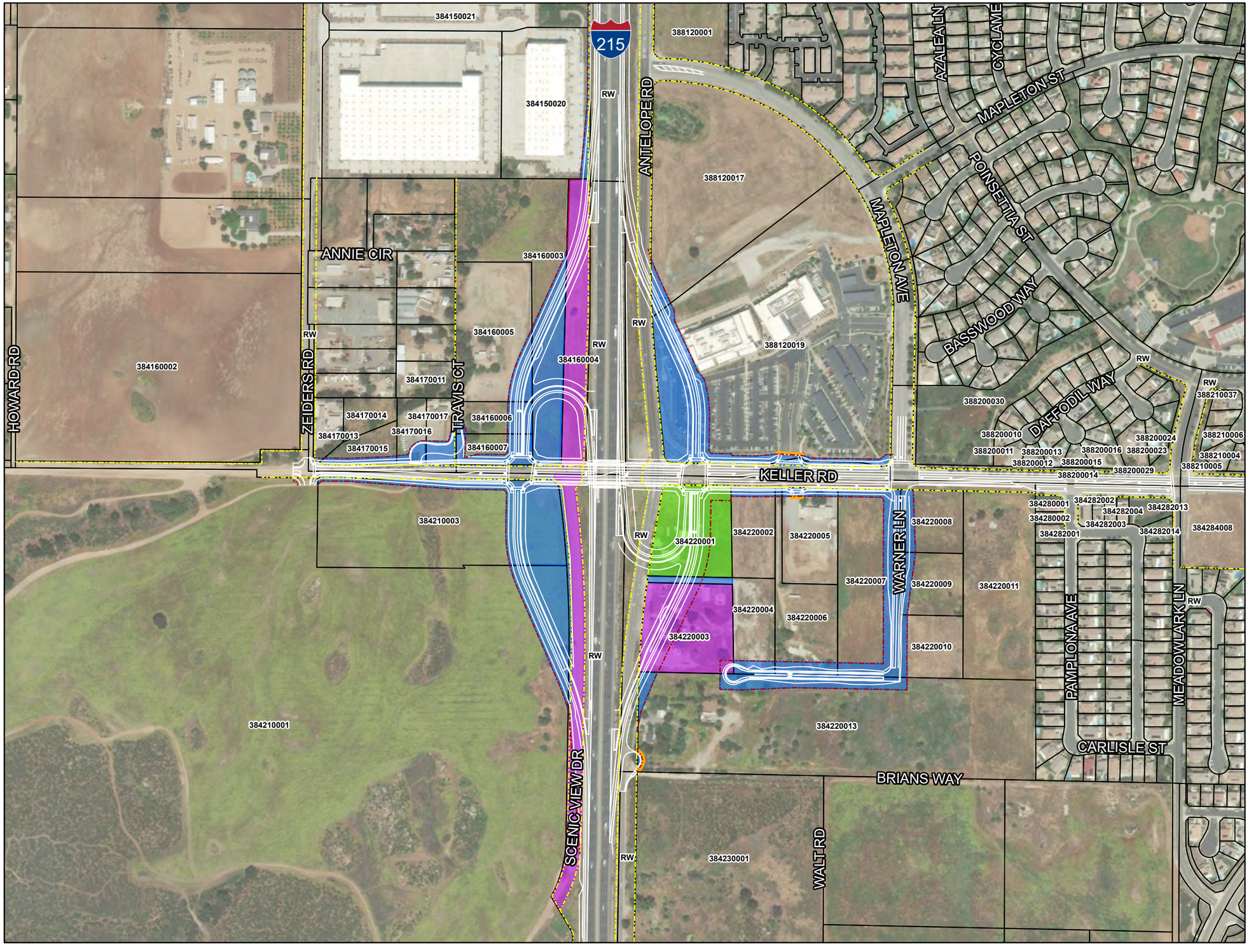
Legend

- Existing Right of Way
- Proposed ROW
- Parcel Boundaries
- City-Owned Property
- Proposed Full Property Acquisition
- Proposed Partial Property Acquisition
- Proposed Temporary Construction Easement

Data Source:
Caltrans
Riverside County GIS

0 200 400 600 800
Feet

Figure 2.1-8
Build Alternative 2
Right of Way Impacts
Spread Diamond Interchange
I-215/Keller Road New Interchange Project
Riverside County, California





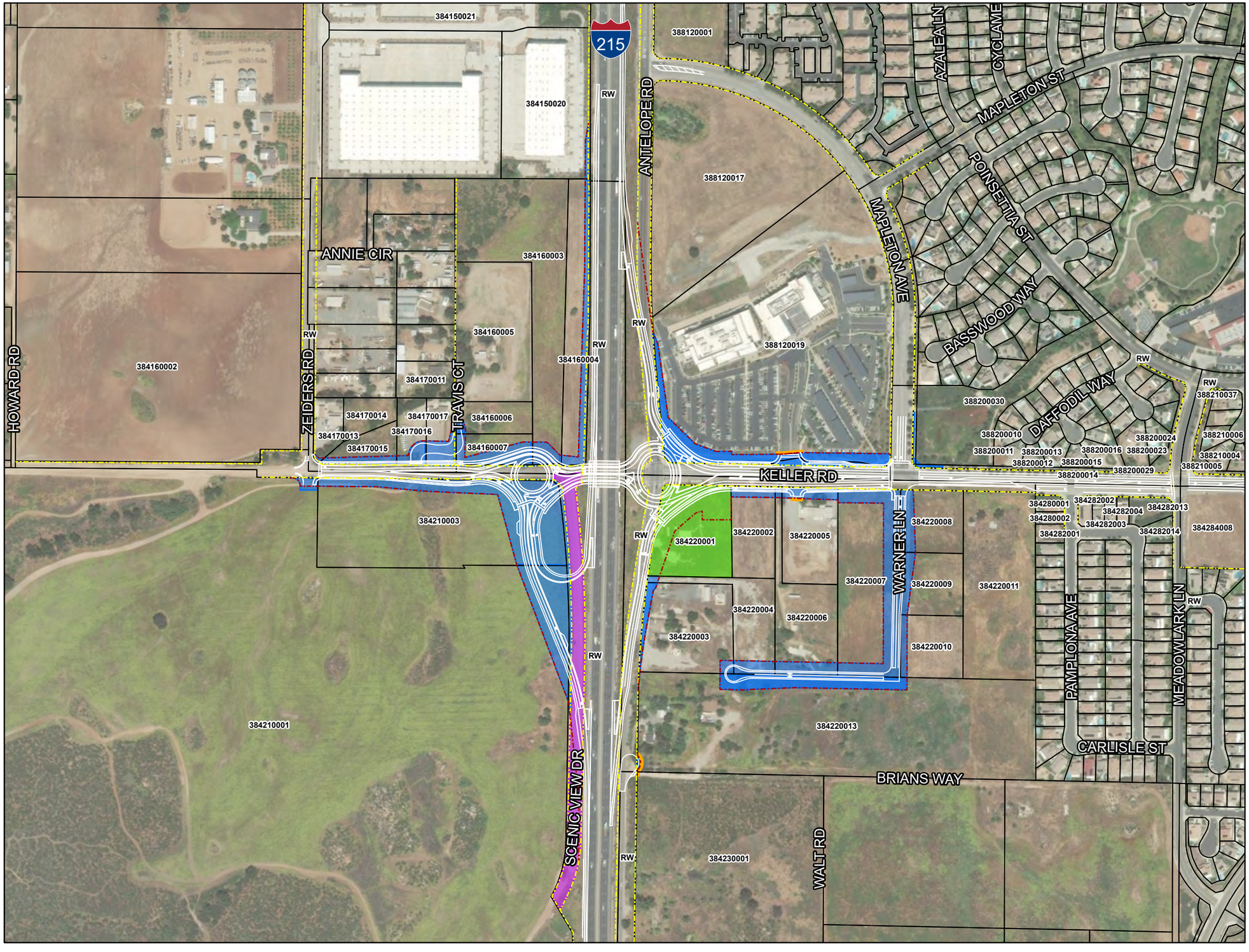
Legend

- Existing Right of Way
- Proposed ROW
- Parcel Boundaries
- City-Owned Property
- Proposed Full Property Acquisition
- Proposed Partial Property Acquisition
- Proposed Temporary Construction Easement

Data Source:
Caltrans
Riverside County GIS

0 200 400 600 800
Feet

Figure 2.1-9
Build Alternative 3
Right of Way Impacts
Partial Cloverleaf Interchange
I-215/Keller Road New Interchange Project
Riverside County, California





Legend

- Existing Right of Way
- Proposed ROW
- Parcel Boundaries
- City-Owned Property
- Proposed Full Property Acquisition
- Proposed Partial Property Acquisition
- Proposed Temporary Construction Easement

Data Source:
Caltrans
Riverside County GIS

0 200 400 600 800
Feet

Figure 2.1-10
Build Alternative 5
Right of Way Impacts
Compact Diamond Interchange
I-215/Keller Road New Interchange Project
Riverside County, California

Table 2.1.7-1. ROW Acquisitions for Build Alternative 2

Item	APN	General Plan Land Use Designation	Existing Conditions	Zoning Designation	ROW Area Required (sq. ft.)	Type of Acquisition
1	384-220-013-7	Office and Research Park	Light industrial and materials storage	Office Research Park	63,883	Partial
2	384-220-003-8	Office and Research Park	Single-Family Residence	Single-Family Dwelling	164,221	Full
3	384-220-004-9	Office and Research Park	Vehicle/materials storage	Office Research Park	17,620	Partial
4	384-220-006-1	Office and Research Park	Rural residential and vehicle storage	Office Research Park	18,175	Partial
5	384-220-007-2	Office and Research Park	Undeveloped	Office Research Park	84,696	Partial
6	384-220-009-4	Single-family Residential	Undeveloped	Office Research Park	13,654	Partial
7	384-220-002-7	Office and Research Park	Vehicle storage	Office Research Park	8,891	Partial
8	384-220-005-0	Office and Research Park	Vehicle storage	Office Research Park	9,835	Partial
9	384-220-008-3	Single-family Residential	Undeveloped	Office Research Park	17,375	Partial
10	388-120-017	Business Park	Kaiser Permanente Murrieta Medical Campus	Office	14,430	Partial
11	388-120-019	Business Park	Kaiser Permanente Murrieta Medical Campus	Office	174,928	Partial
12	384-210-001-5	Murrieta Hills Specific Plan Amendment Area	Undeveloped	Variable[a]	70,121	Partial
13	384-210-003-7	Murrieta Hills Specific Plan Amendment Area	Undeveloped	Variable[a]	116,137	Partial
14	384-170-013-3	EDC	Undeveloped	Industrial Park	438	Partial

Item	APN	General Plan Land Use Designation	Existing Conditions	Zoning Designation	ROW Area Required (sq. ft.)	Type of Acquisition
15	384-170-015-5	EDC	Undeveloped	Industrial Park	10,715	Partial
16	384-170-016-6	EDC	Vehicle/materials storage	Industrial Park	9,785	Partial
17	384-170-017-7	EDC	Vehicle/materials storage	Industrial Park	15,844	Partial
18	384-160-007-7	EDC	Undeveloped	Industrial Park	29,499	Partial
19	384-160-003-3	EDC	Undeveloped	Industrial Park	101,831	Partial
20	384-160-004-4	EDC	Undeveloped	Rural Residential	137,214	Full
21	384-160-006-6	EDC	Undeveloped	Industrial Park	14,541	Partial
22	384-160-005-5	EDC	Undeveloped	Industrial Park	14,811	Partial
23	388-150-020	EDC	Warehouse	Industrial Park	14,931	Partial
24	388-200-029-8	Single-family Residential	Undeveloped	Single-family 2, Residential	1,091	Partial
25	384-220-010-4	Office and Research Park	Undeveloped	Office Research Park	8,453	Partial
26	N/A	N/A	N/A	Scenic View Drive	120,318	Full
				Total	**1,243,536**	

Source: Caltrans 2019d
[a] Land use/zoning data not publicly available within the Murrieta Hills Specific Plan Amendment area.
Notes:
EDC = Economic Development Corridor

Table 2.1.7-2. ROW Acquisitions for Build Alternative 3

Item	APN	General Plan Land Use Designation	Existing Conditions	Zoning Designation	ROW Area Required (sq. ft.)	Type of Acquisition
1	384-220-013-7	Office and Research Park	Light industrial and materials storage	Office Research Park	65,606	Partial
2	384-220-003-8	Office and Research Park	Single-Family Residence	Single-Family Dwelling	164,221	Full
3	384-220-004-9	Office and Research Park	Vehicle/materials storage	Office Research Park	18,504	Partial
4	384-220-006-1	Office and Research Park	Rural residential and vehicle storage	Office Research Park	18,175	Partial
5	384-220-007-2	Office and Research Park	Undeveloped	Office Research Park	84,817	Partial
6	384-220-009-4	Single-family Residential	Undeveloped	Office Research Park	13,654	Partial
7	384-220-002-7	Office and Research Park	Vehicle storage	Office Research Park	8,888	Partial
8	384-220-005-0	Office and Research Park	Vehicle storage	Office Research Park	9,805	Partial
9	384-220-008-3	Single-family Residential	Undeveloped	Office Research Park	17,375	Partial
10	388-120-017	Business Park	Kaiser Permanente Murrieta Medical Campus	Office	9789	Partial
11	388-120-019	Business Park	Kaiser Permanente Murrieta Medical Campus	Office	180,742	Partial
12	384-210-001-5	Murrieta Hills Specific Plan Amendment area	Undeveloped	Variable[a]	94,736	Partial
13	384-210-003-7	Murrieta Hills Specific Plan Amendment area	Undeveloped	Variable[a]	128,790	Partial
14	384-170-013-3	EDC	Undeveloped	Industrial Park	438	Partial

Item	APN	General Plan Land Use Designation	Existing Conditions	Zoning Designation	ROW Area Required (sq. ft.)	Type of Acquisition
15	384-170-015-5	EDC	Undeveloped	Industrial Park	10,716	Partial
16	384-170-016-6	EDC	Vehicle/materials storage	Industrial Park	9,781	Partial
17	384-170-017-7	EDC	Vehicle/materials storage	Industrial Park	15,840	Partial
18	384-160-007-7	EDC	Undeveloped	Industrial Park	31,638	Partial
19	384-160-003-3	EDC	Undeveloped	Industrial Park	110,060	Partial
20	384-160-004-4	EDC	Undeveloped	Rural Residential	137,214	Full
21	384-160-006-6	EDC	Undeveloped	Industrial Park	18,004	Partial
22	384-160-005-5	EDC	Undeveloped	Industrial Park	21,044	Partial
23	384-150-020	EDC	Warehouse	Industrial Park	10,025	Partial
24	384-220-010-4	Office and Research Park	Undeveloped	Office Research Park	8,441	Partial
25	N/A	N/A	N/A	Scenic View Drive	120,318	Full
				Total	**1,305,020**	

Source: Caltrans 2019d

[a] Land use/zoning data not publicly available within the Murrieta Hills Specific Plan Amendment area.

Table 2.1.7-3. ROW Acquisitions for Build Alternative 5

Item	APN	General Plan Land Use Designation	Existing Conditions	Zoning Designation	ROW Area Required (sq. ft.)	Type of Acquisition
1	384-220-013-7	Office and Research Park	Light industrial and materials storage	Office Research Park	51,689	Partial
2	384-220-003-8	Office and Research Park	Single-Family Residence	Single-Family Dwelling	10,979	Partial
3	384-220-004-9	Office and Research Park	Vehicle/materials storage	Office Research Park	12,476	Partial
4	384-220-006-1	Office and Research Park	Rural residential and vehicle storage	Office Research Park	18,344	Partial
5	384-220-007-2	Office and Research Park	Undeveloped	Office Research Park	90,298	Partial
6	384-220-009-4	Single-Family Residential	Undeveloped	Office Research Park	13,654	Partial
7	384-220-002-7	Office and Research Park	Vehicle storage	Office Research Park	9,551	Partial
8	384-220-005-0	Office and Research Park	Vehicle storage	Office Research Park	12,709	Partial
9	384-220-008-3	Single-family Residential	Undeveloped	Office Research Park	17,375	Partial
10	388-200-030-8	Single-family Residential	Undeveloped	Single-family 2, Residential	240	Partial
11	388-120-019	Business Park	Kaiser Permanente Murrieta Medical Campus	Office	88,718	Partial
12	384-210-001-5	Murrieta Hills Specific Plan Amendment Area	Undeveloped	Variable[a]	83,822	Partial
13	384-210-003-7	Murrieta Hills Specific Plan Amendment Area	Undeveloped	Variable[a]	144,014	Partial
14	384-170-013-3	EDC	Undeveloped	Industrial Park	581	Partial

Item	APN	General Plan Land Use Designation	Existing Conditions	Zoning Designation	ROW Area Required (sq. ft.)	Type of Acquisition
15	384-170-015-5	EDC	Undeveloped	Industrial Park	11,727	Partial
16	384-170-016-6	EDC	Vehicle/materials storage	Industrial Park	9,667	Partial
17	384-170-017-7	EDC	Vehicle/materials storage	Industrial Park	15,844	Partial
18	384-160-007-7	EDC	Undeveloped	Industrial Park	29,688	Partial
19	384-160-003-3	EDC	Undeveloped	Industrial Park	11,978	Partial
20	384-160-004-4	EDC	Undeveloped	Rural Residential	30,771	Partial
21	384-160-006-6	EDC	Undeveloped	Industrial Park	2,686	Partial
22	384-150-020	EDC	Warehouse	Industrial Park	2,735	Partial
23	384-220-010-4	Office and Research Park	Undeveloped	Office Research Park	8,441	Partial
24	388-200-029-8	Single-family Residential	Undeveloped	Single-family 2, Residential	3,098	Partial
25	N/A	N/A	N/A	Scenic View Drive	120,318	Full
				Total	**801,405**	

Source: Caltrans 2019d

[a] Land use/zoning data not publicly available within the Murrieta Hills Specific Plan Amendment area.

AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES

As described, the implementation of Build Alternatives 2, 3, and 5 would require the partial and full acquisition of several parcels in the proposed Project area for new ROW, including one single-family residence and the outbuildings of Kaiser Permanente Murrieta Medical Campus (Alternatives 2 and 3). Acquisitions and compensation to property owners would occur consistent with the Uniform Relocation Act, as amended. Minimization measure REL-1, described as follows, would be implemented to minimize impacts associated with the proposed acquisitions and to ensure no disruptions of hospital operations.

REL-1 Before final design, Caltrans and the City of Murrieta will ensure that all property acquisition will be handled in accordance with the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Uniform Act) (Public Law 91-646, 84 Stat. 1894). The Uniform Act mandates that certain relocation services and payments by the City of Murrieta be made available to eligible residents, businesses, and nonprofit organizations displaced by its projects. The Uniform Act provides for uniform, fair and consistent treatment by federal or federally assisted programs of persons displaced from their homes, businesses, or farms, and establishes uniform, fair and consistent land acquisition policies.

2.1.8 Utilities/Emergency Services

AFFECTED ENVIRONMENT

This section is based on information from the CIA (Caltrans 2024a) and the *Project Report* (Caltrans TBD). The study area for utilities and emergency services extends 0.5 mile from the proposed Project site.

Utilities

The following utility providers are located in the study area:

- AT&T
- Charter Communications (Charter)
- Crown Castle
- EMWD
- Frontier Communications
- Southern California Gas (SoCal Gas)
- Southern California Edison (SCE)

Fire Protection and Emergency Services

The City of Murrieta contracts with Murrieta Fire and Rescue for fire protection services. Murrieta Fire and Rescue Station 4 is just south of the proposed Project site, on Baxter Road. This station covers 4.4 square miles and responds to approximately 12% of the department's call volume (City of Murrieta 2018a). Riverside County Fire Department and the California Department of Forestry and Fire Protection (CAL FIRE) provide fire protection services for the City of Menifee and unincorporated Riverside County. Station 68, served by Battalion 13, is in Menifee, just northwest of the proposed Project area on Murrieta Road. Battalion 13's primary responsibility area includes 42 square miles, including the City of Menifee and County areas adjacent to the proposed Project (City of Menifee 2013a Safety Element).

The closest hospital/medical center to the proposed Project is the Kaiser Permanente Murrieta Medical Campus, which is approximately 0.12 mile east of the Antelope Road/Keller Road intersection. Additionally, the Loma Linda University Medical Center-Murrieta is approximately 1.0 mile south of Keller Road, 0.1 mile east of the intersection of Antelope and Baxter Roads.

Law Enforcement

The City Police Department operates out of a central police department headquarters, which is at 2 Town Square, approximately 5.3 miles southwest of the proposed Project site (City of Murrieta 2018b). The Menifee Police Department provides police services for the City of Menifee, and the Riverside County Sheriff's Department provides police services for unincorporated portions of Riverside County (City of Menifee 2024). The CHP has jurisdiction on freeways in the State of California, including the I-215.

ENVIRONMENTAL CONSEQUENCES

Temporary Impacts

Alternative 1 (No-Build Alternative)

Under the No-Build Alternative, the interchange at the I-215 and Keller Road would not be constructed. No utility relocations would be required, and no impacts on emergency services would occur. Therefore, no temporary adverse effects on utilities or emergency services would occur.

Build Alternatives 2, 3, and 5

Utilities in the study area, including gas, water, electricity, cable, and telecom services, are located within the Caltrans ROW adjacent to the northbound (NB)

I-215 on the eastern side. The majority of utilities requiring relocation would be relocated to a proposed utility corridor easement paralleling the I-215 NB off-ramp.

The utility facilities that could potentially be affected during the construction of the Build Alternatives are listed in Table 2.1.8-1. The construction of the Build Alternatives would require the relocation of existing overhead power lines running east-west above the northern end of the bridge and two existing water lines (12-inch and 30-inch) running east-west along the southern portion of Keller Road. Additionally, SoCal Gas, EMWD, AT&T, and Charter are currently located within Caltrans ROW, and would require relocation to a proposed utility corridor located outside the Caltrans ROW.

Table 2.1.9-1. Potential Utility Relocations Required Under Build Alternatives 2, 3, and 5

Facility	Owner
Gas	SoCal Gas
Water	EMWD
Electric	SCE Distribution
Communications	Time Warner Cable/Charter/Spectrum
Communications	Frontier Communications
Communications	AT&T
Communications	Crown Castle

Source: Keller Road Right-of-Way Data Sheets (2025) and Utility As-builts (2018).

The construction of the Build Alternatives may result in temporary interruptions in utility service. Before utility relocation, coordination would take place with affected utility providers, and affected utility users would be informed in advance regarding the dates and timing of potential service disruptions. Interruptions in utility service would be temporary and would occur only during the proposed Project's construction phase. Utility agreements would be required for the utilities listed in Table 2.8-1. During final design, an updated utility search would be conducted to verify the locations of all utility facilities requiring relocation.

During the construction of the Build Alternatives, the potential temporary closure of lanes or streets, or the implementation of temporary detours could decrease speeds in the proposed Project area or may result in a need for altered emergency vehicle routes for emergency services such as fire and police

response. The implementation of minimization measure T-1, discussed in detail in Section 2.1.9, requires the preparation of a TMP in coordination with the Cities of Menifee and Murrieta, Riverside County, and emergency service providers. The implementation of the TMP would ensure that appropriate access was provided for all community services and emergency services to ensure emergency vehicle access was not impaired.

With the implementation of the TMP, temporary construction impacts would not substantially affect emergency access.

Permanent Impacts

Alternative 1 (No-Build Alternative)

Under the No-Build Alternative, the interchange at the I-215 and Keller Road would not be constructed. No utility relocations would be required. However, the No-Build Alternative would not improve circulation in the study area, which could adversely affect emergency service providers' response times in the study area.

Build Alternatives 2, 3, and 5

All impacts to utilities are anticipated to occur during proposed Project construction. Utility owners would be responsible for any long-term maintenance activities after construction. Additionally, the Build Alternatives would not increase the need for domestic water services, wastewater facilities, or solid waste disposal. No substantial long-term impacts associated with utilities are anticipated, and the Build Alternatives are not expected to result in permanent adverse effects on utility providers or their facilities.

The implementation of the proposed Project would improve circulation in the proposed Project area, consequently improving emergency vehicle access. Additionally, the implementation of Emergency Vehicle Preemption systems would prioritize emergency vehicles by giving them green time priority at traffic signals improving response times and enhancing safety. Access to the existing Kaiser Permanente Murrieta Medical Campus and Loma Linda University Medical Center would also be improved. The implementation of the proposed Project is not expected to substantially increase demand for any emergency services outside of what is currently envisioned under the general plans for the Cities of Murrieta and Menifee, and for Riverside County (City of Murrieta 2020a; City of Menifee 2013a; Riverside County 2020).

AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES

The implementation of measure T-1, discussed in detail in Section 2.1.9, Traffic and Transportation/Pedestrian and Bicycle Facilities, would ensure that the proposed Project would not substantially affect traffic, circulation, and access during the temporary construction period. No further measures are required to avoid and minimize temporary construction impacts related to utilities and emergency services.

T-1 **Transportation Management Plan**. A qualified traffic engineer will develop a TMP and traffic control plans and applicable specifications during final design. The TMP and traffic control plans would be developed in tandem. The TMP would focus on means to reduce traveler delays and enhance traveler, pedestrian, and cyclist safety during proposed Project construction. Key elements in the TMP include:

- Public information/public awareness campaign
- Motorist information strategies
- Incident management
- Construction strategies
- Demand management
- Alternate route Strategies

Traffic control plans would identify the approach for managing traffic during construction to maximize efficiency and safety. The TMP and traffic control plans will be prepared in coordination with the Cities of Menifee, Murrieta and Riverside County, and will be reviewed and approved by Caltrans, District 8 and incorporated into the plans, specifications, and estimates (PS&E).

2.1.9 Traffic and Transportation/Pedestrian and Bicycle Facilities

REGULATORY SETTING

Federal Transportation Improvement Program

The FTIP is a 6-year program mandated by the federal government for all surface transportation projects that receive federal funding or are subject to a federally required action. The most recent adopted FTIP is the SCAG 2025 FTIP, which includes a comprehensive list of approximately 2,000 transportation projects (totaling over $35.9 billion in funding) proposed over a 6-year period for the SCAG region. The FTIP also includes information about the specific funding

sources and fund amounts for each project. Projects in the FTIP include highway improvements, transit, rail and bus facilities, managed lanes (such as HOV lanes and high-occupancy toll lanes), signal synchronization, intersection improvements, freeway ramps, and nonmotorized projects. The proposed Project is included in the current FTIP as RIV100107.

SCAG Regional Transportation Plan/Sustainable Communities Strategy

The MPO responsible for the preparation of RTPs is SCAG. The RTP/SCS is developed, maintained, and updated by SCAG. The RTP/SCS is a long-term (minimum of 20 years) transportation blueprint that outlines a long-range strategy to meet mobility, financial, and air quality requirements.

The proposed new interchange at Keller Road is included as 3M10WT03 in SCAG's 2024 RTP/SCS for 2024-2050 (known as Connect SoCal), which was approved by the SCAG Regional Council in April 2024 (SCAG 2024b).

Riverside County General Plan Circulation Element

The *Riverside County General Plan* Circulation Element was last updated in 2020. It provides a transportation framework that connects the cities and unincorporated areas within Riverside County. The *General Plan* roadway network defines the ROW dedications and capacity requirements needed to support the buildout of proposed *General Plan* land uses (Riverside County 2020).

City of Murrieta General Plan Circulation Element

The City of Murrieta's *2035 General Plan* was updated on July 7, 2020, and represents the City of Murrieta's overall transportation plan to accommodate movement of people and goods. The City Murrieta's *General Plan* Circulation Element establishes goals and policies to achieve a balanced transportation system that adequately serves the growth and development anticipated in the Land Use Element. Specifically, the Circulation Element includes Policy CIR-5.5, which states a goal to "actively pursue the construction of a new east-west corridor and interchange at Keller Road in cooperation with Caltrans, Riverside County, and local developers" (City of Murrieta 2013).

City of Menifee General Plan Circulation Element

The City of Menifee *General Plan* Circulation Element outlines policies and goals to achieve an interconnected circulation system within Menifee while maintaining quality of life (City of Menifee 2013a). It ensures the City of Menifee's circulation

system is planned while considering future land use patterns and levels of buildout to ensure connectivity between neighborhoods and economic development districts. The Circulation Element emphasizes network connectivity, operational balance, emissions reduction/energy efficiency, pedestrian and bicycle accommodations, transit readiness, neighborhood electric vehicle/golf cart provisions, and quality public space (City of Menifee 2013a).

AFFECTED ENVIRONMENT

This section is primarily based on the *Growth-Related Indirect Impacts Study* (Caltrans 2024b), *Traffic Operations Analysis* (Caltrans 2018a), and *Volume Development Report* (Caltrans 2016b).

The existing proposed Project area includes freeway segments, interchange ramps, ramp terminus intersections, and arterial intersections in the vicinity of the I-215, from Scott Road in the north to Clinton Keith Road in the south. The existing and future intersections in the proposed Project area include the following:

- Zeiders Road-Haun Road/Scott Road
- Bailey Park Boulevard/Scott Road
- I-215 SB ramps/Scott Road
- I-215 NB ramps /Scott Road
- Antelope Road/Scott Road
- Menifee Road/Scott Road
- Zeiders Road/Keller Road
- Scenic View Drive/Keller Road
- Antelope Road/Keller Road
- Mapleton Avenue/Keller Road
- Menifee Road-Whitewood Road/Keller Road
- Antelope Road/Baxter Road
- McElwain Road/Clinton Keith Road
- I-215 SB ramps/Clinton Keith Road
- I-215 NB ramps/Clinton Keith Road
- Vista Murrieta High School Driveway/Clinton Keith Road
- Whitewood Road/Clinton Keith Road
- Antelope Road/Clinton Keith Road (future conditions intersection)
- I-215 SB ramps/Keller Road (future build conditions intersection)
- I-215 NB ramps/Keller Road (future build conditions intersection)

- Kaiser Permanente Driveway/Keller Road (future conditions intersection)
- Meadowlark Lane-Gladiolus Avenue/Keller Road

The existing I-215 freeway within the proposed Project area consists of six 12-foot lanes, a 22-foot median, and standard outside shoulders. Existing Keller Road is a two-lane undercrossing with no direct connections to the freeway. West of Antelope Road, Keller Road is a two-lane paved roadway with no curb and gutter, or sidewalk. East of Antelope Road, Keller Road is a two-lane paved roadway with dedicated left- and right-turn lanes onto Antelope Road. This roadway section includes curb, gutter, and sidewalk on the northern side of Keller Road. The Keller Road/Antelope Road intersection is signalized and includes ADA-compliant curb returns. Currently, there are limited facilities for bicycle circulation and pedestrian facilities within the proposed Project area. There are locations without sidewalks and areas where existing sidewalks and bicycle lanes are discontinuous.

The proposed Project would construct a new full interchange at Keller Road. The Keller Road interchange would be located 2.0 miles north of the Clinton Keith Road overcrossing and 1.0 mile south of the Scott Road overcrossing. The proposed Project also includes widening or striping along Keller Road, between Zeiders Road to the west and Whitewood/Menifee Road to the east. Four alternatives, including the No-Build Alternative, have been identified for further consideration. Build Alternative 2 (Spread Diamond Interchange) and Build Alternative 3 (Partial Cloverleaf Interchange) include signalized intersections at the I-215/Keller Road interchange. The fourth alternative, which is Build Alternative 5, includes roundabout intersections at the proposed intersection. Build Alternatives 2, 3, and 5 include construction of standard sidewalks and curb returns along Keller Road. Painted bicycle lanes would be constructed in each direction along Keller Road.

The traffic study for the proposed Project satisfies FHWA and Caltrans requirements, which require that the study provide traffic forecasts covering a horizon of 20 years beyond the proposed Project opening, extending to 2047. The study thus presents traffic volumes and LOS in the vicinity of the proposed interchange for each of the alternatives, including the No-Build Alternative, considering both the analyzed opening year of 2027 and the design year of 2047. For this proposed Project, long-range traffic forecasts were generated using the City of Murrieta travel demand model, which was developed as a focused model of the Riverside County Transportation Analysis Model (RIVTAM). The City of

Murrieta model was updated to include all projects listed in the SCAG "Modeling List" from the 2012 RTP, for the relevant analysis years.

Intersection LOS was analyzed using the *Highway Capacity Manual* (HCM) 2010 operations methodology, with parameters and criteria specified in the *Traffic Impact Analysis Preparation Guide*, as outlined by Riverside County Transportation Department. LOS was analyzed using Synchro software (Caltrans 2018a). Within each scenario, network cycle lengths and splits were optimized as part of coordinated east/west signal corridors (Scott Road, Keller Road, and Clinton Keith Road). As a result, some intersections may show lower average vehicle delays in one scenario than another, though volumes may be similar, because of changes in signal timing related to adjacent intersections.

Table 2.1.9-1 presents the delay associated with each LOS grade, as well as a qualitative description of intersection operations at that grade, for both signalized and unsignalized intersections.

Table 2.1.9-1. Intersection Level of Service Definitions

LOS	Description	Signalized Intersection Delay (seconds per vehicle)	Unsignalized Intersection Delay (seconds per vehicle)
A	Excellent operation. All approaches to the intersection appear quite open, turning movements are easily made, and nearly all drivers find freedom of operation.	≤ 10	≤ 10
B	Very good operation. Many drivers begin to feel somewhat restricted within platoons of vehicles. This represents stable flow. An approach to an intersection may occasionally be fully utilized and traffic queues start to form.	> 10 and ≤ 20	> 10 and ≤ 15
C	Good operation. Occasionally drivers may have to wait more than 60 seconds, and backups may develop behind turning vehicles. Most drivers feel somewhat restricted.	> 20 and ≤ 35	> 15 and ≤ 25
D	Fair operation. Cars are sometimes required to wait more than 60 seconds during short peaks. There are no long-standing traffic queues.	> 35 and ≤ 55	> 25 and ≤ 35

LOS	Description	Signalized Intersection Delay (seconds per vehicle)	Unsignalized Intersection Delay (seconds per vehicle)
E	Poor operation. Some long-standing vehicular queues develop on critical approaches to intersections. Delays may be up to several minutes.	> 55 and ≤ 80	> 35 and ≤ 50
F	Forced flow. Represents jammed conditions. Backups form locations downstream or on the cross street may restrict or prevent movement of vehicles out of the intersection approach lanes; therefore, volumes carried are not predictable. Potential for stop-and-go type traffic flow.	> 80	> 50

Source: Transportation Research Board 2010
Notes:
> = greater than
≤ = less than or equal to

With Build Alternative 5, the I-215/Keller Road interchange ramp terminus intersections are proposed to be roundabouts. Based on coordination with Caltrans, Rodel software was used to analyze the traffic operations for the roundabout intersections in this alternative. Within the Rodel program, the HCM 2010 methodology was applied per Caltrans' direction. Table 2.1.9-2 presents the range of delays associated with each LOS letter grade for roundabout intersections using the HCM methodology.

Table 2.1.9-2. Roundabout Intersection Level of Service Delay Ranges

LOS	Roundabout Delay (seconds per vehicle)
A	≤ 10
B	> 10 and ≤ 15
C	> 15 and ≤ 25
D	> 25 and ≤ 35
E	> 35 and ≤ 50
F	> 50

Source: Transportation Research Board 2010

Table 2.1.9-3 presents the density, in terms of passenger cars per mile per lane, associated with each LOS grade for freeway ramps and segments. Caltrans does not maintain specific LOS requirements, but its *Guide for the Preparation of Traffic Studies* states it "endeavor[s] to maintain a target LOS at the transition

between LOS C and LOS D". For this analysis, the proposed Project area includes all freeway segments and ramps in the vicinity of Scott Road, Clinton Keith Road, and Keller Road (Caltrans 2002).

Table 2.1.9-3. Freeway Level of Service Definitions

LOS	Basic Freeway Segments Density (pc/mile/lane)	Freeway Ramp Merge/Diverge Areas Density (pc/mile/lane)
A	≤ 11	≤ 10
B	> 11 and ≤ 18	> 10 and ≤ 20
C	> 18 and ≤ 26	> 20 and ≤ 28
D	> 26 and ≤ 35	> 28 and ≤ 35
E	> 35 and ≤ 45	> 35
F	> 45	Demand exceeds capacity

Source: Caltrans 2018a
Notes:
pc/mile/lane = vehicle(s) per mile per lane

Existing and Future Traffic Forecast Conditions

Table 2.1.9-4 summarizes the existing baseline (2018), analyzed opening year (2027), and design year (2047) traffic volumes for the I-215/Keller Road interchange. The 2027 and 2047 Build Alternative forecasts are the same for all three Build Alternatives.

Table 2.1.9-4. Existing Baseline (2018) and Future Freeway Mainline and Ramp Volumes

Facility	Peak Hour	Existing Baseline (2018)	Year 2027 No-Build Alternative	Analyzed Opening Year 2027 Build Alternative	Year 2047 No-Build Alternative	Year 2047 Build Alternative
I-215 SB						
Freeway Mainline north of Scott Road	a.m.	3,590	3,800	3,875	4,865	4,965
	p.m.	2,774	2,850	2,960	3,235	3,580
Scott Road direct off-ramp	a.m.	371	445	385	610	530
	p.m.	592	715	575	970	845
Scott Road loop on-ramp	a.m.	-	480	420	655	570
	p.m.	-	585	470	795	690
	a.m.	864	565	490	765	665

Facility	Peak Hour	Existing Baseline (2018)	Year 2027 No-Build Alternative	Analyzed Opening Year 2027 Build Alternative	Year 2047 No-Build Alternative	Year 2047 Build Alternative
Scott Road direct on-ramp	p.m.	798	380	305	515	450
Freeway mainline between Scott Road and Keller Road	a.m.	-	-	4,400	-	5,670
	p.m.	-	-	3,160	-	3,875
Keller Road direct off-ramp	a.m.	-	-	985	-	1,385
	p.m.	-	-	705	-	1,005
Keller Road direct on-ramp	a.m.	-	-	285	-	400
	p.m.	-	-	695	-	995
Freeway mainline between Keller Road and Clinton Keith Road	a.m.	-	-	3,700	-	4,685
	p.m.	-	-	3,150	-	3,865
Freeway mainline between Scott Road and Clinton Keith Road	a.m.	4,083	4,400	-	5,675	-
	p.m.	2,979	3,100	-	3,575	-
Clinton Keith Road direct off-ramp	a.m.	498	600	550	1,605	1,430
	p.m.	623	750	620	1,325	1,180
Clinton Keith Road loop on-ramp	a.m.	-	295	260	425	380
	p.m.	-	145	120	675	600
Clinton Keith Road direct on-ramp	a.m.	829	700	625	1,030	915
	p.m.	532	495	410	725	645
Freeway Mainline south of Clinton Keith Road	a.m.	4,414	4,795	4,035	5,525	4,550
	p.m.	2,888	2,990	3,060	3,650	3,930
I-215 NB						
Freeway Mainline south of Clinton Keith Road	a.m.	2,969	3,075	3,390	3,365	4,050
	p.m.	4,006	4,360	4,460	5,060	5,555
Clinton Keith Road direct off-ramp	a.m.	629	760	675	1,515	1,345
	p.m.	767	925	770	1,585	1,410
Clinton Keith Road loop on-ramp	a.m.	-	725	645	1,140	1,015
	p.m.	-	525	435	1,080	960

Facility	Peak Hour	Existing Baseline (2018)	Year 2027 No-Build Alternative	Analyzed Opening Year 2027 Build Alternative	Year 2047 No-Build Alternative	Year 2047 Build Alternative
Clinton Keith Road direct on-ramp	a.m.	698	120	105	655	585
	p.m.	467	40	35	630	560
Freeway mainline between Clinton Keith Road and Keller Road	a.m.	-	-	3,465	-	4,275
	p.m.	-	-	4,160	-	5,665
Keller Road direct off-ramp	a.m.	-	-	725	-	1,020
	p.m.	-	-	750	-	1,070
Keller Road direct on-ramp	a.m.	-	-	495	-	695
	p.m.	-	-	660	-	940
Freeway mainline between Keller Road and Scott Road	a.m.	-	-	3,220	-	3,950
	p.m.	-	-	4,070	-	5,535
Freeway mainline between Clinton Keith Road and Scott Road	a.m.	3,038	3,160	-	3,645	-
	p.m.	3,706	4,000	-	5,185	-
Scott Road direct off-ramp	a.m.	804	475	415	650	565
	p.m.	782	435	350	590	515
Scott Road loop off-ramp	a.m.	-	495	430	670	585
	p.m.	-	510	410	695	605
Scott Road direct on-ramp	a.m.	679	825	715	1,115	970
	p.m.	586	710	570	960	835
Freeway mainline north of Scott Road	a.m.	2,913	3,015	3,090	3,440	3,770
	p.m.	3,510	3,765	3,880	4,860	5,250

Source: Caltrans 2018a

Existing Baseline (2018) Conditions

Table 2.1.9-5 summarizes the existing baseline a.m. and p.m. peak hour average delays per vehicle and corresponding LOS of the study intersections.

Table 2.1.9-5. Existing Baseline (2018) Peak Hour Intersection LOS Summary

Intersection	Traffic Control	a.m. Peak Hour		p.m. Peak Hour	
		Delay (sec)	LOS	Delay (sec)	LOS
1. Zeiders Road-Haun Road/Scott Road	Signal	67.6	E	36.9	D
2. Bailey Park Road/Scott Road	Stop-control	21.0	C	16.0	C
3. I-215 SB ramps/Scott Road	Signal	48.6	D	47.0	D
4. I-215 NB ramps/Scott Road	Signal	44.1	D	30.9	C
5. Antelope Road/Scott Road	Signal	80.0	E	55.1	E
6. Menifee Road/Scott Road	Signal	40.7	D	34.0	C
7. Zeiders Road/Keller Road	Stop-control	9.0	A	8.8	A
8. Scenic View Drive/Keller Road	Stop-control	8.6	A	0.0	A
9. Antelope Road/Keller Road	Signal	41.9	D	25.6	C
10. Mapleton Avenue/Keller Road	Stop-control	10.3	B	11.1	B
11. Whitewood Road/Keller Road	Stop-control	10.3	B	8.2	A
12. Antelope Road/Baxter Road	Signal	9.4	A	30.3	C
13. McElwain Road/Clinton Keith Road	Signal	16.6	B	20.7	C
14. I-215 SB ramps/Clinton Keith Road	Signal	11.6	B	8.6	A
15. I-215 NB ramps/Clinton Keith Road	Signal	17.4	B	17.6	B
16. Vista Murrieta High School Driveway/Clinton Keith Road	Signal	31.8	C	28.5	C
17. Whitewood Road/Clinton Keith Road	Signal	33.8	C	34.7	C
22. Meadowlark Lane-Gladiolus Avenue/Keller Road	Stop-control	14.8	B	7.9	A

Source: Caltrans 2018a
Notes:
Delay = average vehicle delay (seconds)
sec = second(s)

As Table 2.1.9-5 shows, the following intersections are operating at LOS E or worse in the 2018 existing baseline scenario:

- Zeiders Road-Haun Road/Scott Road (a.m. peak hour)
- Antelope Road/Scott Road (a.m. and p.m. peak hours)

Table 2.1.9-6 summarizes the existing baseline peak hour LOS on the freeway ramps.

Table 2.1.9-6. Existing Baseline (2018) Peak Hour Ramp Merge/Diverge LOS Summary

Ramp Merge/Diverge	a.m. Peak Hour		p.m. Peak Hour	
	Density (veh/hr/ln)	LOS	Density (veh/hr/ln)	LOS
I-215 SB				
Scott Road off-ramp	26.5	C	22.4	C
Scott Road on-ramp	25.4	C	19.5	B
Clinton Keith Road off-ramp	29.2	D	23.6	C
Clinton Keith Road on-ramp	27.0	C	18.2	B
I-215 NB				
Clinton Keith Road off-ramp	23.6	C	29.4	D
Clinton Keith Road on-ramp	19.5	B	22.3	C
Scott Road off-ramp	24.4	C	27.9	C
Scott Road on-ramp	18.8	B	21.6	C

Source: Caltrans 2018a
Notes:
veh/hr/ln = vehicle(s) per hour per lane

As shown in Table 2.1.9-6, all proposed Project area ramp merge/diverge areas are projected to operate at an acceptable LOS D or better for the existing baseline analysis.

Table 2.1.9-7 summarizes the existing baseline peak hour LOS for the I-215 freeway segments.

Table 2.1.9-7. Existing Baseline (2018) Peak Hour Freeway LOS Summary

Segment	a.m. Peak Hour		p.m. Peak Hour	
	Density (veh/hr/ln)	LOS	Density (veh/hr/ln)	LOS
I-215 SB				
North of Scott Road	20.7	C	16.0	B
Between Scott Road and Clinton Keith Road	23.6	C	17.2	B
South of Clinton Keith Road	25.8	C	16.7	B

Segment	a.m. Peak Hour		p.m. Peak Hour	
	Density (veh/hr/ln)	LOS	Density (veh/hr/ln)	LOS
I-215 NB				
South of Clinton Keith Road	17.1	B	23.2	C
Between Clinton Keith Road and Scott Road	17.5	B	21.4	C
North of Scott Road	16.8	B	20.2	C

Source: Caltrans 2018a

As shown in Table 2.1.9-7, all proposed Project area freeway segments are projected to operate at an acceptable LOS D or better for the existing baseline analysis.

ENVIRONMENTAL CONSEQUENCES

Temporary Impacts

Alternative 1 (No-Build Alternative)

The No-Build Alternative does not include improvements to the interchange or local roads in the proposed Project area. Therefore, the No-Build Alternative would not result in temporary impacts related to traffic, transportation, or bicycle and pedestrian facilities.

Build Alternatives 2, 3, and 5

Traffic delays are expected during the construction of the new proposed interchange at Keller Road. The construction of the proposed Project would potentially result in traffic delays, temporary ramp and freeway mainline lane closures, and detours during the proposed Project construction. During construction, access to several properties along Antelope Road between Keller Road and Brian's Way would be removed due to the construction of the NB off- and on-ramps. Access to these properties would be re-established via the construction of a new 1,600-foot cul-de-sac. The entrance to the new access road would be across from the Mapleton Avenue/Keller Road intersection. No residential uses would be affected.

Measure T-1 includes traffic control plans and related specifications for the proposed Project, and is necessary to avoid and/or minimize circulation and delay impacts. A TMP would be prepared during the final design of the proposed Project and would be implemented during the proposed Project construction. The objective of the TMP is to address changes in vehicular, pedestrian, and

bicycle circulation and to provide measures to minimize the adverse effects of construction activities on traffic flows and pedestrian and bicycle travel within the proposed Project area.

The TMP would consider any special events that may occur during the construction period, and may specify measures to include limited operating periods, additional access provisions or public notice, or other measures determined to be appropriate. In addition, the TMP would require the contractor to maintain access to all local businesses during construction. The TMP would be prepared in coordination with the Cities of Menifee and Murrieta, and the County of Riverside, and would be reviewed and approved by Caltrans.

Permanent Impacts

Alternative 1 (No-Build Alternative)

The No-Build Alternative does not include improvements to the interchange or local roads in the proposed Project area. Table 2.1.9-4 provides a forecasted summary of the analyzed opening year (2027) and design year (2047) traffic volumes for the I-215/Keller Road interchange with the No-Build Alternative.

Table 2.1.9-8 summarizes the analyzed opening year (2027) assessment of a.m. and p.m. peak hour average delays per vehicle and corresponding LOS of the study intersections without proposed Project conditions.

Table 2.1.9-8. Analyzed Opening Year 2027 No-Build Alternative Peak Hour Intersection LOS Summary

Intersection	Traffic Control	a.m. Peak Hour		p.m. Peak Hour	
		Delay (sec)	LOS	Delay (sec)	LOS
1. Zeiders Road-Haun Road/Scott Road	Signal	171.8	F	42.2	D
2. Bailey Park Road/Scott Road	Removed in future conditions				
3. I-215 SB ramps/Scott Road	Signal	14.5	B	16.1	B
4. I-215 NB ramps/Scott Road	Signal	24.7	C	20.5	C
5. Antelope Road/Scott Road	Signal	34.2	C	30.1	C
6. Menifee Road/Scott Road	Signal	77.8	E	93.8	F
7. Zeiders Road/Keller Road	Stop-control	9.1	A	8.8	A

Intersection	Traffic Control	a.m. Peak Hour		p.m. Peak Hour	
		Delay (sec)	LOS	Delay (sec)	LOS
8. Scenic View Dr/Keller Road	Stop-control	8.6	A	0.0	A
9. Antelope Road/Keller Road	Signal	19.6	B	9.5	A
10. Mapleton Avenue/Keller Road	Stop-control	10.9	B	12.9	B
11. Whitewood Road/Keller Road	Signal	38.8	D	38.0	D
12. Antelope Road/Baxter Road	Signal	10.5	B	37.5	D
13. McElwain Road/Clinton Keith Road	Signal	21.1	C	21.1	C
14. I-215 SB ramps/Clinton Keith Road	Signal	11.0	B	17.3	B
15. I-215 NB ramps/Clinton Keith Road	Signal	22.8	C	20.8	C
16. Vista Murrieta High School Driveway/Clinton Keith Road	Signal	80.7	F	15.9	B
17. Whitewood Road/Clinton Keith Road	Signal	50.4	D	47.8	D
18. Antelope Road/Clinton Keith Road	Future intersection in 2047				
21. Kaiser Driveway/Keller Road	Signal	7.1	A	6.5	A
22. Meadowlark Lane-Gladiolus Avenue/Keller Road	Stop-control	10.9	B	9.9	A

Source: Caltrans 2018a

As shown in Table 2.1.9-8, the following intersections are projected to operate at a deficient LOS (LOS E or worse) in the analyzed opening year (2027) without the proposed Project:

- Zeiders Road-Haun Road/Scott Road (a.m. peak hour)
- Menifee Road/Scott Road (a.m. and p.m. peak hours)
- Vista Murrieta High School Driveway/Clinton Keith Road (a.m. peak hour)

Table 2.1.9-9 summarizes the analyzed opening year (2027) assessment of peak hour LOS on the freeway ramps without the proposed Project conditions.

Table 2.1.9-9. Analyzed Opening Year 2027 No-Build Alternative Peak Hour Ramp LOS Summary

Ramp Merge/Diverge	a.m. Peak Hour		p.m. Peak Hour	
	Density (veh/hr/ln)	LOS	Density (veh/hr/ln)	LOS
I-215 SB				
Scott Road direct off-ramp	27.7	C	23.1	C
Scott Road loop on-ramp	23.0	C	17.5	B
Scott Road direct on-ramp	26.2	C	18.9	B
Clinton Keith Road direct off-ramp	31.0	D	24.6	C
Clinton Keith Road loop on-ramp	23.9	C	15.1	B
Clinton Keith Road direct on-ramp	28.7	D	18.7	B
I-215 NB				
Clinton Keith Road direct off-ramp	24.5	C	31.4	D
Clinton Keith Road loop on-ramp	13.8	B	23.8	C
Clinton Keith Road direct on-ramp	18.5	B	22.7	C
Scott Road Off-ramp (direct and loop)	15.9	B	12.8	B
Scott Road direct on-ramp	19.7	B	23.3	C

Source: Caltrans 2018a

As shown in Table 2.1.9-9, all proposed Project area ramp merge/diverge areas are projected to operate at an acceptable LOS (LOS D or better) in the analyzed opening year (2027) without the proposed Project.

Table 2.1.9-10 summarizes the analyzed opening year (2027) assessment of peak hour LOS for the I-215 freeway segments without the proposed Project.

Table 2.1.9-10. Analyzed Opening Year 2027 No-Build Alternative Peak Hour Freeway LOS Summary

Segment	a.m. Peak Hour		p.m. Peak Hour	
	Density (veh/hr/ln)	LOS	Density (veh/hr/ln)	LOS
I-215 SB				
North of Scott Road	21.9	C	16.4	B
Between Scott Road and Clinton Keith Road	25.7	C	17.9	B

Segment	a.m. Peak Hour		p.m. Peak Hour	
	Density (veh/hr/ln)	LOS	Density (veh/hr/ln)	LOS
South of Clinton Keith Road	28.7	D	17.2	B
I-215 NB				
South of Clinton Keith Road	17.7	B	25.5	C
Between Clinton Keith Road and Scott Road	18.2	C	23.1	C
North of Scott Road	17.4	B	21.7	C

Source: Caltrans 2018a

As shown in Table 2.1.9-10, all proposed Project area freeway segments are projected to operate at an acceptable LOS (LOS D or better) in the analyzed opening year (2027) without the proposed Project.

Table 2.1.9-11 summarizes the design year (2047) assessment of a.m. and p.m. peak hour average delays per vehicle and corresponding LOS of the study intersections without the proposed Project conditions.

Table 2.1.9-11. Design Year 2047 No-Build Alternative Peak Hour Intersection LOS Summary

Intersection	Traffic Control	a.m. Peak Hour		p.m. Peak Hour	
		Delay (sec)	LOS	Delay (sec)	LOS
1. Zeiders Road-Haun Road/Scott Road	Signal	195.1	F	72.3	E
2. Bailey Park Road/Scott Road	Removed in future conditions				
3. I-215 SB ramps/Scott Road	Signal	13.3	B	20.3	C
4. I-215 NB ramps/Scott Road	Signal	21.0	C	21.7	C
5. Antelope Road/Scott Road	Signal	54.6	D	42.1	D
6. Menifee Road/Scott Road	Signal	155.4	F	225.0	F
7. Zeiders Road/Keller Road	Stop-control	36.1	E	> 300	F
8. Scenic View Drive/Keller Road	Stop-control	10.5	B	0.0	A
9. Antelope Road/Keller Road	Intersection relocated				
10. Mapleton Avenue/Keller Road	Signal	48.2	D	78.2	E
11. Whitewood Road/Keller Road	Signal	41.6	D	52.0	D

Intersection	Traffic Control	a.m. Peak Hour		p.m. Peak Hour	
		Delay (sec)	LOS	Delay (sec)	LOS
12. Antelope Road/Baxter Road	Signal	65.3	E	39.1	D
13. McElwain Road/Clinton Keith Road	Signal	69.8	E	232.4	F
14. I-215 SB ramps/Clinton Keith Road	Signal	49.7	D	24.5	C
15. I-215 NB ramps/Clinton Keith Road	Signal	94.8	F	76.0	E
16. Vista Murrieta High School Driveway/Clinton Keith Road	Signal	21.5	C	21.2	C
17. Whitewood Road/Clinton Keith Road	Signal	94.1	F	92.8	F
18. Antelope Road/Clinton Keith Road	Signal	65.3	E	188.5	F
21. Kaiser Driveway/Keller Road	Signal	22.8	C	22.8	C
22. Meadowlark Lane-Gladiolus Avenue/Keller Road	Signal	12.7	B	14.5	B

Source: Caltrans 2018a

As shown in Table 2.1.9-11, the following intersections are projected to operate at a deficient LOS (LOS E or worse) in the design year (2047) without the proposed Project:

- Zeiders Road-Haun Road/Scott Road (a.m. and p.m. peak hours)
- Menifee Road/Scott Road (a.m. and p.m. peak hours)
- Zeiders Road/Keller Road (a.m. and p.m. peak hours)
- Mapleton Avenue/Keller Road (p.m. peak hour)
- Antelope Road/Baxter Road (a.m. peak hour)
- McElwain Road/Clinton Keith Road (a.m. and p.m. peak hours)
- I-215 NB ramps/Clinton Keith Road (a.m. and p.m. peak hours)
- Whitewood Road/Clinton Keith Road (a.m. and p.m. peak hours)
- Antelope Road/Clinton Keith Road (a.m. and p.m. peak hours)

Table 2.1.9-12 summarizes the design year (2047) assessment of peak hour LOS on the freeway ramps without the proposed Project conditions.

Table 2.1.9-12. Design Year 2047 No-Build Alternative Peak Hour Ramp LOS Summary

Ramp Merge/Diverge	a.m. Peak Hour		p.m. Peak Hour	
	Density (veh/hr/ln)	LOS	Density (veh/hr/ln)	LOS
I-215 SB				
Scott Road direct off-ramp	29.5	D	22.8	C
Scott Road loop on-ramp	25.0	C	17.1	B
Scott Road direct on-ramp	28.7	D	18.8	B
Clinton Keith Road direct off-ramp	34.6	D	25.2	C
Clinton Keith Road loop on-ramp	22.6	C	16.3	B
Clinton Keith Road direct on-ramp	28.6	D	19.6	B
I-215 NB				
Clinton Keith Road direct off-ramp	24.6	C	32.2	D
Clinton Keith Road loop on-ramp	17.6	B	24.4	C
Clinton Keith Road direct on-ramp	19.4	B	26.2	C
Scott Road off-ramp (direct and loop)	16.5	B	22.0	C
Scott Road direct on-ramp	19.6	B	25.5	C

Source: Caltrans 2018a

As shown in Table 2.1.9-12, all proposed Project area ramp merge/diverge areas are projected to operate at an acceptable LOS D or better in the design year (2047) without the proposed Project.

Table 2.1.9-13 summarizes the design year (2047) assessment of peak hour LOS for the I-215 freeway segments without the proposed Project conditions. The design year (2047) scenario includes the implementation of HOV lanes for the I-215 freeway segments as part of a future project.

Table 2.1.9-13. Design Year 2047 No-Build Alternative Peak Hour Freeway LOS Summary

Segment	a.m. Peak Hour		p.m. Peak Hour	
	Density (veh/hr/ln)	LOS	Density (veh/hr/ln)	LOS
I-215 SB				
North of Scott Road	21.7	C	13.7	B
Between Scott Road and Clinton Keith Road	26.7	D	15.2	B
South of Clinton Keith Road	25.7	C	15.6	B
I-215 NB				
South of Clinton Keith Road	14.3	B	22.8	C
Between Clinton Keith Road and Scott Road	15.6	B	23.5	C
North of Scott Road	14.6	B	21.6	C

Source: Caltrans 2018a

As shown in Table 2.1.9-13, all proposed Project area freeway segments are projected to operate at an acceptable LOS D or better in the design year (2047) without the proposed Project.

Currently, Keller Road is a two-lane undercrossing at the I-215 with no direct connections to the freeway. At present, the area in the immediate vicinity of the I-215/Keller Road undercrossing is sparsely developed, except for the Kaiser Permanente Murrieta Medical Campus, residential neighborhoods, and several paved lots with scattered one-story buildings. The current configuration is sufficient to handle the current low traffic demand, as indicated in Tables 2.1.9-6 and 2.1.9-7. However, Table 2.1.9-5 indicates that two intersections (Zeiders Road-Haun Road/Scott Road in the a.m. peak hour and Antelope Road/Scott Road in the a.m. and p.m. peak hours) operate at LOS E or worse, and do not meet Caltrans performance criteria. Furthermore, as the buildout of the region occurs, traffic volumes are expected to increase through the year 2047, as indicated in Table 2.1.9-4, which would result in LOS that is worse than performance criteria at several proposed Project area intersections. For example, as shown in Table 2.1.9-8, the intersections of Zeiders Road-Haun Road/Scott Road (a.m. peak hour), Menifee Road/Scott Road (a.m. and p.m. peak hours), and Vista Murrieta High School Driveway/Clinton Keith Road (a.m. peak hour) would operate at LOS E or worse in the analyzed opening year (2027) without the proposed Project. Table 2.1.9-11 indicates the intersections at Zeiders

Road/Haun Road/Scott Road (a.m. and p.m. peak hours), Menifee Road/Scott Road (a.m. and p.m. peak hours), Zeiders Road/Keller Road (a.m. and p.m. peak hours), Mapleton Avenue/Keller Road (p.m. peak hour), Antelope Road/Baxter Road (a.m. peak hour), McElwain Road/Clinton Keith Road (a.m. and p.m. peak hours), I-215 NB ramps/Clinton Keith Road (a.m. and p.m. peak hours), Whitewood Road/Clinton Keith Road (a.m. and p.m. peak hours), and Antelope Road/Clinton Keith Road (a.m. and p.m. peak hours) would operate at LOS E or worse in the design year (2047) without the proposed Project. Therefore, the roadway capacity of the No-Build Alternative configuration is not sufficient to accommodate the projected 2027 opening and 2047design year traffic volumes.

Build Alternative 2 (Spread Diamond Interchange)

Table 2.1.9-4 provides a forecasted summary of the analyzed opening year (2027) and design year (2047) traffic volumes for the I-215/Keller Road interchange with Build Alternative 2 (the spread diamond interchange).

Table 2.1.9-14 summarizes the analyzed opening year (2027) assessment of a.m. and p.m. peak hour average delays per vehicle and corresponding LOS of the study intersections for Build Alternative 2.

Table 2.1.9-14. Analyzed Opening Year 2027 Build Alternative 2 Peak Hour Intersection LOS Summary

Intersection	Traffic Control	a.m. Peak Hour		p.m. Peak Hour	
		Delay (sec)	LOS	Delay (sec)	LOS
1. Zeiders Road-Haun Road/Scott Road	Signal	132.4	F	36.4	D
2. Bailey Park Road/Scott Road	Removed in future conditions				
3. I-215 SB ramps/Scott Road	Signal	16.5	B	13.9	B
4. I-215 NB ramps/Scott Road	Signal	22.2	C	25.8	C
5. Antelope Road/Scott Road	Signal	33.8	C	29.6	C
6. Menifee Road/Scott Road	Signal	71.4	E	85.9	F
7. Zeiders Road/Keller Road	Signal	39.2	D	36.2	D
8. Scenic View Drive/Keller Road	Removed from the proposed Project				
9. Antelope Road/Keller Road	Intersection relocated				
10. Mapleton Avenue/Keller Road	Signal	21.0	C	32.0	C
11. Whitewood Road/Keller Road	Signal	48.8	D	49.7	D

Intersection	Traffic Control	a.m. Peak Hour		p.m. Peak Hour	
		Delay (sec)	LOS	Delay (sec)	LOS
12. Antelope Road/Baxter Road	Signal	10.5	B	37.5	D
13. McElwain Road/Clinton Keith Road	Signal	27.7	C	24.9	C
14. I-215 SB ramps/Clinton Keith Road	Signal	10.9	B	21.0	C
15. I-215 NB ramps/Clinton Keith Road	Signal	20.9	C	21.5	C
16. Vista Murrieta High School Driveway/Clinton Keith Road	Signal	34.6	C	17.3	B
17. Whitewood Road/Clinton Keith Road	Signal	50.0	D	48.2	D
18. Antelope Road/Clinton Keith Road	Future intersection in 2047				
19. I-215 SB ramps/Keller Road	Signal	31.0	C	30.6	C
20. I-215 NB ramps/Keller Road	Signal	30.8	C	33.1	C
21. Kaiser Driveway/Keller Road	Signal	4.9	A	4.8	A
22. Meadowlark Lane-Gladiolus Avenue/Keller Road	Signal	43.2	D	15.5	B

Source: Caltrans 2018a

As shown in Table 2.1.9-14, the following intersections are projected to operate at a deficient LOS (LOS E or worse) in the analyzed opening year (2027) under Build Alternative 2:

- Zeiders Road-Haun Road/Scott Road (a.m. peak hour)
- Menifee Road/Scott Road (a.m. and p.m. peak hours)

2027 traffic operations for the Build Alternative 2 intersections is similar to the No-Build Alternative. The differences are as follows:

- There are three intersections that change from stop-controlled to signalized. At these locations, delay increases are expected, but the changes in LOS remain acceptable. The three intersections are:
    - Zeiders Road/Keller intersection, which is LOS D (a.m. and p.m. peak hours) for Build Alternative 2, compared to LOS A for the No-Build Alternative.

  - Mapleton Avenue/Keller Road, which is LOS C (a.m. and p.m. peak hours) for Build Alternative 2, compared to LOS B for the No-Build Alternative.
  - Meadowlark Lane-Gladiolus Avenue/Keller Road, which is LOS D/B (a.m./p.m. peak hours) for Build Alternative 2, compared to LOS B/A for the No-Build Alternative.

- The I-215 SB ramps/Clinton Keith Road intersection is LOS C in the p.m. peak, compared to LOS B for the No-Build Alternative.

- The Vista Murrieta High School Driveway/Clinton Keith Road intersection is LOS C in the p.m. peak, compared to LOS F for the No-Build Alternative.

Table 2.1.9-15 summarizes the analyzed opening year (2027) assessment of peak hour LOS on the freeway ramps for Build Alternative 2.

Table 2.1.9-15. Analyzed Opening Year 2027 Build Alternative 2 Peak Hour Ramp LOS Summary

Ramp Merge/Diverge	a.m. Peak Hour		p.m. Peak Hour	
	Density (veh/hr/ln)	LOS	Density (veh/hr/ln)	LOS
I-215 SB				
Scott Road direct off-ramp	28.0	C	23.4	C
Scott Road loop on-ramp	23.3	C	17.9	B
Scott Road direct on-ramp	26.0	C	19.0	B
Keller Road direct off-ramp	15.1	B	10.0	B
Keller Road direct on-ramp	21.8	C	20.1	C
Clinton Keith Road direct off-ramp	27.4	C	24.6	C
Clinton Keith Road loop on-ramp	20.2	C	15.9	B
Clinton Keith Road direct on-ramp	24.5	C	18.8	B
I-215 NB				
Clinton Keith Road direct off-ramp	26.0	C	31.6	D
Clinton Keith Road loop on-ramp	21.0	C	24.4	C
Clinton Keith Road direct on-ramp	20.1	C	23.5	C
Keller Road direct off-ramp	16.3	B	20.2	C

Ramp Merge/Diverge	a.m. Peak Hour		p.m. Peak Hour	
	Density (veh/hr/ln)	LOS	Density (veh/hr/ln)	LOS
Keller Road direct on-ramp	19.9	B	24.8	C
Scott Road off-ramp (direct and loop)	11.1	B	12.9	B
Scott Road direct on-ramp	19.6	B	22.9	C

Source: Caltrans 2018a

As shown in Table 2.1.9-15, all proposed Project area ramp merge/diverge areas are projected to operate at an acceptable LOS D or better in the analyzed opening year (2027) for Build Alternative 2.

The 2027 traffic operations for the Build Alternative 2 ramp merge/diverge areas is similar to the No-Build Alternative. LOS for Build Alternative 2 is improved at two locations (the SB Clinton Keith Road direct off-ramp and direct on-ramp) that are LOS C in the a.m. peak for Build Alternative 2, compared to LOS D for the No-Build Alternative. LOS for Build Alternative 2 is worse at two locations (the two NB Clinton Keith Road on-ramps) are LOS C in the a.m. peak for Build Alternative 2, compared to LOS B for the No-Build Alternative. All of these ramp operations are acceptable.

Table 2.1.9-16 summarizes the analyzed opening year (2027) assessment of highest peak hour LOS for the I-215 freeway segments for Build Alternative 2.

Table 2.1.9-16. Analyzed Opening Year 2027 Build Alternative 2 Peak Hour Freeway LOS Summary

Segment	a.m. Peak Hour		p.m. Peak Hour	
	Density (veh/hr/ln)	LOS	Density (veh/hr/ln)	LOS
I-215 SB				
North of Scott Road	20.0	C	14.8	B
Between Scott Road and Keller Road	16.6	B	11.9	B
Between Keller Road and Clinton Keith Road	18.9	C	15.8	B
South of Clinton Keith Road	21.0	C	15.3	B
I-215 NB				
South of Clinton Keith Road	17.1	B	23.9	C
Between Clinton Keith Road and Keller Road	17.6	B	21.8	C

Segment	a.m. Peak Hour		p.m. Peak Hour	
	Density (veh/hr/ln)	LOS	Density (veh/hr/ln)	LOS
Between Keller Road and Scott Road	12.1	B	15.3	B
North of Scott Road	15.5	B	20.0	C

Source: Caltrans 2018a

As shown in Table 2.1.9-16, all proposed Project area freeway segments are projected to operate at an acceptable LOS D or better in the analyzed opening year (2027) for Build Alternative 2.

The 2027 traffic operations for the Build Alternative 2 freeway mainline is similar to the LOS for the No-Build Alternative. Select segments change between LOS B, C, and D in both directions, but all remain acceptable.

Table 2.1.9-17 summarizes the design year (2047) assessment of a.m. and p.m. peak hour average delays per vehicle and corresponding LOS of the study intersections for Build Alternative 2.

Table 2.1.9-17. Design Year 2047 Build Alternative 2 Peak Hour Intersection LOS Summary

Intersection	Traffic Control	a.m. Peak Hour		p.m. Peak Hour	
		Delay (sec)	LOS	Delay (sec)	LOS
1. Zeiders Road-Haun Road/Scott Road	Signal	148.9	F	51.0	D
2. Bailey Park Road/Scott Road	Removed in future conditions				
3. I-215 SB ramps/Scott Road	Signal	8.5	A	21.4	C
4. I-215 NB ramps/Scott Road	Signal	20.6	C	20.0	B
5. Antelope Road/Scott Road	Signal	47.0	D	35.7	D
6. Menifee Road/Scott Road	Signal	110.6	F	130.0	F
7. Zeiders Road/Keller Road	Signal	33.2	C	54.2	D
8. Scenic View Dr/Keller Road	Removed from the proposed Project				
9. Antelope Road/Keller Road	Intersection relocated				
10. Mapleton Avenue/Keller Road	Signal	52.8	D	54.6	D
11. Whitewood Road/Keller Road	Signal	50.8	D	54.4	D
12. Antelope Road/Baxter Road	Signal	58.6	E	33.8	C

Intersection	Traffic Control	a.m. Peak Hour		p.m. Peak Hour	
		Delay (sec)	LOS	Delay (sec)	LOS
13. McElwain Road/Clinton Keith Road	Signal	42.4	D	208.8	F
14. I-215 SB ramps/Clinton Keith Road	Signal	22.2	C	14.3	B
15. I-215 NB ramps/Clinton Keith Road	Signal	51.2	D	49.6	D
16. Vista Murrieta High School Driveway/Clinton Keith Road	Signal	28.2	C	23.2	C
17. Whitewood Road/Clinton Keith Road	Signal	75.6	E	82.0	F
18. Antelope Road/Clinton Keith Road	Signal	56.6	E	179.1	F
19. I-215 SB ramps/Keller Road	Signal	30.6	C	36.7	D
20. I-215 NB ramps/Keller Road	Signal	35.8	D	60.9	E
21. Kaiser Driveway/Keller Road	Signal	12.0	B	13.5	B
22. Meadowlark Lane-Gladiolus Avenue/Keller Road	Signal	48.2	D	36.6	D

Source: Caltrans 2018a

As shown in Table 2.1.9-17, the following intersections would operate at a deficient LOS E or worse for Build Alternative 2:

- Zeiders Road-Haun Road/Scott Road (a.m. peak hour)
- Menifee Road/Scott Road (a.m. and p.m. peak hours)
- Antelope Road/Baxter Road (a.m. peak hour)
- McElwain Road/Clinton Keith Road (p.m. peak hour)
- Whitewood Road/Clinton Keith Road (a.m. and p.m. peak hours)
- Antelope Road/Clinton Keith Road (a.m. and p.m. peak hours)
- I-215 NB ramps/Keller Road (p.m. peak hour)

2047 traffic operations for the Build Alternative 2 intersections is similar to the No-Build Alternative. The differences are as follows:

- The LOS is better for Build Alternative 2 than No-Build Alternative at the following intersections:
    - Zeiders Road-Haun Road/Scott Road p.m. peak (LOS D for Build Alternative 2, compared to LOS E for the No-Build Alternative)

  - I-215 SB ramps/Scott Road a.m. peak (LOS A for Build Alternative 2, compared to LOS B for the No-Build Alternative)
  - I-215 NB ramps/Scott Road p.m. peak (LOS B for Build Alternative 2, compared to LOS C for the No-Build Alternative)
  - Zeiders Road/Keller Road a.m./p.m. peaks (LOS C/D for Build Alternative 2, compared to LOS E/F for the No-Build Alternative)
  - Antelope Road/Baxter Road p.m. peak (LOS C for Build Alternative 2, compared to LOS D for the No-Build Alternative)
  - McElwain Road/Clinton Keith Road a.m. peak (LOS D for Build Alternative 2, compared to LOS E for the No-Build Alternative)
  - I-215 SB ramps/Clinton Keith Road a.m./p.m. peaks (LOS C/B for Build Alternative 2, compared to LOS D/C for the No-Build Alternative)
  - I-215 NB ramps/Clinton Keith Road a.m./p.m. peaks (LOS D/D for Build Alternative 2, compared to LOS F/E for the No-Build Alternative)
  - Whitewood Road/Clinton Keith Road a.m. peak (LOS E for Build Alternative 2, compared to LOS F for the No-Build Alternative)
  - Kaiser Driveway/Keller Road a.m./p.m. peaks (LOS B/B for Build Alternative 2, compared to LOS C/C for the No-Build Alternative)

- The LOS is worse for Build Alternative 2 than the No-Build Alternative at one intersection:
  - Meadowlark Lane-Gladiolus Avenue/Keller Road a.m./p.m. peaks (LOS D/D for Build Alternative 2, compared to LOS B/B for No-Build Alternative)

Table 2.1.9-18 summarizes the design year (2047) assessment of queue lengths at the critical movements of the I-215/Keller interchange (based on the HCM 95th percentile queue) for Build Alternative 2.

Table 2.1.9-18. Design Year 2047 Build Alternative 2 Peak Hour Ramp Queue Length Summary

Ramp Merge/Diverge	Space Provided (feet)	Queue Length 95th percentile (feet)	
		a.m. Peak Hour	p.m. Peak Hour
19. I-215 SB Ramps/Keller Road			
SB left-turn movement	800	520	390
SB right-turn movement	800	90	200
WB left-turn movement	240[a]	90	290
20. I-215 NB Ramps/Keller Road			
NB left-turn movement	800	530	550
NB right-turn movement	800	480	510
EB left-turn movement	240[a]	110	110
21. Kaiser Driveway/Keller Road			
EB left-turn movement	360	300	190
WB through movement	380	120	150

Source: Caltrans 2018a
[a] Space provided per lane
Note:
Queue length values are rounded to the nearest 10 feet.
EB = eastbound
WB = westbound

As shown in Table 2.1.9-18, the proposed storage space is forecasted to accommodate the 95th percentile queue lengths at the critical movement of the interchange and the Kaiser Driveway intersection, except for the WB left-turn movement at the I-215 SB ramps/Keller Road intersection, in the design year (2047) for Build Alternative 2.

Table 2.1.9-19 summarizes the design year (2047) assessment of peak hour LOS on the freeway ramps for Build Alternative 2.

Table 2.1.9-19. Design Year 2047 Build Alternative 2 Peak Hour Ramp LOS Summary

Ramp Merge/Diverge	a.m. Peak Hour		p.m. Peak Hour	
	Density (veh/hr/ln)	LOS	Density (veh/hr/ln)	LOS
I-215 SB				
Scott Road direct off-ramp	30.0	D	24.5	C
Scott Road loop on-ramp	25.9	C	19.3	B
Scott Road direct on-ramp	29.2	D	20.5	C
Keller Road direct off-ramp	18.9	B	12.4	B
Keller Road direct on-ramp	23.9	C	22.4	C
Clinton Keith Road direct off-ramp	30.8	D	26.6	C
Clinton Keith Road loop on-ramp	19.2	B	18.4	B
Clinton Keith Road direct on-ramp	25.1	C	21.4	C
I-215 NB				
Clinton Keith Road direct off-ramp	27.9	C	34.3	D
Clinton Keith Road loop on-ramp	21.8	C	27.7	C
Clinton Keith Road direct on-ramp	22.9	C	28.8	D
Keller Road direct off-ramp	18.3	B	23.8	C
Keller Road direct on-ramp	21.7	C	29.6	D
Scott Road off-ramp (direct and loop)	13.6	B	16.8	B
Scott Road direct on-ramp	21.6	C	27.2	C

Source: Caltrans 2018a

As shown in Table 2.1.9-19, all proposed Project area ramp merge/diverge areas are projected to operate at an acceptable LOS D or better in the design year (2047) for Build Alternative 2.

The 2047 traffic operations for the Build Alternative 2 ramp merge/diverge areas is similar to the No-Build Alternative. One location in the p.m. peak is LOS D for Build Alternative 2, compared to LOS C for the No-Build Alternative (the NB Clinton Keith Road direct on-ramp). Five assessments are LOS C for Build Alternative 2, compared to LOS B for the No-Build Alternative, and two assessments are LOS B for Build Alternative 2, compared to LOS C for the No-Build Alternative. These ramp operations are acceptable.

Table 2.1.9-20 summarizes the design year (2047) assessment of peak hour LOS for the I-215 freeway segments for Build Alternative 2.

Table 2.1.9-20. Design Year 2047 Build Alternative 2 Peak Hour Freeway LOS Summary

Segment	a.m. Peak Hour		p.m. Peak Hour	
	Density (veh/hr/ln)	LOS	Density (veh/hr/ln)	LOS
I-215 SB				
North of Scott Road	22.2	C	15.3	B
Between Scott Road and Keller Road	18.4	C	12.3	B
Between Keller Road and Clinton Keith Road	20.6	C	16.6	B
South of Clinton Keith Road	19.9	C	16.9	B
I-215 NB				
South of Clinton Keith Road	17.4	B	25.9	C
Between Clinton Keith Road and Keller Road	18.5	C	26.6	D
Between Keller Road and Scott Road	12.6	B	17.9	B
North of Scott Road	16.1	B	23.9	C

Source: Caltrans 2018a

As shown in Table 2.1.9-20, all proposed Project area freeway segments are projected to operate at an acceptable LOS D or better in the design year (2047) for Build Alternative 2.

The 2047 traffic operations for the Build Alternative 2 freeway mainline is similar to the No-Build Alternative. The freeway LOS will remain acceptable (LOS D or better), so there will not be substantive changes to speeds or delay on the mainline I-215.

The I-215/Keller Road interchange is projected to operate at acceptable LOS in the analyzed opening year (2027) and design year (2047) for Build Alternative 2, as indicated in Tables 2.1.9-15, 2.1.9-16, 2.1.9-19, and 2.1.9-20. However, Tables 2.1.9-14, and 2.1.9-17 indicated LOS worse than performance criteria (LOS E or worse) at several proposed Project area intersections. Overall, traffic operations at the adjacent I-215 interchanges are generally projected to maintain acceptable operations, with the proposed Keller Road interchange attracting volumes that may otherwise use those interchanges.

New construction and improvements to sidewalks along Keller Road would improve connectivity and safety for pedestrians. New bicycle lanes on Keller Road would provide similar operations and safety benefits for bicyclists. The traffic operations changes (i.e., vehicular delay changes at the intersections) would not affect pedestrian or bicycle safety and operations.

Build Alternative 3 (Partial Cloverleaf Interchange)

Table 2.1.9-4 provides a summary of the analyzed opening year (2027) and design year (2047) traffic volumes for the I-215/Keller Road interchange with Build Alternative 3 (the partial cloverleaf interchange).

Table 2.1.9-21 summarizes the analyzed opening year (2027) assessment of a.m. and p.m. peak hour average delays per vehicle and corresponding LOS of the study intersections for Build Alternative 3.

Table 2.1.9-21. Analyzed Opening Year 2027 Build Alternative 3 Peak Hour Intersection LOS Summary

Intersection	Traffic Control	a.m. Peak Hour		p.m. Peak Hour	
		Delay (sec)	LOS	Delay (sec)	LOS
1. Zeiders Road-Haun Road/Scott Road	Signal	132.4	F	36.4	D
2. Bailey Park Road/Scott Road	Removed in future conditions				
3. I-215 SB ramps/Scott Road	Signal	16.5	B	13.9	B
4. I-215 NB ramps/Scott Road	Signal	22.2	C	25.8	C
5. Antelope Road/Scott Road	Signal	33.8	C	29.6	C
6. Menifee Road/Scott Road	Signal	71.4	E	85.9	F
7. Zeiders Road/Keller Road	Signal	39.2	D	36.2	D
8. Scenic View Dr/Keller Road	Removed from the proposed Project				
9. Antelope Road/Keller Road	Intersection relocated				
10. Mapleton Ave/Keller Road	Signal	21.0	C	32.0	C
11. Whitewood Road/Keller Road	Signal	46.8	D	49.7	D
12. Antelope Road/Baxter Road	Signal	10.5	B	37.5	D
13. McElwain Road/Clinton Keith Road	Signal	27.7	C	24.9	C
14. I-215 SB ramps/Clinton Keith Road	Signal	10.9	B	21.0	C
15. I-215 NB ramps/Clinton Keith Road	Signal	20.9	C	21.5	C

Intersection	Traffic Control	a.m. Peak Hour		p.m. Peak Hour	
		Delay (sec)	LOS	Delay (sec)	LOS
16. Vista Murrieta High School Driveway/Clinton Keith Road	Signal	34.6	C	17.3	B
17. Whitewood Road/Clinton Keith Road	Signal	50.0	D	48.2	D
18. Antelope Road/Clinton Keith Road	Future intersection in 2047				
19. I-215 SB ramps/Keller Road	Signal	17.8	B	14.9	B
20. I-215 NB ramps/Keller Road	Signal	25.1	C	22.8	C
21. Kaiser Driveway/Keller Road	Signal	4.9	A	4.8	A
22. Meadowlark Lane-Gladiolus Avenue/Keller Road	Signal	43.2	D	15.5	B

Source: Caltrans 2018a

As shown in Table 2.1.9-21, the following intersections would operate at a LOS worse than performance criteria (LOS E or worse) in the analyzed opening year 2027 for Build Alternative 3:

- Zeiders Road-Haun Road/Scott Road (a.m. peak hour)
- Menifee Road/Scott Road (a.m. and p.m. peak hours)

2027 traffic operations for the Build Alternative 3 intersections is similar to the No-Build Alternative. The differences are as follows:

- Three intersections change from stop-controlled to signalized. At these locations, delay increases are expected, but the changes in LOS remain acceptable. The three intersections are:
    - Zeiders Road/Keller intersection, which is LOS D (a.m. and p.m. peak hours) for Build Alternative 3, compared to LOS A for the No-Build Alternative.
    - Mapleton Avenue/Keller Road, which is LOS C (a.m. and p.m. peak hours) for Build Alternative 3, compared to LOS B for the No-Build Alternative.
    - Meadowlark Lane-Gladiolus Avenue/Keller Road, which is LOS D/B (a.m./p.m. peak hours) for Build Alternative 3, compared to LOS B/A for the No-Build Alternative.

- The I-215 SB ramps/Clinton Keith Road intersection is LOS C in the p.m. peak, compared to LOS B for the No-Build Alternative.
- The Vista Murrieta High School Driveway/Clinton Keith Road intersection is LOS C in the p.m. peak, compared to LOS F for the No-Build Alternative.

Table 2.1.9-22 summarizes the analyzed opening year (2027) assessment of peak hour LOS on the freeway ramps for Build Alternative 3.

Table 2.1.9-22. Analyzed Opening Year 2027 Build Alternative 3 Peak Hour Ramp LOS Summary

Ramp Merge/Diverge	a.m. Peak Hour		p.m. Peak Hour	
	Density (veh/hr/ln)	LOS	Density (veh/hr/ln)	LOS
I-215 SB				
Scott Road direct off-ramp	28.0	C	23.4	C
Scott Road loop on-ramp	23.3	C	17.9	B
Scott Road direct on-ramp	26.0	C	19.0	B
Keller Road direct off-ramp	15.1	B	10.0	B
Keller Road loop on-ramp	20.4	C	17.5	B
Keller Road direct on-ramp	21.5	C	20.8	C
Clinton Keith Road direct off-ramp	27.4	C	24.6	C
Clinton Keith Road loop on-ramp	20.2	C	15.9	B
Clinton Keith Road direct on-ramp	24.5	C	18.8	B
I-215 NB				
Clinton Keith Road direct off-ramp	26.0	C	31.6	D
Clinton Keith Road loop on-ramp	21.0	C	24.4	C
Clinton Keith Road direct on-ramp	20.1	C	23.5	C
Keller Road direct off-ramp	16.3	B	20.2	C
Keller Road loop on-ramp	17.0	B	20.5	C
Keller Road direct on-ramp	19.6	B	24.4	C
Scott Road off-ramp (direct and loop)	11.1	B	12.9	B
Scott Road direct on-ramp	19.6	B	22.9	C

Source: Caltrans 2018a

As shown in Table 2.1.9-22, all proposed Project area ramp merge/diverge areas are projected to operate at an acceptable LOS (LOS D or better) in the analyzed opening year (2027) for Build Alternative 3.

The 2027 traffic operations for the Build Alternative 3 ramp merge/diverge areas is similar to the No-Build Alternative. LOS at two locations is better for Build Alternative 3: the SB Clinton Keith Road direct off-ramp and direct on-ramp are LOS C in the a.m. peak for Build Alternative 3, compared to LOS D for the No-Build Alternative. The LOS at the two NB Clinton Keith Road on-ramps is better for the No-Build Alternative in the a.m. peak: LOS B, compared to LOS C for Build Alternative 3. These ramp operations are acceptable.

Table 2.1.9-23 summarizes the analyzed opening year (2027) assessment of highest peak hour LOS for the I-215 freeway segments for Build Alternative 3.

Table 2.1.9-23. Analyzed Opening Year 2027 Build Alternative 3 Peak Hour Freeway LOS Summary

Segment	a.m. Peak Hour		p.m. Peak Hour	
	Density (veh/hr/ln)	LOS	Density (veh/hr/ln)	LOS
I-215 SB				
North of Scott Road	20.0	C	14.8	B
Between Scott Road and Keller Road	16.6	B	11.9	B
Between Keller Road and Clinton Keith Road	18.9	C	15.8	B
South of Clinton Keith Road	21.0	C	15.3	B
I-215 NB				
South of Clinton Keith Road	17.1	B	23.9	C
Between Clinton Keith Road and Keller Road	17.6	B	21.8	C
Between Keller Road and Scott Road	12.1	B	15.3	B
North of Scott Road	15.5	B	20.0	C

Source: Caltrans 2018a

As shown in Table 2.1.9-23, all proposed Project area freeway segments are projected to operate at an acceptable LOS D or better in the analyzed opening year (2027) for Build Alternative 3.

The 2027 traffic operations for the Build Alternative 3 freeway mainline is similar to the No-Build Alternative. The freeway LOS will remain acceptable (LOS D or better), so there will not be substantive changes to speeds or delay on the mainline I-215. Table 2.1.9-24 summarizes the design year (2047) assessment of a.m. and p.m. peak hour average delays per vehicle and corresponding LOS of the study intersections for Build Alternative 3.

Table 2.1.9-24. Design Year 2047 Build Alternative 3 Peak Hour Intersection LOS Summary

Intersection	Traffic Control	a.m. Peak Hour		p.m. Peak Hour	
		Delay (sec)	LOS	Delay (sec)	LOS
1. Zeiders Road-Haun Road/Scott Road	Signal	148.9	F	51.0	D
2. Bailey Park Road/Scott Road	Removed in future conditions				
3. I-215 SB ramps/Scott Road	Signal	8.5	A	21.4	C
4. I-215 NB ramps/Scott Road	Signal	20.6	C	20.0	B
5. Antelope Road/Scott Road	Signal	47.0	D	35.7	D
6. Menifee Road/Scott Road	Signal	110.6	F	130.0	F
7. Zeiders Road/Keller Road	Signal	33.2	C	54.2	D
8. Scenic View Drive/Keller Road	Removed from the proposed Project				
9. Antelope Road/Keller Road	Intersection relocated				
10. Mapleton Avenue/Keller Road	Signal	52.8	D	54.6	D
11. Whitewood Road/Keller Road	Signal	50.8	D	54.4	D
12. Antelope Road/Baxter Road	Signal	58.6	E	33.8	C
13. McElwain Road/Clinton Keith Road	Signal	42.4	D	208.8	F
14. I-215 SB ramps/Clinton Keith Road	Signal	22.2	C	14.3	B
15. I-215 NB ramps/Clinton Keith Road	Signal	51.2	D	49.6	D
16. Vista Murrieta High School Driveway/Clinton Keith Road	Signal	28.2	C	23.2	C
17. Whitewood Road/Clinton Keith Road	Signal	75.6	E	82.0	F
18. Antelope Road/Clinton Keith Road	Signal	56.6	E	179.1	F
19. I-215 SB ramps/Keller Road	Signal	21.5	C	18.4	B
20. I-215 NB ramps/Keller Road	Signal	25.3	C	36.8	D

Intersection	Traffic Control	a.m. Peak Hour		p.m. Peak Hour	
		Delay (sec)	LOS	Delay (sec)	LOS
21. Kaiser Driveway/Keller Road	Signal	12.0	B	13.5	B
22. Meadowlark Lane-Gladiolus Avenue/Keller Road	Signal	48.2	D	36.6	D

Source: Caltrans 2018a

As shown in Table 2.1.9-24, the following intersections would operate at an LOS worse than performance criteria (LOS E or worse) in the design year (2047) for Build Alternative 3:

- Zeiders Road-Haun Road/Scott Road (a.m. peak hour)
- Menifee Road/Scott Road (a.m. and p.m. peak hours)
- Antelope Road/Baxter Road (a.m. peak hour)
- McElwain Road/Clinton Keith Road (p.m. peak hour)
- Whitewood Road/Clinton Keith Road (a.m. and p.m. peak hours)
- Antelope Road/Clinton Keith Road (a.m. and p.m. peak hours)

2047 traffic operations for the Build Alternative 3 intersections is similar to the No-Build Alternative. The differences are as follows:

- The LOS is better for Build Alternative 3 than the No-Build Alternative at the following intersections:
    - Zeiders Road-Haun Road/Scott Road p.m. peak (LOS D Build Alternative 3, compared to LOS E for the No-Build Alternative)
    - I-215 SB ramps/Scott Road a.m. peak (LOS A for Build Alternative 3, compared to LOS B for the No-Build Alternative)
    - I-215 NB ramps/Scott Road p.m. peak (LOS B for Build Alternative 3, compared to LOS C for the No-Build Alternative)
    - Zeiders Road/Keller Road a.m./p.m. peaks (LOS C/D for Build Alternative 3, compared to LOS E/F for the No-Build Alternative)
    - Antelope Road/Baxter Road p.m. peak (LOS C for Build Alternative 3, compared to LOS D for the No-Build Alternative)
    - McElwain Road/Clinton Keith Road a.m. peak (LOS D for Build Alternative 3, compared to LOS E for the No-Build Alternative)

  - I-215 SB ramps/Clinton Keith Road a.m./p.m. peaks (LOS C/B for Build Alternative 3, compared to LOS D/C for the No-Build Alternative)
  - I-215 NB ramps/Clinton Keith Road a.m./p.m. peaks (LOS D/D for Build Alternative 3, compared to LOS F/E for the No-Build Alternative)
  - Whitewood Road/Clinton Keith Road a.m. peak (LOS E for Build Alternative 3, compared to LOS F for the No-Build Alternative)
  - Kaiser Driveway/Keller Road a.m./p.m. peaks (LOS B/B Build Alternative 3, LOS C/C for the No-Build Alternative)

- The LOS is worse for Build Alternative 3 than the No-Build Alternative at one intersection:

  - Meadowlark Lane-Gladiolus Avenue/Keller Road a.m./p.m. peaks (LOS D/D for Build Alternative 3, compared to LOS B/B for the No-Build Alternative)

Table 2.1.9-25 summarizes the design year (2047) assessment of queue lengths at the critical movements of the I-215/Keller interchange (based on the HCM 95th percentile queue) for Build Alternative 3.

Table 2.1.9-25. Design Year 2047 Build Alternative 3 Peak Hour Ramp Queue Length Summary

Ramp Merge/Diverge	Space Provided (feet)	Queue Length[a] 95th percentile (feet)	
		a.m. Peak Hour	p.m. Peak Hour
19. I-215 SB Ramps/Keller Road			
SB left-turn movement	800	460	350
SB right-turn movement	800	150	210
20. I-215 NB Ramps/Keller Road			
NB left-turn movement	800	620	560
NB right-turn movement	800	550	500
21. Kaiser Driveway/Keller Road			
EB left-turn movement	360	260	160
WB through movement	380	120	150

[a] Queue length values are rounded to the nearest 10 feet.
Source: Caltrans 2018a

As shown in Table 2.1.9-25, the proposed storage space is forecasted to accommodate the 95th percentile queue lengths at the critical movements of the interchange, as well as the adjacent Kaiser Permanente driveway intersection, in the design year (2047) for Build Alternative 3.

Table 2.1.9-26 summarizes the design year (2047) assessment of peak hour LOS on the freeway ramps for Build Alternative 3.

Table 2.1.9-26. Design Year 2047 Build Alternative 3 Peak Hour Ramp LOS Summary

Ramp Merge/Diverge	a.m. Peak Hour		p.m. Peak Hour	
	Density (veh/hr/ln)	LOS	Density (veh/hr/ln)	LOS
I-215 SB				
Scott Road direct off-ramp	30.0	D	24.5	C
Scott Road loop on-ramp	25.9	C	19.3	B
Scott Road direct on-ramp	29.2	D	20.5	C
Keller Road direct off-ramp	18.9	B	12.4	B
Keller Road loop on-ramp	21.9	C	18.5	B
Keller Road direct on-ramp	23.4	C	20.6	C
Clinton Keith Road direct off-ramp	30.8	D	26.6	C
Clinton Keith Road loop on-ramp	19.2	B	18.4	B
Clinton Keith Road direct on-ramp	25.1	C	21.4	C
I-215 NB				
Clinton Keith Road direct off-ramp	27.9	C	34.3	D
Clinton Keith Road loop on-ramp	21.8	C	27.7	C
Clinton Keith Road direct on-ramp	22.9	C	28.8	D
Keller Road direct off-ramp	18.3	B	23.8	C
Keller Road loop on-ramp	17.5	B	23.4	C
Keller Road direct on-ramp	21.1	C	29.0	D
Scott Road off-ramp (direct and loop)	13.6	B	16.8	B
Scott Road direct on-ramp	21.6	C	27.2	C

Source: Caltrans 2018a

As shown in Table 2.1.9-26, all proposed Project area ramp merge/diverge areas are projected to operate at an acceptable LOS D or better in the design year (2047) for Build Alternative 3.

The 2047 traffic operations for the Build Alternative 3 ramp merge/diverge areas is similar to the LOS for the No-Build Alternative. One location in the p.m. peak is LOS D for Build Alternative 3, compared to LOS C for the No-Build Alternative (the NB Clinton Keith Road direct on-ramp). Two assessments are LOS C for Build Alternative 3, compared to LOS B for the No-Build Alternative. Two assessments are LOS B for Build Alternative 3, compared to LOS C for the No-Build Alternative. These ramp operations are acceptable, and these differences are minor.

Table 2.1.9-27 summarizes the design year (2047) assessment of highest peak hour LOS for the I-215 freeway segments for Build Alternative 3.

Table 2.1.9-27. Design Year 2047 Build Alternative 3 Peak Hour Freeway LOS Summary

Segment	a.m. Peak Hour		p.m. Peak Hour	
	Density (veh/hr/ln)	LOS	Density (veh/hr/ln)	LOS
I-215 SB				
North of Scott Road	22.2	C	15.3	B
Between Scott Road and Keller Road	18.4	C	12.3	B
Between Keller Road and Clinton Keith Road	20.6	C	16.6	B
South of Clinton Keith Road	19.9	C	16.9	B
I-215 NB				
South of Clinton Keith Road	17.4	B	25.9	C
Between Clinton Keith Road and Keller Road	18.5	C	26.6	D
Between Keller Road and Scott Road	12.6	B	17.9	B
North of Scott Road	16.1	B	23.9	C

Source: Caltrans 2018a

As shown in Table 2.1.9-27, all proposed Project area freeway segments are projected to operate at an acceptable LOS (LOS D or better) in the design year (2047) for Build Alternative 3.

The 2047 traffic operations for the Build Alternative 3 freeway mainline is similar to the No-Build Alternative. Selected segments change between LOS B, C, and D in both directions, but all remain acceptable.

The I-215/Keller Road interchange is projected to operate at an acceptable LOS in the analyzed opening year (2027) and design year (2047) for Build Alternative 3 as indicated in Tables 2.1.9-22, 2.1.9-23, 2.1.9-26, and 2.1.9-27. However, Tables 2.1.9-21, and 2.1.9-24 show a LOS worse than performance criteria (LOS E or worse) at several proposed Project area intersections. Overall, traffic operations at the adjacent I-215 interchanges are generally forecasted to maintain acceptable operations, with the proposed Keller Road interchange attracting volumes that may otherwise use those interchanges.

New construction and improvements to sidewalks along Keller Road will improve connectivity and safety for pedestrians. New bicycle lanes on Keller Road would provide similar operations and safety benefits for bicyclists. The traffic operations changes (i.e., vehicular delay changes at the intersections) would not affect pedestrian or bicycle safety operations.

Build Alternative 5 (Compact Diamond Interchange)

Table 2.1.9-4 provides a summary of the analyzed opening year (2027) and design year (2047) traffic volumes for the I-215/Keller Road interchange with Build Alternative 5 (the compact diamond interchange).

Table 2.1.9-28 summarizes the analyzed opening year (2027) assessment of a.m. and p.m. peak hour average delays per vehicle and corresponding LOS of the study intersections for Build Alternative 5.

Table 2.1.9-28. Analyzed Opening Year 2027 Build Alternative 5 Peak Hour Intersection LOS Summary

Intersection	Traffic Control	a.m. Peak Hour		p.m. Peak Hour	
		Delay (sec)	LOS	Delay (sec)	LOS
1. Zeiders Road-Haun Road/Scott Road	Signal	132.4	F	36.4	D
2. Bailey Park Road/Scott Road	Removed in future conditions				
3. I-215 SB ramps/Scott Road	Signal	16.5	B	13.9	B
4. I-215 NB ramps/Scott Road	Signal	22.2	C	25.8	C

Intersection	Traffic Control	a.m. Peak Hour		p.m. Peak Hour	
		Delay (sec)	LOS	Delay (sec)	LOS
5. Antelope Road/Scott Road	Signal	33.8	C	29.6	C
6. Menifee Road/Scott Road	Signal	71.4	E	85.9	F
7. Zeiders Road/Keller Road	Signal	39.2	D	36.2	D
8. Scenic View Dr/Keller Road	Removed from the proposed Project				
9. Antelope Road/Keller Road	Intersection relocated				
10. Mapleton Avenue/Keller Road	Signal	21.0	C	32.0	C
11. Whitewood Road/Keller Road	Signal	46.8	D	49.7	D
12. Antelope Road/Baxter Road	Signal	10.5	B	37.5	D
13. McElwain Road/Clinton Keith Road	Signal	27.7	C	24.9	C
14. I-215 SB ramps/Clinton Keith Road	Signal	10.9	B	21.0	C
15. I-215 NB ramps/Clinton Keith Road	Signal	20.9	C	21.5	C
16. Vista Murrieta High School Driveway/Clinton Keith Road	Signal	34.6	C	17.3	B
17. Whitewood Road/Clinton Keith Road	Signal	50.0	D	48.2	D
18. Antelope Road/Clinton Keith Road	Future intersection in 2047				
19. I-215 SB ramps/Keller Road	Roundabout	5.0	A	7.5	A
20. I-215 NB ramps/Keller Road	Roundabout	7.3	A	5.9	A
21. Kaiser Driveway/Keller Road	Signal	4.9	A	4.8	A
22. Meadowlark Lane-Gladiolus Avenue/Keller Road	Signal	43.2	D	15.5	B

Source: Caltrans 2018a
Note:
Roundabout analysis performed using Rodel software (peak 60-minute Average Vehicle Delay using HCM 2010 model)

As shown in Table 2.9-28, the following intersections would operate at a deficient LOS E or worse in the analyzed opening year 2027 for Build Alternative 5:

- Zeiders Road-Haun Road/Scott Road (a.m. peak hour)
- Menifee Road/Scott Road (a.m. and p.m. peak hours)

2027 traffic operations for the Build Alternative 5 intersections is similar to the No-Build Alternative. The differences are as follows:

- There are three intersections that change from stop-controlled to signalized. At these locations, delay increases are expected, but the changes in LOS remain acceptable. The three intersections are:
    - Zeiders Road/Keller intersection, which is LOS D (a.m. and p.m. peak hours) for Build Alternative 5, compared to LOS A for the No-Build Alternative.
    - Mapleton Avenue/Keller Road, which is LOS C (a.m. and p.m. peak hours) for Build Alternative 5, compared to LOS B for the No-Build Alternative.
    - Meadowlark Lane-Gladiolus Avenue/Keller Road, which is LOS D/B (a.m./p.m. peak hours) for Build Alternative 5, compared to LOS B/A for the No-Build Alternative.
- The I-215 SB ramps/Clinton Keith Road intersection is LOS C in the p.m. peak, compared to LOS B for the No-Build Alternative. The Vista Murrieta High School Driveway/Clinton Keith Road intersection is LOS C in the p.m. peak, compared to LOS F for the No-Build Alternative.

Table 2.1.9-29 summarizes the analyzed opening year (2027) assessment of highest peak hour LOS on the freeway ramps for Build Alternative 5.

Table 2.1.9-29. Analyzed Opening Year 2027 Build Alternative 5 Peak Hour Ramp LOS Summary

Ramp Merge/Diverge	a.m. Peak Hour		p.m. Peak Hour	
	Density (veh/hr/ln)	LOS	Density (veh/hr/ln)	LOS
I-215 SB				
Scott Road direct off-ramp	28.0	C	23.4	C
Scott Road loop on-ramp	23.3	C	17.9	B
Scott Road direct on-ramp	26.0	C	19.0	B
Keller Road direct off-ramp	15.1	B	10.0	B
Keller Road direct on-ramp	21.8	C	20.1	C
Clinton Keith Road direct off-ramp	27.4	C	24.6	C
Clinton Keith Road loop on-ramp	20.2	C	15.9	B

Ramp Merge/Diverge	a.m. Peak Hour		p.m. Peak Hour	
	Density (veh/hr/ln)	LOS	Density (veh/hr/ln)	LOS
Clinton Keith Road direct on-ramp	24.5	C	18.8	B
I-215 NB				
Clinton Keith Road direct off-ramp	26.0	C	31.6	D
Clinton Keith Road loop on-ramp	21.0	C	24.4	C
Clinton Keith Road direct on-ramp	20.1	C	23.5	C
Keller Road direct off-ramp	16.3	B	20.2	C
Keller Road direct on-ramp	19.9	B	24.8	C
Scott Road off-ramp (direct and loop)	11.1	B	12.9	B
Scott Road direct on-ramp	19.6	B	22.9	C

Source: Caltrans 2018a

As shown in Table 2.1.9-29, all proposed Project area ramp merge/diverge areas are projected to operate at an acceptable LOS D or better in the analyzed opening year (2027) for Build Alternative 5.

The 2027 traffic operations for the Build Alternative 5 ramp merge/diverge areas is similar to the No-Build Alternative. Two locations (the SB Clinton Keith Road direct off-ramp and direct on-ramp) are LOS C in the a.m. peak hour for Build Alternative 5, compared to LOS D for the No-Build Alternative. The two NB Clinton Keith Road on-ramps are LOS C in the a.m. peak hours for Build Alternative 5, compared to LOS B for the No-Build Alternative. These ramp operations are acceptable, and these differences are minor.

Table 2.1.9-30 summarizes the analyzed opening year (2027) assessment of highest peak hour LOS for the I-215 freeway segments for Build Alternative 5.

Table 2.1.9-30. Analyzed Opening Year 2027 Build Alternative 5 Peak Hour Freeway LOS Summary

Segment	a.m. Peak Hour		p.m. Peak Hour	
	Density (veh/hr/ln)	LOS	Density (veh/hr/ln)	LOS
I-215 SB				
North of Scott Road	20.0	C	14.8	B
Between Scott Road and Keller Road	16.6	B	11.9	B
Between Keller Road and Clinton Keith Road	18.9	C	15.8	B

Segment	a.m. Peak Hour		p.m. Peak Hour	
	Density (veh/hr/ln)	LOS	Density (veh/hr/ln)	LOS
South of Clinton Keith Road	21.0	C	15.3	B
I-215 NB				
South of Clinton Keith Road	17.1	B	23.9	C
Between Clinton Keith Road and Keller Road	17.6	B	21.8	C
Between Keller Road and Scott Road	12.1	B	15.3	B
North of Scott Road	15.5	B	20.0	C

Source: Caltrans 2018a

As shown in Table 2.1.9-30, all proposed Project area freeway segments are projected to operate at an acceptable LOS D or better in the analyzed opening year (2027) for Build Alternative 5.

The 2027 traffic operations for the Build Alternative 5 freeway mainline is similar to the No-Build Alternative. Select segments change between LOS B, C, and D in both directions, but all remain acceptable.

Table 2.1.9-31 summarizes the design year (2047) assessment of a.m. and p.m. peak hour average delays per vehicle and corresponding LOS of the study intersections for Build Alternative 5.

Table 2.1.9-31. Design Year 2047 Build Alternative 5 Peak Hour Intersection LOS Summary

Intersection	Traffic Control	a.m. Peak Hour		p.m. Peak Hour	
		Delay (sec)	LOS	Delay (sec)	LOS
1. Zeiders Road-Haun Road/Scott Road	Signal	148.9	F	51.0	D
2. Bailey Park Road/Scott Road	Removed in future conditions				
3. I-215 SB ramps/Scott Road	Signal	8.5	A	21.4	C
4. I-215 NB ramps/Scott Road	Signal	20.6	C	20.0	B
5. Antelope Road/Scott Road	Signal	47.0	D	35.7	D
6. Menifee Road/Scott Road	Signal	110.6	F	130.0	F
7. Zeiders Road/Keller Road	Signal	33.2	C	54.2	D
8. Scenic View Dr/Keller Road	Removed from the proposed Project				

Intersection	Traffic Control	a.m. Peak Hour		p.m. Peak Hour	
		Delay (sec)	LOS	Delay (sec)	LOS
9. Antelope Road/Keller Road	Intersection relocated				
10. Mapleton Avenue/Keller Road	Signal	52.8	D	54.6	D
11. Whitewood Road/Keller Road	Signal	50.8	D	54.4	D
12. Antelope Road/Baxter Road	Signal	58.6	E	33.8	C
13. McElwain Road/Clinton Keith Road	Signal	42.4	D	208.8	F
14. I-215 SB ramps/Clinton Keith Road	Signal	22.2	C	14.3	B
15. I-215 NB ramps/Clinton Keith Road	Signal	51.2	D	49.6	D
16. Vista Murrieta High School Driveway/Clinton Keith Road	Signal	28.2	C	23.2	C
17. Whitewood Road/Clinton Keith Road	Signal	75.6	E	82.0	F
18. Antelope Road/Clinton Keith Road	Signal	56.6	E	179.1	F
19. I-215 SB ramps/Keller Road	Roundabout	7.8	A	31.6	D
20. I-215 NB ramps/Keller Road	Roundabout	16.0	C	10.4	B
21. Kaiser Driveway/Keller Road	Signal	12.0	B	13.5	B
22. Meadowlark Lane-Gladiolus Avenue/Keller Road	Signal	48.2	D	36.6	D

Source: Caltrans 2018a

Note: Roundabout analysis performed using Rodel software (peak 60-minute Average Vehicle Delay using HCM 2010 model)

As shown in Table 2.1.9-31, the following intersections would operate at an LOS worse than performance criteria (LOS E or worse) in the design year (2047) for Build Alternative 5:

- Zeiders Road-Haun Road/Scott Road (a.m. peak hour)
- Menifee Road/Scott Road (a.m. and p.m. peak hours)
- Antelope Road/Baxter Road (a.m. peak hour)
- McElwain Road/Clinton Keith Road (p.m. peak hour)
- Whitewood Road/Clinton Keith Road (a.m. and p.m. peak hours)
- Antelope Road/Clinton Keith Road (a.m. and p.m. peak hours)

2047 traffic operations for the Build Alternative 5 intersections is similar to the No-Build Alternative. The differences are as follows:

- The LOS is better for Build Alternative 5 than the No-Build Alternative at the following intersections:
    - Zeiders Road-Haun Road/Scott Road p.m. peak (LOS D for Build Alternative 5, compared to LOS E for the No-Build Alternative)
    - I-215 SB ramps/Scott Road a.m. peak (LOS A for Build Alternative 5, compared to LOS B for the No-Build Alternative)
    - I-215 NB ramps/Scott Road p.m. peak (LOS B for Build Alternative 5, compared to LOS C for the No-Build Alternative)
    - Zeiders Road/Keller Road a.m./p.m. peaks (LOS C/D for Build Alternative 5, compared to LOS E/F for the No-Build Alternative)
    - Antelope Road/Baxter Road p.m. peak (LOS C for Build Alternative 5, compared to LOS D for the No-Build Alternative)
    - McElwain Road/Clinton Keith Road a.m. peak (LOS D for Build Alternative 5, compared to LOS E for the No-Build Alternative)
    - I-215 SB ramps/Clinton Keith Road a.m./p.m. peaks (LOS C/B for Build Alternative 5, compared to LOS D/C for the No-Build Alternative)
    - I-215 NB ramps/Clinton Keith Road a.m./p.m. peaks (LOS D/D for Build Alternative 5, compared to LOS F/E for the No-Build Alternative)
    - Whitewood Road/Clinton Keith Road a.m. peak (LOS E for Build Alternative 5, compared to LOS F for the No-Build Alternative)
    - Kaiser Driveway/Keller Road a.m./p.m. peaks (LOS B/B for Build Alternative 5, compared to LOS C/C for the No-Build Alternative)
- The LOS is worse for Build Alternative 5 than the No-Build Alternative at one intersection:
    - Meadowlark Lane-Gladiolus Avenue/Keller Road a.m./p.m. peaks (LOS D/D for Build Alternative 5, compared to LOS B/B for the No-Build Alternative)

Table 2.1.9-32 summarizes the design year (2047) assessment of queue lengths at the critical movements of the I-215/Keller interchange (based on the HCM 95th percentile queue) for Build Alternative 5.

Table 2.1.9-32. Design Year 2047 Build Alternative 5 Peak Hour Ramp Queue Length Summary

Ramp Merge/Diverge	Space Provided (feet)	Queue Length 95th percentile (feet)	
		a.m. Peak Hour	p.m. Peak Hour
19. I-215 SB Ramps/Keller Road			
SB movement	800	80	40
WB movement	300	120	360
20. I-215 NB Ramps/Keller Road			
NB movement	800	220	85
EB movement	300	290	130

Source: Caltrans 2018a
Note:
Queue length values are rounded to the nearest 10 feet.

As shown in Table 2.1.9-32, the proposed storage space is forecasted to accommodate the 95th percentile queue lengths at the critical movements of the interchange, except for the WB movement at the I-215 SB ramps/Keller Road intersection in the design year (2047) for Build Alternative 5. It should be noted that the 95th percentile values are forecasted to occur only approximately 5% of the time during the peak hour.

Table 2.1.9-33 summarizes the design year (2047) assessment of highest peak hour LOS on the freeway ramps for Build Alternative 5.

Table 2.1.9-33. Design Year 2047 Build Alternative 5 Peak Hour Ramp LOS Summary

Ramp Merge/Diverge	a.m. Peak Hour		p.m. Peak Hour	
	Density (veh/hr/ln)	LOS	Density (veh/hr/ln)	LOS
I-215 SB				
Scott Road direct off-ramp	30.0	D	24.5	C
Scott Road loop on-ramp	25.9	C	19.3	B
Scott Road direct on-ramp	29.2	D	20.5	C
Keller Road direct off-ramp	18.9	B	12.4	B
Keller Road direct on-ramp	23.9	C	22.4	C

Ramp Merge/Diverge	a.m. Peak Hour		p.m. Peak Hour	
	Density (veh/hr/ln)	LOS	Density (veh/hr/ln)	LOS
Clinton Keith Road direct off-ramp	30.8	D	26.6	C
Clinton Keith Road loop on-ramp	19.2	B	18.4	B
Clinton Keith Road direct on-ramp	25.1	C	21.4	C
I-215 NB				
Clinton Keith Road direct off-ramp	27.9	C	34.3	D
Clinton Keith Road loop on-ramp	21.8	C	27.7	C
Clinton Keith Road direct on-ramp	22.9	C	28.8	D
Keller Road direct off-ramp	18.3	B	23.8	C
Keller Road direct on-ramp	21.7	C	29.6	D
Scott Road off-ramp (direct and loop)	13.6	B	16.8	B
Scott Road direct on-ramp	21.6	C	27.2	C

Source: Caltrans 2018a

As shown in Table 2.1.9-33, all proposed Project area ramp merge/diverge areas are projected to operate at an acceptable LOS (LOS D or better) in the design year (2047) for Build Alternative 5.

The 2047 traffic operations for the Build Alternative 5 ramp merge/diverge areas is similar to the No-Build Alternative. One location in the p.m. peak is LOS D for Build Alternative 5, compared to LOS C for the No-Build Alternative (the NB Clinton Keith Road direct on-ramp). Five assessments are LOS C for Build Alternative 5, compared to LOS B for the No-Build Alternative 1. One assessment is LOS B for Build Alternative 5, compared to LOS C for the No-Build Alternative. These ramp operations are acceptable, and these differences are minor.

Table 2.1.9-34 summarizes the design year (2047) assessment of peak hour LOS for the I-215 freeway segments for Build Alternative 5.

Table 2.1.9-34. Design Year 2047 Build Alternative 5 Peak Hour Freeway LOS Summary

Segment	a.m. Peak Hour		p.m. Peak Hour	
	Density (veh/hr/ln)	LOS	Density (veh/hr/ln)	LOS
I-215 SB				
North of Scott Road	22.2	C	15.3	B
Between Scott Road and Keller Road	18.4	C	12.3	B
Between Keller Road and Clinton Keith Road	20.6	C	16.6	B
South of Clinton Keith Road	19.9	C	16.9	B
I-215 NB				
South of Clinton Keith Road	17.4	B	25.9	C
Between Clinton Keith Road and Keller Road	18.5	C	26.6	D
Between Keller Road and Scott Road	12.6	B	17.9	B
North of Scott Road	16.1	B	23.9	C

Source: Caltrans 2018a

As shown in Table 2.1.9-34, all proposed Project area freeway segments are projected to operate at an acceptable LOS (LOS D or better) in the design year (2047) for Build Alternative 5.

The 2047 traffic operations for the Build Alternative 5 freeway mainline is similar to the LOS for the No-Build Alternative. Select segments change between LOS B, C, and D in both directions, but all remain acceptable.

The I-215/Keller Road interchange is projected to operate at acceptable LOS in the analyzed opening year (2027) and design year (2047) for Build Alternative 5, as indicated in Tables 2.1.9-29, 2.1.9-30, 2.1.9-33, and 2.1.9-34. However, Tables 2.1.9-28, and 2.1.10-31 show an LOS worse than performance criteria (LOS E or worse) at select proposed Project area intersections, according to Caltrans performance criteria.

Overall, traffic operations at the adjacent I-215 interchanges are generally forecasted to maintain acceptable operations, with the proposed Keller Road interchange attracting volumes that may otherwise use those interchanges.

New construction and improvements to sidewalks along Keller Road would improve connectivity and safety for pedestrians. New bicycle lanes on Keller

Road would provide similar operations and safety benefits for bicyclists. The traffic operations changes (i.e., vehicular delay changes at the intersections) would not affect pedestrian or bicycle safety operations.

AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES

The following measure would be implemented to avoid or minimize circulation and delay impacts:

T-1 **Transportation Management Plan**. A qualified traffic engineer will develop a TMP and traffic control plans and applicable specifications during final design. The TMP and traffic control plans would be developed in tandem. The TMP would focus on means to reduce traveler delays and enhance traveler, pedestrian, and cyclist safety during proposed Project construction. Key elements in the TMP include:

- Public information/public awareness campaign
- Motorist information strategies
- Incident management
- Construction strategies
- Demand management
- Alternate route strategies

Traffic control plans would identify the approach for managing traffic during construction to maximize efficiency and safety. The TMP and traffic control plans will be prepared in coordination with the Cities of Menifee, Murrieta and Riverside County, and will be reviewed and approved by Caltrans, District 8 and incorporated into the plans, specifications, and estimates (PS&E).

2.1.10 Visual/Aesthetics

REGULATORY SETTING

The National Environmental Policy Act (NEPA) of 1969, as amended, establishes that the federal government use all practicable means to ensure all Americans safe, healthful, productive, and *aesthetically* (emphasis added) and culturally pleasing surroundings (42 United States Code [U.S.C.] 4331[b][2]). To further emphasize this point, the Federal Highway administration (FHWA), in its implementation of NEPA (23 U.S.C. 109[h]), directs that final decisions on projects are to be made in the best overall public interest taking into account

adverse environmental impacts, including among others, the destruction or disruption of aesthetic values.

The California Environmental Quality Act (CEQA) establishes that it is the policy of the state to take all action necessary to provide the people of the state "with…enjoyment of *aesthetic*, natural, scenic and historic environmental qualities" (CA Public Resources Code [PRC] Section 21001[b]).

California Streets and Highways Code Section 92.3 directs Caltrans to use drought resistant landscaping and recycled water, when feasible, and incorporate native wildflowers and native and climate-appropriate vegetation into the planting design when appropriate.

AFFECTED ENVIRONMENT

The information and analysis in Section 2.1.10 of this EIR/EA is based on the Final VIA – Interstate 215/Keller Road Interchange Project (Caltrans 2019a) and the updated Interstate 215/Keller Road Interchange Project Technical Report Addendum Memorandum - Visual Resources (Caltrans 2024c). The VIA follows the guidance outlined in the Guidelines for the Visual Impact Assessment of Highway Projects (FHWA 2015a). The study area for visual resources includes the proposed Project site and the landscape surrounding it.

Visual Setting

The segment of the I-215 within the proposed Project site includes four travel lanes (two SB and two NB lanes), approximately 12-foot-wide shoulders, and an approximately 20-foot-wide unvegetated median with a low concrete dividing wall (also known as a Jersey Barrier) (Figure 2.1-11, Photograph A). Keller Road is a two- to three-lane road that runs east-west, perpendicular to the I-215. The existing visual conditions along Keller Road are illustrated in Photographs B and C (Figure 2.1-11).

Land use within the proposed Project study area is primarily rural and neighborhood residential areas, with limited commercial development adjacent to the I-215 corridor and undeveloped land to the west of the I-215 corridor in the southern extent of the proposed Project study area. The local landscape is characterized by a wide and relatively flat valley floor, occasionally interrupted by rolling hillsides, and distant mountain ranges to the east and west. The primary vegetation communities in the surrounding area include low grasslands, and low to moderately high coastal sage scrub and chaparral shrubs. Scenic features along

the I-215 corridor include hilly terrain, scattered oak trees, and active agricultural lands. Natural vegetation and landforms have been altered to accommodate one- and two-story rural and neighborhood residential developments within the proposed Project study area. Additionally, a multistory medical office building and associated large surface parking lot development are located adjacent to the I-215 corridor, as illustrated in Photograph D (refer to Figure 2.1-11).

The proposed Project study area encompasses the southern reach of Paloma Valley, which borders Menifee Valley to the north and French Valley and Domenigoni Valley to the east. Due to the elevated nature of the interstate, relative to the topography to the east, and the lack of tall development at Keller Road, distant views to the San Jacinto and San Bernardino Mountains are visible along the I-215 corridor (Figure 2.1- 12). San Jacinto Peak and San Gorgonio Mountain are located approximately 30 miles and 38 miles to the northeast, respectively, from the I-215 span over Keller Road. The presence of distant mountainous terrain creates a visually striking contrast between the low and relatively flat Paloma Valley terrain, scattered local hills, and the bold, dramatic forms of the regional mountain ranges. Despite the fleeting views by traveling interstate motorists, these vistas are considered scenic.

The I-215 is not an officially designated or eligible state scenic highway within Riverside County, nor is it officially a national scenic byway (Caltrans 2018d; FHWA n.d.b). However, the I-215 is identified as a County Eligible Scenic Highway in the *Riverside County Circulation Element* (Riverside County 2020). As such, scenic corridor policies apply, including Policy C.19.1 of the Circulation Element, which seeks to preserve scenic routes that have exceptional or unique visual features in accordance with Caltrans' *Scenic Highway Plan* (Riverside County 2020). The Multipurpose Open Space Element also includes scenic corridor policies, such as Policy OS 22.1, which states that developments within scenic corridors will be designed to balance the objectives of maintaining scenic resources and accommodating compatible land uses (Riverside County 2015). Caltrans' *I-215 Conceptual Corridor Master Plan* establishes an overarching theme for the I-215 corridor, which includes maintaining the rural characteristics of the region while acknowledging ongoing efforts to address functional needs (Caltrans 2013a). The nearest eligible state scenic highway is the I-15 through Riverside County, and is approximately 5 miles to the south. The nearest officially designated state scenic highway is a portion of State Route 74 (SR-74), and is approximately 20 miles to the northeast (Caltrans 2018d).

Sensitive Viewer Groups

The primary sensitive viewer groups in the study area include motorists on the I-215 and Keller Road, and adjacent residents and commercial businesses. Residential land uses, ranging from rural to neighborhood residential, are located near the proposed Project study area. Views from the residential areas east and west of the proposed Project are at a lower elevation or an acute view angle, which foreshortens and screens views. Viewer sensitivity in the area is considered to be low for both motorists and residents.

Key Views

One Key Observation Point was selected to display the visual effects of the proposed Project and represent the primary viewer groups that would potentially be affected by the proposed Project most clearly. The Key Observation Point, located on the NB side of the I- 215 at Keller Road, was selected to depict visual changes to the I-215 corridor and adjacent landscape available to motorists in the proposed Project study area (Figure 2.1-13). This Key Observation Point and the associated visual resources within the proposed Project study area provide the basis of analysis for visual effects the proposed Project may have.

Visual Resources

The proposed Project's visual resources are defined and identified by assessing visual character and visual quality within the study area. Potential impacts on aesthetics and visual resources are then assessed by evaluating visual character and visual quality of the visual resources within the study area the proposed Project corridor before and after construction of the proposed Project.

Visual Character

Visual character definitions establish the existing condition, which can be discussed and compared to the postconstruction visual character, with any differences identified. For this analysis, attributes such as line, color, texture, and form were considered.

The proposed Project study area is primarily characterized by rural and neighborhood residential development, with some commercial development along the I-215 corridor and undeveloped land west of the I-215 corridor in the southern extent of the proposed Project study area. On-site uses consist of freeway (I-215) and roadway (Keller Road and Antelope Road) uses. Surrounding uses include rural and neighborhood residential, commercial, and undeveloped. Existing visual resources visible within the proposed Project

viewshed include foreground to middle ground views of local hills, and longer-distance views to regional mountain ranges, including the San Jacinto and San Bernardino Mountains. The peaks, ridgelines, and hillsides associated with these topographic features are the most prominent visual resources in the proposed Project study area, along with the visual character associated with the I-215 corridor itself.

Visual Quality

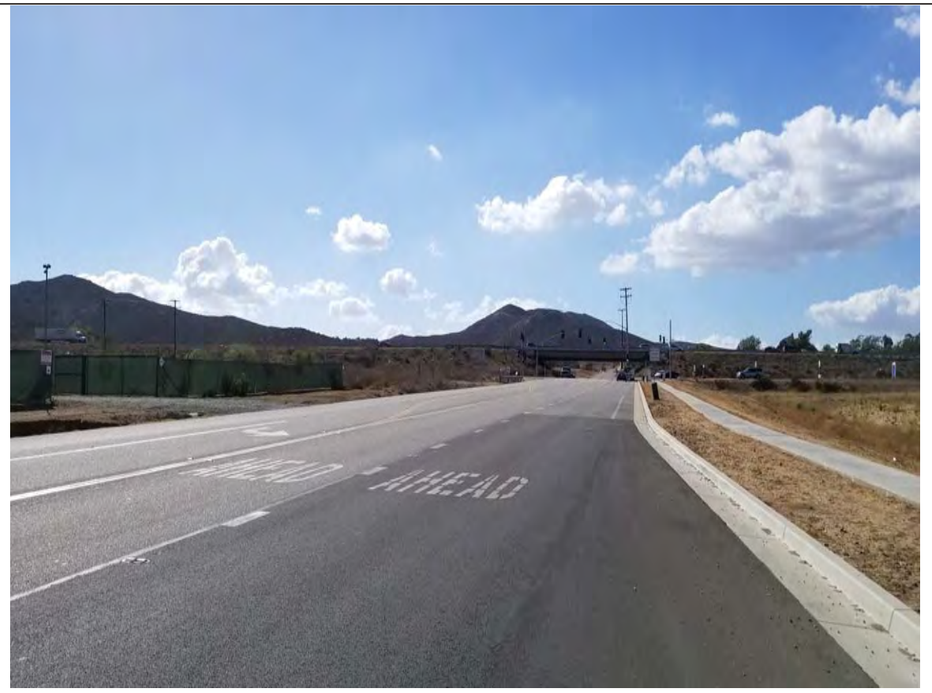
The visual quality of an area is evaluated by identifying vividness, intactness, and unity as they are present in the study area viewsheds. These characteristics are defined as follows (FHWA 2015a):

- Vividness: The visual power or memorability of landscape components as they combine in distinctive visual patterns.
- Intactness: The visual integrity of the natural and constructed landscape and its freedom from encroaching elements. Intactness can be present in natural settings, and in well-kept urban and rural landscapes.
- Unity: The visual coherence and compositional harmony of the landscape when it is considered as a whole. Unity frequently attests to the careful design of individual components within a landscape.

The existing I-215/Keller Road overpass by itself is not overly vivid, because this type of overpass is common in the Paloma Valley and Riverside County. However, the views from the I-215/Keller Road area offer a moderate to high degree of vividness because this location offers mostly uninterrupted views of the Paloma Valley, Menifee Hills to the north, Domenigoni Hills to the east, Murrieta Hills to the southeast, and the San Jacinto and San Bernardino Mountains to the northeast. The intactness of the proposed Project study area is fragmented, because rural development is transitioning to suburban residential land use development and isolated commercial buildings. While both the I-215 and Keller Road provide unity regarding the transportation grid within the proposed Project study area, there is contrasting unity when comparing land use on the eastern side of the I-215 versus the western side of the I-215. As a result, overall visual quality in the proposed Project study area is low to moderate.



Photograph A: View north from I-215 approximately 0.30-mile south of Keller Road



Photograph B: View west from Keller Road near Kaiser Permanente MOB driveway towards I-215 bridge



Photograph C: View east from Keller Road towards I-215 bridge



Photograph D: View north from Kaiser Permanente driveway to existing three-story medical office building

FIGURE 2.1-11

Existing Conditions: I-215 and Keller Road

I-215/Keller Road Interchange Project



FIGURE 2.1-12

Existing View from I-215 towards San Jacinto Peak

I-215/Keller Road Interchange Project



FIGURE 2.1-13

Key Observation Point 1: Northbound I-215 near Keller Road Bridge

I-215/Keller Road Interchange Project

Resource Change

Resource change is assessed by evaluating the visual character and the visual quality of the visual resources within the proposed Project study area before and after the construction of the proposed Project. Resource change is one of two major variables in the equation that determine visual impacts. The other is viewer response, and is discussed in the following section.

Viewer Response

Viewer response is composed of two elements: viewer sensitivity and viewer exposure. These elements combine to form a method of predicting how the public may react to visual changes brought about by a project. There are two major types of viewer groups for highway projects: (1) highway neighbors (views to the road from residential and industrial uses adjacent to the proposed Project site), and (2) motorists (views from the road, including the I-215 and Keller Road motorists) (FHWA 2015a). Each viewer group has its own particular level of viewer exposure and viewer sensitivity, resulting in distinct and predictable visual concerns for each group, which help to predict viewers' responses to visual changes. High viewer sensitivity helps predict that viewers would have a high concern for any visual change. Viewer sensitivity is a measure of the viewer's recognition of a particular object. It has three attributes: activity, awareness, and local values.

ENVIRONMENTAL CONSEQUENCES

The I-215 motorists, local road motorists and other users of local roads, and nearby residents would not be substantially affected by the implementation of Build Alternatives 2, 3, or 5, because the implementation of these Build Alternatives would result in a minor change to the existing visual quality and visual character. However, under all Build Alternatives, views for I-215 motorists to the west of a broad meadow and distant hills would be obscured by a 1,430-foot-long earthen barrier of varying heights, reaching up to 7 feet tall. The barrier is being implemented as a biological resource measure to minimize noise and light impacts to wildlife, as Figure 2.3-6 shows. Interstate motorists would experience views of proposed Project-related visual changes in passing. Following proposed Project implementation, there would be moderate contrast between the existing roadway and proposed improvements, primarily due to the presence of the new earthen barrier on the western side of the highway. However, viewer interest would continue to focus on the views of Paloma Valley and the mountains to the northeast. Due to the relatively brief duration of viewer

exposure and the regular occurrence of landscape modification along the I-215 corridor, interstate motorists would have a low sensitivity to proposed changes in the landscape. Keller Road and other local road motorists would also have a low sensitivity to the proposed improvements and visual change, due to the relatively brief view duration of motorists.

The Murrieta Hills master-planned residential community, which is expected to be developed on the southwestern side of the I-215 and Keller Road, would introduce new viewers to the proposed highway changes. The development would include 750 residential units composed of single-family and mixed-use units. The areas planned adjacent to Keller Road and the I-215 are identified as community commercial and mixed-use residential, with open space to the south (City of Murrieta 2021). People using the planned community commercial space are expected to be focused on interior activities rather than looking toward the highway, as would most people using the mixed-use space. Any east-facing, ground-floor residents of the Murrieta Hills development are expected to have views of the earthen barrier. However, the proposed Project has been designed to avoid residential development within 500 feet of the I-215 (City of Murrieta 2021), minimizing visual impacts for viewers looking east. The earthen barrier would also hinder views of the I-215 and traffic for first-floor residents, a potentially beneficial effect. In addition, because this community does not currently exist, there would be no change to sensitive viewers at this development.

Because views from the residential areas east and west of the proposed Project are at a lower elevation or an acute view angle, which foreshortens and screens views, visible proposed Project components would be limited to vehicles traveling the new ramps. The traffic movement would be visually associated and consistent with existing highway traffic; therefore, residential land uses would not be affected by the visual change associated with the Build Alternatives, and viewer responses of residents would be low.

The I-215 is not an officially designated scenic highway within the proposed Project site. Therefore, the implementation of the Build Alternatives would not conflict with the policies set in the Riverside County General Plan regarding county eligible scenic highways. The nearest eligible scenic highway is the I-15 through Riverside County, and is approximately 5 miles to the south. Due to the distance, intervening terrain, and existing commercial and residential development along the I-215 corridor, the proposed Project site is not visible from

the I-15. The construction and operation of proposed Project components would not affect particularly scenic features along the interstate corridor, such as hilly terrain, scattered oak trees, and active agricultural lands.

Visual Character of the Proposed Build Alternatives

Alternative 1 (No-Build Alternative)

Under the No-Build Alternative, new connections to the I-215 and associated auxiliary lanes would not be constructed.

Common Design Features

The implementation of any of the Build Alternatives would entail the construction of several common design features, including the construction of a cul-de-sac; various concrete curbs; and surface roadway improvements, such as widening, and restriping. While the removal of existing features, such as curbs, sidewalks, and utilities, would be noticeable to Keller Road motorists and nearby highway neighbors, grading activities would create new tan-colored lines, and the straight line and horizontal form of the roadbed would parallel the existing roadway alignment. Color and texture contrasts, resulting from grading activities, would be experienced for a temporary, short-term duration. Following the paving of the road, the installation of curbs and sidewalks, and the relocation (or undergrounding) of utilities, the widened roadway would display similar form, line, color, and texture as the existing road for both motorists and highway neighbors.

Additionally, new retaining walls are proposed to accommodate widening below the I-215 bridge structure and at the NB off-ramp to Keller Road. These retaining walls are planned to feature a fractured fixed texture concrete finish.

The construction of a 1,430-foot-long wildlife noise- and light-reducing barrier, consisting of two berms up to 7-feet high connected by a 2-foot-wide and 3.5-foot-tall wildlife noise- and light-reducing wall, would create a wall-like effect of varying heights on the western side of the I-215, particularly at the berms' tallest points. This barrier would begin at Keller Road to the north and continue 1,430 feet south, where the earthen berm would tie into a hill that rises to the south of the culvert (Figure 2.3-6). The barrier would replace views of the grassy expanse to the west that rises to form low, rounded, green and brown vegetation-covered hills, with views primarily of a horizontal earthen berm and a wildlife noise- and light-reducing wall. It is anticipated the earthen berm would be perceived as a continuation of the hill to the south, and the barrier's wall-like

effect would slightly contrast with views of the existing landscape for both motorists and highway neighbors over the short distance.

Build Alternative 2 – Spread Diamond Interchange (Type L-2)

Apart from the impacts noted for the noise and light barrier common to all Build Alternatives, the implementation of Build Alternative 2 with the other common design features would be compatible with the existing visual character of the I-215 corridor and adjacent landscape. Construction, including vegetation removal and grading activities, would create new flattened forms and straight lines in the landscape, as well as wide and regular areas marked by exposed, tan-colored soils. The new on- and off-ramps and surface road improvements would replicate the form, line, color, and texture of the existing facilities. The proposed barrier would alter existing westward views from the I-215 near Keller Road to local hills, but views of regional mountain ranges, including the San Jacinto and San Bernardino Mountains to the northeast, would remain intact.

The introduction of retaining walls to accommodate the widened Keller Road beneath the I-215 bridge would entail the construction of new vertical concrete features. While the line displayed by the retaining walls would be visible to Keller Road motorists, the underpass is marked by sloping concrete walls that stretch from the Keller Road ROW to the underside of the interstate bridge deck. As such, the introduction of retaining walls would not substantially affect the visual character of the corridor or views.

Figure 2.1-13 presents an existing northeasterly view from the NB I-215 toward Keller Road (Key Observation Point 1). This point provides a representative view of the I-215 corridor and adjacent landscape available to interstate motorists in the proposed Project area. Figure 2.1-14 presents a visual simulation of Build Alternative 2 at Key Observation Point 1, and shows that the form, line, color, and texture of proposed on- and off-ramps and auxiliary lanes at this location would be consistent with the form, line, color and texture of existing interstate travel lanes and surface streets.

Build Alternative 3 – Partial Cloverleaf Interchange (Type L-9)

Apart from the impacts noted for the noise and light barrier common to all Build Alternatives, the implementation of Build Alternative 3 with the other common design features would be compatible with the existing visual character of the I-215 corridor and adjacent landscape. Apart from the installation of loop on-ramps and necessary bridge widening to accommodate the ramps, impacts on the existing visual character associated with Build Alternative 3 would be

similar to those of Build Alternative 2. For Build Alternative 3, a wider area is required to construct the proposed northern and southern loop ramps. This would accommodate sloping, landscaped terrain and the curving, looped lines displayed by new interstate ramps, which would display a relatively mild, diagonal line that would be interrupted by newly installed landscaping, guard railing, and the asphalt surface ramps. This would create a slightly more complex visual pattern of lines, colors, and textures that would be experienced by I-215 and Keller Road motorists. The implementation of Build Alternative 3 would alter existing westward views from the I- 215 near Keller Road to local hills, but not of regional mountain ranges to the northeast, including the San Jacinto and San Bernardino Mountains.

Figure 2.1-15 presents a visual simulation of Build Alternative 3 at Key Observation Point 1, and shows that the form, line, color, and texture of the proposed on- and off-ramps and auxiliary lanes would create a slightly more complex visual character at this location but would be consistent with the form, line, color, and texture of existing interstate travel lanes and surface streets.



FIGURE 2.1-14

Key Observation Point 1: Alternative 2 Visual Simulation

I-215/Keller Road Interchange Project



FIGURE 2.1-15

Key Observation Point 1: Alternative 3 Visual Simulation

I-215/Keller Road Interchange Project

Build Alternative 5 – Compact Diamond (Type L-1)

Apart from the impacts noted for the noise and light barrier common to all Build Alternatives, the implementation of Build Alternative 5 with the other common design features would be compatible with the existing visual character of the I-215 corridor and adjacent landscape. Figure 2.1-16 presents a visual simulation of Build Alternative 5 at Key Observation Point 1. Unlike Build Alternatives 2 and 3, the implementation of Build Alternative 5 would entail the introduction of double roundabout on- and off-ramps. These new features would be distinct from existing conditions and other ramp configurations under consideration, and would introduce circular forms and rounded, curving lines to the interstate-adjacent landscape. Areas adjacent to the interstate would be occupied by both familiar and new features, including sidewalks, curbs, asphalt-surfaced travel lanes, and a circular concrete curb and “pedestal” that would be installed in the middle of the roundabout. New SB on- and off-ramps would be established on previously disturbed but undeveloped land to the west of the interstate, which would create new line, color, and textural contrasts from the existing visual character. These contrasts would be experienced by all viewers, but would be similar in scale to those experienced by all viewers at the Clinton Keith Road and Scott Road interchanges. The implementation of Build Alternative 5 would not entail the installation of design features that would substantially block or interrupt existing views from the interstate of prominent local and regional terrain to the northeast. However, as with all proposed Build Alternatives, the proposed noise and light barrier on the western side of the I-215 would alter existing views of local hills to the west over a short distance.



FIGURE 2.1-16

Key Observation Point 1: Alternative 5 Visual Simulation

I-215/Keller Road Interchange Project

Visual Quality of the Proposed Build Alternatives

Alternative 1 (No-Build Alternative)

Under the No-Build Alternative, new connections to the I-215 and associated auxiliary lanes would not be constructed. Therefore, visual quality would remain low to moderate.

Common Design Features

As described earlier, the implementation of any of the Build Alternatives would entail the construction of several common design features, which would result in moderate visual changes to the I-215 corridor and adjacent landscape, particularly as a result of the proposed noise and light barrier. These effects to visual resources would be muted because they are a natural extension of an existing major highway feature with similar visual features. These new facilities and roadway striping/markings would be consistent with the existing features in the landscape, keeping the unity and intactness of the proposed Project area similar to that experienced today. For example, the new driveway and cul-de-sac constructed off Keller Road to provide access to residential properties would be on undeveloped, yet disturbed terrain; however, the paved road and concrete curb features would display a similar visual quality as existing nearby roads. The area currently displays low to moderate visual quality, and impacts to existing intactness and unity would be low to moderate. Elsewhere, the installation of a cul-de-sac on Antelope Road near Brian's Way would interrupt the existing line created by the paved roadway as it extended north to Keller Road. However, the installation of a curb would not substantially impact the existing visual quality of the Antelope Road corridor. Therefore, the implementation of the common design features of the Build Alternatives would be compatible with the existing visual quality and would result in a low visual change to the I-215 corridor and adjacent landscape.

Build Alternative 2

The implementation of Build Alternative 2 would result in the construction of new ramps, auxiliary lanes, and a widened Keller Road, which would create new contrasts within the proposed Project site but would look similar to the existing condition, keeping the unity and intactness of the proposed Project site similar to that experienced today. The existing I-215 corridor and adjacent landscape lack particularly striking or distinct visual patterns, resulting in overall low to moderate visual quality. The vividness of the landscape is primarily associated with the availability of mostly uninterrupted views of the Paloma Valley, Menifee Hills to

the north, Domenigoni Hills to the east, Murrieta Hills to the southeast, and distant views of the San Jacinto and San Bernardino Mountains to the southeast. The new ramps and auxiliary lanes proposed under Build Alternative 2 would not interfere with the quality of the existing views. Build Alternative 2 would also not significantly alter the existing intactness and unity of the landscape. The proposed noise and light barrier under Build Alternative 2 would create a brief wall-like effect on the western side of the I-215, and would alter existing views of local hills to the west, diminishing the vividness and intactness over a short distance. Once past the barrier, the views of local hills to the west would resume. Therefore, long-term changes to the existing visual quality of the landscape would not be adverse with the implementation of Build Alternative 2.

Build Alternative 3

The implementation of Build Alternative 3 would introduce new looped ramps (lines), auxiliary lanes, a widened Keller Road, and distinct features to the landscape, but it would look similar to the existing condition, keeping the unity and intactness of the proposed Project site similar to that experienced today. These contrasts would add elements of interest to the landscape and create a new, but familiar, visual pattern. The implementation of Build Alternative 3 would not obstruct or substantially alter the quality of existing views from the I-215 near Keller Road to local hills and regional mountain ranges to the northeast, including the San Jacinto and San Bernardino Mountains. Similar to Build Alternative 2, these changes would not significantly alter the existing intactness and unity of the landscape, because the existing and planned land use development pattern near the proposed Project site is not anticipated to change as rural land would continue to transition to suburban-style development. The proposed noise and light barrier under Build Alternative 3 would create a brief wall-like effect on the western side of the I-215 and would alter existing views of local hills to the west, therefore, diminishing the vividness and intactness over a short distance similar to Build Alternative 2. Once past the barrier, the views of local hills to the west would resume. Therefore, long-term changes to the existing visual quality of the landscape would not be adverse with the implementation of Build Alternative 3.

Build Alternative 5

The existing visual quality of the I-215/Keller Road corridor would be altered by the implementation of Build Alternative 5, primarily related to the proposed noise and light barrier and the double roundabouts at the I-215 ramp intersections at the existing Keller Road. The double roundabouts would be distinct from other

ramp configurations under consideration, and would introduce circular forms and rounded, curving lines to the existing I-215/Keller Road corridor. The implementation of Build Alternative 5 would create a slightly more complex visual pattern of road, ramps, and landscaping. Despite the introduction of new double roundabouts and other transportation components (lighting, sidewalks, striping, etc.) the implementation of Build Alternative 5 would be compatible with the existing visual quality and would result in a low visual change to the I-215/Keller Road corridor and would not substantially degrade unity and intactness within the proposed Project site.

The construction of new SB on- and off-ramps on previously disturbed but undeveloped land to the west of the interstate, as described earlier, would create contrasts visible to all viewers. The contrast would not be strong and the existing intactness and unity of the landscape adjacent to and west of the interstate would not be significantly affected.

The implementation of this Build Alternative would not obstruct or substantially alter existing quality of views from the I-215 near Keller Road to regional mountain ranges to the northeast. These changes would not alter the existing vividness of the landscape or the existing visual quality of the proposed Project site. However, the proposed noise and light barrier would create a wall-like effect on the western side of the I-215 and would alter existing views of local hills to the west over a short distance, with changes to visual quality, as described for Build Alternatives 2 and 3. Once past the barrier, the views of local hills to the west would resume. Therefore, long-term changes to the existing visual quality of the landscape would not be adverse with the implementation of Build Alternative 5.

Temporary Impacts

Alternative 1 (No-Build Alternative)

Under the No-Build Alternative, the construction of a new I-215 interchange at Keller Road would not occur.

Build Alternatives 2, 3, and 5

The construction of Build Alternatives 2, 3, and 5 would result in similar temporary impacts on the proposed Project site's visual resources. Construction-related vehicle access and staging of construction materials would occur, and proposed Project construction and grading activities would expose nearby viewers to surfaces, construction debris, equipment, and truck traffic. Construction would result in temporary impacts associated with grading, road

demolition, sand blasting, or other work. The construction of Build Alternatives 2, 3, or 5 would have low to moderate short-term temporary impacts on visual resources. These visual impacts related to construction would cease after the completion of construction.

Permanent Impacts

Alternative 1 (No-Build Alternative)

Under the No-Build Alternative, the construction of a new I-215 interchange at Keller Road would not occur. Consequently, lines associated with new on- and off-ramps, and the form, color, and texture of associated landscaping, would not be experienced by local viewers.

Build Alternative 2 – Spread Diamond Interchange

In addition to constructing a spread diamond interchange at the Keller Road undercrossing, Build Alternative 2 would construct auxiliary lanes on the I-215 and a noise and light barrier on the western side of the I-215. The implementation of Build Alternative 2 design features would result in low to moderate changes to the existing conditions and visual quality, primarily related to the installation of the barrier. However, the change in visual character and visual quality would remain low to moderate. The operation of Build Alternative 2 would result in a moderate permanent visual impact, based on existing visual quality, character, and viewer response. As viewed from the Key Observation Point, the form, line, color, and texture of the proposed on- and off-ramps and auxiliary lanes would be consistent with the form, line, color, and texture of the existing I-215 travel lanes and visible surface streets (that is, Keller Road and Antelope Road).

Build Alternative 2 would entail the construction of primarily low and horizontal features that would not block or interrupt the existing views to the northeast of the mountains within the proposed Project study area. However, the barrier would obscure views of the meadow and hills to the west, and would create a wall-like effect on the western side of the I-215 over a short distance. The noise and light barrier would incorporate standard erosion control measures, and would be planted in accordance with the *Caltrans I-215 Conceptual Corridor Master Plan* (Caltrans 2013a) to help with viewership. Proposed improvements may entail the installation of new sources of nighttime lighting; however, the installation of new street or ramp lights or other required sources to adequately illuminate the areas for users would not adversely affect nighttime views.

Build Alternative 3 – Partial Cloverleaf Interchange

Build Alternative 3 would include a new partial cloverleaf interchange at the Keller Road undercrossing, auxiliary lanes on the I-215, the widening of the existing bridge at the I- 215 and Keller Road, and the installation of the noise and light barrier on the western side of the I-215. The proposed widening would entail the construction of an expanded bridge deck and new concrete rail that is planned to be of a similar horizontal and concrete design as the existing concrete rail. Despite similarities in design and construction materials, the slightly darker grayish tone of a new concrete rail on the widened bridge would produce subtle visual changes for local motorists as they approach the interstate. Apart from the installation of loop on-ramps and necessary bridge widening to accommodate the ramps, permanent impacts on existing visual quality and character associated with Build Alternative 3 would be similar to those described for Build Alternative 2, with low to moderate changes to visual quality. The implementation of Build Alternative 3 would not block or interrupt existing long-range views to the northeast of the San Jacinto or San Bernardino Mountains. However, the barrier would obscure views of the meadow and hills to the west, and would create a wall-like effect on the western side of the I-215 over a short distance. The noise and light barrier would incorporate standard erosion control measures and would be planted in accordance with the Caltrans *I-215 Conceptual Corridor Master Plan* (Caltrans 2013a) to help with viewership.

Build Alternative 5 – Compact Diamond

Build Alternative 5 would include a new interchange with double roundabouts at the Keller Road undercrossing, auxiliary lanes on the I-215, and the installation of the noise and light barrier on the western side of the I-215. The double roundabouts would be visually distinct from other ramp configurations under consideration, and would introduce circular forms and rounded, curving lines to the interstate-adjacent landscape. Perceptible changes to the unity of the immediate foreground landscape due to the addition of the double roundabouts would result in overall low to moderate effects on existing visual quality. Changes to visual character and quality would be low to moderate because of the installation of the barrier on the western side of the I-215, which would hinder views to the west and create a wall-like effect over a short distance. The noise and light barrier would incorporate standard erosion control measures, and would be planted in accordance with the Caltrans *I-215 Conceptual Corridor Master Plan* (Caltrans 2013a) to help with viewership. The implementation of Build

Alternative 5 would not block or interrupt existing long-range views to the northeast of the San Jacinto or San Bernardino Mountains.

AVOIDANCE, MINIMIZATION, OR MITIGATION MEASURES

Potential visual impacts resulting from the construction and operation of the proposed Project would not require mitigation measures; however, the following minimization measures would be implemented to achieve a consistent visual appearance with other freeway facilities in the area and to discourage graffiti/defacement of state property.

AES-1 The exposed surface of new retaining walls will be designed and constructed to include a fractured fixed texture concrete finish. The depth of relief for the finish will be determined in coordination with Caltrans. The finish of retaining walls will be clearly identified on construction plans submitted to Caltrans for review and approval.

AES-2 Temporarily impacted terrain that parallels new or modified travel lanes (or sidewalk features or on- and off-ramps) will be revegetated with drought-tolerant plant species or appropriate seed mixes. The intent of revegetation will be to reduce visible bands and lines of proposed Project-related disturbance in the landscape. Appropriate plant species or seed mixes will be determined in coordination with Caltrans landscape architects. The installation of landscaping and irrigation will be the responsibility of the City of Murrieta and conducted by an appropriate and certified landscape contractor. A Landscape Maintenance Agreement will be developed and executed with Caltrans to determine landscape maintenance responsibility.

AES-3 A highway planting plan would be implemented to include standard erosion control specifications for slope stabilization and vegetation establishment in accordance with the Caltrans I-215 Conceptual Corridor Master Plan.

2.1.11 Cultural Resources

REGULATORY SETTING

The term “cultural resources,” as used in this document, refers to the “built environment” (e.g., structures, bridges, railroads, water conveyance systems, etc.), places of traditional or cultural importance, and archaeological sites (both

prehistoric and historic), regardless of significance. Under federal and state laws, cultural resources that meet certain criteria of significance are referred to by various terms including “historic properties,” “historic sites,” “historical resources,” and “tribal cultural resources.” Laws and regulations dealing with cultural resources include:

The National Historic Preservation Act (NHPA) of 1966, as amended, sets forth national policy and procedures for historic properties, defined as districts, sites, buildings, structures, and objects included in or eligible for listing in the National Register of Historic Places (NRHP). Section 106 of the NHPA requires federal agencies to take into account the effects of their undertakings on historic properties and to allow the Advisory Council on Historic Preservation (ACHP) the opportunity to comment on those undertakings, following regulations issued by the ACHP (36 Code of Federal Regulations [CFR] 800). On January 1, 2014, the First Amended Section 106 Programmatic Agreement (PA) among the Federal Highway Administration (FHWA), the ACHP, the California State Historic Preservation Officer (SHPO), and the Department went into effect for Department projects, both state and local, with FHWA involvement. The PA implements the ACHP’s regulations, 36 CFR 800, streamlining the Section 106 process and delegating certain responsibilities to the Department. The FHWA’s responsibilities under the PA have been assigned to the Department as part of the Surface Transportation Project Delivery Program (23 United States Code [USC] 327).

The California Environmental Quality Act (CEQA) requires the consideration of cultural resources that are historical resources and tribal cultural resources, as well as “unique” archaeological resources. California Public Resources Code (PRC) Section 5024.1 established the California Register of Historical Resources (CRHR) and outlined the necessary criteria for a cultural resource to be considered eligible for listing in the CRHR and, therefore, a historical resource. Historical resources are defined in PRC Section 5020.1(j). In 2014, Assembly Bill 52 (AB 52) added the term “tribal cultural resources” to CEQA, and AB 52 is commonly referenced instead of CEQA when discussing the process to identify tribal cultural resources (as well as identifying measures to avoid, preserve, or mitigate effects to them). Defined in PRC Section 21074(a), a tribal cultural resource is a CRHR or local register eligible site, feature, place, cultural landscape, or object which has a cultural value to a California Native American tribe. Tribal cultural resources must also meet the definition of a historical

resource. Unique archaeological resources are referenced in PRC Section 21083.2.

PRC Section 5024 requires state agencies to identify and protect state-owned historical resources that meet the NRHP listing criteria. It further requires the Department to inventory state-owned structures in its rights-of-way. Sections 5024(f) and 5024.5 require state agencies to provide notice to and consult with the State Historic Preservation Officer (SHPO) before altering, transferring, relocating, or demolishing state-owned historical resources that are listed on or are eligible for inclusion in the NRHP or are registered or eligible for registration as California Historical Landmarks. Procedures for compliance with PRC Section 5024 are outlined in a Memorandum of Understanding (MOU)[1] between the Department and SHPO, effective January 1, 2015. For most Federal-aid projects on the State Highway System, compliance with the Section 106 PA will satisfy the requirements of PRC Section 5024.

AFFECTED ENVIRONMENT

This section is based on the *Historic Property Survey Report* (Caltrans 2022c), *Archaeological Survey Report* (Caltrans 2022d) and Appendix A Resources Evaluated Relative to the Requirements of Section 4(f): No-Use Determination.

Areas of Potential Effects

The APE was established as all areas where the proposed Project has the potential to directly or indirectly affect historic properties. The mapped APE was established in consultation with Caltrans District 8 staff Dicken Everson (Principal Investigator, Prehistoric and Historical Archaeology Professionally Qualified Staff [PQS]) and Emad Makar (Project Manager). The APE is the combination of the areas of potential direct and indirect effects. The area of direct impact (ADI) includes the areas where physical impacts may occur, such as the proposed and existing ROW, as well as the horizontal and vertical areas associated with ground-disturbing activities. The maximum extent of the ADI includes the following:

- 0.67-mile segment of the I-215 north of Keller Road
- 0.45-mile segment of the I-215 south of Keller Road

[1] The MOU is located on the SER at https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/5024mou-15-a11y.pdf

- 0.25-mile segment of Keller Road west of the I-215
- 0.5-mile segment of Keller Road east of the I-215

The APE also extends beyond those areas of direct physical effects within the ADI and includes areas that may be affected by visual, noise, or other effects. This includes properties that are adjacent to the proposed ROW, unless they are undeveloped or the buildings are 100 feet or more from proposed new construction.

The proposed Project is within Township 6 South, Range 3 West, and Sections 22, 23, 26, and 27 of the Murrieta and Romoland U.S. Geological Survey (USGS) 7.5-Minute Quadrangle Maps. The APE is bound by residences to the northeast and east, industrial and commercial development to the southeast and west, and open and undeveloped land to the southwest and southeast, with sporadic residential development and agricultural land to the northwest.

Records Search

A California Historical Resources Information System records search was conducted at the Eastern Information Center on July 20, 2015. A second records search was performed on April 25, 2019, to obtain updated information. The searches included previously recorded cultural resources (including archaeological and built environment resources) and investigations within the APE and a 1-mile radius. In addition to official archaeological maps and records, the following sources of information were consulted as part of the records search:

- NRHP
- California State Historic Property Data Files
- California State Historical Landmarks
- California Points of Historical Interest
- Office of Historic Preservation Archaeological Determinations of Eligibility
- Caltrans State and Local Bridge Surveys

Field Survey

An intensive pedestrian survey of the ADI was performed on November 20, 2018. Another survey was completed on June 5, 2020, for a previously unsurveyed area along Keller Road, due to proposed Project design changes. The APE was surveyed by walking 50-foot parallel transects where structural obstructions, such as pavement and remnant foundations, were not present. Visibility varied from

excellent to poor, averaging 50%, with substantial obstruction of the surface by pavement and vegetation.

Native American Consultation

On August 23, 2018, a search of the NAHC's Sacred Lands File was conducted, resulting in a positive identification of known resources. The NAHC also provided a list of local Native American Tribes to be contacted. The Native American Tribes, Groups, and individuals include the following:

- **Joseph Ontiveros (Soboba Band of Luiseño Indians):** Requested government-to-government consultation and Tribal monitoring of the proposed Project and stated that the proposed Project is located within the Ta'awilla Traditional Cultural Property (TCP).
- **Bo Mazzetti (Rincon Band of Luiseño Indians):** Indicated the proposed Project is within the Tribe's specific area of historic interest and requested copies of cultural resource reports and environmental documents.
- **Tuba Ebru Ozdil (Pechanga Band of Luiseño Indians):** Requested government-to-government consultation and Tribal monitoring of the proposed Project.
- **Shasta Gaughen (Pala Band of Mission Indians):** Stated the proposed Project is outside the Reservation and Traditional use area, and did not request consultation.
- **Travis Armstrong (Morongo Band of Mission Indians):** Requested government-to-government consultation and Tribal monitoring of the proposed Project.

Results

Archaeological Results

The records search revealed that 81 previous studies were identified within the 1-mile records search radius between 1978 and 2017. Among these studies, 22 overlap the current APE. Records indicate 148 cultural resources are recorded within a 1-mile radius of the proposed Project. Within the APE, one prehistoric habitation site, two prehistoric bedrock milling sites, and one prehistoric isolate are recorded.

Built Environment Results

No recorded built environment resources are within the APE.

ENVIRONMENTAL CONSEQUENCES

Temporary Impacts

Any impacts on cultural resources as a result of the proposed Project would be considered permanent; therefore, an analysis of temporary impacts is not applicable.

Permanent Impacts

Alternative 1 (No-Build Alternative)

No improvements would be made to the freeway mainline or to the existing Keller Road interchange; therefore, the No-Build Alternative would not result in an adverse impact related to cultural resources.

Build Alternatives 2, 3, and 5

Based on the findings reported in the *Historic Property Survey Report* (February 2020), only a small portion of an archaeological site would be taken by the proposed Project. Additionally, an ESA Action Plan would be implemented. Therefore, Caltrans, in applying the Criteria of Adverse Effect (36 CFR 800.5), has determined a Finding of No Adverse Effect (FNAE) without Standard Conditions for the proposed Project, including all Build Alternatives. On July 28, 2022, SHPO concurred with the FNAE pursuant to 36 CFR 800.5(c) and Section 106 PA Stipulation X.B.2.

CA-RIV-645 is a property within the APE that is considered eligible for inclusion in the NRHP for the purpose of this proposed Project, only because evaluation was not possible, in accordance with Section 106 PA Stipulation VIII.C.4 and as applicable in PRC 5024 MOU Stipulation VIII.C.4 (Caltrans 2023b). However, intact portions of the site that contain the character-defining features of the site that convey its significance under Criteria C and D of the NRHP would be preserved in place. Effects on this site from cut-and-fill grading activities would be confined to a portion of the site that was graded in the 1970s, and that does not contain character-defining features that convey the significance of the site under any criterion of the NRHP.

If cultural materials are discovered during construction, all earthmoving activity within and around the immediate discovery area will be diverted until a qualified archaeologist can assess the nature and significance of the find.

If human remains are discovered, California Health and Safety Code (H&SC) Section 7050.5 states that further disturbances and activities shall stop in any area or nearby area suspected to overlie remains, and the County Coroner contacted. If the remains are thought by the coroner to be Native American, the coroner will notify the Native American Heritage Commission (NAHC), who, pursuant to PRC Section 5097.98, will then notify the Most Likely Descendant (MLD). At this time, the person who discovered the remains will contact the District 8 Environmental Branch so that they may work with the MLD on the respectful treatment and disposition of the remains. Further provisions of PRC 5097.98 are to be followed as applicable.

As discussed in Appendix A, Site CA-RIV-645 is historic property protected by Section 4(f) of the Department of Transportation Act of 1966; however, the proposed Project would not "use" the property as defined by Section 4(f). No artifacts or features of the site exist within the proposed Project's ADI. Proposed Project grading would take place on previously disturbed soil and would not reach a depth to disturb buried archaeological deposits, should such deposits exist.

AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES

The following avoidance and minimization measures would be applied to the proposed Project to ensure proper treatment of known and unknown archaeological resources:

CR-1 In the event of a discovery, the archaeological or Native American monitor will temporarily halt or divert ground-disturbing activities within 60 feet of the discovery and will immediately notify the Project Engineer, Caltrans Archaeologist PQS, and Consulting Archaeologist, in accordance with the Caltrans Standard Specifications Section 14-2.03 (Caltrans 2018e). Archaeological resources will not be moved until directed to by Caltrans District 8 Cultural Studies Office.

CR-2 If potential human remains are discovered, the archaeological and Native American monitors will record the presence of the bone and make a tentative, unofficial assessment of the likelihood of its being human; halt work within a minimum of 60 feet of the discovery; and notify the Project Engineer, Consulting Archaeologist, and Caltrans Archaeologist. If the bone is identified as human by the Caltrans

Archaeologist or Consulting Archaeologist, or if it is questionable in origin, treatment procedures of the bone and area of discovery will closely adhere to Health and Safety Code 7050.5 and PRC 5097.98, including immediate notification of the County Coroner. All remains will be left in place and protected until they can be examined by the County Coroner; no work will occur in the area until the coroner has made a determination as to the origin of the remains. If the remains are determined by the coroner to be of Native American origin, the coroner will inform the NAHC. The NAHC will identify the Most Likely Descendant (MLD), who will provide recommendations regarding treatment of the remains within 48 hours of being granted access to the discovery location. Caltrans will coordinate with the MLD and the NAHC to ensure the remains are treated in a culturally sensitive manner consistent with PRC 5097.98 and Health and Safety Code 7070.5. No photographs or destructive analyses will be performed without the written permission of the MLD.

CR-3 An ESA has been established for Site CA-RIV-645 to protect and preserve intact portions of the site. ESA fencing will be established along the existing Caltrans ROW fence to demarcate the protected area. No proposed Project personnel or equipment will be permitted in the protected area; all work must be performed outside the ESA. An Archaeological Monitoring Area (AMA) has been established within the Area of Direct Impact within the boundary of Site CA-RIV-645. No ground-disturbing activities will occur within the AMA unless an archaeological monitor is present. The establishment of the ESA will be performed in accordance with Caltrans Standard Specifications (Caltrans 2022e) and will be shown on proposed Project design plans (refer to Attachment 2 of the ESA Action Plan) and included in the specification.

CR-4 All archaeological monitors will meet or exceed the PQS equivalency for Co-PI, Prehistoric Archaeology, as described in the PA Attachment 1 (FHWA et al. 2014). The Caltrans District 8 Cultural Studies Office will review and approve all monitor resumes before construction. The archaeological monitor must be present for the delineation of the ESA fence and all construction activities in

the AMA. No construction activities may commence within the AMA without the archaeological monitor.

A Native American monitor could be present for ground-disturbing activities in the AMA with the archaeological monitor, but construction activities can proceed without the Native American monitor present. The Native American monitor will be approved by one of the consulting Native American Tribes.

CR-5 A Dust Control Plan has been developed to protect rock art at Site CA-RIV-645 from potential damage caused by dust. The plan includes placing a protective cover over the rock that contains the pictograph by the consulting archaeologist or archaeological monitor, along with the Native American monitor, and periodic inspections by the archaeologist and Native American monitor. Only the archaeological monitor, Consulting Archaeologist, Caltrans Archaeologist, and Native American monitor are permitted inside the ESA to install, inspect, and service the rock art protective covering. If requested by the archaeologists and Native American monitor, construction personnel may assist.

2.2 Physical Environment

2.2.1 Hydrology and Floodplain

REGULATORY SETTING

Executive Order (EO) 11988 (Floodplain Management) directs all federal agencies to refrain from conducting, supporting, or allowing actions in floodplains unless it is the only practicable alternative. The Federal Highway Administration (FHWA) requirements for compliance are outlined in 23 Code of Federal Regulations (CFR) 650 Subpart A.

To comply, the following must be analyzed:

- The practicability of alternatives to any longitudinal encroachments.
- Risks of the action.
- Impacts on natural and beneficial floodplain values.
- Support of incompatible floodplain development.
- Measures to minimize floodplain impacts and to preserve/restore any beneficial floodplain values affected by the project.

The base floodplain is defined as “the area subject to flooding by the flood or tide having a one percent chance of being exceeded in any given year.” An encroachment is defined as “an action within the limits of the base floodplain.”

AFFECTED ENVIRONMENT

This section is based on the *Jurisdictional Waters Delineation Report* (Caltrans 2018b) and the *Conceptual Drainage Report PA&ED* (Caltrans 2018c) prepared for this proposed Project. Based on a review of FEMA Flood Insurance Rate Map (FIRM) Nos. 06065C2070H and 06065C2710H (FEMA 2008 and 2014), the proposed Project is not within a 100-year base floodplain.

Regional Hydrology

A portion of the proposed Project site falls under the jurisdiction of the Santa Ana RWQCB, which includes Orange, Riverside, and San Bernardino Counties. The Santa Ana Region is approximately 2,800 square miles in Southern California and consists mostly of the Santa Ana River Watershed and its tributaries. The northern portion of the proposed Project site is within the Lower San Jacinto River watershed of the larger San Jacinto Valley Hydrologic Unit. The majority of the proposed Project to the south is within the San Diego RWQCB jurisdiction in the Murrieta Creek watershed of the larger Santa

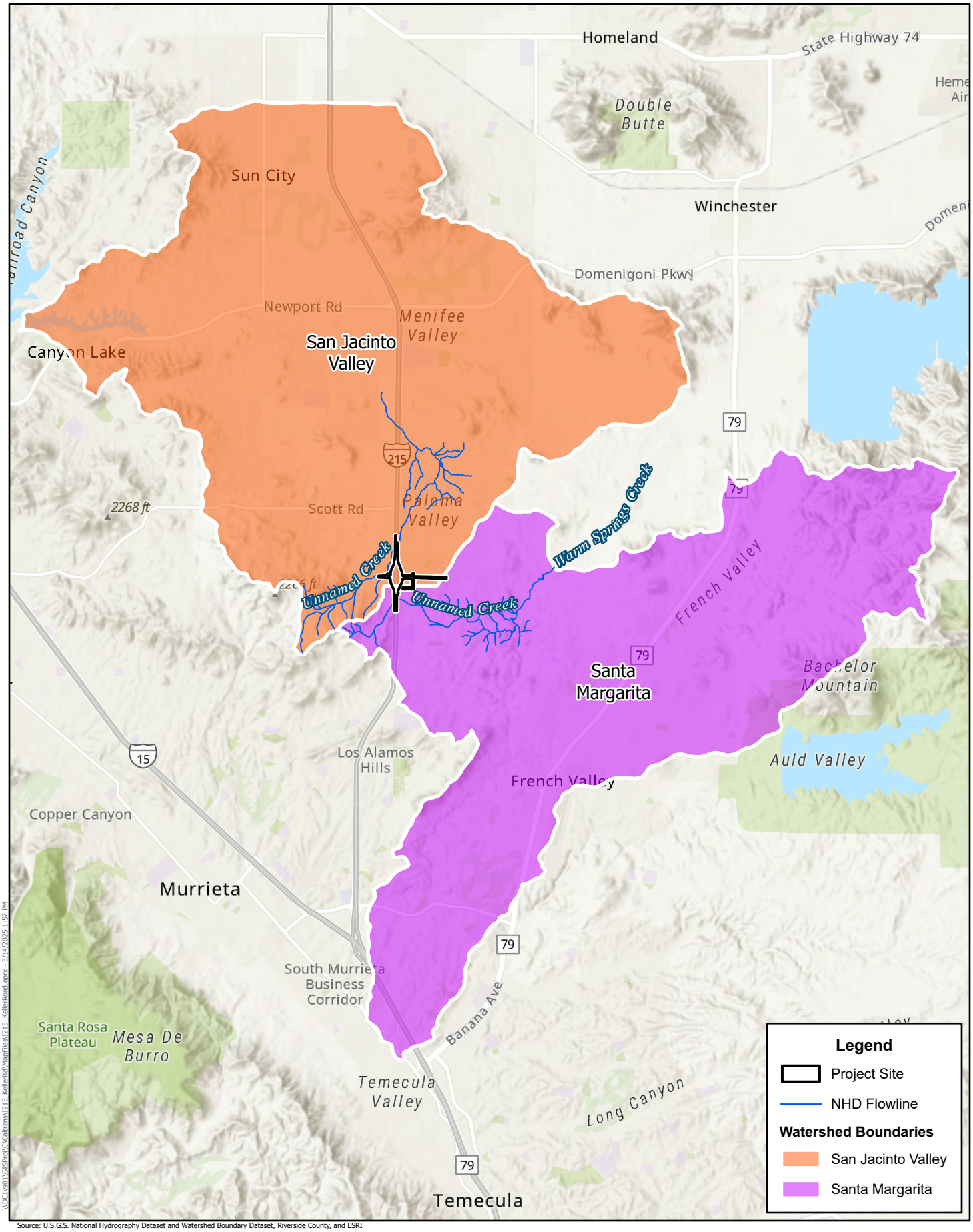
Margarita Hydrologic Unit. Two unnamed drainages are mapped by the USGS National Hydrography Dataset (NHD) within the proposed Project site (Figure 2.2-1).

For regulatory purposes, the RWQCB designates watershed areas into Hydrologic Units (HUs), which are further divided into Hydrologic Areas (HAs) and Hydrologic Subareas (HSAs). The proposed Project site is within the Menifee HSA of the Perris Valley HA, within the San Jacinto Valley HU, as designated by the Santa Ana RWQCB. Additionally, it is within the French HSA of the Murrieta HA, within the Santa Margarita HU, overseen by the San Diego RWQCB (Caltrans 2024e).

In general, the existing drainage flow pattern for the proposed Project site is from west to east. No identified direct receiving waters cross or are adjacent to the existing or proposed roadways within the proposed Project site.

100-year Floodplains

According to the FEMA FIRM Nos. 06065C2070H (August 18, 2014) and 06065C2710H (August 8, 2008), the majority of the proposed Project site is within FEMA Zone X Area of Minimal Flood Hazard (refer to Figure 2.2-2). Zone X is commonly described as the area subject to flooding between the 100-year and 500-year floods. Furthermore, the proposed Project site and vicinity are not within a dam inundation zone, as mapped in the *Murrieta General Plan 2035 Safety Element* (City of Murrieta 2020a). The proposed Project site is not within a FEMA-designated 100-year flood hazard area.



Source: U.S.G.S. National Hydrography Dataset and Watershed Boundary Dataset, Riverside County, and ESRI

0 0.5 1 Miles

Scale: 1:120,000

Figure 2.2-1
Regional Watersheds
I-215/Keller Road New Interchange Project

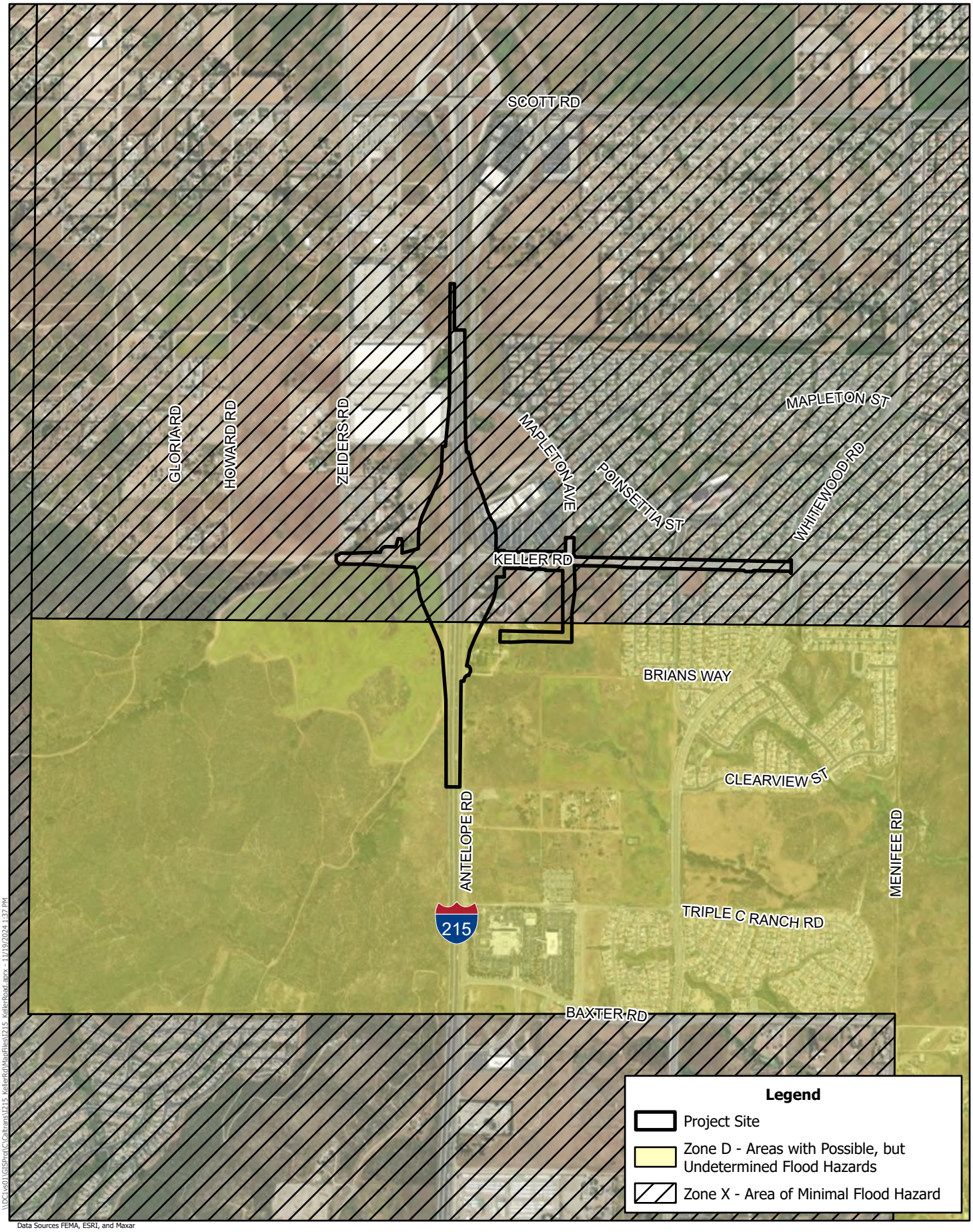


Figure 2.2-2
Flood Zones
I-215/Keller Road New Interchange Project

The California Department of Water Resources (DWR) has developed Best Available Maps displaying 100-year, 200-year, and 500-year floodplains. The floodplain map shows that the proposed Project site is not within a floodplain or other areas subject to flooding (Figure 2.2-2).

Natural and Beneficial Floodplain Values

In their natural or relatively undisturbed state, floodplains serve water resource values (for example, natural moderation of floods, water quality maintenance, groundwater recharge), living resource values (for example, fish, wildlife, plant species), and cultural resource values (for example, open space, archaeological, historical natural beauty, scientific study, outdoor education, and recreation).

The Santa Ana RWQCB designates beneficial uses of surface waters in their jurisdiction. Beneficial uses are defined in the Santa Ana RWQCB's *Water Quality Control Plan* for the Santa Ana River Basin (Basin Plan) as the various ways that water can be used for the benefit of humans and/or wildlife (Santa Ana RWQCB 2019). The *Water Quality Control Plan* indicates the following beneficial uses for Reach 3 of the San Jacinto River Basin, which the Perris Valley HA falls within: intermittent Agricultural Supply (AGR), intermittent Groundwater Recharge, intermittent Water Recreation (including contact [REC-1], and non-contact [REC-2]), intermittent Warm Freshwater Habitat (WARM), and intermittent Wildlife Habitat (WILD). The Water Quality Control Plan indicates the following beneficial uses for the Murrieta HA: Municipal and Domestic Supply (MUN), AGR, Industrial Service Supply (IND), Industrial Process Supply (PROC), intermittent Water Recreation (including REC-1 and REC-2), intermittent WARM, and intermittent WILD.

ENVIRONMENTAL CONSEQUENCES

Temporary Impacts

Alternative 1 (No-Build Alternative)

The No-Build Alternative does not include the construction of improvements to the I-215/Keller interchange. Therefore, the No-Build Alternative would not result in temporary impacts on hydrology and floodplains in the proposed Project site.

Build Alternatives 2, 3, and 5

The construction of the Build Alternatives would occur within FEMA Zone X, which is not regulated within the city limits. The proposed construction activities would include removal of vegetation, introduction of fill, construction of an interchange that ties Keller Road into the I-215, relocation of utilities, grading and

access for construction, and a new Caltrans ROW. All construction activities within the grading limits that do not result in new permanent structures are considered temporary. Any potential areas of temporary impacts would be returned to their pre-Project condition and function.

Although grading would be required, construction activities would not reduce or otherwise affect the flood storage capacity, and would not modify the flood flows within the proposed Project site. Furthermore, construction-related activities within the storm drains and channels would be staged and scheduled to avoid work directly within the regional drainages during the rainy season. As a result, construction activities under the Build Alternatives would not result in temporary adverse impacts related to hydrology and floodplains.

Permanent Impacts

Alternative 1 (No-Build Alternative)

The No-Build Alternative does not include improvements to the I-215/Keller interchange. Routine maintenance would continue, similar to that already occurring in the existing condition. Therefore, the No-Build Alternative would not result in permanent impacts on hydrology and floodplains in the proposed Project site.

Build Alternatives 2, 3, and 5

The implementation of Build Alternatives 2, 3, and 5 would result in permanent impacts from the construction of new pavement for the proposed interchange. The Build Alternatives would increase the total amount of impervious surface area, which could result in an increase in flow discharges. According to the proposed Project's *Conceptual Drainage Report PA&ED* (Caltrans 2018c), there would be several drainage modifications to existing facilities based on the implementation of the proposed Project. These proposed drainage modifications include new cross culverts under the ramps, stormwater quality BMPs, basins, bioswales, and the replacement of storm drains, inlets, and ditches. Overall, these modifications would maintain existing drainage patterns and hydraulic conditions within the proposed Project site. The proposed Project would not increase water surface elevation above the existing condition. The potential risk to life, property, and traffic disruptions would not increase due to the proposed Project. Significant impacts to natural and beneficial floodplain values are not anticipated. Therefore, no significant encroachment and no permanent impacts on hydrology and floodplains would occur in the proposed Project site as a result of the Build Alternatives.

AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES

Because no temporary or permanent adverse impacts on hydrology and floodplains would occur, no avoidance, minimization, and/or mitigation measures are necessary.

2.2.2 Water Quality and Stormwater Runoff

REGULATORY SETTING

Federal Requirements: Clean Water Act

In 1972, Congress amended the Federal Water Pollution Control Act, making the addition of pollutants to the waters of the United States (U.S.) from any point source[1] unlawful unless the discharge is in compliance with a National Pollutant Discharge Elimination System (NPDES) permit. This act and its amendments are known today as the Clean Water Act (CWA). Congress has amended the act several times. In the 1987 amendments, Congress directed dischargers of storm water from municipal and industrial/construction point sources to comply with the NPDES permit scheme. The following are important CWA sections:

- Sections 303 and 304 require states to issue water quality standards, criteria, and guidelines.

- Section 401 requires an applicant for a federal license or permit to conduct any activity that may result in a discharge to waters of the U.S. to obtain certification from the state that the discharge will comply with other provisions of the act. This is most frequently required in tandem with a Section 404 permit request (see below).

- Section 402 establishes the NPDES, a permitting system for the discharges (except for dredge or fill material) of any pollutant into waters of the U.S. Regional Water Quality Control Boards (RWQCBs) administer this permitting program in California. Section 402(p) requires permits for discharges of storm water from industrial/construction and municipal separate storm sewer systems (MS4s).

- Section 404 establishes a permit program for the discharge of dredge or fill material into waters of the U.S. This permit program is administered by the U.S. Army Corps of Engineers (USACE).

[1] A point source is any discrete conveyance such as a pipe or a man-made ditch.

The goal of the CWA is "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters."

The USACE issues two types of 404 permits: General and Individual. There are two types of General permits: Regional and Nationwide. Regional permits are issued for a general category of activities when they are similar in nature and cause minimal environmental effect. Nationwide permits are issued to allow a variety of minor project activities with no more than minimal effects.

Ordinarily, projects that do not meet the criteria for a Regional or Nationwide Permit may be permitted under one of the USACE's Individual permits. There are two types of Individual permits: Standard permits and Letters of Permission. For Individual permits, the USACE decision to approve is based on compliance with U.S. Environmental Protection Agency's (U.S. EPA) Section 404 (b)(1) Guidelines (40 Code of Federal Regulations [CFR] Part 230), and whether the permit approval is in the public interest. The Section 404(b)(1) Guidelines (Guidelines) were developed by the U.S. EPA in conjunction with the USACE, and allow the discharge of dredged or fill material into the aquatic system (waters of the U.S.) only if there is no practicable alternative which would have less adverse effects. The Guidelines state that the USACE may not issue a permit if there is a least environmentally damaging practicable alternative (LEDPA) to the proposed discharge that would have lesser effects on waters of the U.S. and not have any other significant adverse environmental consequences. According to the Guidelines, documentation is needed that a sequence of avoidance, minimization, and compensation measures has been followed, in that order. The Guidelines also restrict permitting activities that violate water quality or toxic effluent [2] standards, jeopardize the continued existence of listed species, violate marine sanctuary protections, or cause "significant degradation" to waters of the U.S. In addition, every permit from the USACE, even if not subject to the Section 404(b)(1) Guidelines, must meet general requirements. See 33 CFR 320.4. A discussion of the LEDPA determination, if any, for the document is included in the Wetlands and Other Waters section.

State Requirements: Porter-Cologne Water Quality Control Act

California's Porter-Cologne Act, enacted in 1969, provides the legal basis for water quality regulation within California. This act requires a "Report of Waste Discharge" for any discharge of waste (liquid, solid, or gaseous) to land or

[2] The U.S. EPA defines "effluent" as "wastewater, treated or untreated, that flows out of a treatment plant, sewer, or industrial outfall."

surface waters that may impair beneficial uses for surface and/or groundwater of the state. It predates the CWA and regulates discharges to waters of the state. Waters of the State include more than just waters of the U.S., like groundwater and surface waters not considered waters of the U.S. Additionally, it prohibits discharges of “waste” as defined, and this definition is broader than the CWA definition of “pollutant.” Discharges under the Porter-Cologne Act are permitted by Waste Discharge Requirements (WDRs) and may be required even when the discharge is already permitted or exempt under the CWA.

The State Water Resources Control Board (SWRCB) and RWQCBs are responsible for establishing the water quality standards (objectives and beneficial uses) required by the CWA and regulating discharges to ensure compliance with the water quality standards. Details about water quality standards in a project area are included in the applicable RWQCB Basin Plan. In California, RWQCBs designate beneficial uses for all water body segments in their jurisdictions and then set criteria necessary to protect those uses. As a result, the water quality standards developed for particular water segments are based on the designated use and vary depending on that use. In addition, the SWRCB identifies waters failing to meet standards for specific pollutants. These waters are then state-listed in accordance with CWA Section 303(d). If a state determines that waters are impaired for one or more constituents and the standards cannot be met through point source or non-point source controls (NPDES permits or WDRs), the CWA requires the establishment of Total Maximum Daily Loads (TMDLs). TMDLs specify allowable pollutant loads from all sources (point, non-point, and natural) for a given watershed.

State Water Resources Control Board and Regional Water Quality Control Boards

The SWRCB administers water rights, sets water pollution control policy, and issues water board orders on matters of statewide application, and oversees water quality functions throughout the state by approving Basin Plans, TMDLs, and NPDES permits. RWQCBs are responsible for protecting beneficial uses of water resources within their regional jurisdiction using planning, permitting, and enforcement authorities to meet this responsibility.

National Pollutant Discharge Elimination System (NPDES) Program

Municipal Separate Storm Sewer Systems (MS4)

Section 402(p) of the CWA requires the issuance of NPDES permits for five categories of storm water discharges, including Municipal Separate Storm Sewer Systems (MS4s). An MS4 is defined as "any conveyance or system of conveyances (roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, human-made channels, and storm drains) owned or operated by a state, city, town, county, or other public body having jurisdiction over storm water, that is designed or used for collecting or conveying storm water." The SWRCB has identified the Department as an owner/operator of an MS4 under federal regulations. The Department's MS4 Permit covers all Department rights-of-way, properties, facilities, and activities in the state. The SWRCB or the RWQCB issues NPDES permits for five years, and permit requirements remain active until a new permit has been adopted.

The Department's MS4 Permit, Order No. 2012-0011-DWQ (adopted on September 19, 2012 and effective on July 1, 2013), as amended by Order No. 2014-0006-EXEC (effective January 17, 2014), Order No. 2014-0077-DWQ (effective May 20, 2014) and Order No. 2015-0036-EXEC (conformed and effective April 7, 2015) has three basic requirements:

1. The Department must comply with the requirements of the Construction General Permit (see below);

2. The Department must implement a year-round program in all parts of the State to effectively control storm water and non-storm water discharges; and

3. The Department storm water discharges must meet water quality standards through implementation of permanent and temporary (construction) Best Management Practices (BMPs), to the maximum extent practicable (MEP), and other measures as the SWRCB determines to be necessary to meet the water quality standards.

To comply with the permit, the Department developed the Statewide Storm Water Management Plan (SWMP) (Caltrans 2016c) to address storm water pollution controls related to highway planning, design, construction, and maintenance activities throughout California. The SWMP assigns responsibilities within the Department for implementing storm water management procedures and practices as well as training, public education and participation, monitoring and

research, program evaluation, and reporting activities. The SWMP describes the minimum procedures and practices the Department uses to reduce pollutants in storm water and non-storm water discharges. It outlines procedures and responsibilities for protecting water quality, including the selection and implementation of BMPs. The proposed project will be programmed to follow the guidelines and procedures outlined in the latest SWMP to address storm water runoff.

Construction General Permit

Construction General Permit, Order No. WQ 2009-0009-DWQ (adopted on September 2, 2009 and effective on July 1, 2010), as amended by Order No. 2010-0014-DWQ (effective February 14, 2011) and Order No. 2012-0006-DWQ (effective on July 17, 2012). The permit regulates storm water discharges from construction sites that result in a Disturbed Soil Area (DSA) of one acre or greater, and/or are smaller sites that are part of a larger common plan of development. By law, all storm water discharges associated with construction activity where clearing, grading, and excavation result in soil disturbance of at least one acre must comply with the provisions of the General Construction Permit. Construction activity that results in soil disturbances of less than one acre is subject to this Construction General Permit if there is potential for significant water quality impairment resulting from the activity as determined by the RWQCB. Operators of regulated construction sites are required to develop Storm Water Pollution Prevention Plans (SWPPPs); to implement sediment, erosion, and pollution prevention control measures; and to obtain coverage under the Construction General Permit.

The Construction General Permit separates projects into Risk Levels 1, 2, or 3. Risk levels are determined during the planning and design phases and are based on potential erosion and transport to receiving waters. Requirements apply according to the Risk Level determined. For example, a Risk Level 3 (highest risk) project would require compulsory storm water runoff pH and turbidity monitoring, and before construction and after construction aquatic biological assessments during specified seasonal windows. For all projects subject to the permit, applicants are required to develop and implement an effective SWPPP. In accordance with the Department's SWMP and Standard Specifications, a Water Pollution Control Program (WPCP) is necessary for projects with DSA less than one acre.

Local Agency Construction Activity Permitting

Riverside County Municipal NPDES Permit

The County and the City are co-permittees under the NPDES Permit for WDRs for the Riverside County Flood Control and Water Conservation District, the County, and the incorporated Cities of Riverside County with the Santa Ana Region (Order No. R9-2013-0001, as amended by Order Nos. R9-2015-0001 and R9-2015-0100, NPDES No. CAG679001) (SDRWQCB 2015). The MS4 Permit prohibits non-stormwater discharges, sets limits on pollutants being discharged into receiving waters, and requires the implementation of technology-based standards. The Riverside County MS4 Permit requires all new development and significant redevelopment projects to incorporate low-impact development (LID) BMPs and hydromodification management tools to the maximum extent practicable (MEP), to reduce the discharge of pollutants to receiving waters.

Under the Riverside County MS4 Permit, the co-permittees are responsible for the management of storm drain systems within their jurisdiction.
The co-permittees are also required to implement the Monitoring and Reporting Program, which includes a Watershed Action Plan to support coordinated watershed management, including urban TMDLs; to implement all BMPs outlined in the *Drainage Area Management Plan* (DAMP); and to take any other actions that may be necessary to protect water quality to the MEP Additionally, the co-permittees are required to develop their own Local Implementation Plans, which include the specific actions the co-permittees would need to take to implement the DAMP and the requirements of the Riverside County MS4 Permit. Furthermore, the Riverside County MS4 Permit requires co-permittees to develop and implement a standard design and post-development BMP guidance to guide the application of LID BMPs to the MEP on public street, road, and highway improvement projects. The *Low Impact Development: Guidance and Standards for Transportation Projects for Santa Ana Region Riverside County Co-Permittees* (Santa Ana Region MS4 Permittees 2012) was developed to provide direction on how to address the County MS4 Permit requirements on public works transportation projects.

City of Murrieta Municipal Code

The City of Murrieta Municipal Code, Chapter 8.36, Stormwater/Urban Runoff Management and Discharge Controls, sets forth standards to protect and enhance the water quality of water courses, water bodies, groundwater, and

wetlands in a manner pursuant to and consistent with the CWA, the Porter-Cologne Act, and the conditions of the MS4 Permit issued to the County. Chapter 8.36 is also intended to ensure the health, safety, and welfare of the City's residents by prescribing regulations to effectively reduce pollutants in stormwater discharges to the MEP and to regulate illicit connections, discharges, and non-stormwater discharges to the storm drain system.

Summary of Applicable NPDES Permits

Part of the proposed Project site is within Caltrans ROWs and part of the proposed Project site is outside Caltrans ROWs. According to the *Guidance and Standards for Transportation Projects for the Santa Ana Region*, within the *Water Quality Management Plan* (SARWQCB 2012a) for the Santa Ana Region (SARWQCB 2012b), transportation projects subject to other MS4 Permit requirements, such as Caltrans oversight projects, are not subject to the Riverside County MS4 Permit. Therefore, all areas of work within and outside State ROWs will be covered by the Department of Transportation Order No. 2022-0033-DWQ, NPDES No. CAS000003 (Caltrans MS4 Permit), and Caltrans *Stormwater Management Plan* (SWMP) within the proposed Project site.
The Caltrans MS4 Permit addresses the operational impacts of projects within Caltrans jurisdiction, such as on the State Highway system. The Construction General Permit addresses the construction impacts of the proposed Project and applies to all construction projects that disturb more than one acre of soil. Therefore, the entire proposed Project site is subject to the requirements of both the Caltrans MS4 Permit and the Construction General Permit.

Section 401 Permitting

Under Section 401 of the CWA, any project requiring a federal license or permit that may result in a discharge to a water of the U.S. must obtain a 401 Certification, which certifies that the project will be in compliance with state water quality standards. The most common federal permits triggering 401 Certification are CWA Section 404 permits issued by the USACE. The 401 permit certifications are obtained from the appropriate RWQCB, dependent on the project location, and are required before the USACE issues a 404 permit.

In some cases, the RWQCB may have specific concerns with discharges associated with a project. As a result, the RWQCB may issue a set of requirements known as WDRs under the State Water Code (Porter-Cologne Act) that define activities, such as the inclusion of specific features, effluent limitations, monitoring, and plan submittals that are to be implemented for

protecting or benefiting water quality. WDRs can be issued to address both permanent and temporary discharges of a project.

AFFECTED ENVIRONMENT

This section is based on the Water Quality Questionnaire (Caltrans 2024f) prepared for the proposed Project.

Watersheds

A portion of the proposed Project site is under the Santa Ana RWQCB's jurisdiction, which includes Orange, Riverside, and San Bernardino Counties. The Santa Ana Region is approximately 2,800 square miles in Southern California, and consists mostly of the Santa Ana River Watershed and its tributaries. The northern portion of the proposed Project site is within the Lower San Jacinto Valley subwatershed of the larger Santa Ana River Basin. This subwatershed is composed of a group of connected coastal basins and inland basins drained by surface streams that generally flow southwest, toward the Pacific Ocean. The majority of the proposed Project in the south is within the San Diego RWQCB jurisdiction in the Santa Margarita River watershed. This watershed is composed of the Santa Margarita River, Murrieta Creek, Temecula River, and Santa Margarita Lagoon. For regulatory purposes, the Santa Ana RWQCB designates watershed areas into HUs, which are further divided into HAs and HSAs. The proposed Project is within the Menifee HSA of the Perris Valley HA, within the San Jacinto Valley HU, and is also within the French HSA of the Murrieta HA, within the Santa Margarita HU (Caltrans 2024e).

Surface Waters

In general, the existing drainage flow pattern for the proposed Project site is from west to east. Two unnamed drainages were mapped by the USGS topographic quadrangle and NHD within the proposed Project site. No identified direct receiving waters cross, or are adjacent to, the existing or proposed roadways within the proposed Project site.

To the south of the proposed interchange within the proposed Project site, drainage runoff from the western side of the freeway is conveyed to the eastern side by a series of culvert drainage systems. In particular, the system continues east along the southern side of Keller Road as a concrete trapezoidal channel, as well as pipes and unlined channels, and eventually crosses Keller Road to the north, to a basin in the northeastern corner of the Keller Road/Mapleton Avenue

intersection, about 1,500 feet east of the proposed interchange. Discharge from the other existing cross culvert systems continues to sheet flow toward the west.

To the north of the proposed interchange, drainage flow from the western side of the freeway within the proposed Project site is conveyed under the freeway to the eastern side by the existing culverts. The runoff from the existing cross culvert, then flows west through a graded unlined channel before discharging into the storm drain system, and ultimately into the basin. The discharge continues northeast, toward a nearby natural depression area.

Within the French HSA, the indirect receiving water is identified as Warm Springs Creek. The USGS maps identify one unnamed drainage as tributary to Warm Springs Creek within the proposed Project site. That tributary is approximately 1,800 feet south of the Keller Road undercrossing, and crosses the I-215 and Antelope Road. Warm Springs Creek is approximately 2.25 miles east of the proposed Project site and flows to Murrieta Creek, which flows to the Santa Margarita River, and ultimately to the Pacific Ocean. Warm Springs Creek has been identified by San Diego RWQCB as an impaired water body on the 2020-2022 303(d) List for the following pollutants: chlorpyrifos, indicator bacteria, iron, manganese, nitrogen, and phosphorus.

Within the Menifee HSA, the indirect receiving water is identified as Salt Creek. The USGS maps identify one unnamed drainage as tributary to Salt Creek within the proposed Project site. That tributary is approximately 2,600 feet north of the Keller Road undercrossing, and crosses I-215 and Antelope Road. Salt Creek is approximately 3.93 miles north of the proposed Project site. Salt Creek has not been identified by the Santa Ana RWQCB as being an impaired water body on the 2020-2022 303(d) List.

Two other ephemeral channels (Ephemeral Channels 2 and 4, as shown on Figure 2.3-4 in the Environmental Consequences subsection of Section 2.3.1), a swale, and three ephemeral ponds were mapped within the proposed Project site. All four ephemeral channels were determined to be non-wetland waters of the United States under the jurisdiction of USACE and RWQCB, and streambeds under the jurisdiction of CDFW. The swale is a potential non-wetland waters of the United States, may be under the jurisdiction of USACE and RWQCB, and may be a streambed under the jurisdiction of CDFW. The three ephemeral ponds are potential wetland waters of the United States under the jurisdiction of USACE and RWQCB.

Beneficial Uses of Surface Waters

The RWQCB designates beneficial uses of surface waters in its jurisdiction. Beneficial uses are defined in the San Diego RWQCB's Basin Plan (SDRWQCB 2021) as the various ways that water can be used for benefit of humans and/or wildlife.

The following beneficial uses are identified by the San Diego RWQCB for Warm Springs Creek:

- **Agricultural Supply (AGR):** Uses of water for farming, horticulture, or ranching including, but not limited to, irrigation, stock watering, or support of vegetation for range grazing.
- **Municipal and Domestic Supply (MUN):** Uses of water for community, military, or individual water supply systems including, but not limited to, drinking water supply.
- **Warm Freshwater Habitat (WARM):** Uses of water that support warm water ecosystems including, but not limited to, preservation or enhancement of aquatic habitats, vegetation, fish or wildlife, including invertebrates.
- **Industrial Service Supply (IND):** Uses of water for industrial activities that do not depend primarily on water quality including, but not limited to, mining, cooling water supply, hydraulic conveyance, gravel washing, fire protection, or oil well repressurization.
- **Industrial Process Supply (PROC):** Uses of water for industrial activities that depend primarily on water quality.
- **Contact Water Recreation (REC-1):** Uses of water for recreational activities involving body contact with water, where ingestion of water is reasonably possible. These uses include, but are not limited to, swimming, wading, water-skiing, skin and self-contained underwater breathing apparatus (SCUBA) diving, surfing, white water activities, fishing, or use of natural hot springs.
- **Non-contact Water Recreation (REC-2):** Uses of water for recreational activities involving proximity to water, but not normally involving body contact with water, where ingestion of water is reasonably possible. These

uses include, but are not limited to, picnicking, sunbathing, hiking, beachcombing, camping, boating, tidepool and marine life study, hunting, sightseeing, or aesthetic enjoyment in conjunction with the above activities.

- **Wildlife Habitat (WILD):** Uses of water that support terrestrial ecosystems including, but not limited to, preservation and enhancement of terrestrial habitats, vegetation, wildlife (e.g., mammals, birds, reptiles, amphibians, invertebrates), or wildlife water and food sources.

The following intermittent beneficial uses are identified by Santa Ana RWQCB for Salt Creek:

- REC-1
- REC-2
- WARM
- WILD

Groundwater

The proposed Project is within the South Coast Hydrologic Region, as defined by DWR and the Santa Ana RWQCB. The proposed Project site is between the San Jacinto Groundwater Basin and the Temecula Valley Groundwater Basin.

The San Jacinto Groundwater Basin is bounded by the San Jacinto Mountains on the east, the San Timoteo Badlands on the northeast, the Box Mountains on the north, the Santa Rosa Hills and Bell Mountain on the south, and unnamed hills on the west. The valleys are drained by the San Jacinto River and its tributaries. The San Timoteo Subbasin is bounded on the north and northeast by the Banning fault and impermeable rocks of the San Bernardino Mountains, Crafton Hills, and Yucaipa Hills; on the south by the San Jacinto fault; on the west by the San Jacinto Mountains; and on the east by a topographic drainage divide with the Colorado River Hydrologic Region.

The Temecula Valley Groundwater Basin is bounded by non-water-bearing crystalline rocks of the Peninsular Ranges. The overlying valleys are drained mainly by Wilson, Temecula, Murrieta, Warm Springs, and Pechanga Creeks to the Santa Margarita River, which flows west out of Temecula Valley. The basin underlies several valleys in southwestern Riverside County and a portion of northern San Diego County. Murrieta, Temecula, Pauba, Long, and Lancaster

Valleys are largest of the valleys overlying this basin. The Pechanga Indian Reservation also overlies some of the southwestern part of the basin.

For regulatory purposes, the Santa Ana RWQCB designated Groundwater Management Zones for the Santa Ana Region. As designated by the Santa Ana RWQCB, the proposed Project site is within the Menifee Groundwater Management Zone. Groundwater basins were predesignated as Groundwater Management Zones by the Santa Ana RWQCB in the June 2019 update of the Basin Plan (SARWQCB 2019). As designated by the San Diego RWQCB, the proposed Project site is within the Murrieta Groundwater Management Zone.

Beneficial Uses of Groundwater

Beneficial uses for the Santa Ana RWQCB jurisdiction identified in the Basin Plan for the Menifee Groundwater Management Zone include the following (Caltrans 2017a):

- MUN
- AGR
- PROC

Beneficial uses for the San Diego RWQCB jurisdiction identified in the Basin Plan for the Murrieta Groundwater Management Zone include the following (Caltrans 2017a):

- MUN
- AGR
- IND
- PROC

Groundwater Quality

West San Jacinto Groundwater Basin

The proposed Project site is a non-water-bearing area on Eastern Municipal Water District's "Groundwater Flow Based" exhibit from spring 2007. According to the Basin Plan, the current total dissolved solids level objective in the Menifee Groundwater Management Zone is 1,020 milligrams per liter (mg/L) (Caltrans 2017a).

Temecula Valley Groundwater Basin

The San Diego RWQCB does not list groundwater constituents for Warm Springs Creek. The San Diego RWQCB lists several groundwater constituents for the

Murrieta Creek area, which is downstream from Warm Springs Creek. The total dissolved solids level objective in the Murrieta Creek area is 750 mg/L (Caltrans 2017a).

ENVIRONMENTAL CONSEQUENCES

Temporary Impacts

Alternative 1 (No-Build Alternative)

The No-Build Alternative does not include any improvements to the I-215/Keller interchange. No construction activities, such as grading or excavation, would occur. Therefore, no soil would be disturbed, and there would be no increase in the potential for soil erosion or sedimentation compared to existing conditions. Additionally, there would be no increased risk of spills from construction equipment or materials use.

Build Alternatives 2, 3, and 5

Water quality impacts are anticipated to be similar for all three Build Alternatives. Pollutants of concern during the construction of the Build Alternatives include sediments, trash, petroleum products (for example, paints, solvents, and fuels), concrete waste (dry and wet), sanitary waste, liquid products, and chemicals. There is potential for construction-related pollutants to be spilled, leaked, or transported via storm runoff into drainages adjacent to the proposed Project site and thereby into downstream receiving waters. Additionally, during construction activities, excavated soil would be exposed and there would be an increased potential for soil erosion compared existing conditions; soil erosion can occur at an accelerated rate during a storm event.

During construction, the total disturbed surface area for the Build Alternatives would be approximately 34.7 acres. There are two unnamed tributaries located 1,800 feet south of Keller Road and 2,600 feet north of Keller Road that feed into Warm Springs Creek (2.25 miles east) and Salt Creek (3.93 miles north), respectively. Warm Springs Creek and Salt Creek are considered indirect receiving waters. There are TMDLs identified for Warm Springs Creek for the following pollutants: chlorpyrifos, indicator bacteria, iron, manganese, nitrogen, and phosphorus. Potential sources of discharge include exposed slopes/soils and refuse during construction, as well as oil, lubricants, and other pollutants from vehicles traveling on proposed Project ramps.

As specified in minimization measure WQ-1, the construction activities associated with the Build Alternatives would comply with the requirements of the

Construction General Permit. A SWPPP would be prepared and construction BMPs would be implemented during construction activities to minimize erosion and to prevent spills. Construction BMPs would include, but not be limited to, erosion control and sediment control BMPs (which are designed to minimize erosion and retain sediment on-site), as well as good housekeeping BMPs to prevent spills, leaks, and discharges of construction debris and waste into receiving waters. The SWPPP would be developed, and construction BMPs would be selected and implemented to target pollutants of concern during construction. Because the construction BMPs would be designed to retain sediment and other pollutants on the proposed Project site so they would not reach receiving waters, stormwater discharges and authorized non-stormwater discharges are not anticipated to cause or contribute to any violations of applicable water quality standards or objectives, nor to adversely impact human health or the environment. In addition, because construction BMPs would be designed to retain sediment and other pollutants, runoff during construction would not contain pollutants in quantities that would create a condition of nuisance or adversely affect beneficial uses of waters of the State.

Groundwater dewatering is not anticipated to be required during the construction of the Build Alternatives. However, dewatering during storm events may be necessary.

Because Warm Springs Creek is an indirect receiving water body and has been identified by the San Diego RWQCB as an impaired water body on the 2020-2022 303(d) List, the construction activities could potentially contribute non-stormwater discharges to the creek. However, compliance with the Construction General Permit would include the implementation of construction BMPs, which would avoid or minimize non-stormwater discharges during construction. Therefore, the Build Alternatives would not result in any water quality impairments during construction.

Construction activities would conform to current federal, state, and local regulatory requirements to minimize impacts on waters resources and water quality, and would require a Caltrans Statewide NPDES Stormwater Permit and General NPDES Permit for construction activities. In summary, with minimization measure WQ-1, the 401 Permit, and construction BMPs, the Build Alternatives would not result in any adverse impacts on water quality or stormwater runoff during construction.

Permanent Impacts

Alternative 1 (No-Build Alternative)

The No-Build Alternative does not include any improvements to the I-215/Keller interchange. Routine maintenance activities would be similar to those occurring in the existing condition. Under the No-Build Alternative, there would be no increase in impervious area at the I-215/Keller Interchange or at the additional intersections included as part of the proposed Project. Furthermore, no treatment BMPs would be implemented under the No-Build Alternative. Overall, the No-Build Alternative would not result in an increase in stormwater runoff or long-term pollutant loading compared to existing conditions; therefore, no permanent impacts on water quality or stormwater runoff would occur.

Build Alternatives 2, 3 and 5

Improvements for the Build Alternatives are proposed both within and outside of the Caltrans ROW. Water quality impacts are anticipated to be similar for all three Build Alternatives. The proposed Project's total disturbed area is 34.7 acres. The proposed Project would result in a net increase in impervious area of 4.7 acres. Pollutants of concern during the operation of the Build Alternatives include suspended solids/sediments, nutrients, pesticides, heavy metals, oil and grease, toxic organic compounds, and trash and debris. An increase in impervious surface area as a result of the proposed Project would increase the volume of runoff during a storm, thereby increasing the potential for the more effective transport of pollutants to receiving waters. In addition, an increase in impervious surface area would increase the total amount of pollutants in the stormwater runoff and non-stormwater runoff, which would increase the amount of pollutants traveling to on-site drainages and downstream receiving waters.

As required in minimization measure WQ-2, the proposed Project would comply with the Caltrans and County MS4 Permit for the portions of the proposed Project within and outside the Caltrans ROW. Caltrans-approved treatment BMPs and design pollution prevention BMPs would be implemented to reduce the discharge of pollutants of concern to the MEP within the proposed Project site.

Consistent with LID practices to maintain predevelopment hydrology, treatment BMPs to be evaluated for implementation within the proposed Project site would include a system of infiltration basins and biofiltration swales to treat 100% of the net new impervious area. An infiltration basin is a shallow artificial pond designed

to infiltrate stormwater through permeable soils into the groundwater aquifer, removing pollutants as the stormwater percolates through the soil. Biofiltration swales are vegetated channels that convey stormwater and remove pollutants by filtration through grass, sedimentation, adsorption to soil particles, and infiltration through soil. These BMPs would treat runoff from the Project site, targeting pollutants of concern. In addition, the infiltration basins and biofiltration swales would promote infiltration to offset any increased flows associated with the increase in impervious surface from the proposed Project site and would provide flow duration, volume, and rate control functions.

Biofiltration swales are effective at removing debris and solid particles, and some dissolved constituents. Therefore, these treatment BMPs would promote infiltration to offset any increased flows associated with the increase in impervious surfaces in the proposed Project site and would target pollutants of concern from transportation facilities, including total suspended solids, nutrients, metals, turbidity, and oil and grease.

As previously discussed, Warm Springs Creek has been identified by the San Diego RWQCB as impaired water bodies on the 2020-2022 303(d) List. However, with the implementation of treatment BMPs, the Build Alternatives would not result in any adverse impacts on water quality or stormwater runoff during operation.

AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES

The proposed Project would incorporate minimization measures WQ-1 and WQ-2 as described below.

WQ-1 **Construction General Permit.** Construction of the proposed Project will comply with the provisions of the NPDES General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit) Order No. WQ 2022-0057-DWQ (adopted on September 8, 2022 and effective on September 1, 2023), or any other subsequent permit. The proposed Project will comply with the Construction General Permit by preparing and implementing a SWPPP to address all construction-related activities, equipment, and materials that have the potential to impact water quality for the appropriate risk level. The SWPPP will identify the sources of pollutants that may affect the quality of stormwater and include BMPs to control the pollutants (for

example, sediment control, catch basin inlet protection, construction materials management, and non-stormwater BMPs). All work will conform to the construction site BMP requirements specified in the latest edition of the Caltrans Stormwater Quality Handbooks: Construction Site Best Management Practices Manual to control and minimize the impacts of construction and construction-related activities, materials, and pollutants on the watershed. These include, but are not limited to, temporary sediment control, temporary soil stabilization, concrete waste management, street sweeping and vacuuming, wind erosion control, and other non-stormwater BMPs.

WQ-2 **Caltrans MS4 Permit.** Design and operation of the proposed Project will comply with the provisions of the NPDES Permit, Statewide Stormwater Permit, WDRs for the State of California, Department of Transportation Order No. 2022-0033-DWQ, NPDES No. CAS000003 (Caltrans MS4 Permit), or any subsequent permit. This permit is applicable to the portions of the proposed Project within and outside of the Caltrans ROW. Caltrans-approved treatment and design pollution prevention BMPs will be implemented within and outside of the Caltrans ROW to the MEP to treat 100% of the net new impervious area. Treatment BMPs will be sized and designed to retain and infiltrate the water quality volume and would not result in an increase in velocity or volume of downstream flow. Treatment BMPs include infiltration basins and biofiltration swales. Design pollution prevention BMPs include preservation of existing vegetation, slope/surface protection systems (permanent soil stabilization and replanting of vegetation), concentrated flow conveyance systems, and LID efforts.

2.2.3 Geology/Soils/Seismic/Topography

REGULATORY SETTING

For geologic and topographic features, the key federal law is the Historic Sites Act of 1935, which establishes a national registry of natural landmarks and protects “outstanding examples of major geological features.” Topographic and geologic features are also protected under the California Environmental Quality Act (CEQA).

This section also discusses geology, soils, and seismic concerns as they relate to public safety and proposed Project design. Earthquakes are prime

considerations in the design and retrofit of structures. Structures are designed using the Department's Seismic Design Criteria (SDC). The SDC provides the minimum seismic requirements for highway bridges designed in California. A bridge's category and classification will determine its seismic performance level and which methods are used for estimating the seismic demands and structural capabilities. For more information, please see the Department's Division of Engineering Services, Office of Earthquake Engineering, Seismic Design Criteria.

AFFECTED ENVIRONMENT

This section discusses the existing geologic and soil conditions within the proposed Project site, and analyzes the potential impacts to the proposed Project associated with site geology and soils. This section is based on the *Preliminary Geotechnical Design Report* (Leighton 2019), the *Structure Preliminary Geotechnical Report* (Leighton 2018), Department of Conservation Geologic Hazard Mapping (DOC 2023), the Riverside County *General Plan* (Riverside County 2021a), the City of Murrieta *General Plan* (City of Murrieta 2020a), and the City of Menifee *General Plan* (City of Menifee 2013a).

Topography

The overall site topography slopes gently to moderately to the northeast.

Surface and Groundwater

The log of test boring (LOTB) data for the existing Keller Road Undercrossing Bridge, dated May 2009, identified the overall groundwater depth within the proposed Project site to be approximately 38 feet below ground surface (bgs). Surface drainage from the surrounding areas west of the I-215 is collected within small channels/gullies and directed into several culverts crossing beneath the I-215 between Keller Road and Scott Road. No new culverts are proposed to cross the I-215 as part of the proposed Project.

Geology

The site is within a prominent natural geomorphic province in southwestern California, known as the Peninsular Ranges. Steep, elongated ranges and valleys that trend northwestward characterize this province. More specifically, the site is within the Perris Block, an eroded mass of Cretaceous-aged and older crystalline rock. The site is bounded by the Elsinore Fault Zone to the west and the San Jacinto Fault Zone to the east. Three different soil units exist on-site, which the following sections describe.

Fill

The existing bridge approaches and slopes are composed of artificial fill soils. Based on the previous investigations and LOTB, on-site fill materials are expected to consist of clayey fine to coarse sand, with variable amounts of gravel.

Alluvial Deposits

Based on previous investigations and LOTBs, alluvial soils are expected in the upper 25 to 35 feet. These alluvial soils generally consist of silty to clayey sand, with varying amounts of gravel and interbedded layers of sandy lean clay and poorly graded sand.

Cretaceous-age Granitic Rock

Granitic rock was encountered in geotechnical borings for adjacent properties and was evident in cut slopes along the western side of the I-215 south of Keller Road. The depth to granitic bedrock is expected to be approximately 25 to 35 feet bgs.

Soils

Per the Natural Resources Conservation Service's Web Soil Survey (NRCS 2022), most of the proposed Project site is mapped as Cajalco fine sandy loam. This surficial soil has an erodibility factor between 0.2 and 0.3, a Hydrologic Soil Group classification of C, and an infiltration rate of 0.05 to 0.15 inch per hour. Soils are considered well-drained and moderately permeable. On-site surficial soils are subject to erosion, particularly if exposed to rainfall and irrigation. Note, the Web Soil Survey only provides information for near-surface soils originally present at a site (generally less than 5 feet bgs). Subsurface soils that could impact the design of the proposed Project's structural foundations are described previously in the Fill and Alluvial Deposits portions of this section.

Geologic Hazards

The primary geologic hazards considered for the proposed Project are strong seismic ground-shaking, along with secondary hazards associated with strong seismic ground-shaking. Geologic hazards evaluated for the proposed Project site are discussed in the text that follows.

Seismicity and Faulting

During an earthquake, seismic waves are produced that extend in all directions from the fault rupture. Seismic waves can produce strong ground-shaking that is

typically strongest near the fault and attenuates (lessens) as waves move away from the source. Significant seismic shaking can result in structural damage and potentially structural collapse.

The site, like the rest of Southern California, is within a seismically active region because it is near the active margin between the North American and Pacific tectonic plates. The principal source of seismic activity is movement along the northwest-trending regional fault systems, such as the San Andreas, San Jacinto, and Elsinore Fault Zones. The Temecula Segment of the Elsinore Fault Zone is the closest active fault to the site. A list of nearby active faults, their distance from the site, and their seismic characteristics, is presented in Table 2.2.3-1.

Table 2.2.3-1. Local Active Faults

Fault Name (Segment)	Fault Type	Maximum Moment Magnitude	Peak Ground Acceleration (g)	Distance from proposed Project Site in Miles (km)
Elsinore Fault (Temecula)	SS	7.7	0.35	4.87 (7.84)
Elsinore Fault (Glen Ivy)	SS	7.7	0.32	5.82 (9.37)
San Jacinto (Anza)	SS	7.7	0.17	14.96 (24.08)

Source: Leighton 2019.

Notes:

Information in this table is from the Caltrans ARS Online tool.

g = standard acceleration due to Earth's gravity

km = kilometer(s)

SS = strike-slip

Fault Ground Rupture

The proposed Project site is between the Elsinore and San Jacinto Fault Zones. There are no active faults mapped crossing, within, or, adjacent to the proposed Project site (California Department of Conservation 2023, County of Riverside 2021a, City of Murrieta 2020a, and City of Menifee 2013a). The nearest fault ground rupture hazard area (Alquist-Priolo Earthquake Fault Zone) is associated with the Temecula Segment of the Elsinore Fault Zone, approximately 5 miles south of the proposed Project. Therefore, the potential for fault rupture within the proposed Project site is very low.

Liquefaction

Soil liquefaction occurs when a cohesionless, saturated, or partially saturated soil substantially loses strength and stiffness in response to an applied stress, such as shaking during an earthquake or other sudden change in stress condition, and material that is ordinarily a solid, such as soil, behaves like a liquid. Several contributing factors to the liquefaction potential of an area include the soil type, groundwater level, seismic activity, and the depth of the groundwater table.

No liquefaction hazard zones are mapped within or adjacent to the proposed Project site (California Department of Conservation 2023, County of Riverside 2021a, City of Murrieta 2020a, and City of Menifee 2013a). Based on the anticipated dense, subsurface alluvial soils and relatively deep groundwater conditions (Leighton 2019), the potential for liquefaction to occur within the proposed Project site is very low.

Landslides

The potential for earthquake-related landslides within the proposed Project site is based on known conditions and published geologic maps. The nearest mapped landslide hazard zone is south of the proposed Project, in the hills on the western side of the I-215, across from Loma Linda University Medical Center (California Department of Conservation 2023). Because there are no steep or tall hills within or immediately adjacent to the proposed Project site, the potential for landslides is very low.

Rockfall

There is potential for rockfalls in areas with steep slopes due to natural weathering and instability, or, due to a seismic event. Because there are no steep or tall hills within or immediately adjacent to the proposed Project site, the potential for rockfall is very low.

Tsunamis and Seiches

A tsunami, or seismically generated sea wave, is generally created by a large, distant earthquake occurring near a deep ocean trough. A seiche is an earthquake-induced wave in a confined body of water, such as a lake or reservoir. The proposed Project site is approximately 30 miles from the ocean, and the Santa Ana Mountains are between the Pacific Ocean and the proposed Project site. The proposed Project is not within a tsunami hazard zone, and there is no potential for tsunamis at the proposed Project site.

The nearest large bodies of water include Skinner Reservoir, Diamond Valley Lake, Canyon Lake and Lake Elsinore. Each of these water bodies is over 6-miles from the proposed Project site. Because of this distance, the proposed Project site would not be impacted should a seiche occur at the nearest lake. The potential for tsunamis and seiches to affect the proposed Project site is non-existent.

Expansive and Collapsible Soils

As discussed in the City of Murrieta *General Plan* (City of Murrieta 2020a), expansive and collapsible soils present potential hazards in Murrieta. Expansive soils are surface deposits rich in clays that expand when wet and shrink when dried. The change in volume can exert detrimental stresses on buildings and cause structural damage. The collapsible soils process, or hydro-consolidation, typically occurs in soils deposited less than 10,000 years ago that contain a high percentage of voids and possess low relative density. Some of the alluvial soils at the site were deposited less than 10,000 years ago. In addition, some of the alluvial soils at the site are clayey. Therefore, expansive and collapsible soils could be present in the subsurface at the proposed Project site.

Seismic Densification

Ground accelerations generated from a seismic event can produce settlements in dry or moist sands with relative low density. It is anticipated that near-surface loose soil deposits susceptible to such seismically induced settlement are within the proposed Project site.

Subsidence

As discussed in the City of Murrieta *General Plan* Safety Element (City of Murrieta 2020a), subsidence is the ground settlement that results over time from the extraction of oil or groundwater. This process usually extends over a large area and occurs on a gradual basis, so the settlement effects on a single site, relative to its immediate neighbors, may be negligible because the neighboring properties are also subsiding. No areas within or adjacent to the proposed Project site are mapped as being within areas susceptible to subsidence (City of Murrieta 2020a). The potential for subsidence to occur within the proposed Project site is low.

Economical Resources and Minerals

Based on the *General Plans* from the City of Menifee (2013) and City of Murrieta (2020a), no mineral resource sites are mapped within or adjacent to the

proposed Project. The potential for the proposed Project to affect mineral resource recovery areas is low.

Mineral Hazards - Radon

As discussed in the City of Murrieta *General Plan* Safety Element (City of Murrieta 2020a), rocks containing the minerals that release radon gas exist in the Murrieta area. Radon gas is a naturally occurring radioactive gas that is tasteless, odorless, and invisible. It becomes hazardous when confined in buildings and the long-term exposure levels in the air exceed the U.S. EPA's concentration of 4 picocuries per liter (4 pCi/L). The proposed Project does not include buildings or other opportunities for long-term exposure to radon. The potential for the proposed Project to be affected by radon gas is low.

ENVIRONMENTAL CONSEQUENCES

Temporary Impacts

Alternative 1 (No-Build Alternative)

The No-Build Alternative does not include any improvements to the I-215 and Keller Road interchange, or to local roads in the proposed Project site. Overall, the No-Build Alternative would not result in soil disturbance within the proposed Project site, and therefore would not result in temporary impacts related to geology and soils.

Build Alternatives 2, 3, and 5

The Build Alternatives would construct a new full interchange at the I-215 and Keller Road and would improve local roadways. Construction impacts would be similar with each Build Alternative, and would include grading, utility relocation, bridge widening, paving, and striping. There are no large cut slopes proposed, and the Build Alternatives would have no impact on natural landmarks or forms.

Construction would disturb soil, and on-site soils are inherently subject to erosion, particularly if exposed to rainfall or irrigation. Unpaved slopes that are susceptible to erosion within the proposed Project site include the bridge approach embankments and on- and off-ramps. Provisions for site drainage, slope planting, and other measures would be required in accordance with Caltrans requirements to provide protection against short- and long-term erosion, as described in minimization measures WQ-1 and WQ-2 in Section 2.2.2, Water Quality and Stormwater Runoff. During construction activities for the Build Alternatives, the contractor must comply with the requirements of the General Construction Permit and implement erosion and sediment control BMPs.

Temporary excavations would be required during the construction of the proposed Project. Temporary excavations could be needed with bridge foundation construction, before new fill soil placement, or for utility emplacement. Unsafe excavations could result in risk to life and property as a result of a temporary excavation failure. Therefore, all temporary excavations would be performed in accordance with the safety requirements of the California Division of Occupational Safety and Health (Cal-OSHA). Trench shoring would be designed in accordance with Caltrans requirements and based on the findings and recommendations in the *Geotechnical Design Report and Foundation Report* to be prepared during the PS&E phase of the proposed Project (GEO-1 and GEO-2).

Construction activities could be affected by ground-shaking during an earthquake. The implementation of safe construction practices and compliance with Caltrans and Cal-OSHA safety requirements would minimize the impacts to worker safety due to seismic events during construction activities.

With the implementation of minimization measures GEO-1 through GEO-5, no adverse temporary impacts on geology or soils associated with construction of the Build Alternatives are anticipated.

Permanent Impacts

Alternative 1 (No-Build Alternative)

The No-Build Alternative does not include any improvements to the I-215 and Keller Road interchange, or to local roads in the proposed Project site. Overall, the No-Build Alternative would not change the topography, geologic features, or landforms of the proposed Project site and therefore, would not result in permanent impacts related to geology and soils.

Build Alternatives 2, 3, and 5

The Build Alternatives would construct a new full interchange at the I-215 and Keller Road and improve local roadways. Impacts from the Build Alternatives associated with soils and geologic hazards would generally be the same for all Build Alternatives. There are no cut slopes proposed, and the proposed Project would be constructed primarily on fill soils. The Build Alternatives would not result in substantial permanent changes to the topography or to geologic features or landforms. Potential geology and soils impacts associated with the operation of the proposed Project are discussed in the following text.

Seismic Ground-shaking

The proposed Project site is in the highly seismic Southern California region, within the influence areas of several fault systems. These fault systems are considered active and are capable of producing potentially damaging seismic ground-shaking.

The structures constructed for the proposed Project, such as bridges, culverts, retaining walls, and overhead signs, could potentially be subject to substantial impacts related to seismic ground-shaking. The proposed Project structures would be designed in accordance with the requirements of Caltrans SDC and the American Association of State Highway and Transportation Officials (AASHTO) *Load and Resistance Factor Design (LRFD) Bridge Design Specifications and California Amendments* to account for the anticipated ground-shaking impacts (Caltrans 2019e). Therefore, no adverse impacts on the proposed Project structures as a result of seismic ground-shaking are anticipated.

Fault Ground Rupture

There are no faults mapped crossing, within, or adjacent to the proposed Project, and the proposed Project site is not within or near a fault ground rupture hazard zone (Alquist-Priolo Earthquake Fault Zone). No adverse effects associated with potential fault rupture during a seismic event on the Build Alternatives are anticipated.

Liquefaction

As stated above, the proposed Project site is not located within or adjacent to a mapped liquefaction hazard zone. No adverse effects associated with potential liquefaction during seismic events on the Build Alternatives are anticipated. The liquefaction hazard determination would be verified as part of the *Geotechnical Design Report* and *Foundation Report*, to be prepared during the PS&E phase of the proposed Project.

Landslides

The are no mapped landslide hazard zones within or adjacent to the proposed Project site. There are no steep or tall hills within or immediately adjacent to the proposed Project site. As such, no adverse landslide effects on the Build Alternatives are anticipated.

Rockfall

There are no known rockfall hazards areas within the proposed Project site. There are no steep or tall hills within or immediately adjacent to the proposed Project site. As such, no adverse effects from rockfall on the Build Alternatives are anticipated.

Tsunamis and Seiches

There is no potential for tsunamis and seiches within the proposed Project site, and there would be no effects on the proposed Build Alternatives.

Expansive Soils

Expansive soils can result in damage to overlying structures and infrastructure because of their ability to undergo significant volume changes (shrink or swell) as a result of variations in moisture content and even without an increase in external loads. Potentially expansive soils exist on the proposed Project site. Evaluations for expansive soils would occur as part of the PS&E phase for the proposed Project. The proposed Project *Geotechnical Design Report* and *Foundation Report* would provide recommendations in accordance with Caltrans requirements. Recommendations would be incorporated in the proposed Project's design plans and specifications. Therefore, no adverse effects from expansive soils on the Build Alternatives are anticipated.

Collapsible Soils

The results from laboratory testing on representative samples from areas adjacent to the proposed Project site indicate the presence of potentially collapsible soils (ASTM D 4546) in the shallow alluvium. This collapse potential would be further evaluated during the PS&E phase to determine the required depth of over-excavation required for the proposed Project. Recommendations would be incorporated in the proposed Project's design plans and specifications. No adverse effects from collapsible soils on the Build Alternatives are anticipated.

Seismic Densification

Ground accelerations generated from a seismic event can produce settlements in dry or moist sands (granular earth materials) with relative low density. It is anticipated that the near-surface loose soil deposits susceptible to such seismically induced settlement would be removed and recompacted before placing additional fill. Additional evaluations of seismic densification and any other potential unstable soil conditions would be based on site-specific field data

for the proposed Project site developed during the PS&E phase of the proposed Project. Recommendations would be incorporated in the proposed Project's design plans and specifications. No adverse effects from seismic densification on the Build Alternatives are anticipated.

Subsidence

Because no locations within or adjacent to the proposed Project site are mapped as being within areas susceptible to subsidence, the potential for subsidence to occur within the proposed Project site is low. No adverse effects from subsidence on the Build Alternatives are anticipated.

Economical Resources and Minerals

Because no mineral resource recovery areas are mapped within or adjacent to the proposed Project site, the Build Alternatives would have no adverse effect on mineral resource recovery areas.

Mineral Hazards - Radon

The proposed Project does not include any buildings or other opportunities for accumulation or long-term exposure to radon. Radon, if present within the proposed Project site, would have no adverse effect on the Build Alternatives or transportation users.

AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES

The implementation of minimization measures GEO-1 through GEO-5 would avoid and minimize impacts resulting from geologic hazards during construction and operation of the Build Alternatives.

GEO-1 **Final Geotechnical Design Report.** During the PS&E phase, site-specific geotechnical investigation - including exploration, testing and evaluation will be conducted based on the selected proposed Project alternative. The Geotechnical Design Report will characterize the proposed Project area subsurface conditions and include evaluations for liquefaction, expansion, collapse and corrosion potential, and slope stability. Borings and infiltration tests will also be required to support the design for new stormwater infiltration areas. The Project-specific findings and recommendations of the geotechnical investigation will be approved by Caltrans and incorporated into the final design of the selected Build Alternative.

GEO-2 **Foundation Report**. During the PS&E phase, a detailed Foundation Report will be prepared. Geotechnical investigation as part of the Foundation Report will address bridge widening, retaining walls, stormwater conduits, and overhead signs. The Foundation Report findings and recommendations will be approved by Caltrans and incorporated into the final design of the selected Build Alternative.

GEO-3 Excavations associated with construction may need shoring. Excavations during construction should be carried out in such a manner that failure and excessive ground movement do not occur. Where there is insufficient space for open excavations, shoring should be used to support the excavation.

GEO-4 All temporary excavations, including utility trenches, retaining wall excavations, and other excavations should be performed in accordance with the proposed Project plans, specifications, Occupational Safety and Health Act (OSHA) and Cal-OSHA requirements, and the current edition of the California Construction Safety Orders. The Geotechnical Design Report and Foundation Report to be prepared during the PS&E phase will include an interpretation of the site-specific subsurface conditions to be used for temporary excavation or shoring design.

GEO-5 The contractor must be responsible for providing a "competent person" as defined in Article 6 of the California Construction Safety Orders. During construction, exposed soil conditions should be regularly evaluated to verify that conditions are as anticipated. Close coordination between their competent person and the geotechnical engineer of record should be maintained to facilitate construction while providing safe excavations.

2.2.4 Paleontology

REGULATORY SETTING

Paleontology is a natural science focused on the study of ancient animal and plant life as it is preserved in the geologic record as fossils.

A number of federal statutes specifically address paleontological resources, their treatment, and funding for mitigation as a part of federally authorized projects. 23 United States Code (USC) 1.9(a) requires that the use of Federal-aid funds

must be in conformity with federal and state law. 23 United States Code (USC) 305 authorizes the appropriation and use of federal highway funds for paleontological salvage as necessary by the highway department of any state, in compliance with 16 USC 431-433 above and state law.

Under California law, paleontological resources are protected by the California Environmental Quality Act (CEQA).

AFFECTED ENVIRONMENT

This section is based on the *Paleontological Identification and Evaluation Report* (Caltrans 2019c).

A paleontological records search was conducted by the Natural History Museum of Los Angeles County on August 11, 2015, and by the San Bernardino County Museum on August 1, 2015. Published geologic maps and unpublished reports (Kennedy et al. 2003; Leighton 2015; Morton et al. 2003) were also reviewed to identify geologic units underlying the proposed Project site and to determine their paleontological sensitivity, or potential. Additionally, a pedestrian survey of the proposed Project site took place November 4, 2016, to determine whether paleontological resources were present on the ground surface and to field-check the published geologic mapping.

The proposed Project site is on the Murrieta and Romoland, California USGS 7.5-minute topographic quadrangles. The proposed Project site lies within the northern portion of the Peninsular Ranges Geomorphic Province (Walawender 2000). The Peninsular Ranges were formed by uplift of plutonic igneous rock resulting from the subduction of the Pacific Plate underneath the North American Plate during the Mesozoic (approximately 125 to 90 million years old; Abbott 1999; USGS 2007) and are overlain by younger Cenozoic sedimentary deposits (Walawender 2000). The proposed Project site is on the westernmost edge of the Perris structural block, between the Elsinore and San Jacinto Fault Zones (Biehler et al. 1964).

Geologic mapping and geotechnical investigations indicate the proposed Project site is underlain by older alluvial deposits overlying shallow igneous bedrock. Very old alluvial channel deposits (Qvoa-ac) are mapped at the surface at the northeastern most extent of the proposed Project site. In general, they are fluvially derived (river-laid) and redeposited in lower elevation valley areas. These old alluvial channel deposits are thought to be early to middle Pleistocene in age (approximately 2.6 million to 126,000 years old), and include the Pauba

Formation, a well-known rock unit of high paleontological potential. Vertebrate fauna from the Pauba Formation are Irvingtonian to early Rancholabrean in age, which are considered significant faunal stages in California paleontology. Quaternary alluvial deposits have also been visible during grading operations northeast of the proposed Project site. Older alluvial deposits (Qvoa) are also mapped just outside the proposed Project site, northeast of the I-215 and Keller Road, and may extend into the proposed Project site beneath younger alluvial deposits. The fine-grained facies (sand, silt, clay) of the Qvoa are considered to be high paleontological potential rock units in the region. (Morton et al 2003)

The record search results received indicate there are no fossil localities within the proposed Project site, or within a 1-mile radius buffer. However, similar deposits to those underlying the proposed Project site have yielded Pleistocene age fossils elsewhere in Riverside County (Jefferson 1991a, b; Reynolds and Reynolds 1991). The *Geotechnical Report for Kaiser Permanente* (Geobase 2014), and the preliminary geologic map of the Murrieta 7.5-minute quadrangle (Kennedy et al. [2003] and Morton et al. [2003]), indicate the geologic units within the proposed Project site are rocks of low paleontological potential, such as monzogranite to granodiorite (Kpvg), gabbro (Kgb), and Rocks of Menifee Valley (Trmu) of the Peninsular Ranges Batholith, as confirmed by the pedestrian survey.

A review of the County of Riverside's Land Information System indicated the proposed Project site is primarily underlain by geologic units of low paleontological potential, with areas of high potential occurring just outside the proposed Project site to the northeast (Riverside County 2016). However, these high potential, older (Pleistocene) alluvial deposits may extend into the Project site at a depth below younger (Holocene) surface alluvial deposits, as stated in the records search results.

Figure 2.2-3 provides a geology map of the proposed Project site.

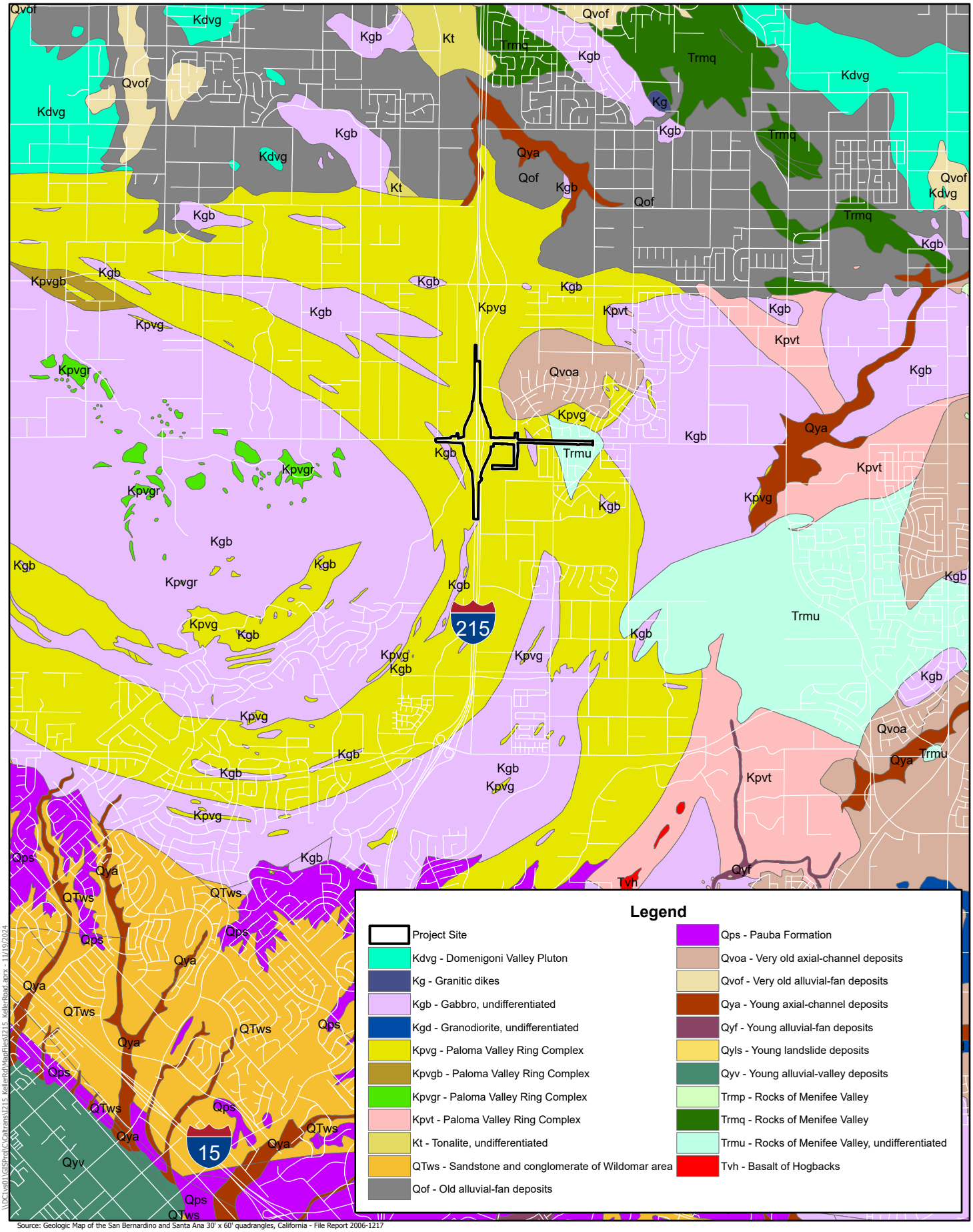


Figure 2.2-3
Geology Map
I-215/Keller Road New Interchange Project

ENVIRONMENTAL CONSEQUENCES

Temporary Impacts

Any impacts on paleontological resources would be considered permanent; therefore, an analysis of temporary impacts is not applicable.

Permanent Impacts

Alternative 1 (No-Build Alternative)

The No-Build Alternative does not include improvements to the interchange or local roads in the proposed Project site. The No-Build Alternative would not result in ground disturbance or excavation. Therefore, no impacts on paleontological resources would occur.

Build Alternatives 2, 3, and 5

Each Build Alternative includes ground-disturbing activities, including excavation and grading associated with the construction of the on- and off-ramps and utility relocation, clearing and grubbing, and other activities. Although no known fossil localities were identified within the proposed Project site or within a 1-mile radius, numerous Ice Age mammals have been identified in similar Pleistocene sedimentary deposits within the region, and indicate fossil localities have yielded scientifically significant fossils elsewhere in Riverside County. Ground-disturbing activities associated with the construction of the proposed Build Alternatives could disturb sedimentary deposits with a high paleontological resource potential (e.g., Pleistocene older alluvium) and could adversely affect significant, non-renewable paleontological resources, if present. To mitigate potential construction impacts on paleontological resources, mitigation measure PAL-1 requires the preparation of a PMP during final design for implementation during construction, as applicable. Minimization measures PAL-2 and PAL-3 require worker awareness training and procedures to stop work if resources are discovered during construction. These measures would also ensure workers were appropriately trained and the contractor had qualified staff and agreements to collect, store, and document any resources uncovered during construction. With the implementation of mitigation measure PAL-1 and minimization measures PAL-2 and PAL-3, construction activities under the Build Alternatives would not result in significant adverse impacts to paleontological resources.

AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES

The implementation of mitigation measure PAL-1 and minimization measures PAL-2 and PAL-3 would avoid, minimize, and/or mitigate potential impacts on paleontological resources during construction of the Build Alternatives.

PAL-1 **Paleontological Mitigation Plan.** The PMP will be prepared by a qualified paleontologist during final design. Preparation of the PMP shall follow the Caltrans guidelines in the *Standard Environmental Reference (*SER) *Environmental Handbook*, Volume 1, Chapter 8 (Caltrans 2017b), as well as guidelines from the Society of Vertebrate Paleontology. Following these guidelines, the PMP shall be prepared by a qualified paleontologist and shall include the following elements:

- Required 1-hour preconstruction paleontological sensitivity training for earthmoving personnel;
- A signed repository agreement;
- Field and laboratory methods proposed (must be consistent with repository requirements); and
- A required Paleontological Mitigation Report upon completion of proposed Project earthmoving.

PAL-2 **Worker Awareness Training.** Prior to the start of construction, a worker awareness training on paleontological resources will be provided to all construction personnel before the start of construction. The training should include at minimum, the following:

- The types of fossils that could occur at the proposed Project site;
- The procedures that should be taken in the event of an unexpected fossil discovery;
- Laws protecting paleontological resources; and
- Penalties for destroying or removing paleontological resources.

PAL-3 **Discovery of Unanticipated Paleontological Resources**. If unanticipated paleontological resources are discovered, all work within 60 feet of the discovery must cease and the construction Resident Engineer must be notified. Work cannot continue near the discovery until authorized by the Resident Engineer.

2.2.5 Hazardous Waste/Materials

REGULATORY SETTING

Hazardous materials, including hazardous substances and wastes, are regulated by many state and federal laws. Statutes govern the generation, treatment, storage, and disposal of hazardous materials, substances, and waste, and also the investigation and mitigation of waste releases, air and water quality, human health, and land use.

The primary federal laws regulating hazardous wastes/materials are the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980, and the Resource Conservation and Recovery Act (RCRA) of 1976 (RCRA). The purpose of CERCLA, often referred to as “Superfund,” is to identify and cleanup abandoned contaminated sites so that public health and welfare are not compromised. The RCRA provides for “cradle to grave” regulation of hazardous waste generated by operating entities. Other federal laws include:

- Community Environmental Response Facilitation Act (CERFA) of 1992
- Clean Water Act
- Clean Air Act
- Safe Drinking Water Act
- Occupational Safety and Health Act (OSHA)
- Atomic Energy Act
- Toxic Substances Control Act (TSCA)
- Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)

In addition to the acts listed above, Executive Order (EO) 12088, Federal Compliance with Pollution Control Standards, mandates that necessary actions be taken to prevent and control environmental pollution when federal activities or federal facilities are involved.

California regulates hazardous materials, waste, and substances under the authority of the CA Health and Safety Code and is also authorized by the federal

government to implement RCRA in the state. California law also addresses specific handling, storage, transportation, disposal, treatment, reduction, cleanup, and emergency planning of hazardous waste. The Porter-Cologne Water Quality Control Act also restricts disposal of wastes and requires cleanup of wastes that are below hazardous waste concentrations but could impact ground and surface water quality. California regulations that address waste management and prevention and cleanup of contamination include Title 22 Division 4.5 Environmental Health Standards for the Management of Hazardous Waste, Title 23 Waters, and Title 27 Environmental Protection.

Worker and public health and safety are key issues when addressing hazardous materials that may affect human health and the environment. Proper management and disposal of hazardous material is vital if it is found, disturbed, or generated during project construction.

AFFECTED ENVIRONMENT

This section is based on the *Initial Site Assessment Report* (ISA) (Leighton 2018) and a *Technical Report Addendum Memorandum Hazardous Waste* (Caltrans 2024g) for the proposed Project. The following activities took place as part of the ISA:

- **Environmental Database Review:** A records search of selected government databases was conducted in July 2018 according to the requirements of ASTM International (ASTM) *Standard E1527-21, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process* (ASTM 2021), and the *Caltrans Project Development Procedures Manual, Guidelines for ISA* (Caltrans 2019f). In February 2024, a second records search was conducted using the same search requirements. The database listings were reviewed for the study area and areas of potential concern within 1 mile of the study area. For the July 2018 records search, standard environmental record sources included California SWRCB's Facility Inventory Database, SWRCB's Underground Storage Tank Facilities, SWRCB's Leaking Underground Storage Tank Facilities, the Hazardous Substance Storage Container Database, the U.S. EPA's National Priorities List, and U.S. EPA's CERCLA Information System, among other standard databases. In 2024, a records search also included available information from the Los Angeles RWQCB's GeoTracker website and the California Department of Toxic Substances Control's (DTSC's) EnviroStor website.

- **Agency Records Review:** Records requests were submitted to Riverside County Health Services Agency Environmental Health Department (RCHSA-EHD), San Diego RWQCB, and DTSC. A response was received from San Diego RWQCB stating that no records were found for the requested addresses. No responses were received from RCHSA-EHD or DTSC.

- **Physical Setting Research:** Pertinent maps and readily available literature were reviewed for information on the physiography and hydrogeology of the proposed Project site. Specifically, information was reviewed regarding topography, surface water, geology and soils, hydrogeology, floodplain, and oil and gas fields.

- **Historical Research:** Aerial photographs, historical topographic maps, and Sanborn Fire Insurance Maps were reviewed for evidence of activities that would suggest the potential presence of hazardous substances at the proposed Project site and to evaluate the potential for off-site contamination sources affecting the area.

- **Site Reconnaissance:** On August 2, 2018, a reconnaissance-level assessment of the proposed Project site was conducted. The site reconnaissance consisted of the observation and documentation of existing site conditions and the nature of the neighboring property development within 0.25 mile of the proposed Project site from public ROW and public access points. This reconnaissance assessed current land uses and enabled a visual search for indications of contamination.

ISA Findings

The ISA for the proposed Project site revealed no evidence of recognized environmental conditions (RECs) in connection with properties in or adjacent to the proposed Project site, except for the following:

- The potential for historical soil impacts from ADL exists because the proposed Project site is, and has historically been part of Keller Road and Antelope Road since before 1938 and part of the I-215 since the late 1970s.

- There is potential for soil impacts from arsenical pesticides and organochlorine pesticides (OCPs) potentially applied to the former agricultural portions surrounding the proposed Project site.

- Permanent residential and commercial structures are present within the 0.25-mile study area; these are located at 34150 Antelope Road and 27540 Keller Road. Former residential and commercial structures were observed in historical documents, and were located at 34010 Antelope Road. There is potential for these structures to contain ACMs and lead-based paint (LBP), as well as some potential for these structures to have been treated with termiticide pesticides.

- There is potential that ACMs and LBP were used in the construction of the I-215.

- Yellow and white striping paint present on the paved surface roads has the potential to contain lead, and yellow striping paint has the potential to contain hexavalent chromium.

Environmental database and agency records reviews identified hazardous waste concerns at the properties shown in Table 2.2.5-1.

Table 2.2.5-1. Sites with Hazardous Waste Concerns

Location	Site Name	Existing or New ROW/ Acquisition Type	Hazard Rating
Keller Road at I-215	None	Existing	Low (compliant, minor release)
I-215/Antelope Road/Keller Road	Murrieta Highlands Project	Existing	Low (no action required)
34150 Antelope Road Murrieta, CA 92563	Residential (previously Fiberco and All Clean Sweeping, Inc.[a])	New/Full	Low (no release reported)
34010 Antelope Road Menifee, CA 92584	Karl Scanlan Company, Inc.	New/Partial [b]	Low (no release reported)
Mapleton Avenue and Keller Road Murrieta, CA 92563	Kaiser Permanente Medical Center MOB 1	New/Partial	Low (no release reported)
Keller Road and Zeiders Road Murrieta, CA 92563	Abandoned drug lab waste	New/Partial	Low (compliant, minor release)

Location	Site Name	Existing or New ROW/ Acquisition Type	Hazard Rating
Keller Road and Antelope Road Murrieta, CA 92563	Abandoned drug lab waste	Existing	Low (compliant, minor release)

[a] Residential property – business no longer in operation

[b] City of Murrieta-owned parcel.

ENVIRONMENTAL CONSEQUENCES

Temporary Impacts

Alternative 1 (No-Build Alternative)

The No-Build Alternative does not include the construction of a new interchange at the I-215 and Keller Road or improvements to local roads in the proposed Project site. The No-Build Alternative would not involve ground and structure disturbance or construction activities within the proposed Project site; therefore, no temporary impacts related to hazardous waste and materials would occur.

Build Alternatives 2, 3, and 5

ADL from the historical use of leaded gasoline, exists along roadways throughout California. If encountered, soil with elevated concentrations of lead as a result of ADL on the State Highway System right-of-way within the limits of the proposed Project will be managed under the July 1, 2016, ADL Agreement between Caltrans and the California DTSC's. This ADL Agreement allows such soils to be safely reused within the proposed Project limits as long as all requirements of the ADL Agreement are met.

The *Aerially Deposited Lead Survey Report* (Leighton 2019), indicated that soils within the proposed Project site were determined to be suitable for unrestricted use based on average lead concentrations:

- Equal to or less than 80 mg/kg of total lead
- Less than 5 mg/L of soluble lead

A Lead Compliance Plan would be developed in accordance with Caltrans Standard Specifications Section 7-1.02K(6)(j)(ii) and/or 7-1.02K(6)(j)(iii), and Cal-OSHA codes and standards (as outlined in minimization measure HAZ-2) to address the presence of ADL in soils within the proposed Project site, and to protect the health and safety of construction workers.

There is potential for construction activities to disturb soils containing arsenical pesticides and OCPs, roadway striping paint with lead and chromium, and ACMs in the bridge structure. There is also the potential for construction activities to disturb ACMs, LBPs, and termiticide pesticides in structures, as described above in the Affected Environment section. Minimization measures HAZ-1 through HAZ-5 have been incorporated into the proposed Project to ensure compliance with Caltrans ROW procedures for the evaluation of properties with potential hazardous waste concerns, as well as state and federal requirements regarding the proper identification of hazardous waste/materials before construction and contractor handling, disposal, or reuse during construction. Additionally, minimization measure HAZ-6 addresses procedures related to the discovery of unknown hazardous materials. With the implementation of minimization measures HAZ-1 through HAZ-6, the construction of the Build Alternatives would not result in temporary, adverse hazardous waste/material impacts on the environment, workers, or the public.

Permanent Impacts

Alternative 1 (No-Build Alternative)

The No-Build Alternative does not include the construction of a new interchange at the I-215 and Keller Road, or improvements of local roads in the proposed Project site; therefore, no permanent impacts related to hazardous waste and materials would occur.

Build Alternatives 2, 3, and 5

The operations and maintenance of Build Alternatives 2, 3, and 5 would include routine maintenance activities that would be required to follow applicable regulations with respect to the use, storage, handling, transport, and disposal of potentially hazardous materials. Therefore, Build Alternatives 2, 3, and 5 would not result in permanent adverse impacts related to hazardous waste and materials.

AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES

The following minimization measures would be implemented to minimize impacts related to hazardous waste and materials:

HAZ-1 Soil sampling for full and partial acquisition properties and any locations where excess soil may be generated shall be conducted during the Caltrans Plans, Specifications, and Estimates (PS&E) phase and prior to ROW acquisition. Near-surface soils would be

tested for chemicals of potential concern, including OCPs and arsenic associated with the former agricultural row crop areas, and ACMs, Title 22 metals, and termiticide pesticides associated with former structures.

HAZ-2 Before excavating, transporting, or stockpiling soil, the contractor shall prepare a Lead Compliance Plan in accordance with Caltrans Standard Specifications Section 7-1.02K(6)(j)(ii) and/or 7-1.02K(6)(j)(iii), the Caltrans Code of Safety Practices, the California Code of Regulations, and California Occupational Safety and Health Administration (Cal/OSHA) standards. The Lead Compliance Plan shall address the presence of lead in soils and paints in the proposed Project area, as well as the health and safety of construction workers.

HAZ-3 Striping paint on the paved roads associated with the proposed Project shall be sampled and tested for lead chromate in accordance with Caltrans' Construction Manual Chapter 4, Section 84, Markings, and Chapter 7-107, Hazardous Waste and Contamination, by trained and/or licensed professionals (Caltrans 2017a). The field and analytical data obtained during this study shall be used to provide a review of the sampling locations and descriptions, a summary of the analytical results, and recommendations for striping paint removal, containment, and off-site transportation and disposal, as appropriate.

HAZ-4 After property acquisition and before demolition, a demolition survey for existing structures proposed for demolition and/or modification shall be assessed for the possible presence of asbestos-containing materials (ACMs) and LBPs. An Asbestos Compliance Plan shall be completed prior to the asbestos survey. The surveys shall be conducted by trained and/or licensed professionals in compliance with U.S. Environmental Protection Agency (EPA) requirements, the National Emission Standards for Hazardous Air Pollutants, 40 Code of Federal Regulations (CFR), South Coast Air Quality Management District (SCAQMD) Rule 1403, U.S. Department of Housing and Urban Development and California Department of Public Health guidelines, and OSHA guidelines for worker safety. The results of these surveys shall

provide a description of the ACM and LBP locations, estimated quantities, and recommendations for removal, containment, and off-site transportation and disposal.

HAZ-5 Per SCAQMD Rule 1403(d)(1)(B), notification and applicable fees shall be submitted to the SCAQMD at least 10 days before proceeding with any demolition or renovation of a structure. The construction contractor shall adhere to the requirements of SCAQMD Rule 1403 during renovation and demolition activities.

HAZ-6 If hazardous materials contamination or sources are suspected or identified during proposed Project construction activities, an environmental professional shall evaluate the required course of action. This course of action will follow the Unknown Hazards Procedures described in Caltrans Construction Manual Chapter 7 (Caltrans 2017c).

2.2.6 Air Quality

REGULATORY SETTING

The Federal Clean Air Act (FCAA), as amended, is the primary federal law that governs air quality while the California Clean Air Act (CCAA) is its companion state law. These laws, and related regulations by the United States Environmental Protection Agency (U.S. EPA) and the California Air Resources Board (ARB), set standards for the concentration of pollutants in the air. At the federal level, these standards are called National Ambient Air Quality Standards (NAAQS). NAAQS and state ambient air quality standards have been established for six criteria pollutants that have been linked to potential health concerns: carbon monoxide (CO), nitrogen dioxide (NO_2), ozone (O_3), particulate matter (PM)—which is broken down for regulatory purposes into particles of 10 micrometers or smaller (PM_{10}) and particles of 2.5 micrometers and smaller ($PM_{2.5}$), lead, and sulfur dioxide (SO_2). In addition, state standards exist for visibility-reducing particles, sulfates, hydrogen sulfide (H_2S), and vinyl chloride. The NAAQS and state standards are set at levels that protect public health with a margin of safety, and are subject to periodic review and revision. Both state and federal regulatory schemes also cover toxic air contaminants (air toxics); some criteria pollutants are also air toxics or may include certain air toxics in their general definition.

Federal air quality standards and regulations provide the basic scheme for project-level air quality analysis under the National Environmental Policy Act (NEPA). In addition to this environmental analysis, a parallel "Conformity" requirement under the FCAA also applies.

Conformity

The conformity requirement is based on FCAA Section 176(c), which prohibits the U.S. Department of Transportation (USDOT) and other federal agencies from funding, authorizing, or approving plans, programs, or projects that do not conform to State Implementation Plan (SIP) for attaining the NAAQS. "Transportation Conformity" applies to highway and transit projects and takes place on two levels: the regional (or planning and programming) level and the project level. The proposed project must conform at both levels to be approved.

Conformity requirements apply only in nonattainment and "maintenance" (former nonattainment) areas for the NAAQS, and only for the specific NAAQS that are or were violated. U.S. EPA regulations at 40 Code of Federal Regulations (CFR) 93 govern the conformity process. Conformity requirements do not apply in unclassifiable/attainment areas for NAAQS and do not apply at all for state standards regardless of the status of the area.

Regional conformity is concerned with how well the regional transportation system supports plans for attaining the NAAQS for carbon monoxide (CO), nitrogen dioxide (NO_2), ozone (O_3), particulate matter (PM_{10} and $PM_{2.5}$), and in some areas (although not in California), sulfur dioxide (SO_2). California has nonattainment or maintenance areas for all of these transportation-related "criteria pollutants" except SO_2, and also has a nonattainment area for lead; however, lead is not currently required by the FCAA to be covered in transportation conformity analysis. Regional conformity is based on emission analysis of Regional Transportation Plans (RTPs) and Federal Transportation Improvement Programs (FTIPs) that include all transportation projects planned for a region over a period of at least 20 years (for the RTP) and 4 years (for the FTIP). RTP and FTIP conformity uses travel demand and emission models to determine whether or not the implementation of those projects would conform to emission budgets or other tests at various analysis years showing that requirements of the FCAA and the SIP are met. If the conformity analysis is successful, the Metropolitan Planning Organization (MPO), Federal Highway Administration (FHWA), and Federal Transit Administration (FTA) make the determinations that the RTP and FTIP are in conformity with the SIP for

achieving the goals of the FCAA. Otherwise, the projects in the RTP and/or FTIP must be modified until conformity is attained. If the design concept and scope and the "open to traffic" schedule of a proposed transportation project are the same as described in the RTP and FTIP, then the proposed project meets regional conformity requirements for purposes of project-level analysis.

Project-level conformity is achieved by demonstrating that the project comes from a conforming RTP and TIP; the project has a design concept and scope[3] that has not changed significantly from those in the RTP and TIP; project analyses have used the latest planning assumptions and EPA-approved emissions models; and in PM areas, the project complies with any control measures in the SIP. Furthermore, additional analyses (known as hot-spot analyses) may be required for projects located in CO and PM nonattainment or maintenance areas to examine localized air quality impacts.

AFFECTED ENVIRONMENT

This section is based on the proposed Project's Updated AQR (Caltrans 2025a).

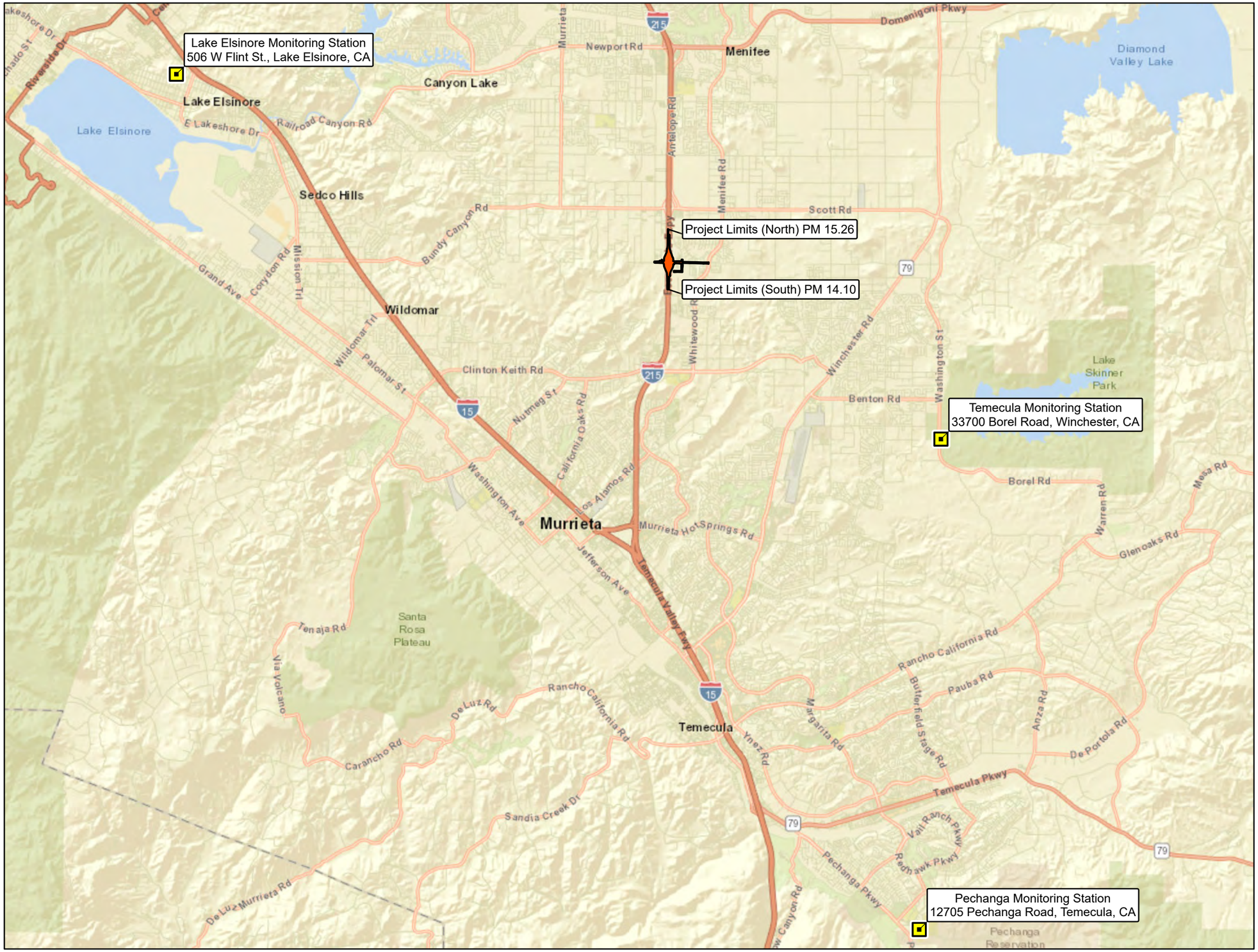
Climate and Meteorology

Meteorology (weather) and terrain can influence air quality. Certain weather parameters are highly correlated to air quality, including temperature, the amount of sunlight, and the type of winds at the surface and above the surface. Winds can transport O_3 and O_3 precursors from one region to another, contributing to air quality problems downwind of source regions. Furthermore, mountains can act as a barrier that prevents O_3 from dispersing. The proposed Project is within portions of the South Coast Air Basin (SCAB) that is almost completely enclosed by mountains to the north and east, resulting in a fairly regular daily reversal of wind direction: offshore at night and onshore during the day. With the concentrated population and industry, pollution products tend to accumulate and remain within this circulation pattern.

The SCAQMD operates several air quality monitoring stations in the proposed Project area. Within Riverside County, there are three monitoring stations closest to and surrounding the proposed Project: Lake Elsinore, approximately 10 miles northwest; Temecula, approximately 5 miles east; and Pechanga, approximately 12 miles south from the proposed Project (Figure 2.2-4). Tables 2.2.6-3 through

[3] "Design concept" means the type of facility that is proposed, such as a freeway or arterial highway. "Design scope" refers to those aspects of the project that would clearly affect capacity and thus any regional emissions analysis, such as the number of lanes and the length of the project.

2.2.6-5 in the Existing Air Quality section list air quality trends in data collected at the Lake Elsinore, Temecula, and Pechanga air monitoring stations for the past 5 years. Figure 2.2-5 shows a wind rose illustrating the predominant wind patterns near the proposed Project. Wind typically blows from the west-northwest, northwest, south, south-southeast, and southeast, with speeds of 4 to 8 miles per hour (mph) 9.9% of the time and speeds of 8 to 13 mph about 5% of the time (MRCC 2024). The proposed Project area's climate is generally Mediterranean in character, with cool winters (average 65.4 degrees Fahrenheit [°F] in January) and warm, dry summers (average maximum temperature of 98.1°F in July and August). Annual average precipitation recorded at this station is approximately 12 inches, with over 75% of the seasonal rainfall between December and March. (WRCC 2018b).





Legend

- Project Site
- Air Monitoring Stations

Data Source:
Caltrans
Riverside County GIS

0 1 2
Miles

Figure 2.2-4
Map of Air Quality Monitoring Stations Located Near the Project
I-215/Keller Road New Interchange Project
Riverside County, California

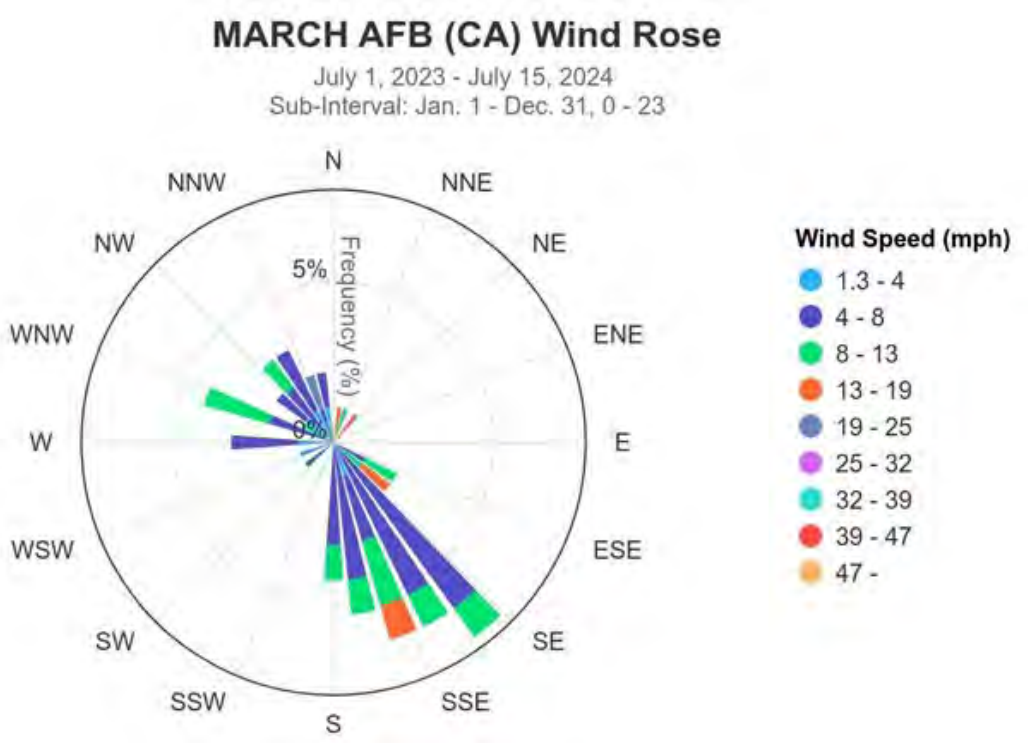


Figure 2.2-5. Predominant Wind Patterns Near the Project
Source: MRCC 2024

Existing Air Quality

Air quality monitoring stations are located throughout the nation and are maintained by local air districts and state air quality regulatory agencies. Data collected at these permanent monitoring stations are used by U.S. EPA to identify regions as “attainment,” “nonattainment,” or “maintenance,” depending on whether the regions meet the requirements stated in the primary NAAQS.

Nonattainment areas are imposed with additional restrictions as required by U.S. EPA. In addition, different classifications of nonattainment (for example marginal, moderate, serious, severe, and extreme) are used to classify each air basin in the state on a pollutant-by-pollutant basis. The classifications are used as a foundation to create air quality management strategies to improve air quality and comply with the NAAQS. Table 2.2.6-1 lists the effects, and sources for all regulated pollutants. Table 2.2.6-2 lists the state and federal attainment status and standards.

Table 2.2.6-1. Air Pollutant Effects and Sources

Pollutant	Principal Health and Atmospheric Effects	Typical Sources
Ozone (O_3)	High concentrations irritate lungs. Long-term exposure may cause lung tissue damage and cancer. Long-term exposure damages plant materials and reduces crop productivity. Precursor organic compounds include many known toxic air contaminants. Biogenic VOCs may also contribute.	Low-altitude ozone is almost entirely formed from reactive organic gases/volatile organic compounds (ROG or VOC) and nitrogen oxides (NOx) in the presence of sunlight and heat. Common precursor emitters include motor vehicles and other internal combustion engines, solvent evaporation, boilers, furnaces, and industrial processes.
Carbon Monoxide (CO)	CO interferes with the transfer of oxygen to the blood and deprives sensitive tissues of oxygen. CO also is a minor precursor for photochemical ozone. Colorless, odorless.	Combustion sources, especially gasoline-powered engines and motor vehicles. CO is the traditional signature pollutant for on-road mobile sources at the local and neighborhood scale.
Respirable Particulate Matter (PM_{10})	Irritates eyes and respiratory tract. Decreases lung capacity. Associated with increased cancer and mortality. Contributes to haze and reduced visibility. Includes some toxic air contaminants. Many toxic & other aerosol and solid compounds are part of PM_{10}.	Dust- and fume-producing industrial and agricultural operations; combustion smoke & vehicle exhaust; atmospheric chemical reactions; construction and other dust-producing activities; unpaved road dust and re-entrained paved road dust; natural sources.
Fine Particulate Matter ($PM_{2.5}$)	Increases respiratory disease, lung damage, cancer, and premature death. Reduces visibility and produces surface soiling. Most diesel exhaust particulate matter—a toxic air contaminant—is in the $PM_{2.5}$ size range. Many toxic and other aerosol and solid compounds are part of $PM_{2.5}$.	Combustion, including motor vehicles other mobile sources and industrial activities; residential and agricultural burning; also formed through atmospheric chemical and photochemical reactions involving other pollutants, including NOx, sulfur oxides (SO_x), ammonia, and ROG.
Nitrogen Dioxide (NO_2)	Irritating to eyes and respiratory tract. Colors atmosphere reddish-brown. Contributes to acid rain & nitrate contamination of stormwater. Part of the “NOx” group of ozone precursors.	Motor vehicles and other mobile or portable engines, especially diesel; refineries; industrial operations.

Pollutant	Principal Health and Atmospheric Effects	Typical Sources
Sulfur Dioxide (SO_2)	Irritates respiratory tract; injures lung tissue. Can yellow plant leaves. Destructive to marble, iron, steel. Contributes to acid rain. Limits visibility.	Fuel combustion (especially coal and high-sulfur oil), chemical plants, sulfur recovery plants, metal processing; some natural sources like active volcanoes. Limited contribution possible from heavy-duty diesel vehicles if ultra-low-sulfur fuel not used.
Lead (Pb)	Disturbs gastrointestinal system. Causes anemia, kidney disease, and neuromuscular and neurological dysfunction. Also a toxic air contaminant and water pollutant.	Lead-based industrial processes like battery production and smelters. Lead paint, leaded gasoline. Aerially deposited lead from older gasoline use may exist in soils along major roads.
Sulfates	Premature mortality and respiratory effects. Contributes to acid rain. Some toxic air contaminants attach to sulfate aerosol particles.	Industrial processes, refineries and oil fields, mines, natural sources like volcanic areas, salt-covered dry lakes, and large sulfide rock areas.
Hydrogen Sulfide (H_2S)	Colorless, flammable, poisonous. Respiratory irritant. Neurological damage and premature death. Headache, nausea. Strong odor.	Industrial processes such as: refineries and oil fields, asphalt plants, livestock operations, sewage treatment plants, and mines. Some natural sources like volcanic areas and hot springs.
Visibility-reducing Particles (VRP)	Reduces visibility. Produces haze. NOTE: not directly related to the Regional Haze program under the Federal Clean Air Act, which is oriented primarily toward visibility issues in National Parks and other “Class I” areas. However, some issues and measurement methods are similar.	See particulate matter above. May be related more to aerosols than to solid particles.
Vinyl Chloride	Neurological effects, liver damage, cancer. Also considered a toxic air contaminant.	Industrial processes.

Source: Caltrans 2025a
CAAQS = California Ambient Air Quality Standards
NAAQS = National Ambient Air Quality Standards
N/A = not applicable
NOx = nitrogen oxide
ppm = parts per million
ROG = reactive organic gas
SO2 = sulfur dioxide
SOx = sulfur oxides
VOC = volatile organic compound
µg/m3 = micrograms per cubic meter

Table 2.2.6-2. State and Federal Criteria Air Pollutant Standards and Status

Pollutant	Averaging Time	State Standard	Federal Standard	State Project Attainment Status	Federal Project Area Attainment Status
O_3	1 hour	0.09 ppm	N/A	Nonattainment	N/A
	8 hours	0.070 ppm	0.070 ppm (4th highest in 3 years)		Extreme nonattainment
CO	1 hour	20 ppm	35 ppm	Attainment	Serious maintenance
	8 hours	9.0 ppm	9 ppm		
PM_{10}	24 hours	50 µg/m^3	150 µg/m^3 (expected number of days above standard < or equal to 1)	Attainment	Serious maintenance
	Annual	20 µg/m^3	N/A		
$PM_{2.5}$	24 hours	N/A	35 µg/m^3	N/A	Serious nonattainment
	Annual	12 µg/m^3	9.0 µg/m^3	Nonattainment	
NO_2	1 hour	0.18 ppm	0.100 ppm	Attainment	Maintenance
	Annual	0.030 ppm	0.053 ppm		
SO_2	1 hour	0.25 ppm	0.075 ppm (99th percentile over 3 years)	Attainment	Attainment/ unclassifiable
	24 hours	0.04 ppm	N/A	Attainment	
	Annual	N/A	0.010 ppm (averaged over 3 years)	N/A	
Pb	Monthly	1.5 µg/m^3	N/A	Attainment	N/A
	Rolling 3-month average	N/A	0.15 µg/m^3	N/A	Attainment/ unclassifiable
Sulfates	24 hours	25 µg/m^3	N/A	Attainment	N/A
H_2S	1 hour	0.03 ppm	N/A	Unclassified	N/A
Visibility Reducing Particles (VRP)	8 hours	Visibility of 10 miles or more (Tahoe: 30 miles) at relative humidity less than 70 %	N/A	Unclassified	N/A

Pollutant	Averaging Time	State Standard	Federal Standard	State Project Attainment Status	Federal Project Area Attainment Status
Vinyl Chloride	24 hours	0.01 ppm	N/A	Unclassified	N/A

Source: EPA 2025; ARB 2024c, 2025

Tables 2.2.6-3 through 2.2.6-5 list air quality trends in data collected at the Lake Elsinore, Temecula, and Pechanga air monitoring stations for the past 5 years, from 2019 to 2023. The proposed Project region is in attainment for SO_2, and ambient levels of SO_2 have historically been so low that SO_2 is no longer monitored. The Project area is currently designated as nonattainment for O_3 (federal and state standards), PM_{10} (state standard), and $PM_{2.5}$ (federal standard).

Table 2.2.6-3. Air Quality Concentrations for 5 Years Measured at the Lake Elsinore Monitoring Station – 506 W Flint Street

Pollutant	Standard	2019	2020	2021	2022	2023
O_3						
Maximum 1-hour concentration (ppm)		0.108	0.130	0.118	0.121	0.120
Days exceeded: State	0.09 ppm	4	18	18	17	10
Maximum 8-hour concentration (ppm)		0.089	0.100	0.097	0.091	0.103
Days exceeded: State Federal	 0.070 ppm 0.070 ppm	 29 29	 54 54	 44 44	 37 37	 31 31
CO						
Max 1-hour concentration (ppm)		1.6	0.9	0.9	0.9	1.3
No. days exceeded: State Federal	 20 ppm 35 ppm	 0 0	 0 0	 0 0	 0 0	 0 0
Max 8-hour concentration (ppm)		0.7	0.7	0.8	0.6	0.7
No. days exceeded: State Federal	 9.0 ppm 9 ppm	 0 0	 0 0	 0 0	 0 0	 0 0

Pollutant	Standard	2019	2020	2021	2022	2023
PM_{10}						
Maximum 24-hour concentration ($\mu g/m^3$)		93.8	192.4	90.0	91.8	187.0
Days exceeded: State Federal	 50 $\mu g/m^3$ 150 $\mu g/m^3$	 [a] 0	 [a] 1	 [a] 0	 [a] 0	 [a] 1
Maximum annual concentration		19.7	23.7	22.4	20.3	21.8
Exceeded? State	20 $\mu g/m^3$	[a]	[a]	[a]	[a]	[a]
$PM_{2.5}$						
Maximum 24-hour concentration ($\mu g/m^3$)		17.6	41.6	28.8	16.2	19.9
Days exceeded: Federal	35 $\mu g/m^3$	[a]	[a]	[a]	[a]	[a]
Maximum annual concentration ($\mu g/m^3$)		[a]	7.2	6.9	5.8	5.9
Exceeded? State Federal	 12 $\mu g/m^3$ 12.0 $\mu g/m^3$	 [a] [a]	 [a] [a]	 [a] [a]	 [a] [a]	 [a] [a]
NO_2						
Maximum 1-hour concentration (ppb)		38.0	43.6	43.7	37.2	41.7
Days exceeded: State Federal	 0.18 ppm 100 ppb	 0 0	 0 0	 0 0	 0 0	 0 0
Maximum annual concentration (ppb)		7	7	7	7	7
Exceeded: Annual State? Annual Federal?	 0.030 ppm 53 ppb	 0 0	 0 0	 0 0	 0 0	 0 0

Source: U.S. EPA 2024b; ARB 2024b
[a] = Data not available or insufficient data available to determine the value
$\mu g/m^3$ = microgram(s) per cubic meter
ppb = part(s) per billion

Table 2.2.6-4. Air Quality Concentrations for 5 Years Measured at the Temecula Monitoring Station – 33700 Borel Road

Pollutant	Standard	2019	2020	2021	2022	2023
O_3						
Maximum 1-hour concentration (ppm)		0.091	0.108	0.095	0.087	0.088
Days exceeded: State	0.09 ppm	0	5	1	0	0

Pollutant	Standard	2019	2020	2021	2022	2023
Maximum 8-hour concentration (ppm)		0.079	0.091	0.083	0.079	0.082
Days exceeded: State Federal	 0.070 ppm 0.070 ppm	 6 7	 37 39	 10 11	 3 3	 3 3
CO						
Max 1-hour concentration (ppm)		a	a	a	a	a
No. days exceeded: State Federal	 20 ppm 35 ppm	 a a	 a a	 a a	 a a	 a a
Max 8-hour concentration (ppm)		a	a	a	a	a
No. days exceeded: State Federal	 9.0 ppm 9 ppm	 a a	 a a	 a a	 a a	 a a
PM_{10}						
Maximum 24-hour concentration ($\mu g/m^3$)		a	a	a	a	a
Days exceeded: State Federal	 50 $\mu g/m^3$ 150 $\mu g/m^3$	 a a	 a a	 a a	 a a	 a a
Maximum annual concentration		a	a	a	a	a
Exceeded? State	20 $\mu g/m^3$	a	a	a	a	a
$PM_{2.5}$						
Maximum 24-hour concentration ($\mu g/m^3$)		17.0	37.1	26.9	20.3	24.3
Days exceeded: Federal	35 $\mu g/m^3$	a	a	a	a	a
Maximum annual concentration ($\mu g/m^3$)		7.6	9.5	8.8	8.5	8.8
Exceeded? State Federal	 12 $\mu g/m^3$ 12.0 $\mu g/m^3$	 a a	 a a	 a a	 a a	 a a

Pollutant	Standard	2019	2020	2021	2022	2023
NO_2						
Maximum 1-hour concentration (ppb)		a	a	a	a	a
Days exceeded: State Federal	 0.18 ppm 100 ppb	 a a	 a a	 a a	 a a	 a a
Maximum annual concentration (ppb)		a	a	a	a	a
Exceeded: Annual State? Annual Federal?	 0.030 ppm 53 ppb	 a a	 a a	 a a	 a a	 a a

Source: GEPA 2024b; ARB 2024b
[a] = Data not available or insufficient data available to determine the value

Table 2.2.6-5. Air Quality Concentrations for 5 Years Measured at the Pechanga Monitoring Station – 12705 Pechanga Road

Pollutant	Standard	2019	2020	2021	2022	2023
O_3						
Maximum 1-hour concentration (ppm)		a	0.104	0.087	0.097	0.177
Days exceeded: State	0.09 ppm	a	2	0	1	1
Maximum 8-hour concentration (ppm)		a	0.079	0.078	0.080	0.081
Days exceeded: State Federal	 0.070 ppm 0.070 ppm	 a a	 20 20	 3 3	 5 5	 3 2
CO						
Max 1-hour concentration (ppm)		a	a	a	a	a
No. days exceeded: State Federal	 20 ppm 35 ppm	 a a	 a a	 a a	 a a	 a a
Max 8-hour concentration (ppm)		a	a	a	a	a
No. days exceeded: State Federal	 9.0 ppm 9 ppm	 a a	 a a	 a a	 a a	 a a
PM_{10}						
Maximum 24-hour concentration ($\mu g/m^3$)		a	a	a	a	a
Days exceeded: State Federal	 50 $\mu g/m^3$ 150 $\mu g/m^3$	 a a	 a a	 a a	 a a	 a a

Pollutant	Standard	2019	2020	2021	2022	2023
Maximum annual concentration		[a]	[a]	[a]	[a]	[a]
Exceeded? State	20 µg/m^3	[a]	[a]	[a]	[a]	[a]
$PM_{2.5}$						
Maximum 24-hour concentration (µg/m^3)		11.5	31.4	40.1	14.5	16.3
Days exceeded: Federal	35 µg/m^3	[a]	[a]	[a]	[a]	[a]
Maximum annual concentration (µg/m^3)		[a]	[a]	[a]	[a]	[a]
Exceeded? State Federal	 12 µg/m^3 12.0 µg/m^3	 [a] [a]	 [a] [a]	 [a] [a]	 [a] [a]	 [a] [a]
NO_2						
Maximum 1-hour concentration (ppb)		[a]	29.8	24.2	22.9	[a]
Days exceeded: State Federal	 0.18 ppm 100 ppb	 [a] [a]	 0 0	 0 0	 0 0	 [a] [a]
Maximum annual concentration (ppb)		[a]	[a]	3	[a]	[a]
Exceeded: Annual State? Annual Federal?	 0.030 ppm 53 ppb	 [a] [a]	 [a] [a]	 [a] [a]	 [a] [a]	 [a] [a]

Source: EPA 2024b; ARB 2024b
[a] Data not available or insufficient data available to determine the value.

As shown in Tables 2.2.6-3 through 2.2.6-5, measured O_3 concentrations at all three monitoring stations have exceeded the NAAQS and CAAQS in the past 5 years. PM_{10} concentrations were less than the NAAQS for all years. $PM_{2.5}$ concentrations have not exceeded NAAQS in the last 5 years. Concentrations of NO_2 and CO were less than the ambient air quality standards for the last 5 years.

Sensitive Receptors

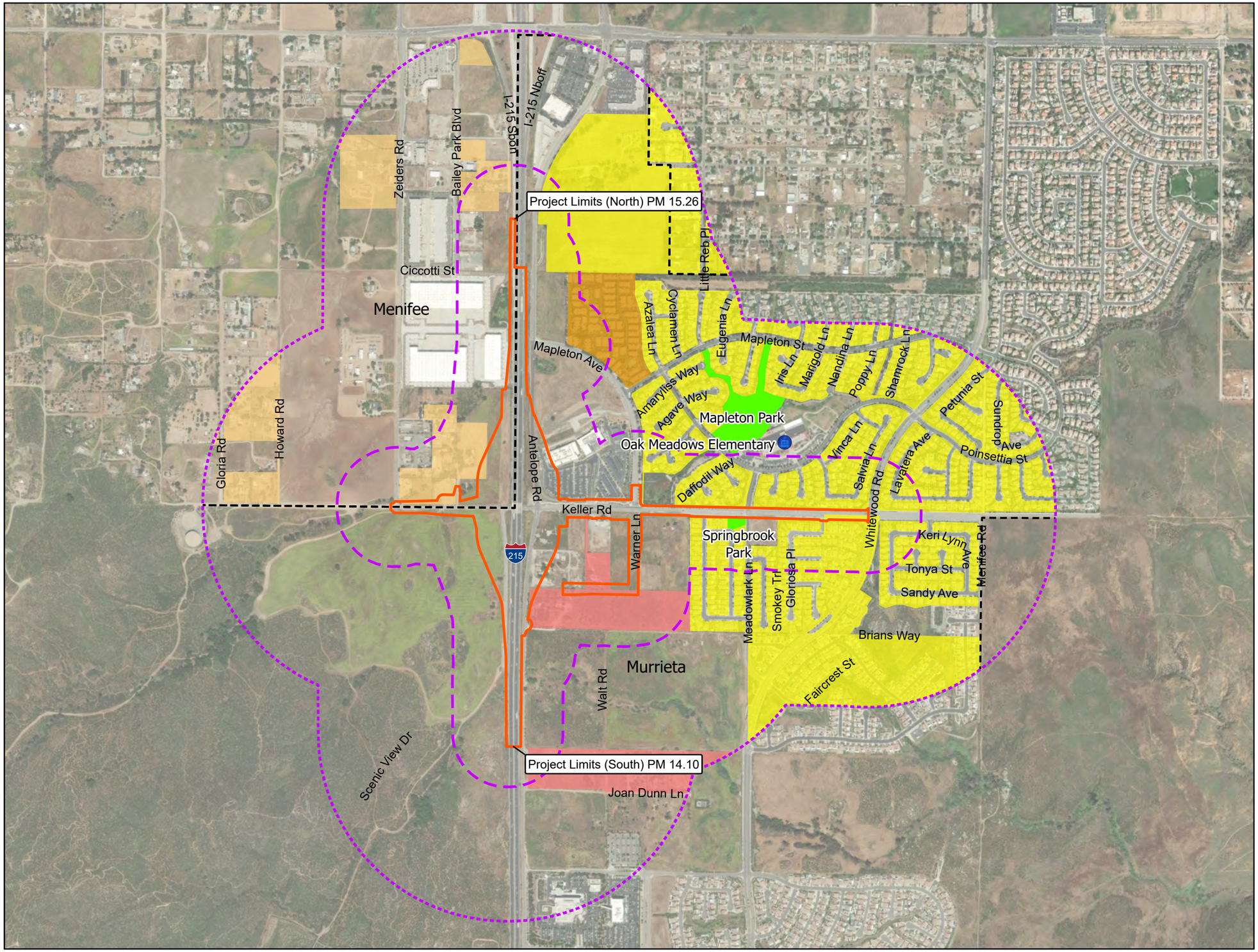
Sensitive populations are more susceptible to the effects of air pollution than the general population. Sensitive populations (sensitive receptors) near localized sources of toxics and CO are of particular concern. Sensitive receptors include residences, schools, playgrounds, childcare centers, athletic facilities, long-term healthcare facilities, rehabilitation centers, convalescent centers, and retirement homes. Sensitive receptors located directly adjacent to the proposed Project area include single-family residences, a school (Oak Meadows Elementary), a medical

campus (Kaiser Permanente Murrieta Medical Campus), as well as recreational areas and open land spaces (Mapleton Park and Springbrook Park).

Based on research showing that the zone of greatest concern near roadways is within 500 feet, sensitive receptors within 500 feet have been identified and are documented in Table 2.2.6-6. Given the large size of the proposed Project and its potential to influence receptors at greater distances, sensitive receptors within 2,000 feet are also listed. Figure 2.2-6 shows the locations of nonresidential sensitive receptors within 2,000 feet of the proposed Project site.

Table 2.2.6-6. Sensitive Receptors Within 2,000 Feet of the Proposed Project Site

Receptor	Description	Distance Between Receptor and Project (feet)
Kaiser Permanente Murrieta Medical Campus	Medical Offices	0 (Build Alternatives 2 and 3) 120 (Build Alternative 5)
Oak Meadows Elementary School	Kindergarten to Grade 5 School	575
Mapleton Park	Recreational Public Park	753
Springbrook Park	Recreational Public Park	130
Residences	Residences that surround the proposed Project	50 – 2,000





Legend

- Project Site
- 2,000-Feet from Project Boundary
- 500-Feet from Project Boundary
- School
- Parks
- Cities

Residential Areas

- Single Family Residential
- Multi-Family Residential
- Mobile Homes and Trailer Parks
- Mixed Residential
- Rural Residential

Data Source:
Caltrans
Riverside County GIS

0 500 1000
US Feet

Figure 2.2-6
Sensitive Receptors Located Near the Proposed Project
I-215/Keller Road New Interchange Project
Riverside County, California

ENVIRONMENTAL CONSEQUENCES

Temporary Impacts

Alternative 1 (No-Build Alternative)

The No-Build Alternative does not include improvements to the I-215/Keller Road interchange or local roads in the proposed Project area. No temporary air quality impacts would occur under the No-Build Alternative because there would be no construction activities in the proposed Project area as a result of the proposed Project.

Build Alternatives 2, 3, and 5

During construction, the short-term degradation of air quality may occur due to the release of particulate emissions (airborne dust) generated by excavation, grading, hauling, and other activities related to construction. Emissions from construction equipment are also anticipated, and would include CO, NOx, VOCs, directly emitted PM (PM_{10} and $PM_{2.5}$), and toxic air contaminants (for example, diesel exhaust PM). O_3 is a regional pollutant that is derived from NOx and VOCs in the presence of sunlight and heat.

Site preparation and roadway construction would involve clearing, cut-and-fill activities, grading, and the paving of roadway surfaces. Construction-related effects on air quality from most roadway projects would be greatest during the site preparation phase because most engine emissions are associated with the excavation, handling, and transport of soils to and from the site. Sources of fugitive dust would include disturbed soils at the construction site and trucks carrying uncovered loads of soil. Vehicles leaving the site could deposit mud on local streets, which could be an additional source of airborne dust after drying. PM_{10} emissions would vary from day to day, depending on the nature and magnitude of construction activity and local weather conditions.

If construction activities were to increase traffic congestion in the area, CO, NOx, VOCs, and some soot particulate (PM_{10} and $PM_{2.5}$) would increase. These emissions would be temporary and limited to the immediate area surrounding the construction site. Areas within 500 feet of ARB-defined sensitive land uses where material storage/transfer and equipment maintenance activities could occur would be labeled as no-idle areas.

SO_2 is generated by oxidation during the combustion of organic sulfur compounds contained in diesel fuel. Under California law and ARB regulations, off-road diesel fuel used in California must meet the same sulfur and other

standards as on-road diesel fuel; therefore, SO_2-related issues due to diesel exhaust would be minimal.

Some phases of construction, particularly asphalt paving, may result in short-term odors in the immediate area of each paving site. Such odors would quickly disperse to less than detectable levels as the distance from the site(s) increased.

Construction emissions from the proposed Project's Build Alternatives were evaluated using the latest version of the Caltrans Construction Emissions Tool (CAL-CET2021) (v1.0). The average daily emissions are presented in Tables 2.2.6-6 to 2.2.6-8. The emissions presented are based on the best information available at the time of the analysis. Because Caltrans has not established significance thresholds for criteria air pollutant emissions for NEPA or CEQA purposes, the SCAQMD's CEQA emissions thresholds are included in Table 2.2.6-7 to Table 2.2.6-9 for comparison purpose only.

Table 2.2.6-7. Construction Emissions for Roadways – Build Alternative 2

Construction Phase	PM_{10} (lb/day)	$PM_{2.5}$ (lb/day)	CO (lb/day)	NO_x (lb/day)	ROG (lb/day)
Land Clearing/Grubbing	18.174	2.677	12.887	13.571	2.227
Roadway Excavation & Removal	7.864	2.668	27.441	27.889	4.146
Structural Excavation & Removal	4.384	1.379	10.529	16.960	3.192
Base/Sub-base/Imported Borrow	7.642	3.798	47.120	43.913	6.456
Structure Concrete	1.141	1.115	13.025	18.521	3.790
Paving	1.110	1.090	6.927	15.141	2.081
Drainage/Environment/ Signage/ Striping/Painting	1.723	1.684	11.343	22.365	3.554
Traffic Signalization/Signage/Striping/ Painting	0.908	0.891	12.819	15.372	2.071
Total Maximum Daily Average	18.174	3.798	47.120	43.913	6.456
Project Total (Average Daily)	3.845	1.775	18.049	22.483	3.805
SCAQMD Regional Emissions Daily Significance Threshold	150	55	550	100	75

Source: Caltrans 2025a
lb = pound

Table 2.2.6-8. Construction Emissions for Roadways – Build Alternative 3

Construction Phase	PM_{10} (lb/day)	$PM_{2.5}$ (lb/day)	CO (lb/day)	NO_x (lb/day)	ROG (lb/day)
Land Clearing/Grubbing	18.268	2.350	7.851	8.271	1.355
Roadway Excavation & Removal	7.447	2.118	20.036	20.357	3.026
Structural Excavation & Removal	4.186	1.103	7.654	12.340	2.323
Base/Sub-base/Imported Borrow	7.234	3.294	39.932	37.224	5.471
Structure Concrete	1.683	1.645	19.212	27.298	5.590
Paving	1.003	0.984	6.270	13.683	1.880
Drainage/Environment/ Signage/ Striping/Painting	0.748	0.731	4.930	9.714	1.543
Traffic Signalization/ Signage/Striping/Painting	2.078	2.039	29.339	35.194	4.741
Total Maximum Daily Average	18.268	3.294	39.932	37.224	5.590
Project Total (Average Daily)	3.852	1.726	17.957	22.456	3.905
SCAQMD Regional Emissions Daily Significance Threshold	150	55	550	100	75

Source: Caltrans 2025a

Table 2.2.6-9. Construction Emissions for Roadways – Build Alternative 5

Construction Phase	PM_{10} (lb/day)	$PM_{2.5}$ (lb/day)	CO (lb/day)	NO_x (lb/day)	ROG (lb/day)
Land Clearing/Grubbing	16.637	2.187	7.849	8.271	1.355
Roadway Excavation & Removal	6.903	2.063	20.042	20.357	3.026
Structural Excavation & Removal	3.871	1.071	7.654	12.340	2.323
Base/Sub-base/Imported Borrow	6.835	3.254	39.941	37.225	5.471
Structure Concrete	1.683	1.645	19.201	27.298	5.590
Paving	1.003	0.984	6.264	13.682	1.880

Construction Phase	PM_{10} (lb/day)	$PM_{2.5}$ (lb/day)	CO (lb/day)	NO_x (lb/day)	ROG (lb/day)
Drainage/Environment/ Signage/Striping/Painting	0.748	0.731	4.924	9.714	1.543
Traffic Signalization/ Signage/Striping/Painting	2.078	2.039	29.339	35.194	4.741
Total Maximum Daily Average	16.637	3.254	39.941	37.225	5.471
Project Total (Average Daily)	3.637	1.705	17.954	22.456	3.905
SCAQMD Regional Emissions Daily Significance Threshold	150	55	550	100	75

Source: Caltrans 2025a

Construction activities would not last more than 5 years at one general location, so construction-related emissions do not need to be included in regional and project-level conformity analyses (40 CFR 93.123[c][5]).

Permanent Impacts

Alternative 1 (No-Build Alternative)

The No-Build Alternative does not include improvements to the I-215/Keller Road interchange or local roads in the proposed Project area. The No-Build Alternative would not improve operations or reduce congestion at the I-215/Keller Road interchange; therefore, no permanent impacts on air quality would occur.

Build Alternatives 2, 3, and 5

Regional Conformity

The proposed Project is listed in the Connect SoCal 2024 financially constrained Regional Transportation Plan which was found to conform by the SCAG on April 4, 2024. FHWA and FTA made a regional conformity determination finding on May 10, 2024. The proposed Project is also included in SCAG's financially constrained 2025 Regional Transportation Improvement Program Volumes I, II, and II (FTIP Project ID RIV100107), page 250 of the of the Final 2025 FTIP Technical Appendix Volume III Part A. SCAG's Regional Transportation Improvement Program Volumes was determined to conform by FHWA and FTA on December 16, 2022. The design concept and scope of the proposed Project is consistent with the project description in the SCAG's 2024-2050 RTP/SCS, 2025 FTIP, and the "open to traffic assumptions" of SCAG's regional emissions analysis. The proposed Project description in the 2025 FTIP is provided as

follows: In southwest Riverside County, I-215/Keller Road Interchange, replace the existing 2-lane I-215/Keller Road underpass with a new 4-lane (2 lanes in each direction), auxiliary lane at the SB off-ramp (approximately 1,550 feet), add 3-lane NB and 2-lane SB off-ramp, 2-lane NB and SB on-ramps with [high-occupancy vehicle] HOV lane, soundwalls, and two 2-lane traffic circles at the ramp termini, and realign Antelope Road approximately 1/4 mile east.

Project-level Conformity

The proposed Project is in the SCAB serious maintenance area for the federal 1-hour CO standard and the PM_{10} standard, and moderate nonattainment of the federal $PM_{2.5}$ standard. Therefore, local hot-spot analyses for CO, PM_{10}, and $PM_{2.5}$ are required for conformity purposes. The proposed Project would not cause or contribute to any new localized CO, PM_{10}, or $PM_{2.5}$ violations, or delay the timely attainment of any NAAQS or any required interim emission reductions or other milestones during the timeframe of the transportation plan (or regional emissions analysis). The results of these hot-spot analyses are provided in the following subsections.

Carbon Monoxide

The *Carbon Monoxide Protocol* (CO Protocol) was developed for project-level conformity (hot-spot) analysis and was approved for use by U.S. EPA in 1997 (Garza et al. 1997). It provides qualitative screening procedures to determine whether proposed Project-related CO concentrations have the potential to generate new air quality violations, worsen existing violations, or delay the attainment status of the NAAQS for CO. If the qualitative screening analysis determines such potential exists, quantitative modeling analysis methods are followed to assess proposed Project-level CO impacts.

The CO Protocol has two flowcharts that apply to this proposed Project to determine whether a detailed CO analysis is needed. The following questions from the flowcharts (Figures 1 and 3 from the CO Protocol) are relevant to the proposed Project, and answers to these questions are provided to clarify the type of CO analysis required.

- 3.1.1. Is the Project exempt from all emissions analyses?

  No. The interchange reconstruction and improvement of the Build Alternatives is not listed as one of the exempt projects in Table 1 of the

CO Protocol (page 2-6). Therefore, it is not exempt from all emissions analyses.

- 3.1.2. Is the Project exempt from regional emissions analyses?

  No. Because the proposed Project would reconfigure an interchange for an existing highway and is included in the RTP and FTIP, it is not exempt from regional emissions analysis.

- 3.1.3. Is the Project locally defined as regionally significant?

  Yes. The proposed Project would reconfigure an interchange for an existing highway. Therefore, the SCAG defines the proposed Project as regionally significant.

- 3.1.4. Is the Project in a federal attainment area for all transportation-related criteria pollutants?

  No. The proposed Project is within the SCAB, which is designated as a federal nonattainment area for O_3 and $PM_{2.5}$. Therefore, the proposed Project is subject to a regional conformity determination.

- 3.1.5. Is there a currently conforming RTP and TIP?

  Yes. As discussed in the Regional Air Quality Conformity section, the SCAG's 2024-2050 RTP/SCS (known as Connect SoCal 2024) (SCAG 2024b) and 2025 Approved FTIP (SCAG 2024a) both conform.

- 3.1.6. Is the Project included in the regional emissions analysis supporting the currently conforming RTP and TIP?

  Yes. The proposed Project is listed in the 2024-2050 RTP and 2025 FTIP.

- 3.1.7. Has the Project design concept and/or scope changed significantly from that in the regional analysis?

  No. The proposed Project design concept and scope have not changed significantly from that in the regional analysis.

- 3.1.9. Examine local impacts.

  Section 3.1.9 of the CO Protocol flowchart (Figure 1 of the CO Protocol) directs the project evaluation to Section 4 (Local Analysis) of the CO Protocol. The flowchart (Figure 3 of the CO Protocol) begins at Level 1:

- Level 1: 4.1.1. Is the Project in a CO nonattainment area?

  No. The proposed Project site is within the SCAB, which is classified as an attainment/maintenance area for the federal CO standard.

- Level 1: 4.1.2. Was the area redesignated as "attainment" after the 1990 Clean Air Act?

  Yes. The SCAB was reclassified to attainment/maintenance from serious nonattainment in June 2007 when a *CO Maintenance Plan* was approved.

- Level 1: 4.1.3. Has "continued attainment" been verified with the local Air District, if appropriate?

  Yes. Based on monitoring data collected by SCAQMD, the SCAB has continued to attain the federal CO standard.

- Level 7: 4.7.1. Does the Project worsen air quality?

  Yes. The proposed Project consists of widening Keller Road and reconfiguration of the I-215 and Keller Road interchange. Therefore, due to the increase in local traffic volumes, there is the potential for localized increases in air quality.

a) The project significantly increases the percentage of vehicles operating in cold start mode. Increasing the number of vehicles operating in cold start mode by as little as 2% should be considered potentially significant.

The proposed Project would not result in any measurable effect on the percentage of vehicles operating in cold start mode, because there is no new parking or development associated with the proposed Project following construction. Additionally, all vehicles on the freeway and in the intersections are assumed to be in a fully warmed-up mode. Therefore, this criterion is not met.

b) The project significantly increases traffic volumes. Increases in traffic volumes in excess of 5% should be considered potentially significant. Increasing the traffic volume by less than 5% may still be potentially significant if there is also a reduction in average speeds.

Traffic volumes increase by more than 5% during a.m. and p.m. peak hours when comparing future 2027 and 2047 No-Build conditions to Build conditions along Keller Road. Traffic volumes along some mainlines and ramps would also increase 5% or more under 2047 Build conditions when compared to No-Build conditions.

c) The project worsens traffic flow. For uninterrupted roadway segments, a reduction in average speeds (within a range of 3 to 50 mph) should be regarded as worsening traffic flow. For intersection segments, a reduction in average speed or an increase in average delay should be considered as worsening traffic flow.

For the most part, traffic operations would improve with the implementation of the Build Alternatives. However, some roadways would have a reduction in average speed and increase in average delay. The Clinton Keith direct on-ramp would operate at LOS C under future No-Build Alternative conditions and a LOS D under Build Alternative conditions. In addition, the new Keller Road on-ramp would operate at LOS D conditions. In addition, the operation of some intersections would worsen, with a reduction in average speed and increase in average delay, with the implementation of the Build Alternatives compared to No-Build Alternative conditions in the design year. Similar traffic operations would occur in the opening year. Additional traffic information can be found in the proposed Project's traffic report (Caltrans 2018a).

- Level 7: 4.7.2. Is the Project suspected of resulting in higher CO concentrations than those existing within the region at the time of attainment demonstration?

In March 2005, the SCAQMD adopted a CO Resignation Request and *Maintenance Plan* that provides for maintenance of the federal CO air quality standard until at least 2015. However, model input assumptions were not provided. Therefore, it is difficult to respond to all the questions in Section 4.7.2 that are specific to modeling inputs. In addition, there have been no further updates to this plan to demonstrate attainment through 2025.

- Level 7: 4.7.3. Does the Project involve a signalized intersection at LOS E or F?

  Yes. Refer to the response to 4.7.1.

A quantitative CO analysis was conducted for three worst-case intersections following the *Transportation Project-Level CO Protocol.* As shown in Table 2.2.6-10, the results of the analysis indicate the proposed Project would not exceed federal CO 1-hour or 8-hour standards at any of the three intersection locations. The Project would not cause or contribute to any new localized CO violations or delay the timely attainment of the NAAQS or any required interim emission reductions or other milestones for CO during the timeframe of the transportation plan (or regional emissions analysis). Therefore, conformity with the 2024–2050 RTP, 2025 FTIP, and SIP is demonstrated for this federal criteria pollutant.

Table 2.2.6-10. CO Concentrations of Existing (2024) and No-Build and Build Alternatives (2027 and 2047) at Modeled Intersections

Intersection[a]	Receptors[b]	Existing 2024 1-hour CO `(ppm)[c]	Existing 2024 8-hour CO (ppm)[c]	No-Build (Alternative 1) 2027 1-hour CO (ppm)[c]	No-Build (Alternative 1) 2027 8-hour CO (ppm)[c]	Build (Alternatives 2, 3, and 5) 2027 1-hour CO (ppm)[c]	Build (Alternatives 2, 3, and 5) 2027 8-hour CO (ppm)[c]	No-Build (Alternative 1) 2047 1-hour CO (ppm)[c]	No-Build (Alternative 1) 2047 8-hour CO (ppm)[c]	Build (Alternatives 2, 3, and 5) 2047 1-hour CO (ppm)[c]	Build (Alternatives 2, 3, and 5) 2047 8-hour CO (ppm)[c]
1. Zeiders Road- Haun Road/Scott Road	16	2.3	1.5	2.3	1.5	2.3	1.5	2.3	1.5	2.3	1.5
6. Menifee Road/Scott Road	16	n/a	n/a	2.4	1.5	2.4	1.5	2.4	1.5	2.4	1.5
13. McElwain Road/Clinton Keith Road	12	n/a	n/a	n/a	n/a	n/a	n/a	2.4	1.5	2.4	1.5

Particulate Matter

In October 2021, U.S. EPA released an updated version of *Transportation Conformity Guidance for Quantitative Hot-Spot Analyses in PM_{10} and $PM_{2.5}$ Nonattainment and Maintenance Areas* (Guidance) for quantifying the local air quality impacts of transportation projects and comparing them to the PM NAAQS (75 FR 79370). The Guidance requires a hot-spot analysis to be completed for a project of air quality concern (POAQC). The final rule in 40 CFR 93.123(b)(1) defines a POAQC as the following:

i. *New or expanded highway projects that have a significant number of or a significant increase in diesel vehicles*

   Estimated truck percentages for the proposed Project along Keller Road and the I-215 are 5% and 7%, respectively. The percentage of trucks would not change as a result of the proposed Project. Therefore, the proposed Project would not result in a significant number of or significant increase in the number of diesel vehicles.

ii. *Projects affecting intersections that are at LOS D, E, or F with a significant number of diesel vehicles, or those that will change to LOS D, E, or F because of increased traffic volumes from a significant number of diesel vehicles related to the project*

   There are intersections within the area that would operate at LOS D or worse conditions. However, as mentioned previously, the proposed Project does not have a significant number of diesel vehicles.

iii. *New bus and rail terminals and transfer points that have a significant number of diesel vehicles congregating at a single location*

   The proposed Project has no bus or rail terminal components and would not alter travel patterns to or from any existing bus or rail terminals.

iv. *Expanded bus and rail terminals and transfer points that significantly increase the number of diesel vehicles congregating at a single location*

   The proposed Project would not expand any bus terminal, rail terminal, or related transfer point that would increase the number of diesel vehicles congregating at any single location.

v. Projects in or affecting locations, areas, or categories of sites that are identified in the $PM_{2.5}$ and PM_{10} applicable implementation plan or implementation plan submission, as appropriate, as sites of violation or possible violation.

The proposed Project is not located in or affecting an area identified in any PM_{10} or $PM_{2.5}$ implementation plan. The proposed project area is not considered to be a site of a violation or possible violation.

According to U.S. EPA guidance, the proposed I-215/Keller Road New Interchange project is not considered a POAQC. A determination that the proposed Project is not a POAQC was made by the Transportation Conformity Working Group (TCWG) on October 23, 2018. Because of the change in opening year and design year, the proposed Project was presented again to the TCWG on June 25, 2024. The TCWG determined the proposed Project is not a POAQC and does not require a hot-spot analysis.

Additional Environmental Analysis

Vehicle emissions during operation were estimated using CT-EMFAC software. Table 2.2.6-11 summarizes the emissions of existing conditions and in future years for the No-Build Alternative and Build Alternatives. Emissions for PM_{10} would be higher in future years under all alternatives when compared with existing conditions in 2024; this is because of the increase in VMT in future years, resulting in additional tire wear and brake wear. $PM_{2.5}$ emissions for the No-Build Alternative follow the same trend as PM_{10}. Emissions of $PM_{2.5}$ and PM_{10} emissions from the Build Alternatives would be lower than the No-Build Alternative.

Table 2.2.6-11. Summary of Comparative Emissions Analysis

Scenario/ Analysis Year	CO (tons/day)	PM_{10} (tons/day)	$PM_{2.5}$ (tons/day)	NO_x (surrogate for NO_2) (tons/day)	ROG (tons/day)
Baseline (Existing Conditions) 2024	0.722	0.135	0.025	0.130	0.041
No-Build Alternative (2027)	0.698	0.163	0.030	0.120	0.042
Build Alternative 2 (2027)	0.699	0.156	0.029	0.120	0.042
Build Alternative 3 (2027)	0.699	0.156	0.028	0.120	0.042

Scenario/ Analysis Year	CO (tons/day)	PM_{10} (tons/day)	$PM_{2.5}$ (tons/day)	NO_x (surrogate for NO_2) (tons/day)	ROG (tons/day)
Build Alternative 5 (2027)	0.699	0.156	0.028	0.120	0.042
No-Build Alternative (2047)	0.667	0.261	0.045	0.086	0.037
Build Alternative 2 (2047)	0.665	0.252	0.044	0.085	0.036
Build Alternative 3 (2047)	0.665	0.252	0.044	0.085	0.036
Build Alternative 5 (2047)	0.665	0.252	0.044	0.085	0.036

Source: Caltrans 2025a

Naturally Occurring Asbestos

Naturally occurring asbestos is common in certain parts of California. However, according to the Department of Conservation, naturally occurring asbestos is not likely to be found in Southern California, including Riverside County (DOC 2000).

Lead

Lead is normally not an air quality issue for transportation projects unless the project involves the disturbance of soils containing high levels of ADL. There is potential for construction activities to disturb roadway striping paint with lead. Avoidance and minimization measures HAZ-1 through HAZ-5 have been incorporated into the proposed Project to comply with state and federal requirements regarding proper identification before construction and contractor handling, disposal, or reuse during construction.

Mobile-source Air Toxics

FHWA released updated guidance in January 2023 (FHWA 2023) for determining when and how to address MSAT impacts in the NEPA process for transportation projects. FHWA identified the following three levels of analysis:

- No analysis for exempt projects or projects with no potential for meaningful MSAT effects

  Projects with no impacts generally include those that (a) qualify as a categorical exclusion under 23 CFR 771.117, (b) qualify as exempt under the Clean Air Act conformity rule under 40 CFR 93.126, and (c) are not exempt, but have no meaningful impacts on traffic volumes or vehicle mix.

- Qualitative analysis for projects with low potential MSAT effects

  Projects that have low potential MSAT effects are those that serve to improve highway, transit, or freight operations or movement without adding substantial new capacity or creating a facility that is likely to substantially increase emissions. The large majority of projects fall into this category.

- Quantitative analysis to differentiate alternatives for projects with higher potential MSAT effects

  Projects with high potential MSAT effects include those with the following effects:

  - Create or significantly alter a major intermodal freight facility that has the potential to concentrate high levels of diesel PM in a single location.
  - Create new or add significant capacity to urban highways such as interstates, urban arterials, or urban collector-distributor routes with traffic volumes where the average annual daily traffic (AADT) is projected to be in the range of 140,000 to 150,000, or greater, by the design year.
  - Are proposed to be located in proximity to populated areas or, in rural areas, in proximity to concentrations of vulnerable populations (that is, schools, nursing homes, hospitals).

According to these levels, the proposed Project could have a high potential for MSAT effects. The proposed Project would construct on- and off-ramps that would add capacity to the I-215; however, the estimated AADT is less than 140,000 vehicles by the design year. Additionally, the proposed Project is directly adjacent to the Kaiser Permanente Murrieta Medical Campus, as well as a community of multi-and single-family residences, and there is a school within 2,000 feet of the proposed Project limits. Therefore, this study includes quantitative MSAT emissions estimates to show a comparison between the Build Alternatives. The estimated AADT for the proposed Project would be less than the FHWA 140,000-AADT criterion. MSAT emissions from vehicles were modeled using CT-EMFAC. Table 2.2.6-12 presents the traffic volumes on the proposed Project corridors. Estimated MSAT emissions are shown in Table 2.2.6-13.

Table 2.2.6-12. Estimated Annual Average Daily Traffic Volumes for the Proposed Project

Scenario/ Analysis Year	Location	Baseline AADT Volumes	No-Build Alternative (Alternative 1)	Build Alternative 2	Build Alternative 3	Build Alternative 5
Existing/Baseline 2024	Freeway Mainline south of Clinton Keith Road	102,758	N/A	N/A	N/A	N/A
Existing/Baseline 2024	Freeway Mainline between Clinton Keith Road and Scott Road	93,058	N/A	N/A	N/A	N/A
Existing/Baseline 2024	Freeway Mainline north of Scott Road	83,559	N/A	N/A	N/A	N/A
Existing/Baseline 2024	Keller Road West of I-215	3.097	N/A	N/A	N/A	N/A
Existing/Baseline 2024	Keller Road under I-215	3,391	N/A	N/A	N/A	N/A
Existing/Baseline 2024	Keller Road East of I-215	9,363	N/A	N/A	N/A	N/A
Opening Year 2027	Freeway Mainline south of Clinton Keith Road	N/A	105,400	103,500	103,500	103,500
Opening Year 2027	Freeway Mainline between Clinton Keith Road and Scott Road	N/A	95,000	96,000	96,000	96,000
Opening Year 2027	Freeway Mainline north of Scott Road	N/A	85,200	87,700	87,700	87,700
Opening Year 2027	Keller Road West of I-215	N/A	3,298	17,752	17,752	17,752
Opening Year 2027	Keller Road under I-215	N/A	3,612	10,993	10,993	10,993

Scenario/ Analysis Year	Location	Baseline AADT Volumes	No-Build Alternative (Alternative 1)	Build Alternative 2	Build Alternative 3	Build Alternative 5
Opening Year 2027	Keller Road East of I-215	N/A	10,262	24,987	24,987	24,987
Design Year 2047	Freeway Mainline south of Clinton Keith Road	N/A	121,900	125,200	125,200	125,200
Design Year 2047	Freeway Mainline between Clinton Keith Road and Scott Road	N/A	117,000	122,600	122,600	122,600
Design Year 2047	Freeway Mainline north of Scott Road	N/A	104,000	111,400	111,400	111,400
Design Year 2047	Keller Road West of I-215	N/A	15,985	23,775	23,775	23,775
Design Year 2047	Keller Road under I-215	N/A	16,550	14,723	14,723	14,723
Design Year 2047	Keller Road East of I-215	N/A	20,395	33,465	33,465	33,465

Source: Caltrans 2018a

Table 2.2.6-13. Summary of Comparative MSAT Emissions Analysis

Scenario/ Analysis Year	1,3-butadiene (lb/day)	Acetaldehyde (lb/day)	Acrolein (lb/day)	Benzene (lb/day)	Diesel PM (lb/day)	Ethyl-benzene (lb/day)	Formal-dehyde (lb/day)	Naphthalene (lb/day)	Polycyclic Organic Matter (lb/day)
Baseline (Existing Conditions) 2024	0.130	0.706	0.010	2.269	2.004	0.939	1.578	0.129	0.037
No-Build Alternative 2027	0.116	0.651	0.003	2.147	1.985	0.926	1.448	0.113	0.033
Build Alternative 2 2027	0.116	0.653	0.003	2.146	1.987	0.925	1.453	0.113	0.034
Build Alternative 3 2027	0.116	0.653	0.003	2.146	1.987	0.925	1.453	0.113	0.034
Build Alternative 5 2027	0.116	0.653	0.003	2.146	1.987	0.925	1.453	0.113	0.034
No-Build Alternative 2047	0.074	0.334	0.003	1.623	1.568	0.778	0.762	0.067	0.017
Build Alternative 2 2047	0.073	0.331	0.002	1.606	1.569	0.771	0.755	0.066	0.017
Build Alternative 3 2047	0.073	0.331	0.002	1.606	1.569	0.771	0.755	0.066	0.017
Build Alternative 5 2047	0.073	0.331	0.002	1.606	1.569	0.771	0.755	0.066	0.017

Source: Caltrans 2025a
lb = pound

As shown in Table 2.2.6-13, MSAT emissions would be lower under the No-Build and Build Alternatives in the opening year (2027) and future design year (2047), when compared to the existing (2024) conditions. However, minor increases in MSAT emissions would occur under the Build Alternatives when compared to the No-Build Alternative in the opening year (2027) and design year (2047). Build Alternative Emissions would likely be lower than present levels in the design year because of U.S. EPA's national control programs, which are projected to reduce annual MSAT emissions by more than 76 % from 2020 to 2060 (FHWA 2023). Local conditions may differ from these national projections in terms of fleet mix and turnover, VMT growth rates, and local control measures. However, the magnitude of the U.S. EPA-projected reductions is so great (even after accounting for VMT growth) that MSAT emissions in the Project area are likely to be lower in the future in virtually all locations.

Under each Build Alternative, there may be localized areas where VMT would increase and other areas where VMT would decrease. Therefore, it is possible that localized increases and decreases in MSAT emissions may occur. Potential impacts from MSATs are greatest near highly developed residential areas and congested intersections, such as Mapleton Avenue and Keller Road, and Menifee Road and Keller Road, where sensitive receptors are approximately 400 feet and 50 feet from the edge of shoulder, respectively. In general, MSAT impacts would be greater as roadways moved closer to receivers. Potential impacts from MSATs are also likely where the new interchange ramps would be constructed within 120 to 400 feet of sensitive receptors. However, increases would be substantially reduced in the future because of the implementation of U.S. EPA's vehicle and fuel regulations.

Nitrogen Dioxide

U.S. EPA modified the NO_2 NAAQS to include a 1-hour standard of 100 ppb in 2010. Currently, there is no federal project-level NO_2 analysis requirement. However, because the proposed Project is in an NO_2 maintenance area, a qualitative analysis is provided. The proposed project is included in the 2024-2050 RTP and 2025 FTIP; therefore, estimated NO_2 emissions for the proposed Project were included in the regional conformity analysis.

NO_X emissions were estimated for the proposed Project. Table 2.2.6-11 shows that No-Build NOx emissions would be the same when compared to the Build Alternatives under the opening year (2027) conditions. Under the design year

(2047), NOx emissions from the Build Alternatives would be less than the No-Build Alternative.

AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES

The following measures would be applied to the proposed Project to avoid and minimize air quality impacts:

AQ-1 The construction contractor must comply with the Caltrans' Standard Specifications in Section 14-9 (2024). Section 14-9.02 specifically requires compliance by the contractor with all applicable laws and regulations related to air quality, including air pollution control district and air quality management district regulations and local ordinances.

AQ-2 Water or dust palliative will be applied to the site and equipment as often as necessary to control fugitive dust emissions.

AQ-3 Soil binder will be spread on any unpaved roads used for construction purposes, and on all the proposed Project's construction parking areas.

AQ-4 Trucks will be washed as they leave the proposed Project area as necessary to control fugitive dust emissions.

AQ-5 Construction equipment and vehicles will be properly tuned and maintained. All construction equipment will use low-sulfur fuel as required by California Code of Regulations Title 17, Section 93114.

AQ-6 A dust control plan will be developed during the design phase, documenting sprinkling, temporary paving, speed limits, and timely revegetation of disturbed slopes as needed to minimize construction impacts on existing communities.

AQ-7 Equipment and materials storage sites will be located as far away from residential and park uses as practicable. Construction areas will be kept clean and orderly.

AQ-8 ESA-like areas or their equivalent will be established near sensitive air receptors. Within these areas, construction activities involving the extended idling of diesel equipment or vehicles will be prohibited, to the extent feasible.

AQ-9 Track-out reduction measures, such as gravel pads at the proposed Project's access points to minimize dust and mud deposits on roads affected by construction traffic, will be used.

AQ-10 All transported loads of soils and wet materials will be covered before transport, or adequate freeboard (space from the top of the material to the top of the truck) will be provided to minimize the emission of dust (particulate matter) during transportation.

AQ-11 Dust and mud that are deposited on paved, public roads due to construction activity and traffic will be promptly and regularly removed to reduce particulate matter emissions.

AQ-12 To the extent feasible, construction traffic will be scheduled and routed to reduce congestion and related air quality impacts caused by idling vehicles along local roads during peak travel times.

2.2.7 Noise

REGULATORY SETTING

The National Environmental Policy Act (NEPA) of 1969 and the California Environmental Quality Act (CEQA) provide the broad basis for analyzing and abating highway traffic noise effects. The intent of these laws is to promote the general welfare and to foster a healthy environment. The requirements for noise analysis and consideration of noise abatement and/or mitigation, however, differ between NEPA and CEQA.

California Environmental Quality Act

CEQA requires a strictly baseline versus build analysis to assess whether a proposed project will have a noise impact. If a proposed project is determined to have a significant noise impact under CEQA, then CEQA dictates that mitigation measures must be incorporated into the project unless those measures are not feasible. The rest of this section will focus on the NEPA/Title 23 Part 772 of the Code of Federal Regulations (23 CFR 772) noise analysis; please see Chapter 3 of this document for further information on noise analysis under CEQA.

National Environmental Policy Act and 23 CFR 772

For highway transportation projects with Federal Highway Administration (FHWA) involvement (and the Department, as assigned), the Federal-Aid Highway Act of 1970 and its implementing regulations (23 CFR 772) govern the analysis and

abatement of traffic noise impacts. The regulations require that potential noise impacts in areas of frequent human use be identified during the planning and design of a highway project. The regulations include noise abatement criteria (NAC) that are used to determine when a noise impact would occur. The NAC differ depending on the type of land use under analysis. For example, the NAC for residences (67 dBA) is lower than the NAC for commercial areas (72 dBA). The following table lists the NAC for use in the NEPA/23 CFR 772 analysis.

Table 2.2.7-1. Noise Abatement Criteria

Activity Category	NAC, Hourly A-Weighted Noise Level, Leq(h)	Description of Activity Category
A	57 (Exterior)	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.
B[a]	67 (Exterior)	Residential.
C[a]	67 (Exterior)	Active sport areas, amphitheaters, auditoriums, campgrounds, cemeteries, day care centers, hospitals, libraries, medical facilities, parks, picnic areas, places of worship, playgrounds, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, recreation areas, Section 4(f) sites, schools, television studios, trails, and trail crossings.
D	52 (Interior)	Auditoriums, day care centers, hospitals, libraries, medical facilities, places of worship, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, schools, and television studios.
E	72 (Exterior)	Hotels, motels, offices, restaurants/bars, and other developed lands, properties, or activities not included in A–D or F.
F	No NAC—reporting only	Agriculture, airports, bus yards, emergency services, industrial, logging, maintenance facilities, manufacturing, mining, rail yards, retail facilities, shipyards, utilities (for example, water resources, water treatment, and electrical), and warehousing.
G	No NAC—reporting only	Undeveloped lands that are not permitted.

[a] Includes undeveloped lands permitted for this activity category.
Notes:
NAC, hourly A-weighted noise level, Leq[h]
Leq[h] = hourly equivalent sound level
N/A = not applicable

Figure 2.2-7 lists the noise levels of common activities to enable readers to compare the actual and predicted highway noise levels discussed in this section with common activities.

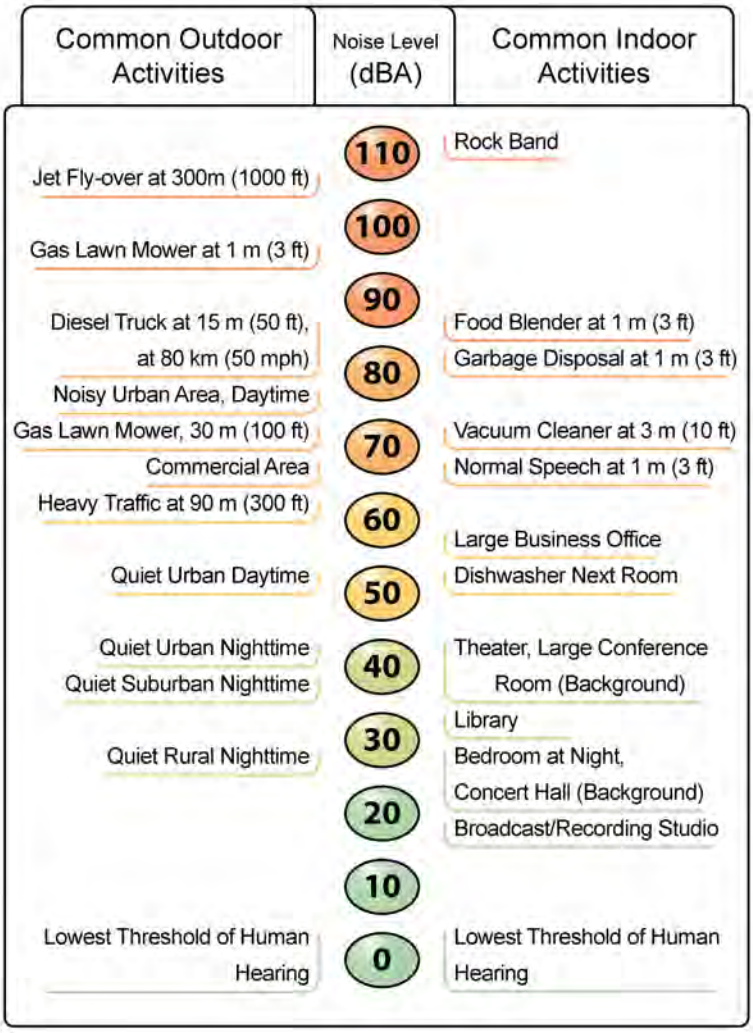


Figure 2.2-7. Noise Levels of Common Activities

According to the Department's *Traffic Noise Analysis Protocol for New Highway Construction and Reconstruction Projects 2011* a noise impact occurs when the predicted future noise level with the project substantially exceeds the existing noise level (defined as a 12 dBA or more) or when the future noise level with the project approaches or exceeds the NAC. A noise level is considered to approach the NAC if it is within 1 dBA of the NAC.

If it is determined that the Project will have noise impacts, then potential abatement measures must be considered. Noise abatement measures that are determined to be reasonable and feasible at the time of final design are

incorporated into the project plans and specifications. This document discusses noise abatement measures that would likely be incorporated in the Proposed Project.

The Department's *Traffic Noise Analysis Protocol* sets forth the criteria for determining when an abatement measure is reasonable and feasible. Feasibility of noise abatement is basically an engineering concern. Noise abatement must be predicted to reduce noise by at least 5 dB at an impacted receptor to be considered feasible from an acoustical perspective. It must also be possible to design and construct the noise abatement measure for it to be considered feasible. Factors that affect the design and constructability of noise abatement include, but are not limited to, safety, barrier height, topography, drainage, access requirements for driveways, presence of local cross streets, underground utilities, other noise sources in the area, and maintenance of the abatement measure. The overall reasonableness of noise abatement is determined by the following three factors: (1) the noise reduction design goal of 7 dB at one or more impacted receptors; (2) the cost of noise abatement; and (3) the viewpoints of benefited receptors (including property owners and residents of the benefited receptors).

Caltrans Transportation and Construction Vibration Guidance Manual
Caltrans identifies a vibration limit of 0.5 inch per second (in/sec) peak particle velocity (PPV) as the threshold at which there is a potential risk of damage to new residential and modern commercial/industrial structures, 0.3 in/sec PPV for older residential structures, and a conservative limit of 0.25 in/sec PPV for historic and some old buildings. Refer to Table 2.2.7-2.

Table 2.2.7-2. Reaction of People and Damage to Buildings from Continuous or Frequent Intermittent Vibration Levels

Velocity Level, PPV (in/sec)	Human Reaction	Effect on Buildings
0.01	Barely perceptible	No effect
0.04	Distinctly perceptible	Vibration unlikely to cause damage of any type to any structure
0.08	Distinctly perceptible to strongly perceptible	Recommended upper level of the vibration to which ruins and ancient monuments should be subjected
0.1	Strongly perceptible	Threshold at which there is a risk of damage to fragile buildings with no risk of damage to most buildings

Velocity Level, PPV (in/sec)	Human Reaction	Effect on Buildings
0.25	Strongly perceptible to severe	Threshold at which there is a risk of damage to historic and some old buildings
0.3	Strongly perceptible to severe	Threshold at which there is a risk of damage to older residential structures
0.5	Severe – vibrations considered unpleasant	Threshold at which there is a risk of damage to new residential and modern commercial/industrial structures

Source: Caltrans 2020b

Local Regulations

The City of Murrieta does not have specific noise ordinance requirements for transportation noise within the city limits. Section 16.30.130 (Acts Deemed Violations of Chapter) subsection (a) Construction Noise of the City of Murrieta's ordinances provide allowable exterior noise levels for noise-sensitive land uses within the city (Tables 2.2.7 3 and 2.2.7-4). Additionally, the operation of tools or equipment used for construction is not allowed between weekday hours of 8:00 p.m. and 7:00 a.m. or at any time on Sundays or holidays, except for emergency work or public service utilities.

Table 2.2.7-3. Maximum Noise Levels for Short-term Operation (less than 10 days) of Mobile Equipment

Time of Day	Single-family Residential	Multifamily Residential	Commercial
Daily, except Sundays and legal holidays, 7:00 a.m. to 8:00 p.m.	75 dBA	80 dBA	85 dBA
Daily, 8:00 p.m. to 7:00 a.m. and all day Sunday and legal holidays	60 dBA	64 dBA	70 dBA

Source: City of Murrieta 2023

Table 2.2.7-4. Maximum Noise Level for Long-term Operation Periods (3 days or more) of Stationary Equipment

Time of Day	Single-family Residential	Multifamily Residential	Commercial
Daily, except Sundays and legal holidays, 7 a.m. to 8 p.m.	60 dBA	65 dBA	70 dBA
Daily, 8 p.m. to 7 a.m. and all day Sunday and legal holidays	50 dBA	55 dBA	60 dBA

Source: City of Murrieta 2023

AFFECTED ENVIRONMENT

This section is based on the *Noise Study Report* prepared for this proposed Project (Caltrans 2024d).

Surrounding Land Use and Sensitive Receptors

The proposed noise study area is at the existing I-215 and Keller Road overcrossing. Caltrans typically limits noise assessments to approximately 500 feet from the roadway source (Caltrans 2020b). The following noise-sensitive land uses were identified within the proposed noise study area:

- Activity Category B – Residential (single-family residential [SFR] MFR)
- Activity Category C – Active Sports Area, Trail, Park
- Activity Category E – Other Developed Land (commercial properties [COM])
- Activity Category F – Utilities and Railroad tracks
- Activity Category G – Undeveloped (UND)

Although all developed land uses were evaluated in this analysis, noise abatement is only considered for areas of frequent human use that would benefit from reduced noise levels. Accordingly, the noise impact analysis focused on locations with defined outdoor activity areas, such as residential backyards and common use areas at multifamily residences.

Land uses in the proposed noise study area have been grouped into a series of lettered analysis areas that are identified on Figure 2.2-8. Each of these analysis areas is considered to be acoustically equivalent.

- **Area A:** Area A is on the eastern side of the I-215, south of Keller Road. Commercial properties and undeveloped land (Category G) are located in this area. This area is generally flat, and is approximately the same elevation as Keller Road and lower in elevation than the I-215. No sound barriers or topographical shielding occur between the highway and this area (refer to Figure 2.2-8).
- **Area B:** Area B is on the eastern side of the I-215, north of Keller Road and west of Mapleton Avenue. The Kaiser Permanente Murrieta Medical

Campus (Category C) is located in this area. This area is generally flat, and is approximately the same elevation as Keller Road and lower in elevation than the I-215. No sound barriers or topographical shielding occur between the highway and this area (refer to Figure 2.2-8).

- **Area C:** Area C is on the western side of the I-215, north of Keller Road and east of Zeiders Road. This area is sparsely developed and classified as Category G. The area is generally flat, and is approximately the same elevation as Keller Road and lower in elevation than the I-215. No sound barriers or topographical shielding occur between the highway and this area (refer to Figure 2.2-8).

- **Area D:** Area D is on the western side of the I-215, south of Keller Road and east of Zeiders Road. This whole area is undeveloped land (Category G). The area is generally flat, and is approximately the same elevation as Keller Road and lower in elevation than the I-215. No sound barriers or topographical shielding occur between the highway and this area (refer to Figure 2.2-8).

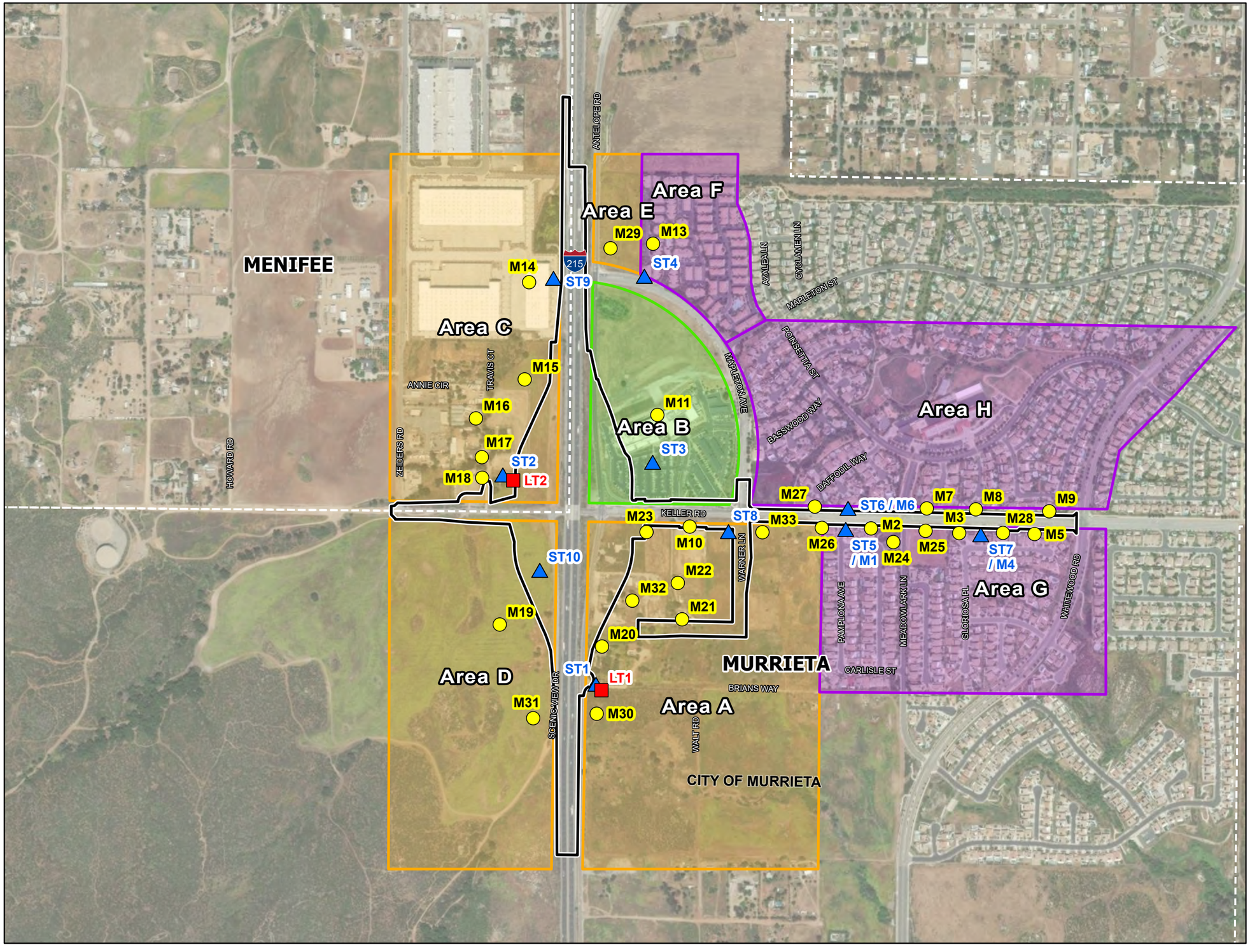
- **Area E:** Area E is on the eastern side of the I-215, north of Mapleton Avenue, adjacent to the Sonoma at Mapleton apartment community. This whole area is classified as Category G. The area is generally flat, and is approximately the same elevation as Keller Road and lower in elevation than the I-215. No sound barriers or topographical shielding occur between the highway and this area (refer to Figure 2.2-8).

- **Area F:** Area F is on the eastern side of the I-215, north of Mapleton Avenue and northwest of Mapleton Street. This whole area is the Sonoma at Mapleton Apartments, a MFR land use (Category B). The area is generally flat, and is approximately the same elevation as Keller Road and lower in elevation than the I-215. There is an existing 6-foot-tall private property wall between the highway and this area (refer to Figure 2.2-8).

- **Area G:** Area G is on the eastern side of the I-215, south of Keller Road and west of Whitewood Road. This area consists of SFR land uses (Category B) and an outdoor recreational area (Springbrook Park) (Category C). The area is generally flat and is approximately the same elevation as Keller Road and lower in elevation than the I-215. Existing

6-foot-tall private property walls are located between the Keller Road and this area (refer to Figure 2.2-8).

- **Area H:** Area H is on the eastern side of the I-215, north of Keller Road and west of Whitewood Road. This area consists of SFR land uses (Category B). A park and elementary school are located within this area, however, these two land uses are located more than 500 feet from the proposed Project limits. The area is generally flat, and is approximately the same elevation as Keller Road and lower in elevation than the I-215. Existing 6-foot-tall private property walls are located between the Keller Road and this area (refer to Figure 2.2-8).





Legend

- Project Site
- Short-term Measurement Location
- Long-term Measurement Location
- Modeled Receiver Location

Analysis Area

- Activity Category B
- Activity Category C
- Activity Category G

Data Source:
Caltrans
Riverside County GIS

0 250 500 750 1000
Feet

Figure 2.2-8
Receiver and Noise Measurement Locations
I-215/Keller Road New Interchange Project
Riverside County, California

Existing Noise Levels

Existing peak hour traffic volumes from the proposed Project's *Traffic Operations Report* (Caltrans 2018a), supplemental traffic data provided in the *I-215/Keller Road Interchange Project Traffic Operations Analysis – Heavy Vehicle Percentage Documentation* (Caltrans 2022f), and posted speeds were used to estimate existing noise levels within the boundaries of the proposed Project site. Evening peak hour traffic volumes were used for the I-215, whereas morning peak hour traffic volumes were used for local roads. The results of the existing traffic noise modeling are shown in Table 2.2.7-5. All of the modeled receptors are less than the NAC under the existing conditions.

Table 2.2.7-5. Existing Noise Levels

Receptor ID	Type of Land Use	Number of Dwelling Units	Noise Abatement Category	Existing Noise Level (dBA $L_{eq[h]}$)
ST1	UND	0	G (N/A)	72
ST8	UND	0	G (N/A)	60
M10	UND	0	G (N/A)	62
M20	UND	0	G (N/A)	71
M21	UND	0	G (N/A)	62
M22	UND	0	G (N/A)	63
M23	UND	0	G (N/A)	64
M30	UND	0	G (N/A)	72
M32	UND	0	G (N/A)	66
M33	UND	0	G (N/A)	60
ST3	COM	1	C (67)	61
M11	COM	1	C (67)	62
ST2	UND	0	G (N/A)	66
ST9	UND	0	G (N/A)	75
M14	UND	0	G (N/A)	69
M15	UND	0	G (N/A)	69
M16	UND	0	G (N/A)	63
M17	UND	0	G (N/A)	64
M18	UND	0	G (N/A)	64
M19	UND	0	G (N/A)	66

Receptor ID	Type of Land Use	Number of Dwelling Units	Noise Abatement Category	Existing Noise Level (dBA $L_{eq[h]}$)
M31	UND	0	G (N/A)	71
M29	UND	0	G (N/A)	71
ST4	MFR	3	B (67)	56
M13	MFR	3	B (67)	61
ST5/M1	SFR	2	B (67)	53
ST7/M4	SFR	2	B (67)	52
M2	SFR	2	B (67)	56
M3	SFR	2	B (67)	60
M5	SFR	5	B (67)	52
M24	SFR	2	B (67)	55
M25	SFR	3	B (67)	57
M26	SFR	1	B (67)	58
M28	SFR	2	B (67)	51
ST6/M6	SFR	5	B (67)	56
M7	SFR	3	B (67)	54
M8	SFR	3	B (67)	54
M9	SFR	6	B (67)	54
M27	SFR	3	B (67)	55

ENVIRONMENTAL CONSEQUENCES

The proposed Project is considered a Type I project because it would change the horizontal and vertical alignment of the proposed Project corridor by constructing a new interchange and auxiliary lanes at the I-215 and Keller Road. Additionally, the proposed Project is eligible for federal funding. Therefore, the proposed Project must consider noise abatement for affected receptors. Compliance with 23 CFR 772 ensures adherence to the noise impact assessment requirements of NEPA.

Temporary Impacts

Alternative 1 (No-Build Alternative)

The No-Build Alternative assumes no improvements would be made to the freeway mainline or to the I-215 and Keller Road overcrossing. No temporary

noise impacts would occur under the No-Build Alternative, because there would be no construction activities in the proposed Project area as a result of the No-Build Alternative.

Build Alternatives 2, 3, and 5

During the construction of the proposed Project, noise from construction activities may intermittently dominate the noise environment in the immediate area of construction. The construction of all three Build Alternatives is anticipated to take approximately 16 months. Roadway construction activities typically occur for relatively short periods of time in any specific location as construction proceeds along the proposed Project's alignment.

Construction activities include grubbing/land clearing, grading/excavation/foundation/drainage/utilities/subgrade, and paving. The widening of the Keller Road overcrossing would include pile driving for the foundation structures for all Build Alternatives. Construction noise would primarily result from the operation of heavy construction equipment, and the arrival and departure of heavy-duty trucks. Required construction equipment may include, but is not limited to: crawler tractors, excavators, signal boards, cranes, graders, rollers, rubber-tired loaders, scrapers, backhoes, bore/drill rigs, cement and mortar mixers, air compressors, generator sets, plate compactors, pumps, rough terrain forklifts, pavers, and paving equipment.

Table 2.2.7-6 summarizes noise levels produced by construction equipment commonly used on roadway construction projects. Construction equipment is expected to generate noise levels ranging from 80 to 89 decibels (dB) at a distance of 50 feet, and would be reduced over distance at a rate of approximately 6 dB per doubling of distance. The site preparation phase, which includes grading and paving, tends to generate the greatest noise levels due to the use of earthmoving and compaction equipment. Earthmoving equipment includes excavating machinery such as excavators, bulldozers, and front loaders, while compaction equipment includes compactors, scrapers, and graders.

Table 2.2.7-6. Construction Equipment Noise

Construction Phase	Maximum Instantaneous Noise Level (L_{max}, dBA)
Scrapers	89
Bulldozers	85
Compactor	80
Graders	85
Front Loader	80
Pavers	85
Heavy Trucks	88
Backhoe	80
Excavators	85
Pneumatic Tools	85
Concrete Pump	82

Source: FHWA 2017
Note:
Lmax = the highest instantaneous sound level measured during a specific period

There are approximately 20 residences within 50 feet of the proposed Project construction areas. Therefore, the closest residence may be subject to short-term noise levels reaching 89 dBA L_{max} or greater, associated with construction activities. Compliance with the construction hours specified by the City of Murrieta Noise Ordinance and Caltrans Standard Specifications, Section 14-8.02, would minimize construction noise impacts on sensitive land uses adjacent to the proposed Project site. The noise level from the contractor's operations between the hours of 9:00 p.m. and 6:00 a.m. would not exceed 86 dBA L_{max} at a distance of 50 feet. Proposed minimization measure N-1 would be implemented to minimize construction noise impacts on sensitive land uses adjacent to the proposed Project site.

Permanent Impacts

Alternative 1 (No-Build Alternative)

The No-Build Alternative assumes no improvements would be made to the I-215 and Keller Road interchange. Future No-Build noise levels are shown in Tables 2.2.7-7, 2.2.7-8, and 2.2.7-9. The results indicate the increase in noise between existing conditions and the future No-Build Alternative is predicted to

increase by a maximum of 10 dB at receiver ST8, located at the southwestern corner of Keller Road and Warner Lane. None of the evaluated receivers would exceed the respective NACs, nor would the No-Build Alternative result in a substantial increase in noise from existing conditions; therefore, no traffic noise impacts are predicted to occur.

Build Alternative 2 (Spread Diamond)

Potential long-term noise impacts associated with proposed Project operations are solely from traffic noise. Traffic noise was evaluated for the worst-case traffic condition. Using coordinates obtained from topographic maps and proposed Project design files, 38 receptor locations were evaluated in the model.

Future traffic noise levels at all 38 receptor locations were determined using existing roadway alignments and future design year peak hour traffic volumes obtained from the *Traffic Operations Analysis* (Caltrans 2018a) and supplemental traffic data provided in September 2022. The evening peak hour traffic volumes were used for the I-215 mainline, and the morning peak hour traffic volumes were used for the local roads. For mainline roadway segments that exceed the worst-case traffic volume of 1,950 vehicles per lane per hour (vplph) for the mainline freeway and 900 vplph for on-ramps, the worst-case traffic volumes were used instead of the evening peak hour traffic volumes.

The traffic noise modeling results in Table 2.2.7-7 indicate traffic noise levels within the boundaries of the proposed noise study area are predicted to be in the range of 56 to 76 dBA $L_{eq(h)}$ in the design year under Build Alternative 2. The results also indicate the increase in noise between existing conditions and the design year is predicted to increase by a maximum of 11 dB at receiver ST8, located at the southwestern corner of Keller Road and Warner Lane. However, this increase in noise level would be experienced at an undeveloped land use (Category G), and no further consideration of mitigation is required. Some receivers would experience up to a 3-dB decrease in noise levels. None of the evaluated receivers would exceed their respective NACs, nor would the proposed Project result in a substantial increase in noise from existing conditions; therefore, noise abatement is not required at noise-sensitive receivers within the boundaries of the proposed Project area.

Build Alternative 3 (Partial Cloverleaf)

The traffic noise modeling results in Table 2.2.7-8 indicate traffic noise levels within the boundaries of the proposed Project area are predicted to be in the

range of 56 to 75 dBA $L_{eq(h)}$ in the design year under Build Alternative 3.
The results also indicate the increase in noise between existing conditions and the design year is predicted to increase by a maximum of 11 dB at receiver ST8, located at the southwestern corner of Keller Road and Warner Lane. However, this increase in noise level would be experienced at an undeveloped land use (Category G), and no further consideration of mitigation is required. Some receivers would experience up to a 3-dB decrease in noise levels. None of the evaluated receivers would exceed their respective NACs, nor would the proposed Project result in a substantial increase in noise from existing conditions; therefore, noise abatement is not required at noise-sensitive receivers within the boundaries of the proposed Project area.

Build Alternative 5 (Compact Diamond)

The traffic noise modeling results in Table 2.2.7-9 indicate traffic noise levels within the boundaries of the proposed Project area are predicted to be in the range of 55 to 75 dBA $L_{eq(h)}$ in the design year under Build Alternative 5.
The results also indicate the increase in noise between existing conditions and the design year is predicted to increase by a maximum of 11 dB at receiver ST8, located at the southwestern corner of Keller Road and Warner Lane. However, this increase in noise level would be experienced at an undeveloped land use (Category G), and no further consideration of mitigation is required. Some receivers would experience up to a 3 dB decrease in noise levels. None of the evaluated receivers would exceed their respective NACs, nor would the proposed Project result in a substantial increase in noise from existing conditions; therefore, noise abatement is not required at noise-sensitive receivers within the boundaries of the proposed Project area.

Table 2.2.7-7. Predicted Future Noise Levels for Build Alternative 2 (Spread Diamond)

Receptor ID	Land Use	Location	Existing Noise Level, $L_{eq[h]}$, dBA[a]	Design Year Noise Level Without Proposed Project, $L_{eq[h]}$, dBA[a]	Design Year Noise Level With Proposed Project, $L_{eq[h]}$, dBA[a]	Design Year Noise Level Without Proposed Project Minus Existing Noise Level, $L_{eq[h]}$, dBA	Design Year Noise Level With Proposed Project Minus Existing Level, $L_{eq[h]}$, dBA	Design Year Noise Level With Proposed Project Minus Design Year Noise Level Without Proposed Project, $L_{eq[h]}$, dBA	Noise Abatement Category[b]	Impact Type[c]
ST1	UND	Brians Way	72	73	72	1	0	-1	G (N/A)	None
ST8	UND	Keller Road	60	70	71	10	11	1	G (N/A)	None
M10	UND	Keller Road	62	64	68	2	6	4	G (N/A)	None
M20	UND	Between Keller Road and Brians Way	71	72	69	1	-2	-3	G (N/A)	None
M21	UND	Between Keller Road and Brians Way	62	64	63	2	1	-1	G (N/A)	None
M22	UND	Between Keller Road and Brians Way	63	66	65	3	2	-1	G (N/A)	None
M23	UND	Keller Road	64	65	68	1	4	3	G (N/A)	None
M30	UND	Brians Way	72	74	73	2	1	-1	G (N/A)	None
M32	UND	Between Keller Road and Brians Way	66	67	66	1	0	-1	G (N/A)	None

Receptor ID	Land Use	Location	Existing Noise Level, $L_{eq[h]}$, dBA[a]	Design Year Noise Level Without Proposed Project, $L_{eq[h]}$, dBA[a]	Design Year Noise Level With Proposed Project, $L_{eq[h]}$, dBA[a]	Design Year Noise Level Without Proposed Project Minus Existing Noise Level, $L_{eq[h]}$, dBA	Design Year Noise Level With Proposed Project Minus Existing Level, $L_{eq[h]}$, dBA	Design Year Noise Level With Proposed Project Minus Design Year Noise Level Without Proposed Project, $L_{eq[h]}$, dBA	Noise Abatement Category[b]	Impact Type[c]
M33	UND	Keller Road	60	67	68	7	8	1	G (N/A)	None
ST3	COM	Kaiser Permanente	61	63	64	2	3	1	C(67)	None
M11	COM	Kaiser Permanente	62	63	63	1	1	0	C(67)	None
ST2	UND	Keller Road	66	67	68	1	2	1	G (N/A)	None
ST9	UND	West of I-215	75	76	76	1	1	0	G (N/A)	None
M14	UND	West of I-215	69	70	66	1	-3	-4	G (N/A)	None
M15	UND	West of I-215	69	70	69	1	0	-1	G (N/A)	None
M16	UND	West of I-215	63	64	64	1	1	0	G (N/A)	None
M17	UND	West of I-215	64	65	65	1	1	0	G (N/A)	None
M18	UND	West of I-215	64	65	66	1	2	1	G (N/A)	None
M19	UND	West of I-215	66	68	67	2	1	-1	G (N/A)	None
M31	UND	West of I-215	71	73	72	2	1	-1	G (N/A)	None
M29	UND	Mapleton Avenue	71	73	73	2	2	0	G (N/A)	None

Receptor ID	Land Use	Location	Existing Noise Level, $L_{eq[h]}$, dBA[a]	Design Year Noise Level Without Proposed Project, $L_{eq[h]}$, dBA[a]	Design Year Noise Level With Proposed Project, $L_{eq[h]}$, dBA[a]	Design Year Noise Level Without Proposed Project Minus Existing Noise Level, $L_{eq[h]}$, dBA	Design Year Noise Level With Proposed Project Minus Existing Level, $L_{eq[h]}$, dBA	Design Year Noise Level With Proposed Project Minus Design Year Noise Level Without Proposed Project, $L_{eq[h]}$, dBA	Noise Abatement Category[b]	Impact Type[c]
ST4	MFR	Mapleton Avenue	56	60	60	4	4	0	B(67)	None
M13	MFR	Sonoma at Mapleton Apartments	61	63	64	2	3	1	B(67)	None
ST5/M1	SFR	Keller Road	53	55	57	2	4	2	B(67)	None
ST7/M4	SFR	Keller Road	52	55	57	3	5	2	B(67)	None
M2	SFR	Keller Road	56	59	60	3	4	1	B(67)	None
M3	SFR	Keller Road	60	62	64	2	4	2	B(67)	None
M5	SFR	Keller Road	52	55	56	3	4	1	B(67)	None
M24	SFR	Keller Road	55	58	59	3	4	1	B(67)	None
M25	SFR	Keller Road	57	59	63	2	6	4	B(67)	None
M26	SFR	Keller Road	58	61	63	3	5	2	B(67)	None
M28	SFR	Keller Road	51	54	56	3	5	2	B(67)	None
ST6/M6	SFR	Keller Road	56	59	60	3	4	1	B(67)	None
M7	SFR	Keller Road	54	55	57	1	3	2	B(67)	None

Receptor ID	Land Use	Location	Existing Noise Level, $L_{eq[h]}$, dBA[a]	Design Year Noise Level Without Proposed Project, $L_{eq[h]}$, dBA[a]	Design Year Noise Level With Proposed Project, $L_{eq[h]}$, dBA[a]	Design Year Noise Level Without Proposed Project Minus Existing Noise Level, $L_{eq[h]}$, dBA	Design Year Noise Level With Proposed Project Minus Existing Level, $L_{eq[h]}$, dBA	Design Year Noise Level With Proposed Project Minus Design Year Noise Level Without Proposed Project, $L_{eq[h]}$, dBA	Noise Abatement Category[b]	Impact Type[c]
M8	SFR	Keller Road	54	57	58	3	4	1	B(67)	None
M9	SFR	Keller Road	54	57	58	3	4	1	B(67)	None
M27	SFR	Keller Road	55	58	59	3	4	1	B(67)	None

[a] As stated in the Caltrans Technical Noise Supplement to the Traffic Noise Analysis Protocol (Caltrans 2013b), modeling results are rounded to the nearest decibel before comparisons are made.
[b] N/A = There is no NAC noise limit for this land use type.
[c] Impact Type: S = Substantial Increase (12 dBA or more), A/E = Approach or Exceed NAC, None = Increase is less than 12 dB, and noise levels do not approach or exceed the NAC.

Table 2.2.7-8. Predicted Future Noise Levels for Build Alternative 3 (Partial Cloverleaf)

Receptor ID	Land Use	Location	Existing Noise Level, $L_{eq[h]}$, dBA[a]	Design Year Noise Level Without Proposed Project, $L_{eq[h]}$, dBA[a]	Design Year Noise Level With Proposed Project, $L_{eq[h]}$, dBA[a]	Design Year Noise Level Without Proposed Project Minus Existing Noise Level, $L_{eq[h]}$, dBA	Design Year Noise Level With Proposed Project Minus Existing Level, $L_{eq[h]}$, dBA	Design Year Noise Level With Proposed Project Minus Design Year Noise Level Without Proposed Project, $L_{eq[h]}$, dBA	Noise Abatement Category[b]	Impact Type[c]
ST1	UND	Brians Way	72	73	71	1	-1	-2	G (N/A)	None
ST8	UND	Keller Road	60	70	71	10	11	1	G (N/A)	None
M10	UND	Keller Road	62	64	68	2	6	4	G (N/A)	None
M20	UND	Between Keller Road and Brians Way	71	72	69	1	-2	-3	G (N/A)	None
M21	UND	Between Keller Road and Brians Way	62	64	63	2	1	-1	G (N/A)	None
M22	UND	Between Keller Road and Brians Way	63	66	65	3	2	-1	G (N/A)	None
M23	UND	Keller Road	64	65	68	1	4	3	G (N/A)	None
M30	UND	Brians Way	72	74	72	2	0	-2	G (N/A)	None

Receptor ID	Land Use	Location	Existing Noise Level, $L_{eq[h]}$, dBA[a]	Design Year Noise Level Without Proposed Project, $L_{eq[h]}$, dBA[a]	Design Year Noise Level With Proposed Project, $L_{eq[h]}$, dBA[a]	Design Year Noise Level Without Proposed Project Minus Existing Noise Level, $L_{eq[h]}$, dBA	Design Year Noise Level With Proposed Project Minus Existing Level, $L_{eq[h]}$, dBA	Design Year Noise Level With Proposed Project Minus Design Year Noise Level Without Proposed Project, $L_{eq[h]}$, dBA	Noise Abatement Category[b]	Impact Type[c]
M32	UND	Between Keller Road and Brians Way	66	67	66	1	0	-1	G (N/A)	None
M33	UND	Keller Road	60	67	68	7	8	1	G (N/A)	None
ST3	COM	Kaiser Permanente	61	63	65	2	4	2	C(67)	None
M11	COM	Kaiser Permanente	62	63	64	1	2	1	C(67)	None
ST2	UND	Keller Road	66	67	68	1	2	1	G (N/A)	None
ST9	UND	West of I-215	75	76	75	1	0	-1	G (N/A)	None
M14	UND	West of I-215	69	70	66	1	-3	-4	G (N/A)	None
M15	UND	West of I-215	69	70	69	1	0	-1	G (N/A)	None
M16	UND	West of I-215	63	64	64	1	1	0	G (N/A)	None
M17	UND	West of I-215	64	65	65	1	1	0	G (N/A)	None
M18	UND	West of I-215	64	65	66	1	2	1	G (N/A)	None
M19	UND	West of I-215	66	68	68	2	2	0	G (N/A)	None

Receptor ID	Land Use	Location	Existing Noise Level, $L_{eq[h]}$, dBA[a]	Design Year Noise Level Without Proposed Project, $L_{eq[h]}$, dBA[a]	Design Year Noise Level With Proposed Project, $L_{eq[h]}$, dBA[a]	Design Year Noise Level Without Proposed Project Minus Existing Noise Level, $L_{eq[h]}$, dBA	Design Year Noise Level With Proposed Project Minus Existing Level, $L_{eq[h]}$, dBA	Design Year Noise Level With Proposed Project Minus Design Year Noise Level Without Proposed Project, $L_{eq[h]}$, dBA	Noise Abatement Category[b]	Impact Type[c]
M31	UND	West of I-215	71	73	73	2	2	0	G (N/A)	None
M29	UND	Mapleton Avenue	71	73	73	2	2	0	G (N/A)	None
ST4	MFR	Mapleton Avenue	56	60	60	4	4	0	B(67)	None
M13	MFR	Sonoma at Mapleton Apartments	61	63	63	2	2	0	B(67)	None
ST5 / M1	SFR	Keller Road	53	55	57	2	4	2	B(67)	None
ST7 / M4	SFR	Keller Road	52	55	57	3	5	2	B(67)	None
M2	SFR	Keller Road	56	59	60	3	4	1	B(67)	None
M3	SFR	Keller Road	60	62	64	2	4	2	B(67)	None
M5	SFR	Keller Road	52	55	57	3	5	2	B(67)	None
M24	SFR	Keller Road	55	58	59	3	4	1	B(67)	None
M25	SFR	Keller Road	57	59	63	2	6	4	B(67)	None
M26	SFR	Keller Road	58	61	63	3	5	2	B(67)	None
M28	SFR	Keller Road	51	54	56	3	5	2	B(67)	None

Receptor ID	Land Use	Location	Existing Noise Level, $L_{eq[h]}$, dBA[a]	Design Year Noise Level Without Proposed Project, $L_{eq[h]}$, dBA[a]	Design Year Noise Level With Proposed Project, $L_{eq[h]}$, dBA[a]	Design Year Noise Level Without Proposed Project Minus Existing Noise Level, $L_{eq[h]}$, dBA	Design Year Noise Level With Proposed Project Minus Existing Level, $L_{eq[h]}$, dBA	Design Year Noise Level With Proposed Project Minus Design Year Noise Level Without Proposed Project, $L_{eq[h]}$, dBA	Noise Abatement Category[b]	Impact Type[c]
ST6/M6	SFR	Keller Road	56	59	60	3	4	1	B(67)	None
M7	SFR	Keller Road	54	55	57	1	3	2	B(67)	None
M8	SFR	Keller Road	54	57	58	3	4	1	B(67)	None
M9	SFR	Keller Road	54	57	59	3	5	2	B(67)	None
M27	SFR	Keller Road	55	58	59	3	4	1	B(67)	None

[a] As stated in the Caltrans Technical Noise Supplement to the Traffic Noise Analysis Protocol (Caltrans 2013b), modeling results are rounded to the nearest decibel before comparisons are made.
[b] N/A = There is no NAC noise limit for this land use type.
[c] Impact Type: S = Substantial Increase (12 dBA or more), A/E = Approach or Exceed NAC, None = Increase is less than 12 dB, and noise levels do not approach or exceed the NAC.

Table 2.2.7-9. Predicted Future Noise Levels for Build Alternative 5 (Compact Diamond)

Receptor ID	Land Use	Location	Existing Noise Level, $L_{eq[h]}$, dBA[a]	Design Year Noise Level Without Proposed Project, $L_{eq[h]}$, dBA[a]	Design Year Noise Level With Proposed Project, $L_{eq[h]}$, dBA[a]	Design Year Noise Level Without Proposed Project Minus Existing Noise Level, $L_{eq[h]}$, dBA	Design Year Noise Level With Proposed Project Minus Existing Level, $L_{eq[h]}$, dBA	Design Year Noise Level With Proposed Project Minus Design Year Noise Level Without Proposed Project, $L_{eq[h]}$, dBA	Noise Abatement Category[b]	Impact Type[c]
ST1	UND	Brians Way	72	73	72	1	0	-1	G (N/A)	None
ST8	UND	Keller Road	60	70	71	10	11	1	G (N/A)	None
M10	UND	Keller Road	62	64	69	2	7	5	G (N/A)	None
M20	UND	Between Keller Road and Brians Way	71	72	71	1	0	-1	G (N/A)	None
M21	UND	Between Keller Road and Brians Way	62	64	64	2	2	0	G (N/A)	None
M22	UND	Between Keller Road and Brians Way	63	66	66	3	3	0	G (N/A)	None
M23	UND	Keller Road	64	65	68	1	4	3	G (N/A)	None
M30	UND	Brians Way	72	74	72	2	0	-2	G (N/A)	None
M32	UND	Between Keller Road and Brians Way	66	67	68	1	2	1	G (N/A)	None

Receptor ID	Land Use	Location	Existing Noise Level, $L_{eq[h]}$, dBA[a]	Design Year Noise Level Without Proposed Project, $L_{eq[h]}$, dBA[a]	Design Year Noise Level With Proposed Project, $L_{eq[h]}$, dBA[a]	Design Year Noise Level Without Proposed Project Minus Existing Noise Level, $L_{eq[h]}$, dBA	Design Year Noise Level With Proposed Project Minus Existing Level, $L_{eq[h]}$, dBA	Design Year Noise Level With Proposed Project Minus Design Year Noise Level Without Proposed Project, $L_{eq[h]}$, dBA	Noise Abatement Category[b]	Impact Type[c]
M33	UND	Keller Road	60	67	68	7	8	1	G (N/A)	None
ST3	COM	Kaiser Permanente	61	63	64	2	3	1	C(67)	None
M11	COM	Kaiser Permanente	62	63	65	1	3	2	C(67)	None
ST2	UND	Keller Road	66	67	67	1	1	0	G (N/A)	None
ST9	UND	West of I-215	75	76	75	1	0	-1	G (N/A)	None
M14	UND	West of I-215	69	70	66	1	-3	-4	G (N/A)	None
M15	UND	West of I-215	69	70	69	1	0	-1	G (N/A)	None
M16	UND	West of I-215	63	64	64	1	1	0	G (N/A)	None
M17	UND	West of I-215	64	65	64	1	0	-1	G (N/A)	None
M18	UND	West of I-215	64	65	65	1	1	0	G (N/A)	None
M19	UND	West of I-215	66	68	68	2	2	0	G (N/A)	None
M31	UND	West of I-215	71	73	72	2	1	-1	G (N/A)	None
M29	UND	Mapleton Avenue	71	73	73	2	2	0	G (N/A)	None
ST4	MFR	Mapleton Avenue	56	60	60	4	4	0	B(67)	None

Receptor ID	Land Use	Location	Existing Noise Level, $L_{eq[h]}$, dBA[a]	Design Year Noise Level Without Proposed Project, $L_{eq[h]}$, dBA[a]	Design Year Noise Level With Proposed Project, $L_{eq[h]}$, dBA[a]	Design Year Noise Level Without Proposed Project Minus Existing Noise Level, $L_{eq[h]}$, dBA	Design Year Noise Level With Proposed Project Minus Existing Level, $L_{eq[h]}$, dBA	Design Year Noise Level With Proposed Project Minus Design Year Noise Level Without Proposed Project, $L_{eq[h]}$, dBA	Noise Abatement Category[b]	Impact Type[c]
M13	MFR	Sonoma at Mapleton Apartments	61	63	63	2	2	0	B(67)	None
ST5/M1	SFR	Keller Road	53	55	57	2	4	2	B(67)	None
ST7/M4	SFR	Keller Road	52	55	56	3	4	1	B(67)	None
M2	SFR	Keller Road	56	59	60	3	4	1	B(67)	None
M3	SFR	Keller Road	60	62	64	2	4	2	B(67)	None
M5	SFR	Keller Road	52	55	56	3	4	1	B(67)	None
M24	SFR	Keller Road	55	58	59	3	4	1	B(67)	None
M25	SFR	Keller Road	57	59	63	2	6	4	B(67)	None
M26	SFR	Keller Road	58	61	63	3	5	2	B(67)	None
M28	SFR	Keller Road	51	54	55	3	4	1	B(67)	None
ST6/M6	SFR	Keller Road	56	59	60	3	4	1	B(67)	None
M7	SFR	Keller Road	54	55	57	1	3	2	B(67)	None
M8	SFR	Keller Road	54	57	58	3	4	1	B(67)	None

Receptor ID	Land Use	Location	Existing Noise Level, $L_{eq[h]}$, dBA[a]	Design Year Noise Level Without Proposed Project, $L_{eq[h]}$, dBA[a]	Design Year Noise Level With Proposed Project, $L_{eq[h]}$, dBA[a]	Design Year Noise Level Without Proposed Project Minus Existing Noise Level, $L_{eq[h]}$, dBA	Design Year Noise Level With Proposed Project Minus Existing Level, $L_{eq[h]}$, dBA	Design Year Noise Level With Proposed Project Minus Design Year Noise Level Without Proposed Project, $L_{eq[h]}$, dBA	Noise Abatement Category[b]	Impact Type[c]
M9	SFR	Keller Road	54	57	58	3	4	1	B(67)	None
M27	SFR	Keller Road	55	58	58	3	3	0	B(67)	None

[a] As stated in the Caltrans Technical Noise Supplement to the Traffic Noise Analysis Protocol (Caltrans 2013b), modeling results are rounded to the nearest decibel before comparisons are made.
[b] N/A = There is no NAC noise limit for this land use type.
[c] Impact Type: S = Substantial Increase (12 dBA or more), A/E = Approach or Exceed NAC, None = Increase is less than 12 dB, and noise levels do not approach or exceed the NAC

Avoidance, Minimization, and/or Mitigation Measures

The following measure would be implemented to minimize impacts related to noise:

N-1 Construction activities within the City of Murrieta right-of-way will comply with the allowed construction hours specified by the City of Murrieta's Noise Ordinance (7:00 a.m. to 8:00 p.m. on weekdays and weekends), and the control of noise from construction activities within the Caltrans right-of-way will conform to Caltrans Standard Specifications, Section 14-8.02, Noise Control. The nighttime noise level from the contractor's operations, between the hours of 9:00 p.m. and 6:00 a.m., will not exceed 86 maximum A-weighted decibels (dBA L_{max}) at a distance of 50 feet.

2.2.8 Energy

REGULATORY SETTING

The National Environmental Policy Act (NEPA) (42 United States Code [USC] Part 4332) requires the identification of all potentially significant impacts to the environment, including energy impacts.

The California Environmental Quality Act (CEQA) Guidelines section 15126.2(b) and Appendix F, Energy Conservation, require an analysis of a project's energy use to determine if the project may result in significant environmental effects due to wasteful, inefficient, or unnecessary use of energy, or wasteful use of energy resources.

AFFECTED ENVIRONMENT

Energy is currently consumed within the proposed Project site for the operation of automobiles and trucks, the construction of public and private projects, and the operation of existing land uses. Two of the intersections within the proposed Project site are operating at an insufficient LOS according to Caltrans performance criteria: the Zeiders Road-Haun Road/Scott Road intersection and the Antelope Road/Scott Road intersection. The proposed Project site's existing vehicle mix consists primarily of passenger cars, as well as heavy trucks and buses. Currently, there are no traffic management system elements in place.

The traffic study for the proposed Project identified 2018 as the baseline year. However, a traffic validation analysis was conducted in 2024 (Iteris 2024) to evaluate the differences in traffic-related data from the approved Traffic

Operations Analysis Report (TOAR) compared to more recent traffic data and to confirm the validity of the TOAR. The comparison of the traffic volumes from the forecasted models combined with the 2024 traffic counts, show volumes as being comparable and within 5% of the TOAR 2024 forecasted scenario volumes. This validates that the findings and analysis of the approved TOAR remain applicable. As the modeling years for opening year and design year were updated to 2027 and 2047, and the baseline year was updated to 2024 consistent with the traffic validation analysis.

Table 2.2.8-1 summarizes the existing conditions with detailed traffic information documented in the *Traffic Operations Analysis Report* (Caltrans 2018a) and the *Traffic Data Validation Memorandum* (Iteris 2025).

Table 2.2.8-1. Summary of Existing Traffic Conditions (2024)

Intersection	Traffic Control	a.m. Peak Hour		p.m. Peak Hour	
		Delay (seconds)	LOS	Delay (seconds)	LOS
1. Zeiders Road-Haun Road/Scott Road	Signal	67.6	E	36.9	D
2. Bailey Park Road/Scott Road	Stop-control	21.0	C	16.0	C
3. I-215 SB ramps/Scott Road	Signal	48.6	D	47.0	D
4. I-215 NB ramps/Scott Road	Signal	44.1	D	30.9	C
5. Antelope Road/Scott Road	Signal	80.0	E	55.1	E
6. Menifee Road/Scott Road	Signal	40.7	D	34.0	C
7. Zeiders Road/Keller Road	Stop-control	9.0	A	8.8	A
8. Scenic View Drive/Keller Road	Stop-control	8.6	A	0.0	A
9. Antelope Road/Keller Road	Signal	41.9	D	25.6	C
10. Mapleton Avenue/Keller Road	Stop-control	10.3	B	11.1	B
11. Whitewood Road/Keller Road	Stop-control	10.3	B	8.2	A
12. Antelope Road/Baxter Road	Signal	9.4	A	30.3	C
13. McElwain Road/Clinton Keith Road	Signal	16.6	B	20.7	C
14. I-215 SB ramps/Clinton Keith Road	Signal	11.6	B	8.6	A

Intersection	Traffic Control	a.m. Peak Hour		p.m. Peak Hour	
		Delay (seconds)	LOS	Delay (seconds)	LOS
15. I-215 NB ramps/Clinton Keith Road	Signal	17.4	B	17.6	B
16. Vista Murrieta High School Driveway/Clinton Keith Road	Signal	31.8	C	28.5	C
17. Whitewood Road/Clinton Keith Road	Signal	33.8	C	34.7	C
22. Meadowlark Ln-Gladiolus Ave/Keller Road	Stop-control	14.8	B	7.9	A

Source: Caltrans 2018a
Note:
Delay = average vehicle delay (seconds)

ENVIRONMENTAL CONSEQUENCES

The following discussion of environmental consequences describes both the direct and indirect energy impacts of the proposed Project, which includes construction.

Direct Energy Impacts

In the context of transportation, direct energy involves all energy consumed by vehicle propulsion (for example, automobiles, trains, airplanes). This energy consumption is a function of traffic characteristics such as the AADT, speed, vehicle mix, and thermal value of the fuel being used. Some projects may also include features such as new or replacement roadway lighting or other features requiring electricity, which is an ongoing and permanent source of direct energy consumption. The one-time energy expenditure involved in constructing a project is also considered direct energy.

Temporary Impacts

The basic procedure for analyzing direct energy consumption from construction activities is to estimate fuel consumption projections in gallons. The construction of the proposed Project would require the use of off-road construction equipment, as well as water trucks, and on-road vehicles for asphalt hauling, soil hauling, and worker commuting.

Alternative 1 (No-Build Alternative)

The No-Build Alternative does not include improvements to the I-215/Keller Road interchange or local roads in the proposed Project area. No temporary impacts to

energy would occur under the No-Build Alternative because there would be no construction activities as a result of the proposed Project.

Build Alternatives 2, 3, and 5

Proposed Project construction is planned to start in mid-2026 and will be completed in late 2027, lasting approximately 16 months. The amount of fuel used per year of construction was estimated using the latest version of the CAL-CET2021 (v1.0). Table 2.2.8-2 shows estimated energy used during construction. The total construction-related energy consumption would range from approximately 11,073 million British thermal units (MMBtu) to 11,486 MMBtu. Additionally, energy consumption from construction activities would last only for a short period of time during proposed Project construction.

Table 2.2.8-2. Annual Construction Energy Consumption

Scenario/ Construction Year	Diesel Fuel Consumption (gallons)	Gasoline Consumption (gallons)	Electricity Consumption (kWh)	Energy Consumption (MMBtu)
Build Alternative 2 2026	36,310	8,378	2,295	6,003
Build Alternative 2 2027	27,877	10,217	3,352	5,069
Build Alternative 2 Total	**64,187**	**18,595**	**5,647**	**11,073**
Build Alternative 3 2026	28,303	6,467	1,767	4,672
Build Alternative 3 2027	36,589	14,736	4,715	6,814
Build Alternative 3 Total	**64,892**	**21,203**	**6,482**	**11,486**
Build Alternative 5 2026	28,303	6,472	1,768	4,672
Build Alternative 5 2027	36,589	14,721	4,714	6,812
Build Alternative 5 Total	**64,892**	**21,193**	**6,481**	**11,485**

Source: Caltrans 2025a; EIA 2024
Note: Conversion factors used to convert gallons of diesel and gasoline to MMBtu: 137,381 Btu per gallon (Btu/gal.) of diesel; 120,214 Btu/gal. of gasoline; 3,412 Btu per kWh
Btu = British thermal unit(s)
kWh = kilowatt hour(s)
MMBtu = million British thermal units

Permanent Impacts

Local energy demand for transportation projects typically is dominated by vehicle fuel use. Energy consumption is based mainly on the AADT, though it is also affected by congestion-related inefficiencies.

Alternative 1 (No-Build Alternative)

Under the No-Build Alternative, the indirect effects on energy consumption discussed for the Build Alternatives during operation would not occur.

Build Alternatives 2, 3, and 5

The primary purpose of the proposed Project is to improve connectivity, mobility and accessibility to the I-215; improve safety for the new interchange and along Keller Road; and provide interregional continuity and consistency with SCAG's RTP/SCS. As previously shown in Table 2.2.6-11, there would be no measurable differences in AADT for the Build Alternatives; however, traffic operating conditions in the proposed Project site would influence fuel consumption rates. Annual consumption of gasoline, diesel, natural gas, and electricity was estimated utilizing CT-EMFAC. Conversion factors were applied to these annual consumption values to calculate energy consumption generated from the operation of the proposed Project. Table 2.2.8-3 shows the operational fuel and energy used by each Build Alternative.

Table 2.2.8-3. Annual Operational Energy Consumption

Build Alternative	Gasoline Consumption (gallons)	Diesel Fuel Consumption (gallons)	Natural Gas Consumption (gallons)	Electricity Consumption (kWh)	Energy Consumption (MMBtu)
Existing/ Baseline (2024)	28,920	5,386	227	9,650	4,269
No-Build Alternative (2027)	30,658	5,956	264	17,568	4,586
Build Alternative 2 (2027)	30,567	6,013	265	17,581	4,583
Build Alternative 3 (2027)	30,567	6,013	265	17,581	4,583
Build Alternative 5 (2027)	30,567	6,013	265	17,581	4,583

Build Alternative	Gasoline Consumption (gallons)	Diesel Fuel Consumption (gallons)	Natural Gas Consumption (gallons)	Electricity Consumption (kWh)	Energy Consumption (MMBtu)
No-Build Alternative (2047)	35,217	6,090	180	72,598	5,333
Build Alternative 2 (2047)	35,016	6,131	180	72,719	5,315
Build Alternative 3 (2047)	35,016	6,131	180	72,719	5,315
Build Alternative 5 (2047)	35,016	6,131	180	72,719	5,315

Source: Caltrans 2025a; EIA 2024
Note: Conversion factors used to convert fuel consumption to MMBtu:
137,381 Btu per gallon (Btu/gal.) of diesel; 120,214 Btu/gal. of gasoline; 82.62 cubic feet natural gas per gallon, 1,036 Btu/cubic feet natural gas; 3,412 Btu per kWh
Btu = British thermal unit(s)
kWh = kilowatt hour(s)
MMBtu = million British thermal units

As shown in Table 2.2.8-3, the energy consumption under the Build Alternatives would be less than the No-Build Alternative. The added interchange for this proposed Project would affect traffic operations and increase vehicle capacity along the I-215 in the proposed Project site. The proposed Project is expected to increase both pedestrian and bicycle use within the corridor by improving mobility through multimodal facilities traversing the proposed Project site including new sidewalks and Class II bike lanes. As such, the proposed Project would not result in a wasteful, inefficient, or unnecessary consumption of energy.

Indirect Energy Impacts

Indirect energy includes maintenance activities that would result in long-term indirect energy consumption by the equipment required to operate and maintain the roadway. Based on the annual urban roadway maintenance energy data in Caltrans' *Energy and Transportation Systems Handbook* (1.634 × 108 Btu per lane-mile for Portland cement concrete pavement and 1.776 × 108 Btu per lane-mile for asphalt concrete pavement), and assuming an equal distribution of both pavement types across all Build Alternatives over approximately 1 mile of the I-215 and 1 mile of arterial roadways, the estimated roadway maintenance energy consumption would be 3,061 MMBtu per year.

AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES

As discussed, the direct energy costs would be negative because the proposed Project would improve traffic operating conditions and reduce energy consumption. Thus, for the region, the energy consumption would not be substantially affected by the Build Alternatives. Therefore, no avoidance, minimization, or mitigation measures would be required.

2.3 Biological Environment

2.3.1 Natural Communities

REGULATORY SETTING

This section of the document discusses natural communities of concern. The focus of this section is on biological communities, not individual plant or animal species. This section also includes information on wildlife corridors and habitat fragmentation. Wildlife corridors are areas of habitat used by wildlife for seasonal or daily migration. Habitat fragmentation involves the potential for dividing sensitive habitat and thereby lessening its biological value.

Habitat areas that have been designated as critical habitat under the Federal Endangered Species Act are discussed below in the Threatened and Endangered Species section 2.3.5. Wetlands and other waters are discussed below in Section 2.3.2.

The proposed Project site is within the Western Riverside County MSHCP area (Figure 2.3-1, MSHCP Survey Requirements) and must comply with relevant measures of the MSHCP (County of Riverside 2003). Chapter 6.0, MSHCP Implementation Structure, of the MSHCP, addresses implementation measures for all projects within the MSHCP area (County of Riverside 2003). Additionally, conservation areas within the MSHCP are constructed through application of criteria within Criteria Cells. Conservation areas can take the form of areas identified as cores or linkages that support wildlife movement throughout the plan area. Projects within Criteria Cells must comply with the conservation goals of those cells and go through a review process to ensure compliance with the conservation goals of the MSHCP (County of Riverside 2003). Portions of the proposed Project site fall within MSHCP Criteria Cells and, therefore, must be consistent with the conservation requirements of those Criteria Cells.
The following sections of the MSHCP are applicable to the proposed Project (County of Riverside 2003):

- **Section 6.1.2, Riparian/Riverine and Vernal Pools Guidelines:** All project sites must be assessed for the presence of riparian and vernal pool resources. Potential vernal pools occur within the proposed Project site; therefore, a vernal pool assessment and fairy shrimp surveys are required, in addition to an assessment of other riparian/riverine resources.

- **Section 6.1.3, Narrow Endemic Plant Species:** Portions of the proposed Project site fall within a narrow endemic plant species survey area; therefore, a habitat assessment and focused surveys, if suitable habitat is present, are required.

- **Section 6.3.2, Additional Survey Requirements:** Portions of the proposed Project site fall within a criteria area plant survey area; therefore, a habitat assessment and focused surveys, if suitable habitat is present, are required for these species.

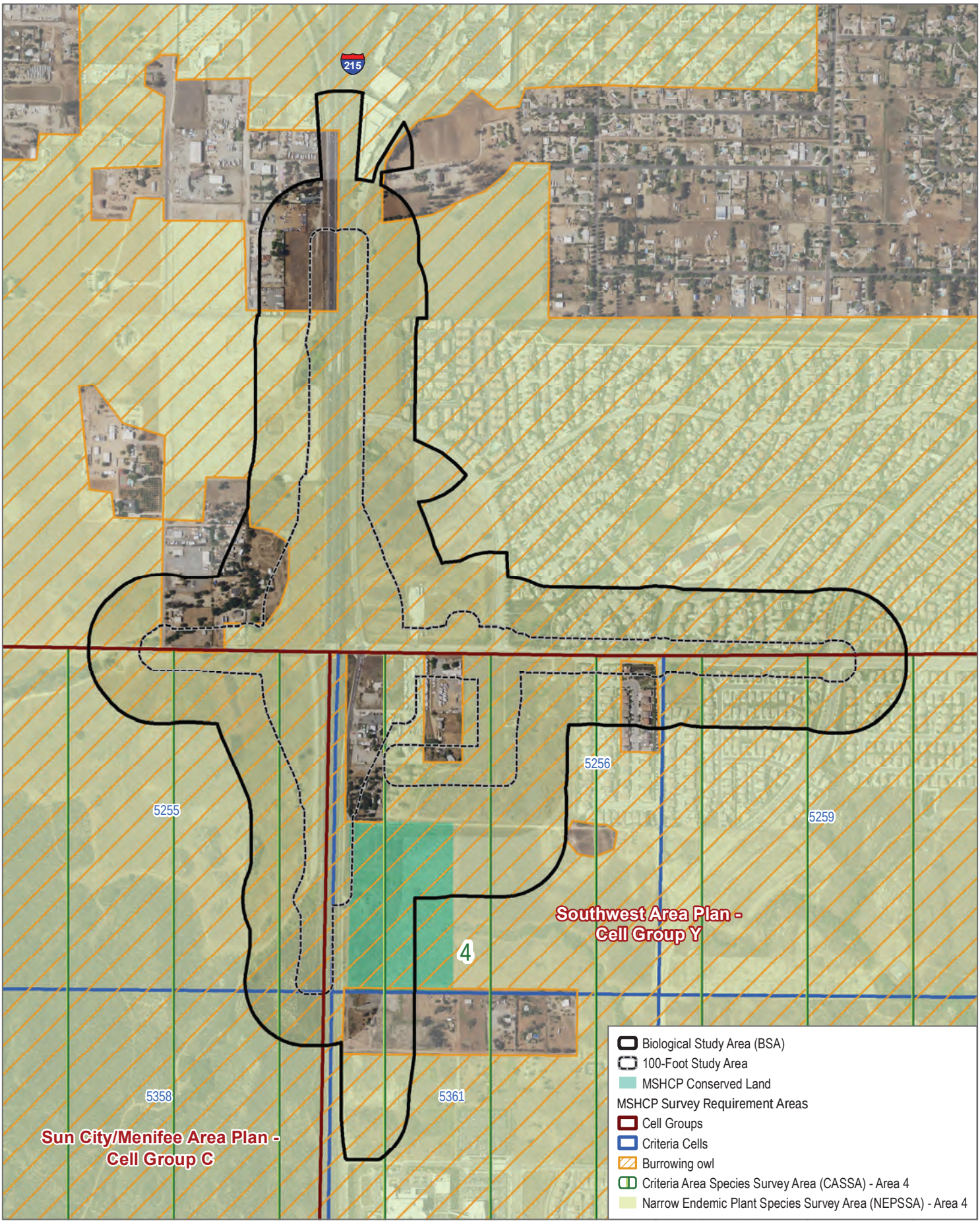
- **Section 6.1.4, Urban/Wildlands Interface Guidelines:** All proposed Projects that are adjacent to land described for conservation must adequately address edge effects.

- **Section 7.5.1, Guidelines for Facilities within the Criteria Area and Public/Quasi-Public Lands:** Portions of the proposed Project site overlap Criteria Cells within Proposed Constrained Linkage (PCL) 16, and must, therefore, be designed in accordance with this section of the MSHCP, which primarily addresses wildlife movement and conservation considerations.

AFFECTED ENVIRONMENT

This section of the document is based on the *I-215/Keller Road New Interchange Project* NES (Caltrans 2021a) and the *NES Addendum* (Caltrans 2023c).

The BSA for natural communities and wildlife movement consists of the combined footprint of the three Build Alternatives, plus a 500-foot buffer around them. The BSA represents the area of potential direct and indirect impacts. The “project impact area” refers to the combined limits of ground disturbance for the three Build Alternatives. These study areas are depicted on Figure 2.3-2.



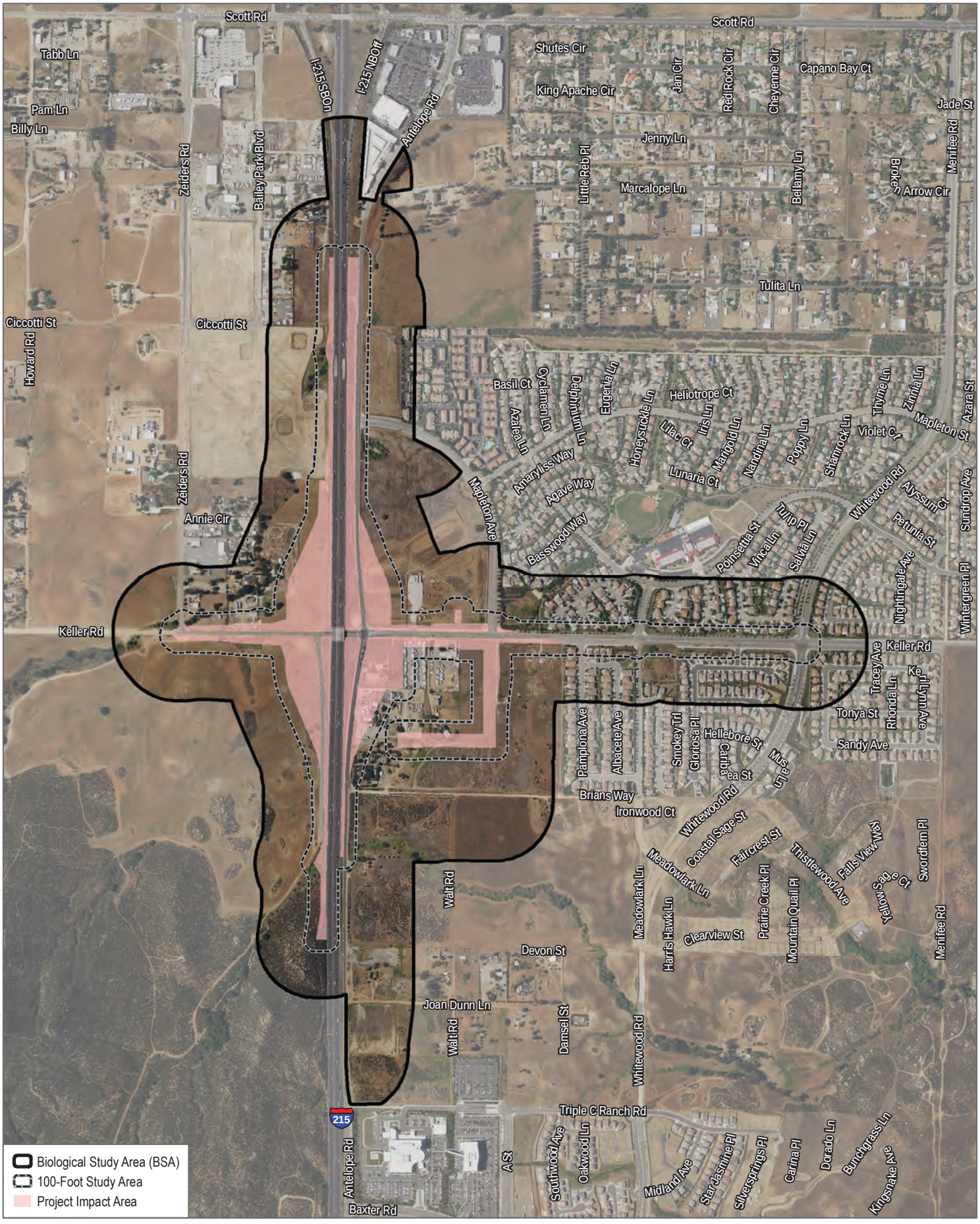
SOURCE: Riverside County 2018; USDA 2017

0 500 1,000 Feet

FIGURE 2.3-1

MSHCP Survey Requirements

Interstate 215 Keller Road Interchange Project Natural Environment Study



SOURCE: Riverside County 2018; USDA 2017

0 500 1,000 Feet

FIGURE 2.3-2

Biological Study Area and Project Impact Area

I-215/Keller Road Interchange Project

The BSA is characterized by field croplands, undeveloped vacant lands, industrial and rural residential development, and MSHCP conservation land. Adjacent land uses include primarily residential development, as well as undeveloped land and commercial development. Portions of the BSA are within the plan boundary of the MSHCP and include PCL 16. PCL 16 is identified in the MSHCP as a potential wildlife corridor.

The BSA supports nine vegetation communities and land covers: California buckwheat series (including disturbed), chamise chaparral (including disturbed), riparian forest (including disturbed), southern willow scrub, mulefat scrub (including disturbed), field croplands, non-native grasslands (including disturbed), disturbed habitat, and residential/urban/exotic. These vegetation communities and land covers are described in the following subsections and their spatial distributions are presented on Figure 2.3-3.

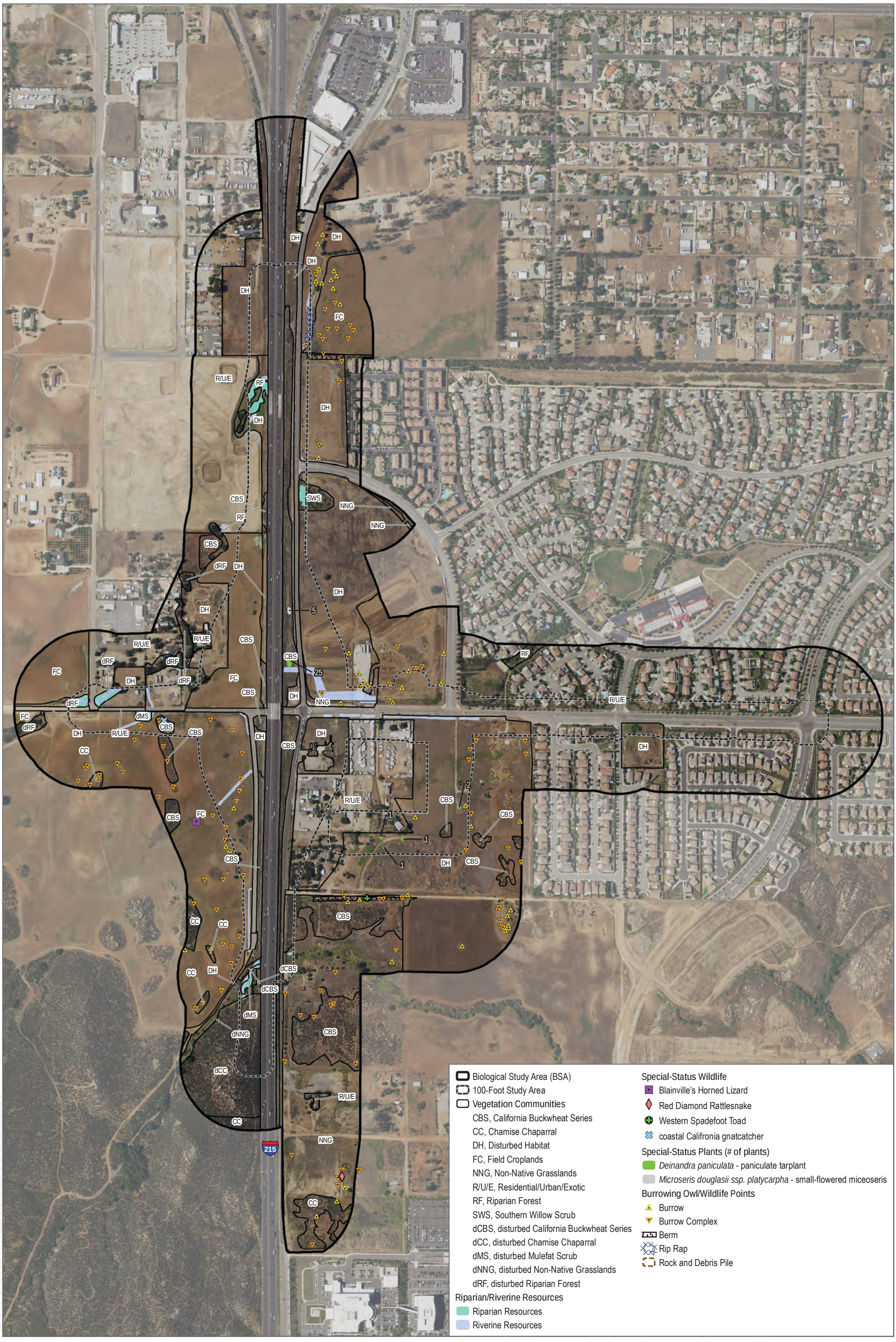
Special-status vegetation communities are those that have a rank of S1 to S3 on the CDFW Natural Communities List (CDFW 2022). Under this ranking system, two special-status vegetation communities occur in the BSA: southern willow scrub and riparian forest (Figure 2.3-3). There are 1.5 acres of riparian forest and 1.02 acres of southern willow scrub within the BSA.

In addition to special-status communities as defined by CDFW, the BSA supports 1.41 acres of MSHCP-defined riverine habitat and 1.39 acres of MSHCP-defined riparian habitat (Figure 2.3-3).

Vegetation Communities

Coastal Sage Scrub

Within the BSA, one sub-association of coastal sage scrub was identified: California buckwheat series. Eastern Mojave buckwheat *(Eriogonum fasciculatum*) is the dominant or co-dominant shrub in the canopy for this series, with a sparse to intermittent herbaceous layer composed of Cuman ragweed (*Ambrosia psilostachya*), black mustard (*Brassica nigra*), and common sunflower (*Helianthus annuus*). The California buckwheat scrub community occurs in small patches throughout the BSA, with larger patches within the MSHCP conservation land in the southeastern portion of the BSA.



SOURCE: Riverside County 2018; USDA 2017

0 300 600 Feet

FIGURE 2.3-3

Biological Resources

I-215/Keller Road Interchange Project

Chaparral

Within the BSA, one sub-association of chaparral was identified: chamise chaparral. Chamise chaparral occurs in shallow soils on all slope aspects and is dominated or co-dominated by chamise (*Adenostoma fasciculatum)*. Chamise chaparral patches occur west of the I-215. This community is dominated by chamise with a lower cover of eastern Mojave buckwheat. The chamise chaparral mapped within the southern portion of the BSA was classified as disturbed chamise chaparral based on later field observations due to a brush fire along I-215.

Riparian Forest/Woodland/Scrub

Within the BSA, three sub-associations of riparian forest/woodland/scrub were identified: mulefat scrub, southern willow scrub, and riparian forest, as described in the following paragraphs.

Mulefat Scrub

Mulefat scrub is an herbaceous riparian scrub dominated by mulefat (*Baccharis salicifolia*) that occurs along intermittent stream channels with generally coarse substrate and a moderate depth to the water table (Holland 1986). Within the BSA, this vegetation community is dominated by mulefat, with a low cover of willow species (*Salix* spp.). Because of a brush fire along the I-215, the area of mulefat scrub within the southern portion of the BSA was designated as disturbed mulefat scrub by biologists during vegetation mapping efforts.

Southern Willow Scrub

Southern willow scrub is a dense, broad-leafed, winter-deciduous riparian thicket dominated by several species of willow, with scattered emergent Fremont cottonwood (*Populus fremontii*) and California sycamore (*Platanus racemosa*) (Holland 1986). Within the BSA, southern willow scrub is dominated by red willow (*Salix laevigata*), mulefat, and willow baccharis (*Baccharis salicina*). There is little understory due to the dense, shrubby growth of these three species. This vegetation community occurs within a basin in the northeastern portion of the BSA, just south of the intersection of Antelope Road and Mapleton Avenue.

Riparian Forest

Within the BSA, riparian forests are associated with channel banks that include a mix of California live oak *(Quercus agrifolia)*, Fremont cottonwood, Goodding's willow *(Salix gooddingii)*, mulefat, blue elderberry (*Sambucus nigra* ssp. *caerulea*), tree tobacco (*Nicotiana glauca*), and poison oak (*Toxicodendron*

diversilobum). Within the western portion of the BSA, riparian forest was mapped by biologists as disturbed because of rural development intersecting the vegetation. Riparian forest was also mapped in small patches in the northwestern and eastern portions of the BSA during vegetation mapping efforts.

Non-native Grassland

Within the BSA, annual grasslands are dominated by ripgut brome (*Bromus diandrus*), red brome (*Bromus madritensis* ssp. *rubens*), and wild oat (*Avena fatua*). Non-native grasslands are scattered within areas of the BSA that are not as frequently maintained as the disturbed habitat mapped as shown on Figure 2.3-3.

Field Croplands

Field croplands refer to areas containing crop vegetation that support annual plants that can be rotated or that produce long-term monocultures (County of Riverside 2003). Within the BSA, field croplands are composed of common wheat (*Triticum aestivum*) fields and occur within the northeastern and western portions of the BSA.

Disturbed Habitat

Disturbed habitat refers to areas that are not developed, yet lack native vegetation, and generally are the result of severe or repeated mechanical disturbance. Within the BSA, there are portions of disturbed habitat where no vegetation occurs because the area was recently disced. Other areas, disturbed less recently, had some annual weedy species present, including black mustard, cultivated radish (*Raphanus sativus*), Maltese star-thistle (*Centaurea melitensis*), Russian thistle (*Salsola tragus*), burclover (*Medicago polymorpha*), longbeak stork's bill (*Erodium botrys*), and redstem stork's bill (*Erodium cicutarium*). Disturbed habitat occurs throughout the BSA.

Residential/Urban/Exotic

Within the BSA, residential/urban/exotic consists mostly of developed infrastructure, paved roads, and areas currently under construction.

Wildlife Corridors

The southern portion of the BSA contains MSHCP-defined PCL 16. According to the MSHCP, the Linkage "consists of an unnamed blueline drainage connecting Proposed Linkage 8 in the west with Proposed Core 2 (Antelope Valley) in the east. The Linkage likely provides for movement of common mammals such as

bobcat *(Lynx rufus)*. Existing urban development and agricultural use constrain the Linkage along its entire length, and the Linkage is surrounded by a City-designated planned land use, the Murrieta Hills Specific Plan (refer to Figure 2.1-1). Species movement through the Linkage may also be affected by the intersection of the Linkage with the I-215" (County of Riverside 2003).

MSHCP Planning species for PCL 16, Proposed Linkage 8, and Proposed Core 2 are as follows:

- PCL 16:
  - Quino checkerspot butterfly (*Euphydryas editha quino*)
  - Coastal California gnatcatcher (*Polioptila californica californica*)
  - Bobcat
- Proposed Linkage 8 in the west:
  - Quino checkerspot butterfly
  - Western pond turtle (*Actinemys marmorata*)
  - Southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*)
  - Bell's sage sparrow (*Artemisiospiza belli*)
  - Southwestern willow flycatcher (*Empidonax traillii extimus*)
  - Loggerhead shrike (*Lanius ludovicianus*)
  - Coastal California gnatcatcher
  - Least Bell's vireo (*Vireo bellii pusillus*)
  - Stephens' kangaroo rat (*Dipodomys stephensi*)
  - Bobcat
- Proposed Core 2 in the east:
  - Quino checkerspot butterfly
  - Western pond turtle
  - Southern California rufous-crowned sparrow
  - Grasshopper sparrow (*Ammodramus savannarum*)
  - Bell's sage sparrow
  - Swainson's hawk (*Buteo swainsoni*)
  - California horned lark *(Eremophila alpestris actia*)

- Coastal California gnatcatcher
- Bobcat
- Los Angeles pocket mouse (*Perognathus longimembris brevinasus*)
- Munz's onion (*Allium munzii*)
- San Diego ambrosia (*Ambrosia pumila*)
- Spreading navarretia (*Navarretia fossalis*)
- California orcutt grass (*Orcuttia californica*)

The channel associated with PCL 16 is identified as ephemeral drainage 3, as described in Section 2.3.2, Wetlands and Other Waters. It originates approximately 0.75 miles off-site from the Sedco Hills and continues northeast, entering the southern portion of the BSA, continuing under the I-215 through a culvert, and continuing immediately east of Antelope Road (Figure 2.3-4). It continues off-site flowing east for approximately 1.5 miles to its confluence with Warm Springs Creek. The existing culverts at PCL 16 consist of one 60-inch-diameter pipe and one 48-inch-diameter pipe that run nearly parallel beneath the road and highway (approximately 230 feet long). The 60-inch culvert does not provide a direct line of sight to the other side of the I-215; however, the 48-inch culvert does.

A Wildlife Movement Study was conducted in the summer and fall of 2015 to assess wildlife movement within a portion of the MSHCP conserved property at the outlet of the 60-inch and 48-inch culverts on the eastern side of Antelope Road. The most common species observed include coyote *(Canis latrans)*, California ground squirrel (*Otospermophilus beecheyi*), and desert cottontail (*Sylvilagus audubonii*). There were also incidental observations of bobcat, greater roadrunner (*Geococcyx californianus*), black-tailed jackrabbit *(Lepus californicus)*, California quail (*Callipepla californica*), raccoon (*Procyon lotor*), and striped skunk (*Mephitis mephitis*). The results of the Wildlife Movement Study indicate small to mid-sized mammals are using the habitat directly adjacent to the eastern side of the area described as PCL 16 and are likely using the culvert within PCL 16 to pass between Proposed Core 2 and Proposed Linkage 8.

ENVIRONMENTAL CONSEQUENCES

Temporary Impacts

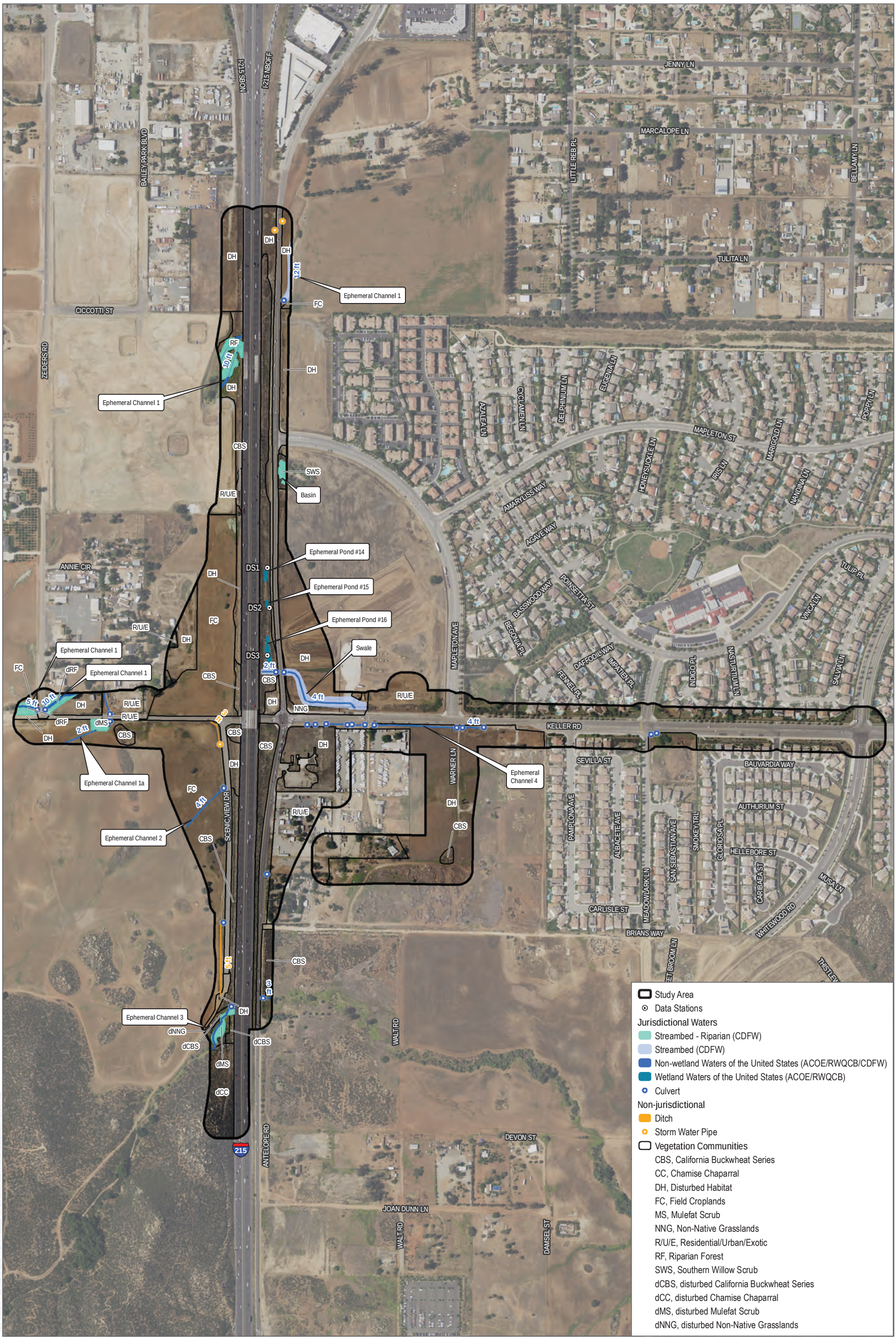
Vegetation Communities

Alternative 1 (No-Build Alternative)

The No-Build Alternative would not include the construction of a new interchange at I-215 and Keller Road or improvements to local roads surrounding the proposed Project site. Ground-disturbing activities would not take place and temporary impacts on natural communities would not occur.

Build Alternatives 2, 3, and 5

Build Alternatives 2, 3, and 5 would result in temporary impacts on natural communities, including one special-status vegetation community, which is riparian forest, and MSHCP riparian/riverine habitat, as discussed in the following paragraphs.



SOURCE: USDA 2017

0 300 600 Feet

FIGURE 2.3-4

Jurisdictional Delineation

Keller Road/I-215 Interchange Project - Jurisdictional Delineation Report

As shown in Table 2.3.1-1, Build Alternative 2 would result in temporary impacts on 30.50 acres of vegetation communities and land cover, Build Alternative 3 would result in temporary impacts on 32.86 acres, and Build Alternative 5 would result in temporary impacts on 19.10 acres. A portion of these impacts would occur to one special-status vegetation community under Build Alternatives 2 and 3, as shown in Table 2.3.1-2: riparian forest. No temporary impacts would occur on special-status vegetation communities under Build Alternative 5.

Table 2.3.1-1. Temporary Impacts on Vegetation Communities and Land Covers from the Proposed Project

Vegetation Community/ Land Cover	Build Alternative 2 (acres)	Build Alternative 3 (acres)	Build Alternative 5 (acres)
Coastal Sage Scrub			
California Buckwheat Series	6.66	6.44	5.31
Disturbed California Buckwheat Series	0.19	0.18	0.22
Subtotal	*6.85*	*6.62*	*5.52*
Chaparral			
Chamise Chaparral	--	--	--
Disturbed Chamise Chaparral	0.49	0.71	0.14
Subtotal	*0.49*	*0.71*	*0.14*
Riparian Forest/Woodland/Scrub			
Disturbed Mulefat Scrub	0.16	0.16	0.19
Riparian Forest	0.13	0.07	--
Disturbed Riparian Forest	0.04	0.03	0.02
Southern Willow Scrub	--	--	--
Subtotal	*0.34*	*0.26*	*0.21*
Non-native Land Covers			
Non-native Grassland	0.38	0.40	--
Disturbed Non-native Grasslands	0.11	0.11	0.11
Field Croplands	8.02	9.13	3.97
Disturbed Habitat	10.16	11.56	6.40
Residential/Urban/Exotic	4.15	4.06	2.75
Subtotal	*22.82*	*25.27*	*13.23*
Total	**30.50**	**32.86**	**19.10**

-- = Not Applicable

Table 2.3.1-2. Temporary Impacts on Special-status Vegetation Communities from the Proposed Project

Vegetation Community/ Land Cover	Build Alternative 2 (acres)	Build Alternative 3 (acres)	Build Alternative 5 (acres)
Riparian Forest	0.13	0.07	--
Southern Willow Scrub	--	--	--
Total*	**0.13**	**0.07**	**0.0**

MSHCP Riparian/Riverine Habitat

Alternative 1 (No-Build Alternative)

The No-Build Alternative would not include the construction of a new interchange at I-215 and Keller Road or improvements to local roads in the proposed Project area. Ground-disturbing activities would not take place and temporary impacts on MSHCP riparian/riverine habitat would not occur.

Build Alternatives 2, 3, and 5

The implementation of Build Alternative 2 would result in temporary impacts on 0.38 acres of riverine habitat and 0.28 acres of riparian habitat. Build Alternative 3 would result in temporary impacts on 0.45 acres of riverine habitat and 0.22 acres of riparian habitat. Build Alternative 5 would result in temporary impacts on 0.09 acres of riverine habitat and 0.20 acres of riparian habitat. Table 2.3.1-3 summarizes these impacts.

Table 2.3.1-3. Temporary Impacts on MSHCP Riparian/Riverine Habitat

Feature	Build Alternative 2 (acres)	Build Alternative 3 (acres)	Build Alternative 5 (acres)
Riverine	0.38	0.45	0.09
Riparian	0.28	0.22	0.20
Total	**0.66**	**0.67**	**0.29**

Wildlife Movement

Alternative 1 (No-Build Alternative)

The No-Build Alternative would not include the construction of a new interchange at I-215 and Keller Road or improvements to local roads surrounding the proposed Project site. Ground-disturbing activities would not take place and temporary impacts on wildlife movement would not occur.

Build Alternatives 2, 3, and 5

Proposed Project construction could temporarily affect wildlife movement through MSHCP PCL 16 as a result of construction noise, lighting from construction equipment, and grading to construct the retaining wall on the western side of the I-215.

MSHCP PCL 16 is located at the southern extent of construction activities, where noise impacts would be minimal due to limited construction activities, such as striping, that would take place near this location. Therefore, adverse temporary noise impacts are not anticipated to occur on wildlife movement.

Night lighting may occur during night work; however, lighting would be shielded away from any open habitat or conservation areas adjacent to the proposed Project; therefore, temporary adverse impacts on wildlife movement are not expected.

Temporary impacts associated with grading for the retaining wall, which may include altering the topography and removal of vegetative cover, would be minimized by recontouring any impacted areas, as well as vegetating the entrances to the existing 48-inch and 60-inch culverts as described in minimization measures BIO-2 and BIO-6 below in the Avoidance, Minimization, and/or Mitigation Measures subsection. Access to the culverts would also be maintained for wildlife during construction. Therefore, adverse temporary impacts associated with grading are not anticipated to occur on wildlife movement.

Minimization measures BIO-2 through BIO-6 would be implemented so that substantial adverse temporary impacts do not occur on wildlife movement corridors during construction of the proposed Project.

Permanent Impacts

Vegetation Communities

Alternative 1 (No-Build Alternative)

The No-Build Alternative would not include construction of a new interchange at the I-215 and Keller Road or improvements to local roads surrounding the proposed Project site. Ground-disturbing activities would not take place, and permanent impacts to special-status vegetation or natural communities would not occur.

Build Alternatives 2, 3, and 5

The implementation of the Build Alternatives would result in permanent impacts on natural communities, including one special-status vegetation community, which is riparian forest, and MSHCP riparian/riverine habitat. The Build Alternatives may also result in permanent indirect impacts on wildlife movement, as discussed in the following paragraphs.

Table 2.3.1-4 summarizes permanent impacts on vegetation communities and land cover for each Build Alternative. Build Alternative 2 would result in permanent impacts on 10.44 acres of vegetation communities and land cover, Build Alternative 3 would result in permanent impacts on 11.71 acres, and Build Alternative 5 would result in permanent impacts on 11.30 acres.

A small portion of these impacts, 0.03 acre, would occur, as a result of Build Alternative 3, on one special-status vegetation community: riparian forest. Table 2.3.1-5 summarizes permanent impacts on special-status vegetation communities for each Build Alternative.

Table 2.3.1-4. Permanent Impacts on Vegetation Communities and Land Cover from the Proposed Project

Vegetation Community/Land Cover	Build Alternative 2 (acres)	Build Alternative 3 (acres)	Build Alternative 5 (acres)
Coastal Sage Scrub			
California Buckwheat Series	1.32	1.75	2.17
Disturbed California Buckwheat Series	0.04	0.05	--
Subtotal	*1.36*	*1.80*	*2.17*
Chaparral			
Chamise Chaparral	--	--	--
Disturbed Chamise Chaparral	0.05	0.03	--
Subtotal	*0.05*	*0.03*	--
Riparian Forest/Woodland/Scrub			
Disturbed Mulefat Scrub	0.05	0.05	0.07
Riparian Forest	--	0.03	--
Disturbed Riparian Forest	0.01	0.01	0.03
Southern Willow Scrub	--	--	--
Subtotal	*0.07*	*0.09*	*0.09*

Vegetation Community/Land Cover	Build Alternative 2 (acres)	Build Alternative 3 (acres)	Build Alternative 5 (acres)
Non-native Land Covers			
Non-native Grassland	0.29	0.28	0.47
Disturbed Non-native Grasslands	--	--	--
Field Croplands	2.86	3.17	2.87
Disturbed Habitat	3.67	3.93	3.66
Residential/Urban/Exotic	2.13	2.42	2.04
Subtotal	*8.96*	*9.79*	*9.04*
Total[a]	**10.44**	**11.71**	**11.30**

[a] Acreage may not total due to rounding.

Table 2.3.1-5. Permanent Impacts on Special-status Vegetation Communities from the Proposed Project

Vegetation Community/Land Cover	Build Alternative 2 (acres)	Build Alternative 3 (acres)	Build Alternative 5 (acres)
Riparian Forest	--	0.03	--
Southern Willow Scrub	--	--	--
Total	**0.0**	**0.03**	**0.0**

MSHCP Riparian/Riverine Habitat

The Build Alternatives would result in permanent impacts on riparian/riverine habitat. The implementation of Build Alternative 2 would result in permanent impacts on 0.18 acres of riverine habitat and 0.06 acres of riparian habitat. Build Alternative 3 would result in permanent impacts on 0.13 acres of riverine habitat and 0.09 acres of riparian habitat. Build Alternative 5 would result in permanent impacts on 0.11 acres of riverine habitat and 0.09 acres of riparian habitat. Table 2.3.1-6 summarizes these impacts.

Table 2.3.1-6. Permanent Impacts on MSHCP Riparian/Riverine Habitat

Feature	Build Alternative 2 (acres)	Build Alternative 3 (acres)	Build Alternative 5 (acres)
Riverine	0.18	0.13	0.11
Riparian	0.06	0.09	0.09
Total	**0.24**	**0.22**	**0.20**

The Build Alternatives would also result in permanent, indirect impacts on special-status vegetation communities. Indirect impacts on adjacent special-status vegetation communities could result from the generation of fugitive dust, the accidental release of chemical pollutants, and the adverse effect of invasive plant species.

Permanent impacts on special-status vegetation communities and riparian/riverine habitat would be avoided and minimized through the implementation of minimization measures BIO-1 through BIO-3. Because permanent impacts could occur for up to 0.09 acres of special-status communities and riparian habitat, and up to 0.18 acres of impact riverine habitat, these impacts would be substantially adverse and require mitigation. Compensatory mitigation for permanent impacts on special-status vegetation communities is described below as mitigation measure BIO-7.

With the implementation of avoidance, minimization, and/or mitigation measures, it is anticipated that the Build Alternatives would not result in a net loss of special-status plant communities; therefore, adverse effects on these plant communities are expected to remain low.

Wildlife Movement

Alternative 1 (No-Build Alternative)

The No-Build Alternative would not include the construction of a new interchange at the I-215 and Keller Road or improvements to local roads surrounding the proposed Project site. Ground-disturbing activities would not take place and permanent impacts on wildlife movement would not occur.

Build Alternatives 2, 3, and 5

Direct permanent impacts on the 48-inch and 60-inch culverts located in PCL 16 from all Build Alternatives would be avoided through the design of a vertical retaining wall (headwall) on the western side of the I-215. Additionally, no impacts would occur on PCL 16 on the eastern side of the proposed Project because no construction would take place at this location. Wildlife currently using these culverts to cross under the freeway could continue to do so, because there would be no lengthening or other modifications to either culvert as a result of any of the Build Alternatives that would change the direct line of sight or current dimensions of each culvert.

Permanent indirect impacts may occur on wildlife movement as a result of changes in hydrology, traffic noise, light from traveling vehicles, and/or increased potential for mortality with the addition of the SB merge lane.

However, none of the Build Alternatives would alter the existing hydrology through PCL 16 into the conservation area; therefore, indirect impacts to wildlife movement through PCL 16 due to changes in hydrology patterns within the proposed Project site would not occur.

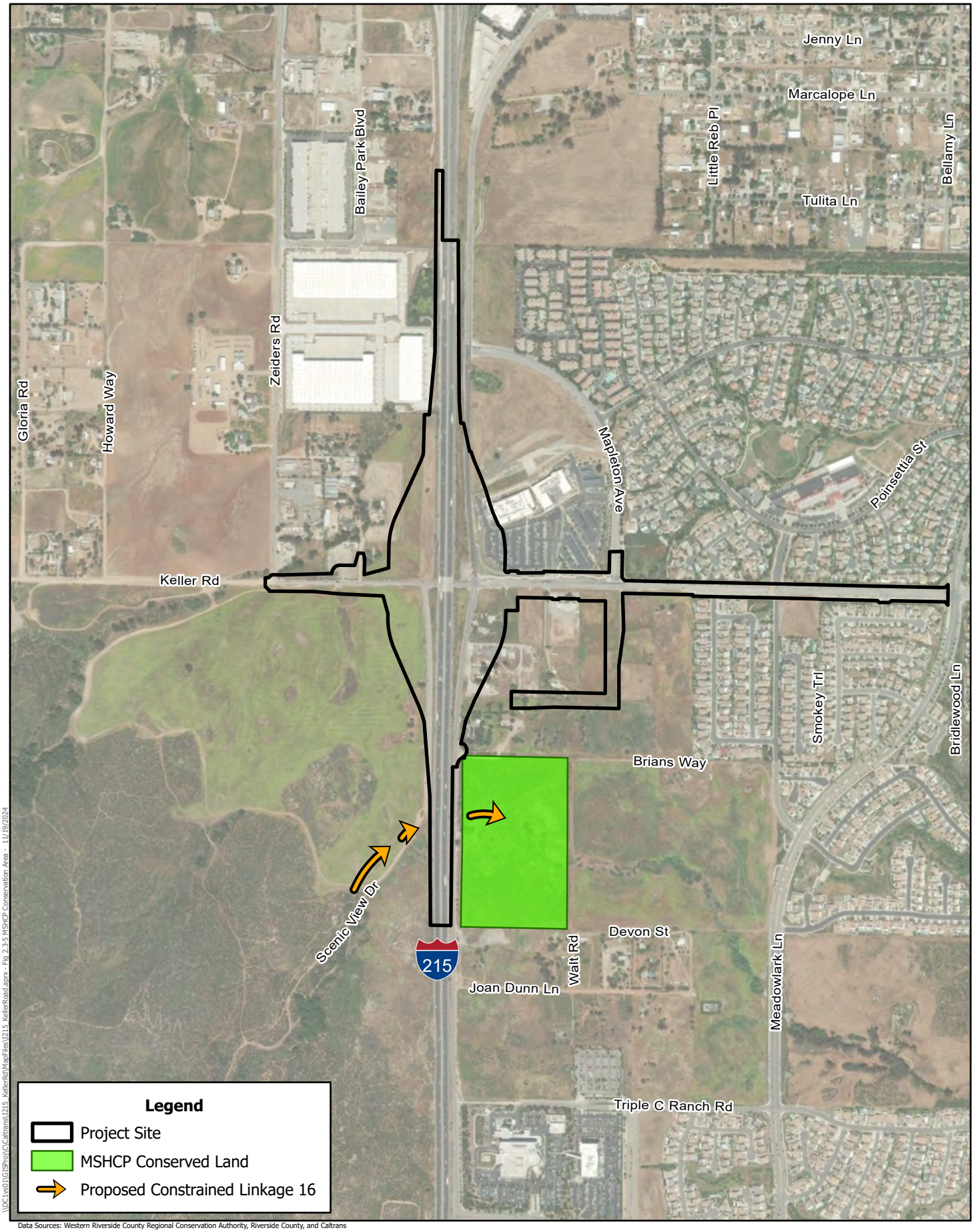


Figure 2.3-5
MSHCP Conservation Area
I-215/Keller Road New Interchange Project

Increased noise and light from traveling vehicles along the SB merge lane may reduce habitat value within PCL 16 and may deter wildlife from using the wildlife corridor at PCL 16. Generally speaking, published studies have stated that traffic-related light at night and noise disturbance have been shown to affect animal behavior and occupancy (Francis and Barber 2013; Davies et al. 2012). Another study found that the presence of bobcat (a planning species for PCL 16) was sensitive to a traffic noise level of greater than 58 A-weighted decibels (dBA) (Schilling et al. 2020). Noise and light from traveling vehicles would be minimized through the construction of a noise and light reduction barrier measuring 1,430 feet long and consisting of two berms up to 7-feet high connected by a 2-foot-wide and 3.5-foot-tall wildlife noise- and light-reducing wall (Figure 2.3-6), which would comply with Section 7.5.1 of the MSHCP (County of Riverside 2003).

Additionally, to minimize the risk of road mortality associated with the new interchange, the Build Alternatives would include directional wildlife fencing at both the eastern and western culvert openings to direct animals toward the culvert to provide safe passage and reduce the risk of vehicle strikes as described in minimization measure BIO-4. With the inclusion of directional wildlife fencing, all Build Alternatives comply with Section 6.1.4 of the MSHCP, and adverse indirect permanent impacts on wildlife movement would be low.

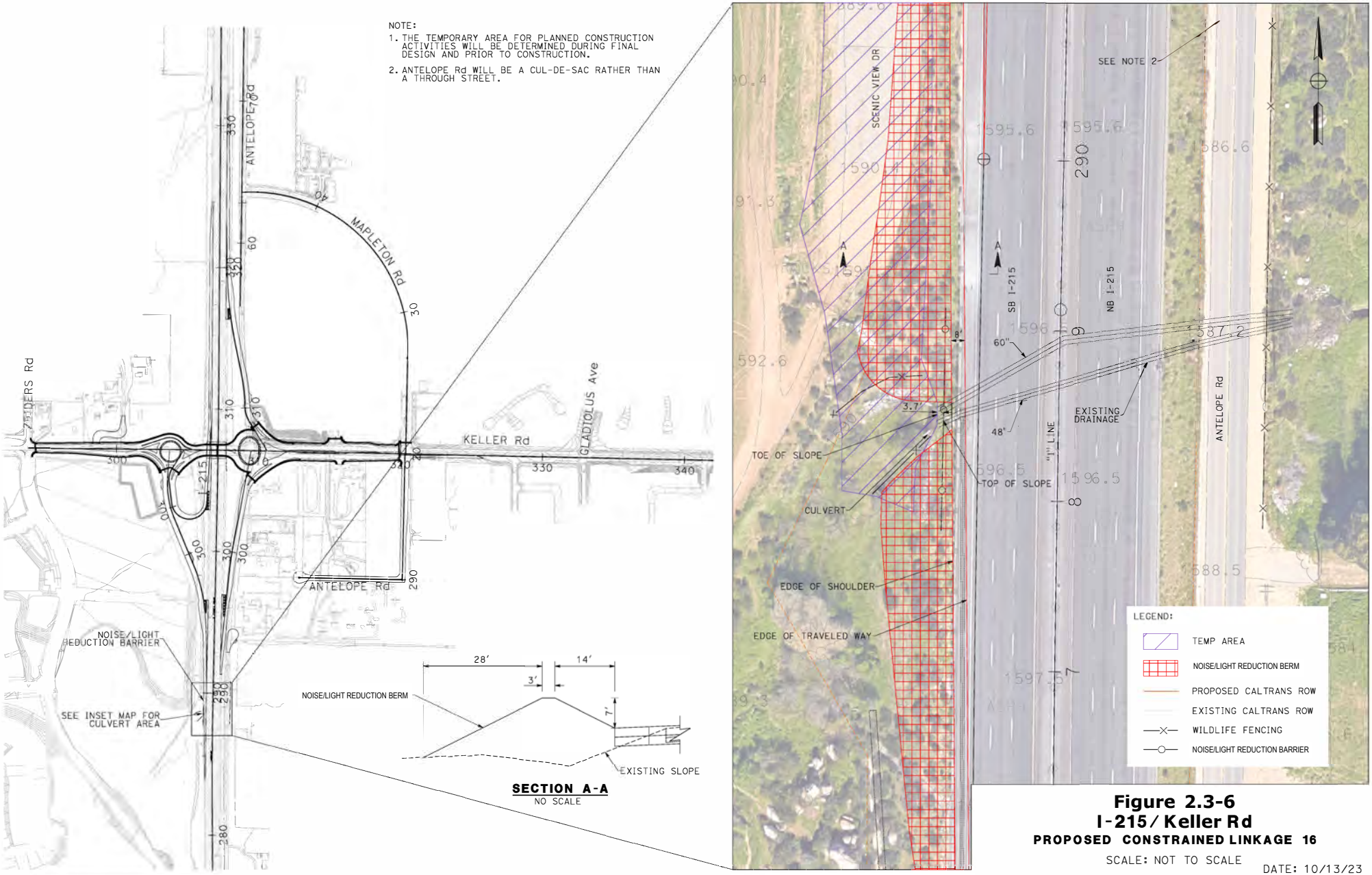


Figure 2.3-6
I-215/Keller Rd
PROPOSED CONSTRAINED LINKAGE 16

SCALE: NOT TO SCALE

DATE: 10/13/23

P:\W9X13400_I-215_Keller Rd\700 CADD\706 Exhibits\020_Culvert\Culvert Exhibit.dgn

MSHCP Consistency Warner Lane and Cell Group Y

Alternative 1 (No-Build Alternative)

The No-Build Alternative would not include the construction of a new interchange at the I-215 and Keller Road or improvements to local roads surrounding the proposed Project site. Ground-disturbing activities would not take place and there would be no impact on MSHCP Consistency.

Build Alternatives 2, 3, and 5

As described in the 2021 NES, access to several properties along Antelope Road between Keller Road and Brians Way would be removed because of the construction of the NB off- and on-ramps for all Build Alternatives. Access to these properties would be re-established via the construction of a new 1,600-foot cul-de-sac. The entrance to the new access road would be across from the Mapleton Ave/Keller Road intersection along Warner Lane (Figures 2.1-8 through 2.1-10).

A letter dated October 2021 from the USFWS and CDFW (known collectively as Wildlife Agencies) stated this road was not in the Consistency Analysis they reviewed in 2015 (refer to Chapter 4). The proposed Warner Lane is in the central and northern portion of Criteria Cell 5256, within Cell Group Y, and is not a planned road within MSHCP Section 7.3.5 or on MSHCP Figure 7-1, o does not have MSHCP coverage.

The Wildlife Agencies letter explained that because Warner Lane is not a covered road, and Cell Group Y currently does not meet the minimum conservation goal of 55%, undeveloped lands in the Cell group are needed for conservation. The letter stated :

> *“The area identified for Warner Lane construction should be conserved to help reduce the conservation shortfall for this Cell Group. The Wildlife Agencies recommended that these two issues be resolved by realigning the residential access to the west to avoid bifurcating the remaining undeveloped area on the northern edge of Cell Group Y. The residential access could begin at Warner Lane but then turn quickly westward. The Project could also be redesigned so that Warner Lane is not needed. If the residential access cannot be realigned to the west or eliminated, an MSHCP amendment or Criteria Refinement should be pursued to address the conservation shortfall in Cell Group Y and covered status for Warner Lane (Refer to Chapter 4, Section 4.4).”*

The design team evaluated other alternatives to provide access to the properties along Antelope Road between Keller Road and Brians Way; however, it was not feasible to designate a different access road because of the cost and time to acquire additional ROW. Therefore, in September 2023, the City of Murrieta met with the Wildlife Agencies, and received confirmation the agencies would support a minor amendment to the Regional Conservation Authority's (RCA's) MSHCP document to include Warner Lane as a covered activity by swapping out a portion of Warm Springs Parkway, which is south of the proposed Project site (Refer to Chapter 4, Section 4.4).

As a result of the September 2023 meeting between the City of Murrieta and the Wildlife Agencies, a minor amendment to the MSHCP will be processed between the City of Murrieta and the RCA before the approval of the final environmental document. The MSHCP will now include Warner Lane as a covered road, which is stated in mitigation measure BIO-7. With the inclusion of the minor amendment, all Build Alternatives would comply with Section 7.3.5 of the MSHCP.

AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES

To avoid and minimize impacts on special-status vegetation communities within the proposed Project impact area, including riparian forest and MSHCP riparian/riverine habitat, and wildlife movement, the following avoidance and minimization measures would be implemented:

BIO-1 **Avoidance of Special-status Vegetation Communities.** Before the initiation of construction activities, a qualified biologist will implement the following avoidance measures to avoid, minimize, and preserve in place special-status vegetation communities:

- BIO-1a. The proposed Project impact area (that is, footprint of disturbance) will be minimized to the maximum extent feasible. Access to sites will be via pre-existing access routes to the greatest extent possible.

- BIO-1b. The limits of disturbance will be clearly defined and marked in the field, and reviewed by a qualified biologist before the initiation of work.

- BIO-1c. An environmentally sensitive area marking special-status vegetation communities will be established with brightly colored fencing or flagging.

- BIO-1d. During clearing and grubbing activities, a biological monitor will be present to ensure the environmentally sensitive area is not disturbed by construction.

- BIO-1e. The qualified project biologist will monitor construction activities for the duration of the proposed Project to ensure that practicable measures are being employed to avoid incidental disturbance of special-status vegetation communities outside the proposed Project impact area.

- BIO-1f. If impacts cannot be avoided, temporarily impacted areas will be restored as required by the proposed Project. Any permanent impacts will be compensated as required for that resource by the proposed Project.

BIO-2 **Restoration of Temporarily Impacted Vegetation Communities.** Site construction areas subjected to temporary ground disturbance from the limits of grading, staging areas, and temporary roads, will be recontoured to natural grade (if the grade was modified during the temporary disturbance activity), and revegetated with native species occurring in the proposed Project impact area under existing conditions. Revegetation may occur with cuttings from riparian species present in the proposed Project impact area or with an application of a native seed mix. Revegetation will occur before or during seasonal rains to promote passive restoration of the area to pre-project conditions (except that no invasive plants will be restored). This measure does not apply to situations that are urban/developed that are temporarily affected and will be returned to an urban/developed land use. Before seeding temporary ground disturbance areas, a qualified biologist will review the seeding palette to ensure the plant palette is appropriate. The qualified biologist will ensure no seeding of invasive plant species, as identified in the most recent version of the California Invasive Plant

Inventory for the region and as identified within Table 6-2 of the Western Riverside County MSHCP, will occur.

BIO-3 **Best Management Practices for Vegetation Communities and Avoidance and Minimization of Edge Effects on Wildlife Movement.** The following best management practices (BMPs) will be implemented to minimize indirect impacts on special-status vegetation communities.

- BIO-3a. Equipment storage, fueling, and staging areas will be located on upland sites with minimal risks of direct drainage into special-status communities or the MSHCP Conservation Area, and will be demarcated with fencing and signage. These designated areas will be located in such a manner as to prevent any runoff from entering special-status communities. Necessary precautions through the implementation of BMPs will be taken to prevent the release of cement or other toxic substances into special-status communities or the MSHCP Conservation Area. Project-related spills of hazardous materials will be reported to the appropriate entities, including but not limited to the U.S. Fish and Wildlife Service and CDFW, and will be cleaned up immediately and contaminated soils removed to approved disposal areas.

- BIO-3b. Silt fencing or other sediment-trapping materials, such as fiber rolls, will be installed at the downstream end of construction activities to minimize the transport of sediments off-site.

- BIO-3c. Settling ponds where sediment is collected will be cleaned in a manner that prevents sediment from re-entering the stream or damaging/disturbing adjacent areas. Sediment from settling ponds will be removed to a location where sediment cannot re-enter the stream or surrounding drainage area. Care will be exercised during removal of silt fencing to minimize release of debris or sediment into streams.

- BIO-3d. No erodible materials will be deposited into water courses or the adjacent MSHCP Conservation Area. Brush,

loose soils, or other debris material will not be stockpiled within stream channels, on adjacent banks, or in the MSHCP Conservation Area.

- BIO-3e. Exotic species removed during construction will be properly handled to prevent sprouting or regrowth. Trucks carrying vegetation will be covered, and vegetation materials removed from the site will be disposed of in accordance with applicable laws and regulations.

- BIO-3f. Training of construction personnel will be provided.

- BIO-3g. Ongoing monitoring and reporting will occur for the duration of the construction activity to ensure implementation of BMPs.

- BIO-3h. Active construction areas will be watered regularly to minimize impacts on adjacent vegetation from dust.

- BIO-3i. All equipment maintenance, staging, and dispensing of fuel, oil, coolant, or any other toxic substances will occur only in designated areas within the proposed grading limits of the proposed Project site. These designated areas will be clearly marked and located in such a manner as to contain runoff.

- BIO-3j. Construction equipment will be cleaned of mud or other debris that may contain invasive plants and/or seeds, and inspected to reduce the potential of spreading noxious weeds before mobilizing to the site and before leaving the site during the course of construction.

- BIO-3k. Waste, dirt, rubble, or trash will not be deposited on native habitat.

- BIO-3l. If night lighting is required during construction, lighting will be directed away from the MSHCP Conservation Area to protect species within the MSHCP Conservation Area from direct night lighting. Any new permanent lighting part of the

proposed Project will be directed away from the adjacent MSHCP Conservation Area.

- BIO-3m. Landscape plans for the proposed Project adjacent to the MSHCP Conservation Area will be consistent with Table 6-2 of the MSHCP, which indicates which invasive, non-native plant species are to be avoided.

BIO-4 **Wildlife Fencing.** The proposed Project will install directional fencing for 300 feet along the western side of Antelope Road and approximately 50 feet on the northern and southern sides of PCL 16 on the western side of the SB merge lane per the proposed Project plans. The 8-foot-high fence would be buried to avoid dig outs from wildlife, and the material would be made of ¼-inch mesh hardware cloth.

BIO-5 **Noise and Light Reduction Barrier.** The proposed Project will install a noise and light reduction barrier, per the proposed Project plans, to minimize noise and light impacts on wildlife in adjacent conservation areas.

BIO-6 **Vegetative Cover at Culvert.** The proposed Project will install native vegetation, indicative of surrounding habitat, at the western entrance of the 60-inch culvert and 48-inch culvert located within PCL 16.

BIO-7 **MSHCP Minor Amendment.** A minor amendment to the MSHCP will be processed between the City of Murrieta and the RCA before the approval of the final environmental document; the MSHCP will include Warner Lane as a covered road.

Compensatory Mitigation

To mitigate for impacts on MSHCP riparian/riverine habitat (southern willow scrub, riparian forest), the following mitigation measure would be implemented by the proposed Project:

BIO-8 **Compensation for Riparian/Riverine Habitat and Special-status Vegetation Communities.** Before initiating construction activities, Caltrans would submit a DBESP to the wildlife agencies for review

regarding impacts on riparian/riverine habitat. This submission is in compliance with the Western Riverside County Multiple Species Habitat Conservation Plan, Section 6.1.2, Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools (County of Riverside 2003). The DBESP would ensure replacement of any lost functions and values of riparian/riverine habitat as it relates to riparian species. Mitigation would include BMPs as determined by final site design to avoid and minimize downstream impacts on conserved resources from changes in drainage or water quality. Mitigation for permanent loss of functions or values would be compensated at a 2:1 ratio or as otherwise determined in coordination with the resource agencies. Mitigation would be through contribution to a mitigation bank approved by CDFW or through payment to an approved in-lieu fee program.

2.3.2 Wetlands and Other Waters

REGULATORY SETTING

Wetlands and other waters are protected under a number of laws and regulations. At the federal level, the Federal Water Pollution Control Act, more commonly referred to as the Clean Water Act (33 United States Code [USC] 1344), is the primary law regulating wetlands and surface waters. One purpose of the CWA is to regulate the discharge of dredged or fill material into waters of the U.S., including wetlands. Waters of the U.S. include navigable waters, interstate waters, territorial seas, and other waters that may be used in interstate or foreign commerce. The lateral limits of jurisdiction over non-tidal water bodies extend to the ordinary high water mark (OHWM), in the absence of adjacent wetlands. When adjacent wetlands are present, CWA jurisdiction extends beyond the OHWM to the limits of the adjacent wetlands. To classify wetlands for the purposes of the CWA, a three-parameter approach is used that includes the presence of hydrophytic (water-loving) vegetation, wetland hydrology, and hydric soils (soils formed during saturation/inundation). All three parameters must be present, under normal circumstances, for an area to be designated as a jurisdictional wetland under the CWA.

Section 404 of the CWA establishes a regulatory program that provides that discharge of dredged or fill material cannot be permitted if a practicable alternative exists that is less damaging to the aquatic environment or if the nation’s waters would be significantly degraded. The Section 404 permit program

is run by the U.S. Army Corps of Engineers (USACE) with oversight by the U.S. Environmental Protection Agency (U.S.EPA).

The USACE issues two types of 404 permits: General and Individual. There are two types of General permits: Regional and Nationwide. Regional permits are issued for a general category of activities when they are similar in nature and cause minimal environmental effect. Nationwide permits are issued to allow a variety of minor project activities with no more than minimal effects.

Ordinarily, projects that do not meet the criteria for a Regional or Nationwide Permit may be permitted under one of USACE's Individual permits. There are two types of Individual permits: Standard permits and Letters of Permission. For Individual permits, the USACE decision to approve is based on compliance with U.S. EPA's Section 404(b)(1) Guidelines (40 Code of Federal Regulations [CFR] Part 230), and whether permit approval is in the public interest. The Section 404 (b)(1) Guidelines (Guidelines) were developed by the U.S. EPA in conjunction with the USACE, and allow the discharge of dredged or fill material into the aquatic system (waters of the U.S.) only if there is no practicable alternative which would have less adverse effects. The Guidelines state that the USACE may not issue a permit if there is a "least environmentally damaging practicable alternative" (LEDPA) to the proposed discharge that would have lesser effects on waters of the U.S., and not have any other significant adverse environmental consequences.

The Executive Order for the Protection of Wetlands (EO 11990) also regulates the activities of federal agencies with regard to wetlands. Essentially, EO 11990 states that a federal agency, such as FHWA and/or the Department, as assigned, cannot undertake or provide assistance for new construction located in wetlands unless the head of the agency finds (1) that there is no practicable alternative to the construction and (2) the proposed Project includes all practicable measures to minimize harm. A Wetlands Only Practicable Alternative Finding must be made.

On August 29, 2023, U.S. EPA and USACE issued a final rule to amend the final "Revised Definition of 'Waters of the United States'" rule, published in the Federal Register on January 18, 2023. This final rule conforms the definition of "waters of the United States" with the U.S. Supreme Court's May 25, 2023, decision in the case of *Sackett v. Environmental Protection Agency*. The conforming rule,

"Revised Definition of 'Waters of the United States'; Conforming," was published in the Federal Register and became effective on September 8, 2023. In California, tributaries of waters that are relatively permanent, standing, or have continuously flowing bodies of water would meet the revised definition. Ephemeral drainages, for example, are no longer considered jurisdictional (U.S. EPA, 2023).

At the state level, wetlands and waters are regulated primarily by the State Water Resources Control Board (SWRCB), the Regional Water Quality Control Boards (RWQCBs), and the CDFW. In certain circumstances, the Coastal Commission (or Bay Conservation and Development Commission or the Tahoe Regional Planning Agency) may also be involved. Sections 1600–1607 of the California Fish and Game Code require any agency that proposes a project that will substantially divert or obstruct the natural flow of or substantially change the bed or bank of a river, stream, or lake to notify CDFW before beginning construction. If CDFW determines that the project may substantially and adversely affect fish or wildlife resources, a Lake or Streambed Alteration Agreement will be required. CDFW jurisdictional limits are usually defined by the tops of the stream or lake banks, or the outer edge of riparian vegetation, whichever is wider. Wetlands under jurisdiction of the USACE may or may not be included in the area covered by a Streambed Alteration Agreement obtained from the CDFW.

The RWQCBs were established under the Porter-Cologne Water Quality Control Act to oversee water quality. Discharges under the Porter-Cologne Act are permitted by Waste Discharge Requirements (WDRs) and may be required even when the discharge is already permitted or exempt under the CWA. In compliance with Section 401 of the CWA, the RWQCBs also issue water quality certifications for activities that may result in a discharge to waters of the U.S. This is most frequently required in tandem with a Section 404 permit request. Please see the Water Quality section for more details.

AFFECTED ENVIRONMENT

This section of the document is based on the NES (Caltrans 2021a) and the *Jurisdictional Waters Delineation Report* (Caltrans 2018b) prepared for the proposed Project.

The study area for wetlands and other waters includes the combined proposed Project footprint of the three Build Alternatives plus a 100-foot buffer.

The study area is within two watersheds. The northern portion of the study area is within the Lower San Jacinto River subwatershed of the larger Santa Ana River Basin, and the southern portion of the study area is within the Santa Margarita River watershed. The proposed Project area generally receives an average rainfall of less than 12 inches per year (WRCC 2018).

One isolated basin, four ephemeral channels, a swale, three ephemeral ponds, and two roadside ditches were mapped within the study area.

When the delineation was performed, all four ephemeral channels were determined to be non-wetland waters of the United States under the jurisdiction of USACE and RWQCB, and streambeds under the jurisdiction of CDFW. The swale is a potential non-wetland waters of the United States and may be under the jurisdiction of USACE and RWQCB, and it may also be a streambed under the jurisdiction of CDFW. The three ephemeral ponds are potential wetland waters of the United States under the jurisdiction of USACE and RWQCB, and the two roadside ditches are non-jurisdictional. These features are described in further detail as follows and depicted on Figure 2.3-4.

- **Ephemeral Channels 1 and 1a:** Ephemeral Channel 1 is an unvegetated stream channel within the western and northern portion of the study area, and is depicted as a stream on the USGS topographic quadrangle and in the NHD. An OHWM is evident throughout the natural channel within the study area due to the absence of vegetation, a defined bed/bank, and sediment deposition. The OHWM averages 5 to 12 feet in width. Riparian vegetation, including California live oak, Goodding's willow, and arroyo willow, was observed immediately outside of the OHWM along the banks. Ephemeral Channel 1a is a tributary to Ephemeral Channel 1 and is an unvegetated stream channel located south of Keller Road within the western portion of the study area. An OHWM is discernible due to the absence of vegetation and shelving, and ranges from 1 to 2 feet in width. Ephemeral Channel 1 and its tributary (Ephemeral Channel 1a) support an OHWM and connect to Canyon Lake, which eventually connects to the Santa Ana River. Based on the presence of OHWM indicators and connectivity to a water of the United States, Ephemeral Channels 1 and 1a were determined to be non-wetland waters of the United States under the jurisdiction of USACE when the delineation was performed; however, USACE may not take jurisdiction over these ephemeral channels based

on the final ruling described in Regulatory Setting. Additionally, Ephemeral Channels 1 and 1a were determined to be under the jurisdiction of RWQCB and a streambed under the jurisdiction of CDFW.

- **Ephemeral Channel 2:** Ephemeral Channel 2 originates approximately 0.3 miles southwest of the study area, and enters the study area as an unvegetated natural feature, continuing northeast to a culvert at Antelope Road. The channel inlets at a culvert on the western side of the I-215; however, the culvert on the eastern side of the I-215, just south of Keller Road, was not present during the field surveys for the proposed Project. It is assumed that the channel has been diverted underground and joins the stormwater system. An OHWM is discernible based on a slight change in vegetation and sediment deposition; however, it has been largely obscured by regular discing of the cropland. Based on the presence of OHWM indicators and assumed connectivity to a water of the United States, Ephemeral Channel 2 was determined to be a non-wetland water of the United States under the jurisdiction of USACE when the delineation was performed. However, USACE may not take jurisdiction over these ephemeral channels based on the final ruling described above in Regulatory Setting. Ephemeral Channel 2 was determined to be under the jurisdiction of RWQCB and a streambed under the jurisdiction of CDFW.

- **Ephemeral Channel 3:** Ephemeral Channel 3 is an unvegetated stream channel in the southern portion of the study area that continues under the I-215 through a culvert, and continues immediately east of Antelope Road into Warm Springs Creek. An OHWM is evident due to the absence of vegetation, sediment deposition, and shelving with an average width of 5 feet. Based on the presence of OHWM indicators and connectivity to a water of the United States, Ephemeral Channel 3 was determined to be a non-wetland water of the United States under the jurisdiction of USACE at the time the delineation was performed. However, USACE may not take jurisdiction over these ephemeral channels based on the final ruling described in Regulatory Setting. Ephemeral Channel 3 was determined to be under the jurisdiction of RWQCB and a streambed under the jurisdiction of CDFW.

- **Ephemeral Channel 4:** Ephemeral Channel 4 is a constructed ephemeral channel east of the I-215, and it flows west to east along the southern side

of Keller Road. Flows enter the channel from a culvert located approximately 120 feet east of the intersection of Keller Road and Antelope Road, and continue east through a series of culverts. The flow then continues north under Keller Road through a culvert and outlet, into a debris basin that ultimately connects to the Santa Ana Basin. OHWM indicators include a change in vegetation, sediment deposition, and a defined bed. Based on the presence of OHWM indicators and connectivity to a water of the United States, Ephemeral Channel 4 was determined to be a non-wetland water of the United States under the jurisdiction of USACE at the time the delineation was performed. However, USACE may not take jurisdiction over ephemeral channels based on the final ruling described in Regulatory Setting. Ephemeral Channel 4 was determined to be under the jurisdiction of RWQCB and a streambed under the jurisdiction of CDFW.

- **Swale:** A swale was mapped east of Antelope Road and north of Keller Road in the eastern portion of the study area. Flows originate from a culvert under the I-215, west of Antelope Road, and flows continue east under Antelope Road through a culvert, then southeast through a swale that terminates at a culvert under an access road for the Kaiser Permanente Murrieta Medical Campus development. Flows are presumed to continue east underground and into the debris basin east of Mapleton Avenue. As described under Ephemeral Channel 4, flows from this debris basin are eventually conveyed to the Santa Ana Basin. Characteristics of the swale include sloped banks with a sandy, unvegetated, low-flow channel containing an evident OHWM, consisting of shelving and sediment deposition. Due to the presence of an OHWM and connectivity to a water of the United States, the swale was determined to be a non-wetland water of the United States under the jurisdiction of USACE and RWQCB, and a streambed under the jurisdiction of CDFW. Because this swale was constructed in uplands and was constructed as part of the Kaiser project's stormwater management program, it is possible USACE would not consider this feature a water of the United States.

- **Ephemeral Ponds:** Twenty features that were mapped during the 2014/2015 fairy shrimp survey for the proposed Project remained inundated in the spring of 2015 for a duration of 2 weeks (Caltrans 2015). The ephemeral ponds are immediately adjacent to the swale described in

the previous paragraph, which provides connectivity to the Santa Ana Basin. The ephemeral ponds meet USACE criteria for a wetland. If the swale discussed above is considered a water of the United States by USACE, the ephemeral ponds would be considered adjacent wetland waters of the United States. The ephemeral ponds also meet the RWQCB criteria for a wetland and are wetland waters of the State.

- **Roadside Ditches:** Two roadside ditches were mapped within the western portion of the study area, west of the I-215 along Scenic View Drive. The two ditches were constructed in uplands, are limited to the conveyance of road runoff, and do not support riparian resources. Therefore, it was determined these features are not jurisdictional waters.

Waters of the United States

The results of the jurisdictional delineation conclude that there is approximately 0.50 acres of potential non-wetland waters of the United States and 0.12 acres of potential wetland waters within the study area, as summarized in Table 2.3.2-1.

Table 2.3.2-1. Summary of Jurisdictional Waters of the United States within the 100-foot Biological Study Area

Vegetation Community and/or Land Cover	Wetland Waters of the United States and State (USACE/RWQCB) Acres (linear feet)	Non-wetland Waters of the United States and State (USACE/RWQCB) Acres (linear feet)	Total Acreage
Ephemeral Channel 1			
Disturbed Habitat	--	0.09 (450.12)	0.09
Riparian Forest	--	0.11 (465.17)	0.11
Disturbed Riparian Forest	--	0.07 (373.81)	0.07
Ephemeral Channel 1a			
Field Croplands	--	0.01 (279.61)	0.01
Residential/Urban/Exotic	--	0.01 (154.39)	0.01
Disturbed Mulefat Scrub	--	< 0.01 (107.21)	< 0.01
Ephemeral Channel 2			
Non-native Grasslands	--	< 0.01 (38.70)	< 0.01
Field Croplands	--	0.03 (349.14)	0.03

Vegetation Community and/or Land Cover	Wetland Waters of the United States and State (USACE/RWQCB) Acres (linear feet)	Non-wetland Waters of the United States and State (USACE/RWQCB) Acres (linear feet)	Total Acreage
Ephemeral Channel 3			
Disturbed Chamise Chaparral	--	< 0.01 (21.03)	< 0.01
Disturbed California Buckwheat Series	--	< 0.01 (44.36)	< 0.01
Disturbed Non-Native Grasslands	--	0.01 (80.58)	0.01
Disturbed Mulefat Scrub	--	0.02 (184.18)	0.02
Ephemeral Channel 4			
Disturbed Habitat	--	0.06 (672.45)	0.06
Residential/Urban/Exotic	--	0.03 (277.18)	0.03
Swale			
California Buckwheat Series	--	< 0.01 (92.78)	< 0.01
Disturbed Habitat	--	0.05 (577.35)	0.05
Non-Native Grasslands	--	< 0.01 (9.70)	< 0.01
Ephemeral Pond 14			
California Buckwheat Series	0.03 (85.31)	--	0.03
Ephemeral Pond 15			
California Buckwheat Series	0.02 (54.19)	--	0.02
Ephemeral Pond 16			
California Buckwheat Series	0.08 (169.23)	--	0.08
Basin			
Southern Willow Scrub	--	--	--
Total[a]	**0.12 (308.73)**	**0.50 (4,177.76)**	**0.62**

[a] Acreage may not total due to rounding.

Streambeds

The results of the jurisdictional delineation conclude that there are approximately 2.84 acres of streambed under CDFW jurisdiction. Specifically, there are 1.39 acres of streambed associated riparian and 1.46 acres of streambed within the 100-foot BSA, as summarized in Table 2.3.2-2.

Table 2.3.2-2. Summary of Jurisdictional Streambed within the 100-foot Biological Study Area

Vegetation Community and/or Land Cover	Jurisdictional Streambed (CDFW Only) Acres		Total Acreage
	Streambed – Riparian	Streambed	
Ephemeral Channel 1			
Disturbed Habitat	--	0.20	0.20
Riparian Forest	0.40	0.11	0.50
Disturbed Riparian Forest	0.49	0.07	0.56
Ephemeral Channel 1a			
Field Croplands	--	0.01	0.01
Residential/Urban/Exotic	--	0.01	0.01
Disturbed Mulefat Scrub	0.18	< 0.01	0.19
Ephemeral Channel 2			
Non-Native Grasslands	--	< 0.01	< 0.01
Field Croplands	--	0.03	0.03
Ephemeral Channel 3			
Disturbed Chamise Chaparral	--	< 0.01	< 0.01
Disturbed California Buckwheat Series	--	< 0.01	< 0.01
Disturbed Non-native Grasslands	--	0.01	0.01
Disturbed Mulefat Scrub	0.18	0.02	0.20
Ephemeral Channel 4			
Disturbed Habitat	--	0.06	0.06
Residential/Urban/Exotic	--	0.03	0.03
Swale			
California Buckwheat Series	--	0.05	0.05
Disturbed Habitat	--	0.70	0.70
Non-native Grasslands	--	0.03	0.03
Ephemeral Pond 14			
California Buckwheat Series	--	0.03	0.03

Vegetation Community and/or Land Cover	Jurisdictional Streambed (CDFW Only) Acres		Total Acreage
	Streambed – Riparian	Streambed	
Ephemeral Pond 15			
California Buckwheat Series	--	0.02	0.02
Ephemeral Pond 16			
California Buckwheat Series	--	0.08	0.08
Basin			
Southern Willow Scrub	0.14	--	0.14
Total[a]	**1.39**	**1.46**	**2.84**

[a] Acreage may not total due to rounding

ENVIRONMENTAL CONSEQUENCES

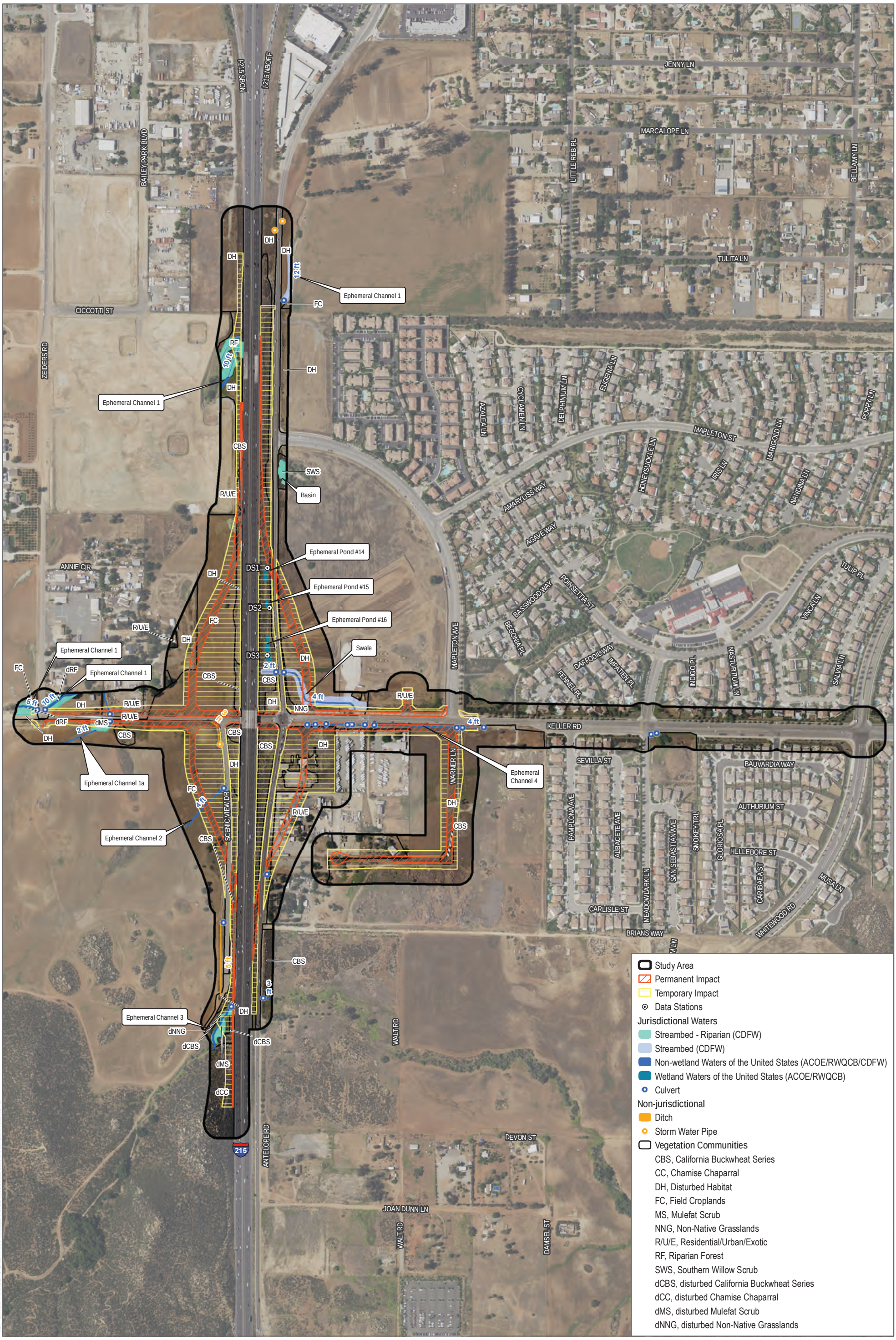
Temporary Impacts

Alternative 1 (No-Build Alternative)

The No-Build Alternative would not include construction of a new interchange at I-215 and Keller Road or improvements to local roads surrounding the proposed Project site. Ground-disturbing activities would not take place and temporary impacts on wetlands and other waters would not occur.

Build Alternative 2

Implementation of Build Alternative 2 would result in temporary impacts on 0.12 acres of potential wetland waters of the United States, as well as State and 0.12 acres of potential non-wetland waters of the United States and State. Additionally, there would be impacts on 0.28 acres of CDFW riparian habitat and 0.49 acres of CDFW non-riparian streambed because of grading for construction access and the associated removal of habitat. Potential temporary impacts to waters of the United States and CDFW jurisdictional streambeds are summarized in Tables 2.3.2-3 and 2.3.2-4. Refer to Figure 2.3-7a.



SOURCE: Jacobs 2018; USDA 2017

0 300 600 Feet

FIGURE 2.3-7a

Impacts to Jurisdictional Waters - Alternative 2

Keller Road/I-215 Interchange Project Natural Environment Study

Table 2.3.2-3. Waters of the United States Impacts Summary for Build Alternative 2 within the 100-foot Biological Study Area

Vegetation Community and/or Land Cover	Wetland Waters of the United States and State (USACE/RWQCB) Acres (linear feet)		Non-wetland Waters of the United States and State (USACE/RWQCB) Acres (linear feet)		Total Acreage (linear feet)
	Permanent	Temporary	Permanent	Temporary	
Ephemeral Channel 1					
Disturbed Habitat	--	--	--	0.01 (31.82)	0.01 (31.82)
Disturbed Riparian Forest	--	--	< 0.01 (7.29)	< 0.01 (15.29)	0.06 (22.58)
Riparian Forest	--	--	--	0.04 (174.59)	0.04 (174.59)
Ephemeral Channel 1a					
Field Croplands	--	--	< 0.01 (22.52)	< 0.01 (17.74)	< 0.01 (40.26)
Residential/Urban/Exotic	--	--	< 0.01 (22.54)	< 0.01 (26.58)	< 0.01 (49.12)
Disturbed Mulefat Scrub	--	--	< 0.01 (15.06)	< 0.01 (59.65)	< 0.01 (74.71)
Ephemeral Channel 2					
Field Croplands	--	--	< 0.01 (39.77)	0.02 (182.46)	0.02 (222.23)
Ephemeral Channel 3					
Disturbed California Buckwheat Series	--	--	--	< 0.01 (44.36)	< 0.01 (44.36)
Disturbed Non-native Grasslands	--	--	--	< 0.01 (21.31)	< 0.01 (21.31)
Disturbed Mulefat Scrub	--	--	--	0.01 (90.03)	0.01 (90.03)
Ephemeral Channel 4					
Disturbed Habitat	--	--	0.05 (570.19)	< 0.01 (60.68)	0.06 (630.87)
Residential/Urban/Exotic	--	--	0.03 (277.18)	--	0.03 (277.18)

Vegetation Community and/or Land Cover	Wetland Waters of the United States and State (USACE/RWQCB) Acres (linear feet)		Non-wetland Waters of the United States and State (USACE/RWQCB) Acres (linear feet)		Total Acreage (linear feet)
	Permanent	Temporary	Permanent	Temporary	
Swale					
California Buckwheat Series	--	--	--	< 0.01 (92.78)	< 0.01 (92.78)
Disturbed Habitat	--	--	0.09 (87.11)	0.02 (227.59)	0.11 (314.69)
Non-native Grasslands	--	--	--	< 0.01 (9.70)	< 0.01 (9.70)
Ephemeral Pond 14					
California Buckwheat Series	--	0.03 (85.31)	--	--	0.03 (85.31)
Ephemeral Pond 15					
California Buckwheat Series	--	0.02 (54.19)	--	--	0.02 (54.19)
Ephemeral Pond 16					
California Buckwheat Series	--	0.08 (169.23)	--	--	0.08 (169.23)
Total[a]	**--**	**0.12 (308.73)**	**0.18 (1,041.66)**	**0.12 (1,054.58)**	**0.42 (2,404.97)**

[a] Acreage may not total due to rounding.

Table 2.3.2-4. Jurisdictional Streambed Impacts Summary for Build Alternative 2 within the 100-foot Biological Study Area

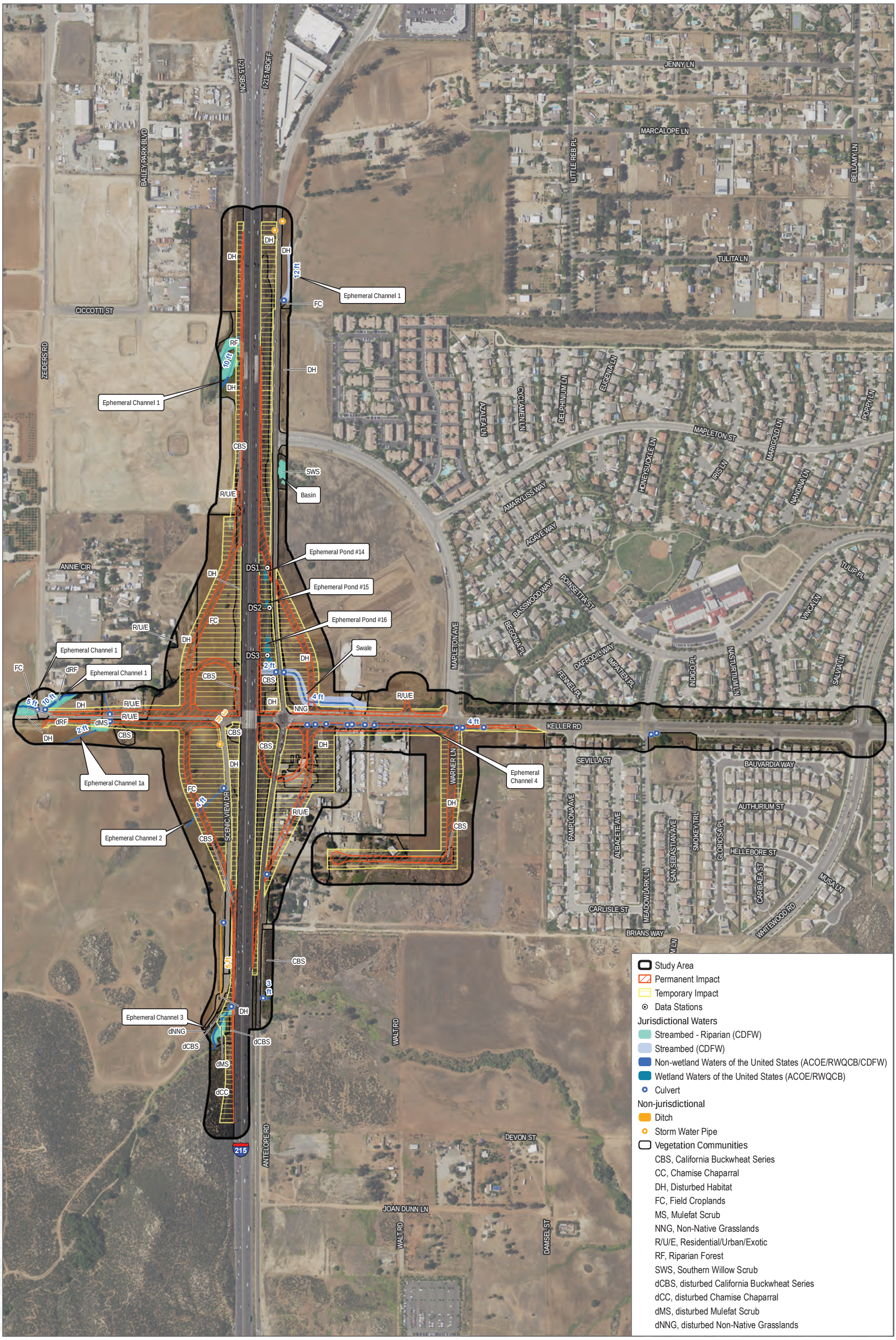
Vegetation Community and/or Land Cover	Jurisdictional Streambed (CDFW)				Total Acreage
	Streambed Riparian (acres)		Streambed (acres)		
	Permanent	Temporary	Permanent	Temporary	
Ephemeral Channel 1					
Disturbed Habitat	--	--	--	0.01	0.01
Disturbed Riparian Forest	0.01	0.04	< 0.01	< 0.01	0.06
Riparian Forest	--	0.09	--	0.04	0.13

Vegetation Community and/or Land Cover	Jurisdictional Streambed (CDFW)				Total Acreage
	Streambed Riparian (acres)		Streambed (acres)		
	Permanent	Temporary	Permanent	Temporary	
Ephemeral Channel 1a					
Field Croplands	--	--	< 0.01	< 0.01	< 0.01
Residential/Urban/Exotic	--	--	< 0.01	< 0.01	< 0.01
Disturbed Mulefat Scrub	0.05	0.06	< 0.01	< 0.01	0.11
Ephemeral Channel 2					
Field Croplands	--	--	< 0.01	0.02	0.02
Ephemeral Channel 3					
Disturbed California Buckwheat Series	--	--	--	< 0.01	< 0.01
Disturbed Non-native Grasslands	--	--	--	< 0.01	< 0.01
Disturbed Mulefat Scrub	0.01	0.09	--	0.01	0.10
Ephemeral Channel 4					
Disturbed Habitat	--	--	0.05	< 0.01	0.06
Residential/Urban/Exotic	--	--	0.03	--	0.03
Swale					
California Buckwheat Series	--	--	--	0.05	0.05
Disturbed Habitat	--	--	0.09	0.20	0.29
Non-native Grasslands	--	--	--	0.03	0.03
Ephemeral Pond 14					
California Buckwheat Series	--	--	--	0.03	0.03
Ephemeral Pond 15					
California Buckwheat Series	--	--	--	0.02	0.02
Ephemeral Pond 16					
California Buckwheat Series	--	--	--	0.08	0.08
Total[a]	**0.06**	**0.28**	**0.18**	**0.49**	**1.02**

[a] Acreage may not total due to rounding.

Build Alternative 3

The implementation of Build Alternative 3 would result in temporary impacts on 0.12 acres of potential wetland waters of the United States, as well as State and 0.12 acres of potential non-wetland waters of the United States and State, along with 0.22 acres of CDFW riparian habitat and 0.56 acres of CDFW non-riparian streambed because of grading for construction access and the associated removal of habitat. Potential temporary impacts to waters of the United States and CDFW jurisdictional streambeds are summarized in Tables 2.3.2-5 and 2.3.2-6. Refer to Figure 2.3-7b.



SOURCE: Jacobs 2018; USDA 2017

0 300 600 Feet

FIGURE 2.3-7b

Impacts to Jurisdictional Waters - Alternative 3

Keller Road/I-215 Interchange Project Natural Environment Study

Table 2.3.2-5. Waters of the United States Impacts Summary for Build Alternative 3 within the 100-foot Biological Study Area

Vegetation Community and/or Land Cover	Wetland Waters of the United States and State (USACE/RWQCB) Acres (linear feet)		Non-wetland Waters of the United States and State (USACE/RWQCB) Acres (linear feet)		Total Acreage (linear feet)
	Permanent	Temporary	Permanent	Temporary	
Ephemeral Channel 1					
Disturbed Habitat	--	--	< 0.01 (1.87)	0.01 (31.82)	0.01 (33.69)
Disturbed Riparian Forest	--	--	< 0.01 (7.28)	< 0.01 (12.70)	< 0.01 (19.98)
Riparian Forest	--	--	--	0.02 (80.57)	0.02 (80.57)
Ephemeral Channel 1a					
Field Croplands	--	--	< 0.01 (22.53)	< 0.01 (17.74)	< 0.01 (40.26)
Residential/Urban/Exotic	--	--	< 0.01 (22.54)	< 0.01 (26.55)	< 0.01 (49.09)
Disturbed Mulefat Scrub	--	--	< 0.01 (15.08)	< 0.01 (59.63)	< 0.01 (74.71)
Ephemeral Channel 2					
Field Croplands	--	--	< 0.01 (39.02)	0.02 (229.91)	0.02 (268.93)
Ephemeral Channel 3					
Disturbed California Buckwheat Series	--	--	--	< 0.01 (44.36)	< 0.01 (44.36)
Disturbed Non-native Grasslands	--	--	--	< 0.01 (21.31)	< 0.01 (21.31)
Disturbed Mulefat Scrub	--	--	--	0.01 (90.03)	0.01 (90.03)
Ephemeral Channel 4					
Disturbed Habitat	--	--	0.05 (542.38)	0.01 (130.07)	0.06 (672.45)
Residential/Urban/Exotic	--	--	0.03 (277.18)	--	0.03 (277.18)
Swale					
California Buckwheat Series	--	--	--	< 0.01 (92.78)	< 0.01 (92.78)

Vegetation Community and/or Land Cover	Wetland Waters of the United States and State (USACE/RWQCB) Acres (linear feet)		Non-wetland Waters of the United States and State (USACE/RWQCB) Acres (linear feet)		Total Acreage (linear feet)
	Permanent	Temporary	Permanent	Temporary	
Disturbed Habitat	--	--	< 0.01 (37.13)	0.03 (301.53)	0.03 (338.66)
Non-native Grasslands	--	--	--	< 0.01 (9.70)	< 0.01 (9.70)
Ephemeral Pond 14					
California Buckwheat Series	< 0.01 (< 0.01)	0.03 (85.31)	--	--	0.03 (85.31)
Ephemeral Pond 15					
California Buckwheat Series	--	0.02 (54.19)	--	--	0.02 (54.19)
Ephemeral Pond 16					
California Buckwheat Series	--	0.08 (169.23)	--	--	0.08 (169.23)
Total[a]	**< 0.01 (< 0.01)**	**0.12 (308.73)**	**0.09 (965.00)**	**0.12 (1,148.70)**	**0.33 (2,422.43)**

[a] Acreage may not total due to rounding.

Table 2.3.2-6. Jurisdictional Streambed Impacts Summary for Build Alternative 3 within the 100-foot Biological Study Area

Vegetation Community and/or Land Cover	Jurisdictional Streambed (CDFW)				Total Acreage
	Streambed Riparian (acres)		Streambed (acres)		
	Permanent	Temporary	Permanent	Temporary	
Ephemeral Channel 1					
Disturbed Habitat	--	--	< 0.01	0.01	0.01
Disturbed Riparian Forest	0.01	0.02	< 0.01	< 0.01	0.04
Riparian Forest	0.03	0.05	--	0.02	0.10
Ephemeral Channel 1a					
Field Croplands	--	--	< 0.01	< 0.01	< 0.01
Residential/Urban/Exotic	--	--	< 0.01	< 0.01	< 0.01
Disturbed Mulefat Scrub	0.05	0.06	< 0.01	< 0.01	0.11

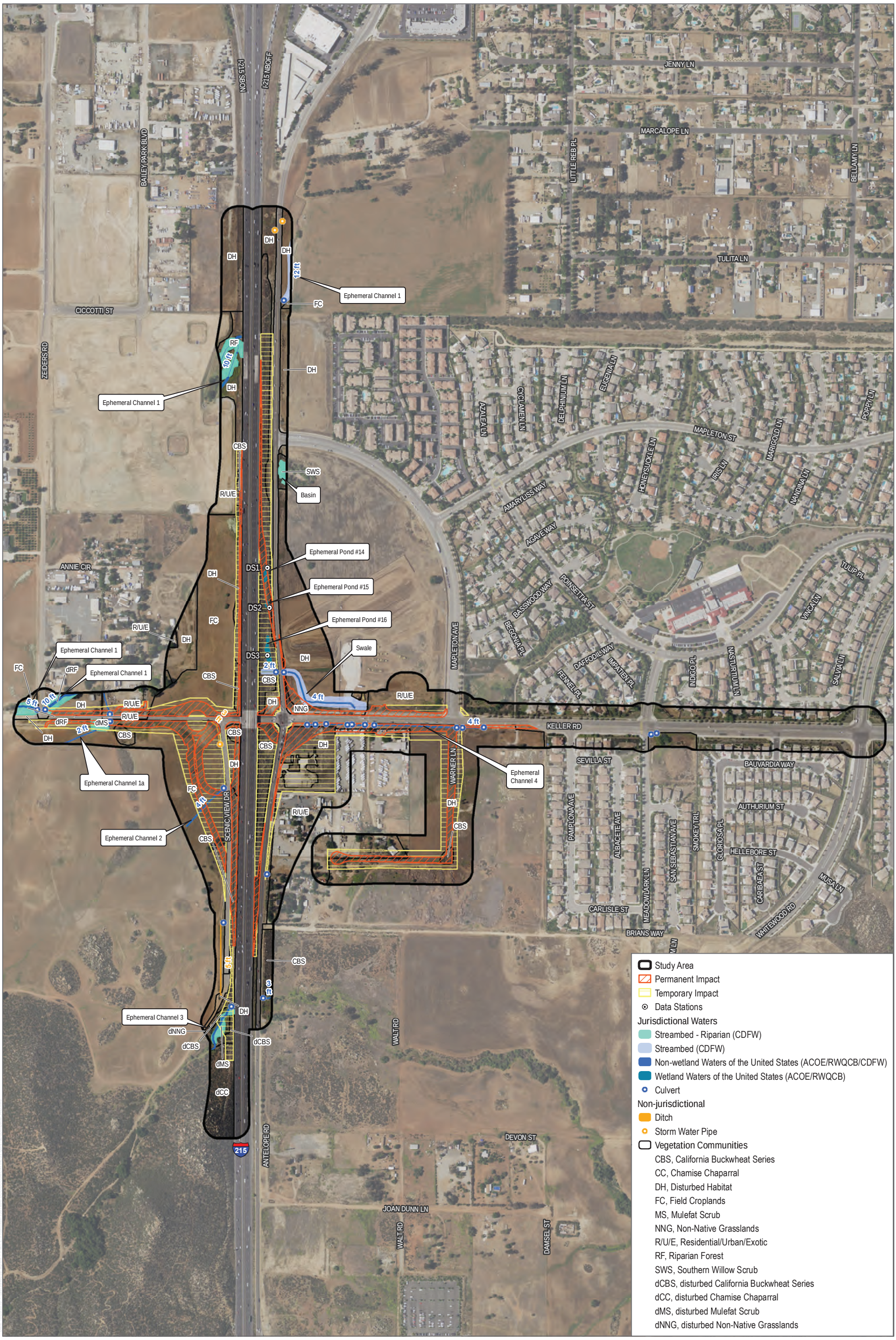
Vegetation Community and/or Land Cover	Jurisdictional Streambed (CDFW)				Total Acreage
	Streambed Riparian (acres)		Streambed (acres)		
	Permanent	Temporary	Permanent	Temporary	
Ephemeral Channel 2					
Field Croplands	--	--	< 0.01	0.02	0.02
Ephemeral Channel 3					
Disturbed California Buckwheat Series	--	--	--	< 0.01	< 0.01
Disturbed Non-native Grasslands	--	--	--	< 0.01	< 0.01
Disturbed Mulefat Scrub	0.01	0.09	--	0.01	0.10
Ephemeral Channel 4					
Disturbed Habitat	--	--	0.05	0.01	0.06
Residential/Urban/Exotic	--	--	0.03	--	0.03
Swale					
California Buckwheat Series	--	--	--	0.05	0.05
Disturbed Habitat	--	--	0.04	0.28	0.32
Non-native Grasslands	--	--	--	0.03	0.03
Ephemeral Pond 14					
California Buckwheat Series	--	--	--	0.03	0.03
Ephemeral Pond 15					
California Buckwheat Series	--	--	--	0.02	0.02
Ephemeral Pond 16					
California Buckwheat Series	--	--	--	0.08	0.08
Total[a]	**0.09**	**0.22**	**0.13**	**0.56**	**1.01**

[a] Acreage may not total due to rounding.

Build Alternative 5

The implementation of Build Alternative 5 would result in temporary impacts on 0.08 acres of potential wetland waters of the United States, as well as State and 0.04 acres of potential non-wetland waters of the United States and State, along

with 0.20 acres of CDFW riparian habitat and 0.17 acres of CDFW non-riparian streambed because of grading for construction access and the associated removal of habitat. Potential temporary impacts to waters of the United States and CDFW jurisdictional streambeds are summarized in Tables 2.3.2-7 and 2.3.2-8. Refer to Figure 2.3-7c.



SOURCE: Jacobs 2018; USDA 2017

0 300 600 Feet

FIGURE 2.3-7c

Impacts to Jurisdictional Waters - Alternative 5

Keller Road/I-215 Interchange Project Natural Environment Study

Table 2.3.2-7. Waters of the United States Impacts Summary for Build Alternative 5 within the 100-foot Biological Study Area

Vegetation Community and/or Land Cover	Wetland Waters of the United States and State (USACE/RWQCB) Acres (linear feet)		Non-wetland Waters of the United States and State (USACE/RWQCB) Acres (linear feet)		Total Acreage (linear feet)
	Permanent	Temporary	Permanent	Temporary	
Ephemeral Channel 1					
Disturbed Habitat	--	--	--	--	--
Disturbed Riparian Forest	--	--	< 0.01 (15.21)	< 0.01 (12.82)	0.01 (28.03)
Riparian Forest	--	--	--	--	--
Ephemeral Channel 1a					
Field Croplands	--	--	< 0.01 (30.78)	< 0.01 (9.48)	< 0.01 (40.26)
Residential/Urban/Exotic	--	--	< 0.01 (23.75)	< 0.01 (29.80)	< 0.01 (53.55)
Disturbed Mulefat Scrub	--	--	< 0.01 (30.31)	< 0.01 (64.98)	< 0.01 (95.29)
Ephemeral Channel 2					
Field Croplands	--	--	< 0.01 (88.32)	0.01 (149.90)	0.02 (238.22)
Ephemeral Channel 3					
Disturbed California Buckwheat Series	--	--	--	< 0.01 (44.36)	< 0.01 (44.36)
Disturbed Non-native Grasslands	--	--	--	< 0.01 (21.31)	< 0.01 (21.31)
Disturbed Mulefat Scrub	--	--	--	0.01 (90.03)	0.01 (90.03)
Ephemeral Channel 4					
Disturbed Habitat	--	--	0.05 (542.38)	--	0.05 (542.38)
Residential/Urban/Exotic	--	--	0.03 (277.18)	--	0.03 (277.18)

Vegetation Community and/or Land Cover	Wetland Waters of the United States and State (USACE/RWQCB) Acres (linear feet)		Non-wetland Waters of the United States and State (USACE/RWQCB) Acres (linear feet)		Total Acreage (linear feet)
	Permanent	Temporary	Permanent	Temporary	
Swale					
California Buckwheat Series	--	--	--	< 0.01 (92.78)	< 0.01 (92.78)
Disturbed Habitat	--	--	< 0.01 (< 0.01)	0.03 (< 0.01)	0.03 (< 0.01)
Non-native Grasslands	--	--	--	< 0.01 (< 0.01)	< 0.01 (< 0.01)
Ephemeral Pond 14					
California Buckwheat Series	0.03 (85.31)	< 0.01 (< 0.01)	--	--	0.03 (85.31)
Ephemeral Pond 15					
California Buckwheat Series	0.01 (29.52)	0.01 (24.67)	--	--	0.02 (54.19)
Ephemeral Pond 16					
California Buckwheat Series	--	0.08 (169.23)	--	--	0.08 (169.23)
Total[a]	**0.04 (114.83)**	**0.08 (193.89)**	**0.09 (1,007.93)**	**0.04 (515.46)**	**0.26 (1,832.11)**

[a] Acreage may not total due to rounding.

Table 2.3.2-8. Jurisdictional Streambed Impacts Summary for Build Alternative 5 within the 100-foot Biological Study Area

Vegetation Community and/or Land Cover	Jurisdictional Streambed (CDFW)				Total Acreage
	Streambed Riparian (acres)		Streambed (acres)		
	Permanent	Temporary	Permanent	Temporary	
Ephemeral Channel 1					
Disturbed Habitat	--	--	--	--	--
Disturbed Riparian Forest	0.02	0.02	< 0.01	< 0.01	0.05
Riparian Forest	--	--	--	--	--

Vegetation Community and/or Land Cover	Jurisdictional Streambed (CDFW)				Total Acreage
	Streambed Riparian (acres)		Streambed (acres)		
	Permanent	Temporary	Permanent	Temporary	
Ephemeral Channel 1a					
Field Croplands	--	--	< 0.01	< 0.01	< 0.01
Residential/Urban/Exotic	--	--	< 0.01	< 0.01	< 0.01
Disturbed Mulefat Scrub	0.06	0.09	< 0.01	< 0.01	0.16
Ephemeral Channel 2					
Field Croplands	--	--	0.01	0.01	0.02
Ephemeral Channel 3					
Disturbed California Buckwheat Series	--	--	--	< 0.01	< 0.01
Disturbed Non-native Grasslands	--	--	--	< 0.01	< 0.01
Disturbed Mulefat Scrub	--	0.09	--	0.01	0.10
Ephemeral Channel 4					
Disturbed Habitat	--	--	0.05	0.01	0.06
Residential/Urban/Exotic	--	--	0.05	--	0.05
Swale					
California Buckwheat Series	--	--	--	0.05	0.05
Disturbed Habitat	--	--	0.01	--	0.01
Non-native Grasslands	--	--	--	--	--
Ephemeral Pond 14					
California Buckwheat Series	--	--	0.03	<0.01	0.03
Ephemeral Pond 15					
California Buckwheat Series	--	--	0.01	0.01	0.02
Ephemeral Pond 16					
California Buckwheat Series	--	--	--	0.08	0.08
Total[a]	**0.09**	**0.20**	**0.14**	**0.17**	**0.60**

[a] Acreage may not total due to rounding.

Permanent Impacts

Alternative 1 (No-Build Alternative)

The No-Build Alternative would not include the construction of a new interchange at the I-215 and Keller Road or improvements to local roads surrounding the proposed Project site. Ground-disturbing activities would not take place, and permanent impacts on wetlands and other waters would not occur.

Build Alternative 2

Based on guidance at the time of the delineation, the implementation of Build Alternative 2 would result in no direct permanent impacts on wetland waters of the United States or State; however, direct, permanent impacts would occur on 0.18 acres of non-wetland waters of the United States and State because of construction activities such as grading and removal of habitat, as summarized in Table 2.3.2-3. The implementation of Build Alternative 2 would also result in direct permanent impacts on 0.06 acres of CDFW riparian habitat and 0.18 acres of CDFW non-riparian streambed, as summarized in Table 2.3.2-4. Refer to Figure 2.3-7a.

Build Alternative 3

Based on guidance at the time of the delineation, the implementation of Build Alternative 3 would result in direct permanent impacts on less than 0.01 acres of wetland waters of the United States and State and 0.09 acres of non-wetland waters of the United States and State because of construction activities such as grading and removal of habitat, as summarized in Table 2.3.2-5. The implementation of Build Alternative 3 would also result in direct permanent impacts on 0.09 acres of CDFW riparian habitat and 0.13 acres of CDFW non-riparian streambed, as summarized in Table 2.3.2-6. Refer to Figure 2.3-7b.

Build Alternative 5

Based on guidance at the time of the delineation, the implementation of Build Alternative 5 would result in direct permanent impacts on 0.04 acres of wetland waters of the United States and State and 0.09 acres of non-wetland waters of the United States and State because of construction activities such as grading and removal of habitat, as summarized in Table 2.3.2-7. The implementation of Build Alternative 5 would also result in direct permanent impacts on 0.09 acres of CDFW riparian habitat and 0.14 acres of CDFW non-riparian streambed, as summarized in Table 2.3.2-8. Refer to Figure 2.3-7c.

AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES

Even with implementation of BIO-1 and the following additional avoidance and minimization measures, permanent impacts on jurisdictional waters would still be adverse and would require mitigation, should USACE take jurisdiction over the ephemeral channels. Compensatory mitigation is therefore proposed as described in the Compensatory Mitigation subsection. This, as well as the implementation of avoidance and minimization measures BIO-8 through BIO-11, would ensure no net loss of jurisdictional waters.

BIO-1 **Avoidance of Special-status Vegetation Communities.** Before the initiation of construction activities, a qualified biologist will implement the following avoidance measures to avoid, minimize, and preserve in place special-status vegetation communities:

- BIO-1a. The proposed Project impact area (that is, footprint of disturbance) will be minimized to the maximum extent feasible. Access to sites will be via pre-existing access routes to the greatest extent possible.
- BIO-1b. The limits of disturbance will be clearly defined and marked in the field, and reviewed by a qualified biologist before the initiation of work.
- BIO-1c. An environmentally sensitive area marking special-status vegetation communities will be established with brightly colored fencing or flagging.
- BIO-1d. During clearing and grubbing activities, a biological monitor will be present to ensure the environmentally sensitive area is not disturbed by construction.
- BIO-1e. The qualified project biologist will monitor construction activities for the duration of the proposed Project, to ensure that practicable measures are being employed to avoid incidental disturbance of special-status vegetation communities outside the proposed Project impact area.
- BIO-1f. If impacts cannot be avoided, temporarily impacted areas will be restored as required by the proposed Project.

Any permanent impacts will be compensated as required for that resource by the proposed Project.

BIO-9 **Avoidance of Jurisdictional Waters.** Before the initiation of construction activities, an environmentally sensitive area demarcating jurisdictional waters will be established with brightly colored fencing or flagging.

BIO-10 **Restoration of Temporarily Impacted Jurisdictional Waters.** Jurisdictional waters temporarily impacted by site construction activities will be restored to pre-existing conditions, including being recontoured to natural grade (if the grade was modified during the temporary disturbance activity), and revegetated with native species occurring in the proposed Project impact area under existing conditions. The restoration of temporarily impacted wetland waters (ephemeral ponds) will include the following: (1) a survey of the impacted wetlands during the growing season before construction activities to document the extent of the ponded area and the vegetation present within the wetland; (2) the salvage of topsoil from the impacted sites conducted by a qualified restoration ecologist at all impacted wetlands before ground-disturbing activities. The topsoil will be stored in a dry location outside of direct sunlight and will be used for the reestablishment of the pond.

BIO-11 **Best Management Practices for Jurisdictional Waters.**

- BIO-11a. Water pollution and erosion control plans will be developed and implemented in accordance with RWQCB requirements. Plans for water pollution and erosion control will be prepared for all discretionary projects involving the movement of earth in excess of 50 cubic yards. The plans will describe sediment and hazardous materials control, dewatering or diversion structures, fueling and equipment management practices, and the use of plant material for erosion control. Plans will be reviewed and approved by the County and participating jurisdictions before construction.

- BIO-11b. Short-term stream diversions will be accomplished by using sandbags or other methods that will result in minimal instream impacts.

Compensatory Mitigation

The following compensatory mitigation measure would be implemented by the proposed Project:

BIO-12 **Compensation for Impacts on Wetland and Non-wetland Jurisdictional Waters.** Permanent impacts on wetland and non-wetland waters of the United States and jurisdictional streambed will be offset with compensatory mitigation at a 2:1 ratio or as otherwise determined in coordination with the resource agencies, including the USACE, RWQCB, and CDFW. Mitigation will be through contribution to an agency-approved mitigation bank or through payment to an approved in-lieu fee program.

2.3.3 Plant Species

REGULATORY SETTING

The U.S. Fish and Wildlife Service (USFWS) and California Department of Fish and Wildlife (CDFW) have regulatory responsibility for the protection of special-status plant species. “Special-status” species are selected for protection because they are rare and/or subject to population and habitat declines. Special status is a general term for species that are provided varying levels of regulatory protection. The highest level of protection is given to threatened and endangered species; these are species that are formally listed or proposed for listing as endangered or threatened under the Federal Endangered Species Act (FESA) and/or the California Endangered Species Act (CESA). Please see the Threatened and Endangered Species section 2.3.5 in this document for detailed information about these species.

This section of the document discusses all other special-status plant species, including CDFW species of special concern, USFWS candidate species, and California Native Plant Society (CNPS) rare and endangered plants.

The regulatory requirements for FESA can be found at 16 United States Code (USC) Section 1531, et seq. See also 50 Code of Federal Regulations (CFR) Part 402. The regulatory requirements for CESA can be found at California Fish and Game Code, Section 2050, et seq. Department projects are also subject to

the Native Plant Protection Act, found at California Fish and Game Code, Section 1900-1913, and the California Environmental Quality Act (CEQA), found at California Public Resources Code, Sections 21000-21177.

AFFECTED ENVIRONMENT

This section of the document is based on the NES (Caltrans 2021a) prepared for the proposed Project.

A field investigation and literature review were conducted between December 2014 and September 2018 to determine existing biological resources and special-status plant species within the vicinity of the proposed Project site. Eleven endangered or threatened plant species are known to occur within the region, and are discussed in Section 2.3.5, Threatened and Endangered Species. The literature review indicated 74 non-listed special-status plant species known to occur within the region, and 35 species were determined to have suitable habitat within the 100-foot BSA.

Focused field surveys confirmed the presence of two non-listed special-status plant species: paniculate tarplant (*Deinandra paniculata*) and small-flowered microseris (*Microseris douglasii* ssp. *platycarpha*). Paniculate tarplant is a California Rare Plant Rank 4.2 species, meaning the species is limited in distribution and fairly endangered in California. The species occurs on mesic, sometimes sandy soils within coastal scrub, valley and foothill grassland, and vernal pool (CNPS 2018). It is not covered under the MSHCP. Paniculate tarplant was documented in the 100-foot BSA within Ephemeral Pond 16, found in California buckwheat scrub and disturbed habitat (Figures 2.3-8a through 2.3-8c). Small-flowered microseris is a California Rare Plant Rank 4.2 species that is covered under the MSHCP. This species is associated with perennial grasslands on clay lenses, cobbly clay soils, and on the periphery of vernal pools (County of Riverside 2003). This species was documented in the 100-foot BSA within Ephemeral Pond 15 in California buckwheat scrub habitat (Figures 2.3-8a through 2.3-8c).

The focused surveys confirmed the absence of the remaining 33 non-listed special-status plant species from the 100-foot BSA.

ENVIRONMENTAL CONSEQUENCES

Temporary Impacts

Alternative 1 (No-Build Alternative)

The No-Build Alternative would not include the construction of a new interchange at the I-215 and Keller Road or improvements to local roads surrounding the proposed Project site. Ground-disturbing activities would not take place and temporary impacts on special-status plant species would not occur.

Build Alternatives 2, 3, and 5

The implementation of the Build Alternatives would result in temporary impacts on non-listed special-status plant species within the 100-foot BSA, as described in the following paragraphs.

Ground-disturbing activities related to the construction of Build Alternatives 2, 3, and 5 would result in temporary impacts on two non-listed special-status plant species: paniculate tarplant and small-flowered microseris. Temporary impacts resulting from construction could include changes in hydrology, including sedimentation and erosion, the generation of fugitive dust, and the introduction of chemical pollutants, including herbicides. Table 2.3.3-1 summarizes the temporary impacts on occupied habitat for both species. Impacts are also depicted on Figures 2.3-8a, 2.3-8b, and 2.3-8c for Build Alternatives 2, 3, and 5, respectively.

Table 2.3.3-1. Potential Ground-disturbing Impacts on Occupied Habitat for Non-listed Plant Species from the Proposed Project

Non-listed Plant Species	Occupied Habitat (acres)	Build Alternative 2 (acres)		Build Alternative 3 (acres)		Build Alternative 5 (acres)	
		Temporary	Permanent	Temporary	Permanent	Temporary	Permanent
Paniculate Tarplant	0.08	0.07	--	0.07	--	0.07	--
Small-flowered Microseris	0.02	0.02	--	0.02	--	0.01	0.01
Total	**0.10**	**0.09**	**--**	**0.09**	**--**	**0.08**	**0.01**

The implementation of Build Alternative 2 would result in temporary impacts on 0.07 acres of occupied habitat for paniculate tarplant and 0.02 acres of occupied habitat for small-flowered microseris.

The implementation of Build Alternative 3 would result in temporary impacts on 0.07 acres of occupied habitat for paniculate tarplant and 0.02 acres of occupied habitat for small-flowered microseris.

The implementation of Build Alternative 5 would result in temporary impacts on 0.07 acres of occupied habitat for paniculate tarplant and 0.01 acres of occupied habitat for small-flowered microseris.

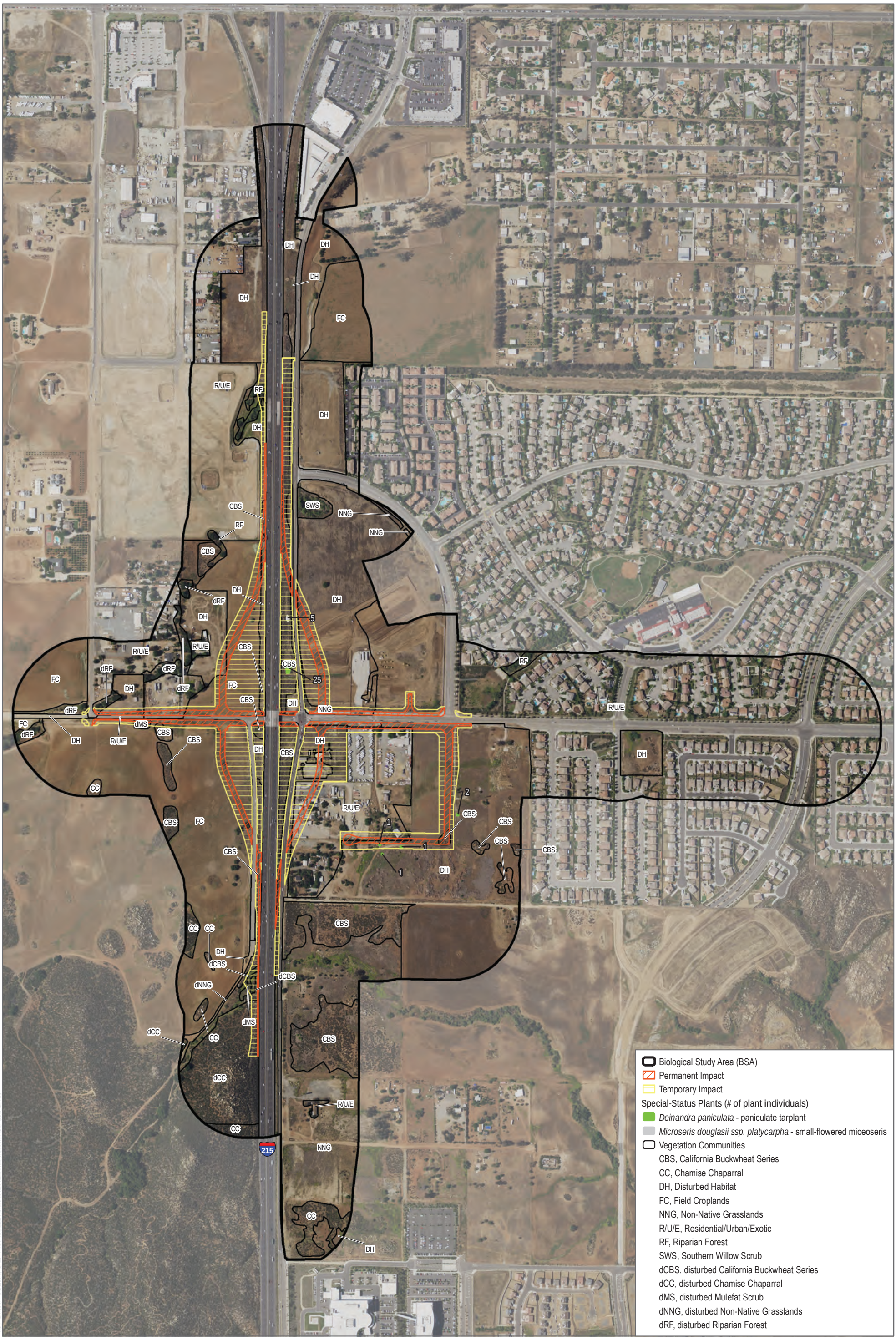
Permanent Impacts

Alternative 1 (No-Build Alternative)

The No-Build Alternative would not include the construction of a new interchange at the I-215 and Keller Road or improvements to local roads surrounding the proposed Project site. Ground-disturbing activities would not take place and permanent direct or indirect impacts on special-status plant species would not occur.

Build Alternatives 2, 3, and 5

Build Alternatives 2 and 3 would not impact special-status plant species. The implementation of Build Alternative 5 would result in permanent impacts on 0.01 acres of occupied habitat for small-flowered microseris, and shown on Figures 2.3-8a, 2.3-8b, and 2.3-8c.



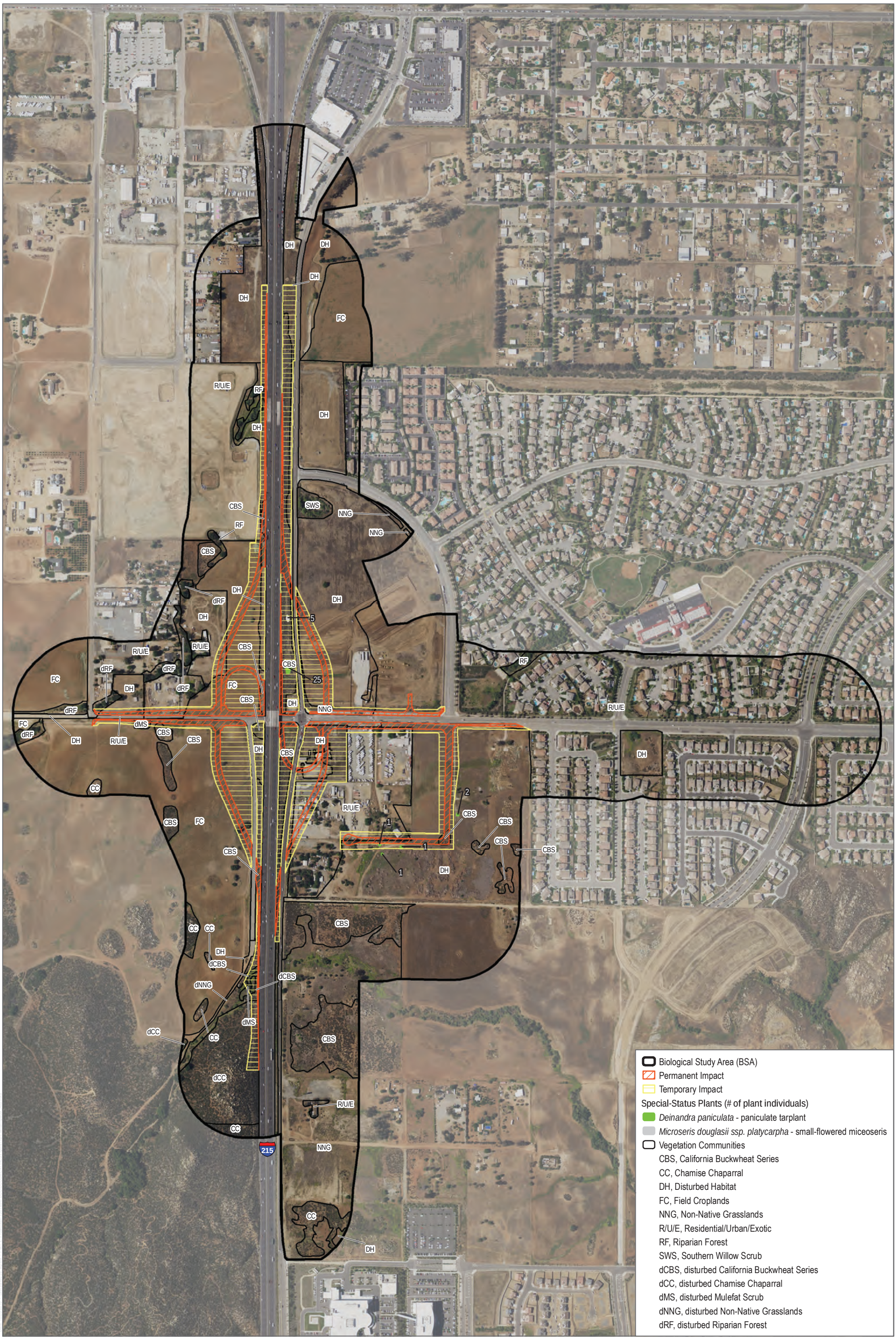
SOURCE: Jacobs 2018; Riverside County 2018; USDA 2017

0 300 600 Feet

FIGURE 2.3-8a

Impacts to Special-Status Plants Build Alternative 2

I-215/Keller Road Interchange Project



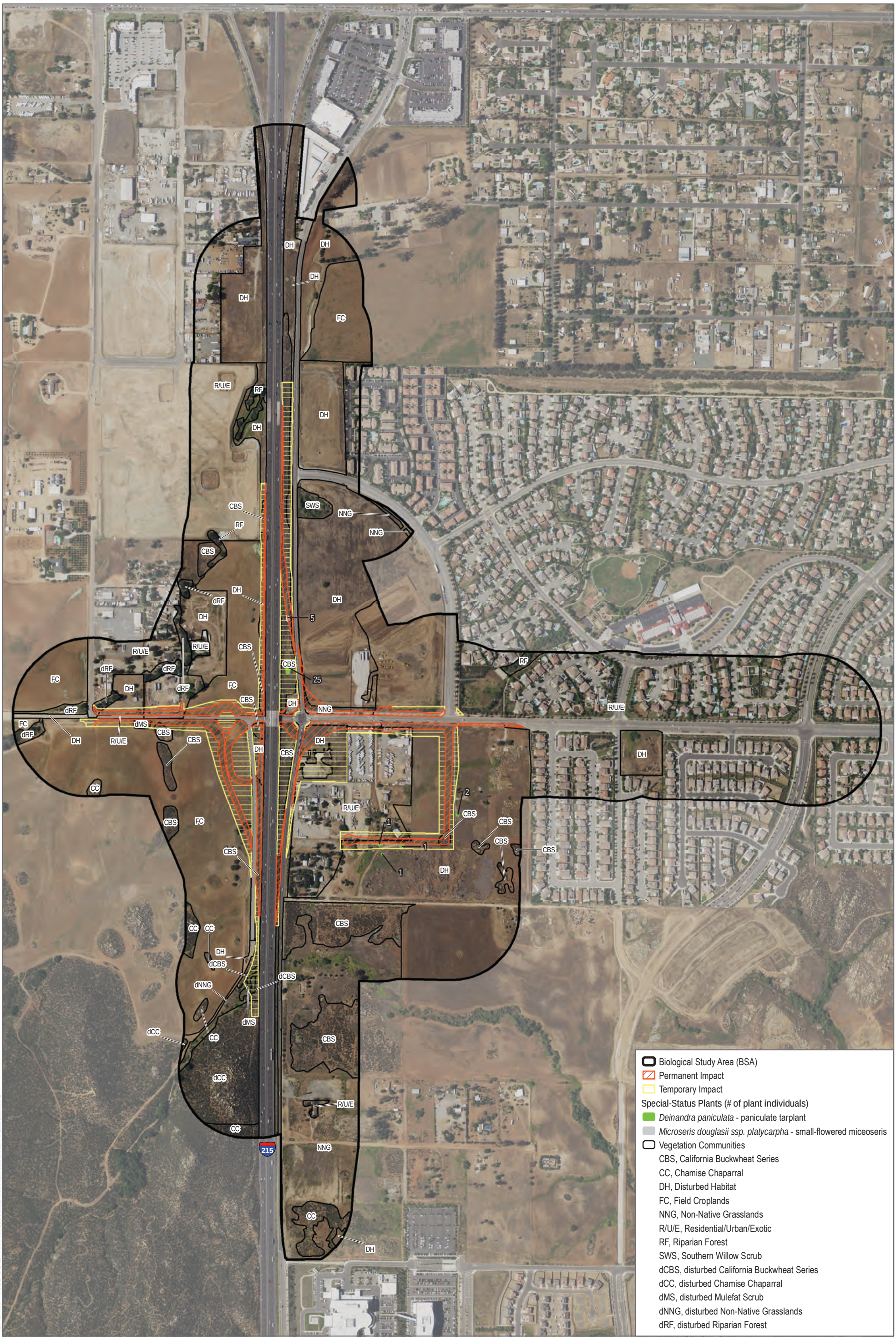
SOURCE: Jacobs 2018; Riverside County 2018; USDA 2017

0 300 600 Feet

FIGURE 2.3-8b

Impacts to Special-Status Plants Build Alternative 3

I-215/Keller Road Interchange Project



SOURCE: Jacobs 2018; Riverside County 2018; USDA 2017

0 300 600 Feet

FIGURE 2.3-8c

Impacts to Special-Status Plants Build Alternative 5

I-215/Keller Road Interchange Project

Ground-disturbing activities related to proposed Project construction could permanently and directly impact one of the two non-listed special-status plant species identified previously: small-flowered microseris. As summarized in Table 2.3.3-1, Build Alternative 2 and Build Alternative 3 would not result in permanent impacts on paniculate tarplant or small-flowered microseris. Build Alternative 5 would not result in permanent impacts on paniculate tarplant but would result in permanent impacts on 0.01 acres of occupied habitat for small-flowered microseris.

Small-flowered microseris is a species covered by the MSHCP; therefore, potential impacts on this species would be offset by compliance with the MSHCP, including payment of the development fee. Therefore, no additional measures would be required for impacts on small-flowered microseris. With the implementation of avoidance measure BIO-12 and mitigation measure BIO-13, it is anticipated that the proposed Project would not result in a net loss of paniculate tarplant or small-flowered microseris and would therefore have no net adverse effects.

AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES

The following avoidance measure would be implemented by the proposed Project:

BIO-13 **Avoidance of Special-status Plants.** Before the start of any ground- or vegetation-disturbing activities, a qualified biologist will establish environmentally sensitive areas (ESA) to protect and avoid special-status plants that occur outside of the proposed Project impact area and within 100 feet of the proposed Project impact area. The locations of ESAs will be clearly depicted on the proposed Project design plans. ESAs will be clearly delineated in the field with temporary construction fencing to ensure that avoided plants are not inadvertently harmed during construction. A qualified biologist will conduct weekly monitoring of the ESAs that protect special-status plant occurrences. Construction activities will stop in the vicinity (within 100 feet) of an ESA if it is determined as a result of monitoring that corrective actions are necessary to avoid and protect the ESA.

Compensatory Mitigation

The following compensatory mitigation measure would be implemented by the proposed Project for paniculate tarplant should they be discovered during preconstruction surveys:

BIO-14 **Mitigation for Impacts on Special-status Plants.** Before ground-disturbing activities affecting Ephemeral Ponds 15 or 16, the City of Murrieta will prepare and implement a mitigation plan for paniculate tarplant. The plan will include the following components:

- Identification of suitable locations to establish similar habitat conditions based on soil, topography, and hydrology conditions.
- Collection of seeds the season before construction activities and/or salvage of topsoil from the impacted occupied habitat will be conducted by a qualified restoration ecologist. The topsoil will be stored in a dry location outside of direct sunlight and will be used for the creation of the mitigation pond.
- Performance criteria specific to the species and conditions at the impacted site.
- Maintenance, monitoring, and reporting until performance criteria have been met.

2.3.4 Animal Species

REGULATORY SETTING

Many state and federal laws regulate impacts to wildlife. The U.S Fish and Wildlife Service (USFWS), the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NOAA Fisheries), and the California Department of Fish and Wildlife (CDFW) are responsible for implementing these laws. This section discusses potential impacts and permit requirements associated with animals not listed or proposed for listing under the federal or state Endangered Species Act. Species listed or proposed for listing as threatened or endangered are discussed in the Threatened and Endangered Species Section 2.3.5 below. All other special-status animal species are discussed here, including CDFW fully protected species and species of special concern, and USFWS or NOAA Fisheries candidate species.

Federal laws and regulations relevant to wildlife include the following:

- National Environmental Policy Act
- Migratory Bird Treaty Act
- Fish and Wildlife Coordination Act

State laws and regulations relevant to wildlife include the following:

- California Environmental Quality Act
- Sections 1600 – 1603 of the California Fish and Game Code
- Sections 4150 and 4152 of the California Fish and Game Code

Local laws and regulations relevant to wildlife include the following:

- Western Riverside County MSHCP

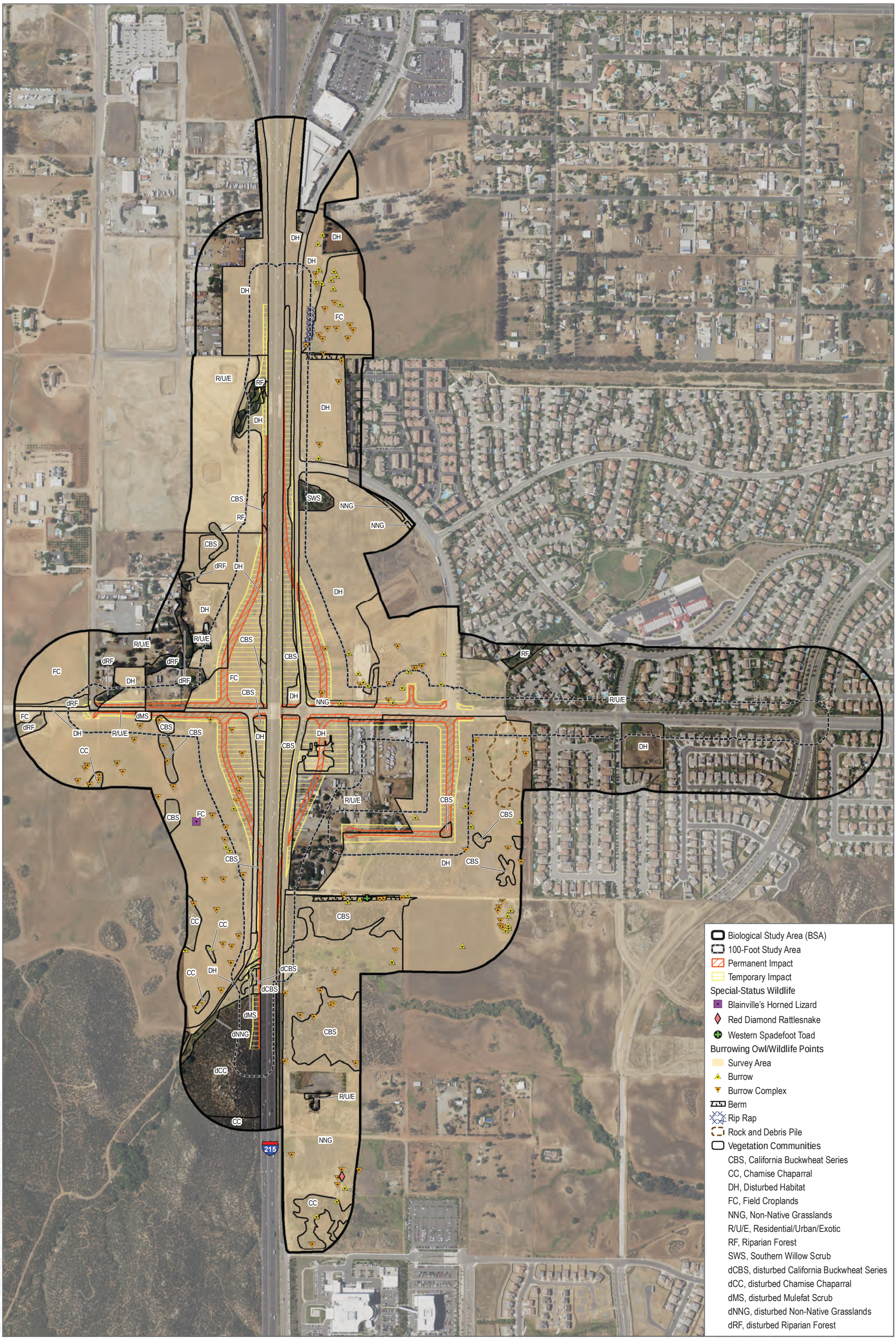
AFFECTED ENVIRONMENT

This section of the document is based on the NES (Caltrans 2021a) prepared for the proposed Project.

A field investigation and literature review were conducted between December 2014 and September 2018 to determine existing biological resources and special-status animal species within the vicinity of the proposed Project site. The proposed Project site's adjacent land uses primarily include residential development, undeveloped land, and commercial development. The BSA is in a relatively disturbed area and lacks contiguous habitat, leading to an overall low wildlife diversity.

Within the BSA, two CDFW fully protected bird species have a low potential to occur: golden eagle *(Aquila chrysaetos*) and white-tailed kite *(Elanus leucurus*). One California species of special concern (SSC), the California horned lark, has a high potential to occur, although not detected during surveys. All of these species are covered under the MSHCP.

One special-status amphibian species, western spadefoot (SSC) (*Spea hammondii*), and two special-status reptile species, red diamond rattlesnake (SSC) (*Crotalus ruber*) and Blainville's horned lizard (SSC) (*Phrynosoma blainvillii*), were observed (Figures 2.3-9a, 2.3-9b, and 2.3-9c). All of the species are covered under the MSHCP.



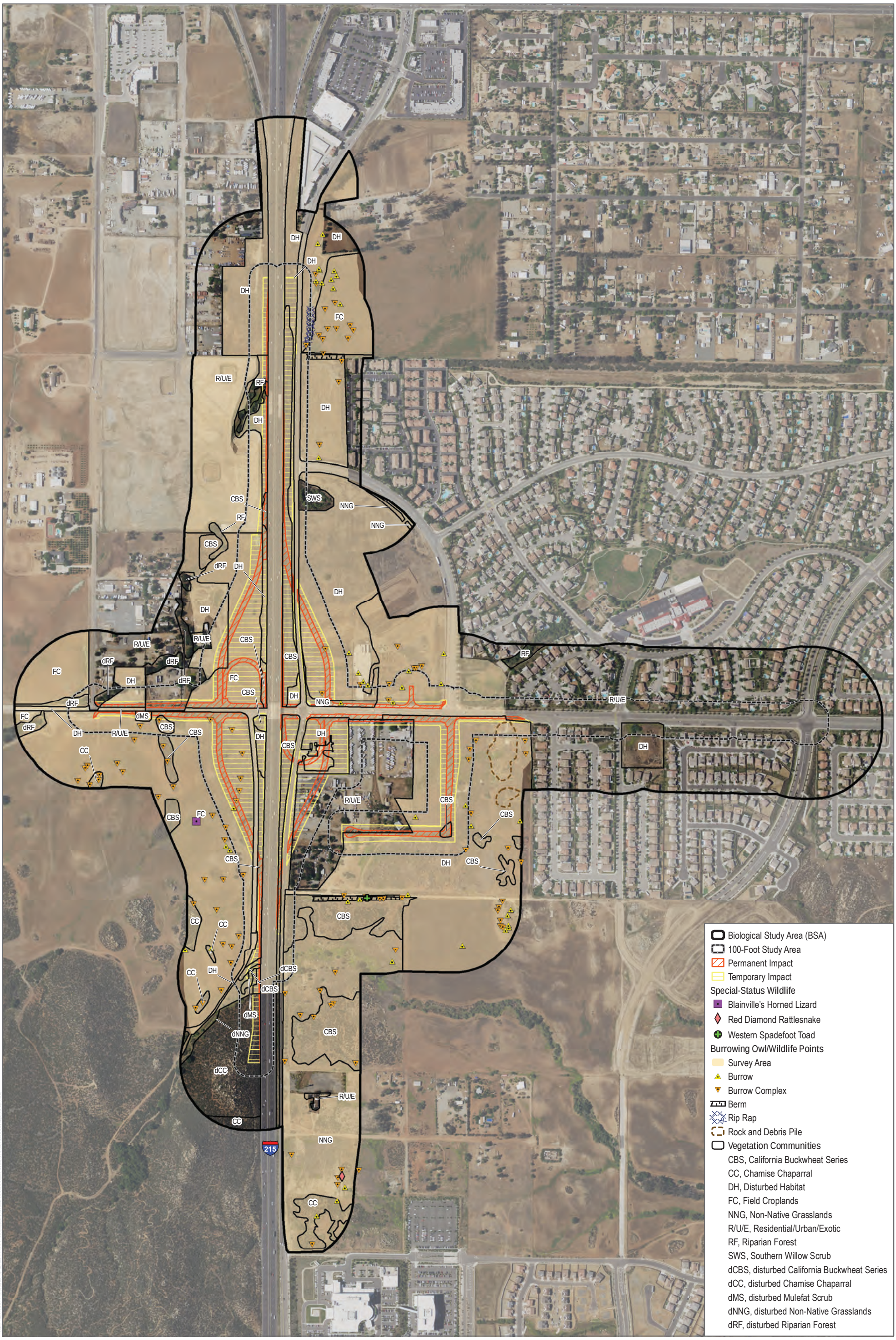
SOURCE: Jacobs 2018; Riverside County 2018; USDA 2017

0 300 600 Feet

FIGURE 2.3-9a

Impacts to Burrowing Owl and Special-Status Wildlife - Build Alternative 2

Interstate 215 Keller Road Interchange Project Natural Environment Study



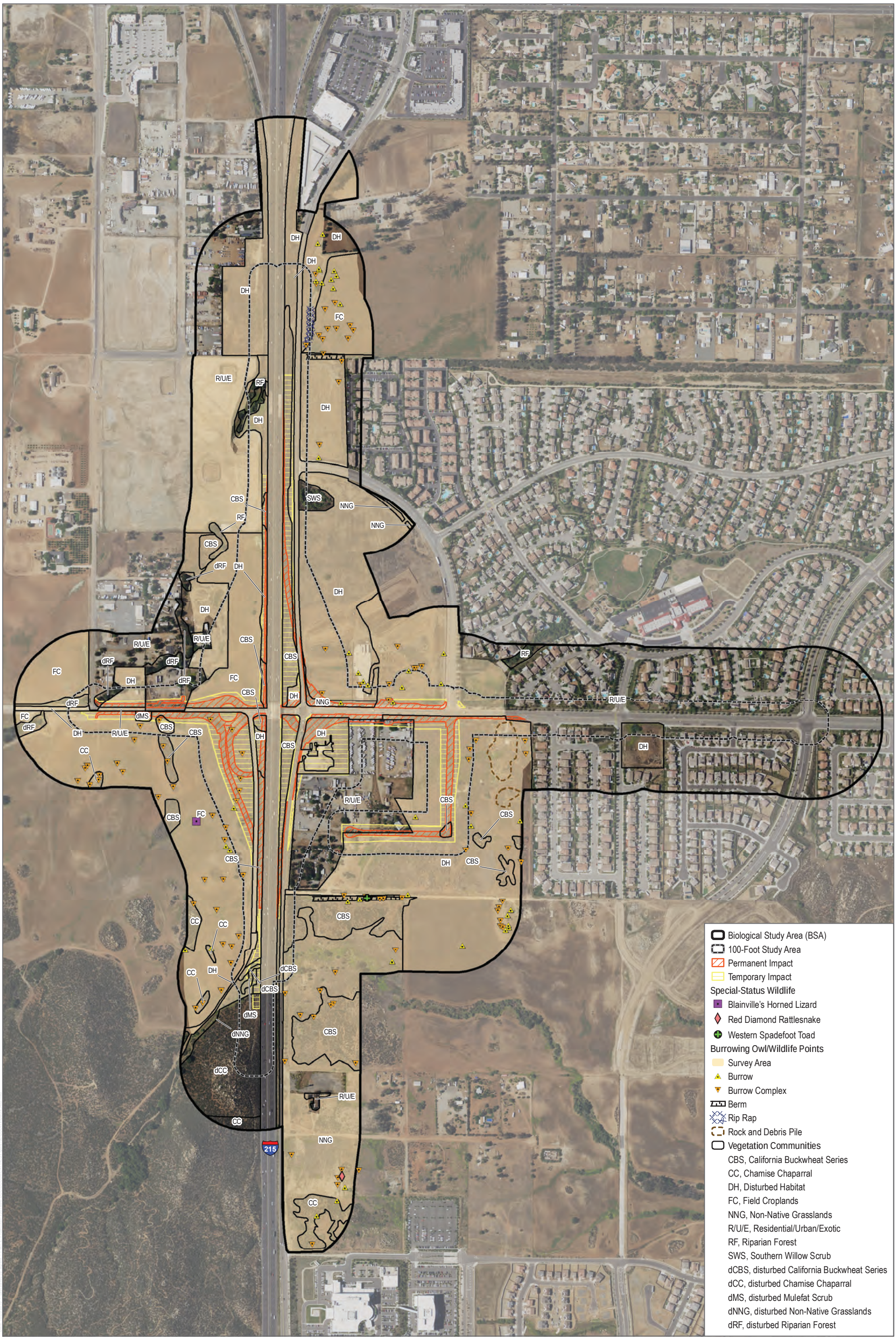
SOURCE: Jacobs 2018; Riverside County 2018; USDA 2017

0 300 600 Feet

FIGURE 2.3-9b

Impacts to Burrowing Owl and Special-Status Wildlife - Build Alternative 3

Interstate 215 Keller Road Interchange Project Natural Environment Study



SOURCE: Jacobs 2018; Riverside County 2018; USDA 2017

0 300 600 Feet

FIGURE 2.3-9c

Impacts to Burrowing Owl and Special-Status Wildlife - Build Alternative 5

Interstate 215 Keller Road Interchange Project Natural Environment Study

Although not observed, the BSA contains potential habitat for six special-status mammal species, all of which have an SSC designation: northwestern San Diego pocket mouse (*Chaetodipus fallax*), Dulzura pocket mouse (*Chaetodipus californicus femoralis*), southern grasshopper mouse (*Onychomys torridus*), Los Angeles pocket mouse, San Diego black-tailed jackrabbit *(Lepus californicus),* and American badger (*Taxidea taxus*). The northwestern San Diego pocket mouse, Los Angeles pocket mouse, and San Diego black-tailed jackrabbit are MSHCP-covered species.

For a full list of animal species detected in the BSA, refer to the NES. State fully protected and non-listed special-status animal species are discussed in further detail in the following subsections.

Golden Eagle

Golden eagle is a state fully protected species that is covered by the MSHCP. This species often occurs within mountainous canyons, rimrock terrain of open desert, and grassland areas (Kochert et al. 1999). The nearest documented occurrence of golden eagle is from 1990 and located approximately 8.6 miles southwest of the BSA (CDFW 2018). Survey results indicate that the BSA contains ample open grassland and shrubland that would support foraging for this species but does not contain cliff sides or large trees that would support nesting for the species. However, there are hills on the eastern side of I-215, outside the proposed Project study area, that could provide nesting habitat with the potential for golden eagle to forage within the study area.

White-tailed Kite

White-tailed kite is a state fully protected species that is covered by the MSHCP. This species typically occurs in low-elevation grassland, wetland, oak woodland, low shrub, open woodlands, or savanna habitats. There are no documented occurrences of white-tailed kite within 5 miles of the BSA (CDFW 2018); however, the BSA does contain open grassland and low shrubland that could be used for nesting and foraging for this species.

California Horned Lark

The California horned lark is a California SSC and is covered by the MSHCP. This species has a high potential to occur within the BSA and typically occurs in open habitat lacking trees and large shrubs, where it can take cover among grasses, small shrubs, clods of soil, or rocks (Zeiner et al. 1990). Numerous pairs

were observed on the adjacent Kaiser Permanente Murrieta Medical Campus property before its construction (Caltrans 2014).

Blainville's Horned Lizard and Red Diamond Rattlesnake

Two reptiles considered California SSC were observed within the BSA, Blainville's horned lizard and red diamond rattlesnake, which are also MSHCP-covered species. There are numerous documented occurrences of Blainville's horned lizard, the nearest being approximately 0.30 mile south of the BSA (CDFW 2018). There are no documented occurrences in the California Natural Diversity Database (CNDDB) of red diamond rattlesnake within 5 miles of the BSA (CDFW 2018); however, both species were observed during proposed Project surveys. The BSA contains grassland, agricultural land, and low shrubland vegetation, in addition to numerous ground squirrel burrows and anthropogenic structures that could be used as burrow surrogates for both Blainville's horned lizard and red diamond rattlesnake. Blainville's horned lizard was observed within agricultural land in the southwestern portion of the BSA, and red diamond rattlesnake was observed within non-native grassland in the southern portion of the BSA.

Western Spadefoot

One amphibian considered a California SSC, and an MSHCP-covered species, was observed within the BSA: western spadefoot. The western spadefoot occurs in a variety of habitats, but is most common in grasslands with vernal pools or mixed grassland/coastal sage scrub areas (Holland and Goodman 1998). There are several documented occurrences of western spadefoot within 5 miles of the BSA, the nearest being approximately 2.5 miles to the southeast (CDFW 2018). The BSA contains open scrub and grassland habitat that could support western spadefoot, and the species was observed during surveys within a roadside pond next to California buckwheat scrub.

Special-status Mammals

As stated earlier in this section, six mammals considered California SSC have a moderate potential to occur within the BSA: northwestern San Diego pocket mouse, Dulzura pocket mouse, southern grasshopper mouse, Los Angeles pocket mouse, San Diego black-tailed jackrabbit, and American badger. The northwestern San Diego pocket mouse, Los Angeles pocket mouse, and San Diego black-tailed jackrabbit are MSHCP-covered species.

The nearest documented occurrence of northwestern San Diego pocket mouse is approximately 2.3 miles south of the BSA, and the BSA contains suitable coastal scrub and gravelly soils that could support this species. The nearest documented occurrence of Dulzura pocket mouse is approximately 5 miles south of the BSA, and the BSA contains open, herbaceous vegetation and high disturbance that could support this species. Southern grasshopper mouse has not been recorded within 5 miles of the BSA; however, the BSA contains ample grassland and scrub vegetation that could support this species. There is one historical occurrence of Los Angeles pocket mouse within 5 miles of the BSA, and the BSA contains grassland and coastal scrub that could support this species. The nearest documented occurrence of San Diego black-tailed jackrabbit is approximately 1.8 miles southeast of the BSA, and the BSA contains suitable open scrub habitat that could support this species. Numerous black-tailed jackrabbits were observed within the BSA during surveys. American badger has not been recorded within 5 miles of the BSA; however, the BSA contains open, treeless habitat and friable soils that could support this species.

ENVIRONMENTAL CONSEQUENCES

Temporary Impacts

Alternative 1 (No-Build Alternative)

The No-Build Alternative would not include the construction of a new interchange at the I-215 and Keller Road or improvements to local roads surrounding the proposed Project site, and temporary impacts on special-status animal species would not occur.

Build Alternatives 2, 3, and 5

Ground-disturbing activities related to the implementation of Build Alternatives 2, 3, or 5 would result in temporary impacts on suitable habitat for state fully protected and non-listed special-status species. Potential temporary impacts for each species are described in detail in the following subsections and shown on Figures 2.3-9a, 2.3-9b, and 2.3-9c.

Golden Eagle

The implementation of Build Alternatives 2, 3, and 5 would result in temporary impacts on foraging habitat for this species. However, due to the linear nature of the proposed Project, the implementation of Build Alternatives 2, 3, or 5 would not result in impacts on large blocks of foraging habitat, and potential impacts on golden eagle foraging would not be substantially adverse. All habitat, as shown in

Table 2.3.1-1 in Section 2.3.1, Natural Communities, is considered foraging habitat for the golden eagle. The implementation of Build Alternative 2 would result in temporary impacts on 30.50 acres of foraging habitat, the implementation of Build Alternative 3 would result in temporary impacts on 32.86 acres of suitable habitat, and the implementation of Build Alternative 5 would result in temporary impacts on 19.10 acres of suitable habitat.

White-tailed Kite

The construction of Build Alternatives 2, 3, and 5 would result in temporary impacts on suitable habitat for white-tailed kite, as summarized in Table 2.3.4-1. The implementation of Build Alternative 2 would result in temporary impacts on 0.34 acres of suitable habitat, the implementation of Build Alternative 3 would result in temporary impacts on 0.26 acres of suitable habitat, and the implementation of Build Alternative 5 would result in temporary impacts on 0.21 acres of suitable habitat.

Table 2.3.4-1. Potential Ground-disturbing Impacts on Suitable Habitat for Nesting White-tailed Kite from the Proposed Project

Vegetation Community/Land Cover	Build Alternative 2 (acres)		Build Alternative 3 (acres)		Build Alternative 5 (acres)	
	Temporary	Permanent	Temporary	Permanent	Temporary	Permanent
Riparian Forest/Woodland/Scrub						
Disturbed Mulefat Scrub	0.16	0.05	0.16	0.05	0.19	0.07
Riparian Forest	0.13	--	0.07	0.03	--	--
Disturbed Riparian Forest	0.04	0.01	0.03	0.01	0.02	0.03
Southern Willow Scrub	--	--	--	--	--	--
Total[a]	**0.34**	**0.07**	**0.26**	**0.09**	**0.21**	**0.09**

[a] May not total due to rounding.

California Horned Lark

As stated in the Affected Environment section, the proposed Project study area contains suitable habitat for the California horned lark (SSC). Table 2.3.4-2 summarizes the potential temporary impacts on suitable habitat due to the

implementation of Build Alternatives 2, 3, and 5. The implementation of Build Alternative 2 would result in temporary impacts on 19.35 acres of suitable habitat, the implementation of Build Alternative 3 would result in temporary impacts to 22.09 acres of suitable habitat, and the implementation of Build Alternative 5 would result in temporary impacts on 10.84 acres of suitable habitat.

Table 2.3.4-2. Potential Ground-disturbing Impacts on Suitable Habitat for Non-listed Special-status Birds from the Proposed Project

Vegetation Community/Land Cover	Build Alternative 2 (acres)		Build Alternative 3 (acres)		Build Alternative 5 (acres)	
	Temporary	Permanent	Temporary	Permanent	Temporary	Permanent
Coastal Sage Scrub						
Disturbed California Buckwheat Series	0.19	0.04	0.18	0.05	0.22	--
Subtotal	*0.19*	*0.04*	*0.18*	*0.05*	*0.22*	--
Chaparral						
Disturbed Chamise Chaparral	0.49	0.05	0.71	0.03	0.14	--
Subtotal	*0.49*	*0.05*	*0.71*	*0.03*	*0.14*	--
Non-native Land Covers						
Non-native Grassland	0.38	0.29	0.40	0.28	--	0.47
Disturbed Non-native Grassland	0.11	--	0.11	--	0.11	--
Field Croplands	8.02	2.86	9.13	3.17	3.97	2.87
Disturbed Habitat	10.16	3.67	11.56	3.93	6.40	3.66
Subtotal	*18.67*	*6.82*	*21.20*	*7.38*	*10.48*	*7.00*
Total[a]	**19.35**	**6.91**	**22.09**	**7.46**	**10.84**	**7.00**

[a] May not total due to rounding.

Special-status Reptiles and Amphibians

Table 2.3.4-3 summarizes the potential temporary impacts on suitable habitat for non-listed special-status reptiles (red diamond rattlesnake and Blainville's horned lizard) and non-listed special-status amphibians (western spadefoot toad) due to the implementation of Build Alternatives 2, 3, and 5. The implementation of Build Alternative 2 would result in temporary impacts on 30.50 acres of suitable habitat, the implementation of Build Alternative 3 would result in temporary impacts on 32.86 acres of suitable habitat, and the implementation of Build

Alternative 5 would result in temporary impacts on 19.10 acres of suitable habitat.

Table 2.3.4-3. Potential Ground-disturbing Impacts on Suitable Habitat for Non-listed Special-status Reptiles and Non-listed Special-Status Amphibians from the Proposed Project

Vegetation Community/Land Cover	Build Alternative 2 (acres)		Build Alternative 3 (acres)		Build Alternative 5 (acres)	
	Temporary	Permanent	Temporary	Permanent	Temporary	Permanent
Coastal Sage Scrub						
California Buckwheat Series	6.66	1.32	6.44	1.75	5.31	2.17
Disturbed California Buckwheat Series	0.19	0.04	0.18	0.05	0.22	--
Subtotal	*6.85*	*1.36*	*6.62*	*1.80*	*5.52*	*2.17*
Chaparral						
Chamise Chaparral	--	--	--	--	--	--
Disturbed Chamise Chaparral	0.49	0.05	0.71	0.03	0.14	--
Subtotal	*0.49*	*0.05*	*0.71*	*0.03*	*0.14*	--
Riparian Forest/Woodland/Scrub						
Disturbed Mulefat Scrub	0.16	0.05	0.16	0.05	0.19	0.07
Riparian Forest	0.13	--	0.07	0.03	--	--
Disturbed Riparian Forest	0.04	0.01	0.03	0.01	0.02	0.03
Southern Willow Scrub	--	--	--	--	--	--
Subtotal	*0.34*	*0.07*	*0.26*	*0.09*	*0.21*	*0.09*
Non-native Land Covers						
Non-native Grassland	0.38	0.29	0.40	0.28	--	0.47
Disturbed Non-native Grassland	0.11	--	0.11	--	0.11	--
Field Croplands	8.02	2.86	9.13	3.17	3.97	2.87
Disturbed Habitat	10.16	3.67	11.56	3.93	6.40	3.66
Residential/Urban/Exotic	4.15	2.13	4.06	2.42	2.75	2.04
Subtotal	*22.82*	*8.96*	*25.27*	*9.79*	*13.23*	*9.04*
Total[a]	**30.50**	**10.44**	**32.86**	**11.71**	**19.10**	**11.30**

[a] May not total due to rounding.

Special-status Mammals

Table 2.3.4-4 summarizes the potential temporary impacts on suitable habitat for non-listed special-status mammals due to the implementation of Build Alternatives 2, 3, and 5. As stated in Affected Environment, six special-status mammals considered California SSC have a moderate potential to occur within the BSA: northwestern San Diego pocket mouse, Dulzura pocket mouse, southern grasshopper mouse, Los Angeles pocket mouse, San Diego black-tailed jackrabbit, and American badger. The northwestern San Diego pocket mouse, Los Angeles pocket mouse, and San Diego black-tailed jackrabbit are MSHCP-covered species. The implementation of Build Alternative 2 would result in temporary impacts on 26.01 acres of suitable habitat, the implementation of Build Alternative 3 would result in temporary impacts on 28.53 acres of suitable habitat, and the implementation of Build Alternative 5 would result in temporary impacts on 16.14 acres of suitable habitat for these six species.

Table 2.3.4-4. Potential Ground-disturbing Impacts on Suitable Habitat for Non-listed Special-status Mammals from the Proposed Project

Vegetation Community/Land Cover	Build Alternative 2 (acres)		Build Alternative 3 (acres)		Build Alternative 5 (acres)	
	Temporary	Permanent	Temporary	Permanent	Temporary	Permanent
Coastal Sage Scrub						
California Buckwheat Series	6.66	1.32	6.44	1.75	5.31	2.17
Disturbed California Buckwheat Series	0.19	0.04	0.18	0.05	0.22	--
Subtotal	*6.85*	*1.36*	*6.62*	*1.80*	*5.52*	*2.17*
Chaparral						
Chamise Chaparral	--	--	--	--	--	--
Disturbed Chamise Chaparral	0.49	0.05	0.71	0.03	0.14	--
Subtotal	*0.49*	*0.05*	*0.71*	*0.03*	*0.14*	--
Non-native Land Covers						
Non-native Grassland	0.38	0.29	0.40	0.28	--	0.47
Disturbed Non-native Grassland	0.11	--	0.11	--	0.11	--
Field Croplands	8.02	2.86	9.13	3.17	3.97	2.87

Vegetation Community/Land Cover	Build Alternative 2 (acres)		Build Alternative 3 (acres)		Build Alternative 5 (acres)	
	Temporary	Permanent	Temporary	Permanent	Temporary	Permanent
Disturbed Habitat	10.16	3.67	11.56	3.93	6.40	3.66
Subtotal	*18.67*	*6.82*	*21.20*	*7.38*	*10.48*	*7.00*
Total[a]	**26.01**	**8.23**	**28.53**	**9.21**	**16.14**	**9.17**

[a] May not total due to rounding.

Permanent Impacts

Alternative 1 (No-Build Alternative)

The No-Build Alternative would not include the construction of a new interchange at the I-215 and Keller Road or improvements to local roads surrounding the proposed Project site; therefore, permanent direct or indirect impacts on special-status animal species would not occur.

Build Alternatives 2, 3, and 5

Golden Eagle

Ground-disturbing activities related to the implementation of Build Alternatives 2, 3, or 5 would result in permanent impacts on foraging habitat for the golden eagle. All habitat within the impacted area is considered foraging habitat, as shown in Table 2.3.1-4 in Section 2.3.1, Natural Communities. The implementation of Build Alternative 2 would result in permanent impacts on 10.44 acres of suitable habitat, the implementation of Build Alternative 3 would result in permanent impacts on 11.71 acres of suitable habitat, and the implementation of Build Alternative 5 would result in permanent impacts on 11.30 acres of suitable habitat.

However, because of the linear nature of the proposed Project, the implementation of Build Alternatives 2, 3, or 5 would not result in impacts on large blocks of foraging habitat, and potential impacts on golden eagle foraging would not be substantially adverse.

Avoidance measures BIO-15 and BIO-16 would be implemented with each Build Alternative. Additionally, golden eagle is considered adequately conserved by the MSHCP. With MSHCP compliance, no compensatory mitigation is required.

Potential permanent impacts for each species are described in detail in the following subsections and shown on Figures 2.3-9a through 2.3-9c.

White-tailed Kite

The construction of Build Alternatives 2, 3, and 5 would result in permanent direct impacts on suitable habitat for white-tailed kite, as summarized in Table 2.3.4-1. The implementation of Build Alternative 2 would result in permanent impacts on 0.07 acres of suitable habitat, the implementation of Build Alternative 3 would result in permanent impacts on 0.09 acres of suitable habitat, and the implementation of Build Alternative 5 would result in permanent impacts on 0.09 acres of suitable habitat.

Additionally, indirect impacts, including habitat degradation and health implications from fugitive dust, stress and nest abandonment from noise and vibration, habitat fragmentation, disruptions of daily activities due to increased human presence, and releases of chemical pollutants, could occur. Avoidance measure BIO-16 would be implemented with each Build Alternative. With the implementation of avoidance and minimization efforts, there would be no substantial adverse effects on white-tailed kite and compensatory mitigation would not be required.

California Horned Lark

Table 2.3.4-2 summarizes permanent direct impacts on suitable habitat for the California horned lark as a result of the implementation of Build Alternatives 2, 3, and 5. The implementation of Build Alternative 2 would result in permanent impacts on 6.91 acres of suitable habitat, the implementation of Build Alternative 3 would result in permanent impacts on 7.46 acres of suitable habitat, and the implementation of Build Alternative 5 would result in permanent impacts on 7.00 acres of suitable habitat.

Indirect impacts on the California horned lark could include habitat degradation and health implications from fugitive dust, stress and nest abandonment from noise and vibration, habitat fragmentation, disruptions of daily activities due to increased human presence, and releases of chemical pollutants. Avoidance measure BIO-16 would be implemented with each Build Alternative. The California horned lark is considered adequately conserved by the MSHCP, so no additional compensatory mitigation is required. With avoidance and minimization measures and compliance with the MSHCP, adverse impacts on special-status birds are expected to remain low.

Special-status Reptiles and Amphibians

Table 2.3.4-3 summarizes permanent direct impacts on suitable habitat for non-listed special-status reptiles and non-listed special-status amphibians as a result of the implementation of Build Alternatives 2, 3, and 5. The implementation of Build Alternative 2 would result in permanent impacts on 10.44 acres of suitable habitat, the implementation of Build Alternative 3 would result in permanent impacts on 11.71 acres of suitable habitat, and the implementation of Build Alternative 5 would result in permanent impacts on 11.30 acres of suitable habitat.

Indirect impacts on non-listed special-status reptiles and non-listed special-status amphibians could include habitat degradation and health implications from fugitive dust, stress and habitat abandonment from noise and vibration, habitat fragmentation, disruptions of daily activities due to increased human presence, and releases of chemical pollutants. Blainville's horned lizard, red diamond rattlesnake, and western spadefoot are considered adequately conserved by the MSHCP. Therefore, no avoidance and minimization measures or compensatory mitigation are required.

Special-status Mammals

Table 2.3.4-4 summarizes permanent direct impacts on suitable habitat for non-listed special-status mammals as a result of the implementation of Build Alternatives 2, 3, and 5. The implementation of Build Alternative 2 would result in permanent impacts on 8.23 acres of suitable habitat, the implementation of Build Alternative 3 would result in permanent impacts on 9.21 acres of suitable habitat, and the implementation of Build Alternative 5 would result in permanent impacts on 9.17 acres of suitable habitat.

Indirect impacts on non-listed special-status mammals could include habitat degradation and health implications from fugitive dust, stress and habitat abandonment from noise and vibration, habitat fragmentation, disruptions of daily activities due to increased human presence, and releases of chemical pollutants. Northwestern San Diego pocket mouse, Los Angeles pocket mouse, and San Diego black-tailed jackrabbit are all considered adequately conserved by the MSHCP, and no avoidance and minimization measures or compensatory mitigation are required. Dulzura pocket mouse, southern grasshopper mouse, and American badger are not covered by the MSHCP, but habitats impacted by

the proposed Project are contiguous with additional suitable habitat for these species, and effects on these species are expected to remain low.

AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES

The following avoidance measures would be implemented by the proposed Project:

BIO-15 **Avoidance of Raptor Nests.** All vegetation removal and ground-disturbing activities will be planned outside the peak nesting season for birds (February 1 through September 30), if practicable. If vegetation removal would occur during those time periods, a preconstruction survey for active nests will be conducted by a qualified biologist no more than 3 days before the onset of ground-disturbing activities within the impact area and a 500-foot buffer. If active nests are found on the site, disturbance or removal of the nest will be avoided until the young have fledged and the nest is no longer active as determined by a qualified biologist. A no-disturbance buffer will be established as required and determined by the qualified biologist. The distance of the buffer will depend on the species, site conditions, and the proposed construction activities near the active nest. The qualified biologist will monitor active nests to confirm construction activities are not resulting in harm to or harassment of the nest. The qualified biological monitor will coordinate with the Resident Engineer to halt construction if construction activities would harm a nest.

BIO-16 **Avoidance of Non-listed Special-status Birds.** All vegetation removal and ground-disturbing activities will be planned outside the peak nesting season for birds (February 1 through September 30) if practicable. If vegetation removal would occur during those time periods, a preconstruction survey for active nests will be conducted by a qualified biologist no more than 3 days before the onset of ground-disturbing activities within the proposed Project impact area and a 300-foot buffer. If active nests are found on the site, disturbance or removal of the nest will be avoided until the young have fledged and the nest is no longer active as determined by a qualified biologist. The qualified biologist will establish a no-activity buffer around the nest and will periodically monitor construction

activities to confirm the nest is not being harmed or harassed by construction activities. The qualified biological monitor will have the authority to halt construction if construction activities would harm a nest.

Compensatory Mitigation

With the implementation of the avoidance and minimization measures described in this section, compensatory mitigation is not required.

2.3.5 Threatened and Endangered Species

REGULATORY SETTING

The primary federal law protecting threatened and endangered species is the Federal Endangered Species Act (FESA): 16 United States Code (USC) Section 1531, et seq. See also 50 Code of Federal Regulations (CFR) Part 402. This act and later amendments provide for the conservation of endangered and threatened species and the ecosystems upon which they depend. Under Section 7 of this act, federal agencies, such as the Federal Highway Administration (FHWA) (and the Department, as assigned), are required to consult with the U.S. Fish and Wildlife Service (USFWS) and the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NOAA Fisheries) to ensure that they are not undertaking, funding, permitting, or authorizing actions likely to jeopardize the continued existence of listed species or destroy or adversely modify designated critical habitat. Critical habitat is defined as geographic locations critical to the existence of a threatened or endangered species. The outcome of consultation under Section 7 may include a Biological Opinion with an Incidental Take Statement or a Letter of Concurrence. Section 3 of the FESA defines take as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect or any attempt at such conduct."

California has enacted a similar law at the state level, the California Endangered Species Act (CESA), California Fish and Game Code Section 2050, et seq. CESA emphasizes early consultation to avoid potential impacts to rare, endangered, and threatened species and to develop appropriate planning to offset project-caused losses of listed species populations and their essential habitats. The California Department of Fish and Wildlife (CDFW) is the agency responsible for implementing the CESA. Section 2080 of the California Fish and Game Code prohibits "take" of any species determined to be an endangered species or a threatened species. Take is defined in Section 86 of the California

Fish and Game Code as “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill.” CESA allows for take incidental to otherwise lawful development projects; for these actions an incidental take permit is issued by CDFW. For species listed under both the FESA and CESA requiring a Biological Opinion under Section 7 of the FESA, the CDFW may also authorize impacts to CESA species by issuing a Consistency Determination under Section 2080.1 of the California Fish and Game Code.

Another federal law, the Magnuson-Stevens Fishery Conservation and Management Act of 1976, was established to conserve and manage fishery resources found off the coast, as well as anadromous species and Continental Shelf fishery resources of the United States, by exercising (A) sovereign rights for the purposes of exploring, exploiting, conserving, and managing all fish within the exclusive economic zone established by Presidential Proclamation 5030, dated March 10, 1983, and (B) exclusive fishery management authority beyond the exclusive economic zone over such anadromous species, Continental Shelf fishery resources, and fishery resources in special areas.

AFFECTED ENVIRONMENT

This section of the document is based on the NES (Caltrans 2021a) prepared for the proposed Project and a USFWS list of proposed, threatened, or endangered species with the potential to occur in the proposed Project’s BSA (refer to Chapter 4, Comments and Coordination).

A literature review and records search were conducted between December 2014 and September 2018 to identify the existence or potential occurrence of threatened or endangered species in the BSA. Table 2.3.5-1 lists the 20 State-/federally listed threatened, endangered, or State candidate plant and animal species with the potential to occur within the proposed Project’s BSA.

Table 2.3.5-1. Species with Potential to Occur Within the Proposed Project's BSA

Species	Status	
	Federal	State
Plants		
Munz's onion (*Allium munzii*)	E	T
San Diego ambrosia (*Ambrosia pumila*)	E	--
San Jacinto Valley crownscale (*Atriplex coronate* var. *notatior*)	E	--
Nevin's barberry (*Berberis nevinii*)	E	E
Thread-leaved brodiaea (*Brodiaea filifolia*)	T	E
Vail Lake ceanothus (*Ceanothus ophiochilus*)	T	E
Slender-horned spineflower (*Dodecahema leptoceras*)	E	E
San Diego button-celery (*Eryngium aristulatum* var. *parishii*)	E	E
Parish's meadowfoam (*Limnanthes alba* ssp. *parishii*)	--	E
Spreading navarretia (*Navarretia fossalis*)	T	--
California Orcutt grass (*Orcuttia californica*)	E	E
Animals		
Coastal California gnatcatcher (*Polioptila californica californica*)	T	--
Vernal pool fairy shrimp (*Branchinecta lynchi*)	T	--
Riverside fairy shrimp (*Streptocephalus woottoni*)	E	--
Least Bell's vireo (*Vireo bellii pusillus*)	E	E
Stephens' kangaroo rat (*Dipodomys stephensi*)	E	--
San Bernardino Merriam's kangaroo rat (*Dipodomys merriami parvus*)	E	E
Southwestern willow flycatcher (*Empidonax trailli extimus*)	E	E
Quino checkerspot butterfly (*Euphydryas editha quino*)	E	--

Notes:
SC = Candidate
E = Endangered
T = Threatened
"--" = No Designation

Of the 20 listed species with potential to occur in the BSA, the BSA provides suitable habitat for six listed species: Munz's onion, coastal California gnatcatcher, vernal pool fairy shrimp, Riverside fairy shrimp, least Bell's vireo, and Stephens' kangaroo rat and one State candidate species: Burrowing Owl. No critical habitat is present within the proposed Project area.

Endangered or Threatened Plant Species

As summarized in Table 2.3.5-1, 11 endangered or threatened plant species are known to occur within the proposed Project's vicinity. Survey results indicated suitable habitat for Munz's onion was present, and suitable habitat for the remaining 10 endangered or threatened plant species was absent. Focused surveys for special-status plant species were conducted in 2015, 2016, and 2018, and no endangered or threatened plant species were observed.

Endangered or Threatened Animal Species

Eight endangered or threatened and one State candidate animal species are known to occur within the region, as summarized in Table 2.3.5-1. The BSA provides suitable habitat for six of these species, as detailed in the following subsections.

Coastal California Gnatcatcher

Coastal California gnatcatcher is a federally threatened species, a California SSC, and a covered species under the MSHCP. The species is closely associated with coastal sage scrub habitat, and is consequently threatened primarily by the loss, degradation, and fragmentation of this habitat. The nearest USFWS-designated critical habitat for this species is approximately 2.3 miles east of the BSA. Occurrences of this species have been documented numerous times within 5 miles of the BSA, the nearest occurrence being approximately 0.9 mile to the east (CDFW 2018). One incidental coastal California gnatcatcher was observed foraging during proposed Project surveys. The BSA contains vegetation communities that could potentially support nesting coastal California gnatcatcher; however, the observed coastal California gnatcatcher was detected foraging outside of the breeding season.

Listed Fairy Shrimp Species (Vernal Pool and Riverside)

Vernal pool fairy shrimp is a federally threatened species, and Riverside fairy shrimp is a federally endangered species. Both of these species occur in vernal pools or in vernal pool-like habitats, such as alkali pools, ephemeral drainages, stock ponds, roadside ditches, vernal swales, and rock outcrop pools (Helm 1998). The nearest critical habitat for the Riverside fairy shrimp is located off the shores of Lake Elsinore, approximately 8.3 miles northwest of the BSA, and within the Santa Rosa Plateau, approximately 8.6 miles southwest of the BSA. The nearest critical habitat for vernal pool fairy shrimp is in the Los Padres National Forest, approximately 160 miles northwest of the BSA (USFWS 2018).

There are numerous documented occurrences of both Riverside fairy shrimp and vernal pool fairy shrimp within 5 miles of the BSA (CDFW 2018). The BSA contains road ruts and seasonal depressions that could provide habitat for these species, so focused surveys were conducted for the species within the BSA. These surveys were conducted during the 2014 to 2015 wet season, the 2016 dry season, and the 2017 to 2018 wet season. No listed fairy shrimp species were detected during these focused surveys.

Least Bell's Vireo

Least Bell's vireo is a federally and State endangered species and is conditionally covered under the MSHCP. The species is associated with early successional riparian scrub and woodlands to an elevation of 4,100 feet above mean sea level (Grinnell and Miller 1944; Peterson et al. 2004). The nearest critical habitat for least Bell's vireo is approximately 15.8 miles to the southwest of the BSA, within the Santa Margarita Preserve (USFWS 2018). There are two documented occurrences of the species within 5 miles of the BSA: one approximately 3.3 miles south within a portion of Warm Springs Creek, and one approximately 3.8 miles southwest within an unnamed tributary to Murrieta Creek (CDFW 2018).

In compliance with Section 6.1.2 of the MSHCP, the BSA was assessed for resources that could support MSHCP riparian bird species. The BSA contains marginally suitable habitat that has low potential for supporting least Bell's vireo, due to the small habitat size, isolation from other native vegetation, and surrounding development. Therefore, protocol surveys were not conducted, but presence was assumed in all areas with potential habitat.

Stephens' Kangaroo Rat

Stephens' kangaroo rat is a federally endangered and State-listed species covered under the MSHCP. The species is found in transition areas, such as grasslands that border coastal sage scrub, or areas where native habitat has been removed or disturbed. It is closely associated with sparse grassland, coastal sage scrub, and California buckwheat in Southern California. There is no designated critical habitat for Stephens' kangaroo rat (USFWS 2018). There are numerous documented occurrences of the species within 5 miles of the BSA, the nearest being approximately 1.8 miles south, between Clinton Keith Road and Los Alamos Road (CDFW 2018). The BSA is within the Stephens' Kangaroo Rat

Habitat Conservation Plan (SKR HCP) boundaries, but not within a core reserve (RCHCA 1996). The BSA contains suitable habitat for Stephens' kangaroo rat.

Candidate Species

Burrowing Owl

Burrowing owl is a State candidate species (SC) and is covered by the MSHCP. In California, burrowing owls reside in open, dry grasslands and desert habitats, as well as in grass, forb, and open shrub stages of pinyon-juniper and ponderosa pine habitats (Zeiner et al. 1990). The presence of burrows is the most essential component of burrowing owl habitat. The nearest documented occurrence of burrowing owl is approximately 1.2 miles north of the BSA (CDFW 2018). Because the proposed Project is within the MSHCP Burrowing Owl Habitat Assessment Area, a habitat assessment was conducted in accordance with the MSHCP. The habitat assessment indicates the BSA does contain suitable burrowing owl habitat; however, focused surveys conducted in 2015 within the suitable habitat were negative for burrowing owl and burrowing owl signs (Figures 2.3-9a, 2.3-9b, and 2.3-9c).

Federal Endangered Species Consultation

The MSHCP is considered an incidental take permit under Section 10(a)(1)(B) of the FESA. Because the proposed Project is a covered activity under the MSHCP, and Caltrans is a permittee under the MSHCP, with compliance with the MSHCP, the proposed Project would receive take authorization under the ESA for species covered by the MSHCP. Caltrans undertook an initial coordination meeting with USFWS on March 19, 2015, as part of an MSHCP consistency meeting with the Western Riverside County RCA. Caltrans would follow the MSHCP State permittee review process by submitting an MSHCP Consistency Analysis. Following MSHCP consistency approval, Caltrans would initiate Section 7 consultation with USFWS to address proposed Project impacts on Stephens' kangaroo rat, coastal California gnatcatcher, and least Bell's vireo.

California Endangered Species Act Consultation

The MSHCP is also an incidental take permit under the CESA; therefore, with compliance with the MSHCP, the proposed Project would receive take authorization under CESA for species covered by the MSHCP. As part of the MSHCP consistency meeting with the RCA on March 19, 2015, Caltrans undertook an initial coordination meeting with CDFW. Caltrans will follow the

MSHCP State permittee review process by submitting an MSHCP Consistency Analysis and supporting documentation.

ENVIRONMENTAL CONSEQUENCES

Temporary Impacts

Alternative 1 (No-Build Alternative)

The No-Build Alternative would not include the construction of a new interchange at I-215 and Keller Road or improvements to local roads surrounding the proposed Project site, and temporary impacts on threatened or endangered species would not occur.

Build Alternatives 2, 3, and 5

Ground-disturbing activities related to the implementation of Build Alternatives 2, 3, or 5 would result in temporary impacts on suitable habitat for threatened or endangered species, including Munz's onion, coastal California gnatcatcher, fairy shrimp, least Bell's vireo, and Stephens' kangaroo rat, and one State candidate species: burrowing owl. Potential temporary impacts on each species are described in detail in the following subsections.

Munz's Onion

Suitable habitat was determined to be present for Munz's onion; however, no endangered or threatened plant species were observed during focused special-status plant surveys. As endangered or threatened plant species were determined to be absent from the BSA, the proposed Project would have no adverse effect on Munz's onion.

Coastal California Gnatcatcher

Each Build Alternative would result in direct impacts on potential habitat for coastal California gnatcatcher, as summarized in Table 2.3.5-2. Temporary impacts may include temporary loss of habitat, alteration of habitat, and impacts on active nests. The implementation of Build Alternative 2 would result in temporary impacts on 7.34 acres of suitable habitat, the implementation of Build Alternative 3 would result in temporary impacts on 7.33 acres of suitable habitat, and the implementation of Build Alternative 5 would result in temporary impacts on 5.66 acres of suitable habitat.

Table 2.3.5-2. Potential Ground-disturbing Impacts on Suitable Habitat for Coastal California Gnatcatcher from the Proposed Project

Vegetation Community/Land Cover	Build Alternative 2 (acres)		Build Alternative 3 (acres)		Build Alternative 5 (acres)	
	Temporary	Permanent	Temporary	Permanent	Temporary	Permanent
Coastal Sage Scrub						
California Buckwheat Series	6.66	1.32	6.44	1.75	5.31	2.17
Disturbed California Buckwheat Series	0.19	0.04	0.18	0.05	0.22	--
Subtotal	*6.85*	*1.36*	*6.62*	*1.80*	*5.52*	*2.17*
Chaparral						
Chamise Chaparral	--	--	--	--	--	--
Disturbed Chamise Chaparral	0.49	0.05	0.71	0.03	0.14	--
Subtotal	*0.49*	*0.05*	*0.71*	*0.03*	*0.14*	--
Total[a]	**7.34**	**1.41**	**7.33**	**1.83**	**5.66**	**2.17**

[a] May not total due to rounding.

Listed Fairy Shrimp Species

The BSA contains habitat that could be suitable for listed fairy shrimp; however, focused surveys for vernal pool branchiopods indicated no listed fairy shrimp species, including Riverside fairy shrimp and vernal pool fairy shrimp, were present. Because these species were absent from the BSA, the proposed Project would not impact listed fairy shrimp species.

Least Bell's Vireo

All Build Alternatives would result in temporary impacts on suitable habitat and/or nests for least Bell's vireo, as summarized in Table 2.3.5-3. The implementation of Build Alternative 2 would result in temporary impacts on 0.34 acres of suitable habitat, the implementation of Build Alternative 3 would result in temporary impacts on 0.26 acres of suitable habitat, and the implementation of Build Alternative 5 would result in temporary impacts on 0.21 acres of suitable habitat.

Table 2.3.5-3. Potential Ground-disturbing Impacts on Suitable Habitat for Least Bell's Vireo from the Proposed Project

Vegetation Community/Land Cover	Build Alternative 2 (acres)		Build Alternative 3 (acres)		Build Alternative 5 (acres)	
	Temporary	Permanent	Temporary	Permanent	Temporary	Permanent
Riparian Forest/Woodland/Scrub						
Disturbed Mulefat Scrub	0.16	0.05	0.16	0.05	0.19	0.07
Riparian Forest	0.13	--	0.07	0.03	--	--
Disturbed Riparian Forest	0.04	0.01	0.03	0.01	0.02	0.03
Southern Willow Scrub	--	--	--	--	--	--
Total[a]	**0.34**	**0.07**	**0.26**	**0.09**	**0.21**	**0.10**

[a] May not total due to rounding.

Stephens' Kangaroo Rat

The proposed Project would result in temporary impacts on suitable habitat for Stephens' kangaroo rat, as summarized in Table 2.3.5-4. The implementation of Build Alternative 2 would result in temporary impacts on 26.01 acres of suitable habitat, the implementation of Build Alternative 3 would result in temporary impacts on 28.53 acres of suitable habitat, and the implementation of Build Alternative 5 would result in temporary impacts on 16.14 acres of suitable habitat.

Table 2.3.5-4. Potential Ground-disturbing Impacts on Suitable Habitat for Stephens' Kangaroo Rat from the Proposed Project

Vegetation Community/Land Cover	Build Alternative 2 (acres)		Build Alternative 3 (acres)		Build Alternative 5 (acres)	
	Temporary	Permanent	Temporary	Permanent	Temporary	Permanent
Coastal Sage Scrub						
California Buckwheat Series	6.66	1.32	6.44	1.75	5.31	2.17
Disturbed California Buckwheat Series	0.19	0.04	0.18	0.05	0.22	--
Subtotal	*6.85*	*1.36*	*6.62*	*1.80*	*5.52*	*2.17*

Vegetation Community/Land Cover	Build Alternative 2 (acres)		Build Alternative 3 (acres)		Build Alternative 5 (acres)	
	Temporary	Permanent	Temporary	Permanent	Temporary	Permanent
Chaparral						
Chamise Chaparral	--	--	--	--	--	--
Disturbed Chamise Chaparral	0.49	0.05	0.71	0.03	0.14	--
Subtotal	*0.49*	*0.05*	*0.71*	*0.03*	*0.14*	--
Non-native Land Covers						
Non-native Grassland	0.38	0.29	0.40	0.28	--	0.47
Disturbed Non-native Grassland	0.11	--	0.11	--	0.11	--
Field Croplands	8.02	2.86	9.13	3.17	3.97	2.87
Disturbed Habitat	10.16	3.67	11.56	3.93	6.40	3.66
Subtotal	*18.67*	*6.83*	*21.20*	*7.38*	*10.48*	*7.00*
Total[a]	**26.01**	**8.24**	**28.53**	**9.21**	**16.14**	**9.17**

[a] May not total due to rounding.

Burrowing Owl

The construction of Build Alternatives 2, 3, and 5 would result in temporary impacts on suitable habitat for burrowing owl, as summarized in Table 2.3.5-5. The implementation of Build Alternative 2 would result in temporary impacts on 29.67 acres of suitable habitat, the implementation of Build Alternative 3 would result in temporary impacts on 31.89 acres of suitable habitat, and the implementation of Build Alternative 5 would result in temporary impacts on 18.75 acres of suitable habitat.

Table 2.3.5-5. Potential Ground-disturbing Impacts on Suitable Habitat for Burrowing Owl from the Proposed Project

Vegetation Community/Land Cover	Build Alternative 2 (acres)		Build Alternative 3 (acres)		Build Alternative 5 (acres)	
	Temporary	Permanent	Temporary	Permanent	Temporary	Permanent
Coastal Sage Scrub						
California Buckwheat Series	6.66	1.32	6.44	1.75	5.31	2.17
Disturbed California Buckwheat Series	0.19	0.04	0.18	0.05	0.22	--
Subtotal	*6.85*	*1.36*	*6.62*	*1.80*	*5.52*	*2.17*
Non-native Land Covers						
Non-native Grassland	0.38	0.29	0.40	0.28	--	0.47
Disturbed Non-native Grassland	0.11	--	0.11	--	0.11	--
Field Croplands	8.02	2.86	9.13	3.17	3.97	2.87
Disturbed Habitat	10.16	3.67	11.56	3.93	6.40	3.66
Residential/Urban/Exotic	4.15	2.13	4.06	2.42	2.75	2.04
Subtotal	*22.82*	*8.96*	*25.27*	*9.79*	*13.23*	*9.04*
Total	**29.67**	**10.32**	**31.89**	**11.59**	**18.75**	**11.21**

Permanent Impacts

Alternative 1 (No-Build Alternative)

The No-Build Alternative would not include the construction of a new interchange at the I-215 and Keller Road or improvements to local roads surrounding the proposed Project site, and permanent impacts on threatened or endangered species would not occur.

Build Alternatives 2, 3, and 5

Ground-disturbing activities related to the implementation of Build Alternatives 2, 3, or 5 would result in permanent impacts on suitable habitat for threatened or endangered species, including Munz's onion, coastal California gnatcatcher, fairy shrimp, least Bell's vireo, and Stephens' kangaroo rat. Potential permanent impacts for each species are described in detail in the following subsections.

As there is no critical habitat for any listed species within the proposed Project area, the proposed Project would have no impact on critical habitat.

Munz's Onion

Because Munz's onion was determined to be absent from the BSA, a no-effect finding has been made. No avoidance, minimization, or compensatory mitigation measures are required.

Coastal California Gnatcatcher

The construction of Build Alternatives 2, 3, and 5 would result in permanent direct impacts on suitable habitat for coastal California gnatcatcher, as summarized in Table 2.3.5-2. The implementation of Build Alternative 2 would result in permanent impacts on 1.41 acres of suitable habitat, the implementation of Build Alternative 3 would result in permanent impacts on 1.83 acres of suitable habitat, and the implementation of Build Alternative 5 would result in permanent impacts on 2.17 acres of suitable habitat. Additionally, indirect impacts include habitat degradation and health implications from fugitive dust, stress and nest abandonment from noise and vibration, habitat fragmentation, disruptions of daily activities due to increased human presence, and releases of chemical pollutants.

Because coastal California gnatcatcher is considered adequately conserved by the MSHCP, compliance with the MSHCP offsets potential direct and indirect impacts on the species. Nesting birds are protected by the Migratory Bird Treaty Act; therefore, avoidance measure BIO-17 would be implemented with each Build Alternative to avoid any take of nests. With MSHCP compliance and the implementation of BIO-17, no additional compensatory mitigation is required.

Under Section 7 of the FESA, the proposed Project "may affect, is likely to adversely affect" coastal California gnatcatcher.

Listed Fairy Shrimp Species (Vernal Pool and Riverside)

Focused surveys indicated listed fairy shrimp species were absent from the BSA. Therefore, the proposed Project would not impact listed fairy shrimp species, and no avoidance, minimization, or compensatory mitigation measures are required. Under Section 7 of the FESA, the proposed Project would have "no effect" on Riverside or vernal pool fairy shrimp.

Least Bell's Vireo

The construction of Build Alternatives 2, 3, and 5 would result in permanent direct impacts on suitable habitat for least Bell's vireo, as summarized in Table 2.3.5-3. The implementation of Build Alternative 2 would result in permanent impacts on 0.07 acres of suitable habitat, the implementation of Build Alternative 3 would result in permanent impacts on 0.09 acres of suitable habitat, and the implementation of Build Alternative 5 would result in permanent impacts on 0.10 acres of suitable habitat. Additionally, indirect impacts, including habitat degradation and health implications from fugitive dust, stress and nest abandonment from noise and vibration, habitat fragmentation, disruptions of daily activities due to increased human presence, and releases of chemical pollutants, could occur.

Avoidance and minimization measures BIO-18 and BIO-19, described under Avoidance, Minimization, and/or Mitigation Measures, would be implemented for each Build Alternative. Additionally compensatory mitigation measure BIO-21 would be implemented for each Build Alternative. With the implementation of these measures and on-site restoration, and the purchase of compensatory mitigation, it is anticipated that the proposed Project would not result in a net loss of least Bell's vireo habitat.

Under Section 7 of the FESA, the proposed Project "may affect, likely to adversely affect" least Bell's vireo.

Stephens' Kangaroo Rat

The construction of Build Alternatives 2, 3, and 5 would result in permanent direct impacts on suitable habitat for Stephens' kangaroo rat, as summarized in Table 2.3.5-4. The implementation of Build Alternative 2 would result in permanent impacts on 8.24 acres of suitable habitat, the implementation of Build Alternative 3 would result in permanent impacts on 9.21 acres of suitable habitat, and the implementation of Build Alternative 5 would result in permanent impacts on 9.17 acres of suitable habitat. Additionally, indirect impacts, including habitat degradation and health implications from fugitive dust, stress and habitat abandonment from noise and vibration, habitat fragmentation, disruptions of daily activities due to increased human presence, and releases of chemical pollutants, could occur.

Stephens' kangaroo rat is considered adequately conserved by the SKR HCP, so no additional avoidance or minimization measures are required. Additionally,

though the proposed Project is within the SKR HCP fee area but outside the core reserves, the SKR HCP exempted public works projects from fee payment. No additional compensatory mitigation is required.

Under Section 7 of the FESA, the proposed Project "may affect, likely to adversely affect" Stephens' kangaroo rat.

Burrowing Owl

The construction of Build Alternatives 2, 3, and 5 would result in permanent direct impacts on suitable habitat for burrowing owl, as summarized in Table 2.3.5-5. The implementation of Build Alternative 2 would result in permanent impacts on 10.32 acres of suitable habitat, the implementation of Build Alternative 3 would result in permanent impacts on 11.59 acres of suitable habitat, and the implementation of Build Alternative 5 would result in permanent impacts on 11.21 acres of suitable habitat.

Additionally, indirect impacts, including habitat degradation and health implications from fugitive dust, stress and nest abandonment from noise and vibration, habitat fragmentation, disruptions of daily activities due to increased human presence, and releases of chemical pollutants, could occur. Avoidance measure BIO-20, described in Avoidance, Minimization and Mitigation Measures, would be implemented with each Build Alternative in compliance with the MSHCP. With the implementation of avoidance and minimization measures, it is anticipated that the proposed Project would not result in substantial adverse effects on burrowing owl.

AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES

The following avoidance and minimization measures would be implemented by the proposed Project:

BIO-17 Avoidance of Coastal California Gnatcatcher Nests.

All vegetation removal and ground-disturbing activities will be planned outside the coastal California gnatcatcher breeding season (February 15 through August 30), if practicable. If vegetation removal would occur during those time periods, a preconstruction survey for active nests will be conducted by a qualified biologist no more than 3 days before the onset of ground-disturbing activities within the impact area and a 500-foot buffer. If active nests are found on the site, disturbance or removal of the nest will be avoided

until the young have fledged and the nest is no longer active as determined by a qualified biologist. The qualified biologist will establish a no-activity buffer around the nest and will periodically monitor construction activities to confirm the nest is not being harmed or harassed by construction activities. A qualified biological monitor will be present during all vegetation removal and ground-disturbing activities that occur within the coastal California gnatcatcher breeding season and have the authority to halt construction if construction activities would harm a nest.

BIO-18 **Avoidance of Least Bell's Vireo Nests.** Focused surveys for least Bell's vireo will be conducted during the appropriate season (April 10 through July 31) before ground disturbance. Any occupied habitat will be avoided to the maximum extent practicable. Potential impacts on occupied habitat will be described in the DBESP prepared for the proposed Project. All vegetation removal and ground-disturbing activities will be planned outside the least Bell's vireo breeding season (April 10 through July 31), if practicable. If vegetation removal would occur during those time periods, a preconstruction survey for active nests will be conducted by a qualified biologist no more than 3 days before the onset of ground-disturbing activities within the impact area and a 300-foot buffer. If active nests are found on the site, disturbance or removal of the nest will be avoided until the young have fledged and the nest is no longer active as determined by a qualified biologist. The qualified biologist will establish a no-activity buffer around the nest and will periodically monitor construction activities to confirm the nest is not being harmed or harassed by construction activities. A qualified biological monitor will be present during all vegetation removal and ground-disturbing activities that occur within the least Bell's vireo breeding season and will have the authority to halt construction if construction activities would harm a nest.

BIO-19 **Restoration of Temporarily Impacted Least Bell's Vireo Habitat.** Site construction areas subjected to temporary ground disturbance from the limits of grading, staging areas, and temporary roads, will be recontoured to natural grade (if the grade was modified during the temporary disturbance activity), and

revegetated with native species occurring in the proposed Project impact area under existing conditions. Revegetation may occur with cuttings from riparian species present in the proposed Project impact area or with an application of a native seed mix. Revegetation will occur before or during seasonal rains to promote passive restoration of the area to pre-project conditions (except that no invasive plants will be restored). Before seeding temporary ground disturbance areas, a qualified biologist will review the seeding palette to ensure the plant palette is appropriate for the proposed Project site and that no seeding of invasive plant species will occur, as identified in the most recent version of the California Invasive Plant Inventory for the region and within Table 6-2 of the MSHCP.

BIO-20 **Avoidance of Burrowing Owl Active Burrows.** Before initiation of construction activities, a burrowing owl preconstruction survey will be conducted in accordance with the burrowing owl survey instructions for the Western Riverside Multiple Species Habitat Conservation Plan area (County of Riverside 2003). In accordance with these instructions, this survey will occur within 30 days before ground-disturbing activities. A minimum of one survey site visit within the described time frame before disturbance is required to confirm presence or absence of owls on the site. Preconstruction surveys will be conducted by a qualified biologist. If surveys confirm that occupied burrowing owl habitat is located within the proposed Project impact area or within 500 feet of the impact area, avoidance measures will be implemented consistent with the requirements of the MSHCP.

Compensatory Mitigation

The following compensatory mitigation measure would be implemented by the proposed Project:

BIO-21 **Compensation for Least Bell's Vireo Habitat.** Before initiating construction activities, Caltrans will submit a DBESP to the wildlife agencies for impacts on riparian/riverine habitat in compliance with MSHCP Section 6.1.2, Protection of Species Associated with Riparian/Riverine areas and Vernal Pools. The DBESP will ensure

replacement of any lost functions and values of riparian/riverine habitat, including least Bell's vireo habitat. Mitigation will include best management practices as determined by final site design to avoid and minimize downstream impacts on conserved resources from change in drainage or water quality. Mitigation for permanent loss of functions or values will be compensated at a 2:1 ratio or as otherwise determined in coordination with the resource agencies. Mitigation will be through contribution to a mitigation bank approved by CDFW or through payment to an approved in-lieu fee program.

2.3.6 Invasive Species

REGULATORY SETTING

On February 3, 1999, President William J. Clinton signed Executive Order (EO) 13112 requiring federal agencies to combat the introduction or spread of invasive species in the United States. The order defines invasive species as "any species, including its seeds, eggs, spores, or other biological material capable of propagating that species, that is not native to that ecosystem whose introduction does or is likely to cause economic or environmental harm or harm to human health." Federal Highway Administration (FHWA) guidance issued August 10, 1999, directs the use of the State's invasive species list, maintained by the California Invasive Species Council to define the invasive species that must be considered as part of the National Environmental Policy Act (NEPA) analysis for a proposed project.

AFFECTED ENVIRONMENT

This section of the document is based on the NES (Caltrans 2021a) prepared for the proposed Project.

A number of invasive species have been identified as occurring within the BSA. In total, 40 non-native species were documented, including 25 species on the California Invasive Plant Council's inventory (Cal-IPC 2018). The invasive species identified within the BSA include the following:

- Slender oat (*Avena barbata*)
- Ripgut brome
- Soft brome (*Bromus hordeaceus*)
- Red brome
- Mouse barley (*Hordeum murinum*)

- Common Mediterranean grass (*Schismus barbatus)*
- Peruvian peppertree (*Schinus mole)*
- Fennel (*Foeniculum vulgare*)
- Maltese star-thistle
- Stinknet (*Oncosiphon piluliferum*)
- Blessed milkthistle (*Silybum marianum*)
- London rocket (*Sisymbrium irio*)
- Black mustard
- Shortpod mustard (*Hirschfeldia incana*)
- Cultivated radish
- Russian thistle (*Salsola australis*)
- Castor bean (*Ricinus communis*)
- Burclover
- Redstem stork's bill
- Horehound (*Marrubium vulgare*)
- Hyssop loosestrife (*Lythrum hyssopifolia*)
- Curly dock (*Rumex crispus*)
- Tree tobacco
- Saltcedar (*Tamarix ramosissima*)
- Puncturevine (*Tribulus terrestris*)

The proposed Project includes a highway corridor, which provides opportunities for the movement of invasive species via modes such as vehicle travel, spraying and mowing operations, and construction. The high percentage of non-native species reflects the BSA's disturbed environment and proximity to developed areas. Invasive species are concentrated within the disturbed habitats and non-native grasslands within the BSA.

ENVIRONMENTAL CONSEQUENCES

EO 13112 requires federal agencies to work on preventing and controlling the introduction and spread of invasive species. Highway corridors provide opportunities for the movement of invasive species through the landscape. Invasive species can move on vehicles traveling along the highway and in the loads they carry, and non-native plant seed can be inadvertently when introduced on equipment during construction. Impacts regarding invasive species are discussed in the following paragraphs for each Alternative.

Temporary Impacts

Alternative 1 (No-Build Alternative)

The No-Build Alternative would not include the construction of a new interchange at I-215 and Keller Road or improvements to local roads surrounding the proposed Project site. Therefore, no temporary impacts related to invasive species would occur.

Build Alternatives 2, 3, and 5

During construction, all Build Alternatives have the potential to spread invasive species to adjacent native habitats in the BSA by the entering and exiting of construction equipment contaminated by invasive species and the improper removal and disposal of invasive species resulting in seed being spread along the highway.

Permanent Impacts

Alternative 1 (No-Build Alternative)

The No-Build Alternative would not include the construction of a new interchange at I-215 and Keller Road or improvements to local roads surrounding the proposed Project site. Therefore, no permanent impacts related to invasive species would occur.

Build Alternatives 2, 3, and 5

Permanent impacts for all Build Alternatives are similar to temporary impacts, because of the potential to introduce or spread invasive species by the improper removal and disposal of existing invasive species, inclusion of invasive species in seed mixtures and mulch, and movement of construction-related equipment that is contaminated by invasive species. With the implementation of avoidance and minimization measures BIO-1, BIO-2, and BIO-3 (discussed in Section 2.3.1), the proposed Project would have no permanent impacts related to invasive species.

AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES

Avoidance and minimization measures BIO-1, BIO-2, and BIO-3, as presented below, would be implemented to minimize impacts associated with invasive species.

BIO-1 **Avoidance of Special-status Vegetation Communities.** Before the initiation of construction activities, a qualified biologist will

implement the following avoidance measures to avoid, minimize, and preserve in place special-status vegetation communities:

- BIO-1a. The proposed Project impact area (that is, footprint of disturbance) will be minimized to the maximum extent feasible. Access to sites will be via pre-existing access routes to the greatest extent possible.
- BIO-1b. The limits of disturbance will be clearly defined and marked in the field, and reviewed by a qualified biologist before the initiation of work.
- BIO-1c. An Environmentally Sensitive Area marking special-status vegetation communities will be established with brightly colored fencing or flagging.
- BIO-1d. During clearing and grubbing activities, a biological monitor will be present, to ensure the Environmentally Sensitive Area is not disturbed by construction.
- BIO-1e. The qualified project biologist will monitor construction activities for the duration of the proposed Project to ensure that practicable measures are being employed to avoid incidental disturbance of special-status vegetation communities outside the proposed Project impact area.
- BIO-1f. If impacts cannot be avoided, temporarily impacted areas will be restored, as required by the proposed Project. Any permanent impacts will be compensated as required for that resource by the proposed Project.

BIO-2 **Restoration of Temporarily Impacted Vegetation Communities.** Site construction areas subjected to temporary ground disturbance from the limits of grading, staging areas, and temporary roads, will be recontoured to natural grade (if the grade was modified during the temporary disturbance activity), and revegetated with native species occurring in the proposed Project impact area under existing conditions. Revegetation may occur with cuttings from riparian species present in the proposed Project impact area or with

an application of a native seed mix. Revegetation will occur before or during seasonal rains to promote passive restoration of the area to pre-project conditions (except that no invasive plants will be restored). This measure does not apply to situations that are urban/developed that are temporarily affected and will be returned to an urban/developed land use. Before seeding temporary ground disturbance areas, a qualified biologist will review the seeding palette to ensure the plant palette is appropriate. The qualified biologist will ensure no seeding of invasive plant species, as identified in the most recent version of the California Invasive Plant Inventory for the region and as identified within Table 6-2 of the Western Riverside County MSHCP, will occur.

BIO-3 **Best Management Practices for Vegetation Communities and Avoidance and Minimization of Edge Effects on Wildlife Movement.** The following best management practices (BMPs) will be implemented to minimize indirect impacts to special-status vegetation communities.

- BIO-3a. Equipment storage, fueling, and staging areas will be located on upland sites with minimal risks of direct drainage into special-status communities or the MSHCP Conservation Area, and will be demarcated with fencing and signage. These designated areas will be located in such a manner as to prevent any runoff from entering special-status communities. Necessary precautions through the implementation of BMPs will be taken to prevent the release of cement or other toxic substances into special-status communities or the MSHCP Conservation Area. Project-related spills of hazardous materials will be reported to the appropriate entities, including but not limited to the U.S. Fish and Wildlife Service and CDFW, and will be cleaned up immediately and contaminated soils removed to approved disposal areas.

- BIO-3b. Silt fencing or other sediment-trapping materials, such as fiber rolls, will be installed at the downstream end of construction activities to minimize the transport of sediments off-site.

- BIO-3c. Settling ponds where sediment is collected will be cleaned in a manner that prevents sediment from re-entering the stream or damaging/disturbing adjacent areas. Sediment from settling ponds will be removed to a location where sediment cannot re-enter the stream or surrounding drainage area. Care will be exercised during removal of silt fencing to minimize release of debris or sediment into streams.

- BIO-3d. No erodible materials will be deposited into water courses or the adjacent MSHCP Conservation Area. Brush, loose soils, or other debris material will not be stockpiled within stream channels, on adjacent banks, or in the MSHCP Conservation Area.

- BIO-3e. Exotic species removed during construction will be properly handled to prevent sprouting or regrowth. Trucks carrying vegetation will be covered, and vegetation materials removed from the site will be disposed of in accordance with applicable laws and regulations.

- BIO-3f. Training of construction personnel will be provided.

- BIO-3g. Ongoing monitoring and reporting will occur for the duration of the construction activity to ensure implementation of BMPs.

- BIO-3h. Active construction areas will be watered regularly to minimize impacts on adjacent vegetation from dust.

- BIO-3i. All equipment maintenance, staging, and dispensing of fuel, oil, coolant, or any other toxic substances will occur only in designated areas within the proposed grading limits of the proposed Project site. These designated areas will be clearly marked and located in such a manner as to contain runoff.

- BIO-3j. Construction equipment will be cleaned of mud or other debris that may contain invasive plants and/or seeds and inspected to reduce the potential of spreading noxious weeds

before mobilizing to the site and before leaving the site during the course of construction.

- BIO-3k. Waste, dirt, rubble, or trash will not be deposited on native habitat.

- BIO-3l. If night lighting is required during construction, lighting will be directed away from the MSHCP Conservation Area to protect species within the MSHCP Conservation Area from direct night lighting. Any new permanent lighting part of the proposed Project will be directed away from the adjacent MSHCP Conservation Area.

- BIO-3m. Landscape plans for the proposed Project adjacent to the MSHCP Conservation Area will be consistent with Table 6-2 of the MSHCP, which indicates which invasive, non-native plant species are to be avoided.

Chapter 3 California Environmental Quality Act Evaluation

3.1 Determining Significance Under CEQA

The proposed project is a joint project by the California Department of Transportation (Department) and the Federal Highway Administration (FHWA) and is subject to state and federal environmental review requirements. Project documentation, therefore, has been prepared in compliance with both the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA). FHWA's responsibility for environmental review, consultation, and any other actions required by applicable Federal environmental laws for this project are being, or have been, carried out by Caltrans pursuant to 23 United States Code Section 327 (23 USC 327) and the Memorandum of Understanding dated May 27, 2022, and executed by FHWA and Caltrans. The Department is the lead agency under CEQA and NEPA.

One of the primary differences between NEPA and CEQA is the way significance is determined. Under NEPA, significance is used to determine whether an EIS, or a lower level of documentation, will be required. NEPA requires that an EIS be prepared when the proposed federal action (project) *as a whole* has the potential to "significantly affect the quality of the human environment." The determination of significance is based on context and intensity. Some impacts determined to be significant under CEQA may not be of sufficient magnitude to be determined significant under NEPA. Under NEPA, once a decision is made regarding the need for an EIS, it is the magnitude of the impact that is evaluated and no judgment of its individual significance is deemed important for the text. NEPA does not require that a determination of significant impacts be stated in the environmental documents.

CEQA, on the other hand, does require the Department to identify each "significant effect on the environment" resulting from the project and ways to mitigate each significant effect. If the project may have a significant effect on any environmental resource, then an EIR must be prepared. Each and every significant effect on the environment must be disclosed in the EIR and mitigated if feasible. In addition, the CEQA Guidelines list a number of "mandatory findings of significance," which also require the preparation of an EIR. There are no types

of actions under NEPA that parallel the findings of mandatory significance of CEQA. This chapter discusses the effects of this project and CEQA significance.

3.2 CEQA Environmental Checklist

This checklist identifies physical, biological, social, and economic factors that might be affected by the proposed Project. In many cases, background studies performed in connection with the projects will indicate that there are no impacts to a particular resource. A NO IMPACT answer in the last column reflects this determination. The words “significant” and “significance” used throughout the following checklist are related to CEQA, not NEPA, impacts. The questions in this form are intended to encourage the thoughtful assessment of impacts and do not represent thresholds of significance.

Project features, which can include both design elements of the project, and standardized measures that are applied to all or most Caltrans projects such as Best Management Practices (BMPs) and measures included in the Standard Plans and Specifications or as Standard Special Provisions, are considered to be an integral part of the project and have been considered prior to any significance determinations documented below; see Chapters 1 and 2 for a detailed discussion of these features. The annotations to this checklist are summaries of information contained in Chapter 2 in order to provide the reader with the rationale for significance determinations; for a more detailed discussion of the nature and extent of impacts, please see Chapter 2. This checklist incorporates by reference the information contained in Chapters 1 and 2.

3.2.1 Aesthetics

Except as Provided in Public Resources Code Section 21099, would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c) 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 a publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

3.2.1.1 CEQA Significance Determinations for Aesthetics

The potential for the proposed Project to result in impacts related to aesthetics was assessed in the VIA (Caltrans 2019a) and the *Visual Resources Technical Report Addendum* (Caltrans 2024c), and the results are summarized in Section 2.1.10 of this EIR/EA. The analysis evaluates Build Alternatives 2, 3, and 5, in addition to the No-Build Alternative (Alternative 1). The following discussion is based on that information.

a) <u>Less Than Significant Impact</u>

The proposed Project study area encompasses the southern reach of Paloma Valley, which borders Menifee Valley to the north and French Valley and Domenigoni Valley to the east. Due to the elevated nature of the I-215 relative to the topography to the east and the lack of tall development at Keller Road,

distant views to the San Jacinto and San Bernardino Mountains are available along the I-215 corridor. San Jacinto Peak and San Gorgonio Mountain are approximately 30 miles and 38 miles to the northeast, respectively, from the interstate span over Keller Road. The presence of distant mountainous terrain creates a visually striking contrast between the low and relatively flat Paloma Valley terrain, scattered local hills, and the bold, dramatic forms of the regional mountain ranges. Despite the fleeting views by interstate motorists, these vistas are considered scenic.

The implementation of the Build Alternatives would not introduce design components or prominent vertical features that would obstruct or substantially alter existing views to the northeast from the I-215 near Keller Road to the distant mountains. The proposed wildlife noise and light barrier, as shown in Figure 2.3-6, would be constructed of earthen material and would measure approximately 1,430 feet long and 7 feet high. This barrier would obscure views of the meadow and hills to the west over a short distance. Once past the barrier, the views of local hills to the west would resume. Views experienced by motorists on the I-215 would be momentarily affected by the Build Alternatives. No impacts would occur on highway neighbors on the eastern side of the I-215, because their views to the west are currently obscured by lower elevation and vegetation. Other than the noise and light barrier, the Build Alternatives would primarily introduce low and horizontal features, including on- and off-ramps, auxiliary lanes, and widened surface roads. The implementation of minimization measures AES-1 through AES-3 would further minimize impacts to the existing visual character and quality of public views of the site and its surroundings. For these reasons, impacts on scenic vistas would be less than significant.

b) <u>No Impact</u>

The I-215 is designated as a Riverside County eligible scenic highway in the Riverside County General Plan; however, the I-215 is not an officially designated or eligible State scenic highway, and is not designated a national scenic byway (Caltrans 2018d; FHWA n.d.b). The nearest eligible scenic highway, the I-15 through Riverside County, is approximately 5 miles to the south. However, due to distance, intervening terrain, and existing commercial and residential development along the I-215 corridor, the proposed Project site is not visible from the I-15. The nearest officially designated state scenic highway, a portion of State Route 74 (SR-74), is approximately 20 miles to the northeast (Caltrans 2018d).

The construction and operation of proposed Project components at the I-215 and Keller Road would not damage scenic features such as hilly terrain, scattered oak trees, and active agricultural lands along the I-215 corridor. Because proposed Project components would not be visible from an officially designated or eligible state scenic highway, no impact would occur.

c) Less Than Significant Impact

The proposed Project site is in an urban and built-up area on state and city ROWs that traverse the Cities of Murrieta and Menifee and Riverside County. The southwestern quadrant of the proposed interchange is on undeveloped Riverside County land that is currently under development review for the Murrieta Hills master-planned residential community.

The implementation of the Build Alternatives would not result in conflicts with any existing or planned land uses or zoning, including City of Murrieta, State of California, or County of Riverside regulations governing scenic quality within the proposed Project site.

As discussed in Section 2.1.10, the implementation of the proposed Build Alternatives would result in low to moderate changes to the existing condition and visual quality. Viewer sensitivity in the area is considered low for both motorists and neighbors. The implementation of the Build Alternatives would include the construction of primarily low and horizontal features, including on- and off-ramps, auxiliary lanes, and widened surface roads. While the implementation of the Build Alternatives would introduce new visual patterns in the landscape, the proposed Project is an extension of an existing major highway feature. Proposed Project components, including ramps, sidewalks, striping, traffic signals, and other features, would be consistent with and visually compatible with the existing character of the I-215 and Keller Road corridors. The proposed noise and light barrier would create a wall-like effect on the western side of the highway and would hinder views to the west to varying degrees over a distance of about 1,430 feet. Once past the barrier, the views of local hills to the west would resume. The implementation of minimization measures AES-1 through AES-3 would further minimize impacts to less than significant on the existing visual character and quality of public views of the site and its surroundings.

d) Less Than Significant Impact

The proposed Project would not create a new source of substantial light or glare that would adversely affect daytime or nighttime views. Proposed improvements may entail the installation of new sources of night lighting; however, the installation of new street or ramp lights or other required sources to adequately illuminate the areas for users would not adversely affect nighttime views.
If required, new lighting sources would likely consist of overhead streetlights that would incorporate lamps of comparable intensity to those of existing streetlights in the area. In addition, lamps would be hooded and directed downward onto the road or ramp surface, to minimize opportunities for light trespass onto adjacent private lands and unnecessary illumination of the nighttime sky. Lastly, new installed lighting sources would be programmed by timers, and their operation would be limited to evening and nighttime hours. Therefore, the potential installation of new sources of night lighting would not adversely affect the quality of existing nighttime and daytime views, and impacts would be less than significant.

3.2.2 Agriculture and Forest Resources

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and the forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

3.2.2.1 CEQA Significance Determinations for Agriculture and Forest Resources

This section is based on a review of NRCS farmland maps and Williamson Act.

a) <u>No Impact</u>

Areas within the proposed Project limits are designated as Farmland of Local Importance. The area is zoned for industrial park, rural residential, SFR, office, and office research park. The land is in non-agricultural use and is not considered as Prime Farmland, Farmland of Statewide Importance, or Unique Farmland (DOC 2017). No active farming is occurring on or near the proposed Project. The proposed Project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use.

b) <u>No Impact</u>

There are no parcels zoned for agricultural use or under a Williamson Act contract within the proposed Project limits.

c, d) <u>No Impact</u>

There are no forest or timberlands within the proposed Project limits.

e) No Impact

The proposed Project would not result in changes to farmland or forest land.

3.2.3 Air Quality

Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations.				
Would the project:	**Significant and Unavoidable Impact**	**Less Than Significant with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
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 to substantial pollutant concentrations?	☐	☐	☒	☐
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

3.2.3.1 CEQA Significance Determinations for Air Quality

The potential for the Build Alternatives to impact air quality was assessed in the updated AQR (Caltrans 2025a) and Section 2.2.6, Air Quality. The following discussion is based on those analyses.

a) Less Than Significant Impact

The proposed Project is in Riverside County within the SCAB under the jurisdiction of the SCAQMD. The proposed Project is in an area of attainment/maintenance for CO and PM_{10}, and of nonattainment for federal $PM_{2.5}$ and O_3 standards. Criteria pollutants O_3, PM_{10}, and $PM_{2.5}$ are in nonattainment for the state standards within the SCAB.

As discussed in Section 2.2.6, Air Quality, the proposed Project would result in temporary increases in air pollutant emissions during its construction. Because

Caltrans has not established significance thresholds for criteria air pollutant emissions for CEQA purposes, the SCAQMD's CEQA emissions thresholds are used as reference levels in the analysis. Tables 2.2.6-6 to 2.2.6-8 in Section 2.2.6 show construction emissions are below SCAQMD thresholds for construction. Therefore, the proposed Project would generate a less than significant amount of pollutants. In addition, the proposed Project would comply with the state and local air district's regulations to avoid or minimize construction emissions. Emission reduction minimization measures would also be implemented, as discussed under measures AQ-1 through AQ-12.

The air quality analysis determined that no long-term emission increases or adverse impacts would be created from the operation of this proposed Project. Pollutant emissions generated by the proposed Build Alternatives would not cause or contribute to any new violations of the NAAQS or CAAQS or delay the timely attainment of these standards.

Furthermore, the proposed Project is listed in the 2024–2050 RTP/SCS (financially constrained RTP) that was adopted by SCAG in April 2024. The proposed Project is also included in the SCAG financially constrained 2025 FTIP. SCAG's FTIP was adopted by SCAG's Regional Council on September 5, 2024 and approved by the FHWA on December 16, 2024. The proposed Project was included in the regional air quality modeling for these two transportation plans. The inclusion of the proposed Project in the transportation plans demonstrates it does not conflict with the air quality plans implemented by SCAG (SCAG 2022, 2024) or the SCAQMD. Therefore, the proposed Project would not conflict with the region's air quality plans. Impacts from the proposed Project would be less than significant.

b) Less Than Significant Impact

As discussed in Response 3.2.3(a), construction emissions would be less than the SCAQMD significance thresholds. The proposed Project would also implement minimization measures AQ-1 through AQ-12 (as described in Section 2.2.6, Air Quality) to further avoid and minimize impacts on air quality, particularly to reduce $PM_{2.5}$ and PM_{10} emissions. Therefore, the proposed Project would not create a new, or worsen an existing, criteria pollutant violation.

When operational, no long-term emission increases or adverse impacts would be created from the operation of the proposed Project. As shown in Table 2.2.6-10

(Section 2.2.6, Air Quality), vehicle emissions for CO and NOx from the No-Build Alternative and Build Alternatives 2, 3, and 5 would be lower in all future years than existing conditions in 2024. This is primarily based on fleet turnover and the implementation of stringent emission standards, and improved fuel economy. Emissions for PM_{10} and $PM_{2.5}$ would be higher in future years under the No-Build and Build conditions than under existing conditions in 2024 because the increase in volume in future years would result in additional tire wear and brake wear. Furthermore, through interagency coordination with SCAG, it was determined by TCWG on June 25, 2024, that the proposed Project is not a POAQC. The traffic volumes generated by the operation of the proposed Project would not generate significant impacts within the region. Additionally, as Section 2.2.6 discussed, the operation of the proposed Project would not create a CO hot-spot within the proposed Project area.

Upon the completion of construction, the proposed Project would accommodate forecasted traffic demands and provide improved connectivity to the regional transportation system along the I-215 and Keller Road. Overall, a cumulatively considerable net increase of any criteria pollutant associated with the proposed Project would be less than significant.

c) Less Than Significant Impact

The proposed Project would result in temporary, short-term construction-related increases in pollutant concentrations specifically associated with fugitive dust and construction equipment emissions. As previously identified, maximum construction emissions would be less than the SCAQMD significance thresholds. The proposed Project would also comply with SCAQMD rules and regulations to minimize potential short-term adverse proposed Project-related impacts on sensitive receptors.

As discussed in Response 3.2.3(b), through interagency coordination with SCAG, the I-215/Keller Road Interchange Project was determined to not be a POAQC for $PM_{2.5}$ or PM_{10} NAAQS. A CO hot-spot analysis of the Build Alternatives demonstrated compliance with the federal 1-hour and 8-hour NAAQS; NOx emissions in all future Build Alternatives would generate less emissions than the existing conditions.

Overall, impacts to sensitive receptors exposed to substantial pollutant concentrations associated with the proposed Project would be less than significant.

d) Less Than Significant Impact

Potential odor sources associated with the proposed Project may result from equipment exhaust and asphalt paving during construction. These types of odors are temporary and would cease upon the completion of construction. Additionally, the proposed Project is required to comply with SCAQMD Rule 402 to prevent occurrences of public nuisances associated with odor. Overall, odors associated with the proposed Project would be less than significant.

3.2.4 Biological Resources

Would the Project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service or NOAA Fisheries?	☐	☒	☐	☐
c) 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?	☐	☒	☐	☐
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?	☐	☐	☒	☐

Would the Project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☒	☐
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☒	☐	☐

3.2.4.1 CEQA Significance Determinations for Biological Resources

The potential for the proposed Project to result in impacts on biological resources was assessed in the NES (Caltrans 2021a) and the NES Addendum (Caltrans 2023c), the results of which are summarized in Sections 2.3.1 through 2.3.6 of this document. The following discussion is based on that information.

a) <u>Less Than Significant with Mitigation Incorporated</u>

The proposed Project would cause temporary and permanent impacts on suitable habitat as a result of construction for the following non-listed special-status species: paniculate tarplant, small-flowered microseris, golden eagle, white-tailed kite, California horned lark, western spadefoot toad, red diamond rattlesnake, Blainville's horned lizard, northwestern San Diego pocket mouse, Dulzura pocket mouse, southern grasshopper mouse, Los Angeles pocket mouse, San Diego black-tailed jackrabbit, and American badger.

Additionally, permanent and temporary impacts would occur to the following listed species: coastal California gnatcatcher, Stephens' kangaroo rat, and least Bell's vireo, as well as one State candidate species: burrowing owl.

Sections 2.3.3, 2.3.4, and 2.3.5 contain tables that show specific quantities of these impacts for each species.

All of these species, except for Dulzura pocket mouse, southern grasshopper mouse, and American badger, are adequately conserved under the MSHCP; therefore, the conservation goals and objectives for each species have been met. The goals and objectives include the acquisition of habitat, connectivity, and monitoring and management to ensure the health of each species. The MSHCP

provides conservation efforts to prevent the species from declining further. Additionally, mitigation measures BIO-8, BIO-14, and BIO-21, and minimization measures BIO 13, and BIO-15 through BIO-20, would be incorporated to comply with the MSHCP, as well as, to reduce overall impacts on non-listed and listed species.

Dulzura pocket mouse, southern grasshopper mouse, and American badger are not covered by the MSHCP, but habitats impacted by the proposed Project are contiguous with additional suitable habitat for these species, and effects on these species are expected to remain low.

Therefore, the impact on candidate, sensitive, or special-status species would be less than significant with mitigation incorporated.

b) Less Than Significant with Mitigation Incorporated

The proposed Project would impact the following sensitive natural communities: MSHCP riparian/riverine habitat and CDFW riparian habitat. Build Alternatives 2, 3, and 5 would temporarily impact 0.38, 0.45, and 0.09 acres of MSHCP riverine habitat, respectively, and 0.28, 0.22, and 0.20 acres of MSHCP riparian habitat, respectively (refer to Table 2.3.1-3). Build Alternatives 2, 3, and 5 would permanently impact 0.18, 0.13, and 0.11 acres of MSHCP riverine habitat, respectively, and 0.06, 0.09, and 0.09 acres of MSHCP riparian habitat, respectively (refer to Table 2.3.1-6).

Build Alternatives 2, 3, and 5 would temporarily impact 0.28, 0.22, and 0.20 acres of CDFW riparian habitat, respectively, and 0.49, 0.56, and 0.17 acres of CDFW non-riparian streambed, respectively. Build Alternatives 2, 3, and 5 would permanently impact 0.06, 0.09, and 0.09 acres of CDFW riparian habitat, respectively, and 0.18, 0.13, and 0.14 acres of CDFW non-riparian streambed, respectively. Refer to Tables 2.3.2-4, 2.3.2-6, and 2.3.2-8.

Minimization measures BIO-9 through BIO-11 would minimize impacts by using ESA fencing, restoring temporarily impacted areas, and implementing BMPs during and after construction. Mitigation measures BIO-8 and BIO-12 would provide compensation for permanently impacted areas through coordination with the wildlife and permitting agencies. The implementation of these measures would reduce the impact on riparian habitat and other sensitive natural

communities to a less than significant level. Refer to Sections 2.3.1 and 2.3.2 for a detailed discussion of these impacts and associated mitigation.

c) Less Than Significant with Mitigation Incorporated

The impacts on federally protected waters of the United States and /State described in this section are based on guidelines at the time of the jurisdictional delineation; however, USACE may not take jurisdiction over the ephemeral channels.

As detailed in Section 2.3.2, Wetlands and Other Waters, Build Alternatives 2, 3, and 5 would temporarily impact 0.12, 0.12, and 0.08 acres of federally protected wetland waters of the United States and State, respectively, and 0.12, 0.12, and 0.04 acres of non-wetland waters of the United States and State, respectively. Build Alternatives 2, 3, and 5 would permanently impact 0.0, 0.01, and 0.04 acres of federally protected wetland waters of the United States and State, respectively, and 0.18, 0.09, and 0.09 acres of non-wetland waters of the United States and State, respectively. Refer to Tables 2.3.2-3, 2.3.2-5, and 2.3.2-7.

Potential indirect impacts on adjacent waters of the United States and State may occur as a result of erosion or accidental spill of debris, oil, petroleum, or other hazardous material that may indirectly impact water quality. During construction activities, BMPs would be implemented to ensure that erosion caused by construction activities did not occur and that sediment was not deposited in the jurisdictional waters, as described in BIO-11.

Avoidance and minimization measures BIO-9 through BIO-11 would minimize impacts by using ESA fencing, restoring temporarily impacted areas, and implementing BMPs during and after construction. Mitigation measure BIO-12, as described in Section 2.3.2, would provide compensation for permanently impacted areas through coordination with the permitting agencies to reduce impacts to a less than significant level.

d) Less Than Significant Impact

The proposed Project study area contains a drainage identified as Proposed Constrained Linkage (PCL) 16 by the MSHCP. As described in Section 2.3.1, the existing culverts at PCL 16 consist of one 60-inch-diameter pipe and one 48-inch-diameter pipe that run nearly parallel beneath the road and highway (approximately 230 feet long). A Wildlife Movement Study was conducted in

summer and fall of 2015, as discussed in Chapter 2 of the NES (Caltrans 2021a). Results indicate that small to mid-sized mammals are likely using the culverts to pass between MSHCP Proposed Core 2 and Proposed Linkage 8. Wildlife using the culverts located within PCL 16 to cross under the freeway could continue to do so, because there would be no lengthening or other modifications to either culvert as a result of any of the proposed Project Build Alternatives that would change the direct line of sight or current dimensions of each culvert.

Permanent, indirect impacts may occur on wildlife movement as a result of changes in drainage, water quality, traffic noise, light from traveling vehicles, and/or increased potential for mortality with the addition of the SB merge lane. Minimization measures BIO-3 through BIO-6 would reduce impacts on wildlife movement with the installation of a wildlife fence and a noise and light barrier, and the placement of vegetative cover at the western entrance of the culverts. Edge effects on wildlife movement would also be reduced by implementing BMPs, such as silt fencing; designating staging areas; and avoiding the MSHCP Conservation Area. With the implementation of these measures, the impact on wildlife movement and associated wildlife corridors would be less than significant.

The proposed Project would not impact any native wildlife nursery site and would not impact the movement of any native resident or migratory fish species.

e) Less Than Significant Impact

The City of Murrieta Municipal Code, Section 16.42, outlines the City of Murrieta's permitting requirements for the removal of protected trees. Protected trees include mature native oak trees, mature native trees, mature trees, historically significant trees, or any tree required to be planted or preserved as environmental mitigation or as a condition of approval for a discretionary permit. Build Alternatives 2 and 3 would temporarily impact 0.13 acres and 0.07 acres of riparian forest, respectively. Build Alternative 3 would permanently impact 0.03 acres of riparian forest. No impacts on riparian forest would occur as a result of Build Alternative 5. Riparian forest contains California live oak and Fremont cottonwood tree species, which fall within the definition of protected trees. However, "a tree removal permit shall not be required in the event that the removal or relocation of a protected tree is proposed as part of a discretionary permit application" (City of Murrieta 1995a). Because the proposed Project would require a permit from CDFW, RWQCB, and/or USACE to impact the riparian forest, this ordinance does not apply. The proposed Project would not conflict

with other local policies or ordinances protecting biological resources. Therefore, impacts would be less than significant.

f) Less Than Significant Impact with Mitigation Incorporated

The Western Riverside County MSHCP is the HCP that applies to the proposed Project. The proposed Project is considered a covered activity by the MSHCP and would comply with all requirements and measures set forth by the MSHCP for covered species within the proposed Project impact area, as well as threatened or endangered species, migratory bird species, and sensitive habitats. MSHCP-covered species within the proposed Project study area include small-flowered microseris, golden eagle, white-tailed kite, California horned lark, burrowing owl, Blaineville's horned lizard, red diamond rattlesnake, western spadefoot, northwestern San Diego pocket mouse, Los Angeles pocket mouse, San Diego black-tailed jackrabbit, coastal California gnatcatcher, least Bell's vireo, and Stephens' kangaroo rat. The implementation of avoidance, minimization and mitigation measures BIO-1 through BIO-8 and BIO-13 through BIO-21, as described in Sections 2.3.1 through 2.3.6, include MSHCP compliance measures that would ensure the proposed Project meets the goals and objectives of the MSHCP. Because the proposed Project would incorporate mitigation measures in order to ensure conflicts with the provisions of the MSHCP would not occur, impacts would be less than significant with mitigation incorporated.

3.2.5 Cultural Resources

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	☐	☐	☒	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☐	☒	☐
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☐	☒	☐

3.2.5.1 CEQA Significance Determinations for Cultural Resources

The potential for the Build Alternatives to impact cultural resources was assessed in the *Historic Property Survey Report* (Caltrans 2022c), the *Archaeological Survey Report* (Caltrans 2022d), and in Section 2.1.11, Cultural Resources, of this EIR/EA. The following discussion is based on those analyses.

a) Less Than Significant Impact

As detailed in Section 2.1.11, Cultural Resources, CA-RIV-645 is a habitation site in the southern portion of the APE that has been determined to be eligible for listing in the CRHR under Criterion 3 (presence of rock art and rock shelters) and Criterion 4 (data potential).

Caltrans' policy is to avoid cultural resources whenever possible, and an ESA has been established for CA-RIV-645 to protect and preserve intact portions of the site. All work must be performed outside the ESA. Additionally, an AMA has been established within the ADI boundary for Site CA-RIV-645; no ground-disturbing activities will occur within the AMA unless an archaeological monitor is present. Overall, intact portions of the site containing character-defining features that convey its significance under Criteria 3 and 4 of the CRHR, and Criteria C and D of the NRHP, would be preserved in place with implementation of avoidance and minimization measures CR-3 and CR-5 (Section 2.1.11). Therefore, the impact on historical resources would be less than significant.

b) Less Than Significant Impact

CA-RIV-645 was determined eligible for the CRHR under Criteria 3 and 4. The site was determined eligible for listing in the CRHR under Criterion 3 because of the presence of rock art (pictographs and petroglyphs) and rock shelters that hold cultural importance to the Luiseño. The site was also determined eligible for listing under Criterion 4 because of the presence of substantial subsurface midden deposits consisting of features, lithics, and various tool types that have the potential to answer scientific research questions important to the prehistory of the region. Additionally, the site was determined eligible for listing in the NRHP under Criteria C and D.

An ESA has been established for Site CA-RIV-645 to protect and preserve intact portions of the site. All work must be performed outside the ESA. Additionally, an AMA has been established within the ADI within the boundary of Site CA-RIV-645; no ground-disturbing activities would occur within the AMA

unless an archaeological monitor is present. Overall, intact portions of the site that contain the character-defining features of the site and that convey its significance under Criteria 3 and 4 of the CRHR (and Criteria C and D of the NRHP) would be preserved in place with implementation of avoidance and minimization measures CR-1 and CR-3 (Section 2.1.11). Therefore, the impact on archaeological resources would be less than significant.

c) Less Than Significant Impact

Although considered unlikely, there is a potential to encounter unknown buried human remains within the APE during the construction of the selected Build Alternative. If previously unknown buried human remains are encountered during construction, compliance with Caltrans Standard minimization measure CR-2 (Section 2.1.11), would avoid and minimize potential impacts on previously unknown human remains. Therefore, the proposed Project's impact on human remains would be less than significant.

3.2.6 Energy

Would the Project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☒	☐
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☐	☒

3.2.6.1 CEQA Significance Determinations for Energy

The potential for the Build Alternatives to impact energy was assessed in the updated AQR (Caltrans 2025a), and in Section 2.2.8, Energy. The following discussion is based on those analyses.

a) Less Than Significant Impact

Construction energy use would result from off-road construction equipment, water trucks, and on-road vehicles for asphalt hauling, soil hauling, and worker

commuting. The amount of fuel used per year for the construction of the proposed Project was estimated using the latest version of the CAL-CET2021 (v1.0).

The construction of the proposed Project is expected to take approximately 16 months. The energy used for construction was calculated using conversion factors of 120,214 Btu per gallon of gasoline and 137,381 Btu per gallon of diesel fuel (EIA 2024). Table 2.2.8-2 in Section 2.2.8, Energy, provides the annual construction energy consumption for the proposed Project. Total energy consumption for construction of Build Alternatives 2, 3, and 5 would be approximately 11,073 MMBtu, 11,486 MMBtu, and 11,485 MMBtu, respectively. This represents a small demand on local and regional fuel supplies that would be easily accommodated, and this demand would cease once construction was complete. Moreover, construction-related energy consumption would be temporary and not a permanent source of energy demand, and demand for fuel would have no noticeable effect on peak or baseline demands for energy.

Operational energy use for transportation projects is typically dominated by vehicle fuel usage. However, the proposed Project is also proposing to improve multimodal transportation options (pedestrian and bicycle facilities) within the proposed Project site to encourage more sustainable avenues of transportation within the proposed Project area. As shown in Table 2.2.8-3 in Section 2.2.8, Energy, the energy consumption under the Build Alternatives would be slightly less than the No-Build Alternative. The proposed Project would not result in any wasteful, inefficient, or unnecessary consumption of energy resources. Therefore, the proposed Project would result in a less than significant energy impact.

b) No Impact

The proposed Project is listed in the 2024–2050 RTP/SCS financially constrained RTP that was adopted by SCAG in April 2024. The RTP continues to plan a shift toward more efficient resource management by optimizing plans, strategies for transportation infrastructure, land resources, and environmental resources. The inclusion of the proposed Project in the RTP demonstrates the proposed Project would not conflict with any applicable state or local plan for renewable energy or energy efficiency. The proposed Project would result in no impact.

3.2.7 Geology and Soils

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
(i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☒
(ii) Strong seismic ground shaking?	☐	☐	☒	☐
(iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
(iv) Landslides?	☐	☐	☒	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☒	☐
e) 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?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐

3.2.7.1 CEQA Significance Determinations for Geology and Soils

The following determinations are based on the *Preliminary Geotechnical Design Report* (Leighton 2019), the *Structure Preliminary Geotechnical Report* (Leighton 2018), Department of Conservation Geologic Hazard Mapping (California Department of Conservation 2023), Riverside County *General Plan* (Riverside County 2021a), City of Murrieta *General Plan* (City 2020a), and City of Menifee *General Plan* (City of Menifee 2013a).

a (i) No Impact

The proposed Project area is between the Elsinore and San Jacinto Fault Zones. There are no active faults mapped crossing, within, or adjacent to the proposed Project site. The proposed Project is not within an Alquist-Priolo Earthquake Fault Zone (DCO 2023). Therefore, there would be no impact on the proposed Project as a result of ground rupture of a known fault.

a (ii) Less Than Significant Impact

The proposed Project site could periodically experience ground acceleration as the result of moderate to large seismic events. The structures constructed for the proposed Project, such as bridges, culverts, retaining walls and overhead signs, could potentially be subject to substantial impacts related to seismic ground-shaking. The proposed Project would be designed in accordance with the requirements of the *Caltrans Seismic Design Criteria Version 2.0* (SDC) (Caltrans 2019h), the *AASHTO LRFD Bridge Design Specifications* (AASHTO 2020) and the *AASHTO LRFD Bridge Design Specifications California Amendments* (Caltrans 2019e) to minimize ground-shaking impacts. Therefore, impacts as a result of seismic ground-shaking would be less than significant.

a (iii) Less Than Significant Impact

Liquefaction hazard zones are not mapped within or adjacent to the proposed Project area (DCO 2023, Riverside County 2021a, City of Murrieta 2020a, and City of Menifee 2013a). Therefore, the potential for liquefaction to occur within the proposed Project area is very low. The liquefaction hazard determination would be verified as part of the *Geotechnical Design Report* and *Foundation Report,* to be prepared during the PS&E phase of the proposed Project. The potential for impacts on the proposed Project resulting from liquefaction would be less than significant.

a (iv) Less Than Significant Impact

The potential for earthquake-related landslides within the proposed Project area is based on known conditions and published geologic maps. No landslide hazard areas are mapped within or adjacent to the proposed Project (DOC 2023). The nearest mapped landslide hazard zone is south of the proposed Project, in the hills on the western side of the freeway, across from the Loma Linda University Medical Center. Because there are no steep or tall hills within or immediately adjacent to the project limits, the likelihood of a landslide occurring in the proposed Project area is very low. Potential impacts related to landslides on the proposed Project are less than significant.

b) Less Than Significant Impact

Activities including vegetation removal and grading would disturb on-site soils that are inherently subject to erosion, particularly if exposed to rainfall or irrigation. Unpaved slopes that are susceptible to erosion within the proposed Project's limits include the bridge approach embankments and on- and off-ramps. Provisions for site drainage, slope planting, and other measures would be required in accordance with Caltrans requirements, to provide protection against short- and long-term erosion, as described in minimization measures WQ-1 and WQ-2 in Section 2.2.2. During construction activities for the Build Alternatives, the contractor would adhere to the requirements of the General Construction Permit and implement erosion and sediment control BMPs. Potential erosion impacts would be less than significant.

c) Less Than Significant Impact

Potentially collapsible soils may be present in the shallow alluvium at the proposed Project site. The soil collapse potential would be further evaluated during the PS&E phase geotechnical investigations, as described in minimization measures GEO-1 through GEO-3 in Section 2.2.3, to determine the required depth of over-excavation. Over-excavation would remove potentially detrimental soils, and impacts related to collapsible soils would be less than significant.

Ground acceleration generated from a seismic event can produce settlements in dry or moist sands (granular earth materials) with relatively low density. Near-surface loose soil deposits at the proposed Project site that are susceptible to seismically induced settlement would be removed and recompacted before placing additional fill. Settlement would be further evaluated during the PS&E

phase geotechnical investigations, as described in minimization measures GEO-1 through GEO-3 in Section 2.2.3, to determine the required depth of over-excavation. Over-excavation would remove the potentially detrimental soils, and impacts related to the presence of unstable soils would be less than significant.

The proposed Project site is not in a known subsidence area, and subsidence impacts would be less than significant.

d) Less Than Significant Impact

Expansive soils can result in damage to overlying structures and infrastructure, due to their ability to undergo significant volume changes (shrink or swell) as a result of variations in moisture content, even without an increase in external loads. Potentially expansive soils exist at the proposed Project site. Expansive soils would be removed or treated in place, so their impacts would be minimized. Expansive soil potential would be further evaluated during the PS&E phase geotechnical investigations as described in minimization measure GEO-1 and GEO-2 in Section 2.2.3. Recommendations would be provided in accordance with Caltrans requirements, and impacts related to expansive soils would be less than significant.

e) No Impact

The proposed Project is an infrastructure improvement project and does not require a septic tank or sewer system. Therefore, no impacts related to this issue would occur.

f) Less Than Significant with Mitigation Incorporated

As described in Section 2.2.4, Paleontology, all of the Build Alternatives involve ground-disturbing activities during construction and would have similar potential impacts on paleontological resources. Ground-disturbing activities within the proposed Project site would be limited to grading and fill. Grading would take place in previously disturbed soils or in fill deposits, and would not extend into undisturbed soils. However, it is likely that the construction of the roadway improvements for the proposed Project (such as excavation for the new interchange) would result in adverse impacts on sedimentary deposits with high paleontological resource potential (such as Pleistocene older alluvium). As such, the construction of any Build Alternative has the potential to impact paleontological resources. To mitigate potential significant impacts on potential

paleontological resources during construction, mitigation measure PAL-1 would be implemented. As part of mitigation measure PAL-1, a PMP would be developed concurrently with final design plans, and would follow Caltrans guidelines as described in Caltrans' SER in Volume 1, *Guidance for Compliance*, Chapter 8, Paleontology (Caltrans 2017b). The PMP would also follow guidelines from the Society of Vertebrate Paleontology. The implementation of PAL-1 through PAL-3 would reduce the impact on paleontological resources to less than significant as discussed in Section 2.2.4.

3.2.8 Greenhouse Gas Emissions

Would the Project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☒	☐	☐	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☒	☐	☐	☐

3.2.8.1 CEQA Significance Determinations for Greenhouse Gas Emissions

The potential for the Build Alternatives to affect GHG emissions was assessed in the AQR (Caltrans 2025a) and in Section 2.2.6 of this EIR/EA. The following discussion is based on those analyses.

a) Significant and Unavoidable Impact

GHG emissions from transportation projects can be divided into those produced during the operations of the proposed Project and those produced during construction. The primary GHGs produced by the transportation sector are CO_2, methane (CH_4), nitrous oxide (N_2O), and hydrofluorocarbons (HFCs).

Operational GHG Emissions. In California, the transportation sector is the largest contributor to GHGs. The greatest sources of transportation-related GHG emissions are passenger cars and light-duty trucks, including sport utility vehicles, pickup trucks, and minivans (U.S. EPA 2022). The highest levels of

GHG emissions from mobile sources, such as automobiles, occur at stop-and-go speeds from 0 to 25 mph and speeds over 55 mph, with the most severe emissions occurring between 0 and 25 mph. The purposes of the proposed Project are to improve existing and projected interchange geometric deficiencies, provide increased interchange capacity, reduce congestion, and improve traffic operations.

Operational emissions would include GHGs from vehicles traveling in the proposed Project study area. GHG emissions for the existing/baseline, opening year, and design years were modeled using Caltrans' CT-EMFAC2021 model, and the results are shown in Table 3.2.8-1.

Table 3.2.8-1. Modeled Annual CO_2e Emissions by Alternative

Alternative	CO_2e Emissions (Metric Tons/Year)	Difference Build versus No-Build Alternative (MT)	Change over Existing/ Baseline (MT)	Annual Vehicle Miles Traveled[a]
Existing/ Baseline (2024)	102,970	N/A	N/A	288,419,807
No-Build Alternative (2027)	109,960	N/A	6,990	330,951,944
Build Alternative 2 (2027)	109,926	-34	6,956	330,727,782
Build Alternative 3 (2027)	109,926	-34	6,956	330,727,782
Build Alternative 5 (2027)	109,926	-34	6,956	330,727,782
No-Build Alternative (2047)	122,902	N/A	19,923	472,725,734
Build Alternative 2 (2047)	122,473	-429	19,503	472,601,508
Build Alternative 3 (2047)	122,473	-429	19,503	472,601,508
Build Alternative 5 (2047)	122,473	-429	19,503	472,601,508

Source: CT-EMFAC2021(v1.0.2.0)
[a] Annual VMT values derived from Daily VMT values multiplied by 347, per ARB methodology (ARB 2008).
Notes:
CO_2e = carbon dioxide equivalent
MT = metric ton(s)
N/A = not applicable

The Build Alternatives would experience higher GHG emissions, approximately 6,956 and 19,503 MT of CO_2e more in 2027 and 2047, respectively, compared to existing/baseline conditions. Build Alternative emissions would be lower by approximately 34 and 429 MT of CO_2e in 2027 and 2047, respectively, compared to the respective No-Build Alternative. Emission decreases under the Build

Alternatives in future years, compared to the No-Build Alternative, are due to the new interchange at the I-215 and Keller Road, which would provide travelers with a direct connection to the I-215, and would reduce traffic traveling to interchanges located farther away, such as the Scott Road interchange and Clinton Keith interchange.

Construction GHG Emissions. Temporary emissions would include GHGs as a result of emissions produced by on-site construction vehicles and equipment. These emissions would be produced at different levels throughout the construction phase.

Construction emissions from the proposed Project's Build Alternatives were evaluated using CAL-CET2021 (v1.0). The construction of the proposed Project would last 334 working days and emit a total of approximately 921 MT of CO_2e for the entire duration of construction. The Project would implement Mitigation measures GHG-1 through GHG-5 to reduce GHG emissions from construction. In addition, the Project would comply with applicable state and local regulations to minimize GHG construction emissions.

In summary, the proposed Project would generate GHG emissions during construction and increase GHG emissions during operations. Because the operational GHG emissions from the Build Alternatives would be greater than the existing/baseline conditions in 2024, the proposed Project would have significant impacts on GHG emissions.

Measures GHG-1 through GHG-5, AQ-1, AQ-5, and AQ-12 would be implemented to reduce GHG emissions from Project construction. Mitigation measures GHG-6 through GHG-13 would be implemented to reduce impacts from Project operations. However, operational GHG emissions after mitigation would remain greater than the existing/baseline condition. Therefore, the GHG emissions impacts from the Project would be significant and unavoidable with mitigation.

b) Significant and Unavoidable

The proposed Project would improve the multimodal facilities that traverse the proposed Project area, by including new sidewalks and Class II bicycle lanes to provide continuous facilities for pedestrian and bicycle traffic. The implementation of the proposed Project would also improve traffic operations in the proposed

Project area by increasing average speeds and reducing congestion and delays. The new interchange at Keller Road would allow travelers to access an interchange closer to their destination than the adjacent interchanges (Scott Road and Clinton Keith Road), which would reduce traffic volumes in the area. However, as discussed in Section 3.2.8 a), estimated GHG emissions in the future opening year (2027) and design year (2047) for the Build Alternatives would be greater than the existing/baseline conditions, which would conflict with goals included in California's Assembly Bill (AB) 32 and other applicable plans and regulations that have been adopted for the purpose of reducing the emissions.

The proposed Project would implement measures GHG-1 through GHG-5, AQ-1, AQ-5, and AQ-12 to minimize or reduce GHG emissions from construction. Mitigation measures GHG-6 through GHG-13 would be implemented to reduce GHG emissions generated from the operations of the proposed Project. However, operational GHG emissions from the Build Alternatives would remain greater than the existing/baseline (2024) conditions with mitigation; therefore, GHG impacts from the proposed Project are considered significant and unavoidable.

AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES

The following measures would be applied to the proposed Project to avoid, minimize, and mitigate GHG impacts:

GHG-1 Schedule truck trips outside of peak morning and evening commute hours.

GHG-2 For improved fuel efficiency from, construction equipment:

- Maintain equipment in proper tune and working condition.
- Use right sized equipment for the job.
- Use equipment with new technologies.

GHG-3 The construction contractor must supplement construction environmental training with information on methods to reduce GHG emissions related to construction.

GHG-4 Recycle existing project features on-site, such as metal beam guardrail, lights, Sub-base Granular Material or native material that meets Caltrans specifications for incorporation into new work.

GHG-5 Reduce construction waste, such as reuse or recycle construction and demolition waste (reduces consumption of raw materials, reducing waste and transportation to landfill).

GHG-6 Select project features that minimize the need for irrigation and non-native plants.

GHG-7 Include landscaping components such as mulch and compost application to improve carbon sequestration rates in soils and reduce organic waste.

GHG-8 Include mulch application around new and existing plants to retain soil moisture.

GHG-9 Design and install long-life pavement structures to minimize life-cycle costs. Consider future climate conditions in decisions.

GHG-10 Select design alternatives that match existing grade as much as possible to reduce earthwork.

GHG-11 Implement intelligent transportation systems and TDM elements to smooth traffic flow and increase system efficiency.

GHG-12 Coordinate controlled intersections so that traffic moves more efficiently through congested areas.

GHG-13 Where traffic signals or streetlights are installed, require the use of Light Emitting Diode technology or similar energy-efficient technology.

AQ-1 The construction contractor must comply with the Caltrans' Standard Specifications in Section 14-9 (2024). Section 14-9.02 specifically requires compliance by the contractor with all applicable laws and regulations related to air quality, including air pollution control district and air quality management district regulations and local ordinances.

AQ-5 Construction equipment and vehicles will be properly tuned and maintained. All construction equipment will use low-sulfur fuel as required by California Code of Regulations Title 17, Section 93114.

AQ-12 To the extent feasible, construction traffic will be scheduled and routed to reduce congestion and related air quality impacts caused by idling vehicles along local roads during peak travel times.

3.2.9 Hazards and Hazardous Materials

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☒
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☒	☐

3.2.9.1 CEQA Significance Determinations for Hazards and Hazardous Materials

This section is based on the ISA (Leighton 2018), the *Technical Report Addendum Memorandum for Hazardous Waste* (Caltrans 2024g), and Section 2.2.5, Hazardous Waste/Materials. Given the scope of the Build Alternatives, potential impacts related to hazards and hazardous materials would be the same for each Build Alternative.

a, b) Less Than Significant Impact

The construction of the proposed Project would require the use of hazardous materials such as solvents, paints, and fuels. These materials would be handled in accordance with standard procedures. A limited amount of hazardous materials required for use during construction would be maintained on-site, for maintenance purposes only and with no bulk storage. Such materials would be used on an as-needed basis. The construction of the proposed Project would adhere to Caltrans policies and applicable local, state, and federal safety standards associated with the handling of hazardous materials. Additionally, routine operations and maintenance would follow applicable regulations associated with the use, transport, storage, handling, and disposal of potentially hazardous materials.

The construction of the proposed Project would involve the disturbance of existing soils and structures. This may lead to encounters with hazardous soil contaminants and structural materials. Additionally, there is potential for soil impacts from arsenical pesticides and OCPs in the former agricultural portions surrounding the proposed Project site, and there is potential for ACMs, LBP, and termiticide pesticides in structures identified within the proposed Project site, as described in Section 2.2.5. The results of a *Site Investigation and Aerially Deposited Lead Survey* (Leighton 2019) indicate lead concentrations in the soil would be considered acceptable for unrestricted use, and would not pose a

significant risk to the environment, to worker/public safety, or to health. A lead compliance plan would be developed in accordance with Caltrans Standard Specifications Section 7-1.02K(6)(j)(ii).

The proposed Project would implement minimization measures HAZ-1 through HAZ-6 to minimize impacts related to hazardous material. Potential impacts related to the routine transport, use, or disposal of hazardous materials and potential impacts involving the release of hazardous materials into the environment would be less than significant.

c) Less than Significant Impact

The proposed Project site is within one-quarter mile of Oak Meadows Elementary School. The construction of the proposed Project would require the use of common hazardous materials such as solvents, paints, and fuels; however, the use of acutely hazardous materials would not be required. As stated above in a and b, these materials would be handled in accordance with standard procedures. Such materials would be used on an as-needed basis. The construction of the proposed Project would adhere to Caltrans policies and applicable local, state, and federal safety standards associated with the handling of hazardous materials. Additionally, routine operations and maintenance would follow applicable regulations associated with the use, transport, storage, handling, and disposal of potentially hazardous materials.

The proposed Project would implement measures HAZ-1 through HAZ-6 to minimize impacts related to hazardous materials. Therefore, impacts involving the release of hazardous materials into the environment within one-quarter mile of the school would be less than significant.

d) No Impact

No sites listed on the Hazardous Waste and Substances Site List (Cortese) are within the proposed Project limits (DTSC 2024). Therefore, no impact would occur.

e) No Impact

The proposed Project site is not within an airport land use plan or within 2 miles of a public airport or public use airport; therefore, no impact would occur.

f) Less Than Significant Impact

During the construction of the Build Alternatives, the potential for the temporary closure of lanes or streets, or the implementation of temporary detours, could decrease speeds in and surrounding the proposed Project site or result in the need for altered emergency vehicle routes for emergency services, such as fire and police response. Minimization measure T-1 would require the implementation of a TMP, and would include emergency response coordination between fire and all emergency services, the Cities of Murrieta and Menifee, and Riverside County. The implementation of the TMP will ensure that appropriate access is provided for all necessary emergency response personnel. Additionally, the implementation of Emergency Vehicle Preemption systems would prioritize emergency vehicles by giving emergency vehicles green time priority at traffic signals, improving response times and enhancing safety. Antelope Road would be closed south of Mapleton Avenue and turned into a cul-de-sac south of Brians Way, to accommodate the proposed Keller Road NB off- and on-ramps; however, access to properties along Antelope Road between Brians Way and Keller Road would be re-established. The proposed Project does not include any elements that would permanently impair or otherwise interfere with emergency response or evacuation within the proposed Project site or local streets. Compared to the No-Build Alternative, the proposed Project and new direct access from the I-215 would improve accessibility and mobility within and surrounding the proposed Project site for emergency responders. Therefore, impacts related to emergency response plans and emergency evacuation plans would be less than significant.

g) Less Than Significant Impact

Portions of the proposed Project site are within Local Responsibility Area Moderate and Very High Fire Hazard Severity Zones. The proposed Project site is also near a State Very High Fire Hazard Severity Zone (CAL FIRE 2022) (refer to Figure 3.3-1). The proposed Project site currently contains existing highway facilities, residential uses, the Kaiser Permanente Murrieta Medical Campus, and access roads. Adjacent land uses include residential, rural residential, commercial, light industrial, vacant, and MSHCP conservation land. As detailed in Section 3.2.20 and Section 3.3, the new direct access to the I-215 at Keller Road would improve accessibility to local streets off Keller Road with the.new interchange, as well as roadway improvements at Keller Road and Antelope Road. Construction materials would primarily be fire-resistant, consisting of

concrete and steel, and the widened roadways would be an improved fire break and staging area for emergency response teams. During construction, minimization measure WF-1 would incorporate fire prevention practices into the proposed Project specifications for the contractor to implement, which would minimize the potential for wildfires associated with construction activities. Based on the proposed Project improvements and with the incorporation of fire prevention practices, the Project would not expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires. Therefore, impacts would be less than significant.

3.2.10 Hydrology and Water Quality

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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, in a manner which would:				
(i) result in substantial erosion or siltation on- or off-site;	☐	☐	☒	☐
(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☐	☐	☒	☐
(iii) 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; or	☐	☐	☒	☐

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(iv) impede or redirect flood flows?	☐	☐	☒	☐
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☒
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☐	☒

3.2.10.1 CEQA Significance Determinations for Hydrology and Water Quality

The following impact determinations are based on the proposed Project's *Scoping Questionnaire for Water Quality Issues* (Caltrans 2024f), the LOTB data for the existing Keller Road Undercrossing Bridge (Caltrans 2019i), the Santa Ana RWQCB's Basin Plan (SARWQCB 2019), the Riverside County DAMP (Riverside County 2006), and the Santa Ana RWQCB's WQMP (SARWQCB 2012a).

a) Less Than Significant Impact

During construction activities, excavated soil would be exposed and there would be an increased potential for soil erosion compared to existing conditions. The total disturbed area for the Build Alternatives would be approximately 34.7 acres, according to the Project's *Scoping Questionnaire for Water Quality Issues* (Caltrans 2024f). In addition, chemicals, liquid products, petroleum products (for example, paints, solvents, and fuels), and concrete-related waste may be spilled or leaked during the construction of the proposed Project, with the potential to be transported via storm runoff into receiving waters. The proposed Project would result in a net increase in impervious area of 4.7 acres (Caltrans 2024f), which would increase the volume of runoff during a storm and more effectively transport pollutants to receiving waters. However, the proposed Project would be required to comply with applicable NPDES permits for construction (Construction General Permit) and operation (Caltrans MS4 Permit) to reduce pollutants in stormwater, as specified in minimization measures WQ-1 and WQ-2, which are provided in Section 2.2.2. In compliance with the NPDES permits, as discussed in

Section 2.2.2, treatment BMPs within the proposed Project limits could include biofiltration swales and infiltration basins and would be developed in accordance with minimization measure WQ-2 to treat 100% of the net new impervious area. The BMPs would be implemented during the construction and operation of the proposed Project. The BMPs would target and reduce pollutants of concern in stormwater runoffs. Minimization measures WQ-1 and WQ-2 would ensure that the proposed Project would not violate water quality standards, WDRs, or substantially degrade surface water quality. Impacts would be less than significant.

Based on the LOTB data for the existing Keller Road Undercrossing Bridge, dated May 2009 (Caltrans 2019i), groundwater is 38 feet bgs. Only bridge piles required for the widening of the Keller Road overcrossing would have the potential to encounter groundwater. Minimization measures WQ-1 and WQ-2, described in Section 2.2.2, would be implemented during the construction of the bridge piles to avoid or minimize impacts on the groundwater. Other excavations required to lower Keller Road beneath the overcrossing or utility relocations would not approach 38 feet bgs, and would be unlikely to encounter the groundwater table. In addition, stormwater infiltration can have the potential to affect groundwater quality. However, pollutants in stormwater are generally removed by soil through absorption as water infiltrates. In areas of deep groundwater, there is more adsorption potential and, as a result, there is less potential for pollutants to reach groundwater.

Due to the depth to groundwater and the implementation of minimization measures WQ-1 and WQ-2, proposed Project construction or operation is not anticipated to affect groundwater quality. Because it is unlikely that pollutants would reach the groundwater table, the proposed Project would not violate groundwater quality standards, WDRs, or substantially degrade groundwater quality. Impacts would be less than significant.

b) Less Than Significant Impact

The proposed Project site is not a designated groundwater recharge area. As described in question (a) above, except for the bridge piles required to widen the Keller Road overcrossing having the potential to encounter groundwater, there would be no construction activities expected below groundwater and/or in water courses that would require dewatering or water diversion. In addition, groundwater extraction would not be required during operation.

The Build Alternatives would increase the impervious surface area, which would decrease infiltration potential and decrease the amount of water that could recharge groundwater. However, the Build Alternatives would include treatment BMPs, such as infiltration basins, which would offset the decrease in infiltration. Therefore, the proposed Project would not substantially decrease groundwater supplies, interfere with groundwater recharge, or impede groundwater basins. Impacts to groundwater supplies and recharge would be less than significant.

c (i) Less Than Significant Impact

During grading, excavation, and other construction activities, soil would be disturbed and drainage patterns would be temporarily altered. As a result, there would be an increased potential for on-site and downstream erosion and siltation compared to existing conditions. However, as discussed in Section 2.2.2, the proposed Project would comply with the Construction General Permit as specified in minimization measure WQ-1. The Construction General Permit requires the preparation of a SWPPP and the implementation of erosion control and sediment control BMPs to reduce impacts on water quality during construction, including impacts associated with soil erosion and siltation. As a provision of the Construction General Permit, the termination of the Construction General Permit would not be granted until the soil loss after construction was less than it had been at the beginning of construction.

The proposed Project would not permanently alter the alignment of a stream or the configuration of a water body. However, the proposed Project would increase the impervious surface area on the proposed Project site and could increase peak runoff flow during a storm event. In the proposed condition, the on-site impervious surface areas would not be prone to erosion or siltation. The maintenance of the natural vegetation of drainage ditches would decrease the velocity of any runoff flow, and would therefore prevent increase in erosion. Additionally, slopes would be graded at a rate of 4H:1V change, and rounding would be implemented to promote sheet flow and reduce the potential for concentrated flows. Furthermore, rock slope protection would be incorporated at culvert outlets to provide energy dissipation and reduce the potential of scour. Therefore, the proposed Project would not increase on-site erosion or siltation. Additionally, as required by minimization measure WQ-2 treatment BMPs within the proposed Project limits could include biofiltration swales and infiltration basins and would be developed to treat 100% of the net new impervious area. As discussed in Section 2.2.2, stormwater runoff from the proposed Project site

would be treated with BMPs that would reduce the total amount of sediment in surface runoff from the proposed Project site, thereby reducing the downstream transport of sediment in stormwater runoff. With the implementation of the minimization measures WQ-1 and WQ-2, impacts related to on-site or off-site erosion would be less than significant.

c (ii) Less Than Significant Impact

The proposed Project would not permanently alter the alignment of a stream or the configuration of a water body. The proposed Project would increase the impervious surface area, which would increase peak runoff flow during a storm event. However, the proposed Project would improve the existing drainage patterns by improving the distribution of stormwater flow to the storm drain systems. The existing stormwater infrastructure and planned enhancements including new dikes, curbs, catch basins, and pipes, would collect stormwater runoff from the Build Alternatives and convey it to proposed treatment BMPs before discharging to the existing downstream drainage facilities. All the proposed drainage improvements would connect to and maintain the existing drainage system and patterns, and convey on-site stormwater runoff. In addition, as required by minimization measure WQ-2 (discussed in Section 2.2.2), the proposed Project would include treatment BMPs (e.g., a system of basins and swales) to promote infiltration and offset increased flows associated with the increase in impervious surface from the proposed Project, providing flow duration, volume, and rate control functions. By improving the existing drainage pattern and including treatment BMPs, stormwater flow concentrations associated with the proposed Project site would be the same as under current conditions. Therefore, impacts related to increases in on-site or off-site flooding would be less than significant.

c (iii) Less Than Significant Impact

The proposed Project involves the modification of an existing transportation facility. As a result of the increased impervious surface, the proposed Project would increase peak runoff during a storm event. However, as discussed in question c(ii), the proposed Project would improve the existing drainage pattern, as well as the stormwater flow collection and distribution by enhancing the drainage facility infrastructure. Therefore, the proposed Project would not impact onsite or downstream drainage facilities. Compliance with the Construction General Permit, as described in minimization measure WQ-1, would minimize any incremental pollutant loading associated with construction through the implementation of construction BMPs to reduce pollutants of concern in stormwater runoff. In addition, compliance with the requirements of the Caltrans MS4 Permit, as described in minimization measure WQ-2, would minimize any incremental pollutant loading associated with the increased surface area of the Build Alternatives through the implementation of operational BMPs to reduce pollutants of concern in stormwater runoff. Therefore, impacts related to the exceedance of the capacity of a stormwater drainage system or the provision of additional sources of polluted runoff would be less than significant.

c (iv) Less Than Significant Impact

According to FEMA FIRMs Nos. 06065C2070H and 06065C2710H and DWR Best Available Maps, there are no 100-year floodplains within the proposed Project site. The proposed Project is not in an area subject to flooding and would not result in impacts related to the 100-year or any other floodplain.

Furthermore, the proposed Project would not permanently alter the alignment of a stream or the configuration of a water body. Even though the proposed Project would increase the impervious surface area, which would increase peak runoff flow during a storm event, the proposed Project would improve the collection and conveyance of stormwater flow via proposed drainage improvements including dikes, curbs, catch basins, pipe systems, and treatment BMPs (such as infiltration basins and bioswales). These proposed treatment BMPs would promote infiltration, which would offset increased flows associated with the increase in impervious surface area. Therefore, the proposed Project is not expected to impede or redirect flood flows; impacts would be less than significant.

d) No Impact

As discussed in Section 2.2.3, due to the distance of the proposed Project site from the ocean (approximately 30 miles) or other large bodies of water, there is no foreseeable risk of tsunami or seiches. The proposed Project site is not within an existing FEMA floodplain; therefore, there is no foreseeable risk of pollutant release due to flood hazard.

e) No Impact

The proposed Project is within the jurisdiction of the Santa Ana and San Diego RWQCBs. The Santa Ana RWQCB has adopted a Basin Plan (SARWQCB 2019) that designates beneficial uses for all surface and groundwaters within its jurisdiction and establishes the water quality objectives and standards necessary to protect those beneficial uses. The proposed Project would comply with the applicable NPDES permits, and would implement construction and operational BMPs to reduce pollutants of concern in stormwater runoff, so the proposed Project would not degrade water quality, cause the receiving waters to exceed the water quality objectives, or impair the beneficial use of receiving waters. Therefore, the proposed Project would not conflict with or obstruct the implementation of the Basin Plan.

The Riverside County DAMP (Riverside County 2006) and Santa Ana RWQCB WQMP (SARWQCB 2012a) have been developed to further address postconstruction urban runoff from new development and significant redevelopment projects under the jurisdiction of the co-permittees. The plans are intended to provide guidelines for project-specific postconstruction BMPs and for regional and subregional source control BMPs and structural BMPs to address the management of urban runoff quantity and quality, to protect receiving waters. Additionally, the City of Murrieta's SWMP (City of Murrieta 2011) describes urban runoff management programs and activities to be implemented, to ensure compliance with requirements of the MS4 Permit. The SWMP describes minimization measures to be implemented to comply with the MS4 Permit and to reduce pollutants in urban runoff to the MEP. The proposed Project would comply with (and would not conflict with) these plans through the implementation of minimization measures WQ-1 and WQ-2. Minimization measure WQ-1 would minimize incremental pollutant loading associated with construction, through the implementation of construction BMPs to reduce pollutants of concern in stormwater runoff. Minimization measure WQ-2 would minimize incremental

pollutant loading associated with the increased surface area of the Build Alternatives, through the implementation of operational BMPs to reduce pollutants of concern in stormwater runoff. Therefore, the proposed Project would not conflict with, or obstruct the implementation of, regional and local water quality or sustainable groundwater management plans.

3.2.11 Land Use and Planning

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Physically divide an established community?	☐	☐	☐	☒
b) 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?	☐	☐	☐	☒

3.2.11.1 CEQA Significance Determinations for Land Use and Planning

This section is based on information from the CIA (Caltrans 2024a), Section 2.1.1, Land Use, Section 2.1.6, Community Character and Cohesion, Section 2.3, Biological Resources, and Section 3.2.8, Greenhouse Gases. As described in Section 2.1.1, the land use study area is the community within and surrounding the proposed Project site where direct and indirect impacts of the proposed Project would occur. This includes the proposed Project site, portions of parcels immediately adjacent to the proposed Project site that are subject to proposed Project effects (areas within 0.50 mile of the proposed Project limits), and U.S. Census Tracts 432.78, 432.79, 507.01, and 507.02. The regional component of the study area includes the City of Murrieta, City of Menifee, and unincorporated Riverside County.

a) No Impact

The proposed Project includes the widening of Keller Road and construction of the new Keller Road/I-215 interchange, and does not include improvements on new alignments that would otherwise divide an established community.

Therefore, the proposed Project would not divide an established community, and no impact would occur.

b) No Impact

The proposed Project is located within the MSHCP boundary and therefore must comply with the policies adopted within the plan. In order to demonstrate compliance with the MSHCP, as described in Section 2.3, Biological Resources, the proposed Project would include a minor amendment to the MSHCP document to include Warner Lane as a covered activity by swapping out a portion of Warm Springs Parkway, which is located south of the proposed Project site as described in BIO-7. Additionally, the implementation of avoidance, minimization and mitigation measures BIO-1 through BIO-6, BIO-8, and BIO-13 through BIO-21, as described in Sections 2.3.1 through 2.3.6, include MSHCP compliance measures that would ensure the proposed Project meets the goals and objectives of the MSHCP. Because the proposed Project would incorporate mitigation measures in order to ensure conflicts with the provisions of the MSHCP would not occur.

The proposed Project would not conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

3.2.12 Mineral Resources

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☒	☐
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☒	☐

3.2.12.1 CEQA Significance Determinations for Mineral Resources

Mineral resources are an integral part of the development and economic well-being of Riverside County. Areas are classified into four Mineral Resources

Zones (MRZs) by the California Department of Conservation based on geologic factors and varying degrees of mineral resource potential. MRZ-3, which is the zone for the proposed Project, identifies areas containing mineral occurrences of undetermined mineral resource significance (DOC 2024).

a, b) Less Than Significant Impact

Based on the MRZs established by the California Department of Conservation, the proposed Project site is designated as MRZ-3. Within the MRZ-3 classification, mineral deposits exist; however, the significance of the deposit is undetermined. The proposed Project site is not within a locally important mineral resource recovery site delineated in the City of Menifee and City of Murrieta *General Plans* (City of Menifee 2013a and City of Murrieta 2020a, respectively). Additionally, the proposed Project construction would use existing developed and disturbed areas to the extent practicable. Therefore, the potential for mineral resources to occur on-site is considered to be low, and the potential for the proposed Project to result in loss or availability of known mineral resources or the loss or availability of locally important mineral resources would be less than significant.

3.2.13 Noise

Would the project result in:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) 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?	☐	☐	☒	☐
b) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐

Would the project result in:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) 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?	☐	☐	☐	☒

3.2.13.1 CEQA Significance Determinations for Noise

The potential for the Build Alternatives to generate noise impacts was assessed in the Noise Study Report (Caltrans 2024d) and Section 2.2.7, Noise.
The following discussion is based on those analyses.

The proposed Project site is at the existing I-215 and Keller Road overcrossing. Noise-sensitive land uses adjacent to the proposed Project site include single- and multifamily residences, commercial land uses, and undeveloped land.

a) Less Than Significant Impact

As discussed in Section 2.2.7, short-term noise levels would result from construction methods such as pile driving, which would be temporarily louder than existing ambient noise levels. Most construction equipment would generate average noise levels, ranging from 80 to 89 dBA L_{eq}(h) at 50 feet, and noise produced by construction equipment would be reduced over distance at a rate of about 6 dB per doubling of distance. The site preparation phase, which includes grading and paving, tends to generate the greatest noise levels, because the noisiest construction equipment is earthmoving equipment. Earthmoving equipment includes excavating machinery, such as backfillers, bulldozers, and front loaders. Earthmoving and compacting equipment includes compactors, scrapers, and graders.

The closest residence is within 50 feet of the proposed Project construction areas. Therefore, the closest residence may be subject to short-term noise reaching 89 dBA L_{max} or greater, associated with construction activities. Compliance with

the construction hours specified by Caltrans Standard Specifications, Section 14-8.02, would be required to minimize construction noise impacts on sensitive land uses adjacent to the proposed Project site. The noise level from the contractor's operations between the hours of 9:00 p.m. and 6:00 a.m. would not exceed 86 dBA L_{max} at a distance of 50 feet. Minimization measure NOI-1 would be implemented as part of the proposed Project to minimize construction noise impacts on sensitive land uses adjacent to the proposed Project site. Therefore, impacts from construction would be less than significant.

The City of Murrieta does not have specific noise ordinance requirements for transportation noise within the city limits. However, under CEQA, the baseline (existing) noise level is used as a comparison to the anticipated proposed Project noise level under all the Build Alternatives. With respect to the community noise assessment and operational impacts, changes in noise levels of less than 3 dBA are generally not discernible to most people, while changes greater than 5 dBA are readily perceptible (Caltrans 2020b). To assess potential noise impacts of the proposed Project, a traffic noise increase of 12 dB between the existing conditions and the Build Alternatives conditions is considered to be a significant increase.

Under the existing conditions within the proposed noise study area, noise levels range from 51 dBA L_{eq}(h) to 75 L_{eq}(h). Noise levels under the Build Alternatives would range from 56 L_{eq}(h) to 76 L_{eq}(h). The changes in noise levels from existing conditions to the Build Alternatives would range from a 3 dBA decrease to an 11 dBA increase. This increase in noise levels would be below the 12 dBA level considered to be significant in Caltrans guidance. Therefore, operational impacts at noise-sensitive land uses within the proposed noise study area would be less than significant.

b) Less Than Significant Impact

The closest sensitive receptors are within 50 feet from the construction areas. The use of a large bulldozer during construction would generate the greatest vibration level of 0.089 PPV in/sec at a distance of 25 feet.

Sensitive receptors approximately 50 feet from an active large bulldozer may be subject to a groundborne vibration level of 0.031 PPV (in/sec). Although this vibration level is considered barely perceptible to humans and may result in community annoyance, this vibration level would be far less than the damage

threshold of 0.12 PPV (in/sec) for older residential structures, and would not have the potential to damage nearby residential structures. Compliance with the construction hours specified by the City of Murrieta's Municipal Code would minimize vibration annoyance impacts. Therefore, groundborne vibration and groundborne noise generated by the proposed Project construction would be less than significant.

c) No Impact

The proposed Project site is not near a private airstrip or an airport land use plan or within 2 miles of a public airport or public use airport. Therefore, the implementation of the proposed Project would not expose people residing or working in the proposed Project area to excessive noise levels.

3.2.14 Population and Housing

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) 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)?	☐	☐	☒	☐
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☒	☐

3.2.14.1 CEQA Significance Determinations for Population and Housing

The potential for the proposed Project to induce growth or impact communities within and surrounding the proposed Project site, including population and housing, is addressed in Section 2.1.5, Growth; Section 2.1.6, Community Character and Cohesion; Section 2.1.7, and Relocations and Real Property Acquisition. The following discussion is based on that information.

a) Less Than Significant Impact

The implementation of the proposed Project has the potential to influence the rate of growth in the region through improved circulation and access. However,

it is not anticipated to result in changes to the location, amount or type of growth. Furthermore, existing approved and proposed development projects, combined with existing development pressure in the region, would contribute to growth in the proposed Project vicinity with or without the implementation of the proposed Project. The proposed Project would not result in new or unplanned growth because the proposed Project site and surrounding area are already designated for future land uses in accordance with relevant general plans. Therefore, impacts would be less than significant.

b) Less Than Significant Impact

Build Alternatives 2 and 3 would displace one residential building in the southeastern quadrant of the proposed Project (APN 384-220-003), as shown on Figures 2.1-8 and 2.1-9 and as described in Section 2.1.7, Relocations and Real Property Acquisition. The residence is a stand-alone property and is not part of a larger community; therefore, it would not be considered a substantial number of people or housing affected. Additionally, minimization measure REL-1, as described in Sections 2.1.6 and 2.1.7, would be implemented to bring the impact to a less than significant level. No displacements would occur as a result of Build Alternative 5.

3.2.15 Public Services

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, 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:	**Significant and Unavoidable Impact**	**Less Than Significant with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
Fire protection?	☐	☐	☒	☐
Police protection?	☐	☐	☒	☐
Schools?	☐	☐	☒	☐
Parks?	☐	☐	☒	☐
Other public facilities?	☐	☐	☒	☐

3.2.15.1 CEQA Significance Determinations for Public Services

The following discussion is based on the information presented in Section 2.1.1, Land Use, Section 2.1.3, Parks and Recreational Facilities; Section 2.1.5, Growth; Section 2.1.8, Utilities/Emergency Services; and Section 3.2.17, Transportation. Given the scopes of Build Alternatives 2, 3, and 5, potential impacts related to public services would be the same for each Build Alternative.

a) Less Than Significant Impact

During construction, construction-related vehicles and activities have the potential to temporarily result in travel delays within and around the proposed Project site. This could temporarily affect travel times during construction to or from public services in the study area, including fire and police department vehicle access to adjacent sites, one elementary school, and two parks. Minimization measure T-1 (described in Section 2.1.9, Traffic and Transportation/Pedestrian and Bicycle Facilities) requires a TMP to be implemented during construction to ensure that emergency vehicle access is not impaired and appropriate access to all community services and facilities is provided throughout construction.

As described in Section 3.2.17 (d), once construction is complete, the proposed Project would improve access and response times for emergency vehicles by increasing network connectivity. Additionally, the implementation of emergency vehicle preemption systems would prioritize emergency vehicles by giving them green time priority at traffic signals, improving response times and enhancing safety. Access to the existing Kaiser Permanente Murrieta Medical Campus and future development located within and adjacent to the proposed Project site (Figure 2.1-2) would also be improved. The proposed Project does not include any residential or commercial developments and is not expected to result in any increase in demand for emergency services. Any increased demand for public services in the study area would be the result of ongoing and future development, as envisioned under the general plans for the cities of Murrieta and Menifee, and for Riverside County (City of Murrieta 2020a; City of Menifee 2013a; Riverside County 2015). As discussed in Section 2.1.5, Growth, the project could make lands adjacent to Keller Road more attractive, and future development could occur sooner than without the project. Need for additional public services would be addressed by each jurisdiction, as applicable, and in accordance with their goal, policies, and requirements for when additional public services may need to be provided. The proposed Project does not include the construction of housing or other uses that

would necessitate the construction of additional public facilities in the proposed Project area, such as schools or parks. The proposed Project would not result in significant physical impacts on government facilities in the study area. Therefore, impacts on public services would be less than significant.

3.2.16 Recreation

	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☒	☐
b) 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?	☐	☐	☐	☒

3.2.16.1 CEQA Significance Determinations for Recreation

The following discussion is based on the information presented in Section 2.1.1, Land Use, Section 2.1.3, Parks and Recreational Facilities; and Section 2.1.5, Growth. Given the scopes of Build Alternatives 2, 3, and 5, potential impacts related to Recreation would be the same for each Build Alternative.

a) <u>Less Than Significant Impact</u>

The proposed Project involves transportation improvements, and does not include a residential or commercial component that would result in a direct increase in the population who would use neighborhood/regional parks or recreational facilities within the proposed Project area. As such, the implementation of the proposed Project would not directly result in or accelerate a substantial physical deterioration of a recreational facility and impacts on recreational facilities would be less than significant.

b) No Impact

The proposed Project does not include recreational facilities or require the construction or expansion of an existing recreational facility. No impact would occur.

3.2.17 Transportation

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☐	☒
b) Would the project 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) Result in inadequate emergency access?	☐	☐	☒	☐

3.2.17.1 CEQA Significance Determinations for Transportation

The potential for the Build Alternatives to affect transportation operations was assessed in the *Traffic Operations Analysis Report* (Caltrans 2018a), *VMT Induced Travel Analysis Screening Form* (Caltrans 2025b), *Traffic Forecasting Validation Memorandum* (Iteris, 2025), and Section 2.1.9, Traffic and Transportation/Pedestrian and Bicycle Facilities.

a) No Impact

The proposed Project is consistent with federal, state, regional, and local programs, plans, ordinances, and policies. The proposed Project is included in funded regional plans, including SCAG's 2025 FTIP (as RIV100107) and SCAG's 2024 RTP/SCS for 2024-2050 (Connect SoCal), adopted on April 4, 2024 (as RIV111131). It is also called out in the City of Murrieta *2035 General Plan* Circulation Element (adopted on July 19, 2011 and updated on July 7, 2020)

(City of Murrieta 2020a). Other plans, including the Riverside County *General Plan* Circulation Element (County of Riverside 2021a) and City of Menifee *General Plan* Circulation Element (City of Menifee 2013a), promote network connectivity, a primary focus of the proposed interchange.

There are no conflicts with these programs, plans, ordinances, or policies. Therefore, no impact would occur.

b) Less Than Significant Impact

Pursuant to State Bill 743, signed by Governor Brown in 2013, the determination of significant transportation impacts under CEQA is based on VMT. State Bill 743 was a major change from the prior guidance for assessing transportation impacts based on changes in LOS.

On September 13, 2020, Caltrans released the *Policy on Transportation Impact Analysis and CEQA Significance Determinations for Projects on the State Highway System* (Caltrans 2020c). That document addressed the timing of the requirement to switch from LOS analysis to VMT analysis. It stated that projects "that reach Caltrans' Milestone 020 ("Begin Environmental") on or after September 15, 2020, will include a VMT-based transportation impact significance determination in the draft environmental document." A prior memorandum *(Vehicles [sic] Miles Traveled California Environmental Quality Act (CEQA) Determinations*; May 8, 2020 (Caltrans 2020c) identified that projects that "achieved the M020 milestone prior to December 28, 2018" were not required to use VMT-based transportation impact significance criteria.

The proposed Project began the environmental phase in 2015, well before December 28, 2018. Therefore, VMT analysis would not be required.

However, the 2020 Caltrans memorandum indicates that the re-initiation of an approved traffic study after September 15, 2020 will void a previously identified exemption to VMT analysis. If the nature of the change does not result in a substantial change to the previous traffic study results, then a determination of no VMT significance will be subject to the Caltrans District Director's approval.

The proposed Project traffic analysis opening and design years were revised from 2020 and 2040 in the original analysis to 2027 and 2047. An assessment was conducted in 2024 to determine if these new opening and design years would change the findings of the traffic study. The TOAR findings were compared

with new field traffic counts and forecasted (model) volumes. The determination was that the updated opening and design years for the traffic analysis would not result in a substantive change to the results of the TOAR. This conclusion, along with the methodology and results of the traffic volume comparison, was documented in a forecasting validation memorandum that was approved by Caltrans on January 22, 2025 (Iteris 2025).

The “Induced Travel Analysis Screening Form” summarizing the VMT exemption was approved by the Caltrans Environmental Deputy on April 7, 2025.

Therefore, the proposed Project would not conflict with CEQA Guidelines section 15064.3, subdivision (b) (CEQA 2018). Based on this assessment, impacts are considered to be less than significant.

c) Less Than Significant Impact

The proposed roadway and freeway interchange improvements’ design features would not increase hazards, because the construction of the proposed Project would be required to adhere to Caltrans design standards. No additional access or roadway improvements have been proposed that would substantially increase hazards due to a design feature (for example, sharp curves or dangerous intersections) or incompatible uses (for example, farm equipment). Impacts would be less than significant.

d) Less Than Significant Impact

The proposed Project would improve access and response times for emergency vehicles by increasing network connectivity. Additionally, the implementation of emergency vehicle preemption systems would prioritize emergency vehicles by giving them green time priority at traffic signals, improving response times and enhancing safety. Construction activities associated with the proposed Project would result in temporary road detours and access restrictions during construction, which may result in some impairment in the delivery of services, including fire and police response. During construction, the implementation of a TMP, as described in Section 2.1.9 as minimization measure T-1, would minimize temporary increases in delay at intersections or along freeway segments. The TMP aims to avoid and/or minimize circulation and delay impacts by addressing temporary changes in vehicular, pedestrian, and bicycle circulation caused by the proposed Project. Therefore, substantial disruptions to the roadways used by emergency vehicles within the proposed Project area are not

anticipated with implementation of the TMP, and impacts would be less than significant in relation to emergency access.

3.2.18 Tribal Cultural Resources

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:	**Significant and Unavoidable Impact**	**Less Than Significant with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a) 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	☐	☐	☒	☐
b) 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 Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☐	☒	☐

3.2.18.1 CEQA Significance Determinations for Tribal Cultural Resources

The potential for the Build Alternatives to impact Tribal cultural resources was assessed in the *Historic Property Survey Report* (Caltrans 2022c), the *Archaeological Survey Report* (Caltrans 2022d), and in Section 2.1.11, Cultural Resources.

a) Less Than Significant Impact

Based on the results of the *Historic Property Survey Report* (Caltrans 2022c), it was determined that CA-RIV-645 is eligible for listing in the CRHR under Criteria 3 (presence of rock art and rock shelters) and Criteria 4 (data potential). The site was determined eligible for listing in the CRHR under Criteria 3 because of the presence of rock art (pictographs and petroglyphs) and rock shelters that contain cultural importance to the Luiseño. The site was also determined to be eligible for listing under Criteria 4 because of the presence of substantial

subsurface midden deposits consisting of features, lithics, and various tool types that have the potential to answer scientific research questions important to the prehistory of the region. That being said, intact portions of the site that contain the character-defining features of the site that convey its significance under Criteria 3 and 4 of the CRHR would be preserved in place as described in avoidance and minimization measure CR-3 in Section 2.1.11. Effects to the site, consisting of cut/fill grading activities, would be confined to a portion of the site that was graded in the 1970s and that does not contain character-defining features that convey the significance of the site under any criteria of the CRHR. Additionally, avoidance and minimization measure CR-5, as described in Section 2.1.11, would mitigate potential dust impacts on CA-RIV-645. Therefore, the proposed Project's impact on archaeological resources would be less than significant.

Based on comments provided by the Pechanga Band of Indians and the Soboba Band of Luiseño Indians, the proposed Project site and vicinity have been identified as an area of cultural sensitivity with the potential to contain Tribal cultural resources based on their historic cultural affiliation to the proposed Project area. Additionally, the Rincon Band of Luiseño Indians indicated that Traditional place names are located near the proposed Project. If previously unknown Tribal cultural resources are encountered during construction, compliance with Caltrans standard minimization measures CR-1, CR-2, and CR-4 would avoid or minimize potential impacts on previously unknown Tribal cultural resources. Consultation under CEQA for this EIR/EA was conducted on August 23, 2018. Impacts are considered to be less than significant.

b) Less Than Significant Impact

As noted previously, the Soboba Band of Luiseño Indians, the Pechanga Band of Indians, and the Morongo Band of Mission Indians requested government-to-government consultation and Tribal monitoring during construction. The proposed Project site and vicinity have been identified as an area of cultural sensitivity with the potential to contain Tribal cultural resources based on their historic cultural affiliation to the proposed Project area. To ensure that the proposed Project would not result in a substantial adverse change in the significance of a Tribal cultural resource, compliance with Caltrans standard minimization measures described in measures CR-1, CR-2, and CR4 would avoid or minimize potential impacts on previously unknown Tribal cultural resources. Impacts would be less than significant.

3.2.19 Utilities and Service Systems

Would the project:	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☒	☐
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals??	☐	☐	☒	☐
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☐	☒

3.2.19.1 CEQA Significance Determinations for Utilities and Service Systems

The potential for the Build Alternatives to result in impacts on utilities and service systems is discussed in Section 2.1.8, Utilities/Emergency Services. The following discussion is based on that information.

a) <u>Less Than Significant Impact</u>

The proposed Project would construct a new interchange at the I-215 and Keller Road. Utility facilities described in Section 2.1.8, including gas, water, electricity,

cable, and telecommunications services, would be relocated to a proposed utility corridor easement outside of the Caltrans ROW, paralleling the I-215 NB off- and -on-ramp. It would not require the construction or relocation of wastewater treatment facilities. The utility corridor is part of the proposed Project, and its environmental impacts were evaluated under the Build Alternatives. There would be ongoing coordination with the utility owners. During the PS&E phase, relocations would be planned with the utility owners to minimize potential impacts on customers. Long-term maintenance would be completed by the utility owners.

Stormwater drainage improvements would be required to accommodate an increased impervious surface area of 4.7 acres. As discussed in Section 2.2.2, treatment BMPs within the proposed Project limits could include biofiltration swales and infiltration basins and would be developed in accordance with minimization measure WQ-2 to treat 100% of the net new impervious area. The measures described in Sections 2.1.8 and 2.2.2 would avoid and minimize impacts associated with utility relocations and stormwater and impacts would be less than significant.

b) Less Than Significant Impact

The proposed Project would widen Keller Road and construct a new interchange at the I-215 and Keller Road. The proposed Project would not change the type, location, or amount of future development, compared to the No-Build Alternative. The improved access could make adjacent lands more attractive for development and has the potential to increase the rate of future development; however, the proposed Project does not include any commercial or residential development. Water needs for the proposed Project would be limited to landscape watering, resulting in negligible increases in water demand. Therefore, the implementation of the Build Alternatives is not anticipated to generate a substantial demand for water over existing conditions, and the proposed Project would have sufficient water supplies available during normal, dry, and multiple dry years. Impacts would therefore be less than significant.

c) No Impact

The proposed Project involves improvements to an existing transportation facility and would not require or result in demand for new wastewater treatment capacity. No impact would occur.

d) Less Than Significant Impact

The construction of the proposed Project would generate limited solid waste, which would be properly disposed of or recycled, as appropriate. The operations and maintenance of the proposed Project may result in waste collected during road maintenance activities; however, this waste would be limited and would be similar to the amounts collected during the maintenance of the existing I-215 overpass at Keller Road. The proposed Project would not generate significant amounts of solid waste during construction or operation; therefore, impacts would be less than significant.

e) No Impact

During the construction of the proposed Project, waste would be disposed of in accordance with federal, State of California, and local regulations related to recycling, including the California Integrated Waste Management Act (AB 939), which would minimize the amount of waste material entering local landfills. Once constructed, the operations of the proposed Project would generate very limited waste material. This waste material would be disposed of consistent with City of Murrieta, City of Menifee, and Riverside County policies for waste management. Therefore, no impact would occur.

3.2.20 Wildfire

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:	**Significant and Unavoidable Impact**	**Less Than Significant with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☒	☐

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:	**Significant and Unavoidable Impact**	**Less Than Significant with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☒	☐
d) 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?	☐	☐	☒	☐

3.2.20.1 CEQA Significance Determinations for Wildfire

The following discussion is based on an evaluation of California Fire Hazard Severity Maps and 3.3, Wildfire of this EIR/EA. Given the scope of each Build Alternative, potential impacts related to wildfires would be the same for each Build Alternative.

a) <u>Less Than Significant Impact</u>

Portions of the proposed Project are within a Local Responsibility Area Moderate, High, and Very High Fire Hazard Severity Zone. The proposed Project site is also near a State Very High Fire Hazard Severity Zone (CAL FIRE 2025). The operations of the proposed Project would improve accessibility compared to the No-Build Alternative conditions that require emergency responders to travel on local streets or exit the freeway 1 mile north or 2 miles south of the proposed Project site at Scott Road or Clinton Keith Road, and to travel on local streets to reach areas off Keller Road. The operations of the Build Alternatives would enable emergency response and evacuation plans to function effectively by providing new direct access at the proposed Project site.

As discussed in Section 2.1.8, the construction of the proposed Project may result in traffic delays that could temporarily reduce access for emergency vehicles within the proposed Project area. During the construction of the new interchange, Antelope Road would be removed between Brians Way north and

Keller Road, and between Keller Road north and Mapleton Avenue, to accommodate the new NB on- and off-ramps. Access for affected properties along the eliminated segment of Antelope Road would be re-established via the construction of a new cul-de-sac, accessed off Keller Road across from Mapleton Avenue. The new direct access to the I-215 at Keller Road would improve emergency response times and enable emergency response and evacuation plans to function more effectively.

The implementation of minimization measure T-1 requires the preparation of a TMP, and includes emergency response coordination among fire and all emergency services, cities, and counties. The implementation of the TMP would ensure that appropriate access was provided for all necessary response and evacuation during a wildfire emergency, and would ensure access was not impaired due to construction. With the implementation of the TMP, construction impacts would not substantially impact traffic, circulation, or emergency access during a wildfire emergency. The construction and operation of the proposed Project does not include any elements that would permanently impair or otherwise interfere with emergency response or evacuation within the proposed Project area. The construction and operation impacts on emergency and evacuation plans would be less than significant.

b) Less Than Significant Impact

The annual Santa Ana winds increase fire risk in the proposed Project vicinity and much of Southern California. The proposed Project improvements include a new interchange at the I-215 and Keller Road, as well as roadway improvements at Keller Road and Antelope Road. Construction materials are primarily fire-resistant, consisting of concrete and steel, and the widened roadways would be an improved fire break and staging area for emergency response. During construction, minimization measure WF-1, discussed in Section 3.3.6, would incorporate fire prevention practices into the proposed Project specifications for the contractor to implement, which would minimize potential wildfires associated with construction activities. With the incorporation of fire prevention practices, the proposed Project would minimize exposure of local occupants to pollutant concentrations from a wildfire or uncontrolled spread of a wildfire and would not exacerbate wildfire risks due to slope or prevailing winds. Therefore, the impact would be less than significant.

c) Less Than Significant Impact

The proposed Project involves the construction of a new interchange at the I-215 and Keller Road, and local roadway improvements at Keller Road and Antelope Road. The proposed Project does not introduce any project components, such as new power lines or utilities. Relocated utilities would be underground in the proposed utility easement, the same as the existing condition, and would not increase or exacerbate fire risk. The area for the utility easement has been evaluated as a component of the proposed Project disturbance area and would not represent temporary or ongoing impacts to the environment. As discussed in Section 3.3, minimization measure WF-1 incorporates fire prevention practices that would minimize the potential risk of fires during construction activities. Therefore, the impact would be less than significant.

d) Less Than Significant Impact

No landslide hazard areas are mapped within or adjacent to the proposed Project (DCO 2023). The nearest mapped landslide hazard zone is south of the proposed Project, in the hills on the western side of the freeway, across from the Loma Linda University Medical Center. Because there are no steep or tall hills within or immediately adjacent to the project limits, the likelihood of a landslide occurring in the proposed Project area is very low. Potential impacts related to landslides on the proposed Project are less than significant. The majority of the proposed Project would be constructed at grade or on fill, and does not involve large cut slopes or changes in the local drainage patterns that could result in post-fire flooding or landslides. The construction of the proposed 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.

3.2.21 Mandatory Findings of Significance

	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☒	☐	☐	☐
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☒	☐	☐	☐

3.2.21.1 CEQA Significance Determinations for Mandatory Findings of Significance

a) <u>Less than Significant with Mitigation Incorporated</u>

As evaluated in Sections 2.3 and 3.2.4, Biological Resources, the potential impacts of the Build Alternatives on sensitive, special-status, and threatened or endangered plants and animals and their habitats were considered as potentially significant. The Build Alternatives would result in permanent and temporary impacts on suitable habitat for the following unlisted special-status plant species: paniculate tarplant and small-flowered microseris. Mitigation measure BIO-14 would require the City of Murrieta to implement a mitigation plan for paniculate tarplant prior to ground disturbance at ephemeral ponds 15 and 16, should they be found during preconstruction surveys. The Build Alternatives would also result in permanent and temporary impacts on suitable habitat for the following non-listed special-status

animal species: golden eagle, white-tailed kite, California horned lark, western spadefoot toad, red diamond rattlesnake, and Blainville's horned lizard. The Build Alternatives would also result in permanent and temporary impacts on suitable habitat for the following listed species: coastal California gnatcatcher, Stephens' kangaroo rat, and least Bell's vireo, as well as one State candidate species: the burrowing owl. Furthermore, the Build Alternatives would result in permanent and temporary impacts on two sensitive natural communities: MSHCP riparian/riverine habitat and CDFW riparian habitat. Proposed compensatory mitigation measures BIO-8, BIO-12, and BIO-21 would ensure no net loss of sensitive habitats or natural communities by requiring mitigation ratios of at least 2:1 to permanently preserve habitat in mitigation banks. The implementation of minimization measures BIO-1 through BIO-6, BIO-9 through BIO-11, BIO-13, and BIO-15 through BIO-20 would further avoid and minimize impacts during and after construction. With the implementation of the mitigation measures described in Sections 2.3.1 through 2.3.6, the proposed Project would not significantly degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or substantially reduce the number or restrict the range of a rare or endangered plant or animal.

As discussed in Sections 2.2.4 and 3.2.7, for paleontological resources, the construction of the proposed roadway improvements for the Build Alternatives (e.g., excavation for the new interchange) could result in impacts on sedimentary deposits with a high paleontological resource potential (e.g., Pleistocene older alluvium), and have the potential to impact scientifically significant, nonrenewable paleontological resources. Proposed mitigation measure PAL-1 would ensure the protection of potential paleontological resources and impacts would be less than significant. Potential impacts on paleontological resources during construction would be further avoided and minimized through the implementation of minimization measures PAL-2 and PAL-3.

As discussed in Sections 2.1.11 and 3.2.5, Cultural Resources, Caltrans determined a FNAE without Standard Conditions for the proposed Project, including all Build Alternatives. On July 28, 2022, SHPO concurred with the FNAE pursuant to 36 CFR 800.5(c) and Section 106 PA Stipulation X.B.2. Avoidance measures CR-1 through CR-5 would avoid and minimize the potential for impacts to Site CA-RIV-645 and therefore the proposed Project would not eliminate important examples of major California history or prehistory.

b) Significant and Unavoidable Impact

Consideration of potential cumulative impacts associated with the Build Alternatives are discussed in Section 3.5, Cumulative Impacts. Resource areas with no potential for cumulative impacts include the following: land use, consistency with State, regional, and local plans and programs; parks and recreational facilities; farmlands; community character and cohesion; relocations and real property acquisitions; utilities and emergency service systems; visual/aesthetics; cultural resources; hydrology and floodplains; geology and soils, and energy. Additionally, the proposed project does not have potential to result in cumulatively considerable impacts due to wildfire. As discussed in Section 3.3, Wildfire, the proposed Project does not provide new access to undeveloped areas and does not include any commercial or residential developments. The proposed Build Alternatives include measures to reduce risk for wildfire during construction and operation. Construction and operation of the Build Alternatives would not represent an increased risk from wildfire and has no potential to result in cumulatively considerable impacts to or from wildfire.

Individually limited, but potentially cumulatively considerable impacts associated with the construction and operation of the Build Alternatives were evaluated in conjunction with past, present, and reasonably foreseeable development and transportation projects. These resource areas included the following: growth; traffic and transportation/pedestrian and bicycle facilities; water quality and stormwater runoff; paleontology; hazardous waste/materials; air quality; GHGs; noise; and biological resources. With the exception of GHGs, it was concluded that the proposed Build Alternatives would not result in any significant cumulatively considerable impacts with implementation of avoidance, minimization and mitigation measures discussed in Chapters 2 and 3, and compliance with all State, federal and local regulations.

Only operational GHG impacts were considered as cumulatively considerable significant impacts. Operational GHG emissions generated under opening year (2027) and design year (2047) for the Build Alternatives would be greater than the existing/baseline (2024) conditions. Per Caltrans Guidance, significance is determined based on a comparison between the baseline GHG emission and future Build Alternative emissions. As discussed in Section 3.2.8, operational emissions under the 2027 and 2047 Build Alternatives are greater than the existing/baseline (2024) emissions and impacts are considered significant. Mitigation measures

GHG-6 through GHG-13 are proposed to reduce operational GHG emissions. However, even with the implementation of mitigation measures, operational GHG emissions would not be reduced below the existing/baseline emissions, and GHG cumulative impacts are considered significant and unavoidable.

c) Significant and Unavoidable Impact

Potential impacts on human beings are discussed in detail throughout this chapter. The implementation of the proposed Project's avoidance and minimization measures would further reduce impacts to human beings from the proposed Project. Impacts on Aesthetics, Agriculture and Forest Resources, Air Quality, Biological Resources, Cultural Resources, Energy, Geology and Soils, Hazards and Hazardous Materials, Hydrology and Water Quality, Land Use and Planning, Mineral Resources, Noise, Population and Housing, Public Services, Recreation, Transportation, Tribal Cultural Resources, Utilities and Service Systems, and Wildfire are less than significant or there is no impact. Only potentially significant impacts have the potential to result in direct or indirect adverse effects on human beings. As discussed in this chapter, only operational GHG impacts were determined to be significant. As discussed in Section 3.2.8, although operational GHG emissions for the Build Alternatives are less than the No-build Alternative for both the opening year (2027) and the design year (2047), GHG emissions would be greater than the existing/baseline (2024) conditions. Mitigation measures GHG-6 through GHG-13 are proposed to reduce operational GHG emissions. However, even with the implementation of all mitigation measures, operational GHG emissions would not be reduced to below the existing/baseline GHG emissions, and the proposed Project would conflict with the State's AB 32 Climate Change Scoping Plan and other regulations adopted to reduce GHG emissions. Therefore, the Build Alternatives would contribute to environmental effects that could cause substantial adverse effects on human beings and the impact is significant and unavoidable.

3.3 Wildfire

3.3.1 Regulatory Setting

Senate Bill 1241 required the Office of Planning and Research, the Natural Resources Agency, and the California Department of Forestry and Fire Protection to develop amendments to the "CEQA Checklist" for the inclusion of questions related to fire hazard impacts for projects located on lands classified as very high

fire hazard severity zones. The 2018 updates to the CEQA Guidelines expanded this to include projects “near” these very high fire hazard severity zones.

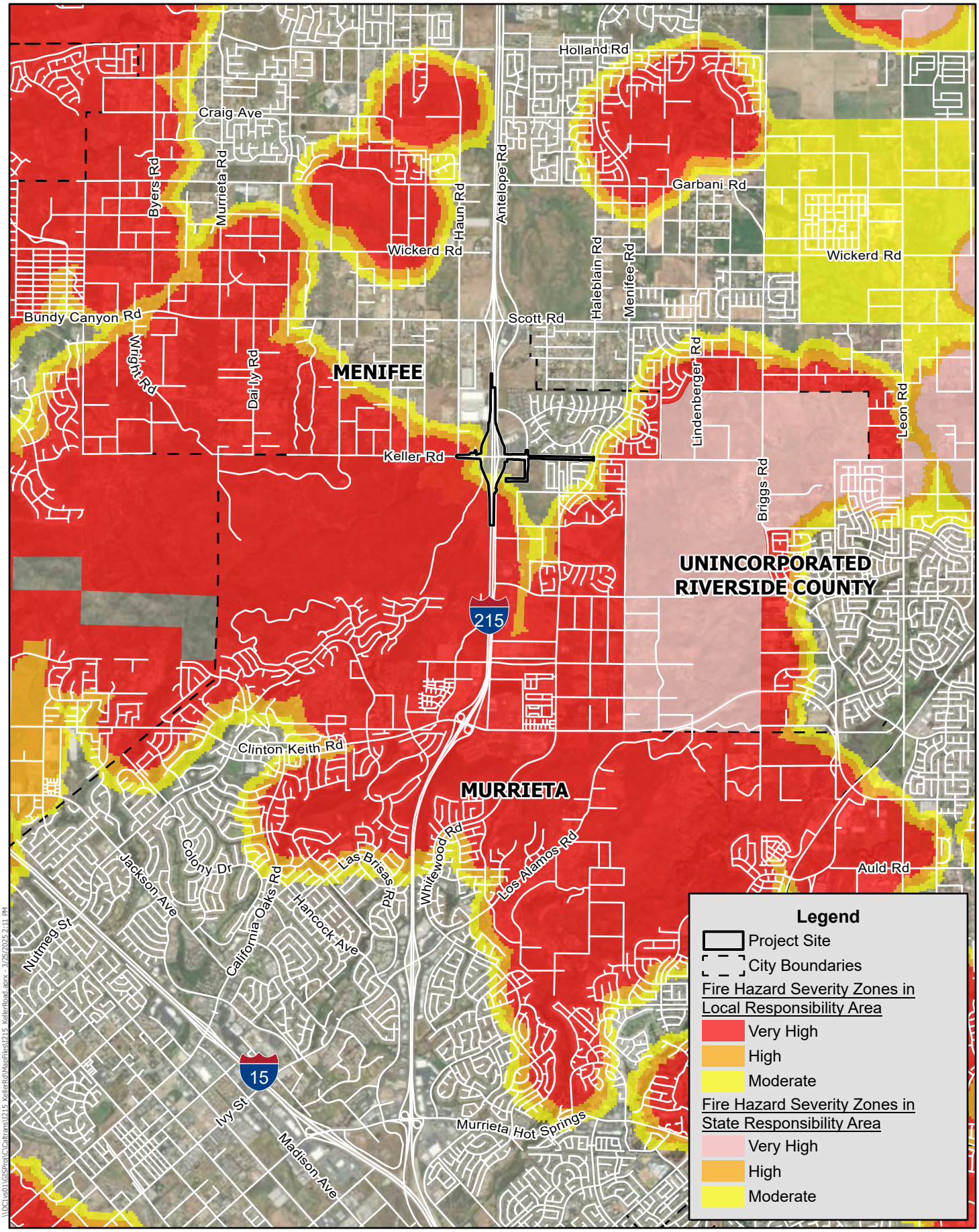
3.3.2 Affected Environment

Portions of the proposed Project are within Local Responsibility Area Moderate, High, and Very High Fire Hazard Severity Zone. The proposed Project site is also near a State Very High Fire Hazard Severity Zone (CAL FIRE2025). Figure 3.3-1 shows the location of the proposed Project in relation to the State and Local Very High Fire Hazard Severity Zones.

The City of Murrieta contracts with Murrieta Fire and Rescue for fire protection services. Murrieta Fire and Rescue Station #4 is south of the proposed Project site, on Baxter Road. Riverside County Fire Department and the California Department of Forestry and Fire Protection (CAL FIRE) provide fire protection services for the City of Menifee, as well as unincorporated portions of Riverside County. Station #68 is served by Battalion 13, and is in Menifee, northwest of the proposed Project area on Murrieta Road.

3.3.3 Environmental Consequences

The implementation of the proposed Project would include a new interchange at the I-215 and Keller Road. The new direct access from the I-215 to Keller Road would improve accessibility to the adjacent Very High Fire Hazard Severity Zone within and near the proposed Project site for fire and emergency vehicles. During a major fire incident requiring regional support, the new direct access would improve emergency response times. Currently, the nearest access from the freeway is 1 mile north and 2 miles south of Keller Road. The City of Murrieta maintains a *Disaster Preparedness Plan* and Community Emergency Response Team (CERT) (City of Murrieta n.d.a), and the City of Menifee maintains a CERT and *Emergency Operations Plan* (City of Menifee n.d.). These teams and documents provide guidance for each city’s response to emergency situations associated with natural, anthropogenic, and technological disasters. The new direct access at Keller Road would improve emergency response times and enable emergency response and evacuation plans to function more effectively by providing more direct access to the Very High Fire Hazard Severity Zone.



0 0.5 1 Miles

Scale: 1:60,000

Source: Riverside County, CalFire, ESRI, and Maxar

Fire Hazard Severity Zones in Local Responsibility Area
Phase 4, as Recommended by the State Fire Marshal on March 24, 2025

Fire Hazard Severity Zones in State Responsibility Area
Effective April 1, 2024

Figure 3.3-1
State and Local Fire Hazard Severity Zones
I-215/Keller Road New Interchange Project

To accommodate the operation of the proposed Keller Road NB off- and on-ramps, the proposed Project would cul-de-sac Antelope Road south of Mapleton Avenue and north of Brians Way. The new direct access to Keller Road from the I-215 would eliminate the need for fire and emergency service providers to use Antelope Road from Scott Road and Clinton Keith Road interchanges. Properties north of Mapleton Avenue would use Mapleton Avenue to reach Keller Road. Access to properties south of Brians Way would be maintained by the new access road provided by the proposed Project. Based on the new direct access from the freeway to Keller Road, the operation of the proposed Project would not impair or otherwise interfere with emergency responses or evacuations within the proposed Project area.

During the construction of the Build Alternatives, the potential for temporary lane closures on the I-215 or local streets, or temporary detours, could decrease speeds in the proposed Project area, or result in the need for altered emergency vehicle routes for emergency services during a wildfire. Before eliminating access on Antelope Road north of Brians Way, the new access road for the affected parcels would be completed. Additionally, the implementation of minimization measure T-1 would require the preparation of a TMP, and would include emergency response coordination among fire and all emergency services, cities, and counties. The implementation of the TMP would ensure that appropriate access is provided for all necessary responses and evacuations during a wildfire emergency to ensure access is not impaired due to construction. By providing the new access road prior to cul-de-sacing Antelope Road north of Brians Way, and with the implementation of the TMP, construction impacts would not substantially affect traffic, circulation, or emergency access during a wildfire emergency.

All Build Alternatives would also widen Keller Road between Zeiders Road to the west and 265 feet west of Pamplona Avenue. The majority of the proposed Project is constructed at grade or on fill, and does not involve large cut slopes or changes in the local drainage patterns. Bioswales and detention basins, as part of the Project's drainage modifications, would provide firebreaks. The construction and operation of the proposed Project would not result in any changes that could expose people or structures to post-fire downstream flooding or landslides, compared to the No-Build Alternative. Construction materials would primarily include fire-resistant concrete, steel, and asphalt. Additionally, the increased pavement width would function as a wider fire break and staging area

to fight fires west of the I-215 within the Local Very High Fire Hazard Severity Zone, south of Keller Road. Minimization measure WF-1, “Implement Fire Prevention Practices During Construction,” in Section 3.3.6, Avoidance, Minimization, and/or Mitigation Measures, would incorporate fire prevention measures into the proposed Project specifications for the contractor to minimize potential wildfires associated with construction activities. The proposed Project does not introduce new power lines or utilities, and relocated utilities would be underground in the proposed utility easement. Underground utilities are the same as the existing condition and would not increase or exacerbate fire risk.

Proximity to the Very High Fire Hazard Severity Zone poses potential risks to the traveling public once the proposed Project is operational. The traveling public could experience a temporary exposure while using the interchange during a wildfire event; however, in the event of a wildfire, California Highway Patrol would close on- and off-ramps and no access would be allowed to the traveling public. With the new interchange, there may be an increased risk of accidental fire ignition caused by vehicles or travelers. Minimization measure WF-2, Wildfire Risk Reduction for the Traveling Public, in Section 3.3.6, Avoidance, Minimization, and/or Mitigation Measures, implements postconstruction measures, which would reduce the risk of wildfire and potential harm to the traveling public.

Adjacent land uses include residential, rural residential, commercial, light industrial, and medical uses, as well as vacant land and MSHCP mitigation land. The proposed Build Alternatives would widen Keller Road and provide new direct access from the I-215 to Keller Road from the new interchange. Although the Build Alternatives would not change the amount, type, or location of future development compared to the No-Build Alternative, the improved access could make the adjacent lands more attractive for development, and could accelerate the rate of growth. The proposed Project does not include commercial or residential development that would increase the number people working or residing in the areas, and it would not increase exposure to existing risks or expose local occupants to pollutant concentrations from a wildfire or from the uncontrolled spread of a wildfire, compared to the No-Build Alternative.
The proposed Build Alternatives would not represent an increased wildfire risk, compared to the No-Build Alternative.

3.3.4 Avoidance, Minimization, and/or Mitigation Measures

Based on the above discussion and analysis, the proposed Project would not result in impacts related to wildfire. The implementation of minimization measure T-1, discussed in detail in Section 2.1.9, Traffic and Transportation/Pedestrian and Bicycle Facilities, would ensure the proposed Project would not substantially affect traffic, circulation, or wildfire response access during the temporary construction period. Minimization measure WF-1 would minimize potential wildfires associated with construction activities requiring the contractor to implement fire prevention practices. No further measures are required to avoid and minimize temporary construction impacts related to wildfire. Minimization measure W-2 would reduce potential wildfire risk to the traveling public, and would reduce the possibility of wildfire ignitions from vehicles and travelers.

WF-1 Implement Fire Prevention Practices during Construction.

During final design, the following fire prevention measures would be incorporated into the Project specifications:

- Internal combustion engines, stationary and mobile, would be equipped with spark arrestors. Spark arrestors would be in good working order.
- Contractor would keep all construction sites and staging areas free of grass, brush, and other flammable materials.
- Personnel would be trained in the practices of the fire safety plan relevant to their duties.
- Construction and maintenance personnel would be trained and equipped to extinguish small fires.
- Work crews would have fire-extinguishing equipment on hand, as well as emergency numbers and cell phone or other means of contacting the fire department.
- Smoking would be prohibited while operating equipment and would be limited to paved or graveled areas or areas cleared of all vegetation. Smoking would be prohibited within 30 feet of any combustible material storage area (including fuels, gases, and

solvents). Smoking would be prohibited in any location during a Red Flag Warning issued by the National Weather Service for the Project area.

WF-2 Wildfire Risk Reduction for the Traveling Public

- The proposed Project would implement a standard Caltrans IVP to control invasive species. The IVP would include various methods of weed abatement such as mowing, weed whacking, hand removal, and applying herbicides.

3.4 Climate Change

Climate change refers to long-term changes in temperature, precipitation, wind patterns, and other elements of the Earth's climate system. The Intergovernmental Panel on Climate Change, established by the United Nations and World Meteorological Organization in 1988, is devoted to greenhouse gas (GHG) emissions reduction and climate change research and policy. Climate change in the past has generally occurred gradually over millennia, or more suddenly in response to cataclysmic natural disruptions. The research of the Intergovernmental Panel on Climate Change and other scientists over recent decades, however, has unequivocally attributed an accelerated rate of climatological changes over the past 150 years to GHG emissions generated from the production and use of fossil fuels.

Human activities generate GHGs consisting primarily of carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), tetrafluoromethane, hexafluoroethane, sulfur hexafluoride (SF_6), and various hydrofluorocarbons (HFCs). CO_2 is the most abundant GHG; while it is a naturally occurring and necessary component of Earth’s atmosphere, fossil fuel combustion is the main source of additional, human-generated CO_2 that is the main driver of climate change. In the U.S. and in California, transportation is the largest source of GHG emissions, mostly CO_2.

The impacts of climate change are already being observed in the form of sea-level rise, drought, extended and severe fire seasons, and historic flooding from changing storm patterns. The most important strategy to address climate change is to reduce GHG emissions. Additional strategies are necessary to mitigate and adapt to these impacts. In the context of climate change, “mitigation” involves actions to reduce GHG emissions to lessen adverse impacts that are

likely to occur. “Adaptation” is planning for and responding to impacts to reduce vulnerability to harm, such as by adjusting transportation design standards to withstand more intense storms, heat, and higher sea levels. This analysis will include a discussion of both in the context of this transportation project.

3.4.1 Regulatory Setting

For a full list of laws, regulations, and guidance related to climate change (GHGs and adaptation), please refer to Caltrans’ *Standard Environmental Reference* (SER), Chapter 16, Climate Change.

3.4.1.1 STATE

California has been innovative and proactive in addressing GHG emissions and climate change by passing multiple Senate and Assembly bills and executive orders (EOs).

In 2005, EO S-3-05 initially set a goal to reduce California’s GHG emissions to 80 percent below year 1990 levels by 2050, with interim reduction targets. Later EOs and Assembly and Senate bills refined interim targets and codified the emissions reduction goals and strategies. The California Air Resources Board (ARB) was directed to create a climate change scoping plan and implement rules to achieve “real, quantifiable, cost-effective reductions of greenhouse gases.” Ongoing GHG emissions reduction was also mandated in Health and Safety Code (H&SC) Section 38551(b). In 2022, the California Climate Crisis Act was passed, establishing state policy to reduce statewide human- caused GHG emissions by 85 percent below 1990 levels, achieve net zero GHG emissions by 2045, and achieve and maintain negative emissions thereafter.

Beyond GHG reduction, the State maintains a climate adaptation strategy to address the full range of climate change stressors, and passed legislation requiring state agencies to consider protection and management of natural and working lands as an important strategy in meeting the state’s GHG reduction goals.

3.4.2 Environmental Setting

The proposed Project is in an urban area within Murrieta, in Riverside County. The surrounding area includes the RCA mitigation land, commercial land uses, recreational uses, single- and multifamily residences, and undeveloped land. Currently, the routes in the proposed Project area are used heavily during peak hours and are projected to experience operational challenges in the future. A Regional Transportation Plan by the Southern California Association of

Governments (SCAG) guides transportation development in the proposed Project area. The *Riverside County General Plan* Air Quality element (Riverside County 2015) addresses GHGs in the proposed Project area.

3.4.3 GHG Inventories

A GHG emissions inventory estimates the amount of GHGs discharged into the atmosphere by specific sources over a period of time. Tracking annual GHG emissions allows countries, states, and smaller jurisdictions to understand how emissions are changing and what actions may be needed to attain emission reduction goals. The ARB documents GHG emissions for the state of California, as required by H&SC Section 39607.4. Cities and other local jurisdictions may also conduct local GHG inventories to inform their GHG reduction or climate action plans.

3.4.3.1 State GHG Inventory

ARB collects GHG emissions data for transportation, electricity, industrial, commercial/residential, agricultural, and waste management sectors each year. It then summarizes and highlights major annual changes and trends to demonstrate the state's progress in meeting its GHG reduction goals. Transportation emissions remain the largest contributor to GHG emissions in the state (Figure 3.4-1) (ARB 2023). Overall statewide GHG emissions declined from 2000 to 2021 despite growth in population and state economic output (Figure 3.4-2).

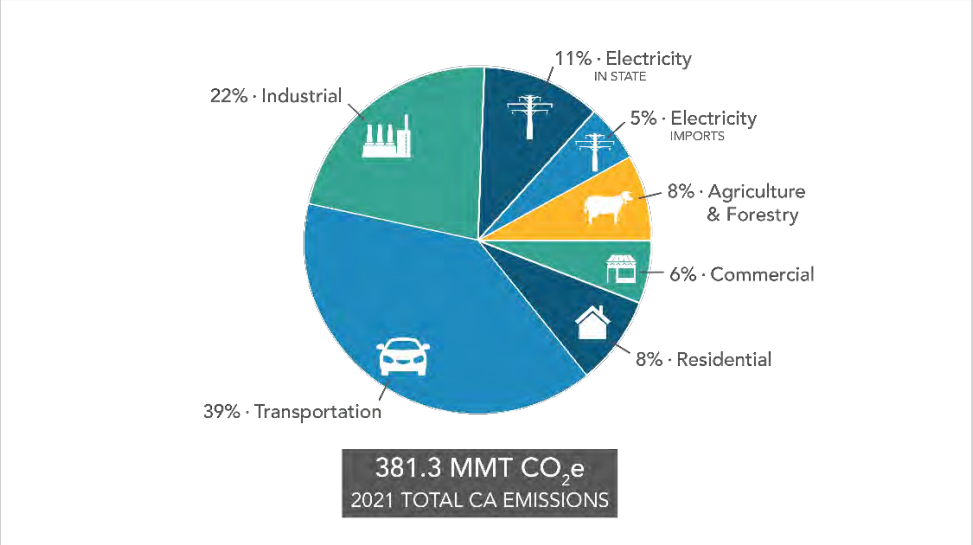


Figure 3.4-1. California 2021 Greenhouse Gas Emissions by Economic Sector
(Source: ARB 2023)

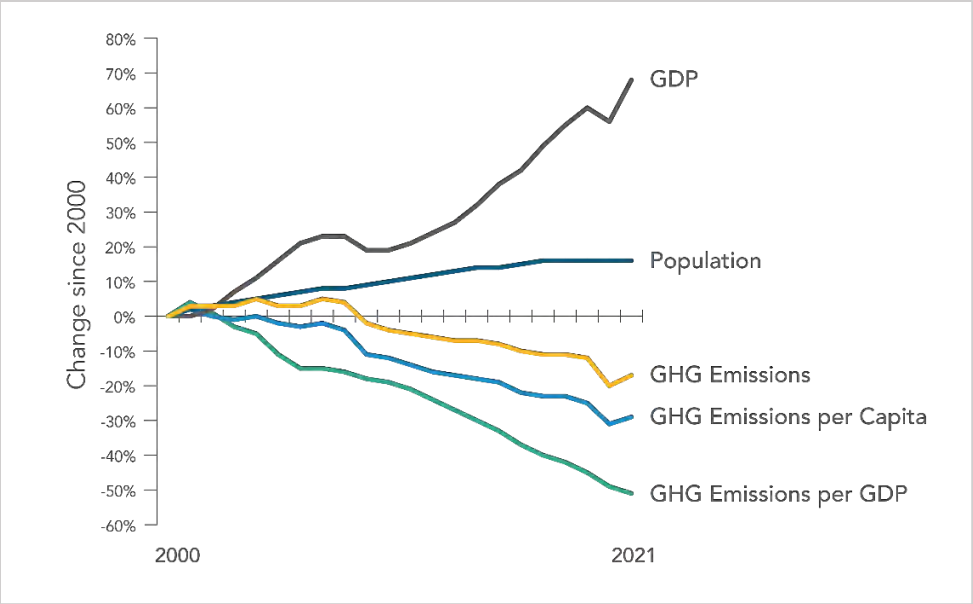


Figure 3.4-2. Change in California Gross Domestic Product, Population, and GHG Emissions since 2000
(Source: ARB 2023)

AB 32 required ARB to develop a scoping plan that describes the approach California will take to achieve the goal of reducing GHG emissions to 1990 levels by 2020, and to update it every 5 years. The *AB 32 Climate Change Scoping Plan* and the subsequent updates contain the main strategies California will use to reduce GHG emissions. ARB adopted the first scoping plan in 2008. The second updated plan, California's *2017 Climate Change Scoping Plan*, adopted on December 14, 2017, reflects the 2030 target established in EO B-30-15 and SB 32. The *2022 Scoping Plan for Achieving Carbon Neutrality*, adopted September 2022, assesses progress toward the statutory 2030 reduction goal and defines a path to reduce human-caused emissions to 85 percent below 1990 levels and achieve carbon neutrality no later than 2045, in accordance with AB 1279 (ARB 2022a).

3.4.4 Regional Plans

As required by *The Sustainable Communities and Climate Protection Act of 2008*, ARB sets regional GHG reduction targets for California's 18 metropolitan planning organizations (MPOs) to achieve through planning future projects that will cumulatively achieve those goals, and reporting how they will be met in the Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). Targets are set at a percent reduction of passenger vehicle GHG emissions per

person from 2005 levels. The proposed project is included in the RTP/SCS for the SCAG. The regional reduction target for SCAG is 19 percent by 2035 (ARB 2024a).

As Table 3.4.4-1 shows, the 2024-2050 SCAG RTP/SCS addresses transportation sustainability in the proposed Project area (SCAG 2024). Additionally, the City of Murrieta's *Climate Action Plan* (City of Murrieta 2022a) outlines key measures that have been established to reduce GHGs, and promotes air quality initiatives within the management of the City of Murrieta's resources and infrastructure. Furthermore, the *Riverside County General Plan* adopted goals to reduce GHG emissions within several elements (Riverside County 2018).

Table 3.4.4-1. Regional and Local Greenhouse Gas Reduction Plans

Title	GHG Reduction Policies or Strategies
2024-2050 Southern California Association of Governments (SCAG) Regional Transportation Plan/Sustainable Communities Strategy (adopted April 2024)	• Mobility Policy and Strategies. • System Preservation and Resilience • Complete Streets • Transit and Multimodal Integration • Transportation System Management • Transportation Demand Management • Air Quality • Clean Transportation • Goods Movement
City of Murrieta Climate Action Plan (adopted July 19, 2011)	• Measure AQ-5.3: Promote Fuel-Efficient and Low-Emissions Vehicles. • Measure CIR-6.1: Encourage Alternatives to Single-Occupancy Vehicle Transportation (Public Transit, Paratransit, Walking, Cycling, and Ridesharing). • Measure CIR-6.12: Increase Public Education about Public Transit. • Measure CIR-8.2: Promote Bicycle and Pedestrian Trails Along Major Routes

Title	GHG Reduction Policies or Strategies
Riverside County General Plan Air Quality Element (revised July 2018)	• Policy AQ 20.1: Reduce VMT by requiring expanded multimodal facilities and services that provide transportation alternatives, such as transit, bicycle, and pedestrian modes. Improve connectivity of the multimodal facilities by providing linkages between various uses in the developments. • Policy AQ 20.2: Reduce VMT by facilitating an increase in transit options. In particular, coordinate with adjacent municipalities, transit providers, and regional transportation planning agencies to develop mutual policies and funding mechanisms to increase the use of alternative transportation. • Policy AQ 20.3: Reduce VMT and GHG emissions by improving circulation network efficiency. • Policy AQ 20.4: Reduce VMT and traffic through programs that increase carpooling and public transit use, decrease trips and commute times, and increase use of alternative-fuel vehicles. • Policy AQ 20.5: Reduce emissions from standard gasoline vehicles, through VMT, by requiring all new residential units to install circuits and provide capacity for electric vehicle charging stations.

3.4.5 Project Analysis

GHG emissions from transportation projects can be divided into those produced during operation and use of the State Highway System (SHS) (operational emissions) and those produced during construction. The primary GHGs produced by the transportation sector are CO_2, CH_4, N_2O, and HFCs. CO_2 emissions are a product of burning gasoline or diesel fuel in internal combustion engines, along with relatively small amounts of CH_4 and N_2O. A small amount of HFC emissions related to refrigeration is also included in the transportation sector. (GHGs differ in how much heat each traps in the atmosphere, called global warming potential. CO_2 is the most important GHG, so amounts of other gases are expressed relative to CO_2, using a metric called “carbon dioxide equivalent”, or CO_2e. The global warming potential of CO_2 is assigned a value of 1, and the global warming potential of other gases is assessed as multiples of CO_2.)

The CEQA Guidelines generally address greenhouse gas emissions as a cumulative impact due to the global nature of climate change (Pub. Resources Code § 21083[b][2]). As the California Supreme Court explained, “because of the global scale of climate change, any one project's contribution is unlikely to be significant by itself.” (Cleveland National Forest Foundation v. San Diego Assn. of Governments (2017) 3 Cal. 5th 497, 512.) In assessing cumulative impacts,

it must be determined if a project's incremental effect is "cumulatively considerable" (CEQA Guidelines Sections 15064(h)(1) and 15130).

To make this determination, the incremental impacts of the project must be compared with the effects of past, current, and probable future projects. Although climate change is ultimately a cumulative impact, not every individual project that emits greenhouse gases must necessarily be found to contribute to a significant cumulative impact on the environment.

3.4.5.1 OPERATIONAL EMISSIONS

The highest levels of CO_2 from mobile sources such as automobiles occur at stop-and-go speeds (0–25 miles per hour) and speeds over 55 miles per hour; the most severe emissions occur from 0–25 miles per hour (refer to Figure 3.4-3). To the extent that a project enhances operational efficiency and improves travel times in high-congestion travel corridors, GHG emissions, particularly CO_2, may be reduced, provided that improved travel times do not induce additional VMT.

Four primary strategies can reduce GHG emissions from transportation sources: (1) improving the transportation system and operational efficiencies, (2) reducing travel activity, (3) transitioning to lower GHG emitting fuels, and (4) improving vehicle technologies and efficiency. To be most effective, all four strategies should be pursued concurrently.

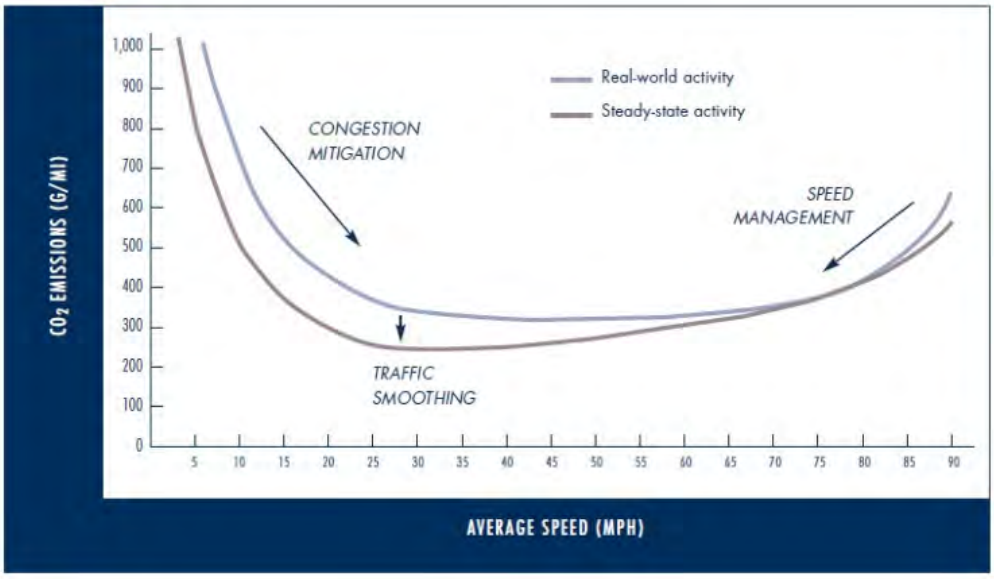


Figure 3.4-3. Possible Use of Traffic Operation Strategies in Reducing On-road CO_2 Emissions
(Source: Barth et al. 2010)

The proposed Project is listed in the *2024–2050 Regional Transportation Plan/Sustainable Communities Strategy* (SCAG 2024) and 2025 FTIP (SCAG 2024). Overall, the design concept and scope of the proposed Project are consistent with the proposed Project description in the RTP and FTIP. The purposes of the proposed Project are to provide increased interchange capacity, reduce congestion, improve traffic operations, and improve existing and projected interchange geometric deficiencies. Based on the proposed Project's *Traffic Operations Analysis* (Caltrans 2018d), traffic operations would improve within the proposed Project area under the Build Alternatives by increasing average speeds and reducing congestion. The proposed Project would attract vehicles that may otherwise use adjacent interchanges (Scott Road and Clinton Keith Road) to use the new interchange at Keller Road.

Additionally, pedestrian and multimodal accessibility and connectivity are limited in the proposed Project area. There are locations without sidewalks and areas where existing sidewalks and bicycle lanes are discontinuous. The proposed Project would provide accessible and sustainable travel options by providing multimodal facilities traversing the proposed Project area (e.g., continuous facilities for pedestrian and bicycle traffic, including new sidewalks and Class II bike lanes). These pedestrian and bicycle facilities would provide additional options for travel in the area, which in turn may reduce traffic volumes and GHG emissions.

3.4.5.2 QUANTITATIVE ANALYSIS

GHG emissions for the existing/baseline condition (2024), opening year (2027), and design year (2047) were modeled using CT-EMFAC 2021, based on the traffic volumes and vehicle speed in the Project study area. GHG emission results are shown in Table 3.4.4-2.

Table 3.4.4-2. Modeled Annual CO_2 Emissions and VMT, by Build Alternative

Build Alternative	Modeled CO_2e Emissions (MT/year)	Difference Build versus No- Build Alternatives (MT/year)	Change from Existing/Baseline + or - (MT/year)	Annual Vehicle Miles Traveled [a]
Existing/Baseline 2024	102,970	N/A	N/A	288,419,807
Open to Traffic 2027				
No-Build Alternative	109,960	N/A	6,990	330,951,944
Build Alternative 2	109,926	-34	6,956	330,727,782
Build Alternative 3	109,926	-34	6,956	330,727,782
Build Alternative 5	109,926	-34	6,956	330,727,782
Design Year 2047				
No-Build Alternative	122,902	N/A	19,932	472,725,734
Build Alternative 2	122,473	-429	19,503	472,601,508
Build Alternative 3	122,473	-429	19,503	472,601,508
Build Alternative 5	122,473	-429	19,503	472,601,508

Source: Caltrans 2025a and CT-EMFAC (2021)
[a] Annual vehicle miles traveled values derived from Daily VMT values multiplied by 347, per ARB methodology (ARB 2008: I-19).
Notes:
CO_{2e} includes CO_2, N_2O, CH_4
MT = metric ton(s)

As shown in Table 3.4.4-2, estimated emissions for the No-Build and Build Alternatives under the 2027 and 2047 conditions would be greater than the existing (2024) conditions. However, future 2027 and 2047 estimated emissions under the Build Alternatives would be less than the No-Build Alternative under the 2027 and 2047 conditions as a result of the new interchange at the I-215 and Keller Road. Traffic volumes would shift from the nearby interchanges (Scott Road and Clinton Keith Road) to the new Keller Road interchange as travelers use an interchange closer to their destination. Operations at the nearby interchanges would improve with the operation of the new Keller Road interchange.

ARB developed the EMFAC model to facilitate preparation of statewide and regional mobile-source emissions inventories. The model generates emissions

rates that can be multiplied by vehicle activity data from all motor vehicles, from passenger cars to heavy-duty trucks, operating on highways, freeways, and local roads in California. EMFAC has a rigorous scientific foundation, has been approved by U.S. EPA, and has been vetted through multiple stakeholder reviews. Caltrans developed CT-EMFAC to apply project-specific factors to ARB's model.

EMFAC's GHG emission rates are based on tailpipe emissions test data and the model does not account for factors such as the rate of acceleration and vehicle aerodynamics, which influence the amount of emissions generated by a vehicle. GHG emissions quantified using CT-EMFAC are therefore estimates and may not reflect actual on-road emissions. The model does not, however, account for induced travel. Modeling GHG estimates with EMFAC or CT-EMFAC nevertheless remains the most precise means of estimating future greenhouse gas emissions. While CT-EMFAC is currently the best available tool for calculating GHG emissions from mobile sources, it is important to note that the GHG results are only useful for a comparison of alternatives.

3.4.5.3 CONSTRUCTION EMISSIONS

Construction GHG emissions would result from material processing and transportation, on-site construction equipment, and traffic delays due to construction. These emissions will be produced at different levels throughout the construction phase; their frequency and occurrence can be reduced through innovations in plans and specifications and by implementing better traffic management during construction phases. While construction GHG emissions are only produced for a short time, they have long-term effects in the atmosphere, so cannot be considered "temporary" in the same way as criteria pollutants that subside after construction is completed.

Use of long-life pavement, improved traffic management plans, and changes in materials can also help offset GHG emissions produced during construction, by allowing longer intervals between maintenance and rehabilitation activities.

The Caltrans Construction Emissions Tool (CAL-CET2021) (v1.0) was used to estimate construction emissions related to the proposed Project. The construction of the proposed Project would last 334 working days and emit approximately 876 MT of CO_{2e} for the entire duration of the proposed Project construction of Alternative 2. Alternatives 3 and Alternative 5 would emit approximately 921 MT of CO_{2e} during construction.

Measures GHG-1 through GHG-5, AQ-1, AQ-5, and AQ-12 would be implemented to minimize or reduce the construction GHG emissions from the proposed Project.

All construction contracts include Caltrans Standard Specifications related to air quality. Section 7-1.02A and 7 1.02C, Emissions Reduction, requires contractors to comply with all laws applicable to the project and to certify they are aware of and will comply with all ARB emission reduction regulations. Section 14-9.02, Air Pollution Control, requires contractors to comply with all air pollution control rules, regulations, ordinances, and statutes. Certain common regulations, such as equipment idling restrictions, that reduce construction vehicle emissions also help reduce GHG emissions.

3.4.5.4 CEQA Conclusion

The proposed Project would generate GHG emissions during construction and operation. Measures GHG-1 through GHG-5, AQ-1, AQ-5, and AQ-12 would be implemented to minimize emissions from Project construction. Operation of the proposed Project would result in GHG emissions that are greater than the existing/baseline conditions. Mitigation measures GHG-6 through GHG-13 would be implemented to reduce operational emissions; however, operational emissions would remain greater than the existing/baseline conditions. Therefore, the Project would result in a significant and unavoidable impact. Because operational emissions under the future Build Alternatives would be greater than the existing/baseline conditions, the Project would conflict with applicable plans, policies, and regulations that have been adopted for the purpose of reducing GHG emissions. Therefore, the proposed Project would result in a significant and unavoidable impact.

Caltrans is firmly committed to implementing measures to help reduce GHG emissions. These measures are outlined in the following section.

3.4.6 Greenhouse Gas Reduction Strategies

3.4.6.1 Statewide Efforts

In response to Assembly Bill 32, the Global Warming Solutions Act, California is implementing measures to achieve emission reductions of GHGs that cause climate change. Climate change programs in California are effectively reducing GHG emissions from all sectors of the economy. These programs include regulations, market programs, and incentives that will transform transportation,

industry, fuels, and other sectors, to take California into a sustainable, cleaner, low-carbon future, while maintaining a robust economy (ARB 2022b).

Major sectors of the California economy, including transportation, will need to reduce emissions to meet 2030 and 2050 GHG emissions targets. The Governor's Office of Planning and Research identified five sustainability pillars in a 2015 report: (1) Increasing the share of renewable energy in the State's energy mix to at least 50 percent by 2030; (2) Reducing petroleum use by up to 50 percent by 2030; (3) Increasing the energy efficiency of existing buildings by 50 percent by 2030; (4) Reducing emissions of short-lived climate pollutants; and (5) Stewarding natural resources, including forests, working lands, and wetlands, to ensure that they store carbon, are resilient, and enhance other environmental benefits (OPR 2015).

The transportation sector is integral to the people and economy of California. To achieve GHG emission reduction goals, it is vital that the state build on past successes in reducing criteria and toxic air pollutants from transportation and goods movement. GHG emission reductions will come from cleaner vehicle technologies, lower-carbon fuels, and reduction of vehicle miles traveled (VMT). Reducing today's petroleum use in cars and trucks is a key state goal for reducing greenhouse gas emissions by 2030 (California Environmental Protection Agency 2015).

In addition, SB 1386 (Wolk 2016) established as state policy the protection and management of natural and working lands and requires state agencies to consider that policy in their own decision-making. Trees and vegetation on forests, rangelands, farms, and wetlands remove carbon dioxide from the atmosphere through biological processes and sequester the carbon in above- and below-ground matter.

Subsequently, Governor Gavin Newsom issued Executive Order N-82-20 to combat the crises in climate change and biodiversity. It instructs state agencies to use existing authorities and resources to identify and implement near- and long-term actions to accelerate natural removal of carbon and build climate resilience in our forests, wetlands, urban greenspaces, agricultural soils, and land conservation activities in ways that serve all communities, and in particular low-income, disadvantaged, and vulnerable communities. To support this order,

the California Natural Resources Agency released *Natural and Working Lands Climate Smart Strategy* (California Natural Resources Agency 2022a).

Caltrans Activities

Caltrans continues to be involved on the Governor's Climate Action Team as the ARB works to implement EOs S-3-05 and S-01-07 and help achieve the targets set forth in AB 32. EO B-30-15, issued in April 2015, and SB 32 (2016), set an interim target to cut GHG emissions to 40 percent below 1990 levels by 2030. The following major initiatives are underway at Caltrans to help meet these targets.

Climate Action Plan for Transportation Infrastructure

The *California Action Plan for Transportation Infrastructure* (CAPTI) builds on executive orders signed by Governor Newsom in 2019 and 2020 targeted at reducing GHG emissions in transportation, which account for more than 40 percent of all polluting emissions, to reach the state's climate goals. Under CAPTI, where feasible and within existing funding program structures, the state will invest discretionary transportation funds in sustainable infrastructure projects that align with its climate, health, and social equity goals (California State Transportation Agency 2021).

California Transportation Plan

The *California Transportation Plan* (CTP) is a statewide, long-range transportation plan to meet our future mobility needs and reduce GHG emissions. It serves as an umbrella document for all the other statewide transportation planning documents. The CTP 2050 presents a vision of a safe, resilient, and universally accessible transportation system that supports vibrant communities, advances racial and economic justice, and improves public and environmental health. The plan's climate goal is to achieve statewide GHG emissions reduction targets and increase resilience to climate change. It demonstrates how GHG emissions from the transportation sector can be reduced through advancements in clean fuel technologies; continued shifts toward active travel, transit, and shared mobility; more efficient land use and development practices; and continued shifts to telework (Caltrans 2021b).

Caltrans Strategic Plan

The Caltrans 2020–2024 Strategic Plan includes goals of stewardship, climate action, and equity. Climate action strategies include developing and implementing a Caltrans Climate Action Plan; a robust program of climate action

education, training, and outreach; partnership and collaboration; a VMT monitoring and reduction program; and engaging with the most vulnerable communities in developing and implementing Caltrans climate action activities (Caltrans 2021c).

Caltrans Policy Directives and Other Initiatives

Caltrans Director's Policy 30 (DP-30) Climate Change (June 22, 2012) established a policy to ensure coordinated efforts to incorporate climate change into Caltrans decisions and activities. Other Director's policies promote energy efficiency, conservation, and climate change, and commit Caltrans to sustainability practices in all planning, maintenance, and operations. Caltrans' *Greenhouse Gas Emissions and Mitigation Report* (Caltrans 2020d) provides a comprehensive overview of Caltrans' emissions and current Caltrans procedures and activities that track and reduce GHG emissions. It identifies additional opportunities for further reducing GHG emissions from Department-controlled emission sources, in support of Caltrans and State goals.

Project-Level GHG Reduction Strategies

The following measures will also be implemented in the project to reduce GHG emissions and potential climate change impacts from the project.

GHG-1 Schedule truck trips outside of peak morning and evening commute hours.

GHG-2 For improved fuel efficiency from construction equipment:

- Maintain equipment in proper tune and working condition.
- Use right sized equipment for the job.
- Use equipment with new technologies.

GHG-3 The construction contractor must supplement construction environmental training with information on methods to reduce GHG emissions related to construction.

GHG-4 Recycle existing project features on-site, such as metal beam guardrail, lights, Sub-base Granular Material or native material that meets Caltrans specifications for incorporation into new work.

GHG-5 Reduce construction waste, such as reuse or recycle construction and demolition waste (reduces consumption of raw materials, reducing waste and transportation to landfill; saves costs).

GHG-6 Select project features that minimize the need for irrigation and non-native plants.

GHG-7 Include landscaping components such as mulch and compost application to improve carbon sequestration rates in soils and reduce organic waste.

GHG-8 Include mulch application around new and existing plants to retain soil moisture.

GHG-9 Design and install long-life pavement structures to minimize life cycle costs. Consider future climate conditions in decisions.

GHG-10 Select design alternatives that match existing grade as much as possible to reduce earthwork.

GHG-11 Implement intelligent transportation systems and TDM elements to smooth traffic flow and increase system efficiency.

GHG-12 Coordinate controlled intersections so that traffic moves more efficiently through congested areas.

GHG-13 Where traffic signals or streetlights are installed, require the use of Light Emitting Diode technology or similar energy-efficient technology.

The following minimization measure for air pollutants as discussed in Section 2.2.6 would also help avoid and minimize construction GHG impacts:

AQ-1 The construction contractor must comply with the Caltrans' Standard Specifications in Section 14-9 (2024). Section 14-9-02 specifically requires compliance by the contractor with all applicable laws and regulations related to air quality, including air pollution control district and air quality management district regulations and local ordinances.

AQ-5 Construction equipment and vehicles will be properly tuned and maintained. All construction equipment will use low-sulfur fuel as required by California Code of Regulations Title 17, Section 93114.

AQ-12 To the extent feasible, construction traffic will be scheduled and routed to reduce congestion and related air quality impacts caused by idling vehicles along local roads during peak travel times.

3.4.7 Adaptation

Reducing GHG emissions is only one part of an approach to addressing climate change. Caltrans must plan for the effects of climate change on the state's transportation infrastructure and strengthen or protect the facilities from damage. Climate change is expected to produce increased variability in precipitation, rising temperatures, rising sea levels, variability in storm surges and their intensity, and in the frequency and intensity of wildfires. Flooding and erosion can damage or wash out roads; longer periods of intense heat can buckle pavement and railroad tracks; storm surges combined with a rising sea level can inundate highways. Wildfire can directly burn facilities and indirectly cause damage when rain falls on denuded slopes that landslide after a fire. Effects will vary by location and may, in the most extreme cases, require that a facility be relocated or redesigned. Furthermore, the combined effects of transportation projects and climate stressors can exacerbate the impacts of both on vulnerable communities in a project area. Accordingly, Caltrans must consider these types of climate stressors in how highways are planned, designed, built, operated, and maintained.

3.4.7.1 STATE EFFORTS

Climate change adaptation for transportation infrastructure involves long-term planning and risk management to address vulnerabilities in the transportation system. A number of state policies and tools have been developed to guide adaptation efforts.

California's Fourth Climate Change Assessment (Fourth Assessment) (2018) provides information to help decision makers across sectors and at state, regional, and local scales protect and build the resilience of the state's people, infrastructure, natural systems, working lands, and waters. The Fourth Assessment reported that if no measures are taken to reduce GHG emissions by 2021 or sooner, the state is projected to experience an up to 8.8 degrees Fahrenheit increase in average annual maximum daily temperatures; a two-thirds decline in water supply from snowpack resulting in water shortages; a

77% increase in average area burned by wildfire; and large-scale erosion of up to 67% of Southern California beaches due to sea-level rise. These effects will have profound impacts on infrastructure, agriculture, energy demand, natural systems, communities, and public health (State of California 2018).

Sea-level rise is a particular concern for transportation infrastructure in the coastal zone. Major urban airports will be at risk of flooding from sea-level rise combined with storm surge as early as 2040; San Francisco airport is already at risk. Miles of coastal highways vulnerable to flooding in a 100-year storm event will triple to 370 by 2100, and 3,750 miles will be exposed to temporary flooding. The Fourth Assessment's findings highlight the need for proactive action to address these current and future impacts of climate change.

To help actors throughout the state address the findings of California's Fourth Climate Change Assessment, AB 2800's multidisciplinary Climate-Safe Infrastructure Working Group published *Paying it Forward: The Path Toward Climate-Safe Infrastructure in California*. This report provides guidance on assessing risk in the face of inherent uncertainties still posed by the best available climate change science. It also examines how state agencies can use infrastructure planning, design, and implementation processes to respond to the observed and anticipated climate change impacts (Climate-Safe Infrastructure Working Group 2018).

EO S-13-08, issued in 2008, directed state agencies to consider sea-level rise scenarios for 2050 and 2100 during planning to assess project vulnerabilities, reduce risks, and increase resilience to sea-level rise. It gave rise to the 2009 *California Climate Adaptation Strategy*, the Safeguarding California Plan, and a series of technical reports on statewide sea-level rise projections and risks, including the *State of California Sea-Level Rise Guidance Update* in 2018. The reports addressed the full range of climate change impacts and recommended adaptation strategies. The current *California Climate Adaptation Strategy* incorporates key elements of the latest sector-specific plans such as the *Natural and Working Lands Climate Smart Strategy, Wildfire and Forest Resilience Action Plan, Water Resilience Portfolio*, and the CAPTI (described above). Priorities in the 2023 *California Climate Adaptation Strategy* include acting in partnership with California Native American Tribes, strengthening protections for climate-vulnerable communities that lack capacity and resources, implementing nature-based climate solutions, using best available climate

science, and partnering and collaboration to best leverage resources (California Natural Resources Agency 2023).

EO B-30-15 recognizes that effects of climate change threaten California's infrastructure and requires state agencies to factor climate change into all planning and investment decisions. Under this EO, the Office of Planning and Research published *Planning and Investing for a Resilient California: A Guidebook for State Agencies*, to encourage a uniform and systematic approach to building resilience.

SB 1 Coastal Resources: Sea Level Rise (Atkins 2021) established statewide goals to "anticipate, assess, plan for, and, to the extent feasible, avoid, minimize, and mitigate the adverse environmental and economic effects of sea-level rise within the coastal zone." As the legislation directed, the Ocean Protection Council collaborated with 17 state planning and coastal management agencies to develop the *State Agency Sea-Level Rise Action Plan for California* in February 2022. This plan promotes coordinated actions by state agencies to enhance California's resilience to the impacts of sea-level rise (California Ocean Protection Council 2022).

3.4.7.2 CALTRANS ADAPTATION EFFORTS

Caltrans Vulnerability Assessments

Caltrans completed Climate Change Vulnerability assessments (Caltrans 2021d) to identify segments of the State Highway System vulnerable to climate change effects of precipitation, temperature, wildfire, storm surge, and sea-level rise.

The climate change data in the assessments were developed in coordination with climate change scientists and experts at federal, state, and regional organizations at the forefront of climate science. The findings of the vulnerability assessments guide analysis of at-risk assets and development of Adaptation Priority Reports as a method to make capital programming decisions to address identified risks.

Caltrans Sustainability Programs

The Director's Office of Equity, Sustainability and Tribal Affairs supports implementation of sustainable practices at Caltrans. The Sustainability Roadmap is a periodic progress report and plan for meeting the Governor's sustainability goals related to EOs B-16-12, B-18-12, and B-30-15. The Roadmap includes

designing new buildings for climate change resilience and zero-net energy and replacing fleet vehicles with zero-emission vehicles (Caltrans 2023d).

3.4.7.3 PROJECT ADAPTATION ANALYSIS

Sea-level Rise

The proposed Project is outside the coastal zone and not in an area subject to sea-level rise. Accordingly, direct impacts on transportation facilities due to projected sea-level rise are not expected.

Precipitation and Flooding

The proposed Project is located in FIRM Nos. 06065C2070H and 06065C2710H (FEMA 2008 and 2014) and is not within a FEMA-designated 100-year floodplain. However, according to the Caltrans Vulnerability Assessment Mapping tool, precipitation is expected to increase by a range of 3.3 to 4.4% by 2055 and by a range of 3.2 to 3.5% by 2085 (Caltrans 2019j). The Project is proposing drainage modifications to existing facilities, which would allow the Project to adapt to the predicted future increases of precipitation.

Wildfire

As discussed in Section 3.3, Wildfire, portions of the proposed Project are within Local Responsibility Area Moderate, High, and Very High Fire Hazard Severity Zone (VHFHSZ). The proposed Project is also near a State Very High Fire Hazard Severity Zone (Cal Fire 2022). The Climate Change Vulnerability mapping of wildfire risks for Caltrans District 8 shows no portion of the I-215 within the proposed Project site is identified as an area of wildfire concern. A portion of the I-215 is in an area of moderate wildfire concern through 2085, this portion is just south of the proposed Project limits. Proposed Project construction would use heavy construction equipment in and around vegetated areas, which could increase the potential for wildfire ignition. During construction, the proposed Project would implement fire prevention practices, as required by measure WF-1, Implement Fire Prevention Practices during Construction, to reduce the potential for wildfires to occur in the proposed Project area. In addition, the proposed Project would use fire-resistant building materials (e.g., concrete and steel, rather than polyvinyl chloride and wood). Operation of the Project would implement measure WF-2, Wildfire Risk Reduction for the Traveling Public, to protect the public from potential wildfires by landscaping with fire-resistant plants and utilizing fire-resistant materials throughout the Project corridor.

Temperature

According to the *District Climate Change Vulnerability Assessment* (Caltrans 2019j), in 2055 the average minimum temperature would increase by 4.6°F and the average maximum temperature would increase by 5.57 to 5.84°F in the proposed Project area. In 2085, the average minimum temperature would increase by 7.1 to 7.4°F and the average maximum temperature would increase by 9.8 to 10°F.

Substantial changes in maximum or minimum temperatures over a project's design life can affect pavement performance and the pavement's roadway life. To reduce pavement damage and improve performance, a *Life Cycle Cost Analysis Report* (Caltrans 2019) was developed to ensure pavements for the proposed Project are designed and installed to account for future temperature increases and climatic changes. A rigid continuously reinforced concrete pavement with flexible shoulders was recommended for the mainline for all Build Alternatives. Recommendations for the new ramp pavement included rigid jointed plain concrete pavement for the traveled way, and flexible rubberized hot mix asphalt on hot mix asphalt for the shoulder. The recommended pavement structure has a design life of 40 years; however, the life cycle cost analysis found this pavement structural mix would not require rehabilitation over the course of the 55-year study period that was used for the analysis. This recommended pavement structure would withstand the future estimated temperature increase within the proposed Project area.

3.5 Cumulative Impacts

3.5.1 Regulatory Setting

Cumulative impacts are those that result from past, present, and reasonably foreseeable future actions, combined with the potential impacts of the proposed Project. A cumulative effect assessment looks at the collective impacts posed by individual land use plans and projects. Cumulative impacts can result from individually minor but collectively substantial impacts taking place over a period of time.

Cumulative impacts to resources in the project area may result from residential, commercial, industrial, and highway development, as well as from agricultural development and the conversion to more intensive agricultural cultivation. These land use activities can degrade habitat and species diversity through consequences such as displacement and fragmentation of habitats and populations, alteration of hydrology, contamination, erosion, sedimentation, disruption of migration corridors, changes in water quality, and introduction or promotion of predators. They can also contribute to potential community impacts identified for the project, such as changes in community character, traffic patterns, housing availability, and employment.

The California Environmental Quality Act (CEQA) Guidelines Section 15130 describes when a cumulative impact analysis is necessary and what elements are necessary for an adequate discussion of cumulative impacts. The definition of cumulative impacts under CEQA can be found in Section 15355 of the CEQA Guidelines.

3.5.2 Methodology

The cumulative impact analysis methodology is based on the following six-step process in the recent Caltrans SER Change to Effect Analysis under NEPA and Instructions on Cumulative Impact Analysis under CEQA (Caltrans 2025c):

1. Determine which environmental resources to include in the cumulative impact analysis.

2. Determine resource study area (RSA).

3. Describe the existing cumulative condition.

4. Discuss whether the project's impacts are cumulatively considerable.

5. If the project's contribution is cumulatively considerable, discuss any additional proposed mitigation for Caltrans' contribution to cumulative condition.

6. State post-mitigation conclusion (if additional mitigation was added to address cumulative impacts).

3.5.3 Resources Excluded from Cumulative Impact Analysis

As specified in the Caltrans SER guidance, if the proposed Project would result in no impact on a resource, it would not contribute to a cumulative impact on that resource and would not need to be evaluated for potential cumulative impacts. In some cases, for those resources where the Project impacts are less than significant, analysis may still be warranted depending on the acuity of the cumulative condition. The following bulleted items discuss resources that do not have anticipated cumulative effects:

- **Land Use and Consistency with State, Regional, and Local Plans and Programs:** The proposed Project was considered in the development of applicable plans and is consistent with surrounding land use designations and zoning, as discussed in detail in Sections 2.1.1 and 2.1.2. The implementation of the proposed Project would be consistent with objectives for other present and reasonably foreseeable development and transportation projects in the area. Because the development of the new interchange at the I-215 and Keller Road is included in applicable local and regional plans, no direct or indirect effects related to changes in land use or zoning designations would occur, and the proposed Project would be consistent with the plans and programs, as described in detail in Section 2.1.2 and shown in Table 2.1.2-1.

- **Parks and Recreational Facilities:** Parks and recreation facilities were discussed in detail in Section 2.1.3. The study area for the proposed Project site is characterized by transportation-focused land uses, predominantly dedicated to serving regional circulation needs and localized ingress/egress for surrounding communities. The construction of the proposed Project would improve circulation within the proposed Project site and improve overall accessibility through new direct access from the I-215 to Keller Road and surrounding areas, including parks and

recreational facilities within the study area. The implementation of the proposed Project would include elements to enhance existing nonmotorized and pedestrian features for the safe movement of individuals within the proposed Project site. Therefore, the construction and operation of the proposed Project would not result in direct or indirect temporary or permanent impacts on parks and recreational facilities.

- **Farmlands:** Farmlands were discussed in detail in Section 2.1.4. No active farmlands, lands in Williamson Act contract, or land zoned for agricultural use would be affected by any of the Build Alternatives. Therefore, the construction and operation of the proposed Project would not result in direct or indirect permanent or temporary impacts on farmlands.

- **Community Character and Cohesion:** Community character and cohesion was discussed in detail in Section 2.1.6. The construction of the proposed Project would involve adding permanent transportation infrastructure to the proposed Project site, which would include ramps, street lighting, and retaining walls. It would also involve the widening of the I-215 bridge undercrossing. During construction, a TMP would be implemented to ensure safe movement for motorized and nonmotorized transportation, and pedestrians within the proposed Project site during construction. The construction of the proposed Project would not require the modification or demolition of geographic features or elements that are formally recognized as contributing to the sense of place or identity of the surrounding community. However, Build Alternatives 2 and 3 would require relocation of one residential property and the Kaiser Permanente Murrieta Medical Campus outbuildings. The main hospital building would not be impacted and medical operations would be maintained. The operation of the new interchange would improve accessibility for the community, through the new direct access from the I-215 to the local street network in Riverside County and specifically in Murrieta and Menifee. Overall, the proposed Project would improve circulation and access to existing and future neighborhoods, community facilities, and services in the study area; reduce travel times to access the freeway; and improve emergency response times. The proposed Project is within an existing transportation corridor and would not result in a division of neighborhoods, communities, or community-related facilities. Additionally,

the proposed Project does not include residential or commercial development, and has no potential to result in impacts on existing or future community character and cohesion.

- **Relocations and Real Property Acquisitions:** Relocations and real property acquisitions were discussed in detail in Section 2.1.7. The acquisition of real property only affects the properties that are acquired, and any associated residential or business displacements. Impacts associated with property acquisition for the proposed Project would be addressed in accordance with the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Uniform Act), as discussed in measure REL-1.

- **Visual/Aesthetics:** Visual and aesthetics resources were discussed in detail in Section 2.1.10. The implementation of the proposed Project would result in minor changes to the existing condition of the proposed Project site. Changes to the visual character and quality would be low to moderate, because of the installation of the noise/light barrier on the western side of the I-215, which would hinder views to the west and create a wall-like effect over a short distance. Proposed Project improvements would replicate the form, line, color, and texture of existing interstate travel lanes and visible surface streets. Permanent features would include primarily low and horizontal features, including on- and off-ramps, auxiliary lanes, and widened surface roads. These features would not block views or be visible outside the immediate proposed Project site. Project components would be familiar elements and visually compatible with the existing character of the I-215 and Keller Road corridors, including ramps, sidewalks, striping, traffic signals, and other features. Therefore, the construction and operation of the proposed Project would not contribute to cumulative impacts to visual resources.

- **Cultural Resources:** Cultural resources were discussed in detail in Section 2.1.11 Four cultural resources were identified within the APE, including CA-RIV-645. CA-RIV-645 is a property within the APE that is considered eligible for inclusion in the NRHP for the purpose of the proposed Project, only because evaluation was not possible, in accordance with Section 106 PA Stipulation VIII.C.4 and as applicable in PRC 5024 MOU Stipulation VIII.C.4 (Caltrans, 2023b). However, intact

portions of the site that contain the character-defining features of the site that convey its significance under Criteria C and D of the NRHP would be preserved in place. No cultural resources were identified within the ADI. Grading would take place in previously disturbed soils or in fill deposits and would not extend into undisturbed soils within CA-RIV-645. No ground disturbance would go deep enough to reach buried cultural deposits if such deposits existed. Cultural resource avoidance and minimization measures CR-1 through CR-5 are required to ensure the proper treatment and avoidance of known and unknown archaeological resources. Details for each of these measures are presented in Section 2 of the ESA Action Plan for this proposed Project, and are also discussed in Section 2.1.11 of this document. Pursuant to Stipulation X.B.2.b of the Section 106 PA, Caltrans has found the construction and operation of the proposed Project would not have an adverse effect. The construction and operation of the proposed Project would not contribute to cumulatively considerable significant impacts to cultural resources and would not result in direct or indirect permanent or temporary impacts.

- **Hydrology and Floodplains:** Hydrology and floodplains were discussed in detail in Section 2.2.1. In general, the existing drainage flow pattern for the proposed Project site is from west to east. Two unnamed drainages were mapped by the USGS topographic quadrangle and NHD within the proposed Project area (Figure 2.2-1). No identified direct receiving waters cross or are adjacent to the existing or proposed roadways within the proposed Project site. Based on a review of the FEMA Flood Insurance Rate Maps, the proposed Project is not within a 100-year flood hazard area. Similarly, based on a review of DWR Best Available Maps, the proposed Project is not within a floodplain area. The proposed Project is not within an area subject to flooding, and its construction and operation would not result in direct or indirect temporary or permanent impacts on hydrology and floodplains.

- **Geology and Soils:** Geology and soils were discussed in detail in Section 2.2.3. The implementation of the NPDES Permit and erosion and sediment control BMPs specifically identified in the proposed Project's SWPPP would prevent soil erosion. The proposed Project would be designed and constructed to withstand seismic activity in accordance with Caltrans SDC and the AASHTO LRFD Bridge Design Specifications and

California Amendments. The proposed Project would not result in permanent substantial changes to the topography or to geologic features/natural landmarks within the proposed Project site, because the improvements would generally be constructed at or close to the same grade as the existing facilities. Through the implementation of proper design and engineering based on available seismic and other geotechnical data, the construction and operation of the proposed Project would not result in direct or indirect temporary or permanent impacts on geology and soils.

- **Utilities and Emergency Service Systems:** Utilities and emergency service systems were discussed in detail in Section 2.1.8. During final design, an updated utility search would take place to verify the locations of all utility facilities requiring relocation. Utility relocation plans would be developed and coordinated with each utility provider for all affected utilities. During utility relocation, close coordination with utility providers would avoid potential cumulatively considerable impacts of simultaneous utility relocation and/or service disruption when scheduled and evaluated in coordination with other present and future projects. No significant temporary or permanent impacts on utility providers or their facilities are anticipated. Minimization measure T-1 would require the preparation of a TMP in coordination with the Cities of Menifee and Murrieta, Riverside County, and emergency service providers and would ensure that appropriate access was provided for all community and emergency services, and would ensure emergency vehicle access was not impaired. Therefore, with utility relocation coordination and the implementation of a TMP, the proposed Project would not result in significant impacts related to utilities and emergency service systems.

- **Energy:** Construction and operational energy consumption were discussed in detail in Section 2.2.8, Energy. As shown in Table 2.2.8-3, the energy consumption under the Build Alternatives would be less than the No-Build Alternative in 2027 and 2047. Energy consumption from construction activities would only last for 16 months and would cease when construction was complete. Additionally, construction and operational energy usage would be minimal, compared to overall energy used in Riverside County or California. Therefore, the proposed Project

would not result in wasteful or inefficient energy usage and there would be no cumulatively considerable significant impacts related to energy use.

- **Invasive Species:** Invasive species were discussed in detail in Section 2.3.6. The proposed Project would incorporate minimization measures BIO-1 through BIO-3, which would minimize disturbance areas and require the revegetation of disturbed areas with native plant species. No seeding of invasive plant species identified within Table 6-2 of the Western Riverside County MSHCP would be allowed. Construction equipment would also be cleaned of mud or other debris that may contain invasive plants and seeds, and would be inspected to reduce the potential of spreading noxious weeds. WF-2 would ensure a weed abatement plan during the operation of the proposed Project. Therefore, the proposed Project would have no permanent impacts related to invasive species.

  With the implementation of avoidance and minimization measures and compliance with MSHCP requirements, the construction and operation of the proposed Project would be consistent with the MSHCP and state and federal regulations regarding avoiding the potential spread and introduction of invasive species. Construction and operational impacts associated with the proposed Project would not contribute to any cumulatively considerable significant impacts associated with the introduction or spread of invasive species.

3.5.4 Resources Evaluated for Cumulative Impact Analysis

Per SER guidance, all resources for which the Project's impacts are less than significant with mitigation or significant must be included in the cumulative impact analysis. In addition, some resources where the Project will have less than significant impact are also analyzed where the existing cumulative condition is sufficiently acute to merit further analysis.

Resources considered in this analysis and their respective RSAs are shown in Table 3.5.4-1. Resources considered in the resource-specific subsections below include Growth; Traffic and Transportation/ Pedestrian and Bicycle Facilities; Water Quality and Stormwater Runoff; Paleontology; Hazardous Waste/Materials; Air Quality; Greenhouse Gas; Noise; and various biological resources. A discussion of the cumulative condition is provided within each resource discussion.

Table 3.5.4-1. Resource Study Areas Included in Cumulative Impact Analysis

Resource Area	Reason Included in Cumulative Analysis	Resource Study Area
Growth	The proposed Project would not change the type, amount, or location of growth, but could result in a change to the rate of growth. Indirect growth impacts presented in Section 2.1.5 are considered the cumulative growth impacts.	RSA includes freeway frontage areas along Keller Road within the proposed Project site, and is the same as the growth study area discussed in Section 2.1.5.
Traffic and Transportation/ Pedestrian and Bicycle Facilities	Construction and operational traffic impacts would occur. The operational impacts presented in Section 2.1.9 are considered cumulative traffic impacts.	RSA includes freeway segments, interchange ramps, ramp terminus intersections, and arterial intersections in the vicinity of the I-215, from Scott Road in the north to Clinton Keith Road in the south, and is the same as the traffic study area discussed in Section 2.1.9.
Water Quality and Stormwater Runoff	Temporary impacts during construction and impacts to the watershed during operation.	Santa Margarita HU (French HSA of the Murrieta HA) and San Jacinto Valley HU (Menifee HSA of the Perris Valley HA).
Paleontology	Potential for destruction or damage on paleontological resources.	Proposed Project site and the cities of Murrieta and Menifee.
Hazardous Waste/Materials	Potential to encounter unexpected or unknown contaminants during construction-related soil disturbance activities.	1 mile radius of the proposed Project site.
Air Quality	Temporary impacts during construction and operation emission impact analysis.	SCAB.
Greenhouse Gas	Permanent increases in operational GHG emissions compared to the existing/baseline GHG emissions.	SCAB.
Noise	Noise from construction activities and operational noise impacts.	Properties within 500 feet of the proposed Project site.
Natural Communities	Temporary and permanent impacts on natural communities.	BSA and the five Criteria Cells of the Western Riverside County MSHCP that overlap the BSA.

Resource Area	Reason Included in Cumulative Analysis	Resource Study Area
Wetlands and Other Waters	Temporary and permanent impacts on wetlands and other waters.	Santa Margarita and San Jacinto Valley HUs.
Plant Species	Temporary and permanent impacts on rare plant species.	BSA and the five Criteria Cells of the Western Riverside County MSHCP that overlap the BSA.
Animal Species	Temporary and permanent impacts on special-status animal species.	BSA and the five Criteria Cells of the Western Riverside County MSHCP that overlap the BSA.
Threatened and Endangered Species	Temporary and permanent impacts on threatened and endangered species.	BSA and the five Criteria Cells of the Western Riverside County MSHCP that overlap the BSA.

Past, present, and reasonably foreseeable development and transportation projects within an approximately 1- to 3-mile radius of the proposed Project site were considered for this analysis. Table 3.5-4-2 lists the past, present, and reasonably foreseeable development projects and their status. The locations of each are shown on Figure 3.5-1. Table 3.5.4-3 lists past, present, and reasonably foreseeable transportation projects and their status. The locations of each are shown on Figure 3.5-2.

Information about developments was obtained from the cities of Murrieta and Menifee and Riverside County. Information about future transportation projects was obtained from the cities of Murrieta and Menifee, Riverside County, Caltrans, and SCAG. Where readily available, environmental documents for specific projects within the respective RSAs, and local General Plans and General Plan EIRs, were reviewed, incorporated by reference, and summarized for each resource to add context.

An analysis of cumulative impacts on resource areas that could contribute to cumulative impacts is provided in the following sections. The implementation of Build Alternatives 2, 3, and 5 would have similar potential contributions to cumulative impacts on these resources and are, therefore, discussed as the proposed Project, unless otherwise specifically noted in the resource analysis.

Section 2.1.5, Growth, and Section 2.1.9, Traffic and Transportation/ Pedestrian and Bicycle Facilities, are cumulative impact analyses and have analyzed impacts from a cumulative standpoint. A summary of the analysis is provided in Sections 3.5.4.1 and 3.5.4.2.

Table 3.5.4-2. Past, Present, and Reasonably Foreseeable Development Projects

Map ID	Project Name	Description	Type	Distance from Project Site (Miles)	Project Status
City of Menifee					
1	Home2Suites	4-story, 65,463 sq. ft. hotel, consisting of 106 rooms	Commercial	3.05	Completed
2	Community Center at La Piedra Road	Design and construction of a community center	Nonresidential	3.01	Completed
3	Quartz Ranch (Lennar)	379 residential lots	Residential	3.04	Under Construction
4	Nautical Cove	239 residential lots on 77.15 acres	Residential	2.45	Under Construction
5	Del Oro North	238 apartments, 100 senior independent living units on 17.2 acres	Residential	2.31	Completed
6	StaxUp Storage Facility Expansion	Storage facility expansion one 14,375 sq. ft. building and two 2,800 sq. ft. buildings	Commercial	2.64	Completed
7	Estrella (formerly Rowland/Menifee 80)	80 residential lots on 30 acres	Residential	1.75	Under Construction
8	Evans Park North, Design & Construction	20 acres of recreational and open space facilities	Nonresidential	1.70	Completed
9	Gale Webb Action Sports Park Restroom	Construction of a park restroom	Nonresidential	1.41	Approved
10	Adler Ranch (Tricon)	327 condominium units on 30.54 acres	Residential	1.31	Completed
11	Garbani North TTM 38683	39-unit tract map with one water quality basin	Residential	1.18	Under Review
12	Garbani South	33 residential lots on 9.8 acres	Residential	1.66	Approved

Map ID	Project Name	Description	Type	Distance from Project Site (Miles)	Project Status
13	Haun and Garbani (SE corner)	291,020 sq. ft. mixed-use light manufacturing and retail	Commercial	1.41	Under Review
14	Fitwell Health	9,000 sq. ft. office building, combined 35,000 sq. ft. fitness center/museum, 34,200 sq. ft. multipurpose center	Commercial	1.28	Under Review
15	Golden Meadows (Richland Comm.)	474 residential lots on 206.8 acres	Residential	1.07	Approved
16	Golden Meadows (Richland Comm.)	552 residential lots	Residential	0.69	Under Review
17	TTM 38372 & TTM 38682	406 residential units of the Cantalena Specific Plan	Residential	0.66	Approved
18	Cantalena (Richland Communities)	296 residential lots on 94.30 acres	Residential	0.52	Approved
19	Freedom Business Park	283,000 sq. ft. light industrial and warehousing on 17.55 acres	Industrial	1.30	Under Construction
20	The Junction	268,824 sq. ft. retail commercial, 85,282 sq. ft. 5-story hotel & 304-unit senior assisted living, independent living, and memory care facility on 54.01 acres	Commercial	1.09	Under Review
21	Walmart	240,980 sq. ft. major retail building, 3,200 sq. ft. & 3,000 sq. ft. quick serve restaurants, 2,800 sq. ft. convenience store/gas station, 6,500 sq. ft. sit-down restaurant, 13,800 retail shops, 6,680 sq. ft. auto service & repair	Commercial	0.34	Under Review

Map ID	Project Name	Description	Type	Distance from Project Site (Miles)	Project Status
22	Sumac Ridge (Meritage Homes), formerly Lindenberger Tract	175 residential lots on 56.58 acres	Residential	0.18	Approved
23	TR 38651	36 single-family lots	Residential	0.12	Under Construction
24	Holiday Inn	4-story, 98-room hotel 68,523 sq. ft.	Commercial	2.87	Pending
25	Bailey Park Irrigation Supply	19,603 sq. ft. warehouse building on 4.26 acres	Commercial	2.40	Pending
26	Commerce Pointe (PacTen)	157,147 sq. ft. total on 10.60 acres	Industrial	2.29	Under Construction
City of Murrieta					
27	Antelope Square SW Pad	3,124 sq. ft. retail building and 2,522 sq. ft. coffee shop on 1 acres	Nonresidential	0.29	Completed
28	Murrieta Medical Office and Life Sciences Project	3-story 82,500 sq. ft. medical office building on 4.73 acres	Nonresidential	0.03	Pending
29	Kaiser Permanente Murrieta Medical Center	824,500 sq. ft. medical facility; 254-bed hospital (364,000 sq. ft. & 180,000 sq. ft.), 3 MOB buildings (82,756 sq. ft., 100,000 sq. ft., and 97,244 sq. ft.) over 5 phases	Nonresidential	0.12	Completed
30	Murrieta Hills Specific Plan Amendment Project	522 single-family residences and 228 condos/apartments, retail, office, and service businesses on 972 acres	Residential	0.10	Approved
31	Loma Linda Hospital	46-acre development of a 490,000 sq. ft. hospital (266 beds) and 160,000 sq. ft. MOB	Nonresidential	1.0	Completed

Map ID	Project Name	Description	Type	Distance from Project Site (Miles)	Project Status
32	Vinca Court / The Adele Holman Greer "B Trust"	single-family residential subdivision of 5 lots	Residential	1.0	Pending
33	Makena Murrieta Medical Office Bldg.	2-story 60,674 sq. ft. medical office building on 5.6 acres	Nonresidential	0.57	Completed
34	Murrieta Baxter Apartments	502 Single-family attached housing units on 36 acres	Residential	0.94	Pending
35	Murrieta-Whitewood Skilled Nursing Facility	59-bed skilled nursing facility totaling 37,000 sq. ft. (for postacute care) located on 4.9 acres	Nonresidential	1.03	Completed
36	Lee Lane Apartments	258 apartments over a total of 14.83 acres	Residential	1.15	Pending
37	Sapphire Hotel and Events Center	120 hotel rooms, 222-unit apartment complex, event center, common recreation area on 14.35 acres	Nonresidential	0.96	Approved
38	Whitewood South Apartment Project	322-unit housing complex	Residential	1.27	Approved
39	Ross at Stone Creek	25,000 sq. ft. retail building	Nonresidential	1.17	Completed
40	Murrieta Greenberg Apartments	Multifamily residential: 162 units on 9.98 acres	Residential	1.38	Pending
41	The Orchard at Stone Creek	103,642 sq. ft. of commercial space	Nonresidential	1.28	Completed
42	Home Depot at Stone Creek	107,891-sq. ft. retail building, 28,216 sq. ft. outdoor garden on 9.76 acres	Nonresidential	1.32	Completed
43	Vineyard Commercial Center (Phase IV)	165,000 sq. ft. retail center with 79,200 sq. ft. hotel	Nonresidential	1.35	Approved

Map ID	Project Name	Description	Type	Distance from Project Site (Miles)	Project Status
44	Development Plan - Whitewood	262 townhomes on 17.26 acres	Residential	1.49	Pending
45	Vineyard Northwest (Curci Property)	32,208 sq. ft. commercial center with 6 buildings	Nonresidential	1.40	Completed
46	Ashdon Development El Toro, Inc.	10,000 sq. ft. daycare center and 4,100 sq. ft. car wash on 2.3 acres	Nonresidential	1.48	Completed
47	SC-2023-2719 (project name unknown)	SC-2023-2719	Nonresidential	1.52	Pending
48	NEC Clinton Keith & Mitchell	6-pump fueling station, 5,158 sq. ft. convenience store on 2.23 acres	Nonresidential	1.55	Pending
49	Vineyards Shopping Center	165,000 sq. ft. retail center, 79,000 sq. ft. hotel	Nonresidential	1.47	Completed
50	76 Gas Station Clinton Keith	3,500 sq. ft. convenience store, 3,600 sq. ft. fueling station and car wash	Nonresidential	1.55	Pending
51	Vintage Farms	330 multifamily units	Residential	1.73	Under Construction
52	Murrieta Marketplace	518,817 sq. ft. of retail space on 49 acres	Nonresidential	2.93	Approved
53	French Valley Crossing	37,800 sq. ft. of retail space	Nonresidential	2.98	Approved
54	EMWD Las Brisas Tank Site	Tank rehabilitation	Nonresidential	2.49	Pending
55	Adobe Springs Specific Plan Amendment Project	Residential, business park, and open space uses – 283 detached residential units on 122 acres	Residential	3.00	Under Construction

Map ID	Project Name	Description	Type	Distance from Project Site (Miles)	Project Status
56	St. Martha's Catholic Church- Development Plan	Removal of an existing 13,600 sq. ft. modular buildings and the construction of 17,034 sq. ft. of admin. buildings	Nonresidential	2.69	Pending
57	U-Stor-It Murrieta	105,508 sq. ft. storage facility on 3.52 acres	Nonresidential	2.94	Approved

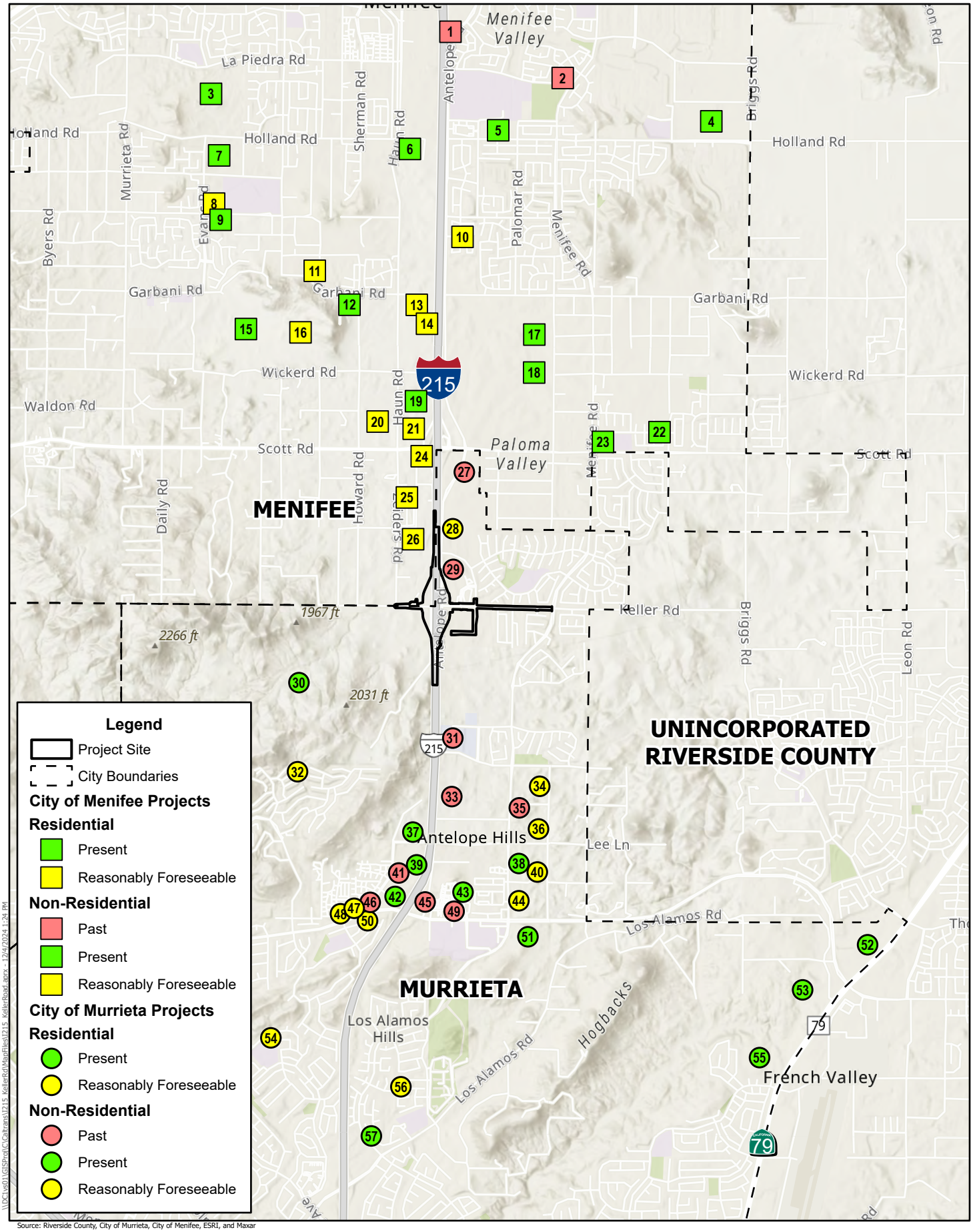


Figure 3.5-1
Past, Present, and Reasonably Foreseeable Development Projects
I-215/Keller Road New Interchange Project

Table 3.5.4-3. Past, Present, and Reasonably Foreseeable Transportation Projects

Map ID	Project Name	Project Type	Distance from Project (miles)	Project Status
City of Menifee				
1	PMP FY 23-24 Slurry Seal Program	Pavement Management	3.7	Under Construction
2	Brigata Community Slurry Seal Resurfacing	Pavement Management	2.9	Completed
3	Willows Neighborhood Resurfacing	Pavement Management	3.0	Completed
4	La Piedra Road at Bell Mountain Middle School- Road Improvements	Street Improvement	2.8	Completed
5	Lake Ridge Community Resurfacing	Pavement Management	2.8	Completed
6	Antelope Road/MSJC Traffic Signal	Traffic Signal	2.6	Completed
7	Holland Road/I-215 Overcrossing	Transportation	2.4	Completed
8	Bradley Road and Paloma High School Entrance Street Widening	Street Improvement	2.3	In Design
9	Beth Drive Street Improvements, from Murrieta Road to Melvin Street	Street Improvement	2.7	In Design
10	Garbani Road & I-215 Interchange / Overpass	Transportation	1.4	In Design
11	Menifee Road & Garbani Road Traffic Signal	Traffic Signal	1.7	Completed
12	Menifee Road Widening (Scott Road to Garbani Road)	Transportation	1.3	In Design
13	South East Communities Resurfacing (South of Wickerd Road)	Pavement Management	1.4	Completed
14	Bundy Canyon Road/Scott Road Widening	Transportation	1.6	In Design
15	Bailey Park Boulevard Street Widening	Transportation	0.2	In Design
16	Traffic Signal at Murrieta Road and Scott Road	Traffic Signal	2.06	Completed

Map ID	Project Name	Project Type	Distance from Project (miles)	Project Status
17	Scott Road/ I-215 Interchange	Transportation	0.39	Completed
18	Scott Road Improvements	Transportation	0.74	Completed
City of Murrieta				
19	Antelope Road Realignment	Transportation	0.1	Pending
20	I-215 Overcrossing at Linnel Lane	Transportation	1.02	Completed
Caltrans				
21	NB I-215 Outer-Separation Barrier	Transportation	0.17	Completed
County of Riverside				
22	Clinton Keith Extension Project	Transportation	2.98	Completed

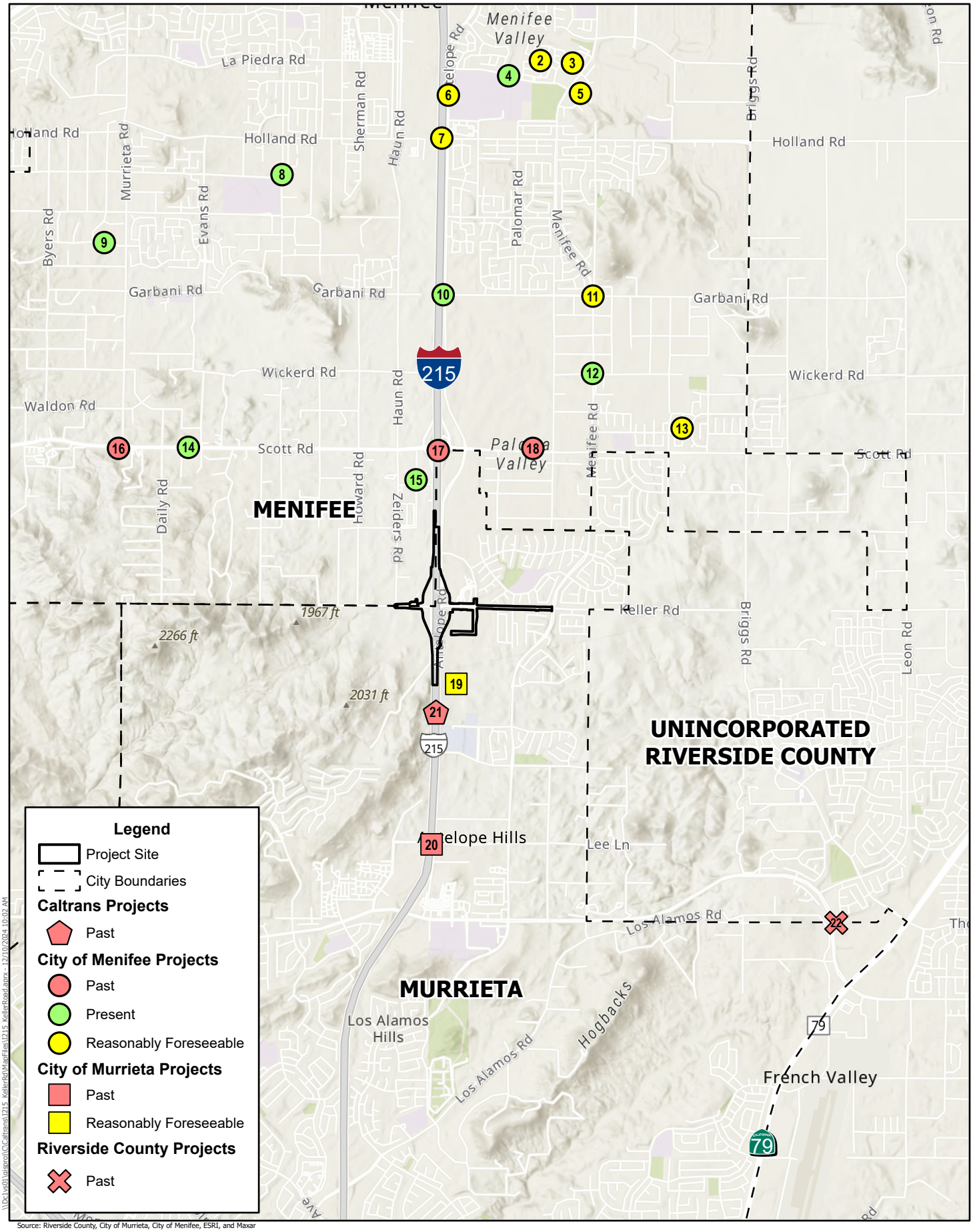


Figure 3.5-2
Past, Present, and Reasonably Foreseeable Transportation Projects
I-215/Keller Road New Interchange Project

3.5.4.1 GROWTH

The *Growth-Related Indirect Impacts Study* (Caltrans 2024b) considered potential growth impacts in detail. The indirect growth analysis is a cumulative analysis, including the potential for growth impacts on resources of concern. The proposed new interchange would not affect the current or planned growth in the RSA. As discussed in Section 2.1.5, the proposed Project could result in decreased travel times to Keller Road, making the adjacent lands more attractive to development, and could accelerate the rate of growth for future developments. The potential for growth in the proposed Project vicinity is consistent with local land use plans and current trends.

As individual developments near the proposed Project occur, impacts on resources of concern would be minimized or avoided through the local jurisdiction's entitlement and environmental review process. Based on the growth analysis in Section 2.1.5, the proposed Project would not affect the current and planned growth patterns in the RSA. The amount, location, and type of growth would not change even if the proposed Project was not constructed. However, future development could occur at an accelerated rate based on the assumption that direct access to Keller Road from the I-215 would result in decreases in travel times to Keller Road from beyond Scott Road and Clinton Keith Road, which could make the area more attractive for development compared to the No-Build Alternative. No substantial effect on resources of concern were identified, and proposed Project growth-related indirect impacts would not result in significant cumulatively considerable growth impacts. For additional information, refer to Section 2.1.5, Growth.

3.5.4.2 TRAFFIC AND TRANSPORTATION/PEDESTRIAN AND BICYCLE FACILITIES

Traffic and transportation/pedestrian and bicycle facilities were discussed in detail within Section 2.1.9. Section 2.1.9 provides a cumulative analysis of future traffic and transportation conditions, both for 2027 (opening year) and 2047 (design year), because the Riverside County transportation model considers traffic generated by existing and future planned land uses, as well as the effect of existing and future planned transportation improvements on trip distribution. A summary of the traffic analysis is provided below.

The proposed Project traffic analysis shows that for Build Alternatives 3 and 5, the I-215/Keller Road interchange is projected to operate at an acceptable LOS in 2027 (opening year) and in 2047 (design year). For Build Alternative 2, the

northbound I-215/Keller Road interchange ramp intersection would operate at LOS E in 2047 (design year).

For both the No-Build Alternative and the Build Alternatives, ramp merge/diverge areas for the interchanges at I-215/Scott Road and 1-215/Clinton Keith Road are projected to operate at an acceptable LOS D or better in 2027 (opening year) and 2047 (design year).

The 2027 (opening year) and 2047 (design year) freeway mainline traffic operations are similar for the No-Build Alternative and the Build Alternatives. Select segments change between LOS B, C, and D in the northbound and southbound directions, but all will continue to operate better than the Caltrans performance criteria of LOS E.

For the 2047 (design-year) No-Build Alternative, several intersections would operate at LOS E or worse, and would not meet the Caltrans performance criteria.

For all of the Build Alternatives, some of these intersections would improve to LOS D or better. However, some intersections would continue to operate at LOS E or worse:

- Zeiders Road-Haun Road/Scott Road (a.m. peak hour)
- Menifee Road/Scott Road (a.m. and p.m. peak hours)
- Antelope Road/Baxter Road (a.m. peak hour)
- McElwain Road/Clinton Keith Road (p.m. peak hour)
- Whitewood Road/Clinton Keith Road (a.m. and p.m. peak hours)
- Antelope Road/Clinton Keith Road (a.m. and p.m. peak hours)

For each Build Alternative, the delay for these intersections would be less than the delay for the No-Build Alternative. However, because the intersections would operate at LOS E or worse, they would be cumulatively considerable impacts.

The Meadowlark Lane-Gladiolus Avenue/Keller Road intersection would operate at LOS D for the Build Alternatives and at LOS B for the No-Build Alternative. While LOS D is still acceptable, the increase in delay would contribute to cumulatively considerable impacts at this location.

The I-215 NB ramps/Keller Road (p.m. peak hour) intersection would operate LOS E in the 2047 (design year).

Overall, traffic operations at the adjacent I-215 interchanges of Scott Road and Clinton Keith Road are forecasted to maintain acceptable operations, with the proposed Keller Road interchange attracting volumes that may otherwise use those interchanges.

The cumulative impacts at intersections are a result of regional growth and not a result of the proposed Project. The project's traffic impacts are not cumulatively considerable significant impacts, and no further mitigation is proposed.

New construction and improvements to sidewalks along Keller Road will improve connectivity and safety for pedestrians. New bicycle lanes on Keller Road would provide similar operational and safety benefits for bicyclists. The traffic operation changes (such as the signalization of unsignalized intersections and associated vehicular delay) would not affect pedestrian or bicycle safety. No adverse impacts on pedestrians or bicycles are anticipated; therefore, the proposed Project would not result in cumulatively considerable significant impacts on pedestrians or pedestrian and bicycle facilities

3.5.4.3 WATER QUALITY AND STORMWATER RUNOFF

The RSA for the water quality and stormwater runoff cumulative impacts analysis includes the San Jacinto Valley HU's Menifee HSA of the Perris Valley HA and Santa Margarita River HU's French HSA of the Murrieta HA (Caltrans 2024e). A detailed discussion of water quality and stormwater runoff is provided in Section 2.2.2. Existing surface water quality concerns in the RSA include contaminants in stormwater runoff from agricultural activities and urban uses (City of Murrieta 2011; City of Menifee 2013b).

Warm Springs Creek is the indirect downstream receiving water within the Santa Margarita River HU, about 2.25 miles east of the site. Warm Springs Creek has been identified by the San Diego RWQCB as an impaired water body on the 2020-2022 303(d) List for chlorpyrifos, indicator bacteria, iron, manganese, nitrogen, and phosphorus. Salt Creek is the indirect receiving water within the San Jacinto Valley HU, about 4 miles north of the site and is not an impaired waterbody.

During proposed Project construction activities, excavated soil would be exposed and there would be an increased potential for soil erosion compared to existing conditions. The total disturbed area for the proposed Project would be approximately 34.7 acres, with 4.7 acres of an impervious area increase. Pollutants of concern during construction include sediments, trash, petroleum products (e.g., paints, solvents, and fuels), concrete waste (dry and wet), sanitary waste, liquid products, and chemicals. There is a potential for construction-related pollutants to be spilled, leaked, or transported via storm runoff into drainages adjacent to the proposed Project site, and thereby into downstream receiving waters.

The proposed Project would be required to comply with applicable NPDES permits for construction (Construction General Permit) and operation (Caltrans MS4 Permit) to reduce pollutants in stormwater. The implementation of minimization measures WQ-1 and WQ-2 would reduce impacts on water quality and are discussed in Section 2.2.2. In compliance with the NPDES permits, BMPs would be implemented during the construction and operation of the proposed Project and would target and reduce pollutants of concern in stormwater runoff.

The net increase in impervious area would increase the volume of runoff during storm events and increase the potential to transport pollutants to receiving waters. As specified in minimization measure WQ-2, treatment BMPs would be incorporated into the design of the proposed Project to ensure compliance with Caltrans NPDES and the Caltrans MS4. As discussed in Section 2.2.2, treatment BMPs within the proposed Project limits could include biofiltration swales and infiltration basins and would be developed to treat 100% of the net new impervious area.

Cumulative Projects

Most of the projects listed in Tables 3.5.4-2 and 3.5.4-3 are in the RSA. Exceptions are fourteen of the development projects (map IDs 32, 37, 39, 41, 42, 45 to 50, 54, 56, and 57) in Murrieta to the south and southwest of the Project, and one transportation project northeast of the Project (map ID 13), all of which are outside the RSA HUs and HSAs. For the purposes of this analysis, where information is not available for individual projects, it has been assumed that projects within the HUs could convert or have converted most of their sites from undeveloped land to buildings and pavement. This could result in a cumulative

increase in impervious surfaces, and corresponding changes in the amount and characteristic of runoff. Increased impervious surfaces could alter the existing hydrology and increase potential pollutant loads.

Water quality and runoff control measures are called for in multiple federal, state and regional policies and programs, such as the water quality policies of the Murrieta and Menifee General Plans (City of Murrieta 2020a, Menifee 2013b), City of Murrieta's Jurisdictional Runoff Management Plan, Riverside County (2006) DAMP and WQMP, the San Diego/Riverside County or Caltrans MS4 permits, and development of WQMPs with Operations and Management Plans in accordance with applicable city and Riverside County water quality requirements.

CEQA documents, where readily available, were reviewed for the cumulative projects in the RSA. Documents including Negative Declarations (NDs), Mitigated Negative Declarations (MNDs), or EIRs were obtained for 11 projects within the RSA. Because not all projects have available documents and the available documents generally do not address acreage of impervious surface, the relevant General Plans and General Plan EIRs were also reviewed and are summarized after the project-specific summaries below, to allow an analysis of overall cumulative water quality and runoff impacts.

The 11 projects reviewed within the RSA incorporated measures to address water quality and stormwater runoff including those called for by those requirements listed above. As a result, all of the cumulative project environmental documents have concluded that no or less than significant impacts would occur. Below are summaries of the water quality and stormwater analyses.

Kaiser Permanente Murrieta Medical Center Project (map ID 29; City of Murrieta 2015)

- For this large medical facility, construction of an on-site storm drain system and storage facilities would preserve the existing drainage patterns at and around the site to mitigate storm flows to pre-project conditions.

- This includes the incorporation of BMPs, implementation of a SWPPP in compliance with the project's NPDES requirements, and implementation of a WQMP or Stormwater Mitigation Plan in accordance with the San Diego Regional MS4 Permit.

Murrieta Hills Specific Plan (MHSP) Project (map ID 30; City of Murrieta 2020d)

- Per the MHSP Amendment DEIR, design intensity was substantially reduced from 1585 units to 750, and open space increased from 288 acres to 609 acres.

- The natural runoff system collects drainage from open space areas and conveys runoff through a debris basin to the natural drainage. The urban runoff system collects stormwater drainage and directs flow to on-site detention basins, attenuating post-development runoff to the predevelopment conditions and treating runoff for pollutants per SWRCB regulations.

- This complies with the NPDES Construction General Permit, City of Murrieta water quality policies and JRMP, and Riverside DAMP. A WQMP with O&M plan follows city and County of Riverside requirements, including LID site design, hydromodification measures, source control, and treatment control.

Bundy Canyon /Scott Road Improvement Project (transportation map ID 14; City of Wildomar 2014, City of Menifee 2020)

- This covers 6 miles and includes grading, road widening, and paving, with 94 acres of disturbance and 58 acres increased road surface over the 6 miles, and multiple culvert extensions.

- This project implements a SWPPP and WQMP, as required by San Diego RWQCB, and implements County of Riverside guidance and construction site BMPs.

- Runoff impacts are minimized through design pollution prevention BMPs: riprap, slope surface protection, flared end sections, and biofiltration swales and strips.

- Permanent BMPs include channel lining, riprap energy dissipation, and landscaping, minimize the amount of sediment. Permanent soil stabilization BMPs incorporated into project design, such as preservation of existing vegetation, concentrated flow conveyance systems (such as

drainage ditches, dikes, berms, swales), and slope/surface protection systems.

- Proposed improvements to the existing drainage crossings will maintain the historical conveyance of stormwater runoff.
- The increased areas of impervious surface would divert runoff from previous areas of natural drainages into constructed drainages. Treatment BMPs include 59 biofiltration swales and 2 biofiltration strips, which will treat 100 percent of the pavement area.

Holland Road/I-215 Overcrossing Project (transportation map ID 7; City of Menifee 2016)

- This provides an additional east-west 0.58-mile connection as a new overcrossing of the I-215 at Holland Road.
- There are increases in impervious surface area and runoff (unquantified); however, the proposed storm drains would include longitudinal drainage systems and inlets and/or graded line drains that would be sized to accommodate runoff in the tributary watershed under buildout conditions.
- The proposed project includes BMPs that would reduce pollutant concentrations in runoff from the roadway.
- It implements detention and/or infiltration basins; construction site SWPPP and BMPs; design pollution prevention, LID, source control, and treatment control BMPs.

Whitewood South Apartment Project (map ID 38**;** City of Murrieta 2022)

- For this 322-unit housing complex, two underground detention systems within the project site would manage the added surface water flow and runoff of the project.
- The project would implement of a SWPPP and a WQMP in accordance with the most recently adopted Riverside County MS4 Permit.

Evans Park Project (map ID 8; City of Murrieta 2022b)

- For this 20-acre facility with recreation and open space, much of the site would remain in its present natural state.
- It includes compliance with the project's NPDES Construction General Permit and preparation of a SWPPP, and BMPs implemented in accordance with the 2010 Santa Ana MS4 Permit.
- Once it was operational, it would not significantly alter the existing drainage at the site.

Garbani North Project (map ID 11; City of Menifee 2025)

- The project is a 9-acre, 39-unit tract map.
- It includes a bioretention basin in the northeastern corner of the project site to accommodate and retain the added flow and runoff of the project and direct remaining amounts into an existing storm drain.
- It implements a SWPPP and a WQMP, so stormwater discharges do not violate water quality standards or waste discharge requirements.

Garbani South Project (map ID 12; City of Menifee 2023b)

- This is a 9.8-acre residential project with 33 proposed units.
- It includes an infiltration basin to collect runoff and provide passive water quality treatment and detention and infiltration. The basin would be sized to accommodate the surface water runoff from the project under post-development conditions.
- It develops and implements a WQMP and project-specific SWPPP in compliance with the project's NPDES permit requirements to ensure applicable water quality standards are maintained during project construction and operation.

Home2Suites Project (map ID 1; City of Menifee 2023c)

- This is a hotel on a 2.15-acre site adjacent to I-215 south of Newport Road and part of the Menifee Village Specific Plan area.

- The existing site currently has a total 64 percent impervious area (1.4 acres). Although the project would result in an increase in impervious surface cover, an on-site storm drain system would be installed to collect and convey stormwater runoff to a modular wetland system for treatment prior to discharging into existing drainage facilities.

- It involves preparing and implementing BMPs and a WQMP to ensure pollutants are contained and not released during construction.

- Post-construction stormwater infrastructure BMPs would ensure the capture and treatment of storm flows up to the 85th percentile 24-hour storm.

StaxUp Storage Expansion Project (map ID 6; City of Menifee 2023d)

- The expansion of the existing facility on an 8.4-acre site west of the I-215 would add 1 acre to existing impervious surfaces.

- Infiltration basins in the design meet the City of Menifee's requirements and WQMP measures, including permeable pavers, landscaping, and gravel reservoirs, and the collection of runoff to a bioretention basin to treat outflow.

- Infiltration basins have been sized to accommodate surface runoff within the project site under post-development conditions. All site runoff will drain to water quality treatment areas before leaving the property.

Sapphire Hotel Project (map ID 37**;** City of Murrieta 2019)

- This is a hotel project on a 16-acre site to the west of I-215 in the eastern portion of Murrieta.

- Construction complies with the City of Murrieta's Municipal Code and its regulations to meet federal and state water quality requirements.

- The project complies with Riverside County DAMP, City of Murrieta WQMP, Riverside County MS4 Permit, and policies of the General Plan.

- Mitigation measures include infiltration basins designed to also function as a detention facility to mitigate flow rates.

General Plans and EIRs

Each of the cumulative projects in Tables 3.5-4-2 and 3.5.4-3 in the RSA also are within the planning areas for the City of Murrieta and City of Menifee General Plans and are included in those plans and analyses. The EIRs prepared for these General Plans, incorporated here by reference, evaluated the cumulative effects of regional plan area development on water quality and stormwater runoff. Although the projects included in the General Plans may not be fully built out, using their full buildout is a conservative estimate of the potential development and transportation projects. The proposed Project is included in the General Plans and their EIRs.

The Murrieta General Plan 2035 Final EIR concluded that the General Plan, as mitigated, "would not significantly impact drainage courses and hydrologic flows throughout the City" (City of Murrieta 2011). Mitigation includes a requirement, as part of the Grading Permit Process, for development projects to prepare a WQMP or Stormwater Mitigation Plan that includes BMPs. The cumulative analysis concludes that "impacts associated with future development in the City and the region would be addressed at a site-specific level to ensure their cumulative impact would be less than significant" as a result of local agency requirements to mitigate specific hydrologic impacts and to address the quality of stormwater runoff. No changes or additions to cumulative water quality and hydrology analysis and conclusions were made in the Supplemental EIR prepared for the General Plan update in 2020.

Similarly, the City of Menifee General Plan EIR concludes that no substantial impacts to storm drainage capacity or water quality would occur as a result of General Plan buildout (City of Menifee 2013b). Development and redevelopment projects built pursuant to the General Plan would comply with the MS4 Permit requirements, including that urban runoff from 85th-percentile storm events from most development/redevelopment projects be infiltrated, filtered or treated. In addition, the EIR concludes that surface water quality impacts with General Plan buildout would be less than significant due to project-specific water quality management plans that would be designed to support or enhance the regional BMPs and efforts implemented by the City.

Analysis of Proposed Project Contribution to Cumulative Impacts

Within the RSA, all present and reasonably foreseeable development and transportation projects including this proposed project would be required to

comply with applicable federal, state, and local agency requirements including the NPDES permit program; City and County codes and General Plan requirements; MS4 Permits; RWQCB Basin Plans, and agency water quality standards. Projects would also be required to identify and address effects to water quality and stormwater runoff on a project-by-project basis.

Compliance with these multiple plans and regulations would minimize impacts on surface water runoff and water quality impacts for each project. Each project must comply with NPDES permitting requirements and include BMPs to minimize impacts on water quality and local hydrology in compliance with local ordinances and plans adopted to comply with the MS4 Permit, DAMP/LIP, TMDL program, and other applicable regulatory permits and requirements. These plans and programs have been designed in anticipation of future urbanization within the region, and the regional control measures ensure that construction and operational impacts of each cumulative project would reduce or minimize hydrology and water quality impacts, and the impact would not be cumulatively considerable within the region and within the RSA. By complying with all applicable regional, county, and city requirements that address cumulative impacts, and incorporating measures including site design, BMPs, and drainage system design, projects covered under these plans will not result in a cumulatively considerable impact related to drainage or water quality.

The proposed Project complies with the regulations in effect, and compliance with these federal, state and local plans, permits, and programs addresses cumulative water quality impacts. Given the small increase in impervious surface compared to the RSA and evaluated city plan areas' planned for developments, and that the project was considered in the City of Murrieta's General Plan EIR, with implementation of minimization measures WQ-1 and WQ-2 and compliance with all city, county, state and federal requirements, the proposed Project, in conjunction with past, present, and reasonably foreseeable projects, would not result in a cumulatively considerable significant impact related to water quality and stormwater runoff. The proposed Project's contribution to cumulative hydrology and water quality impacts would not be substantial, and the proposed project would not contribute considerably to cumulative water quality and/or stormwater runoff impacts in combination with planned and programmed projects.

No additional avoidance, minimization, and/or mitigation measures for cumulative impacts on water quality and stormwater runoff are required.

3.5.4.4 PALEONTOLOGY

Paleontological resources occur in geologic formations that traverse regional landscapes. The RSA for the paleontological resources cumulative impacts analysis includes the Project site and cities of Murrieta and Menifee. A detailed discussion of paleontology is provided in Section 2.2.4.

The Murrieta General Plan 2035 Final EIR indicates the Murrieta area is generally underlain by rock units with high potential to contain paleontological resources (City of Murrieta 2011). Similarly, the City of Menifee General Plan EIR indicates areas throughout Menifee, particularly low-lying areas, have been identified as having high paleontological sensitivity (City of Menifee 2013b).

Each Build Alternative includes ground-disturbing activities, including excavation and grading associated with the construction of the on- and off-ramps; as well as utility relocation, clearing and grubbing, and other activities. Ground-disturbing activities associated with the construction of the proposed Project could disturb sedimentary deposits with high paleontological resource potential (e.g., Pleistocene older alluvium), and could impact significant, nonrenewable paleontological resources, if present.

Cumulative Projects

CEQA documents, where readily available, were reviewed for the cumulative projects in the RSA. Similar to the proposed Project, the construction of present and reasonably foreseeable development and transportation projects would include ground-disturbing activities with the potential to destroy, damage, or displace previously undiscovered paleontological resources in areas with high paleontological resource potential within the RSA. The documents included measures to address potential impacts to paleontological resources. As a result, all of the environmental documents for the cumulative projects have concluded that no or less than significant impacts would occur. Below are summaries of those analyses:

Kaiser Permanente Murrieta Medical Center Project (map ID 29; City of Murrieta 2015)

- For this large medical facility, impacts to paleontology were found to be less than significant.
- The development and implementation of a paleontological resource mitigation plan, paleontological monitoring, and established processes in case of inadvertent discovery would protect potential paleontological resources discovered during grading and excavation.

Garbani North Project (map ID 11; City of Menifee 2025)

- This project is a 9-acre, 39-unit tract map, and the project MND concludes impacts to paleontological resources are not significant.
- It includes the retention of a qualified paleontologist to monitor ground-disturbing activities to protect potential discoveries of paleontological resources.
- If potentially significant fossils were discovered, the resources would be evaluated for significance by a professional paleontologist, and provisions would be established to protect those resources, and the resources would be evaluated for significance by a professional paleontologist.

Garbani South Project (map ID 12; City of Menifee 2023b)

- This is a 9.8-acre residential project with 33 proposed units, and the document concluded the project would have less than significant impacts on paleontological resources.
- It includes a requirement to prepare a Paleontological Resource Impact Mitigation Program and monitoring program before the final grading permit is issued, to protect potential discoveries of paleontological resources.
- The project would also retain a qualified paleontologist to monitor earthmoving activities and provide guidance for instances where fossil remains were found.

Sapphire Hotel and Event Center Project (map ID 37; City of Murrieta 2020a)

- This hotel project is on a 16-acre site west of the I-215, in the eastern portion of Murrieta.
- It includes adherence to applicable City of Murrieta General Plan policies and procedures during grading and excavation to protect potential paleontological resources discovered during construction, and concludes that with these measures, no significant impact would occur.

MHSP Amendment Project (map ID 30; City of Murrieta 2020d)

- The project design intensity was substantially reduced from 1,585 units to 750 units, and open space increased from 288 acres to 609 acres, per the MHSP Amendment DEIR; this project would not result in significant impacts.
- It includes the implementation of a paleontological construction monitoring and compliance program, using a qualified paleontologist.
- It implements a paleontological mitigation and monitoring program, where paleontological monitoring takes place to protect potential paleontological resources, and establishes the requirements for the salvage, preparation, and curation of any recovered fossils.

General Plans and EIRs

Projects within the RSA are within the cities of Murrieta and Menifee. The City of Menifee and City of Murrieta General Plans and EIRs identify policies to protect paleontological resources (City of Menifee 2013a, City of Murrieta 2020a). The proposed Project is included in the General Plan. Before their approval, the reasonably foreseeable development and transportation projects would be evaluated on a project-by-project basis through each jurisdiction's development review procedures to determine the potential for impacts on paleontological resources, and the appropriate measures required to reduce such impacts. The environmental analysis indicated with implementation of these measures at the site-specific level, the General Plans would not have a significant impact on paleontological resources.

Analysis of Proposed Project Contribution to Cumulative Impacts

To avoid, minimize, and/or mitigate potential construction impacts on paleontological resources, measures PAL-1 through PAL-3 would be implemented for all Build Alternatives. All projects within the RSA will address potential impacts to paleontological resources and implement site-specific plans to minimize impacts to less than significant levels, as required by the cities' policies and requirements. Impacts to paleontological resources are site-specific and do not lend themselves to a cumulative impact. With the implementation of mitigation measure PAL-1, and minimization measures PAL-2 and PAL-3, the construction of the proposed Project would not contribute to any cumulatively considerable significant impacts to paleontological resources. No additional avoidance, minimization, and/or mitigation measures for cumulative impacts on paleontological resources are required.

3.5.4.5 HAZARDOUS WASTE/MATERIALS

The RSA for the hazardous waste and materials includes a 1-mile radius surrounding the proposed Project site. A detailed discussion of hazardous waste/materials is provided in Section 2.2.5.

The ISA for the proposed Project area did not reveal evidence of RECs in connection with properties in or adjacent to the proposed Project site, except for the following:

- The potential for historical soil impacts from ADL exists because the proposed Project area has been part of Keller Road and Antelope Road since before 1938 and has been part of the I-215 since the late 1970s.
- There is potential for soil impacts from arsenical pesticides and OCPs that were potentially applied to the former agricultural portions of the proposed Project area.
- Permanent residential and commercial structures are present within the proposed Project site; these are located at 34150 Antelope Road and 27540 Keller Road. Based on historical documents, former residential and commercial structures were located at 34010 Antelope Road. There is potential for these structures to have ACMs and LBP, and potential that these structures have been treated with termiticide pesticides.

- There is potential that ACMs and LBP were used in the construction of the I-215.

- Yellow and white striping paint on the paved surface roads has the potential to contain lead, and yellow striping paint has the potential to contain hexavalent chromium.

- Avoidance measures HAZ-1 through HAZ-5 have been incorporated into the proposed Project to avoid disturbance and ensure employee safety and the proper identification and handling of hazardous materials during construction, in accordance with state and federal laws and regulations. Additionally, HAZ-6 addresses the potential for unknown hazardous materials, or for contamination that is suspected or identified during proposed Project construction activities.

Cumulative Projects

Twenty projects listed in Tables 3.5.4-2 and 3.5.4-3 are within 1 mile of the proposed Project. These projects include 15 development projects (map IDs 19 to 21 and 24 to 37) and 5 transportation projects (map IDs 15, 17 to 19, and 21). For this analysis, it was assumed that these projects have the potential to encounter and/or use hazardous materials during construction. Any projects requiring the use of hazardous materials during operations would comply with all state, federal, and local regulations regarding use, storage, transport and disposal. The conversion of open space to commercial or residential uses, consistent with the City of Murrieta and City of Menifee General Plans (City of Murrieta 2020a, City of Menifee 2013a), would result in changes in the type and density of land use, and corresponding changes that would result in increased potential for soil disturbance and the use of hazardous materials.

CEQA documents, where readily available, were reviewed for the cumulative projects in the RSA. Three documents, an MND, and two EIRs, were obtained for three development projects within the RSA. The documents included site-specific measures to address hazardous waste/material impacts. Each project would comply with all state, federal, and local regulations associated with the identification, handling, management, and disposal of hazardous materials; the environmental documents concluded the projects would have less than significant impacts. The following are summaries of hazardous waste/material impacts for the three projects:

Kaiser Permanente Murrieta Medical Center Project (map ID 29; City of Murrieta 2015)

- For this large medical facility, no recognized environmental conditions were identified on-site, and impacts related to hazards and hazardous materials were found to either be less than significant or to have no impact.
- It included measures to avoid and minimize impacts related to the handling and management of hazards and hazardous materials during construction and operations. Measures also required the preparation of a medical waste management plan before the completion of each phase.
- It complies with all state, federal, and local regulations associated with the identification, handling, management, and disposal of hazardous materials.

Sapphire Hotel and Event Center Project (map ID 37; City of Murrieta 2020a)

- For this 16-acre site west of the I-215, in the eastern portion of Murrieta, the Phase I Environmental Site Assessment for the project found no evidence of past recognizable environmental conditions for the project site, and the MND concluded that impacts to hazards and hazardous materials would be less than significant with mitigation incorporated.
- Construction or demolition activities involving the handling, use, or transportation of hazardous materials would be subject to federal, state, and local regulations regarding construction and demolition.
- Additional site evaluation is required to ensure the proper identification and characterization of potential releases on-site.
- It complies with federal, state, and local regulations and City of Murrieta General Plan policies.

MHSP Amendment Project (map ID 30; City of Murrieta 2020d)

- This is a master-planned community on 972 acres south of Keller Road and west of the I-215; according to the Draft EIR (City of Murrieta 2020d),

hazardous material database record searches revealed the site does not contain underground storage tanks or hazardous cleanup sites.

- Soils could be contaminated with pesticides and insecticides associated with historical agricultural land uses. The project includes a requirement to prepare an updated Phase I and a Phase II environmental assessment, as applicable, as well as mitigation to address unknown contamination.

- It complies with all federal, state, and local statutes and regulations that apply to hazards and hazardous materials.

General Plans and EIRs

The cumulative projects within the RSA are listed in Tables 3.5.4-2 and 3.5.4-3 and are within the planning areas for the City of Murrieta and City of Menifee General Plans. The EIRs for these General Plans call for compliance with federal and state requirements and require site-specific plans and mitigation measures for hazards and hazardous materials for plan area development.

The Murrieta General Plan 2035 Final EIR concluded the implementation of the General Plan would have less than significant effects with the incorporation of mitigation measures and through its adherence to the goals and policies in the proposed General Plan 2035 (City of Murrieta 2011). No significant unavoidable hazardous materials or public health and safety impacts would occur as a result of the buildout of the proposed General Plan 2035. Hazards and hazardous materials impacts would be evaluated on a project-by-project and site-specific basis. Development within the region would be required to comply with federal, state, and local regulations regarding the use, disposal, and transport of hazardous materials.

Similarly, the City of Menifee General Plan EIR concludes that buildout in accordance with the Menifee General Plan would result in increases in the frequency of the transport, use, and disposal of hazardous materials associated with commercial and industrial growth within Menifee (City of Menifee 2013b). Properties contaminated by hazardous substances are regulated at the local, state, and federal level, and are subject to compliance with stringent laws and regulations for investigation and remediation. Current federal and state regulations, City of Menifee ordinances, and proposed General Plan policies would regulate the handling of hazardous substances to reduce potential releases; exposure; and risks of transporting, storing, treating, and disposing of

hazardous materials and wastes. The EIR concluded that with the implementation of regulatory requirements and standard conditions of approval, hazards and hazardous material impacts would be less than significant.

All present and reasonably foreseeable development and transportation projects within the RSA would be required to comply with current federal and state regulations, City of Menifee and Murrieta ordinances, and proposed General Plan policies. Compliance with these regulations and requirements would require proper handling of hazardous substances to reduce potential releases; exposure; and risks of transporting, storing, treating, and disposing of hazardous materials and wastes. The potential for impacts associated with hazards and hazardous materials would also be required to identify and address effects to hazards and hazardous materials on a project-by-project basis, as evaluated in the respective General Plan EIRs.

Analysis of Proposed Project Contribution to Cumulative Impacts

With the implementation of minimization measures HAZ-1 through HAZ-6 and compliance with current federal and state regulations, and City of Menifee and Murrieta ordinances, the proposed Project would have a less than significant impact.

General Plan policies, as well as state and federal requirements, regulate the handling of hazardous substances to reduce potential releases; exposure; and risks of transporting, storing, treating, and disposing of hazardous materials. The potential for cumulative impacts to occur is limited, because the impacts from hazardous materials use or discovery on-site are site-specific. Given this adherence to local, state, and federal requirements, and the site-specific nature of any potential impacts, the proposed Project, in conjunction with past, present, and reasonably foreseeable projects, would not result in a cumulatively considerable significant impacts related to hazards or hazardous materials. No additional avoidance, minimization, and/or mitigation measures for cumulative impacts on hazardous waste/materials are required.

3.5.4.6 AIR QUALITY

The proposed Project is in the SCAB and within the jurisdiction of the SCAQMD and the ARB. Due to the defining geographic and meteorological characteristics of the SCAB, the RSA for air quality is the SCAB itself. A detailed discussion of air quality is provided in Section 2.2.6.

The SCAB is currently designated as attainment/maintenance for carbon monoxide (CO) and particulate matter less than 10 microns in size (PM_{10}), and nonattainment for federal particulate matter less than 2.5 microns in size ($PM_{2.5}$) standards. Based on State standards, the SCAB is currently in nonattainment for O_3, annual PM_{10}, annual $PM_{2.5}$, and NO_2.

Sensitive populations are more susceptible to the effects of air pollution than the general population. Sensitive land uses directly adjacent to the proposed Project site include single-family residences, a school (Oak Meadows Elementary), a medical campus (Kaiser Permanente Murrieta Medical Campus), and recreational areas and open space (Mapleton Park and Springbrook Park).

During construction, air quality may degrade in the short term because of the release of particulate emissions generated by excavation, grading, hauling, and other construction-related activities. Emissions from construction equipment were quantified in Tables 2.2.6-6 through 2.2.6-8, and would include CO, nitrogen oxides (NOx), ROGs or VOCs, directly emitted PM_{10} and $PM_{2.5}$, and toxic air contaminants (e.g., diesel exhaust PM). The proposed Project is required to comply with the SCAQMD Rule 403 to reduce the amount of PM generated during construction and is required to comply with ARB equipment engine and operations standards. As discussed in detail in Section 2.2.6, the proposed Project would not create a new criteria pollutant violation or worsen an existing criteria pollutant violation. With the implementation of minimization measures AQ-1 through AQ-12, air quality impacts regarding fugitive dust and exhaust emissions from construction activities would not result in any cumulatively considerable significant air quality impacts.

Operational criterial pollutant emissions are summarized in Table 2.2.6-10. In the future opening year (2027) and design year (2047), traffic volumes are expected to increase resulting in increasing PM_{10} and $PM_{2.5}$ emissions associated with additional tire and brake wear. Emissions of PM_{10} and $PM_{2.5}$ for the No-Build and Build Alternatives would be greater than existing/baseline conditions.

$PM_{2.5}$ and PM_{10} emissions for the Build Alternatives would be less than the No-Build Alternative in both the opening (2027) and design (2047) years. The lower amounts of PM_{10} and $PM_{2.5}$ are associated with the shift in traffic to the new interchange, resulting in in reduced delays and congestion at nearby interchanges (Scott Road and Clinton Keith Road).

The updated AQR (Caltrans 2025a) found that the increase of PM_{10} and $PM_{2.5}$ experienced in the future opening year (2027) and design year (2047) for the Build Alternatives would not cause or contribute to any new localized $PM_{2.5}$, and/or PM_{10} violations. The increase in PM_{10} and $PM_{2.5}$ would not delay the timely attainment of any NAAQS or any required interim emission reductions or other milestones during the timeframe of the 2024 to 2050 RTP.

All other criteria pollutant emissions will be less than existing/baseline conditions in the future opening year (2027) and design year (2047) for all proposed Project Build Alternatives.

Cumulative Projects

CEQA documents, where readily available, were reviewed for the cumulative projects in the RSA. NDs, MNDs, or EIRs were obtained for 11 projects within the RSA: 9 development projects and 2 transportation projects. The documents included measures to address air quality impacts. The air quality emissions from construction and operations and the impact conclusion for these projects are summarized in Tables 3.5.4-4 and 3.5.4-5, respectively, followed by a summary of the air quality impacts for the 11 projects.

The construction and operations of other present and reasonably foreseeable development and transportation projects could result in air quality impacts during construction or operations. During construction, short-term impacts to air quality may occur from the use of construction equipment, particulate emissions (airborne dust), and particulate matter, all of which could affect the maintenance status of CO and PM_{10} and the nonattainment status of O_3 and $PM_{2.5}$.

Table 3.5.4-4 Air Quality Construction Emissions and Impacts of Cumulative Projects within 3 Miles

Map ID	Project Name	Construction Emissions (Max lbs/day)						Significance Findings	Mitigation
		VOCs	NOx	CO	SOx	PM10	PM2.5		
1	Home2Suites	12.7	32.2	33	0.05	4.88	2.79	Less than Significant	No Mitigation
6	StaxUp Storage Expansion Development Plan Application DEV2022-005	13.5	17.6	20.5	0.03	3.73	2.14	Less than Significant	No Mitigation
8	Evans Park Project	3.2	33.1	26.9	<0.1	10.7	6.1	Less than Significant	No Mitigation
11	Garbani North Residential Project	35.2	44.1	34.1	<1	12.3	6.3	Less than Significant	No Mitigation
12	Garbani South Residential Project	27.2	37.4	33.2	0.06	5.45	2.95	Less than Significant	No Mitigation
29	Kaiser Permanente Murrieta Medical Center Project	27.41	95.69	79.26	0.19	11.75	6.33	Less than Significant with Mitigation	MM AQ-1
		24.5	84.17	110.44	0.35	17.35	6.91		
		21.29	35.95	64.99	0.31	16.24	5.31		
		43.19	18.15	26.53	0.1	4.29	1.65		
		21.28	20.39	39.76	0.2	9.58	3.00		
30	Murrieta Hills Specific Plan Amendment	22.87	69.91	299.38	5.15	49.34	10.5	Less than Significant with Mitigation	MM AQ-1 through MM AQ-12

Map ID	Project Name	Construction Emissions (Max lbs/day)						Significance Findings	Mitigation
		VOCs	NOx	CO	SOx	PM10	PM2.5		
38	Whitewood South Apartment Project	28.25	50.73	48.28	0.1	10.07	5.99	Less than Significant	No Mitigation
37	Sapphire Hotel and Event Center	**Not Available**						Less than Significant	No Mitigation

Table 3.5.4-5 Air Quality Operation Emissions and Impacts of Cumulative Projects within 3 Miles

Map ID	Project Name	Operation Emissions (Max lbs/day)						Significance Findings	Mitigation
		VOCs	NOx	CO	SOx	PM10	PM2.5		
1	Home2Suites	4.69	4.31	20.7	0.04	3.33	0.97	Less than Significant	No Mitigation
6	StaxUp Storage Expansion Development Plan Application DEV2022-005	1.45	0.69	5.84	0.01	0.28	0.07	Less than Significant	No Mitigation
8	Evans Park Project	2.5	2.8	23.4	<0.1	5.7	1.6	Less than Significant	No Mitigation
11	Garbani North Residential Project	14.2	2.4	31.2	<1	5.3	3.4	Less than Significant	No Mitigation
12	Garbani South Residential Project	3.15	2.13	13	0.03	0.88	0.23	Less than Significant	No Mitigation
29	Kaiser Permanente Murrieta Medical Center Project	107.11	581.93	554.15	3.56	143.43	52.1	Significant and Unavoidable	MM AQ-1 through MM AQ-2
30	Murrieta Hills Specific Plan Amendment	63.28	204.11	329.72	1.56	130.35	36.49	Significant and Unavoidable	No operational mitigation was provided
38	Whitewood South Apartment Project	16.59	13.69	111.96	0.2	19.44	5.47	Less than Significant	No Mitigation
37	Sapphire Hotel and Event Center	**Not Available**						Less than Significant	No Mitigation

Home2Suites Project (map ID 1; City of Menifee 2023c)

- Construction activities for this project would consist of activities such as demolition, site preparation, grading, and construction of buildings/utilities and paving parking area. Operational emissions from the project would include mobile-source emissions, energy emissions, area source emissions, and emergency generator emissions. Mobile-source emissions would be generated by motor vehicle trips associated with the operation of the project site.

- As shown in Tables 3.5.4-4 and 3.5.4-5, emissions generated from the construction and operation of Home2Suites would not exceed SCAQMD significance thresholds, and the project would result in less than significant impacts to air quality impacts; no mitigation is required (City of Menifee 2023c).

StaxUp Storage Expansion Project (map ID 6; City of Menifee 2023d)

- The construction of this project would consist of site preparation, grading, building construction, paving, architectural coating, and construction worker commuting. Operational emissions associated with this project include mobile sources, area sources, and energy sources.

- As shown in Tables 3.5.4-4 and 3.5.4-5, emissions generated from the construction and operation of StaxUp Storage Expansion would not exceed SCAQMD significance thresholds, and the project would result in less than significant impacts to air quality; no mitigation is required (City of Menifee 2023d).

Evans Park Project (map ID 8; City of Murrieta 2022b)

- Much of the project site would remain in its present existing state. The construction of the project would result in temporary increases in air pollutant emissions in the form of fugitive dust emissions (PM_{10} and $PM_{2.5}$) and ozone precursor emissions. Operational emissions would be generated from on-site activities, such as the use of consumer products, landscaping maintenance activities, the reapplication of architectural coatings for maintenance, on-site electricity usage, and mobile-source emissions.

- As shown in Tables 3.5.4-4 and 3.5.4-5, emissions generated from the construction and operation of the Evan Park Project would not exceed SCAQMD significance thresholds, and the project would result in less than significant impacts to air quality impacts; no mitigation is required.

Garbani North Project (map ID 11; City of Menifee 2025)

- The construction of the project would create air quality emissions through the use of heavy-duty construction equipment, construction workers' vehicle trips, and heavy-duty haul truck trips. Once fully operational, the project would generate emissions associated with vehicle trips; natural gas usage associated with space and water heating; and area sources such as fireplaces, consumer products, landscaping, and periodic painting.

- As shown in Tables 3.5.4-4 and 3.5.4-5, emissions generated from the construction and operation of the Garbani North Project would not exceed SCAQMD significance thresholds, and the project would result in less than significant impacts to air quality; no mitigation is required.

Garbani South Project (map ID 12; City of Menifee 2023b)

- The construction of this project would consist of site preparation, grading, building construction, paving, architectural coating, and construction worker commuting. Operational emissions associated with this project include mobile sources, area sources, and energy sources.

- As shown in Tables 3.5.4-4 and 3.5.4-5, emissions generated from the construction and operation of the Garbani South Project would not exceed SCAQMD significance thresholds, and the project would result in less than significant impacts to air quality; no mitigation is required.

Kaiser Permanente Murrieta Medical Center Project (map ID 29; City of Murrieta 2015)

- The construction of the project would require five phases. The construction of the project would result in the addition of pollutants to the local airshed, through soil disturbance, fugitive dust emissions, and

combustion pollutants from on-site construction equipment, as well as from off-site trucks hauling construction materials.

- Following the completion of construction activities, the project would generate VOC, NOx, CO, SOx, PM10, and PM2.5 emissions from mobile and stationary sources, including vehicular traffic generated by patients, visitors, physicians/staff, and emergency vehicles (such as ambulances), space heating, water heating, landscaping, diesel generators, hot water boilers, steam boilers, and microturbines.

- As shown in Tables 3.5.4-4 and 3.5.4-5, emissions generated from the construction and operation of the Kaiser Permanente Murrieta Medical Center project would exceed SCAQMD significance thresholds, and the project would result in less than significant impacts with mitigation from construction, and significant and unavoidable impacts for operation. Phase II of the construction would exceed SCAQMD significance thresholds and would require mitigation measures to reduce air quality impacts.

- The project's Program EIR found that the operation of the project would result in significant and unavoidable impacts, primarily from the consumption of products and architectural coatings for building maintenance and from stationary source emissions; specifically, the operation of the emergency generators during testing. Four emergency generators would be tested at full load for a 4-hour period for 1 day every 3 years to verify the optimal function and performance of the engines; all other testing periods would be approximately 30 minutes in duration. During normal testing periods, NOx impacts would be less than significant. Even with mitigation measure MM-AQ-2, which would require generator testing outside of smog season to ensure a minimized contribution to ozone formation due to diesel engine NOx emissions generation, operational impacts would remain significant and unavoidable.

MHSP Amendment Project (map ID 30; City of Murrieta 2020d)

- The construction of the project would take three phases. Construction activities would include grading; paving; the construction of single-family buildings, multifamily buildings, and commercial retail buildings; and

architectural coating. Site grading during all three phases would disturb approximately 294 acres.

- Operational emissions from the project would be generated by area sources, energy sources, and mobile sources.

- As shown in Tables 3.5.4-4 and 3.5.4-5, operational emissions from the project would exceed the SCAQMD significance threshold for ROG when mobile and area emissions were combined. Emissions generated from construction would result in less than significant impacts with mitigation, and the operation of the project would exceed SCAQMD significance thresholds for ROG and NOx.

Whitewood South Apartment Project (map ID 38; City of Murrieta 2022)

- The construction of this project would consist of site preparation, grading, building construction, paving, architectural coating, and construction worker commuting. Operational emissions associated with this project include mobile sources, area sources, and energy sources.

- As shown in Tables 3.5.4-4 and 3.5.4-5, emissions generated from the construction and operation of Whitewood South Apartment project would not exceed SCAQMD significance thresholds, and the project would result in less than significant impacts to air quality; no mitigation is required.

Sapphire Hotel Project (map ID 37; City of Murrieta 2019)

- The construction of this project would consist of site preparation, grading, building construction, paving, architectural coating, and construction worker commuting. Operational emissions associated with this project include mobile sources, area sources, and energy sources.

- As shown in Tables 3.5.4-4 and 3.5.4-5, emissions generated from the construction and operation of the Sapphire Hotel Project would not exceed SCAQMD significance thresholds, and the project would result in less than significant impacts to air quality impacts; no mitigation is required.

Analysis of Proposed Project Contribution to Cumulative Impacts

All cumulative projects identified above in Tables 3.5.4-2 and 3.5.4-3 would be required to comply with the SCAQMD significance thresholds during construction

and all projects would be required to reduce construction-related emissions to the extent feasible. The proposed Project would implement measures AQ-1 through AQ-12 to avoid and minimize impacts related to air quality. As shown in Section 2.2.6, the proposed Project does not exceed SCAQMD thresholds during construction. The SCAQMD thresholds for criteria pollutants and thresholds for CO hotspots are established at levels to prevent cumulative air quality impacts within the SCAB. Therefore, it is determined that construction of the proposed Project would have a less than significant impact to air quality and would not account for a significant portion of cumulative total emissions. Construction of the proposed Project, in conjunction with past, present, and reasonably foreseeable projects, would not contribute to a cumulatively considerable significant impacts to air quality.

As detailed in Section 2.2.6, air quality emissions would be lower under the Build Alternative than the No-Build and existing/baseline conditions. Operation of the proposed Project would not result in a considerable net increase in any criteria pollutant for which the area is in nonattainment under any applicable federal or state standard. Therefore, operation of the proposed Project, in conjunction with past, present, and reasonably foreseeable projects, would not contribute to a cumulatively considerable significant impact to air quality.

3.5.4.7 GREENHOUSE GAS

GHG impacts from the proposed Project were evaluated in the context of CEQA, and are discussed in detail in Section 3.2.8 and Section 3.4. Anticipated construction emissions of GHG from the Build Alternatives would be approximately 921 MT of CO_2e. Measures GHG-1 through GHG-5, AQ-1, AQ-5, and AQ-12 would be implemented to minimize GHG emissions from proposed Project construction. Operational GHG emissions would be 109,960 MT of CO_2e in 2027 and 122,473 MT of CO_2e in 2047 for the Build Alternatives. These operational GHG emissions are higher than the existing/baseline conditions. Mitigation measures GHG-6 through GHG-13 would be implemented to reduce impacts from proposed Project operations. The GHG emissions generated by the Build Alternatives would be less than the No-Build Alternative. However, Project operational GHG emissions would remain greater than the existing conditions; as a result, the proposed Project would conflict with goals included in California's Assembly Bill (AB) 32 and other applicable plans and regulations. Section 3.2.8 and Section 3.4 concluded that the Project would have significant and unavoidable impacts to GHG.

Unlike other air pollutants that would cause potential impacts at local or regional levels, GHG impacts are cumulative at a global scale. While it is impossible to identify the foreseeable projects on a global scale, for information purposes, GHG emission information from the projects within 3 miles from the Project site were reviewed, as summarized in Table 3.5.4-2 and Table 3.5.4-3. Among all the projects listed in these tables, 11 reported GHG emissions in their environmental documents. The GHG emission rates, impact conclusion, and proposed mitigation measures for these projects are summarized in Table 3.5.4-6.

Table 3.5.4-6 GHG Emissions, Impacts, and Mitigation Measures of Cumulative Projects within 3 Miles

Project Number	Project Name	GHG Emissions	Impacts	Mitigation Measures
Transportation Project #14	Bundy Canyon Road/Scott Road Widening	Construction: 1,081 MT CO_2e total Operational – not quantified	Less than Significant	None
Development Project #8	Evans Park North, Design & Construction	Construction: 1,212.5 MT of CO_2e total, or 40.5 MT CO2e/year when amortized over 30 years. Operation: 939.5 MT CO_2e/year	Less than Significant	None
Development Project #11	Garbani North TTM 38683	Construction 407 MT CO_2e total, or 14 MT CO_2e/year amortized over 30 years. Operation: 611 MT CO_2e/ year	Less than Significant	None
Development Project #12	Garbani South,	Construction: 15.87 MT CO_2e/year Operation: 522 MT CO_2e/year	Less than Significant	None
Transportation Project #7	Holland Road/Interstate 215 Overcrossing Project	Construction: 2,399 MT CO_2e total Operation: not quantified	Less than Significant	None

Project Number	Project Name	GHG Emissions	Impacts	Mitigation Measures
Development Project #1	Home2Suites	Construction: 500 MT CO_2e total, or 16.6 MT C_2e/year amortized over 30 years Operation: 938.5 MT CO_2e/year	Less than Significant	None
Development Project #6	StaxUp Storage Facility Expansion	Construction: 8.43 MT CO_2e/year amortized over 30 years Operation: 259 MT CO_2e/year	Less than Significant	None
Development Project #29	Kaiser Permanente Murrieta Medical Center Project	Construction: 22632.2 MT CO_2e from 2016-2035 Operation: 31,039 MT CO_2e/year Reduced emissions compared to existing condition 2010	Less than Significant	None
Development Project #30	Murrieta Hills Specific Plan	Total construction and operation: 21,860.26 MT CO_2e/year	Significant and unavoidable	See descriptions below
Development Project #37	Sapphire Hotel and Event Center	Total construction and operation: 2,284.74 MT CO_2e/ year	Less than Significant	None
Development Project #38	Whitewood South Apartment Project	Construction: 40 MT CO_2e/year Operation: 3415.19 MT CO_2e/year	Less than Significant	None

Notes:
MT = metric ton(s)

The MHSP Amendment EIR concluded the proposed project would cause significant and unavoidable impacts to GHG emissions, and the proposed MHSP project suggested mitigation measures that included providing nonresidential and residential electric vehicle charging, reducing vehicle trips, installing water-efficient irrigation systems and landscape design, and requiring the disclosure of the use of electric lawn and landscaping equipment for residences.

Information about the GHG emissions of this nearby project provides a glimpse of the numerous projects that are contributing to the increase or reduction of GHG emissions around the world, as well as the efforts being taken by the projects to minimize and reduce impacts to GHG emissions. Because the

proposed Project by itself would already have significant and unavoidable impacts to GHG emissions, the cumulative GHG impacts after taking into account the past, present, and future projects are expected to be significant and unavoidable.

3.5.4.8 NOISE

Based on the FHWA Traffic Noise Model's limitations regarding the accurate calculations of noise levels at great distances from the roadway, Caltrans typically limits noise assessments to within approximately 500 feet of the roadway source (Caltrans 2020b). The RSA for the cumulative noise impact analysis includes all properties within 500 feet of the proposed Project site. A detailed discussion of noise is provided in Section 2.2.7, Noise.

A field investigation took place to identify land uses that could be subject to traffic and construction noise impacts from the proposed Project. The following noise-sensitive land uses were identified in the RSA:

- Activity Category B – Residential (SFR and MFR)
- Activity Category C – Active Sports Area, Trail, Park
- Activity Category E – Other Developed Land (commercial properties)
- Activity Category F – Utilities and Railroad tracks
- Activity Category G – Undeveloped

The existing noise levels are summarized in Table 2.2.7-5.

During the construction of the proposed Project, noise from construction activities may intermittently dominate the noise environment in the immediate area of construction. Construction equipment is expected to generate noise levels ranging from 80 to 89 dBA at 50 feet. The closest residence is within 50 feet of the proposed Project site and may be subject to short-term noise reaching 89 maximum dBA (dBA L_{max}) or higher during construction. The proposed Project would implement minimization measure N-1, which would limit the noise level from the contractor's operations between the hours of 9:00 p.m. and 6:00 a.m., in accordance with Caltrans Standard Specifications, Section 14-8.02.

As discussed in detail in Section 2.2.7, operational noise impacts were evaluated based on future traffic noise levels at 38 receptor locations. Caltrans guidance states that traffic noise impacts occur where traffic noise level at a receptor location is predicted to be more than 12 dBA louder than the existing noise level

at the receptor. The operational impacts for each Build Alternative are discussed in detail in Section 2.2.7 and are provided in Tables 2.2.7-7 through 2.2.7-9. None of the Build Alternatives resulted in an increase of 12 dBA at the receptors. No significant operational traffic noise impacts are predicted to occur, and no permanent noise mitigation measures are required.

Cumulative Projects

Three of the cumulative projects listed in Tables 3.5.4-2 and 3.5.4-3 are within the Noise RSA (within 500 feet of the proposed Project site). CEQA documents, where readily available, and two EIRs were reviewed for the cumulative projects within the Noise RSA. These documents included measures to address noise impacts generated from construction and operations; one project, the MHSP Amendment, would have significant impacts on noise. The following are summaries of noise impacts analyses for the two cumulative projects within the RSA.

Kaiser Permanente Murrieta Medical Center Project (map ID 29; City of Murrieta 2015)

- This project would result in less than significant construction impacts to noise and less than significant operational impacts to noise with mitigation incorporated.

- Mitigation measures include designing the project so noise levels experienced at the parking structure would be reduced to below 55 dBA or less at the nearest property line. Similar mitigation measures would be implemented for the heating, ventilation, and air conditioning (HVAC) equipment for the project. Projects would be required to comply with applicable federal, state, and City of Murrieta regulations for noise.

MHSP Amendment Project (map ID 30; City of Murrieta 2020d)

- The MHSP Amendment project would result in significant and unavoidable impacts related to construction and operational noise. Mitigation measures for construction include limiting construction activities and equipment within 200 feet of sensitive receptors, developing a blasting plan before obtaining a grading permit from the City of Murrieta, and providing written notices to all property owners within 200 feet of construction activities before the start of the construction activities. However, even with the

implementation of the mitigation measures, the project's EIR found that the project's construction would result in a significant impact.

- The implementation of the MHSP Amendment project would result in a maximum traffic noise increase of 11 dBA along Keller Road. Mitigation was determined to be infeasible to reduce mobile traffic noise to "acceptable" or "conditionally acceptable" levels in accordance with the City of Murrieta's Land Use Compatibility standards.

Analysis of Proposed Project Contribution to Cumulative Impacts

The development of other present and reasonably foreseeable projects within the RSA would be required to adhere to the existing laws and regulations regarding noise. The MHSP found that significant and unavoidable impacts would occur during construction of the project due to construction occurring within 200 feet of sensitive receptors and noise generated from blasting activities. The proposed Project site is located more than 500 feet from the noise-sensitive receptors identified in the MHSP. Should construction of the MHSP occur at the same time as the proposed Project, the proposed Project would not contribute substantially to the existing noise environment of those MHSP-affected receptors since they are far from the proposed Project. In addition, the proposed Project would implement measures N-1 to minimize construction noise. The implementation of these measures would reduce construction noise generated by the proposed Project, when combined with cumulative projects within the RSA. Therefore, the proposed Project, in conjunction with past, present, and reasonably foreseeable projects, would not result in a cumulatively considerable significant impact related to construction noise.

The NSR (Caltrans 2024d) analyzed the existing and design year (2047) for each Project Build Alternatives (No-Build Alternative, Alternative 2, Alternative 3, and Alternative 5). The design-year conditions consider cumulative growth from all present and reasonably foreseeable projects, and general growth throughout the region. As a result, the traffic noise modeling included traffic volumes associated with the projects identified in the RSA. The NSR found that the operation of the proposed Project would not contribute substantially to the existing noise environment and the future design-year conditions. Therefore, the operation of the proposed Project, in conjunction with past, present, and reasonably foreseeable projects, would not result in a significant cumulatively considerable contribution to noise.

3.5.4.9 BIOLOGICAL RESOURCES

This section is organized by type of biological resources, which are presented alongside their respective RSAs and analyses:

- Natural communities
- Wetlands and other waters
- Plant species
- Animal species
- Threatened and endangered species

Except for wetlands and other waters, the RSA for all other biological resources being evaluated for cumulative impacts (natural communities, plant, animal, and threatened and endangered species) includes the BSA and the five Criteria Cells of the Western Riverside County MSHCP that overlap the BSA. These Criteria Cells are part of Subunit 2 (Lower Sedco Hills) of the Sun City/Menifee Valley Area Plan; Subunit 5 (French Valley/Lower Sedco Hills) of the Southwest Area Plan; Criteria Cells 5256, 5259, and 5361 of Cell Group Y; and Cells 5255 and 5358 of Cell Group C (County of Riverside 2003), shown on Figure 2.3-1, MSHCP Survey Requirements.

The RSA for wetlands and other waters includes the Santa Margarita and San Jacinto Valley HUs.

General Plans, HCPs, and EIRs

CEQA documents, where readily available, were reviewed for the cumulative projects in the RSAs. Because not all projects have available documents, the relevant General Plans and General Plan EIRs were reviewed for impacts on biological resources. The proposed Project is addressed in the General Plans.

All cumulative projects in the RSAs for biological resources are within the planning areas for the City of Murrieta and City of Menifee General Plans and are included in those plans and analyses. The EIRs for the General Plans evaluated the effects of regional plan area's development on biological resources. Although the projects included in the General Plans may not be fully built out, using their full buildout is a conservative estimate of the potential impact from development and transportation projects.

The Western Riverside County MSHCP covers the proposed Project site, and the proposed Project is considered a covered activity under the MSHCP. The

proposed project would comply with requirements and measures set forth by the MSHCP.

The analysis in the City of Murrieta's General Plan EIR concludes "biological impacts associated with implementation of the proposed General Plan 2035 would be less than significant by adherence to and/or compliance with goals and policies in the proposed General Plan 2035, and compliance with the Murrieta MSHCP Implementation Policy, and Western Riverside County MSHCP." Cumulative impacts to biological resources within Western Riverside County are currently being mitigated on a project-by-project basis and in accordance with the MSHCP, including through the HANS process (City of Murrieta 2011).

The City of Menifee's General Plan EIR concludes that impacts to biological resources would be less than significant (City of Menifee 2013b).

Natural Communities

The Western Riverside County MSHCP is the HCP that applies to the proposed Project site. The proposed Project is considered a covered activity under the MSHCP, and it would comply with all requirements and measures set forth by the MSHCP. The RSA for the natural community cumulative impacts analysis includes the BSA and the larger plan areas of the Western Riverside County MSHCP which the BSA is within. These plan areas include Subunit 2 (Lower Sedco Hills) of the Sun City/Menifee Valley Area Plan; Subunit 5 (French Valley/Lower Sedco Hills) of the Southwest Area Plan; Criteria Cells 5256, 5259, and 5361 of Cell Group Y; and Cells 5255 and 5358 of Cell Group C (County of Riverside 2003). Additional natural community resources in the BSA include Proposed Constrained Linkage 16, which provides wildlife connectivity between Proposed Core 2 (Antelope Valley) and Proposed Linkage 8 (Sedco Hills/Wildomar). A detailed discussion of natural communities and wildlife connectivity within the BSA is provided in Section 2.3.1.

Specific acreages for special-status vegetation communities within the larger RSA cannot be given since mapping was only done within the BSA. However, vegetation communities surrounding the proposed Project site shown in the City of Menifee's EIR are designated as field croplands (City of Menifee 2013b) and within the City of Murrieta's EIR, vegetation communities are shown as croplands and urban (LSA 2011). Special-status vegetation communities mapped within the BSA include 1.02 acres of southern willow scrub and 1.5 acres of riparian forest,

based on the CDFW Natural Communities List (CDFW 2022). In addition to special-status communities as defined by CDFW, the BSA supports 1.41 acres of MSHCP-defined riverine habitat and 1.39 acres of MSHCP-defined riparian habitat (Figure 2.3-3).

The implementation of the proposed Project would result in a temporary and permanent loss of CDFW-defined riparian forest and MSHCP riparian/riverine habitat due to clearing, grubbing, and grading activities, and new paved areas. Impacts on adjacent special-status vegetation communities within the RSA could result from the generation of fugitive dust, the accidental release of chemical pollutants, and the introduction of invasive plant species.

Temporary impacts on the movement of wildlife include construction noise, lighting from construction equipment, and grading to construct the retaining wall on the western side of the I-215. Permanent impacts on the movement of wildlife include potential changes in drainage, water quality, traffic noise, light from traveling vehicles, and/or increased potential for mortality with the addition of the SB merge lane.

Cumulative Projects – Natural Communities

Four of the projects listed in Tables 3.5.4-2 and 3.5.4-3 occur within the RSA for natural communities (map IDs 19, 28, 29, and 30 on Figures 3.5-1 and 3.5-2). One project is a transportation project known as the Antelope Road Realignment, and three are development projects: Murrieta Medical Office and Life Sciences, Kaiser Permanente Murrieta Medical Center, and MHSP.

In addition to the General Plan EIRs for the Cities of Menifee and Murrieta, CEQA and NEPA documents, where readily available, were reviewed for the cumulative projects in the RSA. CEQA EIRs were available for two of the four projects within the RSA: MHSP and Kaiser Permanente Murrieta Medical Center. These documents included avoidance, minimization, and/or mitigation measures to address potential impacts to natural communities and wildlife movement. The following are summaries of natural community and wildlife movement analyses for the two projects:

Kaiser Permanente Murrieta Medical Center Project (map ID 29; City of Murrieta 2015)

- This project avoided 90% of southern willow scrub habitat on-site and impacted 0.09 acre of low-quality southern willow scrub.
- Standard construction BMPs and construction-related minimization and mitigation measures to control dust, erosion, and runoff, were implemented to minimize potential adverse indirect effects to surrounding natural communities.
- Fencing was installed to avoid southern willow scrub habitat in the northwestern corner.
- The project did not contain wildlife corridors or MSHCP identified linkages.

MHSP Project (map ID 30; City of Murrieta 2020d)

- The project would impact 0.97 acres of riparian vegetation consisting of 0.42 acres of coast live oak woodland, 0.04 acres of riparian woodland, 0.36 acres of southern willow scrub, and 0.15 acres of mule fat scrub.
- All impacts to riparian/riverine resources would be mitigated by a combination of the on-site preservation of 10.24 acres of riparian/riverine resources, the creation of a centrally located linear nature park, and the off-site restoration and/or off-site purchase of credits at an approved mitigation bank(s).
- The project would include a 6-foot-by-6-foot box culvert in a channel bottom, and a second 4-foot-by-4 -foot box culvert outside the 100-year floodplain, to allow for wildlife movement during high storm events.

Analysis of Proposed Project Contribution to Cumulative Impacts - Natural Communities

Permanent impacts from the proposed Project are considered significant; therefore, avoidance and minimization measures BIO-1 through BIO-7 would be implemented to ensure no net loss of special-status natural communities and to minimize impacts to wildlife movement within PCL 16.

In addition, the proposed Project would implement compensatory mitigation measures for impacts on MSHCP-defined riparian/riverine habitat in accordance with mitigation measure BIO-8 and the proposed Project's MSHCP Consistency Analysis (Caltrans 2019g). Mitigation measure BIO-8 would ensure the replacement of any lost functions and values of the impacted riparian/riverine habitat, including BMPs, as determined by final site design to avoid and minimize downstream impacts on conserved resources from changes in drainage or water quality. Mitigation for permanent loss of functions or values would be compensated at a 2:1 ratio, or as otherwise determined, in coordination with the resource agencies.

Similar to the proposed Project, the development of the four other projects within the RSA would be/were required to adhere to the existing laws and regulations and MSHCP requirements regarding project development within sensitive natural communities or near wildlife linkages. With the implementation of minimization measures BIO-1 through BIO-7, and mitigation measure BIO-8, construction and operation impacts of the proposed Project would be less than significant. The proposed Project, in conjunction with past, present, and reasonably foreseeable future projects, would not result in a significant cumulatively considerable impact to sensitive natural communities or wildlife movement. Therefore, no additional avoidance, minimization, and/or mitigation measures for cumulative impacts on sensitive natural communities are required.

Wetlands and Other Waters

The RSA for wetlands and other water resources include the Santa Margarita and San Jacinto Valley HUs. A detailed discussion of wetlands and other waters is provided in Section 2.3.2.

The BSA was historically used for dry-crop farming and annual livestock grazing (City of Murrieta 1995b). West of the I-215, the BSA is characterized by field croplands, undeveloped vacant land, rural residential development, and ongoing construction. East of the I-215, the BSA is characterized by commercial development, rural residential development, and an industrial yard. Adjacent land uses within the larger RSA include residential development, commercial development, undeveloped land, and MSHCP conserved land. Precise information about wetlands and other waters within the larger RSA is not available from field efforts, because aquatic features were only mapped within the BSA.

One isolated basin, four ephemeral channels, a swale, three ephemeral ponds, and two roadside ditches were mapped within the study area. When the delineation took place, all four ephemeral channels were determined to be non-wetland waters of the United States under the jurisdiction of USACE and the RWQCB, and streambeds were determined to be under the jurisdiction of CDFW. The swale is a potential non-wetland water of the United States, and it may also be under the jurisdiction of USACE and the RWQCB and may be a streambed under the jurisdiction of CDFW. The three ephemeral ponds are potential wetland waters of the United States under the jurisdiction of USACE and the RWQCB, and the two roadside ditches are non-jurisdictional. These features are described in detail in Section 2.3.2 and are shown on Figure 2.3-4. The BSA contains approximately 0.50 acres of potential non-wetland waters of the United States and 0.12 acres of potential wetland waters (Table 2.3.2-1). It was also determined that there are approximately 2.84 acres of streambed under CDFW jurisdiction (Table 2.3.2-2).

The construction of the proposed Project would result in temporary impacts on jurisdictional waters associated with clearing and grubbing and grading of areas for construction access. The operation of the proposed Project would result in direct and indirect permanent impacts on jurisdictional waters from final grading and new impervious surfaces, resulting in the removal of habitat and increased potential for erosion or accidental spills of debris, oil, petroleum, or other hazardous material. Temporary and permanent impact areas for the Build Alternatives are summarized in Tables 2.3.2-3 through 2.3.2-8 and shown on Figures 2.3-7a through 2.3-7c.

As applicable, based on final design, impacts would be further minimized and avoided by compliance with the required permits discussed in Section 2.3.2.

The proposed Project would implement measures BIO-9 through BIO-12 to avoid and minimize construction impacts on wetlands and other waters. Additionally, mitigation measure BIO-12 would include compensatory mitigation at a 2:1 ratio, or as otherwise determined in coordination with the resource agencies and would be implemented to ensure no net loss of wetland and non-wetland waters, as applicable.

Cumulative Projects – Wetlands and Other Waters

Most of the projects listed in Tables 3.5.4-2 and 3.5.4-3 are in one of the HUs within the RSA for wetlands and other waters. Fourteen of the development

projects (map IDs 32, 37, 39, 41, 42, 45 to 50, 54, 56, and 57) in Murrieta, to the south and southwest of the proposed Project site, are outside the RSA. In addition, one transportation project northeast of the proposed Project site (map ID 13) is outside the RSA. For this analysis, where specific information was not available, it has been assumed that these projects would convert or have converted most of their sites from undeveloped land to buildings and pavement. This could result in a cumulative increase in impacts to wetlands and other waters.

In addition to the General Plan EIRs for the Cities of Menifee and Murrieta, CEQA documents were available for 11 projects, and were reviewed. These projects included measures to avoid, minimize, and mitigate impacts related to wetlands and other waters, and are summarized here.

The Kaiser Permanente Murrieta Medical Center Project (map ID 29; City of Murrieta 2015)

- This project impacted 0.07 acres of wetlands and other waters.
- Project measures included the on-site enhancement of habitat, ESA fencing, and signage to educate visitors about southern willow scrub.

MHSP Project (map ID 30; City of Murrieta 2020d)

- The project would impact 2.10 acres of CDFW jurisdictional features, and 0.59 acres of USACE features.
- The project would mitigate impacts through an off-site mitigation bank and through on-site preservation and avoidance.

Bundy Canyon/Scott Road Improvement Project (transportation map ID 14; City of Menifee 2020)

- The project would impact 0.46 acres of USACE jurisdictional features and 2.85 acres of CDFW jurisdictional features.
- The project would obtain necessary permits and mitigation before its construction.

Holland Road/I-215 Overcrossing Project (transportation map ID 7; City of Menifee 2016)

- The project would impact 0.325 acres of USACE jurisdictional features and 0.775 acres of CDFW jurisdictional features.
- Avoidance, minimization, and mitigation measures would include ESA fencing and permits to determine mitigation ratios to offset impacts.

Whitewood South Apartment Project (map ID 38; City of Murrieta 2022)

- The project would directly impact 0.02 acres of CDFW jurisdictional features.
- The project would include the enhancement of existing riparian habitat at a 1:1 mitigation ratio on-site.

Evans Park Project (map ID 8; City of Murrieta 2022b)

- The project may impact up to 3.20 acres of USACE/RWQCB jurisdictional features in the southern phase. No mapping was provided for the northern phase, which also contains CDFW jurisdictional features.
- Mitigation would include off-site enhancement, restoration, and/or creation once permits were obtained.

Garbani North Project (map ID 11; City of Menifee 2025), Garbani South Project (map ID 12; City of Menifee 2023b), **Home2Suites Project** (map ID 1**;** City of Menifee 2023c), and **StaxUp Storage Expansion Project** (map ID 6; City of Menifee 2023d)

- These projects do not contain USACE/RWQCB or CDFW jurisdictional features; therefore, no impacts or contribution to cumulatively considerable impacts would occur.

Sapphire Hotel Project (map ID 37;City of Murrieta 2019)

- The project would mitigate 0.48 acre of impacts to CDFW jurisdictional waters and 0.09 acre of USACE jurisdictional waters with the purchase of 1.44 acres of vernal pool preservation through the Skunk Hollow Mitigation Bank.

Analysis of Proposed Project Contribution to Cumulative Impacts – Wetlands and Other Waters

Similar to the proposed Project, the development of other present and reasonably foreseeable projects within the RSA would be required to adhere to all laws and regulations regarding protection of wetlands and other waters. Projects would also be required to identify and address effects to wetlands and other waters on a project-by-project basis. Compliance with regulations for wetlands and other waters would minimize impacts on these resources to ensure no net loss occurred. By complying with all applicable laws and regulations that address cumulative impacts, and incorporating measures to protect wetland and other waters, projects would not result in a cumulatively considerable impact to wetlands and other waters.

Additionally, with the implementation of avoidance, minimization, and mitigation measures BIO-9 through BIO-12, construction and operation impacts from the proposed Project would not be adverse, and, in conjunction with past, present, and reasonably foreseeable projects, would not result in significant, cumulatively considerable impacts to wetlands and other waters. Therefore, no additional avoidance, minimization, and/or mitigation measures for cumulative impacts on wetlands and other waters are required.

Plant Species

Focused field surveys confirmed the presence of two non-listed special-status plant species within the BSA: paniculate tarplant *(Deinandra paniculata)* and small-flowered microseris (*Microseris douglasii* ssp. *platycarpha*). Small-flowered microseris is an MSHCP-covered species; however, paniculate tarplant, a California Rare Plant Ranked 4.2 plant, is not. The remaining 33 non-listed special-status plant species were determined to be absent from the BSA. Special-status plant species are discussed in detail in Section 2.3.3, and their spatial distributions are shown on Figure 2.3-3. Specific species location information for these species within the larger RSA cannot be provided, because surveys were only performed within the BSA.

Temporary ground-disturbing activities related to the construction of the proposed Project would result in temporary impacts on paniculate tarplant and small-flowered microseris. Temporary impacts resulting from construction could include the generation of fugitive dust; changes in hydrology resulting from construction, including sedimentation and erosion; and the introduction of

chemical pollutants, including herbicides. Table 2.3.3-1 summarizes the temporary impacts on occupied habitat for both plant species. Impacts are also shown on Figures 2.3-8a through 2.3-8c for Build Alternatives 2, 3, and 5, respectively.

As summarized in Table 2.3.3-1, only Build Alternative 5 would result in permanent impacts on one non-listed special-status plant species by having a permanent impact to 0.010 acres of occupied habitat for small-flowered microseris, an MSHCP-covered species.

Cumulative Projects – Plant Species

Because the RSA is the same for all biological resources, except for wetlands and other waters, the same four projects listed in Natural Communities would occur within the RSA for plant species, and the same documents were reviewed for the cumulative projects in the RSA. The following are summaries of impacts and avoidance, minimization, and/or mitigation measures to small-flowered microseris and/or paniculate tarplant for the two projects that had readily available EIRs.

Kaiser Permanente Murrieta Medical Center Project (map ID 29; City of Murrieta 2015)

- This project resulted in no impacts to special-status plant species; therefore, no avoidance, minimization, or mitigation measures were incorporated.

MHSP Project (map ID 30; City of Murrieta 2020d)

- The project would impact 50 individual paniculate tarplants and no small-flowered microseris plants.

- The project's EIR determined impacts to paniculate tarplant would not be significant and it would not require species-specific mitigation.

Analysis of Proposed Project Contribution to Cumulative Impacts – Plant Species

The proposed Project would implement avoidance measure BIO-13 for special-status plant species, which would avoid temporary impacts on paniculate tarplant and small-flowered microseris located outside the direct impact area, but within any TCEs, through the identification, implementation, and monitoring of

ESAs before the initiation of ground- or vegetation-disturbing activities. The monitor would coordinate with the Resident Engineer to stop construction activities in the vicinity (within 100 feet) of an ESA if it was determined that corrective actions were necessary to avoid and protect special-status plant species.

Small-flowered microseris is a species covered by the MSHCP. The MSHCP includes a cumulative impact analysis of biological resources covered in the plan. The result of the cumulative impacts analysis for the MSHCP determined that Covered Projects would not result in a significant cumulative effect, either directly or through habitat modifications, on any of the 146 covered species.

According to the MSHCP cumulative analysis (RCIP 2003):

> *"Implementation of the MSHCP and Covered Projects will not result in a cumulative adverse effect, either directly or through habitat modifications, on any of the Covered Species, including the 31 species that are currently listed as threatened or endangered and the one species that is currently proposed for listing. Implementation of the MSHCP will benefit the Covered Species by preserving habitat to address their life cycle needs."*

Therefore, potential impacts on this species would be offset by compliance with the MSHCP, including the payment of a development fee. Because paniculate tarplant is not an MSHCP-covered species, compensatory mitigation measure BIO-14 would require the City of Murrieta to prepare and implement a mitigation plan for paniculate tarplant, should they be discovered, before the initiation of ground-disturbing activities affecting Ephemeral Ponds 15 or 16, as described in Section 2.3.3.

Similar to the proposed Project, the development of other past, present, and reasonably foreseeable projects within the RSA would be/were required to adhere to the existing laws and regulations and MSHCP requirements regarding project development impacts on special-status plant species. With MSHCP compliance, the implementation of avoidance measure BIO-13, and compensatory mitigation measure BIO-14, the construction and operation of the proposed Project would not have a significant impact, and the Build Alternatives, in conjunction with past, present, and reasonably foreseeable projects, would not contribute to a significant cumulative impact to either the paniculate tarplant or

small-flowered microseris. Therefore, no additional avoidance, minimization, and/or mitigation measures for cumulative impacts on these plant species are required.

Animal Species

Land uses within the RSA include residential development, commercial development, undeveloped land, and MSHCP conserved land. The RSA is in a relatively disturbed area and lacks contiguous habitat, leading to an overall low wildlife diversity. Biological resources within the larger RSA are discussed within the MSHCP.

Within the BSA, all special-status bird, reptile, and amphibian species found or with potential to occur are also MSHCP species. Two CDFW fully protected bird species have a low potential to occur: golden eagle (*Aquila chrysaetos*) and white-tailed kite (*Elanus leucurus*). One California SSC has a high potential to occur, although not detected during surveys: the California horned lark (*Eremophila alpestris actia*). One special-status amphibian species was observed: western spadefoot toad (SSC) [*Spea hammondii*]. Two special-status reptile species were observed: red diamond rattlesnake (SSC) [*Crotalus ruber*] and Blainville's horned lizard (SSC) [*Phrynosoma blainvillii*] (Figures 2.3-9a through 2.3-9c show the amphibian and reptile SSC).

Although not observed, the BSA also contains potential habitat for six special-status mammal species, all of which have an SSC designation: northwestern San Diego pocket mouse (*Chaetodipus fallax*), Dulzura pocket mouse (*Perognathus californicus femoralis*), southern grasshopper mouse (*Onychomys torridus*), Los Angeles pocket mouse (*Perognathus longimembris brevinasus*), San Diego black-tailed jackrabbit (*Lepus californicus*), and American badger (*Taxidea taxus*). The northwestern San Diego pocket mouse, Los Angeles pocket mouse, and San Diego black-tailed jackrabbit are MSHCP-covered species. State fully protected and non-listed special-status animal species are discussed in detail in Section 2.3.4, and their spatial distributions and associated habitat are shown on Figures 2.3-9a through 2.3-9c. The impacts listed in Tables 2.3.4-1 through 2.3.4-5 include the loss of foraging habitat for eagles, the loss of suitable nesting habitat for white-tailed kites, and the loss of habitat for reptiles, amphibians, mammals, and birds. In addition to direct temporary and permanent impacts on suitable habitat, the proposed Project could result in indirect impacts, including habitat degradation and health

implications from fugitive dust, stress, nest abandonment from noise and vibration, habitat fragmentation, disruptions to daily activities from increased human presence, and releases of chemical pollutants.

Cumulative Projects – Animal Species

Because the RSA is the same for all wildlife species, the same four projects listed in Natural Communities and Plant Species are within the RSA for animal species, and the same CEQA documents were reviewed for the cumulative projects in the RSA. The CEQA documents included measures to address special-status animal species. The following are summaries of special-status animal species impacts for the two projects that had readily available EIRs.

Kaiser Permanente Murrieta Medical Center Project (map ID 29; City of Murrieta 2015)

- This project resulted in direct impacts to special-status MSHCP-covered animal species, including burrowing owl and nesting birds. Other species with a moderate potential to occur included Los Angeles pocket mouse, coast horned lizard, southern grasshopper mouse, and American badger.

- The project conducted preconstruction burrowing owl surveys and nesting bird surveys to avoid and minimize impacts to these species, and to comply with the MSHCP.

MHSP Project (map ID 30; City of Murrieta 2020d)

- The project would impact the San Diego black-tailed jackrabbit, southern California rufous-crowned sparrow, Cooper’s hawk, red diamond rattlesnake, white-tailed kite and California horned lark. All of these species are fully covered under the MSHCP and do not require species-specific mitigation.

- The project would include preconstruction nesting bird surveys, fee payments per the MSHCP, and the dedication of approximately 608 acres for conservation.

Analysis of Proposed Project Contribution to Cumulative Impacts – Animal Species

As discussed in Section 2.3.4, the proposed Project would implement measures to avoid and minimize impacts on special-status animal species. Avoidance

measures BIO-15 through BIO-16 would require the avoidance of raptor nests and other non-listed special-status birds by requiring vegetation removal and ground-disturbing activities outside the nesting season (February 1 through September 30). If these activities cannot be completed in that period, preconstruction nest surveys will take place before the onset of ground-disturbing activities within the impact area. If nests are found, appropriate buffers will be included, avoiding disturbance of the nest until the young are fledged and the nest is no longer active.

As stated above for plant species, the result of the cumulative impacts analysis completed for the MSHCP determined that Covered Projects would not result in a cumulative significant impact, either directly or through habitat modifications, on any of the 146 covered species. Since all of the animal species found within the BSA are MSHCP-covered species, this cumulative analysis applies, and with the project's adherence to the MSHCP, the project would not contribute to any cumulative impacts.

With the implementation of avoidance and minimization measures and MSHCP compliance, the construction and operation of the proposed Project would be consistent with the MSHCP and state regulations regarding state fully protected and non-listed special-status animal species.

Similar to the proposed Project, the development of other planned projects within the RSA would be required to adhere to the existing laws and regulations and MSHCP requirements regarding project development impacts on state fully protected and non-listed special-status animal species. With the implementation of avoidance measures BIO-15 and BIO-16, and compliance with the MSHCP, the Build Alternatives, in conjunction with past, present, and reasonably foreseeable projects, would not result in a significant cumulatively considerable impact to state fully protected and non-listed special-status animal species. Therefore, no additional avoidance, minimization, and/or mitigation measures for cumulative impacts on state fully protected and non-listed special-status animal species are required.

Threatened and Endangered Species

As discussed in detail in Section 2.3.5, it was determined that the BSA provides suitable habitat for six listed species: Munz's onion *(Allium munzii)*, coastal California gnatcatcher (*Polioptila californica californica*), vernal pool fairy shrimp

(Branchinecta lynchi), Riverside fairy shrimp (*Streptocephalus wootoni*), least Bell's vireo (*Vireo bellii pusillus*), and Stephens' kangaroo rat *(Dipodomys stephensi*), and one state candidate species: burrowing owl (*Athene cunicularia*). All of these are MSHCP-covered species. Additional information on the distribution within the RSA is available through the MSHCP and the Stephen's Kangaroo Rat HCP. It was determined that the proposed Project may affect coastal California gnatcatcher, least Bell's vireo, and Stephens' kangaroo rat. Based on surveys, Munz's onion, the listed fairy shrimp and burrowing owl do not occur in the BSA and would, therefore, not be impacted by the proposed Project.

Ground-disturbing construction activities associated with the proposed Project would result in temporary impacts on California gnatcatcher, least Bell's vireo, and Stephens' kangaroo rat, including a potential temporary loss or alteration of habitat and impacts on nests or burrows. The operation of the proposed Project could result in a permanent loss of habitat, habitat degradation, health implications from fugitive dust, stress and nest/burrow abandonment from noise and vibration, habitat fragmentation, disruptions of daily activities by increased human presence, and releases of chemical pollutants. Anticipated temporary and permanent impacts from the proposed Project on suitable habitat for California gnatcatcher, least Bell's vireo, Stephens' kangaroo rat, and burrowing owl are shown in Tables 2.3.5-2 through 2.3.5-45 respectively. It should be noted that there is no critical habitat within the BSA. As discussed in Section 2.3.5, under Section 7 of the FESA, the proposed Project "may affect, and is likely to adversely affect" California gnatcatcher, least Bell's vireo, and Stephens' kangaroo rat. The proposed Project is considered a covered activity under the MSHCP and would comply with all requirements and measures set forth by the MSHCP.

Cumulative Projects – Threatened and Endangered Species

Because the RSA is the same for all biological resources, except for wetlands and other waters, the same four projects listed in Natural Communities, Plant Species, and Animal Species occur within the RSA for threatened and endangered species, and the same documents were reviewed. The following are summaries of threatened and endangered species impacts and avoidance, minimization, and/or mitigation measures for the two projects that had readily available EIRs.

Kaiser Permanente Murrieta Medical Center Project (map ID 29; City of Murrieta 2015)

- No impacts occurred to any threatened or endangered species; therefore, no measures to reduce impacts on listed species were incorporated.

MHSP Project (map ID 30; City of Murrieta 2020d)

- The project would impact the federally threatened coastal California gnatcatcher; however, because this species is fully covered by the MSHCP, no mitigation is required beyond compliance with the HCP.

Analysis of Proposed Project Contribution to Cumulative Impacts – Threatened and Endangered Species

As discussed in Section 2.3.5, the proposed Project would implement measures to avoid and minimize impacts on threatened and endangered species. Coastal California gnatcatcher is an MSHCP-covered species, and impacts would be offset through compliance with avoidance measure BIO-17, which requires the avoidance of all California gnatcatcher nests during the breeding season, preconstruction surveys, and buffers.

The MSHCP considers Stephens' kangaroo rat as adequately conserved by the Stephens' Kangaroo Rat HCP; therefore, no additional avoidance or minimization measures are required.

Least Bell's vireo impacts would be avoided, minimized, and offset through the implementation of various measures in compliance with the MSHCP. Avoidance measure BIO-18 would avoid nest disturbance and require vegetation clearing outside the breeding season. Minimization measure BIO-19 would require the restoration of habitat areas temporarily impacted during construction. Mitigation measure BIO-21 would require the replacement of any lost functions and values of riparian/riverine habitat, including least Bell's vireo habitat. Mitigation for permanent loss of functions or values would be compensated at a 2:1 ratio, or as otherwise determined in coordination with the resource agencies. With the avoidance and minimization measures, on-site restoration, and compensatory mitigation, it is anticipated that the proposed Project would not result in a net loss of least Bell's vireo habitat.

Avoidance measure BIO-20 would avoid potential impacts on active burrowing owl burrows by requiring a burrowing owl preconstruction survey before ground

disturbance, in accordance with the burrowing owl survey instructions for the Western Riverside MSHCP area (County of Riverside 2003).

As stated in Animal Species, the result of the impacts analysis completed for the MSHCP determined that Covered Projects would not result in a cumulatively considerable significant impact, either directly or through habitat modifications, on any of the 146 covered species. Because all of the threatened, endangered and candidate species found within the BSA are MSHCP-covered species, this cumulative analysis applies. With the implementation of avoidance and minimization measures and MSHCP compliance, the construction and operation of the proposed Project would be consistent with the MSHCP and state and federal regulations regarding threatened and endangered species. Construction and operational impacts associated with the proposed Project would not contribute to any cumulatively considerable significant impact on threatened, endangered or State candidate species. Therefore, no additional avoidance, minimization, and/or mitigation measures for cumulative impacts to threatened, endangered or candidate species are required.

3.5.5 Cumulatively Considerable Contributions and Additional Avoidance Minimization and/or Mitigation Measures

In accordance with the new SER guidance steps 5 and 6, the following analysis considers whether additional proposed mitigation is required for Caltrans' contribution to the cumulative condition, and whether post-mitigation conclusions are therefore required. With the exceptions of GHGs, no other cumulatively considerable impacts were identified as a result of the proposed Project.

As discussed in 3.5.4.7, Greenhouse Gas, all feasible GHG measures are included to minimize GHG emissions during construction (GHG-1 through GHG-5, AQ-1, AQ-5, AQ-12) and operation (GHG-6 through GHG-13). A detailed discussion of GHG emissions and measures are provided in Section 3.4, Greenhouse Gas. Section 3.4.7, Adaptation, describes additional Caltrans policies and initiatives that would address Caltrans' GHG emissions. No additional feasible measures have been identified, and no post-mitigation analysis is needed.

Chapter 4 Comments and Coordination

Early and continuing coordination with the general public and public agencies is an essential part of the environmental process. It helps planners determine the necessary scope of environmental documentation and the level of analysis required, and identify potential impacts and avoidance, minimization, and/or mitigation measures and related environmental requirements. Agency and Tribal consultation and public participation for this proposed Project have been accomplished through a variety of formal and informal methods, including interagency coordination meetings, public meetings, public notices, and PDT meetings. This chapter summarizes the results of Caltrans' efforts to fully identify, address, and resolve proposed Project-related issues through early and continuing coordination.

4.1 Scoping Process

The proposed Project is supported by the City of Murrieta, in cooperation with Caltrans District 8, the County of Riverside, and the City of Menifee.

Pursuant to California Code of Regulations, Title 14, sections 15082(a), 15103, and 15375, which are part of the CEQA guidelines, a Notice of Preparation (NOP) was submitted to the State Clearinghouse and published for the proposed Project on September 21, 2022 (refer to Appendix G for the NOP). The public scoping period was held for 47 days, from October 5 to November 21, 2022. In coordination with the City of Murrieta, Caltrans District 8 held a virtual public scoping meeting on October 19, 2022. The purpose of the scoping meeting was to provide the public, as well as local decision makers and stakeholders, with an opportunity to ask questions and provide comments/questions related to the proposed Project. The scoping meeting included a PowerPoint presentation that discussed the proposed Project overview, background, environmental process, existing conditions, and Build Alternatives, as well as other information about the proposed Project. Several PDT members were present to answer questions and discuss the proposed Project. Attendees from the U.S. EPA, former State Senator Melissa Melendez, and private property owners were also in attendance. Oral comments were received at the end of the presentation. There were questions about the potential for Build Alternatives to affect property access and whether hiking could continue at Scenic View Drive. Each meeting attendee was also encouraged to submit an official scoping comment via email or by postal mail. Table 4.1-1 summarizes the written public comments received during the scoping period.

Table 4.1-1. Public Comments Received during the Scoping Period (Written)

Individual or Organization	Comment Number	Comment Summary	Comment Category									
			Project Design	Purpose and Need	Draft EIR/EA	Project Scope	Build Alternative Selection	Operations and Safety	Environmental Issues	Funding	Cost and Schedule	Other/Administrative
U.S. EPA	1-1	Requests electronic copy of Draft EIR/EA (once released for public review) and information of NEPA process for project.			X							X
	1-2	Recommends the purpose and need statement identifies specific needs of the existing community, any relevant design considerations that adjacent land uses may require, and the desired outcomes of the project in the context of the existing and anticipated needs.		X								
	1-3	Recommends the Draft EIR/EA clearly demonstrates the independent utility of the proposed project within its current geographic limits as it relates to the project's need.		X	X							
	1-4	Recommends the scope of the project be expanded if the proposed project's need cannot be met without other planned projects.				X						
	1-5	Notes project modifications may increase development pressures and result in impacts on existing resources on adjacent property.				X			X			
	1-6	Recommends the project analyzes impacts from any arterial road widening that must occur to accommodate the new interchange.	X		X							
	1-7	Recommends the Draft EIR/EA includes the analysis and disclosure of how the proposed interchange might impact the timing or project design considerations of the proposed Murrieta Hills Project development and the cumulative environmental impacts on resources associated with both projects.	X		X				X			
	1-8	Recommends the Draft EIR/EA describes how the proposed interchange is being planned while considering the Murrieta Hot Springs Road Project being fully constructed.	X		X							
	1-9	Recommends the Draft EIR/EA includes a detailed discussion of all projects that are currently planned to be constructed in proximity to the I-215 corridor; description of impacts that could occur later in time or at a distance from the project site; discussion of trends and foreseeable impacts on resources and values that would be potentially affected by the project; analysis and disclosure of potentially declining trends or other impacts that may be exacerbated by effects from the project; discussion of impacts on timing and location of proposed housing development and road network and if construction is a required element; identification of mitigation commitments; and description of bike lanes and applicable master bike lane plan.			X				X			
	1-10	Recommends the Draft EIR/EA includes an analysis of proposed project's impacts on habitat and habitat connectivity in the project area; discussion of mitigation measures; discussion of commitments to Western Riverside County MSHCP, CDFW, and the United States Fish and Wildlife Service; and discussion of landscaping and vegetation management practices to limit invasive species.			X				X			
	1-11	Recommends the Draft EIR/EA includes a discussion of ambient air conditions and foreseeable environmental trends and planned actions in the area(s); description of potential air quality impacts; demonstration of transportation conformity; use of newest modeling versions; disclosure of health risks and effect on current emissions; and identification of specific actions proposed by Caltrans to reduce emissions from the project.			X				X			

Individual or Organization	Comment Number	Comment Summary	Comment Category									
			Project Design	Purpose and Need	Draft EIR/EA	Project Scope	Build Alternative Selection	Operations and Safety	Environmental Issues	Funding	Cost and Schedule	Other/Administrative
	1-12	Recommends the Draft EIR/EA lists all mitigation measures to be implemented during construction to meet all applicable local, state, and federal requirements.			X				X			
	1-13	Recommends Caltrans assesses equity and environmental justice concerns through an integrated process, identifies any adverse impacts on low income or minority populations in Draft EIR/EA, and develops an Equity and Environmental Justice analysis.			X				X			
Individual 1	2-1	Requests electronic copies of the Draft EIR/EA, exhibits, and all other relevant documents, as well as inclusion for all future notifications.			X							X
Individual 2	3-1	Requests electronic documents that are available for the proposed project.										X
	3-2	Requests examples of completed and/or approved Caltrans highway projects that have used roundabouts.										X
	3-3	Notes the project design plans for the Build Alternatives are not clear enough and are difficult to see access to parcels; requests more detailed project design plans with dimensions.										X
	3-4	Requests all roundabout locations that Caltrans has had oversight over.										X
Individual 2	3-5	Requests a transcript or access to dialogue from the scoping meeting.										X
	3-6	Claims Build Alternatives 2, 3, and 5 would have a negative impact on property access, including inadequate fire and truck access and inability to turn left.	X				X	X				
	3-7	Claims the design of Build Alternative 5 would require the widening of the I-215 and bridge, which would add to ownership cost.	X				X			X		
	3-8	Claims Build Alternative 7 would have a minimal impact for property access and would be the least expensive option.	X				X			X		
	3-9	Recommends Caltrans to oversee, protect, and maintain access to all affected properties, and to mitigate as needed.				X						
NAHC	4-1	Recommends consultation with California Native American Tribes that are traditionally and culturally affiliated with the geographic area of the proposed project; requests compliance with AB 52, SB 18, and any other applicable laws.				X						X
RTA	5-1	Notes no comments to submit for the proposed project; notes the proposed project would not impact RTA services.										X
Murrieta Fire and Rescue	6-1	Notes the positive impact on public safety in regard to improved emergency response time, as well as more efficient accessibility to medical facilities as a result of the proposed project.						X				
	6-2	Prefers Build Alternative 5.					X					

Individual or Organization	Comment Number	Comment Summary	Comment Category									
			Project Design	Purpose and Need	Draft EIR/EA	Project Scope	Build Alternative Selection	Operations and Safety	Environmental Issues	Funding	Cost and Schedule	Other/Administrative
CHP	7-1	Claims NOP does not address significant impacts on traffic on I-215/Keller Road during construction of the proposed project (i.e., road closures).						X				X
	7-2	Notes concerns of the Temecula area regarding impacts on departmental operations (i.e., increased emergency response times).						X				
	7-3	Recommends the EIR address significant impacts on traffic and any unique traffic control situations as a result of the project's construction phase.			X			X				
USFWS and CDFW	8-1	Notes all project alternatives overlap with PLC 16; project should minimize effects to PLC 16; encourages an alternative that is consistent with MSHCP.	X				X		X			
	8-2	Notes all project alternatives are not consistent with the MSHCP; recommends the project either be redesigned (remove proposed Warner Lane) or complete a Criteria Refinement/MSHCP Amendment; Draft EIR/EA should discuss design of roads to ensure consistency with MSHCP conservation objectives.	X		X		X		X			
	8-3	Notes the City of Murrieta and Caltrans are required to implement the Urban/Wildlands Interface Guidelines (MSHCP Section 6.1.4).	X			X			X			
	8-4	Recommends the Draft EIR/EA includes an analysis of edge effects related to project construction and operation (such as noise, lighting, trespass, and toxics) and mitigation measures.			X				X			
	8-5	Notes project occurs within SKR HCP boundary; payment of a fee is required.							X		X	X
	8-6	Recommends the Draft EIR/EA includes objective to protect, restore, and enhance wildlife and habitat connectivity; recommends Caltrans include creation of larger facility needed for PLC 16.			X				X			
	8-7	Recommends the Draft EIR/EA includes a complete assessment of biological resources within and adjacent to the project area, including habitat types; fish, amphibian, reptile, bird, and mammal species; rare, threatened, endangered, and other sensitive; and special-status plants and natural communities; Draft EIR/EA should also include information on regional setting and account for all open space and mitigation/conservation lands.			X				X			
	8-8	Recommends the Draft EIR/EA discusses any direct, indirect, and cumulative impacts expected to adversely affect biological resources, including impacts from lighting, noise, human activity, defensible space, and wildlife-human interactions; impacts on on-site and adjacent open space lands; and cumulative effects of the plan’s land use designations, policies, and programs on the environment.			X				X			
	8-9	Recommends the Draft EIR/EA identifies mitigation measures and Build Alternatives that avoid or minimize potential impacts, considering fully protected species, sensitive plant communities, California Species of Special Concern, habitat revegetation and restoration plans, nesting birds and Migratory Bird Treaty Act, movement of wildlife out of harm’s way, and translocation of species.			X				X			
	8-10	Recommends a CESA Incidental Take Permit be obtained if project may potentially "take" CESA species; recommends the Draft EIR/EA addresses all impacts on listed species, specifies mitigation monitoring and reporting program, and includes project-level surveys.			X				X			X

Individual or Organization	Comment Number	Comment Summary	Comment Category									
			Project Design	Purpose and Need	Draft EIR/EA	Project Scope	Build Alternative Selection	Operations and Safety	Environmental Issues	Funding	Cost and Schedule	Other/Administrative
USFWS and CDFW	8-11	Requires notification prior to any activity that may adversely affect streams and lakes under the Lake and Streambed Alteration Program; recommends the Draft EIR/EA identifies potential impacts on lake, stream, or riparian resources.			X				X			X
	8-12	Requests the reporting of any special-status species and natural communities detected during surveys to the CNDDB.							X			X
	8-13	Requires an environmental document filing fee that can be paid upon filing of Notice of Determination.									X	X
	8-14	Requests Caltrans addresses comments and recommendations in the Draft EIR/EA.	X		X							X
City of Menifee	9-1	Requires access to all parcels in City of Menifee (specifically northwest quadrant of interchange).	X									
	9-2	Requires the final project Build Alternative to continue full access to Travis Court.	X				X					
	9-3	Requires a traffic signal at Zeiders Road/Keller Road Interchange with U-turn accommodations.	X									
	9-4	Requires Keller Road to be built to ultimate configuration (4 lane major, divided).	X									
	9-5	Requires the incorporation of bike plans and pedestrian paths through roundabouts.	X					X				
	9-6	Requires the construction of drainage improvements to accommodate future development.	X									
	9-7	Requests continued coordination with Caltrans and other involved jurisdictions; requests all future environmental notices/documents sent to Planning Department.				X						X
Individual 3	10-1	Claims all proposed Project Build Alternatives would destroy or have a very negative impact on their property, including taking half of their property and landlocking the rear section.	X				X					
	10-2	Recommends purchasing the southwest corner of the property for development; attached a rough sketch of option.	X							X		
	10-3	Notes possibility to sell property for the proposed project, but only if price accounts for all parcel(s).								X		
SCAG	11-1	Requests that environmental documentation is provided with the full public comment period for review.			X							X
	11-2	Notes proposed project is currently included in Connect SoCal; RCTC should coordinate with SCAG on any updates to project scope in RTP/SCS.				X						X
	11-3	Notes goals and strategies of Connect SoCal may be pertinent to proposed project and should be considered.			X							X
	11-4	Shares how to access jurisdictional level growth estimates and forecasts for years 2016 and 2045 through the Connect SoCal Demographics and Growth Forecast Technical Report.										X
	11-5	Recommends the review of Final Program EIR for guidance on Connect SoCal.										X

4.2 Interagency Coordination and Consultation

The Build Alternatives and measures to avoid, minimize, and/or mitigate potential impacts were formulated through a cooperative dialogue among representatives of the following agencies or organizations:

- NAHC
- Native American Tribal Representatives
- Agencies and Interested Parties Regarding Historical Resources
- City of Murrieta
- California SHPO
- SCAG Transportation
- USFWS
- CDFW

The following sections summarize the results of the efforts of Caltrans to fully identify, address, and resolve potential proposed Project-related issues through early and continuing coordination.

4.2.1 Native American Consultation

On August 23, 2018, a search of the NAHC's Sacred Lands File (SLF) was conducted and a list of local Native American Tribes to be contacted was provided. The list consists of five individuals representing five Native American Groups who were designated by the NAHC for consultation. The search indicated there were no Native American cultural resources documented in the SLF as being within or adjacent to the proposed Project site.

The Native American Tribes, Groups, and individuals include the following:

- Joseph Ontiveros (Soboba Band of Luiseño Indians), who requested government-to-government consultation and Tribal monitoring of the proposed Project, and stated the proposed Project is located within the Ta'awilla, a TCP.

- Bo Mazzetti (Rincon Band of Luiseño Indians), who indicated the proposed Project is within the Tribe's specific area of historic interest and requested copies of cultural resource reports and environmental documents.

- Tuba Ebru Ozdil (Pechanga Band of Luiseño Indians), who requested government-to-government consultation and Tribal monitoring of the proposed Project.

- Shasta Gaughen (Pala Band of Mission Indians), who stated the proposed Project is outside the Reservation and Traditional use area, and did not request consultation.

- Travis Armstrong (Morongo Band of Mission Indians), who requested government-to-government consultation and Tribal monitoring of the proposed Project.

4.2.1.1 AB 52 CONSULTATION

Letters pursuant to AB 52 were sent to potentially interested Tribes on September 21, 2018. Caltrans initiated consultation with five Native American Tribes, including the Soboba Band of Luiseño Indians, the Pechanga Band of Luiseño Indians, the Pala Band of Mission Indians, the Rincon Band of Luiseño Indians, and the Morongo Band of Mission Indians. Initial responses from representatives from the Soboba Band of Luiseño Indians, the Pechanga Band of Luiseño Indians, and the Morongo Band of Mission Indians requested government-to-government consultation and Tribal monitoring during construction. The Pala Band of Mission Indians responded that the proposed Project is outside their Traditional use area and did not request consultation. The Rincon Band of Luiseño Indians responded that the proposed Project is within the Tribe's specific area of interest and requested copies of cultural resource reports and environmental documents. The Rincon Band of Luiseño Indians also indicated Traditional place names are located near the proposed Project. No further request pertaining to mitigation or treatment were received from the Rincon Band of Luiseño Indians. Overall, no cultural resources were identified during the AB 52 process.

4.2.2 State Historic Preservation Officer

As assigned by the FHWA, Caltrans has determined there is a property within the APE that is considered eligible for inclusion in the NRHP and/or California Historical Landmarks for this proposed Project, only because evaluation was not possible, in accordance with First Amended Section 106 Programmatic Agreement (Section 106 PA) Stipulation VIII.C.4 and as applicable California PRC 5024 MOU Stipulation VIII.C.4. As detailed in the Cultural Resources

section of this EIR/EA (Chapter 2), CA-RIV-645 is a habitation site in the southern portion of the APE that has been determined to be eligible for listing in the CRHR under Criterion 3 (presence of rock art and rock shelters) and Criterion 4 (data potential).

Caltrans, in applying the Criteria of Adverse Effect, is recommending a Finding of No Adverse Effect without Standard Conditions for the undertaking, and received concurrence from the SHPO pursuant to 36 CFR 800.5(c) and Section 106 PA Stipulation X.B.2 on July 28, 2022 (refer to the letter at the end of this chapter). Regarding site CA-RIV-645, intact portions of the site that contain the character-defining features of the site that convey its significance under Criteria C and D of the NRHP (and Criteria 3 and 4 of the NRHR), would be preserved in place. Effects to the site, consisting of cut/fill grading activities, would be confined to a portion of the site that was graded in the 1970s, and that does not contain character-defining features that convey the significance of the site under any criteria of the NRHP or CRHR.

4.2.3 SCAG Transportation Conformity Working Group

The SCAG TCWG serves as a forum to support interagency coordination and maintain transportation conformity to improve air quality in Southern California. The proposed Project was first presented to SCAG's TCWG on October 23, 2018, where a determination was confirmed that the Project was not a POAQC. Due to the changes in opening year and design year, the Project required an updated presentation to the TCWG. On June 25, 2024, the TCWG determined the proposed Project was not a POAQC, and conformity determination was granted. Supporting documentation is included in Appendix H.

4.2.4 United States Fish and Wildlife Service and California Department of Fish and Wildlife

On September 25, 2018, the USFWS provided the Proposed, Threatened, or Endangered Species List for species potentially occurring in the proposed Project area. On January 15, 2020, the Wildlife Agencies, provided comments on the Western Riverside County MSHCP Consistency Analysis that was prepared for the proposed Project. A meeting was held among the Wildlife Agencies, the City of Murrieta, Caltrans, and the RCA on September 21, 2021, to discuss the proposed Project's MSHCP implementation. Subsequently, on October 22, 2021, the Wildlife Agencies provided comments on the proposed Project's NES as it related to the MSHCP consistency. Lastly, on December 5, 2022, the Wildlife

Agencies provided comments on the NOP. These letters are included at the end of this chapter.

The main concerns from the Wildlife Agencies were associated with providing and maintaining wildlife movement within Proposed Constrained Linkage 16 as identified in the MSHCP, as well as meeting conservation goals in Cell Group Y. To respond to these concerns, several measures were implemented to minimize impacts on wildlife movement, such as directional fencing and a noise and light barrier. In an effort to meet the conservation goals in Cell Group Y, the Wildlife Agencies required the City of Murrieta and Caltrans to prepare an amendment request to the MSHCP to cover the access road for the properties in the southeastern quadrant of the interchange, known as Warner Lane. The amendment will be complete before the final environmental document is issued.

4.3 Community Outreach and Public Involvement

The proposed Project would include a public hearing and public circulation to receive community input on the environmental document. Once the Draft EIR/EA has been approved for public circulation, the Draft EIR/EA and a public notice will be distributed to local agencies, regional agencies, and utility providers affected by the proposed Project.

In addition, property owners directly affected by the proposed Project will also be provided with a public notice of the document. There will be a 45-day public review period.

Hard copies of the Draft EIR/EA will be available for public review at City of Murrieta, 1 Town Square, Murrieta, CA 92562. Chapter 6, Distribution List, provides additional information about where and to whom the document is distributed to.

If comments are received on the Draft EIR/EA during the public review period and/or during the public hearing, the Final EIR/EA will be modified to reflect any changes required by substantive comments. Responses to public comments will also be addressed.

4.4 Agency Coordination Documentation

In addition to Native American Consultation, copies of the correspondence for the following groups and agencies are also provided at the end of this chapter:

- SHPO
- USFWS
- RCA
- CDFW

State of California • Natural Resources Agency
Gavin Newsom, ***Governor***

DEPARTMENT OF PARKS AND RECREATION
OFFICE OF HISTORIC PRESERVATION
Armando Quintero, ***Director***

Julianne Polanco, State Historic Preservation Officer
1725 23rd Street, Suite 100, Sacramento, CA 95816-7100
Telephone: (916) 445-7000 FAX: (916) 445-7053
calshpo.ohp@parks.ca.gov www.ohp.parks.ca.gov

July 28, 2022

VIA EMAIL

In reply refer to: CATRA_2022_0629_001
FHWA_2022_0629_001

Janice Calpo
Acting Section 106 Coordinator
Cultural Studies Office
Caltrans Division of Environmental Analysis
1120 N Street, MS-27
Sacramento, CA 95814

Subject: Finding of No Adverse Effect for the Interstate 215/Kelly Road Interchange Project, Riverside County, California.

Dear Janice Calpo:

The Office of Historic Preservation (OHP) received a letter dated June 29, 2022 from the California Department of Transportation (Caltrans) for the above referenced undertaking. Caltrans is consulting with the State Historic Preservation Officer (SHPO) in accordance with the January 1, 2014 *First Amended Programmatic Agreement Among the Federal Highway Administration (FHWA), the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California Department of Transportation Regarding Compliance with Section 106 of the National Historic Preservation Act, as it Pertains to the Administration of the Federal-Aid Highway Program in California* (Section 106 PA). Caltrans is concurrently complying with the *Memorandum of Understanding Between the California Department of Transportation and the California State Historic Preservation Officer Regarding Compliance with Public Resources Code Section 5024 and Governor's Executive Order W-26-92, addended 2019* (5024 MOU). Pursuant to Stipulation X.B.2.b of the Section 106 PA, Caltrans is seeking SHPO comment on a finding of no adverse effect without standard conditions. Enclosed with Caltrans' letter is a Historic Property Survey Report (HPSR) and attachments.

Caltrans District 8, in coordination with the County of Riverside and the cities of Murrieta and Menifee, proposes a new full interchange and auxiliary lanes at Interstate 215 (I-215) and Keller Road that will replace the existing Keller Road two-lane underpass in Riverside County, California. Further information regarding the undertaking and area of potential effects (APE) can be found on pages one and two of the HPSR.

Caltrans' efforts identified one cultural resource in the APE: CA-RIV-645, a prehistoric site with rock art, bedrock milling features, potential midden, and associated lithic scatter

In accordance with Stipulation VIII.C.4 of the Section 106 PA, Caltrans will consider CA-RIV-645 eligible under Criteria C and D of the National Register of Historic Places (NRHP) for the purposes of this undertaking only.

Caltrans has applied the Criteria of Adverse Effects pursuant to Stipulation X.A. of the Section 106 PA and has determined that the proposed undertaking will not have an adverse effect on CA-RIV-645. As described in Caltrans' Finding of Effect (an attachment to the HPSR), all ground disturbing activities are limited to areas of prior disturbance and existing fill. No data bearing deposits that contribute to the assumed eligibility of CA-RIV-645 under Criteria C and D are located within the area of direct impact (ADI) of the APE. Implementation of an Environmentally Sensitive Area (ESA) and Archaeological Monitoring Area (AMA) will avoid adverse effects to the portion of CA-RIV-645 that contribute to its assumed eligibility. Potential adverse effects resulting from dust being projected onto a rock art feature that contributes to the assumed eligibility of CA-RIV-645 under Criterion C will be avoided by placing a covering over the feature prior to construction. Archaeological and Native American monitors will be onsite monitoring the placement and removal of the covering over the rock art feature. The ESA, AMA, and cover will be implemented and enforced through the June 2022 ESA, Monitoring, and Discovery Action Plan (an attachment to Caltrans' Finding of Effect).

Pursuant to Stipulation X.B.2.b of the Section 106 PA, Caltrans has found that the proposed undertaking will have no adverse effect to historic properties given the above nonstandard conditions and is seeking SHPO comment on this finding. Following a review of the documentation submitted, **I do not object** to this finding.

If you have any questions, please contact Associate State Archaeologist Alicia Perez at alicia.perez@parks.ca.gov.

Sincerely,



Julianne Polanco
State Historic Preservation Officer

U.S. Fish and Wildlife Service
Palm Springs Fish and Wildlife Office
777 East Tahquitz Canyon Way, Suite 208
Palm Springs, California 92262
760-322-2070
FAX 760-322-4648

California Department of Fish and Wildlife
Inland Deserts Region
3602 Inland Empire Blvd., Suite C-220
Ontario, California 91764
909-484-0167
FAX 909-481-2945

In Reply Refer To:
FWS/CDFW-WRIV-20B0087-20CPA0093

January 15, 2020
Sent by email

Adam Compton
Senior Environmental Planner
California Department of Transportation
464 West Fourth Street, 6th Floor
San Bernardino, California 92401
adam.compton@dot.ca.gov

Subject: Western Riverside Multiple Species Habitat Conservation Plan Consistency Analysis, Keller Road/I-215 Interchange Project

Dear Mr. Compton:

Thank you for the opportunity to review the Keller Road/Interstate 215 Interchange Project (Project). The U.S. Fish and Wildlife Service (Service) and California Department of Fish and Wildlife (CDFW), hereinafter the Wildlife Agencies, received your Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) Consistency Analysis (Consistency Analysis) November 4, 2019. We appreciate the California Department of Transportation (Caltrans) extending the Consistency Analysis review period through January 15, 2020.

The Project purposes a new, full interchange and auxiliary lanes at Interstate-215 (I-215) and Keller Road in Riverside County. The Consistency Analysis presents four construction alternatives: Alternative 1, No-build Alternative; Alternative 2, Spread Diamond Interchange; Alternative 3, Partial Cloverleaf Interchange; and Alternative 5, Compact Diamond. Alternative 4, Modified Partial Cloverleaf, has been withdrawn from consideration. A preferred alternative is not identified in the Consistency Analysis.

South of Keller Road, the Project falls within Criteria Cells 5255 and 5266, and contains MSHCP Proposed Constrained Linkage 16. Proposed Constrained Linkage 16 "consists of an unnamed blueline drainage connecting Proposed Linkage 8 in the west with Proposed Core 2 (Antelope Valley) in the east. The Linkage provides Habitat for species and also provides for movement of species. The Linkage likely provides for movement of common mammals such as bobcat. Existing urban Development and agricultural use constrain the Linkage along its entire length, and the Linkage is completely surrounded by a city-designated planned land use. Species movement through the Linkage may also be affected by the intersection of the Linkage with I-215. Therefore, treatment and management of edge conditions along this Linkage will be necessary to ensure that it provides Habitat and movement functions for species using the Linkage." (MSHCP, Volume 1, page 3-88). MSHCP planning species identified for Proposed Constrained Linkage 16 include: Quino checkerspot butterfly, coastal California gnatcatcher, and bobcat.

The Wildlife Agencies, Western Riverside Regional Conservation Authority (RCA), Caltrans,

and the City of Menifee (City) met to discuss this Project on March 19, 2015. During the meeting the Wildlife Agencies and RCA informed Caltrans and the City of Menifee that if Proposed Constrained Linkage 16 was affected by the Project, the linkage would need to be upgraded. During the meeting the City stated that the Project would not affect Proposed Constrained Linkage 16.

The Consistency Analysis identifies that two culverts occur within Constrained Linkage 16: one 60-inch diameter pipe and one 48-inch diameter pipe, and all three build alternatives (i.e., Alternative 2, 3, and 5) propose impacts to Proposed Constrained Linkage 16. Alternatives 2 and 3, identify permanent impacts to Proposed Constrained Linkage 16 via the widening the I-215 by approximately 9 feet on the western side, and all three alternatives (i.e., Alternatives 2, 3, and 5) identify temporary impacts to Constrained Linkage 16 on the western side of the I-215.

Though impacts to Proposed Constrained Linkage 16 are identified in the Consistency Analysis, no modifications to improve or support wildlife movement are proposed. Instead the Consistency Analysis makes an unsupported conclusion that because wildlife will not be blocked from the culvert(s), "…the proposed project is not expected to adversely affect wildlife movement… and is not expected to adversely affect functionality of Proposed Constrained Linkage 16" (Consistency Analysis, pgs. 51-52).

The Wildlife Agencies concerns about the functionality of the culverts post-construction are further exacerbated by the lack of discussion of the functionality of the 48-inch culvert in the Consistency Analysis, and the statement that the 60-inch-diameter pipe does not have a direct line of sight, which "may deter wildlife from utilizing this pipe as a potential movement corridor." (Consistency Analysis, page 36). Given that Alternatives 2, and 3, will involve lengthening the existing culverts, the Wildlife Agencies are concerned that their functionality for wildlife movement could be significantly reduced.

MSHCP section 7.5.1, "Guidelines for the Siting and Design of Planned Roads Within the Criteria Area and Public/Quasi-Public Lands" states that the ultimate alignment and design of planned roads will consider wildlife movement requirements. The Wildlife Agencies were unable to find a discussion of wildlife movement requirements in the Consistency Analysis. For example, the Consistency Analysis does not describe the planning area species associated with Proposed Constrained Linkage 16, Proposed Linkage 8 or Proposed Core 2, their movement requirements, or how the proposed project may affect wildlife movement. The Consistency Analysis also lacks a discussion of MSHCP section 7.5.2, Guidelines for Construction of Wildlife Crossings.

MSHCP section 7.5.2 states that the guidelines identified in this section "…are to be applied where there is either known wildlife movement, and/or in portions of the MSHCP Conservation Area that are assembled to provide for wildlife movement." (MSHCP, page 7-81). Given that Proposed Constrained Linkage 16 was assembled to provide for "…movement of species…" the Consistency Analysis should have included a discussion and analysis of potential project-related impacts to each wildlife group as identified in MSHCP section 7.5.2 (i.e., Avian Wildlife; Large Mammalian Wildlife; Small Mammalian, Reptile and Amphibian Wildlife; and Insects), as

relevant, and how the project will address movement requirements. The Consistency Analysis lacks such analysis.

Further, of the 25 "Specific Initial Guidelines for Wildlife Movement Design Considerations within the Criteria Area" (MSHCP pages 7-84 through 7-87) identified in MSHCP section 7.5.2, the project proposes to implement only one design consideration: "Vegetation cover near entrances to culverts shall be installed where feasible to increase their effectiveness for carnivores and smaller wildlife." The Consistency Analysis does not provide a discussion as to why the other 24 design considerations were not considered, nor does the Consistency Analysis provide support for how this one design consideration is sufficient to facilitate continued wildlife use of the culvert(s), reduce project-related impacts to wildlife movement, or address movement requirements.

Without further analyses regarding potential impacts to wildlife movement and identification of specific avoidance, minimization, and mitigation measures to reduce project-related impacts to wildlife movement, the Wildlife Agencies are unable to find that the proposed Project is consistent with MSHCP section 7.5. We recommend that the Consistency Analysis be revised to include the following:

1. Identification of species associated with Proposed Constrained Linkage 16, Proposed Linkage 8 or Proposed Core 2 that may use Proposed Constrained Linkage 16, and how each of these species may be affected by lengthening of the culvert(s) associated with the Project. The relevant biology/ecology/life history of each species should be discussed to lend support to the conclusion that the Proposed may or may not affect species movement. Stating "because avian wildlife may readily fly over the road regardless of configuration" (CA, page 17) is insufficient and incorrect. For example, the MSHCP identifies that avian species with poor flight ability or ground-dwelling aspect "may require assistance to maintain linkages." (MSHCP page 7-81). MSHCP section 7.5.2 specifically identifies the coastal California gnatcatcher as one such species, and this species is identified as a planning species for Proposed Constrained Linkage 16, as well as Proposed Core 2 and Proposed Linkage 8;

2. Incorporation of design elements discussed in MSHCP section 7.5.2 guidelines for wildlife movement (MSHCP pages 7-84 through 7-87), with a discussion of how the incorporation of such elements will maintain and/or improve wildlife movement through Proposed Constrained Linkage 16;

3. An analysis and summary discussion of items 1, and 2 above to provide a supportable conclusion that the Project will not have an adverse effect on wildlife movement within Proposed Constrained Linkage 16; and

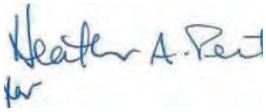
4. Selection of a preferred alternative for analysis.

The Wildlife Agencies are unable to provide concurrence on any of the construction alternatives identified in the Consistency Analysis. Therefore, of the alternatives identified in the

Consistency Analysis, we can only provide support for the no-project alternative. The Wildlife Agencies are concerned about the potential permanent impacts of the Project on functionality of Constrained Linkage 16 to support wildlife movement between Proposed Linkage 8 and Proposed Core 2. We request revision of the Consistency Analysis to include the above-referenced information and analyses and a meeting with the City, Caltrans, and RCA.

We appreciate the opportunity to provide comments on the Consistency Analysis. If you have any questions or comments regarding this letter, please contact John M. Taylor of the Service at john_m_taylor@fws.gov or 760-322-2070 x418, or Joanna Gibson of CDFW at joanna.gibson@wildlife.ca.gov or 909-987-7449.

Sincerely,



for
Brian Croft
Acting Assistant Field Supervisor
U.S. Fish and Wildlife Service

Scott Wilson
Environmental Program Manager
California Department of Fish and Wildlife

cc:
Tricia Campbell, Western Riverside County Regional Conservation Authority

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Inland Deserts Region
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909-484-0167
FAX 909-481-2945

In Reply Refer To:
FWS/CDFW-WRIV-20B0087-22CPA0011

October 22, 2021
Sent by email

Adam Compton
Senior Environmental Planner
California Department of Transportation
464 West Fourth Street, 6th Floor
San Bernardino, Ca 92401
Adam.compton@dot.ca.gov

Subject: Western Riverside Multiple Species Habitat Conservation Plan, Natural Environmental Study, I-215/Keller Road New Interchange Project

Dear Adam Compton:

The U.S. Fish and Wildlife Service (Service) and the California Department of Fish and Wildlife (CDFW), hereafter referred to jointly as the Wildlife Agencies, received the Natural Environmental Study (NES) for the for the I-215/Keller Road New Interchange Project (Project) on August 23, 2021. The Wildlife Agencies provided comments on the Western Riverside Multiple Species Habitat Conservation Plan (MSHCP) Consistency Analysis (Consistency Analysis) for the Project on January 15, 2020 (enclosed). At the request of the Wildlife Agencies, a meeting attended by the Western Riverside County Regional Conservation Authority (RCA), City of Murrieta, the California Department of Transportation and the Wildlife Agencies was held on September 16, 2021, to discuss the NES and the preferred design of the proposed interchange at Keller Road and Interstate 215.

The Wildlife Agencies are providing the following comments as they relate to the Project's consistency with the MSHCP, and in particular with the Urban/Wildlands Interface Guidelines (Section 6.1.4), Planned Roads Within the Criteria Area (Section 7.3.5), Guidelines for the Siting of Planned Roads Within the Criteria Area and Public/Quasi-Public Lands (Section 7.5.1), and Guidelines for Construction of Wildlife Crossings (Section 7.5.2). As discussed below we are concerned about the Project intrusion into the interface of Proposed Linkage 8 and Proposed Constrained Linkage 16 and reserve assembly in Cell Group Y.

Project Description

The proposed Project is a new, full interchange and auxiliary lanes at Interstate-215 (I-215) and Keller Road in Riverside County. The NES presents four construction alternatives: Alternative 1, No-build Alternative; Alternative 2, Spread Diamond Interchange; Alternative 3, Partial Cloverleaf Interchange; and Alternative 5, Compact Diamond. Alternative 4, Modified Partial Cloverleaf, has been withdrawn from consideration, leaving three Project Alternatives (Alternatives 2, 3 and 5). A preferred alternative is not identified in the NES and the southern

extent of all three build alternatives extend into MSHCP Proposed Constrained Linkage 16.

The Project also includes the construction of Warner Lane east of the interchange and south of Keller Road to provide access to properties that currently have access from a portion of Antelope Road which would be eliminated by the Project. The Wildlife Agencies were not aware of the inclusion of Warner Lane in the Project prior to reviewing the NES. The portion of the proposed Project that is south of Keller Road and east of I-215 is within MSHCP Cell Group Y (Criteria Cells 5255, 5256, 5358 and 5361) where conservation is to contribute to the assembly of Proposed Constrained Linkage 16.

Proposed Constrained Linkage 16:

Proposed Constrained Linkage 16 is centered on an unnamed blueline drainage connecting Proposed Linkage 8 in the west with Proposed Core 2 (Antelope Valley) in the east. It is constrained by development and agricultural use along its entire length. The MSHCP recognizes that animal movement through the constrained linkage may also be affected by the intersection of the Linkage with I-215 and states that "…treatment and management of edge conditions along this Linkage [Proposed Constrained Linkage 16] will be necessary to ensure that it provides Habitat and movement functions for species using the Linkage." (MSHCP, Volume 1, page 3-88).

It is essential to maintain or improve the integrity of Proposed Constrained Linkage 16 as it provides a critical link for one of two main east-west connections in the MSHCP Conservation Area between Proposed Linkage 8 in the west with Proposed Core 2 (Antelope Valley) in the east. The Wildlife Agencies are working to minimize impacts from other proposed projects in this linkage and it is critical that this project does not undermine those efforts by adding impacts into the linkage. The Wildlife Agencies are concerned that species movement may be affected by the modifications to I-215 as proposed for this Project and that the Project is not adequately addressing the required analysis of wildlife habitat and movement for this Linkage.

The Project was designed to avoid extending the 60- and 48- inch diameter culverts, but it will add a merge lane within Proposed Constrained Linkage 16 above the culvert entrances on the south-bound side of the freeway. A retaining wall would be used to support the lane and avoid lengthening the culverts.

The additional lane will increase noise and light from the vehicles using the merge lane narrowing the linkage itself around the culvert as well as reducing habitat value adjacent to the west culvert opening. The NES lacks a discussion on how the additional noise and lighting will affect the function of Proposed Constrained Linkage 16. The NES does include shielding of infrastructure lighting to minimize encroachment into existing or planned conservation adjacent to the proposed interchange. However, it does not address the additional noise and intrusion into those areas that would occur after completion of the Project. We, therefore, request the inclusion of a light and noise barrier between the merge land and the future conservation area in Proposed Linkage 8. The noise and light barrier should also be fire resistance because traffic facilities are a known source of ignition.

Culverts

The Wildlife Agencies have concerns about the function of the exiting culverts because of their size and lack of direct line of sight in the larger 60-inch-diameter culvert. The NES and the Wildlife Movement Study do not provide evidence that the existing culverts provide wildlife movement needed for long-term viability of the linkage. The NES relies on 2015 Wildlife Movement Study, conducted on the Shiang conservation property directly east of the Project, to conclude that the existing culverts function to provide wildlife movement based on the presence of small to mid-sized wildlife on the Shiang property. However, the 2015 Wildlife Movement Study was designed to identify species on the Shiang property and not to evaluate the wildlife use of either the 60-inch or 48-inch diameter pipe culverts under the I-215. We therefore request that Caltrans undertake a wildlife movement study to assess the function of the culverts under I-215.

Urban/ Wildlands Interface Guidelines, MSHCP Section 6.1.4:

The NES describes several avoidance and minimization measure as they relate to the construction on the new interchange at Keller Road and I-215. The Wildlife Agencies appreciate the inclusion of avoidance and minimization measure M-BIO-9 that includes drainage and toxics, shielding of night lighting, and invasive species. However, as stated above the NES does not address the need for abatement measures for noise and light from motor vehicles.

The MSHCP identifies that an analysis of effects to wildlife movement be conducted for projects adjacent to the MSHCP Conservation Area and provide appropriate measures to offset Project impacts such as barriers (e.g., fencing) (Section 6.1.4). It is critical to the function of Proposed Constrained Linkage 16 that wildlife are willing to approach the culvert to move under I-215. We therefore request the inclusion of directional wildlife fencing to directing them to the culvert to provide safe passage and reduce the risk of vehicle strikes. Directional fencing should be installed at both the east and west culvert openings.

Warner Lane: Cell Group Y and Planned Roads, MSHCP 7.3.5:

The NES identifies creation of a new road, Warner Lane (NES, Figure 14), this road was not in the Consistency Analysis reviewed by the Wildlife Agencies in 2015. Proposed Warner Lane is located in the central and northern portion of Criteria Cell 5256 within Cell Group Y and is not a planned road within MSHCP Section 7.3.5 nor in MSHCP Figure 7-1, which means it does not have MSHCP coverage.

The proposed alignment of Warner Lane was discussed in our September meeting as not in the area described for conservation in Cell Group Y. The Cell Group Y conservation description is that conservation “will contribute to assembly of Proposed Core 2 and Proposed Constrained Linkage 16” and will “range from 55%-65% of the Cell Group focusing in the eastern and western central portions of the Cell Group”. To meet the low range of the 55% conservation goal within the Cell Group approximately 308 acres would be available for development and 252 acres are to be conserved. To date, approximately 330 acres have been developed and

approximately 84 acres have been conserved within Cell Group Y. Even if all remaining lands were conserved in the Cell Group, this Cell Group is unable to meet the minimum conservation goal of 55%. Thus, all remaining undeveloped lands in the Cell group are needed for conservation. The area identified for Warner Lane construction should be conserved to help reduce the conservation shortfall for this Cell Group.

The Wildlife Agencies recommend that these two issues be resolved by realigning the residential access to the west to avoid bifurcating the remaining undeveloped area on the northern edge of Cell Group Y. The residential access could begin at Warner Lane but then turn quickly westward. The Project could also be redesigned so that Warner Lane is not needed. If the residential access cannot be realigned to the west or eliminated, an MSHCP amendment or Criteria Refinement should be pursued to address the conservation shortfall in Cell Group Y and covered status for Warner Lane.

Recommendations

The Wildlife Agencies request:

1. A noise and light barrier on the west side of I-215 between the merge lane and the future conservation area. The barrier should be designed to reduce fire hazards in the conservation areas from ignition sources associated with use of I-215;
2. Directional fencing on both sides of the culverts under I-215 along the existing and future conservation area; and
3. Realign or eliminate the proposed residential access south of Keller and east of I-215 or undertake an MSHCP amendment or Criteria Refinement as needed to address conservation shortfalls in Cell Group Y and covered status for Warner Lane.

Long-term Resolution of the Wildlife Movement Functionality

The Wildlife Agencies encourage Caltrans to work with us and with Riverside County Transportation Commission to discuss long-term solutions for improving the functionality of Proposed Linkage 16. This solution could begin with a wildlife study to evaluate current effectiveness of the wildlife corridor for small- and medium- sized mammal movement and progress to potential improvements as indicted by study results. We would like to work with you to pursue funding to improve the wildlife crossing. Things that may be considered include straightening of the 60-inch culvert if is not functioning for wildlife movement and improving permeability by installation of additional routes (under or over) to cross the freeway.

The Wildlife Agencies request confirmation of the inclusion of the barrier and fencing discussed above to protect the efficacy of Proposed Constrained Linkage 16 and a meeting to resolve our concerns regarding the residential access and proposed Warner Lane south of Keller Road. The Wildlife Agencies cannot find that the proposed Project is consistent with the MSHCP until these issues are resolved. We appreciate the opportunity to provide comments on this NES and look forward to working with the California Department of Transportation. If you have any questions

or comments regarding this letter, please contact John Taylor of the Service at john_m_taylor@fws.gov or Carly Beck of CDFW at carly.beck@widlife.ca.gov.

Sincerely,

DocuSigned by:
Heather Pert
DF423498814B441...

for
Rollie White
Assistant Field Supervisor
U.S. Fish and Wildlife Service

for
Scott Wilson
Environmental Program Manager
California Department of Fish and Wildlife

cc:
Tricia Campbell, Regional Conservation Authority

Attachments/Enclosures: Wildlife Agencies, January 15, 2020 Comment Letter.

U.S. Fish and Wildlife Service
Palm Springs Fish and Wildlife Office
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Palm Springs, California 92262
760-322-2070
FAX 760-322-4648

California Department of Fish and Wildlife
Inland Deserts Region
3602 Inland Empire Blvd., Suite C-220
Ontario, California 91764
909-484-0167
FAX 909-481-2945

In Reply Refer To:
FWS/CDFW-WRIV-2023-0020565

December 5, 2022
Sent by email

Adam Compton
Senior Environmental Planner
California Department of Transportation
464 West Fourth Street, 6th Floor
San Bernardino, Ca 92401
Adam.compton@dot.ca.gov

Subject: Notice of Preparation of a Draft Environmental Impact Report I-215/Keller Road New Interchange Project, State Clearinghouse No. 2022090376

Dear Adam Compton:

The U.S. Fish and Wildlife Service (Service) and the California Department of Fish and Wildlife (CDFW), hereafter referred to jointly as the Wildlife Agencies, received the Notice of Preparation (NOP) for a Draft Environmental Impact Report (DEIR) for the I-215/Keller Road New Interchange Project (Project) on September 21, 2022, from the California Department of Transportation (Caltrans). The Wildlife Agencies appreciate the time extension to submit comments until December 5, 2022, and thank you for the opportunity to provide comments and recommendations regarding Project activities that may affect public trust resources.

WILDLIFE AGENCIES' ROLES

The primary concern and mandate of the Service is the protection of fish and wildlife resources and their habitats. The Service has legal responsibility for the welfare of migratory birds, anadromous fish, and endangered animals and plants occurring in the United States. The Service is also responsible for administering the Federal Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 et seq.). CDFW is a trustee agency under the California Environmental Quality Act (CEQA) and is responsible for ensuring appropriate conservation of fish and wildlife resources including rare, threatened, and endangered plant and animal species, pursuant to the California Endangered Species Act, and administers the Natural Community Conservation Planning Program (NCCP).

The Service issued section 10(a)(1)(B) permits for the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) on June 22, 2004. CDFW also issued NCCP Approval and Take Authorizations for the MSHCP as per Section 2800 *et seq*., of the California Fish and Game Code (FGC). The MSHCP established conservation programs to minimize and mitigate habitat loss and the incidental take of covered species in association with activities covered under the permits. Caltrans and City of Murietta are MSHCP Permittees. The Wildlife Agencies request that the Project implementation of the MSHCP be addressed in the DEIR as discussed below.

PREVIOUS COMMUNICATION

The Wildlife Agencies received the Caltrans Natural Environmental Study (NES) on August 23, 2021, and provided comments on October 21, 2021. A meeting was held on September 16, 2021, between the Western Riverside County Regional Conservation Authority, City of Murrieta, Caltrans, and the Wildlife Agencies to discuss the NES and Project MSHCP implementation. The Wildlife Agencies also provided comments on the Western Riverside County Multiple Species Habitat Conservation Plan Consistency Analysis document for the Project on January 15, 2020.

PROJECT LOCATION

The proposed Project site is located on Interstate 215 (I-215), approximately two miles north of Clinton Keith Road and 1 mile south of Scott Road. The Project limits are bounded by Zeiders Road to the west and Whitewood Road to the east along Keller Road, and for one mile north and south of Keller Road along I-215 in the Cities of Murrieta and Menifee.

PROJECT DESCRIPTION

The proposed Project is a new, full interchange with auxiliary lanes at I-215 and Keller Road in Riverside County, California. The NOP and NES identify four construction alternatives that may be considered in the DEIR: Alternative 1, No-build Alternative; Alternative 2, Spread Diamond Interchange; Alternative 3, Partial Cloverleaf Interchange, and Alternative 5, Compact Diamond. Alternative 4, Modified Partial Cloverleaf, has been withdrawn from consideration. A preferred alternative is not identified in the NES. The Project also includes the construction of Warner Lane just east of the interchange. All three of the proposed build alternatives include the construction of a new road (Warner Lane NES, Figure 14) in Criteria Cell 5256 and extend into MSHCP Proposed Constrained Linkage 16 in their southern extent.

South of Keller Road, the Project falls within Cell Group Y which consists of Criteria Cells 5255, 5256, 5358 and 5361 and contains the MSHCP Proposed Constrained Linkage 16. The MSHCP describes Proposed Constrained Linkage 16 as “an unnamed blueline drainage connecting Proposed Linkage 8 in the west with Proposed Core 2 (Antelope Valley) in the east. The Linkage provides Habitat for species and provides for movement of species. The Linkage likely provides for movement of common mammals such as bobcat. Existing urban Development and agricultural use constrain the Linkage along its entire length, and the Linkage is surrounded by a city-designated planned land use. Species movement through the Linkage may also be affected by the intersection of the Linkage with I-215. Therefore, treatment and management of edge conditions along this Linkage will be necessary to ensure that it provides Habitat and movement functions for species using the Linkage.” (MSHCP, Volume 1, page 3-88). MSHCP planning species identified for Proposed Constrained Linkage 16 include Quino checkerspot butterfly, coastal California gnatcatcher, and bobcat.

COMMENTS AND RECOMMENDATIONS

Caltrans District 8 has requested comments to inform the Draft Environmental Impact Report (DEIR) which will identify the proposed Project's direct, indirect, and cumulative environmental impacts, discuss alternatives, and propose mitigation measures that avoid, minimize, or offset significant environmental impacts.

The Wildlife Agencies offer these comments and recommendations below to assist the Caltrans in adequately identifying and/or mitigating the Project's significant, or potentially significant, direct, and indirect impacts on fish and wildlife (biological) resources. The comments and recommendations are also offered to ensure that the DEIR provides sufficient information for Wildlife Agencies to adequately review and comment on the proposed Project. The Wildlife Agencies recommend that the forthcoming DEIR address the following:

Alternatives Analysis

As Stated above all three design alternatives overlap with PLC 16. Caltrans and the City of Murrieta have committed to Project design features to minimize Project effects to the existing function of PLC 16. Design features discussed at meetings with the Wildlife Agencies focused on reducing light and noise impacts to the wildlife crossing through incorporation of design features such as solid walls, berms, and minimizing changes to the existing culvert. For the crossing to function as envisioned in the MSHCP, a larger undercrossing or overcrossing will be required.

All three build alternatives also require the construction Warner Lane in Criteria Cell 5256 south of Keller Road. Planned roadways in the Criteria Cells are addressed MSHCP Section 7.3.5 and depicted on Figure 7-1. Only planned roads are allowed Covered Activities in the Criteria Cells. Warner Lane is not depicted on Figure 7-1, not a Planned Roadway and therefore is not a Covered Activity. Proposed Warner Lane is not consistent with the MSHCP. We encourage Caltrans and the City of Murrieta to include an alternative that is consistent with the MSHCP as adopted. Warner Lane and MSHCP implementation are discussed further below.

Western Riverside County Multiple Species Habitat Conservation Plan

The proposed Project occurs within the MSHCP area and is subject to the provisions and policies of the MSHCP as described above. MSHCP Permittees need to demonstrate that their discretionary actions are consistent with the MSHCP, the Permits, and the Implementing Agreement. Caltrans is the Lead Agency working on behalf of the local Sponsor, City of Murrieta (City). Both are MSHCP permittees. The MSHCP and City Resolution No. 03-1246 require that their discretionary actions adhere to the following:

1. Pay Local Development Mitigation Fees and other relevant fees as set forth in Section 8.5 of the MSHCP.

2. Demonstrate compliance with the policies for 1) compliance with the Urban/Wildlands Interface Guidelines as set forth in Section 6.1.4 of the MSHCP; 2) Planned Roads Within the

Criteria Area Section of 7.3.5 MSHCP, Section 7.5 including Guidelines for the Siting of Planned Roads Within the Criteria Area and Public/Quasi-Public Lands (MSHCP Section 7.5.1), and Guidelines for Construction of Wildlife Crossings (MSHCP 7.5.2) and 3) compliance with the Best Management Practices and the siting, construction, design, operation and maintenance guidelines as set forth in Section 7.0 and Appendix C of the MSHCP.

Please include a discussion of the Project and its consistency with Covered Activities (Section 7.3 of the MSHCP) and specifically Existing Roads Within the Criteria Area (Section 7.3.4), Planned Roads Within the Criteria Area and Public/Quasi-Public Lands (MSHCP Section 7.5.1), and Planned Roads Within the Criteria Area (7.3.5) in the DEIR. Roadways other than those identified in Section 7.3.5 of the MSHCP are not covered without an amendment to the MSHCP in accordance with the procedures described in MSHCP Section 6.10. The Wildlife Agencies recommend that Caltrans and the City of Murrieta review MSHCP Section 7.3.5 and include in the DEIR information that demonstrates that Project-related roads are MSHCP covered activities. The DEIR should also discuss design and siting information for all proposed roads to ensure that the roads are sited, designed, and constructed in a manner consistent with MSHCP conservation objectives.

As discussed above, Warner Lane is not a planned road in the Criteria Cells (MSHCP Section 7.3.5), nor is it depicted on MSHCP Figure 7-1, and is not an MSHCP covered activity. Also, problematically, proposed Warner Lane is in the central and northern portion of Criteria Cell 5256 within Cell Group Y and is needed for conservation as described below. The conservation description for Cell Group Y is that conservation will contribute to assembly of Proposed Core 2 and Proposed Constrained Linkage 16 and will range from 55-65 percent of the Cell Group focusing in the eastern and western central portions of the Cell Group.

To meet the low range of the 55 percent conservation described for the Cell Group approximately 290 acres are to be conserved and approximately 355 acres would be available for development. To date, approximately 83 acres have been conserved and 365 acres have been developed within the Cell Group. Even if all remaining land in the Cell Group is conserved, the minimum conservation requirement for this Cell Group (55 percent) cannot be met. Thus, all remaining undeveloped area is needed for conservation. The Warner Lane footprint should be conserved to reduce the conservation shortfall in this Cell Group.

As discussed above, the three build alternatives are not consistent with the MSHCP as written. The Wildlife Agencies recommend that the Project either be redesigned such that Warner Lane is no longer needed, or a Criteria Refinement and/or MSHCP Amendment is completed to address the conservation object of Cell Group Y and the need for Warner Lane.

Urban/ Wildlands Interface Guidelines, MSHCP Section 6.1.4:

As the MSHCP Conservation Area is assembled, boundaries are established between development and MSHCP Conservation Areas. Development near the MSHCP Conservation Area may result in edge effects that will adversely affect biological resources within the MSHCP Conservation Area. To minimize edge effects and maintain conservation values within the Conservation Areas, the City and Caltrans are required to implement the Urban/Wildlands Interface Guidelines (MSHCP Section 6.1.4) to minimize harmful effects from drainage, toxics, lighting, noise, invasives, barriers, and grading/land development. The MSHCP identifies that Project review and impact mitigation be provided through the CEQA process to address the Urban/Wildland Interface guidelines. that the DEIR the indirect effects discussed in the Urban/Wildland Interface guidelines.

The Wildlife Agencies recommend that the DEIR include an analysis edge effects related to project construction and operation, such as noise, lighting, trespass, and toxics and that Project specific mitigation measures to avoid and minimize any effects be included in the DEIR. Avoidance and minimization measures can include, but are not limited to:

1. *Lighting Plan*: A Lighting Plan that identifies existing ambient lighting conditions, analyzes the Project lighting impacts on the adjacent Conservation Area, and demonstrates that the proposed lighting plan will not significantly increase the lighting on the Conservation Area. The Lighting Plan should identify measures that address light and glare from interior and exterior building lighting, safety and security lighting, and vehicular traffic accessing the site at a minimum.

2. *Noise Plan*: A Noise Plan to avoid and minimize noise impacts based on an assessment of Project noise impacts on adjacent conservation areas during construction and post development. The MSHCP identifies that Project noise impacts do not exceed the residential standards within the Conservation Areas.

3. *Landscaping Plan*: A Landscaping plan that includes the use of native plant material on the Project site and avoids the use of invasive plant species identified in Table 6-2 of the MSHCP.

4. *Fencing Plan*: A Barrier and Fencing plan that provides specific details designed to minimize unauthorized public access, domestic animal predation, illegal trespass, and dumping in the MSHCP Conservation Area (such as block walls along areas directly adjacent to potential conservation areas) and

5. *Best Management Practice*s: The DEIR should incorporate the guidance in MSHCP Section 7.0 and Appendix C of the MSHCP for addressing Best Management Practices.

Stephens' Kangaroo Rat Habitat Conservation Plan

The Project occurs within the Stephens' kangaroo rat (*Dipodomys stephensi*) Habitat Conservation Plan (SKR HCP) fee area boundary, SKR HCP plan area map available here: https://rchca.us/DocumentCenter/View/200/SKR-Plan-Area. State and federal authorizations

associated with the SKR HCP provide take authorization for Stephens' kangaroo rat within its boundaries. Payment of the SKR HCP fee is required.

CDFW ADDITIONAL RECOMMENDATIONS

Objectives

Section 15124(b) of the CEQA Guidelines requires that the project description contain a clear statement of the project objectives. It is the policy of the State of California to protect, restore, and enhance the functioning of fish, wildlife, and habitat connectivity in connection with the planning, construction, and improvement of transportation infrastructure throughout the state and, where feasible, the operation and maintenance of transportation infrastructure throughout the state (Assembly Bill No. 2344, 2021-2022 session). CDFW recommends that the DEIR should include an objective to protect, restore, and enhance wildlife and habitat connectivity. To that end we recommend that Caltrans include the creation of a larger facility needed for the full function of PLC 16 in its planning and project development processes.

Assessment of Biological Resources

Section 15125(c) of the CEQA Guidelines state that knowledge of the regional setting of a project is critical to the assessment of environmental impacts and that special emphasis should be placed on environmental resources that are rare or unique to the region. To enable CDFW staff to adequately review and comment on the project, the DEIR should include a complete assessment of the flora and fauna within and adjacent to the Project footprint, with particular emphasis on identifying rare, threatened, endangered, and other sensitive species and their associated habitats.

CDFW recommends that the DEIR specifically include:

1. An assessment of the various habitat types located within the project footprint, and a map that identifies the location of each habitat type. CDFW recommends that floristic, alliance- and/or association-based mapping and assessment be completed following *The Manual of California Vegetation*, second edition (Sawyer et al. 2009[1]). Adjoining habitat areas should also be included in this assessment where site activities could lead to direct or indirect impacts offsite. Habitat mapping at the alliance level will help establish baseline vegetation conditions.

2. A general biological inventory of the fish, amphibian, reptile, bird, and mammal species that are present or have the potential to be present within each habitat type onsite and within adjacent areas that could be affected by the project. CDFW's California Natural Diversity Database (CNDDB) in Sacramento should be contacted at (916) 322-2493 or CNDDB@wildlife.ca.gov or https://wildlife.ca.gov/Data/CNDDB/Maps-and-Data to obtain current information on any previously reported sensitive species and habitat, including

[1] Sawyer, J. O., T. Keeler-Wolf, and J. M. Evens. 2009. A manual of California Vegetation, 2nd ed. California Native Plant Society Press, Sacramento, California. http://vegetation.cnps.org/

Significant Natural Areas identified under Chapter 12 of the Fish and Game Code, in the vicinity of the proposed Project.

CDFW's CNDDB is not exhaustive in terms of the data it houses, nor is it an absence database. CDFW recommends that it be used as a starting point in gathering information about the *potential presence* of species within the general area of the project site.

3. A complete, *recent* inventory of rare, threatened, endangered, and other sensitive species located within the Project footprint and within offsite areas with the potential to be affected, including California Species of Special Concern (CSSC) and California Fully Protected Species (Fish & G. Code, § 3511). Species to be addressed should include all those which meet the CEQA definition (CEQA Guidelines § 15380). The inventory should address seasonal variations in use of the Project area and should not be limited to resident species. Focused species-specific/MSHCP surveys, completed by a qualified biologist and conducted at the appropriate time of year and time of day when the sensitive species are active or otherwise identifiable, are required. Acceptable species-specific survey procedures should be developed in consultation with the Wildlife Agencies, where necessary. Note that CDFW generally considers biological field assessments for wildlife to be valid for a one-year period, and assessments for rare plants may be considered valid for a period of up to three years. Some aspects of the proposed Project may warrant periodic updated surveys for certain sensitive taxa, particularly if the Project is proposed to occur over a protracted time frame, or in phases, or if surveys are completed during periods of drought.

4. A thorough, recent, floristic-based assessment of special status plants and natural communities, following CDFW's Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities (CDFW 2018[2)].

5. Information on the regional setting that is critical to an assessment of environmental impacts, with special emphasis on resources that are rare or unique to the region (CEQA Guidelines § 15125[c]).

6. A full accounting of all open space and mitigation/conservation lands within and adjacent to the Project.

Analysis of Direct, Indirect, and Cumulative Impacts to Biological Resources

The DEIR should provide a thorough discussion of the direct, indirect, and cumulative impacts expected to adversely affect biological resources as a result of the Project. To ensure that Project impacts to biological resources are fully analyzed, the following information should be included in the DEIR:

2 CDFW, 2018. Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities, State of California, California Natural Resources Agency, Department of Fish and Wildlife: March 20, 2018 (https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=18959&inline)

1. A discussion of potential impacts from lighting, noise, human activity (e.g., recreation), defensible space, and wildlife-human interactions created by zoning of development projects or other project activities adjacent to natural areas, exotic and/or invasive species, and drainage. The latter subject should address Project-related changes on drainage patterns and water quality within, upstream, and downstream of the Project site, including: volume, velocity, and frequency of existing and post-Project surface flows; polluted runoff; soil erosion and/or sedimentation in streams and water bodies; and post-Project fate of runoff from the Project site.

2. A discussion of potential indirect Project impacts on biological resources, including resources in areas adjacent to the project footprint, open space, adjacent natural habitats, riparian ecosystems, wildlife corridors, and designated and/or proposed reserve or mitigation lands (e.g., preserved lands associated with the MSHCP or other conserved lands).

3. An evaluation of impacts to on-site and adjacent open space lands from both the construction of the Project and any long-term operational and maintenance needs.

4. A cumulative effects analysis developed as described under CEQA Guidelines section 15130. The DEIR should analyze the cumulative effects of the plan's land use designations, policies, and programs on the environment. Please include all potential direct and indirect Project related impacts to riparian areas, wetlands, vernal pools, alluvial fan habitats, wildlife corridors or wildlife movement areas, aquatic habitats, sensitive species and other sensitive habitats, open lands, open space, and adjacent natural habitats in the cumulative effects analysis. General and specific plans, as well as past, present, and anticipated future projects, should be analyzed relative to their impacts on similar plant communities and wildlife habitats.

Mitigation Measures for Project Impacts to Biological Resources

The DEIR should identify mitigation measures and alternatives that are appropriate and adequate to avoid or minimize potential impacts, to the extent feasible. Caltrans should assess all direct, indirect, and cumulative impacts that are expected to occur as a result of the implementation of the Project and its long-term operation and maintenance. When proposing measures to avoid, minimize, or mitigate impacts, CDFW recommends consideration of the following:

1. *Fully Protected Species*: Fully protected species may not be taken or possessed at any time. Project activities described in the DEIR should be designed to completely avoid any fully protected species that have the potential to be present within or adjacent to the Project area. CDFW also recommends that the DEIR fully analyze potential adverse impacts to fully protected species due to habitat modification, loss of foraging habitat, and/or interruption of migratory and breeding behaviors. CDFW recommends that the Lead Agency include in the analysis how appropriate avoidance, minimization, and mitigation measures will reduce indirect impacts to fully protected species.

2. *Sensitive Plant Communities*: CDFW considers sensitive plant communities to be imperiled habitats having both local and regional significance. Plant communities, alliances, and

associations with a statewide ranking of S-1, S-2, S-3, and S-4 should be considered sensitive and declining at the local and regional level. These ranks can be obtained by querying the CNDDB and are included in *The Manual of California Vegetation* (Sawyer et al. 2009). The DEIR should include measures to fully avoid and otherwise protect sensitive plant communities from project-related direct and indirect impacts.

3. *California Species of Special Concern*: CSSC status applies to animals generally not listed under the federal Endangered Species Act or the CESA, but which nonetheless are declining at a rate that could result in listing, or historically occurred in low numbers and known threats to their persistence currently exist. CSSCs should be considered during the environmental review process. The DEIR should identify CSSC that have the potential to or have been documented to occur within or adjacent to the Project area.

4. *Mitigation*: CDFW considers adverse project-related impacts to sensitive species and habitats to be significant to both local and regional ecosystems, and the DEIR should include mitigation measures for adverse project-related impacts to these resources. Mitigation measures should emphasize avoidance and reduction of project impacts. For unavoidable impacts, onsite habitat restoration and/or enhancement, and preservation should be evaluated and discussed in detail. Where habitat preservation is not available onsite, offsite land acquisition, management, and preservation should be evaluated and discussed in detail.

   The DEIR should include measures to perpetually protect the targeted habitat values within mitigation areas from direct and indirect adverse impacts in order to meet mitigation objectives to offset project-induced qualitative and quantitative losses of biological values. Specific issues that should be addressed include restrictions on access, proposed land dedications, long-term monitoring and management programs, control of illegal dumping, water pollution, increased human intrusion, etc.

   If sensitive species and/or their habitat may be impacted from the Project, CDFW recommends the inclusion of specific mitigation in the DEIR. CEQA Guidelines section 15126.4, subdivision (a)(1)(8) states that formulation of feasible mitigation measures should not be deferred until some future date. The Court of Appeal in *San Joaquin Raptor Rescue Center* v. *County* of *Merced* (2007) 149 Cal.App.4th 645 struck down mitigation measures which required formulating management plans developed in consultation with State and Federal wildlife agencies after Project approval. Courts have also repeatedly not supported conclusions that impacts are mitigable when essential studies, and therefore impact assessments, are incomplete *(Sundstrom* v. *County* of *Mendocino* (1988) 202 Cal. App. 3d. 296; *Gentry* v. *City* of *Murrieta (1995)* 36 Cal. App. 4th 1359; *Endangered Habitat League, Inc.* v. *County* of *Orange* (2005) 131 Cal. App. 4th 777).

   CDFW recommends that the DEIR specify mitigation that is roughly proportional to the level of impacts, in accordance with the provisions of CEQA (CEQA Guidelines, §§ 15126.4(a)(4)(B), 15064, 15065, and 16355). The mitigation should provide long-term conservation value for the suite of species and habitat being impacted by the Project.

Furthermore, in order for mitigation measures to be effective, they need to be specific, enforceable, and feasible actions that will improve environmental conditions.

5. *Habitat Revegetation/Restoration Plans*: Plans for restoration and revegetation should be prepared by persons with expertise in southern California ecosystems and native plant restoration techniques. Plans should identify the assumptions used to develop the proposed restoration strategy. Each plan should include, at a minimum: (a) the location of restoration sites and assessment of appropriate reference sites; (b) the plant species to be used, sources of local propagules, container sizes, and seeding rates; (c) a schematic depicting the mitigation area; (d) a local seed and cuttings and planting schedule; (e) a description of the irrigation methodology; (f) measures to control exotic vegetation on site; (g) specific success criteria; (h) a detailed monitoring program; (i) contingency measures should the success criteria not be met; and (j) identification of the party responsible for meeting the success criteria and providing for conservation of the mitigation site in perpetuity. Monitoring of restoration areas should extend across a sufficient time frame to ensure that the new habitat is established, self-sustaining, and capable of surviving drought.

   CDFW recommends that local onsite propagules from the Project area and nearby vicinity be collected and used for restoration purposes. Onsite seed collection should be initiated in advance of project impacts in order to accumulate sufficient propagule material for subsequent use in future years. Onsite vegetation mapping at the alliance and/or association level should be used to develop appropriate restoration goals and local plant palettes. Reference areas should be identified to help guide restoration efforts. Specific restoration plans should be developed for various project components as appropriate.

   Restoration objectives should include protecting special habitat elements or re-creating them in areas affected by the Project; examples could include retention of woody material, logs, snags, rocks, and brush piles.

6. *Nesting Birds and Migratory Bird Treaty Act:* Please note that it is the Project proponent's responsibility to comply with all applicable laws related to nesting birds and birds of prey. Fish and Game Code sections 3503, 3503.5, and 3513 afford protective measures as follows: Fish and Game Code section 3503 makes it unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by Fish and Game Code or any regulation made pursuant thereto. Fish and Game Code section 3503.5 makes it unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds-of-prey) to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by Fish and Game Code or any regulation adopted pursuant thereto. Fish and Game Code section 3513 makes it 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 Treaty Act.

   Birds have been documented nesting outside of historic nesting bird period. For example, owls nesting in January and September, hummingbirds nesting in January and February, and

red-tailed hawks nesting in January and February. Given documented excursions from the proposed nesting bird season, we recommend the completion of nesting bird survey regardless of time of year to ensure compliance with all applicable laws pertaining to nesting birds and birds of prey. Nesting bird surveys should not be limited to work during a specific time frame due to recent changes in timing of avian breeding activity.

CDFW recommends that the DEIR include the results of avian surveys, as well as specific avoidance and minimization measures to ensure that impacts to nesting birds do not occur. Project-specific avoidance and minimization measures may include, but not be limited to: project phasing and timing, monitoring of project-related noise (where applicable), sound walls, and buffers, where appropriate. The DEIR should also include specific avoidance and minimization measures that will be implemented should a nest be located within the project site. If pre-construction surveys are proposed in the DEIR, the CDFW recommends that they be required no more than three (3) days prior to vegetation clearing or ground disturbance activities, as instances of nesting could be missed if surveys are conducted sooner.

7. *Moving out of Harm's Way*: To avoid direct mortality, CDFW recommends that the lead agency condition the DEIR to require that a CDFW-approved qualified biologist be retained to be onsite prior to and during all ground- and habitat-disturbing activities to move out of harm's way special status species or other wildlife of low or limited mobility that would otherwise be injured or killed from project-related activities. Movement of wildlife out of harm's way should be limited to only those individuals that would otherwise by injured or killed, and individuals should be moved only as far a necessary to ensure their safety (i.e., CDFW does not recommend relocation to other areas). Furthermore, it should be noted that the temporary relocation of onsite wildlife does not constitute effective mitigation for the purposes of offsetting project impacts associated with habitat loss.

8. *Translocation of Species*: CDFW generally does not support the use of relocation, salvage, and/or transplantation as mitigation for impacts to rare, threatened, or endangered species as studies have shown that these efforts are experimental in nature and largely unsuccessful.

California Endangered Species Act

CDFW is responsible for ensuring appropriate conservation of fish and wildlife resources including threatened, endangered, and/or candidate plant and animal species, pursuant to CESA. CDFW recommends that a CESA Incidental Take Permit (ITP) be obtained if the Project has the potential to result in "take" (California Fish and Game Code Section 86 defines "take" as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill") of State-listed CESA species, either through construction or over the life of the project. It is the policy of CESA to conserve, protect, enhance, and restore State-listed CESA species and their habitats.

CDFW encourages early consultation, as significant modification to the proposed Project and avoidance, minimization, and mitigation measures may be necessary to obtain a CESA ITP. The California Fish and Game Code requires that CDFW comply with CEQA for issuance of a CESA ITP. CDFW therefore recommends that the DEIR addresses all Project impacts to listed species

and specifies a mitigation monitoring andreporting program that will meet the requirements of CESA.

Crotch's Bumblebee (Bombus crotchii). The Project may cause direct mortality to Crotch's bumblebee or injury of adults, eggs, and larva, burrow collapse, nest abandonment, and reduced nest success. Suitable Crotch's bumblebee habitat is far ranging as they are generalist foragers and can utilize many different plant and vegetation communities. Suitable habitat includes areas of grasslands, coastal sage scrub, and arid desertscape that contain requisite habitat elements, such as small mammal burrows.

Protection Status. A petition to list the Crotch's bumble bee as an endangered species under CESA is currently pending before the California Fish and Game Commission (Commission) (Cal. Reg. Notice Register 2018, No. 45-Z, pp. 1986–1987 [November 9, 2018]). The Commission designated the Crotch's bumble bee as a candidate species under CESA in June 2019 (Cal. Reg. Notice Register 2019, No. 26-Z, pp. 954–955 [June 28, 2019]). The Commission's decision to designate the Crotch's bumble bee as a candidate species is the subject of a pending legal challenge (Almond Alliance of California v. Fish and Game Commission [2022] 79 Cal. App. 5th 337, pet. for review pending, S275412). On September 30th, 2022, candidacy was reinstated for the four bumble bee species petitioned for listing—franklin's, Crotch's, western, and suckle cuckoo.

Disclosure and Analysis. The DEIR should include project-level surveys in areas of impact with suitable habitat for Crotch's bumblebee. Surveys should be performed by a qualified entomologist familiar with the species behavior and life history to determine the presence/absence of Crotch's bumble bee. Surveys should be conducted during flying season when the species is most likely to be detected above ground, between March 1 to September 1 (Thorp et al. 1983).

Mitigation. If avoidance is not feasible and Crotch's bumblebee is present, the DEIR should specify mitigation for impacts to Crotch's bumblebee. A qualified biologist should identify and record the locations of all nests in or adjacent to the Project site. CDFW recommends the DEIR be conditioned with a measure where a 50-foot buffer zone should be established around nests where no work should occur. If impacts are unavoidable the Applicant should consult CDFW to see if a CESA ITP is required. Compensatory mitigation should also be provided to offset loss of habitat and vegetation communities associated with Crotch's bumblebee.

Lake and Streambed Alteration Program

As a Responsible Agency under CEQA, CDFW has authority over activities in streams and/or lakes that will divert or obstruct the natural flow, or change the bed, channel, or bank (including vegetation associated with the stream or lake) of a river or stream or use material from a streambed. Fish and Game Code section 1602 requires anentity to notify CDFW prior to commencing any activity that may do one or more of the following: 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. Please note that "any river, stream or

lake" includes those that are episodic (i.e., those that are dry for periods of time) as well as those that are perennial (i.e., those that flow year-round). This includes ephemeral streams, desert washes, andwatercourses with a subsurface flow.

Upon receipt of a complete notification, CDFW determines if the proposed Project activities may substantially adversely affect existing fish and wildlife resources and whether a Lake and Streambed Alteration (LSA) Agreement is required. An LSA Agreement includes measures necessary to protect existing fish and wildlife resources.CDFW may suggest ways to modify your Project that would eliminate or reduce harmfulimpacts to fish and wildlife resources.

CDFW's issuance of an LSA Agreement is a "project" subject to CEQA (see Pub. Resources Code § 21065). To facilitate issuance of an LSA Agreement, if necessary, the DEIR should fully identify the potential impacts to the lake, stream, or riparian resources, and provide adequate avoidance, mitigation, and monitoring and reporting commitments. Early consultation with CDFW is recommended, since modification of the proposed Project may be required to avoid or reduce impacts to fish and wildlife resources. To submit a Lake or Streambed Alteration notification, please go to https://wildlife.ca.gov/Conservation/Environmental-Review/EPIMS .

ENVIRONMENTAL DATA

CEQA requires that information developed in environmental impact reports and negative declarations be incorporated into a database which may be used to make subsequent or supplemental environmental determinations. (Pub. Resources Code, § 21003, subd. (e).) Accordingly, please report any special status species and natural communities detected during Project surveys to the CNDDB. Information can be submitted online or via completion of the CNDDB field survey form at the following link: https://wildlife.ca.gov/Data/CNDDB/Submitting-Data. The types of information reported to CNDDB can be found at the following link: https://www.wildlife.ca.gov/Data/CNDDB/Plants-and-Animals.

ENVIRONMENTAL DOCUMENT FILING FEES

The Project, as proposed, would have an impact on fish and/or wildlife, and assessment of filing fees is necessary. Fees are payable upon filing of the Notice of Determination by the Lead Agency and serve to help defray the cost of environmental review by CDFW. Payment of the fee is required in order for the underlying project approval to be operative, vested, and final. (Cal. Code Regs, tit. 14, § 753.5; Fish & G. Code, § 711.4; Pub. Resources Code, § 21089).

CONCLUSION

The Wildlife Agencies appreciate the opportunity to comment on the NOP of a DEIR for the I-215/Keller Road New Interchange Project in the City of Murrieta and Caltrans District 8 (SCH No. 2022090376) and request that Caltrans address our comments and recommendations in the

DEIR. Questions regarding this letter or further coordination should be directed to John M. Taylor of the Service at john_m_taylor@fws.gov, and Carly Beck, CDFW Environmental Scientist, at carly.beck@wildlife.ca.gov.

Sincerely,

Karin Cleary-Rose Digitally signed by Karin Cleary-Rose Date: 2022.12.05 09:20:52 -08'00'

DocuSigned by: Kim Freeburn 84F92FFEEFD24C8...

for
Rollie White
Assistant Field Supervisor
U.S. Fish and Wildlife Service

Kimberly Freeburn
Environmental Program Manager
California Department of Fish and Wildlife

ec:
Tricia Campbell, Western Riverside County Regional Conservation Agency, TCampbell@RCTC.org
Jarrett Ramaiya, City of Murrieta, jramaiya@MurrietaCA.gov

From: Moehling, Bob
To: Jason Bennecke; Henderson, Steve; Toledo, Antonia@DOT; Williams, Melissa; Luu, Thu; Polichetti, Nicholas; Burnam, Joza
Cc: Holler, Ivan; Ramaiya, Jarrett
Subject: [EXTERNAL] FW: I-215 & KELLER ROAD INTERCHANGE PROJECT – MSHCP MINOR AMENDMENT PROPOSAL
Date: Tuesday, November 28, 2023 4:02:41 PM
Attachments: image001.png
image002.png
image003.png
image004.png
image005.png
image006.png
image007.png
Memo RCA-RCTC 10.16.23.pdf

Folks,

The email below from Leslie Levy at RCA/RCTC provides concurrence to the City's request to process a minor amendment to the MHSCP to address the proposed access via Warner Lane to parcels impacted by the interchange project footprint.

I have attached the City memo dated October 16, 2023, that was utilized when asking for agency concurrence of the request to utilize the minor amendment to the MSHCP per the City's meeting with the agencies on September 21, 2023.

Please let me know if further discussion is necessary at this time.

Respectfully,

Bob Moehling, P.E.

Director of Public Works/City Engineer
City of Murrieta
1 Town Square
Murrieta, CA 92562
951-461-6036
bmoehling@MurrietaCA.gov
http://www.murrietaca.gov

City Hall Hours: Monday to Friday, 8 a.m. – 5 p.m.
I currently work M – TH, 7 AM to 6 PM, and I am out of the office on Fridays.

From: Leslie Levy <LLevy@RCTC.org>
Sent: Tuesday, November 28, 2023 3:34 PM
To: Moehling, Bob <BMoehling@MurrietaCA.gov>; Ramaiya, Jarrett <jramaiya@MurrietaCA.gov>
Cc: Tricia Campbell <TCampbell@RCTC.org>; Aaron Gabbe <AGabbe@RCTC.org>; carly.beck@wildlife.ca.gov; Thiede, James H <james_thiede@fws.gov>; karin_cleary-rose@fws.gov
Subject: RE: I-215 & KELLER ROAD INTERCHANGE PROJECT – MSHCP MINOR AMENDMENT PROPOSAL

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Bob,

Thank you for your patience. This email is a collective response from the RCA, CDFW, and USFWS. Thank you for attending the RCA/Wildlife Agency monthly meeting on September 21, 2023. We appreciate the high-level, conceptual project information presented by the City of Murrieta during the meeting. From what we understood of the project information presented and meeting discussion, we are in support of the City pursuing a minor amendment, in accordance with procedures outlined in the MSHCP, as the presented project concepts preliminarily appeared to be reasonable and with a minor amendment, could align with the goals of the MSHCP.

We look forward to reviewing the documentation in support of a minor amendment. If you have any questions regarding the minor amendment process or during the preparation of the required documentation, please contact Tricia Campbell (RCA; tcampbell@rctc.org), Carly Beck (CDFW; carly.beck@wildlife.ca.gov), or James Thiede (USFWS; james_thiede@fws.gov). They are Cc'd on this email.

Thank you!

Leslie Levy
Senior Management Analyst
RCA/Riverside County Transportation Commission
951.787.7141 Main | 951.212.2332 Mobile
Email: LLevy@rctc.org
Mail: RCTC/RCA - PO Box 12008, Riverside, CA 92502
rctc.org | wrc-rca.org

If you are emailing a JPR/PSE application submittal, the following staff need to be included on your email: Tricia Campbell (tcampbell@rctc.org), Carol Thompson (cthompson@rctc.org), Britney Schultz (bschultz@dudek.com), and Leslie Levy (llevy@rctc.org).

Tricia A. Campbell
Regional Conservation Deputy Director
RCA/Riverside County Transportation Commission
Mail: RCTC/RCA - PO Box 12008,
Riverside, CA 92502
951.787.7141 Main
951.955.8805 Direct
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tcampbell@rctc.org

Carly Beck
Senior Environmental Scientist (Supervisor)
Inland Deserts Region
California Department of Fish and Wildlife
3602 Inland Empire Blvd., Suite C-220
Ontario, CA 91764
951-218-2940
carly.beck@wildlife.ca.gov

James Thiede
Endangered Species Biologist
U.S. Fish and Wildlife Service
777 East Tahquitz Canyon Way, Suite 208
Palm Springs, California 92262
(760) 322-2070 x419
james_thiede@fws.gov

From: Moehling, Bob <BMoehling@MurrietaCA.gov>
Sent: Thursday, October 19, 2023 3:04 PM
To: Leslie Levy <LLevy@RCTC.org>; Tricia Campbell <TCampbell@RCTC.org>; Aaron Gabbe <AGabbe@RCTC.org>; Carol Thompson <CThompson@RCTC.org>
Cc: karin_cleary-rose@fws.gov; carly.beck@wildlife.ca.gov; Ramaiya, Jarrett <jramaiya@MurrietaCA.gov>
Subject: [EXTERNAL] I-215 & KELLER ROAD INTERCHANGE PROJECT – MSHCP MINOR AMENDMENT PROPOSAL

Leslie,

I understand that you are fielding inquiries for some of Tricia's items at RCTC/RCA.

I am trying to provide some meeting notes regarding the September 21, 2023, meeting with the agencies and the City of Murrieta- specifically to gain concurrence on the proposal by the City to pursue a Minor Amendment of the MSHCP regarding a swap of Covered Activity (swap existing coverage of Warm Springs Parkway for proposed Warner Lane Access area) per the attached memo.

I know the City received verbal concurrence during the meeting and I would like to get written concurrence (for the project file) from RCTC and the agencies on the swap proposal to provide to Caltrans for inclusion in the Keller Interchange environmental document and to provide to Caltrans the vehicle the City is proposing to provide access to future landlocked parcels due to the interchange footprint.

Happy to discuss further on a phone call or Teams meeting , if needed.

I believe an email response would be sufficient.

Respectfully,

Bob Moehling, P.E.
Director of Public Works/City Engineer
City of Murrieta
1 Town Square
Murrieta, CA 92562
951-461-6036
bmoehling@MurrietaCA.gov
http://www.murrietaca.gov

I currently work M – TH, 7 AM to 6 PM, and I am out of the office on Fridays.

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Carlsbad Fish And Wildlife Office
2177 Salk Avenue - Suite 250
Carlsbad, CA 92008-7385
Phone: (760) 431-9440 Fax: (760) 431-5901

In Reply Refer To: 05/19/2025 21:21:08 UTC
Project Code: 2025-0098752
Project Name: I-215/Keller New Interchange

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A biological assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological

evaluation similar to a biological assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a biological assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found at the Fish and Wildlife Service's Endangered Species Consultation website at:

https://www.fws.gov/service/esa-section-7-consultation

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts, see https://www.fws.gov/program/migratory-bird-permit/what-we-do.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures, see https://www.fws.gov/library/collections/threats-birds.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit https://www.fws.gov/partner/council-conservation-migratory-birds.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Carlsbad Fish And Wildlife Office
2177 Salk Avenue - Suite 250
Carlsbad, CA 92008-7385
(760) 431-9440

PROJECT SUMMARY

Project Code: 2025-0098752
Project Name: I-215/Keller New Interchange
Project Type: Road/Hwy - New Construction
Project Description: New Interchange at Interstate 215 and Keller Road in the City of Murrieta
Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@33.62780295,-117.17113916760252,14z



Counties: Riverside County, California

ENDANGERED SPECIES ACT SPECIES

There is a total of 18 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
San Bernardino Merriam's Kangaroo Rat *Dipodomys merriami parvus* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2060	Endangered
Stephens' Kangaroo Rat *Dipodomys stephensi (incl. D. cascus)* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/3495	Threatened

BIRDS

NAME	STATUS
Coastal California Gnatcatcher *Polioptila californica californica* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8178	Threatened
Least Bell's Vireo *Vireo bellii pusillus* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5945	Endangered

REPTILES

NAME	STATUS
Southwestern Pond Turtle *Actinemys pallida* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4768	Proposed Threatened

INSECTS

NAME	STATUS
Monarch Butterfly *Danaus plexippus* There is **proposed** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/9743	Proposed Threatened
Quino Checkerspot Butterfly *Euphydryas editha quino (=E. e. wrighti)* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5900	Endangered

CRUSTACEANS

NAME	STATUS
Riverside Fairy Shrimp *Streptocephalus woottoni* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8148	Endangered
Vernal Pool Fairy Shrimp *Branchinecta lynchi*	Threatened

NAME STATUS

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.
Species profile: https://ecos.fws.gov/ecp/species/498

FLOWERING PLANTS

NAME STATUS

California Orcutt Grass *Orcuttia californica* Endangered
No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/4923

Munz's Onion *Allium munzii* Endangered
There is **final** critical habitat for this species. Your location does not overlap the critical habitat.
Species profile: https://ecos.fws.gov/ecp/species/2951

Nevin's Barberry *Berberis nevinii* Endangered
There is **final** critical habitat for this species. Your location does not overlap the critical habitat.
Species profile: https://ecos.fws.gov/ecp/species/8025

San Diego Ambrosia *Ambrosia pumila* Endangered
There is **final** critical habitat for this species. Your location does not overlap the critical habitat.
Species profile: https://ecos.fws.gov/ecp/species/8287

San Diego Button-celery *Eryngium aristulatum var. parishii* Endangered
No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/5937

San Jacinto Valley Crownscale *Atriplex coronata var. notatior* Endangered
There is **final** critical habitat for this species. However, no *actual* acres or miles were designated due to exemptions or exclusions. See Federal Register publication for details.
Species profile: https://ecos.fws.gov/ecp/species/4353

Slender-horned Spineflower *Dodecahema leptoceras* Endangered
No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/4007

Spreading Navarretia *Navarretia fossalis* Threatened
There is **final** critical habitat for this species. Your location does not overlap the critical habitat.
Species profile: https://ecos.fws.gov/ecp/species/1334

Thread-leaved Brodiaea *Brodiaea filifolia* Threatened
There is **final** critical habitat for this species. Your location does not overlap the critical habitat.
Species profile: https://ecos.fws.gov/ecp/species/6087

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

Chapter 5 List of Preparers

The following persons were primarily responsible for preparation of this Draft EIR/EA and supporting technical studies.

5.1 California Department of Transportation

Amy Lee, Environmental Scientist, Environmental Studies

Antonia Toledo, Senior Environmental Planner; Branch Chief, Environmental Studies

Bahram Karimi, Associate Environmental Planner/Paleontology Coordinator

Dicken Everson, Principal Investigator Prehistoric and Historical Archaeology PQS.

Donald Cheng, Transportation Engineer, Environmental Engineering

Farhana Islam, Civil Transportation Engineer, Environmental Engineering

Fatima Islam, Transportation Engineer (Civil), Environmental Engineering

Gary Jones, Acting Branch Chief—Environmental Cultural Studies.

Hannah Duarte, Environmental Scientist, Environmental Studies

Laila Imbasher, Environmental Scientist, Environmental Studies

Maggi Elgizery, Environmental Scientist, Biological Studies and Surveys

Nicholas Thompson, Cultural Studies

Olufemi A. Odufalu, Senior Transportation Engineer, Environmental Engineering

Ronn Knox, Associate Environmental Planner, Biological Studies and Surveys

5.2 City of Murrieta

Bob Moehling, Director of Public Works/City Engineer

John Anisko, GIS Analyst

5.3 City of Menifee

Diego Guillen, PE, QSD/QSP, Senior Engineer

Kohl Haessly, GIS Technician, Information Technology Department

5.4 Dudek and Associates

Andrew Greis, Geographic Information Systems

Brad Comeau, Principal Investigator Prehistoric and Historical Archaeology

Danielle Mullen, Biologist

Heather McDaniel McDevitt, Archaeologist

Johanna Page, Biologist

Josh Saunders, Environmental Planner

Michael L. Sweesy, Landscape Architect

Patrick Hadel, Lead Archaeological Surveyor

Paul Caligiuri, Senior Designer/3D Simulations

Sarah Siren, Paleontologist

Veronika Archer, Senior Biologist

5.5 Iteris, Inc.

Deepak Kaushik, Registered Professional Engineer

5.6 Jacobs

Alan Bradford, Senior Geologist Project Manager

Alfredo Cabrera Ventura, PE, Transportation/Traffic Engineer

Andy Priest, Geographic Information Systems Analyst

Brenda Weith, Senior Environmental Project Manager

Carl Rykaczewski, Senior Environmental Project Manager

Dan Jankly, CEG, Senior Engineering Geologist

Dana Regusa, Air Quality Specialist

Dave Golles, Senior Hazardous Waste Specialist

Elizabeth Giffen, Environmental Planner

Hong Zhuang, Air Quality Engineer

Jason Walsh, Senior Environmental Planner

Jeremy Hollins, Senior Cultural Resources Specialist/Architectural Historian

Joe Aguirre, Environmental Planner

Joe Gonzalez, ROW Manager

Joe D'Onofrio, Senior Air Quality Engineer

Joza Burnam, Noise Specialist/Environmental Planner

Julie Froelich, Environmental Project Manager

Kathryn Hoagland, Environmental Planner

Keith Dewey, AICP, Senior Planner/Project Manager

Kirsten Garrison, Environmental Planner

Loren Bloomberg, PE, Senior Transportation/Traffic Engineer

Loretta Meyer, Senior Environmental Planner

Matthew Steinkamp, Paleontologist

Melissa Williams, Senior Biologist, Senior Environmental Planner

Patricia Steinholz, Senior Visual Resources Specialist

Paul Gamarra, Environmental Planner

Robert Henderson, PE, Senior Water Engineer

Ryan Luong, PE, Hydrology/Water Quality Engineer

Shannon Crossen, Senior Biologist

Steve Henderson, PE, Project Manager

Thu Luu, PE, Project Engineer

Tiffany Nguyen, Environmental Planner

5.7 Leighton Consulting, Inc.

Zachary Freeman, Project Geologist

Robert Riha, Senior Principal Geologist

Simon Saiid, Principal Engineer

Chapter 6 Distribution List

6.1 Agencies

6.1.1 Federal Agencies

U.S. Army Corps of Engineers,
Los Angeles District
Attention: CESPL-CO-R
915 Wilshire Boulevard, Suite 1101
Los Angeles, CA 90017

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6.1.3 Regional Agencies

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Kurt Wilson
Western Riverside Council of Governments
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Chad Bianco, Sheriff-Coroner
County of Riverside
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David Gibson
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Department of Environmental Health
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County of Riverside
Transportation Commission
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County of Riverside
Transportation & Land Management Agency
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6.1.4 Local Agencies

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City of Menifee, Police Department
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Menifee, CA 92586

Jarrett Ramaiya, City Planner
City of Murrieta, Department of Planning
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Murrieta, CA 92562

Sarah Manwaring, City Clerk
City of Menifee, Department of City Clerk
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Lonny Olson, Division Chief
City of Menifee, Fire Department
29844 Haun Road
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City of Menifee, Department of Community Services
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City of Menifee, Community Development Department
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City of Riverside
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City of Murrieta, Department of Parks & Recreation
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29844 Haun Road
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Anthony Conrad, Police Chief
City of Murrieta, Police Department
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6.1.5 Interested Groups, Organizations, and Individuals

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6.2 Federal Legislators

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Senator Alex Padilla
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Los Angeles, CA 90012

Representative Ken Calvert
District 42
400 South Vicentia Avenue,
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6.3 State Legislators

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California State Senate 28th District
25186 Hancock Avenue, Suite 320
Murrieta, CA 92562

Kelly Seyarto, State Representative
California State Assembly 67th District
41391 Kalmia Street, Suite 220
Murrieta, CA 92562

6.4 Local Elected Officials

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Murrieta, CA 92562

Bill Zimmerman, Mayor
City of Menifee
29844 Haun Road
Menifee, CA 92586

Chuck Washington, County
Supervisor
County of Riverside
Third Supervisorial District
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6.5 Utilities and Emergency Services

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3073 Adams Street
Riverside, CA 92504

Eastern Municipal Water District
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Perris, CA 92572-8300

Southern California Edison
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24487 Prielipp Drive
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Rincon Band of Luiseño Indians
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Native American Tribal Councils
Inter-Tribal Council of California
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Morongo Band of Mission Indians
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Chapter 7 References

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Murrieta, California. District 8-RIV-215(PM R14.10/R15.26), EA: 0Q220 Project No. 0800020339. March.

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California Department of Transportation (Caltrans). 2024g. Technical Report Addendum Memorandum, Hazardous Waste, I-215/Keller Road from Zeiders Road to Menifee Road/Whitewood Road, City of Murrieta, California. District 8-RIV-215 (PM R14.10/R15.26), EA: 0Q220 Project No. 0800020339. February.

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Appendix A Resources Evaluated Relative to the Requirements of Section 4(f): No Use Determination

Appendix A Resources Evaluated Relative to the Requirements of Section 4(f): No Use Determination

A.1 Introduction

Section 4(f) of the Department of Transportation Act of 1966, codified in federal law at 49 United States Code (USC) 303, declares that "it is the policy of the United States Government that special effort should be made to preserve the natural beauty of the countryside and public park and recreation lands, wildlife and waterfowl refuges, and historic sites."

This appendix discusses parks, recreational facilities, wildlife refuges, and historic properties found within or next to the project area that do not trigger Section 4(f) protection because: (1) they are not publicly owned, (2) they are not open to the public, (3) they are not eligible historic properties, or (4) the Interstate 215 (I-215)/Keller Road New Interchange Project (proposed Project) does not permanently use the property and does not hinder the preservation of the property.

A.2 Project Description

In cooperation with the California Department of Transportation (Caltrans) District 8, the County of Riverside, and the City of Menifee, the City of Murrieta proposes to construct a new full interchange and auxiliary lanes at the I-215 and Keller Road in Riverside County, California.

The existing I-215 freeway within the proposed Project area consists of six 12-foot lanes, 22-foot medians, and standard outside shoulders. The existing I-215 undercrossing at Keller Road was widened at the center median in conjunction with the construction of the Riverside County Transportation Commission's (RCTC's) I-215 widening project (EA 08-0F1614). This project added one mixed-flow lane in each direction from Murrieta Hot Springs Road to Scott Road, and was completed in November 2013.

The existing Keller Road is a two-lane undercrossing with no direct connections to the freeway. West of Antelope Road, Keller Road is a two-lane paved roadway

with no curb and gutter or sidewalk. East of Antelope Road, Keller Road is a two-lane paved roadway with dedicated left- and right-turn lanes onto Antelope Road. This roadway section includes curbs and gutters and sidewalks on the northern side of Keller Road. The Keller Road/Antelope Road intersection is signalized, and includes Americans with Disabilities Act-compliant curb returns.

The proposed Project would construct a new full interchange and auxiliary lanes at the I-215 and Keller Road. The Keller Road interchange would be 2.0 miles north of the Clinton Keith Road overcrossing/interchange and 1.0 miles south of the Scott Road overcrossing/interchange. The proposed Project also includes widening and/or striping along Keller Road between Zeiders Road to the west and to Whitewood/Menifee Road to the east.

A.3 Purpose and Need

A.3.1 Purpose of the Project

The purposes of the new I-215/Keller Road interchange are as follows:

- Improve connectivity to the regional transportation system and for future economic development.
- Improve mobility and accessibility for all users between the I-215, the cities of Murrieta and Menifee, and unincorporated Riverside County.
- Improve both goods movement along Keller Road and the I-215, and emergency response times to the medical hospital east of the interchange by reducing delays at intersections.
- Improve local road access to the I-215 in the proposed Project site.
- Promote equitable, accessible, and sustainable travel options by providing multimodal facilities traversing the proposed Project site, such as continuous facilities for pedestrian and bicycle traffic, which include new sidewalks and Class II bicycle lanes.
- Improve safety for the new interchange and along Keller Road, by providing new lighting, curb and gutter, sidewalks, and standard vertical clearance under the Keller Road undercrossing.

- Provide interregional continuity and consistency with Caltrans' *District 8 Active Transportation Plan 2022* (Caltrans 2022d), the Southern California Association of Governments' (SCAG's) *Regional Transportation Plan* [RTP] and *Sustainable Communities Strategy* [SCS] (also known as Connect SoCal), and the County of Riverside Integrated Project Plans for the cities of Murrieta and Menifee, and Riverside County.

A.3.2 Need for the Project

The I-215/Keller Road interchange is needed based on the following key factors:

- Forecast population growth and future economic development in the proposed Project vicinity, such as the North Murrieta Business Corridor Focus Area, would result in operational challenges at existing adjacent interchanges.

- Consistent with the adopted land use plans for the cities of Murrieta and Menifee and Riverside County, planned development in the proposed Project vicinity is anticipated to require infrastructure improvements to accommodate future growth (for example, the development of the Kaiser Permanente Murrieta Medical Campus and Murrieta Hills Community). Operational challenges at Keller Road and the I-215/Clinton Keith, and I-215/Scott Road interchanges are anticipated, based on forecast population growth and planned development.

- Pedestrian and multimodal accessibility and connectivity are limited in the proposed Project site. There are locations without sidewalks and areas where existing sidewalks and bicycle lanes are discontinuous. Such limitations could increase both community reliance on vehicular travel to access goods and services and traffic delays in the future.

The proposed Project will improve safety, enhance regional connectivity, promote equitable and sustainable multimodal travel options, minimize the degradation of the existing I-215 corridor, and increase vehicle and person throughput.

As discussed in the City of Murrieta's current *General Plan* (adopted July 7, 2020), its population grew from 24,334 in 1992 to 110,949 in 2020, approximately quadrupling in size. The area south of Keller Road is identified as the North Murrieta Business Corridor Focus Area. The corridor is anticipated to add an additional 1.7 million square feet (sq. ft.) of commercial uses. It is also anticipated to add 7.7 million sq. ft. of office and research uses to create a medical corridor

and a high technology/office/ research employment center, along with commercial uses that support business and employment needs, such as restaurants and hotels. A traffic demand of more than 195,000 vehicles per day is forecast along the I-215 corridor in 2047 within the proposed Project limits.

It is forecast that there will be a traffic demand of more than 195,000 vehicles per day in year 2047 along the I-215 corridor within the proposed Project limits.

A.4 Alternatives

Four alternatives, including Alternative 1 (the No-Build Alternative), have been identified for further consideration.

A.4.1 Alternative 1 – No-Build Alternative

The No-Build (No-Action) Alternative (referred to as Alternative 1 [No-Build Alternative] in this EIR/EA) assumes no improvements would be made to the freeway mainline or the existing Keller Road interchange. Without the planned improvements proposed as part of the proposed Project, traffic operations at the interchange would continue to worsen over time from increased demand from new development in the vicinity of the proposed Project. According to the City of Murrieta's *General Plan* (City of Murrieta 2020a), traffic demand is forecast to exceed 195,000 vehicles per day by 2047. The level of service (LOS) for the freeway and local street circulation system would continue to deteriorate. By the year 2047, 9 of the 13 local street intersections within the proposed Project limits are anticipated to operate at LOS E or worse during the morning (a.m.) or afternoon/evening (p.m.) peak-hour period. Five of the 13 local street intersections would also be noncompliant with the Riverside County Congestion Management Program's minimum LOS E requirement. Build Alternative 1 would not enhance nonmotorized and pedestrian features within the proposed Project site. Overall, Alternative 1 would not meet or satisfy the proposed Project purpose and need.

A.4.2 Alternative 2 – Spread Diamond Interchange (Type L-2)

Build Alternative 2 proposes to construct a spread diamond interchange at the existing I-215 undercrossing of Keller Road and auxiliary lanes on the I-215. The proposed improvements under Build Alternative 2 include the construction of northbound (NB) and southbound (SB) on- and off-ramps to and from the I-215 mainline, a NB auxiliary lane from the Keller Road NB on-ramp, a SB auxiliary

lane to the Keller Road SB off-ramp, and a SB auxiliary lane from the Keller Road SB on-ramp. Figure 1.3-1 shows these improvements.

A.4.3 Alternative 3 – Partial Cloverleaf Interchange (Type L-9)

Build Alternative 3 proposes to construct a partial cloverleaf interchange at the existing I-215 undercrossing of Keller Road and auxiliary lanes on the I-215. The proposed improvements under Build Alternative 3 include the construction of NB on- and off-ramps to and from the I-215 mainline (including a NB loop on-ramp at the southeastern quadrant), SB on- and off-ramps to and from the I-215 mainline (including a SB loop on-ramp at the northwestern quadrant), a NB auxiliary lane from the Keller Road NB on-ramp, a SB auxiliary lane to the Keller Road SB off-ramp, a SB auxiliary lane from the Keller Road SB on-ramp, and the widening of the existing I-215/Keller Road undercrossing to accommodate the proposed ramps. Figure 1.3-2 shows these improvements.

A.4.4 Alternative 5 – Compact Diamond (Type L-1)

Build Alternative 5 proposes to construct a compact diamond interchange with double roundabouts at the ramp intersections at the existing Keller Road undercrossing at the I-215 and auxiliary lanes on the I-215. The proposed improvements under Build Alternative 5 include the construction of NB and SB on- and off-ramps at Keller Road in a double roundabout configuration, a NB auxiliary lane from the Keller Road NB on-ramp, and a SB auxiliary lane to the Keller Road SB off-ramp, as well as the widening of the existing I-215/Keller Road undercrossing to accommodate the proposed ramps. Figure 1.3-3 shows these improvements.

A.4.5 Common Design Features of the Build Alternatives (Alternatives 2, 3, and 5)

The following are design features common to the three proposed build alternatives.

- Antelope Road, adjacent to the I-215, would become a dead-end south of Mapleton Avenue/Antelope Road, and would be turned into a cul-de-sac south of Brians Way/Antelope Road to accommodate the proposed Keller Road NB off- and on-ramps.
- The Scenic Drive intersection with Keller Road would be removed to accommodate the proposed interchange.

- New retaining walls would be constructed to accommodate widening below the I-215 bridge structure and at the NB off-ramp to Keller Road.
- Access to several properties along Antelope Road between Keller Road and Brians Way would be removed due to construction of the NB off- and on-ramps. Access to these properties would be reestablished via construction of a new 1,600-foot cul-de-sac. The entrance to the new access road would be located at Warner Road, across from the Mapleton Avenue/Keller Road intersection.
- Keller Road would be widened from Zeiders Road to 265 feet west of Pamplona Avenue. Only traffic striping would occur along Keller Road from Pamplona Avenue to Whitewood Road.

A noise and light barrier measuring approximately 1,430 feet in length from the western side of I-215 would be constructed to minimize impacts on wildlife. The barrier would consist of an earthen berm varying in width from 31 to 45 feet. Erosion control measures would be implemented to maintain the integrity of the berm.

A.5 Resources Evaluated Relative to the Requirements of Section 4(f)

This section discusses parks, recreational facilities, wildlife refuges, and historic properties evaluated for potential Section 4(f) impacts.

Potential Section 4(f) properties within a half-mile radius of the proposed Project limits are listed in Table A-1, which identifies the type of resource, jurisdiction, distance of the property from the project limits, address, and amenities. The locations of existing parks and recreation properties are provided on Figure 2.1-5, Parks and Recreation.

Reasons for historic properties not triggering Section 4(f) protection are because: (1) they are not publicly owned, (2) they are not open to the public, 3) they are not eligible historic properties, (4) the project does not permanently use the property and does not hinder the preservation of the property, or (5) the proximity impacts do not result in constructive use. The properties are described below, with a detailed explanation of why they are not eligible for protection under Section 4(f).

Table A-1. Potential Section 4(f) Properties within the Project Study Area

Jurisdiction	Name	Location	Approximate Distance from the Project	Type	Amenities
City of Murrieta	Mapleton Park and Trail	28586 Poinsettia Street, Murrieta, CA	Mapleton Park and Trail are approximately 0.45 mile outside the proposed Project site.	Park	9.3-acre park, barbecue, open grass area, parking lot, picnic tables, restrooms, shelter, tot lot, fountain, basketball court, soccer field, softball field, volleyball court, 1.90-mile bicycle path/fitness trail; trail access
City of Murrieta	Mapleton Fitness Route	East of the I-215, north of Keller Road along local roadways and within Mapleton Park. Primary access from Mapleton Park via parking lot along Poinsettia Way (between Basswood Way and Daffodil Way).	A portion of the fitness route is within the proposed Project site along Keller Road. Most of the fitness route is outside the proposed Project site, along other local roadways.	Trail	3.19-acre fitness route (portions overlap with Mapleton Park and Trail – see amenities above)
City of Murrieta	Springbrook Park	28360 Sevilla Street, Murrieta, CA	Springbrook Park is within the proposed Project site, just south of Keller and west of Meadowlark Lane	Park	0.5-acre park, barbecues, open grass areas, picnic table/benches, tot lot/playground, water fountain
Western Riverside County Regional Conservation Agency	Parks and Open Space-designated area	Southeast corner of Brians Way/Antelope Road	The conservation area is adjacent (48 feet south of the proposed Project site) but outside the proposed Project site.	Open space	52-acre rectangular area, undeveloped; planned for MSHCP conservation

Jurisdiction	Name	Location	Approximate Distance from the Project	Type	Amenities
Caltrans, Private Ownership	Confidential	Southwest quadrant of proposed Project footprint; south of Keller Road and west of I-215	Within proposed Project site.	Cultural resource	Cultural Resource
City of Murrieta	Bike Lane/Multipurpose Trail	Existing Class II and III bike lanes on Keller Road, west of the I-215.	Within proposed Project site along Keller Road.	Trail, bicycle lane	Existing Class II bicycle lane on Keller Road east of I-215 Proposed Class I bicycle lane and multipurpose trail along Keller Road east of I-215

Sources: Google Earth Pro 2019; City of Murrieta 2006, 2023, n.d.; City of Menifee 2013

MSHCP = Multiple Species Habitat Conservation Plan

A.5.1 Public Parks and Recreation Facilities,

A bike/hiking trail in the southwestern quadrant of the proposed Project study area, referred to in Google Earth as Keller Trail or Greer Ranch Trail, and accessed from Scenic View Drive, was considered relative to Section (4f); however this trail is located on private land and therefore does not qualify as a Section 4(f) resource.

There are two community parks, a trail, and a fitness route within the City of Murrieta in the vicinity of the proposed Project:

- **Mapleton Park and Trail.** This community park and trail are located east of the I-215 and approximately 0.2 mile north of Keller Road from the proposed Project alignment (excluding striping). Mapleton Park is an approximately 9.3-acre park that includes an amphitheater, barbeque areas, open grass areas, picnic tables, park benches, a soccer field, a softball field, a volleyball court, a playground, a bicycle path/walking trail, and a remote-control park (MyMurrieta 2023; City of Murrieta 2020b). Mapleton Trail is the bicycle path/walking trail extending east and west of Mapleton Park a total of 1.05 miles. Mapleton Park and Trail can be accessed via a main parking lot off Poinsettia Street. Additional access to Mapleton Park and Trail is provided from various local streets in the surrounding community between Basswood Way and Daffodil Way. This park and trail is 0.22 mile from the proposed construction area, and the proposed Project would not require occupancy or involve temporary or permanent incorporation of this park and recreational resource. Therefore, proposed Project-related impacts would not occur and no Section 4(f) use would occur.

- **Mapleton Fitness Route.** Mapleton Fitness Route is a 3.19-mile route that is located within the proposed Project footprint along Keller Road. Mapleton Fitness Route extends along local roadways in Murrieta communities surrounding Mapleton Park, including along designated trail and bicycle path routes along Keller Road (City of Murrieta 2023). Mapleton Fitness Route overlaps the existing bicycle path along Keller Road east of the I-215, which is part of the proposed Class I bicycle path and multipurpose trail identified in both the Circulation and the Recreation & Open Space Elements of the City of Murrieta's *General Plan* (City of Murrieta 2020a). Class I bicycle paths primarily used for recreation purposes meet the definition of a Section 4(f) resource; however, trails, paths, bikeways, and sidewalks that function

primarily for transportation as part of the local transportation system are considered exempt per 23 *Code of Federal Regulations* (CFR) 774.13(f)(4). Despite the use of Keller Road east of the I-215 for a bicycle path and pedestrian fitness route, Keller Road serves primarily as a transportation route for no-motorized travel, and would be considered nonrecreational. Mapleton Fitness Route along Keller Road is considered a part of the local transportation system, and functions primarily for transportation; therefore, it is not considered a Section 4(f) property. As such, the proposed Project would not result in a Section 4(f) use.

- **Springbrook Park.** This community park is at the intersection of Keller Road and Meadowlark Lane, approximately 0.21 mile from the proposed Project site boundary, excluding striping (City of Murrieta 2020b, n.d.b.) Springbrook Park is a 0.5-acre community park with a tot lot and playground, open grass areas, and benches. Springbrook Park can be accessed via Sevilla Street/Albacete Avenue and Meadowlark Lane via Keller Road. This park is 0.21 mile from the proposed construction area, and the proposed Project would not require occupancy or involve the temporary or permanent incorporation of this park and recreational resource. Therefore, proposed Project-related impacts would not occur and no Section 4(f) use would occur.

A.5.2 Open Space Areas

There are two areas designated for open space in the vicinity of the proposed Project. There is an approximately 52-acre rectangular area, adjacent to the I-215, southeast of the proposed Project site, at Brians Way and Antelope Road. This land is designated by the City of Murrieta as Parks and Open Space (City of Murrieta 2020a), and was acquired by the Western Riverside County Regional Conservation Authority for MSHCP conservation, as described in the *Natural Environmental Study* (Dudek 2021).

The City of Murrieta has designated parks and open space as part of the MHCSP Amendment area, which is adjacent to the I-215, southwest of the proposed Project site. The MHSP Amendment area proposes mixed-use development. Within the 971.8-acre MHSP Amendment area, there are three primary open space areas proposed on 652 acres: an MSHCP natural open space preserve, a linear nature park, and non-MSHCP open space. The MHSP Amendment area is partially bound by Keller Road to the north and by the I-215 to the east. (City of

Murrieta 2020a, 2021). There are no Riverside County park and recreational uses in the proposed Project vicinity.

A.5.3 National Register Eligible Properties

In addition to public-owned parks, analyses considered historic properties for the built environment identified as part of the *Historic Properties Survey Report* (Dudek 2022b), as they relate to Section 4(f) resources. In coordination with Caltrans Professionally Qualified Staff, it was determined that there is one historic property within the proposed Project site. This historic property is considered a Section 4(f) resource that may be affected by the proposed Project. An archaeological site would not be considered subject to Section 4(f) if, after consultation with State Historic Preservation Officer (SHPO), Caltrans made one of the following determinations: (1) the use of the site does not adversely affect the integrity of the archaeology site and (2) the use is limited to a portion of the archaeological district that is (1) chiefly important for what can be learned by data recovery and (2) has minimal value for preservation in place.

As discussed in the *Historic Property Survey Report* (Dudek 2022b), the construction and operation of the Build Alternative would not result in a use or easement of these properties. Construction activities near the historic property would consist of installing fill up to 12 feet above the existing grade, transporting construction equipment through part of the site, and grading up to 18 feet below current grade near, but outside, the site. All construction activities near this historic site would be performed within the existing Caltrans right-of-way (ROW). This historic site has been determined to be eligible for listing in the California Register of Historic Resources (CRHR) under Criteria 3 (rock art and rock shelters) and 4 (data potential) (Caltrans 2021). For this undertaking, the site is presumed eligible for listing in the National Register of Historic Places under Criteria C and D for the same reasons. The portion of historic property existing within the Area of Direct Impact was previously disturbed during the construction of the I-215 during the 1970s.

A Finding of No Adverse Effect – without Standard Conditions (FNAE-No SC) report was prepared and included as part of the *Historic Property Survey Report* (Dudek 2022b). This FNAE-No SC included an Environmentally Sensitive Area (ESA) Action Plan to protect this historic property during proposed Project construction. Effects to the site, consisting of cut/fill grading activities, would be confined to a portion of the site that was graded during the 1970s and that does

not contain character-defining features that convey the significance of the site under any criteria of the National Register of Historic Places or CRHR.

There is one previously recorded archaeological site, prehistoric habitation site CA-RIV-645, within the area of potential effects and is eligible for listing in the CRHR. This site was revisited during the current survey, and one milling feature was relocated just outside the proposed Project's area of direct impacts. No other artifacts or features were noted within the proposed Project's area of direct impacts. Proposed Project grading would take place on previously disturbed soils or in fill deposits, and would not go deep enough to reach buried cultural deposits if such deposits existed. The proposed Project would not result in direct or indirect impacts on the identified archaeological site, and would not result in a Section 4(f) use.

A.5.4 Regional and Local Bike Routes

Existing and planned bicycle lanes are within the study area along Keller Road, with existing marked lanes east of the I-215. In Murrieta, Keller Road east of the I-215 is identified as a proposed Class II: On-Road Striped Bike Lane. In Menifee, Keller Road west of the I-215 is identified as Subregional Route – On-Street Bike Lane (Class II) and a Class III Bike Route. Based on the SCAG bicycle route mapping, these bicycle routes are connected to a larger regional bicycle network (City of Murrieta 2020a, City of Menifee 2013, SCAG 2023).

The existing bicycle path along Keller Road, east of the I-215, is part of the proposed Class I bicycle path and multipurpose trail identified in both the Circulation and the Recreation & Open Space Elements of the City of Murrieta *General Plan* (City of Murrieta 2020a). Class I bicycle paths primarily used for recreation purposes meet the definition of a Section 4(f) resource; however, trails, paths, bikeways, and sidewalks that function primarily for transportation as part of the local transportation system are considered exempt per 23 CFR 774.13(f)(4). The existing bicycle path east of the I-215 along Keller Road serves primarily as a transportation route for nonmotorized travel, and would be considered nonrecreational. This bicycle path is considered a part of the local transportation system, and functions primarily for transportation; therefore, it is not considered a Section 4(f) property. As such, the proposed Project would not result in a Section 4(f) use.

Appendix B Title VI/Non-Discrimination Policy Statement

California Department of Transportation

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September 2024

TITLE VI/NON-DISCRIMINATION POLICY STATEMENT

It is the policy of the California Department of Transportation (Caltrans), in accordance with Title VI of the Civil Rights Act of 1964 and the assurances set forth in the Caltrans' Title VI Program Plan, to ensure that no person in the United States shall on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance. Related non-discrimination authorities, remedies, and state law further those protections, including sex, disability, religion, sexual orientation, age, low income, and Limited English Proficiency (LEP).

Caltrans is committed to complying with 23 C.F.R. Part 200, 49 C.F.R. Part 21, 49 C.F.R. Part 303, and the Federal Transit Administration Circular 4702.1B. Caltrans will make every effort to ensure nondiscrimination in all of its services, programs, and activities, whether they are federally funded or not, and that services and benefits are fairly distributed to all people, regardless of race, color, or national origin (including LEP). In addition, Caltrans will facilitate meaningful participation in the transportation planning process in a non-discriminatory manner.

The overall responsibility for this policy is assigned to the Caltrans Director. The Caltrans Title VI Coordinator is assigned to the Caltrans Office of Civil Rights Deputy Director, who then delegates sufficient responsibility and authority to the Office of Civil Rights' managers, including the Title VI Branch Manager, to effectively implement the Caltrans Title VI Program. Individuals with questions or requiring additional information relating to the policy or the implementation of the Caltrans Title VI Program should contact the Title VI Branch Manager at title.vi@dot.ca.gov or at (916) 639-6392, or visit the following web page: https://dot.ca.gov/programs/civil-rights/title-vi.

TONY TAVARES
Director

Appendix C **Summary of Relocation Benefits**

Appendix C – Summary of Relocation Benefits

California Department of Transportation Relocation Assistance Program

Declaration of Policy

"The purpose of this title is to establish a **uniform policy for fair and equitable treatment** of persons displaced as a result of federal and federally assisted programs in order that such persons **shall not suffer disproportionate injuries** as a result of programs designed for the benefit of the public as a whole."

The Fifth Amendment to the U.S. Constitution states, "No Person shall…be deprived of life, liberty, or property, without due process of law, nor shall private property be taken for public use without just compensation." The Uniform Act sets forth in statute the due process that must be followed in Real Property acquisitions involving federal funds. Supplementing the Uniform Act is the government-wide single rule for all agencies to follow, set forth in 49 Code of Federal Regulations (CFR) Part 24. Displaced individuals, families, businesses, farms, and nonprofit organizations may be eligible for relocation advisory services and payments, as discussed below.

Fair Housing

The Fair Housing Law (Title VIII of the Civil Rights Act of 1968) sets forth the policy of the United States to provide, within constitutional limitations, for fair housing. This act, and as amended, makes discriminatory practices in the purchase and rental of most residential units illegal. Whenever possible, minority persons shall be given reasonable opportunities to relocate to any available housing regardless of neighborhood, as long as the replacement dwellings are decent, safe, and sanitary and are within their financial means. This policy, however, does not require the Department to provide a person a larger payment than is necessary to enable a person to relocate to a comparable replacement dwelling.

Any persons to be displaced will be assigned to a relocation advisor, who will work closely with each displacee in order to see that all payments and benefits are fully utilized and that all regulations are observed, thereby avoiding the possibility of displacees jeopardizing or forfeiting any of their benefits or payments. At the time of the initiation of negotiations (usually the first written offer to purchase), owner-occupants are given a detailed explanation of the state's relocation services. Tenant occupants of properties to be acquired are contacted soon after the initiation of negotiations and also are given a detailed explanation of the Caltrans Relocation Assistance Program. To avoid loss of possible benefits, no individual, family, business, farm, or nonprofit organization should commit to purchase or rent a replacement property without first contacting a Department relocation advisor.

Relocation Assistance Advisory Services

In accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, the Department will provide relocation advisory assistance to any person, business, farm, or nonprofit organization displaced as a result of the

acquisition of real property for public use, so long as they are legally present in the United States. The Department will assist eligible displacees in obtaining comparable replacement housing by providing current and continuing information on the availability and prices of both houses for sale and rental units that are “decent, safe, and sanitary.” Nonresidential displacees will receive information on comparable properties for lease or purchase (for business, farm, and nonprofit organization relocation services, see below).

Residential replacement dwellings will be in a location generally not less desirable than the displacement neighborhood at prices or rents within the financial ability of the individuals and families displaced, and reasonably accessible to their places of employment. Before any displacement occurs, comparable replacement dwellings will be offered to displacees that are open to all persons regardless of race, color, religion, sex, national origin, and consistent with the requirements of Title VIII of the Civil Rights Act of 1968. This assistance will also include the supplying of information concerning federal and state assisted housing programs and any other known services being offered by public and private agencies in the area.

Persons who are eligible for relocation payments and who are legally occupying the property required for the project will not be asked to move without first being given at least 90 days written notice. Residential occupants eligible for relocation payment(s) will not be required to move unless at least one comparable “decent, safe, and sanitary” replacement dwelling, available on the market, is offered to them by the Department.

Residential Relocation Payments

The Relocation Assistance Program will help eligible residential occupants by paying certain costs and expenses. These costs are limited to those necessary for or incidental to the purchase or rental of a replacement dwelling and actual reasonable moving expenses to a new location within 50 miles of the displacement property. Any actual moving costs in excess of the 50 miles are the responsibility of the displacee. The Residential Relocation Assistance Program can be summarized as follows:

Moving Costs

Any displaced person, who lawfully occupied the acquired property, regardless of the length of occupancy in the property acquired, will be eligible for reimbursement of moving costs. Displacees will receive either the actual reasonable costs involved in moving themselves and personal property up to a maximum of 50 miles, or a fixed payment based on a fixed moving cost schedule. Lawful occupants who move into the displacement property after the initiation of negotiations must wait until the Department obtains control of the property in order to be eligible for relocation payments.

Purchase Differential

In addition to moving and related expense payments, fully eligible homeowners may be entitled to payments for increased costs of replacement housing.

Homeowners who have owned and occupied their property for 90 days or more prior to the date of the initiation of negotiations (usually the first written offer to purchase

the property), may qualify to receive a price differential payment and may qualify to receive reimbursement for certain nonrecurring costs incidental to the purchase of the replacement property. An interest differential payment is also available if the interest rate for the loan on the replacement dwelling is higher than the loan rate on the displacement dwelling, subject to certain limitations on reimbursement based upon the replacement property interest rate.

Rent Differential

Tenants and certain owner-occupants (based on length of ownership) who have occupied the property to be acquired by the Department prior to the date of the initiation of negotiations may qualify to receive a rent differential payment. This payment is made when the Department determines that the cost to rent a comparable "decent, safe, and sanitary" replacement dwelling will be more than the present rent of the displacement dwelling. As an alternative, the tenant may qualify for a down payment benefit designed to assist in the purchase of a replacement property and the payment of certain costs incidental to the purchase, subject to certain limitations noted under the Down Payment section below.

To receive any relocation benefits, the displaced person must buy or rent and occupy a "decent, safe and sanitary" replacement dwelling within one year from the date the Department takes legal possession of the property, or from the date the displacee vacates the displacement property, whichever is later.

Down Payment

The down payment option has been designed to aid owner-occupants of less than 90 days and tenants in legal occupancy prior to the Department's initiation of negotiations. The one-year eligibility period in which to purchase and occupy a "decent, safe and sanitary" replacement dwelling will apply.

Last Resort Housing

Federal regulations (49 CFR 24) contain the policy and procedure for implementing the Last Resort Housing Program on Federal-aid projects. Last Resort Housing benefits are, except for the amounts of payments and the methods in making them, the same as those benefits for standard residential relocation as explained above. Last Resort Housing has been designed primarily to cover situations where a displacee cannot be relocated because of lack of available comparable replacement housing, or when the anticipated replacement housing payments exceed the limits of the standard relocation procedure, because either the displacee lacks the financial ability or other valid circumstances.

After the initiation of negotiations, the Department will within a reasonable length of time, personally contact the displacees to gather important information, including the following:

- Number of people to be displaced.
- Specific arrangements needed to accommodate any family member(s) with special needs.

- Financial ability to relocate into comparable replacement dwelling which will adequately house all members of the family.

- Preferences in area of relocation.

- Location of employment or school.

Nonresidential Relocation Assistance

The Nonresidential Relocation Assistance Program provides assistance to businesses, farms and nonprofit organizations in locating suitable replacement property, and reimbursement for certain costs involved in relocation. The Relocation Advisory Assistance Program will provide current lists of properties offered for sale or rent, suitable for a particular business's specific relocation needs. The types of payments available to eligible businesses, farms, and nonprofit organizations are: searching and moving expenses, and possibly reestablishment expenses; or a fixed in lieu payment instead of any moving, searching and reestablishment expenses. The payment types can be summarized as follows:

Moving Expenses

Moving expenses may include the following actual, reasonable costs:

- The moving of inventory, machinery, equipment and similar business-related property, including: dismantling, disconnecting, crating, packing, loading, insuring, transporting, unloading, unpacking, and reconnecting of personal property. Items acquired in the right-of-way contract may not be moved under the Relocation Assistance Program. If the displacee buys an Item Pertaining to the Realty back at salvage value, the cost to move that item is borne by the displacee.

- Loss of tangible personal property provides payment for actual, direct loss of personal property that the owner is permitted not to move.

- Expenses related to searching for a new business site, up to $2,500, for reasonable expenses actually incurred.

Reestablishment Expenses

Reestablishment expenses related to the operation of the business at the new location, up to $25,000 for reasonable expenses actually incurred.

Fixed In Lieu Payment

A fixed payment in lieu of moving, searching, and reestablishment payments may be available to businesses that meet certain eligibility requirements. This payment is an amount equal to half the average annual net earnings for the last two taxable years prior to the relocation and may not be less than $1,000 nor more than $40,000.

Additional Information

Reimbursement for moving costs and replacement housing payments are not considered income for the purpose of the Internal Revenue Code of 1954, or for the purpose of determining the extent of eligibility of a displacee for assistance under the Social Security Act, or any other law, except for any federal law providing local "Section 8" Housing Programs.

Any person, business, farm or nonprofit organization that has been refused a relocation payment by the Department relocation advisor or believes that the payment(s) offered by the agency are inadequate may appeal for a special hearing of the complaint. No legal assistance is required. Information about the appeal procedure is available from the relocation advisor.

California law allows for the payment for lost goodwill that arises from the displacement for a public project. A list of ineligible expenses can be obtained from the Department's Division of Right of Way and Land Surveys. California's law and the federal regulations covering relocation assistance provide that no payment shall be duplicated by other payments being made by the displacing agency.

For more information, refer to the Division's Right of Way's Relocation Assistance program at:

http://www.dot.ca.gov/hq/row/rap/index.htm

Attachment A: Your Rights and Benefits as a Displacee Under the Uniform Relocation Assistance Program (Residential) 2014 (English and Spanish)

Attachment B: Your Rights and Benefits as a Displaced Business, Farm, or Nonprofit Organization Under the California Department of Transportation Relocation Assistance Program 2014 (English and Spanish)

Your Rights and Benefits as a Displacee Under the Uniform Relocation Assistance Program (Residential)



California Department of Transportation

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Introduction

In building a modern transportation system, the displacement of a small percentage of the population is often necessary. However, it is the policy of Caltrans that displaced persons shall not suffer unnecessarily as a result of programs designed to benefit the public as a whole.

Displaced individuals, families, businesses, farms, and nonprofit organizations may be eligible for relocation advisory services and payments.

This brochure provides information about available relocation services and payments. If you are required to move as the result of a Caltrans transportation project, a Relocation Agent will contact you. The Relocation Agent will be able to answer your specific questions and provide additional information.

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Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 As Amended "The Uniform Act"

The purpose of this Act is to provide for uniform and equitable treatment of persons displaced from their homes, businesses, or farms by federal and federally assisted programs and to establish uniform and equitable land acquisition policies for federal and federally assisted programs.

49 Code of Federal Regulations Part 24 implements the "Uniform Act" in accordance with the following relocation assistance objective:

> To ensure that persons displaced as a direct result of federal or federally-assisted projects are treated fairly, consistently and equitably so that such persons will not suffer disproportionate injuries as a result of projects designed for the benefit of the public as a whole.

While every effort has been made to assure the accuracy of this booklet, it should be understood that it does not have the force and effect of law, rule, or regulation governing the payment of benefits. Should any difference or error occur, the law will take precedence.

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Some Important Definitions...

Your relocation benefits can be better understood if you become familiar with the following terms:

Comparable Replacement: means a dwelling which is:

(1) Decent, safe, and sanitary. (See definition below)

(2) Functionally equivalent to the displaced dwelling.

(3) Adequate in size to accommodate the family being relocated.

(4) In an area not subject to unreasonable adverse environmental conditions.

(5) In a location generally not less desirable than the location of your displacement dwelling with respect to public utilities and commercial and public facilities, and reasonably accessible to the place of-employment.

(6) On land that is typical in size for residential development with typical improvements.

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Decent, Safe and Sanitary (DS&S): Replacement housing must be decent, safe, and sanitary - which means it meets all of the minimum requirements established by federal regulations and conforms to applicable housing and occupancy codes. The dwelling shall:

(1) Be structurally sound, weather tight, and in good repair.

(2) Contain a safe electrical wiring system adequate for lighting and other devices.



(3) Contain a heating system capable of sustaining a healthful temperature (of approximately 70 degrees) for a displaced person, except in those areas where local climatic conditions do not require such a system.

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(4) Be adequate in size with respect to the number of rooms and area of living space needed to accommodate the displaced person. The Caltrans policy is that there will be no more than 2 persons per room unless the room is of adequate size to accommodate the normal bedroom furnishings for the occupants.

(5) Have a separate, well-lighted and ventilated bathroom that provides privacy to the user and contains a sink, bathtub or shower stall, and a toilet, all in good working order and properly connected to appropriate sources of water and to a sewage drainage system.

Note: *In the case of a housekeeping dwelling, there shall be a kitchen area that contains a fully usable sink, properly connected to potable hot and cold water and to a sewage drainage system, and adequate space and utility service connections for a stove and refrigerator.*

(6) Contains unobstructed egress to safe, open space at ground level. If the replacement dwelling unit is on the second story or above, with access directly from or through a common corridor, the common corridor must have at least two means of egress.

(7) For a displaced person who is handicapped, be free of any barriers which would preclude reasonable ingress, egress, or use of the dwelling by *such displaced person.*

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Displaced Person or Displacee: Any person who moves from real property or moves personal property from real property as a result of the acquisition of the real property, in whole or in part, or as the result of a written notice from the agency to vacate the real property needed for a transportation project. In the case of a partial acquisition, Caltrans shall determine if a person is displaced as a direct result of the acquisition.

Relocation benefits will vary, depending upon the type and length of occupancy. As a residential displacee, you will be classified as either a:

- An owner occupant of a residential property (includes mobile homes)

- A tenant occupant of a residential property (includes mobile homes and sleeping rooms)

Dwelling: The place of permanent or customary and usual residence of a person, according to local custom or law, including a single family house; a single family unit in a two-family, multi-family, or multi-purpose property; a unit of a condominium or cooperative housing project; a non-housekeeping unit; a mobile home; or any other residential unit.

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Owner: A person is considered to have met the requirement to own a dwelling if the person purchases or holds any of the following interests in real property:

(1) Fee title, a life estate, a land contract, a 99-year lease, oral lease including any options for extension with at least 50 years to run from the date of acquisition; or

(2) An interest in a cooperative housing project which includes the right to occupy a dwelling; or

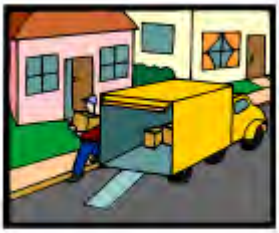
(3) A contract to purchase any interests or estates; or

(4) Any other interests, including a partial interest, which in the judgment of the agency warrants consideration as ownership.

Tenant: A person who has the temporary use and occupancy of real property owned by another.

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Moving Expenses



If you qualify as a displaced person, you are entitled to reimbursement of your moving costs and certain related expenses incurred in moving. The methods of moving and the various types of moving cost payments are explained below.

Displaced individuals and families may choose to be paid on the basis of actual, reasonable moving costs and related expenses, or according to a fixed moving cost schedule. However, to ensure your eligibility and prompt payment of moving expenses, you should contact your Relocation Agent before you move.

You Can Choose Either:

Actual Reasonable Moving Costs – You may be paid for your actual reasonable moving costs and related expenses when a commercial mover performs the move. Reimbursement will be limited to a move of 50 miles or less. Related expenses may include:

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- Transportation
- Packing and unpacking personal property.
- Disconnecting and reconnecting household appliances.
- Temporary storage of personal property.
- Insurance while property is in storage or transit.

OR

Fixed Moving Cost Schedule – You may be paid on the basis of a fixed moving cost schedule. Under this option, you will not be eligible for reimbursement of related expenses listed above. The fixed schedule is designed to cover such expenses.

Examples (Year 2014 Rate):
4 Rooms - $ 1,295
7 Rooms - $ 2,090

The Fixed Move Schedule for a furnished unit (e.g. you are a tenant of an apartment that is furnished by your landlord) is based on Schedule B.

Example (Year 2014 Rate):
1 Room - $450

A dormitory style room under the 2014 Schedule B rate would receive $125.

Under the Fixed Move Schedule, you will not receive any additional payments for temporary storage, lodging, transportation or utility hook-ups.

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Replacement Housing Payments

The type of Replacement Housing Payment (RHP) depends on whether you are an owner or a tenant, and the length of occupancy in the property being acquired.

If you are a qualified **owner occupant** of more than 90 days prior to the initiation of negotiations for the acquisition of your property, you may be entitled to a RHP that consists of:

Price Differential, and

Mortgage Differential, and

Incidental Expenses;

OR

Rent Differential

If you are a qualified **tenant occupant** of at least 90 days, you may be entitled to a RHP as follows:

Rent Differential

OR

Down payment Option

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Length of occupancy simply means counting the number of days that you actually occupied a dwelling before the date of initiation of negotiations by Caltrans for the purchase of the property. The term "initiation of negotiations" means the date Caltrans makes the first personal contact with the owner of real property, or his/ her representative, to give him/her a written offer for the property to be acquired.

Note: *If you have been in occupancy less than 90 days before the initiation of negotiations and the property is subsequently acquired, or if you move onto the property after the initiation of negotiations and you are still in occupancy on the date of acquisition, you may or may not be eligible for a Replacement Housing Payment. Check with your Relocation Agent before you make any decision to vacate your property.*

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For Owner Occupants of 90 Days or More

If you qualify as a 90-day owner occupant, you may be eligible – in addition to the fair market value of your property – for a Replacement Housing Payment that consists of a Price Differential, Mortgage Differential and Incidental Expenses.

The **Price Differential** payment is the amount by which the cost of a replacement dwelling exceeds the acquisition cost of the displacement dwelling. This payment will assist you in purchasing a comparable decent, safe, and sanitary (DS&S) replacement dwelling. Caltrans will compute the maximum payment you may be eligible to receive.

In order to receive the full amount of the calculated price differential, you must spend at least the amount calculated by Caltrans on a replacement property.

The **Mortgage Differential** payment will reimburse you for any increased mortgage interest costs you might incur because the interest rate on your new mortgage exceeds the interest rate on the property acquired by Caltrans. The payment computation is complex as it is based on prevailing rates, your existing loan and your new loan. Also, a part of this payment may be prorated such as reimbursement for a portion of your loan origination fees and mortgage points.

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To be eligible to receive this payment, the acquired property must have been encumbered by a bona fide mortgage which was a valid lien for at least 180 days prior to the initiation of negotiations.

You may also be reimbursed for any actual and necessary **Incidental Expenses** that you incur in relation to the purchase of your replacement property. These expenses may be those costs for title search, recording fees, credit report, appraisal report, and certain other closing costs associated with the purchase of property. You will not be reimbursed for any recurring costs such as prepaid real estate taxes and property insurance.

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EXAMPLES OF PRICE DIFFERENTIAL PAYMENT COMPUTATION:

Assume that Caltrans purchases your property for $98,000. After a thorough study of available, decent, safe and sanitary dwellings on the open market, Caltrans determines that a comparable replacement property will cost you $100,000. If your purchase price is $100,000, you will receive $2,000 *(see Example A).*

If your actual purchase price is more than $100,000, you pay the difference (see *Example B).* If your purchase price is less than $100,000, the differential payment will be based on actual costs *(see Example C).*

How much of a differential payment you receive depends on how much you actually spend on a replacement dwelling as shown in these examples:

Caltrans' Computation

Comparable Replacement Property	$100,000
Acquisition Price of Your Property	-$ 98,000
Maximum Price Differential	$ 2,000

Example A

Purchase Price of Replacement	$100,000
Comparable Replacement Property	$100,000
Acquisition Price of Your Property	-$ 98,000
Maximum Price Differential	$ 2,000

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Example B

Purchase Price of Replacement Property	$105,000
Comparable Replacement Property	$100,000
Acquisition Price of Your Property	$ 98,000
Maximum Price Differential	$ 2,000

You Must Pay the Additional $5,000

Example C

Comparable Replacement Property	$100,000
Purchase Price of Replacement	$ 99,000
Acquisition Price of Your Property	$ 98,000
Price Differential	$ 1,000

In Example C you will only receive $1,000 – not the full amount of the Caltrans "Comparable Replacement Property" because the requirements to spend were not met.

In order for a "90 day owner occupant" to receive the full amount of their Replacement Housing *Payment* *(Price Differential, Mortgage Differential and Incidental Expenses)***, you must:**

A) Purchase and occupy a DS&S replacement dwelling within one year after the later of:

(1) The date you first receive a notification of an available replacement house, **OR**

(2) The date that Caltrans has paid the acquisition cost of your current dwelling (usually the closing of escrow on State's acquisition),

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AND

B) Spend at least the amount of the Caltrans "Comparable Replacement Property" for a replacement property,

AND

C) File a claim for relocation payments within 18 months of the later:

(1) The date you vacate the property acquired by Caltrans, **OR**

(2) The date that Caltrans has paid the acquisition cost of your current dwelling (usually the close of escrow on State's acquisition)

You will **not** be eligible to receive any relocation payments until the State has actually made the first written offer to purchase the property. Also, you will also receive at least 90 days' written notice before you must move.

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For Tenants of 90 Days or More

If you qualify as a 90-day occupant, you may be eligible for a Replacement Housing Payment in the form of a Rent Differential.

The **Rent Differential** payment is designed to assist you in renting a comparable decent, safe and sanitary replacement dwelling. The payment is based on the difference between the base monthly Rent for the property acquired by Caltrans (including average monthly cost for utilities) and the lesser of:

a) The monthly rent and estimated average monthly cost of utilities for a comparable replacement dwelling as determined by Caltrans, **OR**

b) The monthly rent and estimated average monthly cost of utilities for the decent, safe and sanitary dwelling that you actually rent as a replacement dwelling.

Utility costs are those expenses you incur for heat, lights, water and sewer - regardless of the source (e.g. electricity, propane, and septic system). It does not include garbage, cable, telephone, or security. The utilities at your property are the average costs over the last 12 months. The utilities at the comparable replacement property are the estimated costs for the last 12 months for the type of dwelling and area used in the calculation.

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This difference is multiplied by 42 months and may be paid to you in a lump sum payment or in periodic installments in accordance with policy and regulations.

In order to receive the full amount of the calculated Rent Differential, you must spend at least the amount calculated by Caltrans on a replacement property.

This payment may - with certain limitations - be converted to a **Down payment Option** to assist you in purchasing a replacement property.

Example of Rent Differential Payment Computation:

After a thorough study of comparable, decent, safe and sanitary dwellings that are available for rent, Caltrans determines that a comparable replacement property will rent for $325.00 per month.

Caltrans Computation (rates are per month)

Rental Rate for Comparable Replacement Property:	$ 325
PLUS average estimated utilities costs:	+ 100
TOTAL Cost to Rent Comparable Replacement Property:	= $ 425

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Rental Rate for Your Current Property:	$ 300
PLUS average utilities costs:	+ 90
TOTAL Cost you pay to rent your current property:	= $ 390
Comparable Replacement Property including utilities:	$ 425
Cost you pay to rent your property including utilities:	+ 390
Difference:	=$ 35

Multiplied by 42 months = $1,470 Rent Differential

Example A:

Rental Rate for a Replacement Property, including estimated average utilities costs:	$ 525
Comparable Replacement Property including utilities:	$ 425
Cost you pay to rent your property including utilities:	$ 390

Since $425 is less than $525, the Rent Differential is based on the difference between $390 and $425.

Rent Differential ($35 x 42 months = $1,470)

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In this case you spent "at least" the amount of the Comparable Replacement Property on the replacement property and will receive the full amount.

Example B:

Rental Rate for a Replacement Property, including estimated average utilities costs:	$ 400
Comparable Replacement Property including utilities:	$ 425
Cost you pay to rent your property including utilities:	$ 390

Since $400 is less than $525, the Rent Differential is based on the difference between $400 and $390.

Rent Differential ($10 x 42 months = $420)

In this case you spent "less than" the amount of the Comparable Replacement Property on the replacement property and will not receive the full amount.

You will **not** be eligible to receive any relocation payments until the State has actually made the first written offer to purchase the property. And, you will also receive at least 90 days' written notice before you must move.

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Down Payment Option

The Rent Differential payment may – with certain limitations – be converted to a **Down Payment Option** to assist you in purchasing a replacement property. The down payment option is a direct conversion of the Rent Differential payment.

If the Caltrans calculated Rent Differential is between $0 and $7,200, your down payment option will be $7,200, which can be used towards the purchase of a replacement decent, safe and sanitary dwelling.

If the Rent Differential is over $7,200, you may be able to convert the entire amount of the Rent Differential to a down payment option.

The down payment option must be used for the acquisition of the replacement dwelling, plus any eligible incidental expenses (see "90-day Owner Occupants Incidental Expenses") related to the purchase of the property. You must work closely with your Relocation Agent to ensure you can utilize the full amount of your down payment option towards the purchase.

If any portion of the Rent Differential was used prior to the decision to convert to a down payment option, those advance payments will be deducted from the entire benefit.

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Last Resort Housing

On most projects, an adequate supply of housing will be available for sale and for rent, and the benefits provided will be sufficient to enable you to relocate to comparable housing. However, there may be projects in certain locations where the supply of available housing is insufficient to provide the necessary housing for those persons being displaced. In such cases, Caltrans will utilize a method called Last Resort Housing. Last Resort Housing allows Caltrans to construct, rehabilitate or modify housing in order to meet the needs of the people displaced from a project. Caltrans can also pay above the statutory limits of $7,200 and $31,000 in order to make available housing affordable.

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Relocation Advisory Assistance



Any individual, family, business or farm displaced by Caltrans shall be offered relocation advisory assistance for the purpose of locating a replacement property. Relocation services are provided by qualified personnel employed by Caltrans. It is their goal and desire to be of service to you and assist in any way possible to help you successfully relocate.

A Relocation Agent from Caltrans will contact you personally. Relocation services and payments will be explained to you in accordance with your eligibility. During the initial interview with you, your housing needs and desires will be determined as well as your need for assistance. You cannot be required to move unless at least one comparable replacement dwelling is made available to you.

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You can expect to receive the following services, advice and assistance from your Relocation Agent who will:

- Explain the relocation benefits and eligibility requirements.
- Provide the amount of the replacement housing payments in writing.
- Assure the availability of a comparable property before you move.
- Inspect possible replacement residential units for DS&S compliance.
- Provide information on counseling you can obtain to help minimize hardships in adjusting to your new location.
- Assist you in completing loan documents, rental applications or Relocation Claims Forms.

AND provide information on:

- Security deposits
- Interest rates and terms
- Typical down payments
- VA and FHA loan requirements
- Real property taxes.
- Consumer education literature on housing

If you desire, your Relocation Agent will give you current listings of other available replacement housing. Transportation will be provided to inspect available housing, especially if you are elderly or handicapped. You may obtain the services of a real estate broker to assist in finding a replacement dwelling but, Caltrans cannot provide a referral.

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Your Relocation Agent is familiar with the services provided by others in your community and will provide information on other federal, state, and local housing programs offering assistance to displaced persons. If you have special problems, your Relocation Agent will make every effort to secure the services of those agencies with trained personnel who have the expertise to help you.

If the highway project will require a considerable number of people to be relocated, Caltrans may establish a temporary Relocation Field Office on or near the project. Project relocation offices would be open during convenient hours and evening hours if necessary.

In addition to these services, Caltrans is required to coordinate its relocation activities with other agencies causing displacements to ensure that all persons displaced receive fair and consistent relocation benefits.

Remember – YOUR RELOCATION AGENT is there to offer advice and assistance. Do not hesitate to ask questions and be sure you fully understand all of your rights and available benefits.

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YOUR RIGHTS AS A DISPLACEE

All eligible displacees have a freedom of choice in the selection of replacement housing, and Caltrans will not require any displaced person to accept a replacement dwelling provided by Caltrans. If you decide not to accept the replacement housing offered by Caltrans, you may secure a replacement dwelling of your choice, providing it meets DS&S housing standards. Caltrans will not pay more than your calculated benefits on any replacement property.

The most important thing to remember is that the replacement dwelling you select must meet the basic "decent, safe, and sanitary" standards. Do not execute a purchase agreement or a rental agreement until a representative from Caltrans has inspected and certified in writing that the dwelling you propose to occupy meets the basic standards. **DO NOT jeopardize** your right to receive a replacement housing payment by moving into a substandard dwelling.

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It is important to remember that your relocation benefits will not have an adverse affect on your:

- Social Security Eligibility
- Welfare Eligibility
- Income Taxes

In addition, the Title VIII of the Civil Rights Act of 1968 and later acts and amendments make discriminatory practices in the purchase and rental of most residential units illegal if based on race, color, religion, sex, or national origin.

Whenever possible, minority persons shall be given reasonable opportunities to relocate to decent, safe, and sanitary replacement dwellings, not located in an area of minority concentration, and that is within their financial means. This policy, however, does not require Caltrans to provide a larger payment than is necessary to enable a person to relocate to a comparable replacement dwelling.

Caltrans' Non-Discrimination Policy ensures that all services and/or benefits will be administered to the general public without regard to race, color, national origin, or sex in compliance with Title VI of the 1964 Civil Rights Act (42 USC 2000d. et seq.).

And you have the Right to Appeal any decision by Caltrans regarding your relocation benefits and eligibility.

Your Right of Appeal is guaranteed in the "Uniform Act" which states that any person may file an appeal

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with the head of the responsible agency if that person believes that the agency has failed to properly determine the person's eligibility or the amount of a payment authorized by the Act.

If you indicate your dissatisfaction, either verbally or in writing, Caltrans will assist you in filing an appeal and explain the procedures to be followed. You will be given a prompt and full opportunity to be heard. You have the right to be represented by legal counsel or other representative in connection with the appeal (but solely at your own expense).

Caltrans will consider all pertinent justifications and materials submitted by you and other available information needed to ensure a fair review. Caltrans will provide you with a written determination resulting from the appeal with an explanation of the basis for the decision. If you are still dissatisfied with the relief granted, Caltrans will advise you that you may seek judicial review.

Americans with Disabilities Act (ADA) Notice:

This document is available in alternative formats for people with physical disabilities. Please call (916) 654-5413, or write to "Department of Transportation - Right of Way, MS-37, 1120 N Street, Sacramento, CA 95814," for information.

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NOTES

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Residential
Effective October 1, 2014 (2nd Printing)

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Sus Derechos y Beneficios Como Una Persona Desplazada Bajo el Programa Uniforme De Asistencia Para Reubicación (Residencial)



California Department of Transportation

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Introducción

En la construcción de un sistema moderno de transportación, el desplazamiento de un pequeño porcentaje de la población es a menudo necesario. Sin embargo, la política de Caltrans es que las personas desalojadas no tengan que sufrir innecesariamente como resultado de los programas diseñados para el beneficio del público en general.

Los individuos y familias desplazadas pueden ser elegibles para recibir servicios de asesoramiento y pagos de reubicación.

Este folleto provee información acerca de los servicios y pagos de reubicación disponibles. Si usted es requerido a mudarse como resultado de un proyecto de transportación, un Agente de Reubicación se comunicará con usted. El Agente de Reubicación le contestará preguntas específicas y le proveerá información adicional.

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Ley de Procedimiento Uniforme de Asistencia para Rubicación y Adquisición de Bienes Raíces de 1970, Enmendada "La Ley Uniforme"

El propósito de esta Ley es proveer tratamiento igual y uniforme para las personas que son desplazadas de sus hogares, negocios, u operaciones agrícolas por programas federales o programas que son asistidos con fondos federales y para establecer uniformidad e igualdad en la política de adquisición de tierras por programas federales y programas asistidos con fondos federales.

La ley trata de asegurar que las personas desplazadas directamente como resultado de proyectos federales o proyectos asistidos con fondos federales sean tratados con igualdad, consistencia y equidad para que esas personas no sufran daños desproporcionados como resultado de proyectos designados para el beneficio del público en general.

Aunque se ha hecho un esfuerzo para asegurar la precisión de este folleto, debe de ser entendido que no tiene la fuerza o efectos de la ley, regla, o regulación que gobierna el pago de los beneficios. Si hay diferencias o error, la ley tomará precedencia.

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Algunas Definiciones Importantes…

Sus beneficios de reubicación pueden ser entendidos mejor si usted entiende los siguientes términos:

Vivienda de Restitución Comparable: significa una propiedad que es:

(1) Decente, segura y sanitaria. (Vea la definición abajo.)

(2) Equivalente funcionalmente a la propiedad desplazada.

(3) Adecuada en tamaño para acomodar a la familia que esta siendo reubicada.

(4) En un área que no esté sujeta a condiciones irrazonablemente adversas.

(5) En una localidad generalmente no menos deseable que la localidad de su propiedad desplazada con respecto a servicios públicos, y acceso razonable al lugar de empleo.

(6) En una parcela de tamaño típico para el desarrollo de una residencia de tamaño normal.

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Decente, Segura y Sanitaria (DS&S): La vivienda de restitución debe de ser decente, segura y sanitaria que significa que llena todos los requisítos mínimos establecidos por las regulaciones federales y conforme a los códigos de ocupación de viviendas aplicables. La propiedad será:

(1) Buena estructuralmente, cerrada a las condiciones climáticas y en buen estado de reparación.

(2) Contiene un sistema eléctrico adecuado para iluminación y otros aparatos.



(3) Contiene un sistema de calefacción capáz de mantener una temperatura saludable (de aproximadamente 70 grados) para la persona desplazada, con excepción en aquellas áreas donde las condiciones climáticas no requieren dicho sistema.

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(4) Debe de ser adecuada en tamaño con respecto al número de cuartos y áreas para vivir necesarias para acomodar a las personas desplazadas. Es política de Caltrans que más de dos personas no deben de estar en un solo cuarto, a menos que que el tamaño del cuarto sea suficientemente adecuado para acomodar los muebles de dormitorios necesarios de los ocupantes.

(5) Tener un baño separado, bien iluminado y ventilado que sea privado a los usuarios y que contenga un lavamanos, una tina o regadera, y un excusado, todos en buenas condiciones y apropiadamente conectados a los sistemas de aguas negras y aguas potables.

Nota: *En el caso de una "housekeeping dwelling," debe de haber una área de cocina que contenga un lavatrastos usable, propiamente conectado a agua caliente y agua fría, y al sistema de drenaje, y con espacio adecuado para utilizar los servicios y connecciones para una estufa y un refrigerador.*

(6) Contiene la salida sin obstrucciones a la caja fuerte, espacio abierto a nivel del suelo. Si la unidad de vivienda de reemplazo está en el segundo piso o por encima, con acceso directamente desde oa través de un pasillo común, el corredor común debe tener por lo menos dos medios de egreso.

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(7) *Si la persona desplazada es incapacitada físicamente*, debe de ser libre de cualquier barrera que le impidan la entrada o salida, o uso razonable de la propiedad por *dicha persona incapacitada.*

Persona Desplazada: Cualquier individuo o familia que se mueva de una propiedad o mueva sus bienes personales de una propiedad como resultado de la adquisición de bienes raíces, en todo o en parte, o como resultado de una notificación escrita de una agencia pidiéndole que desocupe la propiedad que se necesita para un proyecto de transportación. En el caso de una adquisición parcial, Caltrans debe de determinar si la persona es desplazada directamente como resultado de esta adquisición.

Los beneficios de reubicación van a variar dependiendo del tipo y tiempo de ocupación. Como una persona desplazada de una unidad residencial usted puede ser clasificado como:

- Un dueño ocupante de una propiedad residencial (incluyendo casas movibles)
- Un inquilino ocupante de una propiedad residencial (incluyendo casas movibles y cuartos para dormir)

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Vivienda: El lugar de permanencia o residencia regular y usual de una persona, de acuerdo a las costumbres locales o la ley, incluyendo una unidad familiar, una unidad familiar en un complejo doble o multi-familiar, o una propiedad de uso múltiple, una unidad de condominio o proyecto de vivienda en cooperativa, una unidad libre de mantenimiento doméstico, una casa movible, o cualquier otra unidad residencial.

Dueño: Una persona es considerada que llena los requisitos de dueño de una casa, si esta persona compra, tiene título o tiene algunos de los siguientes intereses en una propiedad:

(1) Una escritura de propiedad, un interés de por vida en una propiedad, un contrato de renta por 99 años, un contrato oral de renta incluyendo una opción para extensión con al menos 50 años que queden después de la fecha de adquisición; o

(2) El interés en un proyecto de vivienda en cooperativa que incluya el derecho de ocupar una vivienda; o

(3) Un contrato de compra de interés, o bienes raíces.

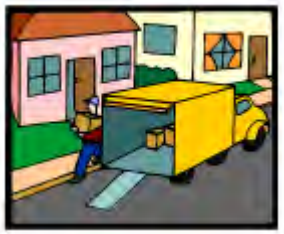
(4) Algún otro interés, incluyendo intereses parciales, qua a juicio de la agencia garanticen los pagos como dueño.

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Inquilino: Una persona que tiene el uso y la ocupación temporal de una propiedad de la que otro es dueño.

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Gastos de Mudanza



Si usted califica como persona desplazada, usted tiene derecho a reembolso de sus gastos de mudanza y a ciertos gastos relacionados incurridos durante el traslado. Los métodos de traslado y los distintos tipos de pagos para gastos de mudanza son explicados abajo.

Los individuos y familias desplazadas pueden escoger un pago basado en los gastos reales, razonables y los gastos relacionados, o de acuerdo a una lista de costos fijos de mudanza. Sin embargo, para asegurar su elegibilidad y el pago rápido de sus gastos de mudanza, usted debe de ponerse en contacto con su Agente de Reubicación antes de mudarse.

Usted Puede Elegir Entre:

Los Gastos Razonables de Mudanza – A usted se le puede pagar por los gastos razonables de mudanza y gastos relacionados cuando una compañia comercial de mudanza hace la mudanza. Los reembolsos deberán ser limitados a una mudanza

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de 50 millas o menos. Los gastos relacionados pueden incluir:

- Transportación
- Empaque y desempaque de propiedades personales.
- Desconexión y reconexión de aparatos eléctricos.
- Almacenaje temporal de propiedades personales.
- Seguros cuando la propiedad está almacenada o en tránsito.

Ó

Lista de Costos Fijos de Mudanza – A usted se le puede pagar basado en una lista de costos fijos de mudanza. Bajo esta opción, usted no puede ser elegible para reembolsos de gastos relacionados incluídos en la lista de arriba. Esta lista de gastos fijos está designada a cubrir todos esos gastos.

Por ejemplo (Tarifa para el año 2014):

4 Cuartos - $1,295
7 Cuartos - $2,090

Los costos fijos de mudanza para una unidad (ejemplo, usted es inquilino en un apartmento donde los muebles pertenecen al dueño de la vivienda) estan basados en la Tabla de Honorarios B.

Por ejemplo (Tarifa para el año 2014)

1 Cuartos - $450

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Una habitación de estilo dormitorio debajo de la tasa de la Tabla de B - $125 (2014).

Bajo la lista de Pago Fijos de Mudanza, usted no puede recibir ningun pago adicional por almacenamiento temporario, vivienda temporaria, transportación o conexiones de servicios públicos.

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Pagos Para Vivienda de Restitución

El tipo de Pago Para Vivienda de Restitución (RHP) depende de si usted es dueño o un inquilino, y en el tiempo de ocupación que tiene de la propiedad que será adquirida.

Si usted es calificado **como dueño ocupante** de más de 90 días antes de la iniciación de negociaciones para la adquisición de su propiedad, usted puede tener derecho a recibir RHP que consiste en:

Diferencia de Precio, y

Diferencia para Hipoteca, y

Gastos Incidentales

O

Diferencia Para Rentar

Si usted es un **inquilino ocupante** cualificada de al menos 90 días, usted puede tener derecho a un RHP de la siguiente manera:

Diferencia Para Rentar

O

Opción para Enganche

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Tiempo de ocupación simplemente significa contar el número de días que usted actualmente ocupó la vivienda antes de la fecha de iniciación de negociaciones por Caltrans para la compra de la propiedad. El término "iniciación de negociaciones" significa la fecha que Caltrans hizo el primer contacto personal con el dueño de bienes raíces, o su representante, para darle a el/ella una oferta escrita para la adquisición de la propiedad.

Nota: *Si usted ocupó una vivienda por menos de 90 días antes de la iniciación de negociaciones y la propiedad es posteriormente adquirida, o si usted se mudó a la propiedad después de la iniciación de negociaciones y usted todavía ocupaba la propiedad a la fecha de adquisición, usted puede ser elegible para un RHP, basado en una guía de elegibilidad establecida. Consulte con su Agente de Reubicación antes de que haga cualquier decisión de mudarse de su propiedad.*

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Para Ocupantes de 90 Días o Más

Si usted califica como dueño ocupante de 90 días, puede ser elegible – además del valor equitativo en el mercado de su propiedad – para un RHP que consiste en un pago de Diferencia de Precio y/o Gastos Incidentales.

El Pago de **Diferencia de Precio** es la cantidad por la que el costo de una vivienda de restitución excede el costo de adquisición de la vivienda desplazada. Este pago le asistirá en la compra de una vivienda decente, segura, y sanitaria (DS&S). Caltrans computará el pago máximo que usted puede ser elegible para recibir.

Para recibir la cantidad total de la diferencia de precio calculadas, usted debe de gastar al menos la cantidad calculada por Caltrans en la propiedad de restitución.

El pago de **Diferencia de Hipoteca** le será reembolsado por cualquier aumento del costo de interés en la hipoteca que usted haya incurrido porque la taza de interés en su nueva hipoteca excede la taza de interés de la propiedad adquirida por Caltrans. La computación del pago es complicada ya que está basada en las tazas típicas entre su préstamo anterior y su préstamo nuevo. También, una parte de los pagos pueden ser prorrateado como reembolso por una porción de los honorarios de su préstamo y los puntos (intereses) de la hipoteca.

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Para ser elegible para recibir este pago, la propiedad adquirida debe de ser hipotecada con una hipoteca de buena fé, la cual fue un crédito válido de por lo menos 180 días antes de la iniciación de negociaciones.

Usted también puede ser reembolsado por cualquier **Gasto Incidental** actual y necesario que usted incurra en relación con la compra de su propiedad de restitución. Estos gastos pueden ser los costos por búsqueda de título, honorarios de copia en el Registro, reporte de crédito, reporte de evaluación, y ciertos otros gastos de cierre de escritura. Usted no puede ser reembolsado por ningún gasto frequente como pre-pagos de impuesto de bienes raíces y seguro de propiedad.

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EJEMPLO DE COMO SE CALCULA LA DIFERENCIA DE PAGO:

Suponga que Caltrans compra su propiedad por $98,000. Después de un estudio completo de viviendas disponibles en el mercado, que sean decentes, seguras y sanitarias, Caltrans determina que la propiedad de restitución comparable en el mercado abierto le costará $100,000. Si su precio de compra es $100,000 usted recibirá $2,000 (Vea el Ejemplo A)

Si su precio de compra es de más de $100,000, usted paga la diferencia (vea el Ejemplo B). Si su precio de compra es menos de $100,000, el pago se basará en los costos actuales (vea el Ejemplo C).

La cantidad que usted recibe en un pago diferencial dependerá de cuanto usted realmente gasta en una vivienda de restitución, como se muestra en estos ejemplos:

Computación de Caltrans

Precio Comparable de la Propiedad de Restitución	$100,000
Precio de Adquisición de su Propiedad	-$ 98,000
Diferencia Máxima de Precio	$ 2,000

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Ejemplo A

Precio de Compra de Restitución	$100,000
Propiedad Comparable de Restitución	$100,000
Precio de Adquisición de su Propiedad	-$ 98,000
Diferencia Máxima de Precio	$ 2,000

Ejemplo B

Precio de Compra de Restitución	$105,000
Propiedad Comparable de Restitución	$100,000
Precio de Adquisición de su Propiedad	$ 98,000
Diferencia Máxima de Precio	$ 2,000

Usted Debe de Pagar el Precio Adicional de $5,000

Ejemplo C

Propiedad Comparable de Restitución	$100,000
Precio de Compra de Restitución	$ 99,000
Precio de Adquisición de su Propiedad	$ 98,000
Diferencia de Precio	$ 1,000

En el ejemplo C usted solo recibirá $1,000 – no la cantidad completa de "La Propiedad Comparable de Restitución" por los requisítos de "Gastar para Obtener" de Caltrans.

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Para que un "dueno ocupante de 90 días" reciba la cantidad total de sus beneficios de pagos para vivienda (Diferencia de Precio, Diferencia de Hipoteca y Gastos Incidentales), **usted debe:**

A) Comprar y ocupar una vivienda de restitución que sea DS&S dentro de al menos un año desde la fecha más tarde de:

(1) La fecha en que recibió la primera notificación de una casa de restitución, **O**

(2) La fecha que Caltrans pagó los costos de adquisición de su vivienda actual (usualmente los gastos de cierre de escritura en la adquisición del Estado.)

Y

B) Haber gastado al menos la cantidad que Caltrans estableció para "La Propiedad Comparable de Restitución" para la propiedad de restitución.

Y

C) Reportar un reclamo para pago para reubicación dentro de los 18 meses de la fecha más tarde de:

(1) La fecha en que se mudó de la propiedad adquirida por Caltrans, **O**

(2) La fecha en que Caltrans le pagó los costos de adquisición de su vivienda actual

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(usualmente al cierre de escritura en la adquisición del Estado.)

Usted **no** será elegible para recibir ningún pago de reubicación hasta que el Estado haya hecho la primera oferta por escrito de la compra de la propiedad. Usted también recibirá una notificación escrita por lo menos 90 días antes de tener que mudarse.

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Para Inquilinos de 90 Días o Más

Si usted califica como un ocupante de 90 días, usted puede ser elegible para un Pago de Vivienda de Restitución en la forma de Diferencia para Rentar.

El pago de la **Diferencia para Rentar** es designado para asistirle en la renta de una vivienda comparable que sea decente, segura y sanitaria. El pago será basado en la diferencia entre la renta básica mensual por la propiedad adquirida por Caltrans (incluyendo el promedio del costo mensual de servicios públicos) y el menor de:

a) La renta mensual y el promedio del costo mensual estimado de los servicios públicos para una vivienda comparable de restitución determinada por Caltrans, **O**

b) La renta mensual y el promedio del costo mensual estimado de los servicios públicos para una vivienda decente, segura y sanitaria que usted rente como vivienda de restitución.

Gastos de servicios públicos son esos gastos que usted incurre por calefacción, luz, agua, y aguas negras – sin importar quien los provea (ejemplo, electricidad, gas propano, y sistema séptico.) No incluye cable de televisión, teléfono, o seguridad. Los servicios públicos en su propiedad de restitución será el estimado del promedio de costos por los 3 últimos meses para el tipo de vivienda y área usados en los cálculos.

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Esta diferencia es multiplicada por 42 meses y le puede ser pagado en una sola suma o en pagos periódicos de acuerdo con la política y regulaciones.

Para recibir la cantidad calculada total de la diferencia para rentar, usted debe gastar al menos la cantidad calculada por Caltrans en la propiedad de restitución.

Este pago puede – con ciertas limitaciones – ser convertido en una **Opción para Enganche** para asistirle en la compra de una propiedad de restitución.

Ejemplo de la Computación del Pago de la Diferencia para Rentar:

Después de hacer un estudio completo de viviendas comparables, decentes, seguras y sanitarias que estén disponibles para rentar, Caltrans determina que una propiedad comparable de restitución podría ser rentada por $325 al mes.

Computación de Caltrans

Renta por una Propiedad Comparable de Restitución:	$ 325
MÁS estimado de costos de servicios públicos:	+100
TOTAL Costo de renta por una Propiedad Comparable de Restitución:	=$425

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Renta por su Propiedad Actual	$ 300
MÁS costos de servicios públicos	+ 90
TOTAL Costo para pagar la renta de su propiedad actual	= $ 390
Propiedad Comparable de Restitución incluyendo servicios públicos	$ 425
Costo para pagar la renta de su propiedad incluyendo servicios públicos	+ 390
Diferencia	= $ 35

Multiplicado por 42 meses = $1,470 Diferencia para Rentar

Ejemplo A:

Renta para una Propiedad de Restitución, incluyendo los costos estimados de servicios públicos	$525
Propiedad Comparable de Restitución incluyendo servicios públicos	$425
Costos de pago de la renta de su propiedad incluyendo servicios públicos	$390

Ya que $425 es menos que $525, la diferencia para rentar está basada en la diferencia entre $390 y $425.

Diferencia para Rentar ($35 x 42 meses = $1,470)

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En este caso usted gasta "al menos" la cantidad de la Propiedad de Restitución Comparable en la propiedad de restitución y así recibirá la cantidad total.

Ejemplo B:

Renta por una Propiedad de Restitución, incluyendo los costos estimados de servicios públicos	$400
Propiedad Comparable de Restitución incluyendo servicios públicos	$425
Costos de pago de la renta de su propiedad incluyendo servicios públicos	$390

Ya que $400 es menos que $525, la diferencia para rentar está basada en la diferencia entre $400 y $390.

Diferencia para Rentar ($10x 42 meses = $420)

En este caso usted va a gastar "menos que" la cantidad de Propiedad de Restitución Comparable en la restitución de la vivienda y usted no recibirá la cantidad total.

Usted **no** será elegible para recibir ningún pago de reubicación hasta que haya hecho la primera oferta escrita para comprar la propiedad. Además, usted recibirá al menos una noticia por escrito 90 días antes de tener que mudarse.

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Opción para Enganche

El pago de Diferencia para Rentar puede – con ciertas limitaciones – ser convertido en una **Opción para Enganche** para asistirle en la compra de una propiedad de restitución. La Opción para Enganche es una conversión directa del pago de la diferencia para rentar.

Si la diferencia para rentar es calculada entre $0 y $7,200, su Opción Para Enganche será de $7,200 la cual puede ser usada para la compra de una vivienda de restitución decente, segura y sanitaria.

Si la diferencia para rentar es más de $7,200 usted podrá convertir la cantidad completa de diferencia para rentar a una Opción Para Enganche.

La Opción Para Enganche debe de ser usada para el enganche requerido, la cual usualmente es un porcentage del precio total de compra, más cualquier gasto incidental elegible (vea, "Gastos Incidentales para Dueños Ocupantes de 90 días") relacionado con la compra de la propiedad. Usted debe trabajar junto con su Agente de Reubicación para asegurarse de que puede utilizar la cantidad total de su Opción Para Enganche en su compra.

Si alguna porción de la diferencia para rentar fue usada antes de su decisión de convertirla a una Opción Para Enganche, los pagos avanzados serán deducidos de los beneficios completos.

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Casa del Último Recurso

En la mayoría de los proyectos de Caltrans, existe una cantidad adecuada de viviendas de venta y alquiler, y los beneficios serán suficientes para que usted pueda reubicarse a una vivienda comparable. Sin embargo, en ciertas localidades pueden haber proyectos donde el número de viviendas disponibles no son suficientes para proveer viviendas a todas las personas desplazadas. En estos casos, Caltrans utiliza un método llamado Casa del Último Recurso. La Casa del Último Recurso permite a Caltrans construir, rehabilitar, o modificar viviendas para cumplir con las necesidades de las personas desplazadas por un proyecto. Caltrans puede también pagar arriba de los límites legales de $7,200 y $31,000 para hacer posible viviendas con precios razonables.

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Asistencia de Consulta Para Reubicación



A cualquier individuo, familia, negocio u operación agrícola desplazada por Caltrans deberá ofrecérsele servicios de asistencia con el propósito de localizar una propiedad de restitución. Los servicios de reubicación son proveídos por empleados calificados de Caltrans. Es la meta de ellos y el deseo de estos empleados de servirle y asistirle de cualquier manera posible para ayudarle a reubicarse exitosamente.

Un Agente de Reubicación de Caltrans se pondrá en contacto con usted personalmente. Los servicios de reubicación y pagos se le explicarán de acuerdo con su elegibilidad. Durante la entrevista inicial, sus necesidades de vivienda y deseos se determinarán así como sus necesidades de asistencia. No se le puede pedir que se mude a menos que una vivienda comparable de restitución le sea disponible.

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Usted puede esperar recibir los siguientes servicios, consejos y asistencia de su Agente de Reubicación quien le:

- Explicará los beneficios de reubicación y los requisitos de elegibilidad.
- Proveerá por escrito la cantidad de pago por su vivienda de restitución.
- Asegurará la disposición de una propiedad comparable antes de que se mude.
- Inspeccionará las posibles unidades residenciales de restitución para el cumplimiento de DS&S.
- Proveerá información y aconsejará como puede obtener ayuda para minimizar las adversidades en ajustarse a su nueva localidad.
- Ayudará en completar los documentos de préstamos, aplicaciones de rentas o las Formas de Reclamo para Reubicación.

Y proveerle información de:

- Seguro de Depósitos
- Taza de intereses y términos
- Pagos típicos de enganches
- Requisitos de préstamos de la Administración de Veteranos (VA) y la Administración de Vivienda Federal (FHA)
- Impuestos sobre bienes raíces
- Literatura de educación en viviendas para el consumidor

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Si usted lo desea, el Agente de Reubicación le dará una lista actual de otras viviendas de restitución disponibles.

Se proveerá transportación para inspeccionar viviendas disponibles, especialmente si usted es mayor de edad o con impedimiento físico. Aunque usted puede utilizar los servicios de un agente de bienes raíces, Caltrans no lo podrá referir.

Su Agente de Reubicación está familiarizado con los servicios proveídos por otras agencias de su comunidad y le proveerá información de otros programas de viviendas federales, estatales y locales que ofrecen programas de asistencia para personas desplazadas. Si usted tiene algun problema especial, su Agente de Reubicación hará su mejor esfuerzo para asegurarle los servicios de esas agencias con personal capacitado y con experiencia que le ayudarán.

Si el proyecto de transportación requiere un número considerable de personas que sean reubicados, Caltrans establecerá una Oficina Temporal de Reubicación en, o cerca del proyecto. Las oficinas de proyectos de reubicación deberán de abrirse durante horas convenientes y en horas tempranas de la noche, si es necesario.

Además de estos servicios, Caltrans es requirido que coordine las actividades de otras agencias que causen desplazamientos para asegurar que todas esas personas desplazadas reciban beneficios de reubicación equitativos y consistentes.

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Recuerde – SU AGENTE DE REUBICACIÓN está para aconsejarle y asistirle. No vacile en hacer preguntas, y asegúrese de que entiende completamente sus derechos y beneficios de reubicación disponibles.

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SUS DERECHOS COMO UNA PERSONA DESPLAZADA

Todas las personas elegibles como personas desplazadas tienen la libertad de escoger dentro de la selección de viviendas de restitución, y Caltrans no requerirá a ninguna persona que sea desplazada que acepte una vivienda de restitución proveída por Caltrans. Si usted decide no aceptar la vivienda de restitución ofrecida por Caltrans, usted puede elegir una vivienda de restitución de su propia selección, mientras que cumple con los requisítos de DS&S. Caltrans no pagará más que los beneficios calculados por una vivienda de restitución.

Lo más importante que usted debe de recordar es que la vivienda de restitución que usted seleccione debe de llenar los requisítos básicos de "decente, segura y sanitaria." No ejecute los documentos de compra o el contrato de renta hasta que un representante de Caltrans haya inspeccionado y certificado por escrito que la vivienda que usted se propone ocupar cumple con los requisítos básicos.

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NO ARRIESGUE su derecho de recibir los pagos de vivienda de restitución por mudarse a una vivienda que no sea "decente, segura y sanitaria."

Es importante recordar que sus beneficios de reubicación no van a tener ningún efecto adverso en su:

- Elegibilidad para Seguro Social
- Elegibilidad para Asistencia Social
- Impuestos sobre ingresos

Además, el Título VIII de los Derechos Civiles, Ley de 1968 y luego otras leyes y enmiendas hacen discriminatoria la práctica de compra y renta de unidades de vivienda si es basada ilegalmente en la raza, color, religión, sexo u origen nacional.

Cuando sea posible, a personas de minorías se les debe de dar oportunidades razonables para reubicarse a viviendas de restitución que sean decentes, seguras y sanitarias, no localizadas en áreas de concentración de minorías, y que estén dentro de sus recursos económicos. Esta política, sin embargo, no requiere que Caltrans provea a una persona pagos más grandes de lo que sean necesarios para permitir que la persona sea reubicada a una vivienda de restitución comparable.

La política No-Discriminatoria de Caltrans asegura que todos los servicios y/o los beneficios deben de ser administrados al público en general sin importar

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la raza, color, origen nacional, o sexo en cumplimiento con el Título VI de la Ley de Derechos Civiles de 1964 (42 USC 2000 d. et seq.).

Usted siempre tendrá el Derecho de Apelar cualquier decisión hecha por Caltrans relacionada a los beneficios de reubicación y elegibilidad.

Su Derecho de Apelar está garantizado en la "Ley Uniforme" la cual establece que una persona puede apelar al jefe de la agencia responsable, si ella cree que la agencia ha fallado en determinar correctamente su elegibilidad, o la cifra del pago autorizado por la Ley.

Si usted indica su disatisfacción, ya sea verbalmente o por escrito, Caltrans le asistirá en hacer su demanda de apelación y le explicará el procedimiento que debe de seguir. Usted tiene derecho de ser representado por un asesor legal u otro representante en conexión con su apelación (pero solamente por su propia cuenta.)

Caltrans considerará toda justificación y materia pertinente que usted entregue u otra información disponible, necesaria para asegurar una audiencia equitativa. Caltrans le proveerá una determinación por escrito del resultado de su apelación, con una explicación sobre la base de la decisión. Si usted aún no está satisfecho con la decisión otorgada, Caltrans le aconsejará que usted puede pedir una audiencia judicial.

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Noticiero de la Ley para Americanos con Incapacidades Dísicas (ADA):

Para personas con incapacidades físicas, este documento es disponible en formatos alternativos. Para información llame al número (916) 654-5413, o escriba a "Department of Transportation - Right of Way, MS-37, 1120 N Street, Sacramento, CA 95814."

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NOTAS

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Residential (Spanish)
Effective October 1, 2014

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Sus Derechos y Beneficios Como Negocio, Operación Agrícola o Organización No Lucrativa Desplazada Bajo el Departamento de Transportación de California, Programa para Asistencia de Reubicación



California Department of Transportation

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Introducción

Cuando se está construyendo un sistema de transporte moderno, el desplazamiento de un pequeño porcentaje de la población es a veces necesario. Sin embargo, es el procedimiento de Caltrans que las personas desplazadas no deben de sufrir innecesariamente como resultado de los programas diseñados para el beneficio del público en general.



Los negocios, operaciones agrícolas, y organizaciones no-lucrativas desplazadas pueden ser elegibles para servicios de reubicación y pagos.

Este libreto le provee información acerca de los servicios y pagos de reubicación disponibles. Si usted tiene que mudarse como resultado de un proyecto de transportación de Caltrans, un Agente de Reubicación lo contactará. El Agente de Reubicación estará disponible para responderle preguntas específicas y darle información adicional.

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Acta de Procedimiento Uniforme de Asistencia para Reubicación y Adquisición de Bienes Raíces de 1970, Emendada
"El Acta Uniforme"



El propósito de esta Acta es de proveer uniformidad e igualdad de tratamiento a personas desplazadas de sus negocios, operaciones agrícolas, u organización no-lucrativa, por programas federales o programas asistidos con fondos federales, y de establecer uniformidad e igualdad en los procedimientos para adquisición de tierras para los programas federales y programas asistidos con fondos federales.

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El Código de Regulaciones Federales 49, Parte 24 implementa el "Acta Uniforme" de acuerdo a los siguientes objetivos de asistencia de relocalización:

> Para asegurar que las personas desplazados como resultado directo de proyectos federales o proyectos asistidos con fondos federales sean tratados con justicia, consistencia e igualdad de tal manera que esas personas no sufran daños desproporcionados como resultado de los proyectos diseñados para el beneficio del público en general.

Mientras se ha hecho todo esfuerzo para asegurar la veracidad de este folleto, debe entenderse que no tiene la fuerza ni efecto de la ley, regla o regulaciones que gobiernan el pago de los beneficios. Si alguna diferencia o error resulta, la ley tomará precedencia.

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Servicio de Reubicación

El Departamento de Transportación tiene dos programas para de ayudar a negocios, granjas y organizaciones no-lucrativas que tienen que reubicarse.

Estas son:

1. El Programa de Consejos de Asistencia de Reubicación, que es para ayudarle en localizar una propiedad de reemplazo conveniente, y

2. El Programa de Pagos para Reubicación, que le reembolsará de ciertos costos envueltos en la reubicación. Estos pagos están clasificados como:

    - Gastos Relacionados a Mudanza (costos de mover propiedad personal no adquirida).
    - Gastos de Restablecimiento (gastos relacionados a la propiedad de reemplazo).
    - Pagos Fijos (pago fijo en vez de los gastos de mudanzas y otros gastos relacionados, y gastos de restablecimiento).

Nota**:** Pagos por pérdida de clientela es considerado un costo de adquisición. La ley de California y las regulaciones federales mandan que los pagos de reubicación no pueden duplicar otros pagos, como los pagos de pérdida de clientela.

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Usted **no** puede ser elegible a recibir ningún pago de reubicación hasta que el Estado haya hecho la primera oferta escrita para comprar su propiedad. Usted también recibirá un aviso escrito por lo menos 90 días antes que se tenga que mover.

Alguna Definiciones Importantes...

Sus beneficios de relocalización pueden ser entendidos mejor si usted se familiariza con los siguientes términos:

Negocio: Cualquier actividad legal, con la excepción de operaciones agrícolas, conducida principalmente para la compra, venta, arrendamiento, y alquiler de bienes personales o bienes raíces, o para la fabricación, elaboración y/o mercadotecnia de productos, mercancías, u otros bienes personales, o solamente para el propósito de ésta Acta, un rótulo con anuncio o anuncios, cuando el rótulo(s) tenga(n) que ser movido(s) como resultado del proyecto.

Negocio Pequeños: Un negocio que tenga no más de 500 empleados trabajando en el lugar que esta siendo adquirido o desplazado por un programa o proyecto.

Contribuye Materialmente: Un negocio u operación agrícola debe de haber tenido un ingreso bruto en recibos de al menos $5,000 o un promedio anual de ingreso netos de al menos $1,000, para poder calificar como una operación de buena fé.

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Operación Agrícola: Cualquier actividad conducida sola o principalmente para la producción de uno o más productos de agricultura o mercancías, incluyendo venta de madera, para la venta y uso en casa, y producción ordinaria de tales productos o mercancía en cantidades suficientes para tener la capacidad de contribuir materialmente al soporte del operario.

Organización No-lucrativa: Una entidad pública o privada que haya establecido su estado de organización no-lucrativa bajo leyes aplicables.

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Gastos de Mudanza



Si usted califica como un negocio, operación agrícola, u organización no-lucrativa desplazada, usted puede recibir reembolso de los gastos de mudanza y ciertos gastos relacionados incurridos en la mudanza. Para calificar, usted tiene que ocupar la propiedad legalmente como dueño o inquilino cuando Caltrans inicie negociaciones para la adquisición de la propiedad, **O** al tiempo que Caltrans adquiera título, o tome posesión de la propiedad. Sin embargo, para asegurar su elegibilidad y el pronto pago de los gastos de mudanza, usted tiene que haber contactado a su Agente de Reubicación antes de que se mude.

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Usted Puede Escoger Entre:

Gastos Razonables de Mudanza Actual – Usted tiene que haber pagado por sus gastos de mudanza razonables y gastos relacionados cuando una compañia comercial hace la mudanza.

El reembolso será limitado a mudanza de 50 millas o menos. Los gastos relacionados, con limitaciones, pueden incluir:

- Transportación.
- Embalaje y desembalaje propiedad personal.
- Desconexión y reconexión relacionada a la operación de la propiedad personal.
- Almacenamiento temporal de la propiedad personal.
- Seguros mientras la propiedad está en almacenamiento o en tránsito, o la propiedad personal es perdida y dañada, si los seguros no son razonablemente disponible.
- Gastos en encontrar un lugar de reemplazamiento ($2500 máxima).
- Servicios profesionales para planificar y supervisar la mudanza de la propiedad personal al nuevo lugar.
- Licencias, permisos y honorarios requeridos en el lugar de reemplazamiento.
- El costo de instalación de servicios públicos desde la línea del derecho de vía a la estructura(s) o mejoramientos en el sitio de reemplazamiento.
- Estudios de mercado, estudios de factibilidad y exámen de suelo.

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O

Contrato de Mudanza Propia – Usted puede ser pagado por mover su propia propiedad personal basado en la más baja de dos ofertas aceptables obtenidas por Caltrans. Bajo esta opción, usted todavía será elegible para el reembolso de los gastos relacionados arriba mencionados, que no fueron incluidos en las ofertas.

O

Pago Fijo – Usted puede aceptar un pago fijo entre $1,000 y $40,0000 basado en sus ganancias anuales EN VEZ de los costos y gastos relacionados de la mudanza.

Costos Actuales Razonables de Mudanza

Pueden pagársele los gastos actuales razonables y necesarios de su mudanza si lo transporta con una compañía comercial de muebles y mudanzas. Todos sus gastos deben de ser respaldados con recibos u otra evidencia de gastos incurridos. Además de los gastos de transportación de su propiedad personal, ciertos otros gastos también pueden ser reembolsados, tales como empaque, embalaje, desempaque y desembalaje, desconexión, desmantelación, removimiento, reensamblamiento, y reinstalción de maquinaria relocalizada, equipos y otras propiedades personales.

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Otros gastos necesarios tales como servicios profesionales para planificar y supervisar la mudanza, almacenaje temporal y el costo para licencias, permisos y certificados también pueden ser reembolsables. Esta no es la intención de ser una lista inclusiva de todos los gastos relacionados de mudanza. Su Agente de Reubicación puede proveerle una explicación completa de los gastos reembolsables.

Contrato de Mudanza Propia

Si usted elige tomar la responsabilidad total o parcial para la mudanza de su negocio, operación agrícola, u organización no-lucrativa, Caltrans puede aprobar un pago sin exceder el presupuesto más bajo de dos ofertas aceptables de una compañía comercial de muebles y mudanzas o por el Agente de Reubicación. Una mudanza a costo bajo o sin complicaciones puede ser basada en una sola oferta o estimado. En realidad, la ventaja de esta opción es que releva de la obligación al operador del negocio, operación agrícola u organización no-lucrativa desplazadas de documentar todos los gastos de mudanza. Caltrans puede hacer el pago sin documentación adicional siempre y cuando el pago sea limitado a la cantidad más baja aceptable de la oferta o del estimado. Otros gastos tales como servicios profesionales para planificar, costos de almacenaje y el costo de licencias, permisos, y certificados también pueden ser reembolsables si son necesarios. Estos gastos tienen que ser aprobados de ante mano por el Agente de Reubicación.

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Requisitos:

Antes de que se mueva, usted tiene que proveer a Caltrans con:

- El inventario certificado de toda la propiedad personal que va a mover.
- La fecha que usted intenta desalojar la propiedad.
- La dirección de la propiedad de reemplazamiento.
- La oportunidad de supervisar e inspeccionar la mudanza desde la propiedad adquirida a la propiedad de reemplazo.

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Gastos Relacionados

1. **Gastos Para la Búsqueda de una Propiedad de Reemplazo:** Negocios, operaciones agrícolas, y organizaciones no-lucrativas tienen derecho a un reembolso por gastos actuales razonables, incurridos en la búsqueda de una propiedad de reemplazo, sin exceder $2,500. Los gastos pueden incluir transportación, alimento y alojamiento cuando esté lejos de su casa; el valor razonable del tiempo que ha gastado buscando una propiedad de reemplazo; los honorarios pagados a agentes de bienes raíces o asesores; y otros gastos determinados por Caltrans como razonables y necesarios.



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2. **Pérdidas Directas de Bienes Personales Tangibles:** Los negocios, operaciones agrícolas, y organizaciones no-lucrativas desplazada pueden ser elegibles para un pago por pérdidas directas de bienes personales tangibles incurrido como resultado de la mudanza o descontinuación de la operación. Este pago deberá ser basado en el menor de:

   a) El valor de mercado de un producto para uso continuo en el sitio de desplazamiento menos la ganancia por su venta.

      O

   b) El costo estimado de mudanza y reinstalación de los objetos reemplazados es basado en la oferta mas baja o el estimado obtenido por Caltrans para mudanza elegible y costos relacionados, incluyendo desmantelamiento y reensamblaje, pero sin pago por almacenamiento.

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POR EJEMPLO:
Usted determina que el "contador de documentos" no puede ser movido a la nueva localidad por su condición, y usted no lo va a reemplazar en la nueva localidad.

El Valor de Mercado del Cortador de Documentos basado en su uso actual en La Localidad actual es de	$1,500
Ganancia: Precio recibido por la venta Del Cortador de Documentos	-$ 500
Valor Neto	$1,000
O	
El costo estimado de moverlo	$1,050
Basado en el "menor de," la cantidad de la "Perdida de Propiedad Personal Tangible"	= **$1,000**

Nota: Usted también tiene derecho a todos los costos razonables incurrido en su esfuerzo por vender el cortado de documentos (por ejemplo, anuncio comercial).

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3. **Compra de Substitución de la Propiedad Personal:** Si un objeto de propiedad personal, el cual es usado como parte del negocio, la operación agrícola, o la organización no-lucrativa, no es movido pero es prontamente reemplazado con un objeto substituto que hace una función comparable en el sitio de reemplazo, el desplazado tiene derecho al menor de:

   a) El costo de un objeto sustituto, incluyendo los costos de instalación en el sitio de reemplazamiento, menos cualquier ganacia por la venta o intercambio del objeto reemplazado;

      O

   b) El costo estimado de mudanza y reinstalación del objeto de reemplazo, basado en la oferta mas baja aceptable o el estimado obtenido por Caltrans para una mudanza elegible y gastos relacionados, incluyendo el desmantelamiento y reensamblaje, pero sin pago por almacenamiento.

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EJEMPLO A:

Usted puede determinar que la máquina copiadora no puede ser movida a la nueva localidad porque es ahora obsoleta y la va a reemplazar.

Costo de substituir una Máquina Copiadora incluyendo costos de instalación en el sitio de reemplazamiento.	$3,000
Pago por el intercambio	-$2,500
Valor Neto	$ 500

O

Costo estimado de la mudanza	$ 550

Basado en el "menor de" la cantidad de "La Propiedad Personal Substituida."	**$ 500**

EJEMPLO B:

Usted determina que las sillas no van a ser usadas en la nueva localidad, porque ya no combinan con la decoración, y usted las quiere reemplazar.

Costo de la sillas substitutas	$1,000
Ganancias: Por la venta de las Sillas	-$ 100
Valor Neto	$ 900

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O

Costo estimado de la mudanza $ 200

Basado en el "menor de," la cantidad de
"La Propiedad Personal de Substitución **$ 200**

Nota**:** Usted también tiene derecho a todos los gastos razonables incurridos en su esfuerzo por vender la copiadora (Ejemplo A) o las sillas (Ejemplo B).

4. **Desconección y Reinstalación**: Usted va a ser reembolsado por los costos actuales y razonables de desconección, desmantelamiento, mudanza, reensamblaje, e reinstalación de cualquier maquinaria, equipo u otra propiedad personal en relación a la mudanza a su nuevo local. Esto incluye conección a los servicios públicos disponibles en el lugar y a cualquier modificación de los objetos personales que sean necesario para adaptar a los servicios públicos en el sitio de reemplazamiento.

5. **Cambios Físicos en el nuevo local:** Usted puede ser reembolsado por cierto cambios físicos de la propiedad de reemplazamiento si los cambios son necesarios para permitir la reinstalación de la maquinaria o equipo necesario para la continua operación del negocio. ***Nota:*** *Los cambios no pueden incrementar el valor del edificio para propósitos generales, tampoco pueden incrementar la capacidad mecánica de los edificios más alla de los requerimientos normales.*

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6. **El costo de instalación de los servicios públicos desde la derecha de la línea de camino a las estructuras o mejoras en el lugar de reemplazo.**

7. **Los estudios de marketing, encuestas de viabilidad y análisis de suelos.**

8. **Evaluaciones de una sola vez o tarifas de impacto para uso pesado utilidad esperada.**

Gastos De Restablecimiento

Un pequeño negocio, operación agrícola, u organización no-lucrativa puede ser elegible para un pago, que no exceda $25,000, para los gastos actuales incurridos en la reubicación y el reestablecimiento en el sitio de reemplazo.

Gastos de reestablecimiento pueden incluir, pero no están limitado a, lo siguiente:

1. Reparación y mejoramiento de la propiedad de reemplazamiento requerido por las leyes, códigos, u ordenanzas federales, estatales o locales.

2. Modificaciones de la propiedad de reemplazamiento para hacer la estructura(s) apropiado para la operación del negocio.

3. Construcción e instalación de los letreros exteriores para anunciar el negocio.

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4. Redecoración o reemplazamiento como pintura, tapizado de pared, paneles, o carpetas cuando sean requeridas por la condición del sitio de reemplazo o con propósitos estéticos.

5. Anunciar la localidad del nuevo negocio.

6. El aumento del costo estimado de operación en el lugar de reemplazo durante los primeros dos años, por objetos como:

   a) Cargas de rentas
   b) Impuestos de propiedad personal o propiedad real
   c) Prima de seguros, y
   d) Carga de servicios públicos (excluyendo honorarios de impacto).

7. Otros objetos que el Departamento considere esenciales para el restablecimiento del negocio ú operación agrícola.

Pago De Una Vez (O Pago Fijo)

Negocios que han sido desplazados, operaciones agrícolas, y organizaciones no-lucrativas podrían ser elegibles para un pago fijo (en vez de) por los gastos actuales de mudanza, pérdida de propiedad personal, gastos de búsqueda, y gastos de restablecimiento. Los pagos fijos no podrán ser menos de $1,000 o más de $40,000.

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Para que un negocio sea elegible por un pago fijo, Caltrans debe de determinar lo siguiente:

1. El negocio posee o renta propiedad personal que debe de ser movida debido al desplazamiento.

2. El negocia no puede ser relocalizado sin una pérdida substancial de la clientela existente.

3. El negocio no es parte de un empresa comercial que tiene más de tres otros negocios conectados en una misma o actividad similar, las cuales están bajo el mismo dueño y no estan siendo desplazadas por el Departamento.

4. El negocio contribuyó materialmente a las ganancias del operador del negocio desplazado durante los do años anteriores al desplazamiento.

Cualquier operación del negocio que está conectado solamente en la renta del espacio de otros, no es elegible para un pago fijo. Esto incluye la renta de espacio con propósitos residenciales o de negocios.

Los requerimientos de elegibilidad para las operaciones agrícolas y organizaciones no-lucrativas son un poco diferentes a los requerimientos para negocios. Si usted está siendo desplazado de una finca o usted representa una organización no-lucrativa y está interesado en un pago fijo, por favor consulte con su consejero de reubicación para información adicional.

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Nota: Una organización sin fines de lucro debe corroborar que no puede ser reubicado sin una pérdida sustancial de patrocinio existente (membresía o clientela). El pago se basa en el promedio de dos años los ingresos brutos menos los gastos administrativos anuales.

La computación de Su Pago Fijo

El pago fijo para un negocio desplazado o una operación agrícola es basado en el promedio anual neto de ganancias de la operación por los dos años inmediatamente precedentes al año en el cual fue desplazado. Caltrans puede usar un período de dos años diferentes, si se determina que los dos últimos años no reflejan con certeza las ganacias de la operación.

EJEMPLO: Caltrans adquiere su propiedad y usted se mueve en el 2013:

2011 Ganancias Netas Anuales	$10,500
2012 Ganancias Netas Anuales	$12,500
TOTAL	$23,000
Promedio de los años	**$11,500**

Este podría ser la cantidad de su pago fijo. Recuerde – esto es "en vez de" todos los otros beneficios de mudanza, incluyendo restablecimiento. Usted tendrá que proveer Caltrans pruebas de las ganancias netas para verificar su reclamo.

Prueba de las ganancias netas pueden ser documentas con sus declaraciones de impuestos,

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cartas financieras certificadas, u otra evidencia razonable de las ganancias netas aceptables por Caltrans.

Nota: La computación de las organizaciones no-lucrativas difiere en que los pagos son computados en la base del promedio anual grueso de las ganancias menos los gastos administrativos por el período de los dos años especificados arriba.

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Antes de que se Mueva:

A. Completar una "Solicitud de Determinación de Titularidad" forma disponible de su agente de reubicación y volver de inmediato.

B. Somete una declaración escrita de las razones por las cuales su negocio no puede ser reubicado sin una pérdida substancial en la ganancia neta.

C. Provea una copia certificada de su declaración de impuestos de los dos años inmediatamente precedentes al año en el que se va a mover. (Si usted se mueve en cualquier momento en el año 2013, sin importar de cuando comenzaron las negociaciones o cuando el Estado tomó título de su propiedad, los años serán el de 2011 y el 2012).

D. Usted deberá ser notificado de la cantidad a la que tiene derecho después que la aplicación es recibida y aprobada.

E. Usted no puede recibir un pago hasta que se haya movido de la propiedad, Y que haya entregado un reclamo de pago dentro de los 18 meses de la fecha de mudanza.

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Asistencia de Asesoría de Reubicación



A cualquier negocio, operación agrícola, u organización no-lucrativa, desplazado por Caltrans debe de ofreceria los servicios de asistencia de reubicación con el propósito de localizar una propiedad de reemplazamiento. Los servicios de reubicación deben de ser proveídos por un empleado de Caltrans. Es la meta y el deseo de nosotros de servirle y asistirle en cualquier manera posible para ayudarle a reubicarse exitosamente.

Un Agente de Reubicación de Caltrans se comunicará con usted personalmente. Los servicios de reubicación y los pagos deberán ser explicados a usted de acuerdo con su elegibilidad. Durante la entrevista inicial con usted, sus necesidades y deseos deberán determinarse así como su necesidad de asistencia.

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Usted puede esperar recibir los siguientes servicios, consejos, y asistencia de su Agente de Reubicación quien le:

- Determinará sus necesidades y preferencias.
- Explicará los beneficios de reubicación y su elegibilidad.
- Proveerá información en las propiedades de reemplazo para su consideración.
- Proveerá información en aconsejarle como puede obtener ayuda para minimizar la adversidad en ajustarse a su nuevo local.
- Asistirá en completar los documentos de préstamos, aplicaciones de rentas o Formas de Reclamos de Reubicación.

Y puede proveerle información en:

- Depósitos de seguridad.
- Taza de intereses y términos.
- Pagos típicos de enganches.
- Permisos, honorarios, y ordenanzas locales.
- Requerimientos de préstamos SBA.
- Impuestos de bienes raíces.
- Literatura de educación al consumidor.

Si usted desea, su Agente de Reubicación le dará una lista actual de otras propiedades de reemplazamiento que esten disponibles. Se la proveerá transportación para inspeccionar la propiedad disponible, especialmente si usted es anciano o deshabilitado. Aunque usted puede usar los servicios de un vendedor de bienes raíces, Caltrans no lo puede referir a un agente específico.

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Su Agente de Reubicación está familiarizado con los servicios proveído por otros en su comunidad y le proveerá información de otros programas federales, estatales y locales que ofrecen asistencia a las personas desplazadas. Si usted tiene necesidades especiales, su Agente de Reubicación hará un esfuerzo para asegurar los servicios del personal entrenado de estas agencias que tienen la experiencia para ayudarle.

Si el proyecto de carreteras requiere que un número considerable de personas sean reubicadas, Caltrans establecerá Oficinas temporales de Reubicación en o cerca del proyecto. Las oficinas de projectos de reubicación serán abiertas durante las horas convenientes y hasta horas de la noche si es necesario.

Además de estos servicios, Caltrans será requerido a coordinar las actividades de reubicación con otras agencias causantes de desplazamiento para asegurar que todas las personas desplazadas reciban beneficions de reubicación iguales y consistentes.

Recuerde – Su Agente Reubicación está ahí para ofrecer consejos y asistencia. No tenga dudas en preguntar. Y esté seguro que usted entiende completamente todos los derechos y beneficios disponibles.

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SUS DERECHOS COMO UNA PERSONA DESPLAZADA

Es importante que recuerde que los beneficios de reubicación no tendrán un efecto adverso en su:

- Elegibilidad para Seguro Social
- Elegibilidad para Asistencia Social
- Declaración de Impuestos

Además, el Título VIII del Acta de Derechos Civiles de 1968, y las actas anteriores y sus enmiendas hacen ilegal las prácticas en la venta y renta de las unidades residenciales que estén basadas en la raza, color, religión, sexo, u origen nacional.

Los Procedimientos No-Discriminatorios de Caltrans aseguran que todos los servicios y/o beneficios sean administrados al público en general sin diferencia de raza, color, origen nacional, o sexo en cumplimiento con el Título VI del Acta de Derechos Civiles de 1964. (42 USC 2000 (d.) et seq.).

Y usted siempre tiene el Derecho de Apelar una decisión de Caltrans en relación a sus beneficios de reubicación y elegibilidad.

Su Derecho de Apelación es garantizado en la "Ley Uniforme" que establece que una persona puede apelar con el responsable de las agencia si esta persona cree que la agencia ha fallado en determinar apropiadamente la elegibilidad de la persona o la cantidad de un pago autorizado por la Ley.

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Si usted indica su disatisfacción, ya sea verbalmente o por escrito, Caltrans puede asistirle en entregar su caso y explicar los procedimientos a seguir. A usted le darán la oportunidad de ser oído pronta y totalmente. Usted tiene el derecho de ser representado por un consejero legal u otro representante en conección con la apelación (pero solamente a su propio costo).

Caltrans puede considerar todas las justificaciones pertinentes y materiales entregadas por usted y cualquier otra información disponible que sea necesaria para asegurar una revisión justa. Caltrans le proveerá con una determinación de la apelación por escrito con una explicación de la base de la decisión. Si usted todavía no está satisfecho con las asistencia prestada, Caltrans le aconsejará que usted puede buscar una revisión judicial.

Noticiero de la Ley para Americanos con Incapacidades Físicas (ADA):

Para personas con incapacidades físicas, este documento es disponible en formatos alternativos. Para información llame al número (916) 654-5413, o escriba a "Department of Transportation - Right of Way, MS-37, 1120 N Street, Sacramento, CA 95814."

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NOTAS:

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Non-Residential (Spanish)
Effective October 1, 2014

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Your Rights and Benefits as a Displaced Business, Farm, or Nonprofit Organization Under the California Department of Transportation Relocation Assistance Program



California Department of Transportation

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Introduction

In building a modern transportation system, the displacement of a small percentage of the population is often necessary. However, it is the policy of Caltrans that displaced persons shall not suffer unnecessarily as a result of programs designed to benefit the public as a whole.



Displaced businesses, farms, and nonprofit organizations may be eligible for relocation advisory services and payments.

This brochure provides information about available relocation services and payments. If you are required to move as the result of a Caltrans transportation project, a Relocation Agent will contact you. The Relocation Agent will be able to answer your specific questions and provide additional information.

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Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 as Amended "The Uniform Act"



The purpose of this Act is to provide for uniform and equitable treatment of persons displaced from their business, farm or non-profit organization, by federal and federally assisted programs and to establish uniform and equitable land acquisition policies for federal and federally assisted programs.

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49 Code of Federal Regulations Part 24 implements the "Uniform Act" in accordance with the following relocation assistance objective:

> To ensure that persons displaced as a direct result of federal or federally-assisted projects are treated fairly, consistently and equitably so that such persons will not suffer disproportionate injuries as a result of projects designed for the benefit of the public as a whole.

While every effort has been made to assure the accuracy of this booklet, it should be understood that it does not have the force and effect of law, rule, or regulation governing the payment of benefits. Should any difference or error occur, the law will take precedence.

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Relocation Services

The California Department of Transportation has two programs to aid businesses, farms and nonprofit organizations which must relocate.

These are:

1. The Relocation Advisory Assistance Program, which is to aid you in locating a suitable replacement property, and

2. The Relocation Payments Program, which is to reimburse you for certain costs involved in relocating. These payments are classified as:

    - Moving and Related Expenses (costs to move personal property not acquired).
    - Reestablishment Expenses (expenses related to the replacement property).
    - In-Lieu Payment (a fixed payment in lieu of moving and related expenses, and reestablishment expenses).

    Note: Payment for loss of goodwill is considered an acquisition cost. California law and the federal regulations mandate that relocation payments cannot duplicate other payments such as goodwill.

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You will **not** be eligible to receive any relocation payments until the State has actually made the first written offer to purchase the property. You will also receive at least 90 days' written notice before you must move.

Some Important Definitions...

Your relocation benefits can be better understood if you become familiar with the following terms:

Business: Any lawful activity, with the exception of a farm operation, conducted primarily for the purchase, sale, lease and rental of personal or real property, or for the manufacture, processing, and/or marketing of products, commodities, or any other personal property, or for the sale of services to the public, or solely for the purpose of this Act, and outdoor advertising display or displays, when the display(s) must be moved as a result of the project.

Small Business: A business having not more than 500 employees working at the site being acquired or displaced by a program or project.

Contributes Materially: A business or farm operation must have had average annual gross receipts of at least $5,000 or average annual net earnings of at least $1,000, in order to qualify as a bona-fide operation.

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Farm Operation: Any activity conducted solely or primarily for the production of one or more agricultural products or commodities, including timber, for sale and home use, and customarily producing such products or commodities in sufficient quantity to be capable of contributing materially to the operator's support.

Nonprofit Organization: A public or private entity that has established its nonprofit status under applicable law.

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Moving Expenses



If you qualify as a displaced business, farm or nonprofit organization, you are entitled to reimbursement of your moving costs and certain related expenses incurred in moving. To qualify you must legally occupy the property as the owner or lessee/tenant when Caltrans initiates negotiations for the acquisition of the property **OR** at the time Caltrans acquires title or takes possession of the property. However, to assure your eligibility and prompt payment of moving expenses, you should contact your Relocation Agent before you move.

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You Can Choose Either:

Actual Reasonable Moving Costs – You may be paid for your actual reasonable moving costs and related expenses when a commercial mover performs the move. Reimbursement will be limited to a move of 50 miles or less. Related expenses, with limitations, may include:

- Transportation.
- Packing and unpacking personal property.
- Disconnecting and reconnecting personal property related to the operation.
- Temporary storage of personal property.
- Insurance while property is in storage or transit, or the loss and damage of personal property if insurance is not reasonably available.
- Expenses in finding a replacement location ($2,500 limit).
- Professional services to plan and monitor the move of the personal property to the new location.
- Licenses, permits and fees required at the replacement location.

OR

Self-Move Agreement – You may be paid to move your own personal property based on the lower of two acceptable bids obtained by Caltrans.

Under this option, you will still be eligible for

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reimbursement of related expenses listed above that were not included in the bids.

OR

In-Lieu Payment – A small business may be eligible to accept a fixed payment between $1,000 and $40,000, based on your annual earnings IN LIEU OF the moving cost and related expenses. Consult your Relocation Agent for more information about this option.

Actual Reasonable Moving Costs

You may be paid the actual reasonable and necessary costs of your move when a professional mover performs the move. All of your moving costs must be supported by paid receipts or other evidence of expenses incurred. In addition to the transportation costs of your personal property, certain other expenses may also be reimbursable, such as packing, crating, unpacking and uncrating, and the disconnecting, dismantling, removing, reassembling, and reinstalling relocated machinery, equipment, and other personal property.

Other expenses such as professional services necessary for planning and carrying out the move, temporary storage costs, and the cost of licenses, permits and certifications may also be reimbursable. This is not intended to be an all-inclusive list of moving related expenses. Your Relocation Agent can

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provide you with a complete explanation of reimbursable expenses.

Self-Move Agreement

If you agree to take full responsibility for all or part of the move of your business, farm, or nonprofit organization, the Department may approve a payment not to exceed the lower of two acceptable bids obtained by the Department from qualified moving firms or a qualified Department staff employee. A low-cost or uncomplicated move may be based on a single bid or estimate at the Department's discretion. The advantage of this moving option is the fact that it relieves the displaced business, farm, or nonprofit organization operator from documenting all moving expenses. The Department may make the payment without additional documentation as long as the payment is limited to the amount of the lowest acceptable bid or estimate. Other expenses, such as professional services for planning, storage costs, and the cost of licenses, permits, and certifications may also be reimbursable if determined to be necessary. These latter expenses must be pre-approved by the Relocation Agent.

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Requirements:

Before you move, you must provide Caltrans with the:

- Certified inventory of all personal property to be moved.
- Date you intend to vacate the property.
- Address of the replacement property.
- Opportunity to monitor and inspect the move from the acquired property to the replacement property.

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Related Expenses

1. **Searching Expenses for Replacement Property:** Displaced businesses, farms, and nonprofit organizations are entitled to reimbursement for actual reasonable expenses incurred in searching for a replacement property, not to exceed $2,500. Expenses may include transportation, meals, and lodging when away from home; the reasonable value of the time spent during the search; fees paid to the real estate agents, brokers or consultants; and other expenses determined to be reasonable and necessary by the Department.



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2. **Direct Loss of Tangible Personal Property:** Displaced businesses, farms, and nonprofit organizations may be eligible for a payment for the actual direct loss of tangible personal property which is incurred as a result of the move or discontinuance of the operation. This payment will be based upon the lesser of:

   a) The fair market value of the item for continued use at the displacement site minus the proceeds from its sale.

      OR

   b) The estimated cost of moving and reinstalling the replaced item, based on the lowest acceptable bid or estimate obtained by the Department for eligible moving and related expenses, including dismantling and reassembly, but with no allowance for storage, cost of code requirement betterments or upgrades at the replacement site.

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EXAMPLE:
You determine that the "document shredder" cannot be moved to the new location because of its condition, and you will not replace it at the new location.

Fair Market Value of the Document Shredder based on its use at the current location	$ 1,500
Proceeds: Price received from selling the Document Shredder	- $ 500
Net Value	$ 1,000

OR

Estimated cost to move	$ 1,050

Based on the "lessor of," the amount of the "Loss of Tangible Personal Property" = **$ 1,000**

Note: You are also entitled to all reasonable costs incurred in attempting to sell the document shredder (e.g. advertisement).

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3. **Purchase of Substitute Personal Property:** If an item of personal property, which is used as part of the business, farm, or nonprofit organization, is not moved but is promptly replaced with a substitute item that performs a comparable function at the replacement site, the displacee is entitled to payment of the lesser of:

   a) The cost of the substitute item, including installation costs at the replacement site, minus any proceeds from the sale or trade-in of the replaced item;

      OR

   b) The estimated cost of moving and reinstalling the replaced item, based on the lowest acceptable bid or estimate obtained by the Department for eligible moving and related expenses, including dismantling and reassembly, but with no allowance for storage, cost of code requirement betterments or upgrades at the replacement site.

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EXAMPLE A:

You determine that the copying machine cannot be moved to the new location because it is now obsolete and you will replace it.

Cost of a substitute *Copying Machine* including installation costs at the replacement site.		$ 3,000
Trade-in Allowance	-	$ 2,500
Net Value		$ 500

OR

Estimated cost to move		$ 550

Based on the "lesser of," the amount of the "Substitute Personal Property" =	**$ 500**

EXAMPLE B:
You determine that the chairs will not be used at the new location because they no longer match the décor and you will replace them.

Cost of substitute chairs		$ 1,000
Proceeds: From selling the Chairs	-	$ 100
Net Value		$ 900

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OR

Estimated cost to move	$	200
Based on the "lesser of," the amount of the "Substitute Personal Property" =	**$**	**200**

Note: You are also entitled to all reasonable costs incurred in attempting to sell the document shredder (e.g. advertisement).

4. **Disconnecting and Reinstallation:** You will be reimbursed for your actual and reasonable costs to disconnect, dismantle, remove, reassemble and reinstall any machinery, equipment or other personal property in relation to its move to the new location. This includes connection to utilities available nearby and any modifications to the personalty that is necessary to adapt it to utilities at the replacement site.

5. **Physical changes at the new location:** You may be reimbursed for certain physical changes to the replacement property if the changes are necessary to permit the reinstallation of machinery or equipment necessary for the continued operation of the business. ***Note:*** *The changes cannot increase the value of the building for general purposes, nor can they increase the mechanical capability of the buildings beyond its normal requirements.*

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6. **The cost of installing utilities from the right of way line to the structure(s) or improvements on the replacement site.**

7. **Marketing studies, feasibility surveys and soil testing.**

8. **One-time assessments or impact fees for anticipated heavy utility usage.**

Reestablishment Expenses

A small business, farm or nonprofit organization may be eligible for a payment, not to exceed $25,000, for expenses actually incurred in relocating and reestablishing the enterprise at a replacement site.

Reestablishment expenses may include, but are not limited to, the following:

1. Repairs or improvements to the replacement real property required by Federal, State or local laws, codes or ordinances.

2. Modifications to the replacement of real property to make the structure(s) suitable for the business operation.

3. Construction and installation of exterior signing to advertise the business.
4. Redecoration or replacement such as painting, wallpapering, paneling or carpeting when

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required by the condition of the replacement site or for aesthetic purposes.

5. Advertising the new business location.

6. The estimated increased costs of operation at the replacement site during the first two years, for items such as:

   a) Lease or rental charges
   b) Personal or real property taxes
   c) Insurance premiums, and
   d) Utility charges (excluding impact fees).

7. Other items that the Department considers essential for the reestablishment of the business or farm.

In-Lieu Payment (Fixed)

Displaced businesses, farms, and nonprofit organizations may be eligible for a fixed payment in lieu of (in place of) actual moving expenses, personal property losses, searching expense, and reestablishment expenses. The fixed payment may not be less than $1,000 or more than $40,000.

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For a business to be eligible for a fixed payment, the Department must determine the following:

1. The business owns or rents personal property that must be moved due to the displacement.

2. The business cannot be relocated without a substantial loss of existing patronage.

3. The business is not part of a commercial enterprise having more than three other businesses engaged in the same or similar activity, which are under the same ownership and are not being displaced by the department.

4. The business contributed materially to the income of the displaced business operator during the two taxable years prior to displacement.

Any business operation that is engaged solely in the rental of space to others is not eligible for a fixed payment. This includes the rental of space for residential or business purposes.

Eligibility requirements for farms and nonprofit organizations are slightly different than business requirements. If you are being displaced from a farm or you represent a nonprofit organization and are interested in a fixed payment, please consult your relocation counselor for additional information.

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Note: A nonprofit organization must substantiate that it cannot be relocated without a substantial loss of existing patronage (membership or clientele). The payment is based on the average of two years annual gross revenues less administrative expenses.

The Computation of Your In-Lieu Payment:

The fixed payment for a displaced business or farm is based upon the average annual net earnings of the operation for the two taxable years immediately preceding the taxable year in which it was displaced. Caltrans can use a different two year period if it is determined that the last two taxable years do not accurately reflect the earnings of the operation.

EXAMPLE: Caltrans acquires your property and you move in 2013:

2011 Annual Net Earnings	$ 10,500
2012 Annual Net Earnings	$ 12,500
TOTAL	$ 23,000
Average over two years	**$ 11,500**

This would be the amount of your in-lieu payment. Remember – this is in-lieu of all other moving benefits. You must provide the Department with proof of net earnings to support your claim.

Proof of net earnings can be documented by income tax returns, certified financial statements, or

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other reasonable evidence of net earnings acceptable to the Department.

Note: The computation for nonprofit organizations differs in that the payment is computed on the basis of average annual gross revenues less administrative expenses for the two-year period specified above.

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Before You Move:

A. Complete a "Request for Determination of Entitlement" form available from your Relocation Agent and return it promptly.

B. Include a written statement of the reasons the business cannot be relocated without a substantial loss in net earnings.

C. Provide certified copies of tax returns for the two tax years immediately preceding the tax year in which you move. (If you move anytime in the year 2013, regardless of when negotiations began or the State took title to the property, the taxable years would be 2011 and 2012).

D. You will be notified of the amount you are entitled to after the application is received and approved.

E. You cannot receive the payment until after you vacate the property AND submit a claim for the payment within 18 months of the date of your move.

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Relocation Advisory Assistance



Any business, farm or non-profit organization, displaced by Caltrans shall be offered relocation advisory assistance for the purpose of locating a replacement property. Relocation services are provided by qualified personnel employed by Caltrans. It is their goal and desire to be of service to you and assist in any way possible to help you successfully relocate.

A Relocation Agent from Caltrans will contact you personally. Relocation services and payments will be explained to you in accordance with your eligibility. During the initial interview with you, your needs and desires will be determined as well as your need for assistance.

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You can expect to receive the following services, advice and assistance from your Relocation Agent who will:

- Determine your needs and preferences.
- Explain the relocation benefits and eligibility.
- Provide information on replacement properties for your consideration.
- Provide information on counseling you can obtain to help minimize hardships in adjusting to your new location.
- Assist you in completing loan documents, rental applications or Relocation Claims Forms.

AND provide information on:

- Security deposits.
- Interest rates and terms.
- Typical down payments.
- Permits, fees and local planning ordinances.
- SBA loan requirements.
- Real property taxes.
- Consumer education literature.

If you desire, your Relocation Agent will give you current listings of other available replacement property. Transportation will be provided to inspect available property, especially if you are elderly or handicapped. Though you may use the services of a real estate broker, Caltrans cannot provide a referral.

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Your Relocation Agent is familiar with the services provided by others in your community and will provide information on other federal, state, and local programs offering assistance to displaced persons. If you have special needs, your Relocation Agent will make every effort to secure the services of those agencies with trained personnel who have the expertise to help you.

If the highway project will require a considerable number of people to be relocated, Caltrans will establish a temporary Relocation Field Office on or near the project. Project relocation offices will be open during convenient hours and evening hours if necessary.

In addition to these services, Caltrans is required to coordinate its relocation activities with other agencies causing displacements to ensure that all persons displaced receive fair and consistent relocation benefits.

Remember – YOUR RELOCATION AGENT is there to offer advice and assistance. Do not hesitate to ask questions. And be sure you fully understand all of your rights and available benefits.

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YOUR RIGHTS AS A DISPLACEE

It is important to remember that your relocation benefits will not have an adverse effect on your:

- Social Security Eligibility
- Welfare Eligibility
- Income Taxes

In addition, the Title VIII of the Civil Rights Act of 1968 and later acts and amendments make discriminatory practices in the purchase and rental of most residential units illegal if based on race, color, religion, sex, or national origin.

Caltrans' Non-Discrimination Policy ensures that all services and/or benefits will be administered to the general public without regard to race, color, national origin, or sex in compliance with Title VI of the 1964 Civil Rights Act (42 USC 2000d. et seq.).

And you always have the Right to Appeal any decision by Caltrans regarding your relocation benefits and eligibility.

Your Right of Appeal is guaranteed in the "Uniform Act" which states that any person may file an appeal with the head of the responsible agency if that person believes that the agency has failed to properly determine the person's eligibility or the amount of a payment authorized by the Act.

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If you indicate your dissatisfaction, either verbally or in writing, Caltrans will assist you in filing an appeal and explain the procedures to be followed. You will be given a prompt and full opportunity to be heard. You have the right to be represented by legal counsel or other representative in connection with the appeal (but solely at your own expense).

Caltrans will consider all pertinent justifications and materials submitted by you and other available information needed to ensure a fair review. Caltrans will provide you with a written determination resulting from the appeal with an explanation of the basis for the decision. If you are still dissatisfied with the relief granted, Caltrans will advise you that you may seek judicial review.

Americans with Disabilities Act (ADA) Notice:

This document is available in alternative formats for people with physical disabilities. Please call (916) 654-5413, or write to "Department of Transportation - Right of Way, MS-37, 1120 N Street, Sacramento, CA 95814," for information.

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Appendix D Environmental Commitments Record

Appendix D **Environmental Commitments Record**

In order to be sure that all of the environmental measures identified in this document are executed at the appropriate times, the following mitigation program (as articulated on the proposed Environmental Commitments Record [ECR] which follows) would be implemented. During project design, avoidance, minimization, and /or mitigation measures will be incorporated into the project's final plans, specifications, and cost estimates, as appropriate. All permits will be obtained prior to implementation of the project. During construction, environmental and construction/engineering staff will ensure that the commitments contained in this ECR are fulfilled. Following construction and appropriate phases of project delivery, long-term mitigation maintenance and monitoring will take place, as applicable. As the following ECR is a draft, some fields have not been completed, and will be filled out as each of the measures is implemented. Note: Some measures may apply to more than one resource area. Duplicative or redundant measures have not been included in this ECR.

Permit Type	Agency	Date Received	Expiration	Notes
Section 401 Water Quality Certification	Santa Ana or San Diego Regional Water Quality Control Board	TBD		
Section 404 Nationwide 14 Permit	U.S. Army Corps of Engineers	TBD		
Lake and Streambed Alteration Agreement	California Department of Fish and Wildlife	TBD		

Date of ECR: 08/27/2024
Date: (MONTH DAY YEAR of approved ED and type Note: this will not be populated in PA/ED phase)

ENVIRONMENTAL COMMITMENTS RECORD
(I-215/Keller Road New Interchange Project)

08-RIV-215
PM R14.10/R15.26

Project Phase:
☒ PA/ED (*DED/FED*)
☐ PS&E Submittal_____ %
☐ Construction

EA 08-0Q220
PN 0800020339
Generalist: Hannah Duarte
ECL: TBD

Avoidance, Minimization, and/or Mitigation Measures	Page	Environmental Analysis Source	Responsible for Development and/or Implementation of Measure	Timing/ Phase	SSP or NSSP:	Action(s) Taken to Implement Measure/if checked No, add Explanation here	PS&E Task Complete	Mitigation for significant impacts under CEQA?	
							Date / Initials	YES	NO
LU-1: Restoration of Land Temporarily Used During Construction. Prior to construction, the Contractor shall generate time-stamped photographic documentation of the preconstruction conditions of all TCEs. All construction access, mobilization, material laydown, and staging areas shall be returned to the property owner in a condition equal to the preconstruction staging condition.	2-24	CIA (2024)	Resident Engineer/Contractor	ROW Phase	TCE requirement				X
COM-1: During final design, modifications to existing driveways shall be included to re-establish access for the parcels affected by a partial acquisition due to the construction of a new roadway improvement.	4-10	CIA (2024)	Design	Final Design					X
REL-1: Before final design, Caltrans and the City of Murrieta ensure that all property acquisition will be handled in accordance with the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Uniform Act) (Public Law 91-646, 84 Stat. 1894). The Uniform Act mandates that certain relocation services and payments by the City be made available to eligible residents, businesses, and nonprofit organizations displaced by its projects. The Uniform Act provides for uniform, fair and consistent treatment by federal or federally assisted programs of persons displaced from their homes, businesses, or farms, and establishes uniform, fair and consistent land acquisition policies.	4-40	CIA (2024)	District Design, City of Murrieta	Prior to Final Design					X
T-1: Transportation Management Plan. A qualified traffic engineer will develop a TMP and traffic control plans and applicable specifications during final design. The TMP and traffic control plans would be developed in tandem. The TMP would focus on means to reduce traveler delays and enhance traveler, pedestrian, and cyclist safety during proposed Project construction. Key elements in the TMP include: • Public information/public awareness campaign • Motorist information strategies • Incident management • Construction strategies • Demand management • Alternate route Strategies	5-7	CIA (2024)	District Design/District Traffic Management/Resident Engineer /Contractor	Construction	2023 Standard Specification (SS)Section: 12-4 SSP 12-4.02A; SSP 12-4.02C; SSP 12-4.03C; SSP 12-4.04C				X

Date of ECR: 08/27/2024
Date: (MONTH DAY YEAR of approved ED and type Note: this will not be populated in PA/ED phase)

ENVIRONMENTAL COMMITMENTS RECORD
(I-215/Keller Road New Interchange Project)

08-RIV-215
PM R14.10/R15.26

Project Phase:
☒ PA/ED (*DED/FED*)
☐ PS&E Submittal_____ %
☐ Construction

EA 08-0Q220
PN 0800020339
Generalist: Hannah Duarte
ECL: TBD

Avoidance, Minimization, and/or Mitigation Measures	Page	Environmental Analysis Source	Responsible for Development and/or Implementation of Measure	Timing/ Phase	SSP or NSSP:	Action(s) Taken to Implement Measure/if checked No, add Explanation here	PS&E Task Complete	Mitigation for significant impacts under CEQA?	
							Date / Initials	YES	NO
Traffic control plans would identify the approach for managing traffic during construction to maximize efficiency and safety. The TMP and traffic control plans will be prepared in coordination with the Cities of Menifee, Murrieta and Riverside County, and will be reviewed and approved by Caltrans, District 8 and incorporated into the plans, specifications, and estimates (PS&E).									
AES-1: The exposed surface of new retaining walls will be designed and constructed to include a fractured fixed texture concrete finish. The depth of relief for the finish will be determined in coordination with Caltrans. The finish of retaining walls will be clearly identified on construction plans submitted to Caltrans for review and approval.	3-8	VIA (2019)	District Design/District Landscape Architecture/Resident Engineer/Contractor	Final Design, Construction					X
AES-2: Temporarily impacted terrain that parallels new or modified travel lanes (or sidewalk features or on- and off-ramps) will be revegetated with drought-tolerant plant species or appropriate seed mixes. The intent of revegetation will be to reduce visible bands and lines of proposed Project-related disturbance in the landscape. Appropriate plant species or seed mixes will be determined in coordination with Caltrans landscape architects. The installation of landscaping and irrigation will be the responsibility of the City of Murrieta and conducted by an appropriate and certified landscape contractor. A Landscape Maintenance Agreement will be developed and executed with Caltrans to determine landscape maintenance responsibility.	3-8	VIA (2019)	District Design/District Traffic Management/Resident Engineer/Contractor	Final Design, Construction					X
AES-3: A highway planting plan would be implemented to include standard erosion control specifications for slope stabilization and vegetation establishment in accordance with the Caltrans I-215 Conceptual Corridor Master Plan.	3-8	VIA (2019)	Final Design, Construction	Design/Construction					X

Date of ECR: 08/27/2024
Date: (MONTH DAY YEAR of approved ED and type Note: this will not be populated in PA/ED phase)

ENVIRONMENTAL COMMITMENTS RECORD
(I-215/Keller Road New Interchange Project)

08-RIV-215
PM R14.10/R15.26

Project Phase:
☒ PA/ED (*DED/FED*)
☐ PS&E Submittal_____ %
☐ Construction

EA 08-0Q220
PN 0800020339
Generalist: Hannah Duarte
ECL: TBD

Avoidance, Minimization, and/or Mitigation Measures	Page	Environmental Analysis Source	Responsible for Development and/or Implementation of Measure	Timing/ Phase	SSP or NSSP:	Action(s) Taken to Implement Measure/if checked No, add Explanation here	PS&E Task Complete	Mitigation for significant impacts under CEQA?	
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CR-1: In the event of a discovery, the archaeological or Native American monitor will temporarily halt or divert ground-disturbing activities within 60 feet of the discovery and will immediately notify the Project Engineer, Caltrans Archaeologist PQS, and Consulting Archaeologist, in accordance with the Caltrans Standard Specifications Section 14-2.03 (Caltrans 2018a). Archaeological resources will not be moved until directed to by Caltrans District 8 Cultural Studies Office.	17	FNAE (2022)	District Cultural Studies/ District Design/ Resident Engineer/ Contractor	Construction	2023 SS Section: 14-2 SSP 14-1.02; SSP 14-2.03B				X
CR-2: If potential human remains are discovered, the archaeological and Native American monitors will record the presence of the bone and make a tentative, unofficial assessment of the likelihood of its being human; halt work within a minimum of 60 feet of the discovery; and notify the Project Engineer, Consulting Archaeologist, and Caltrans Archaeologist. If the bone is identified as human by the Caltrans Archaeologist or Consulting Archaeologist, or if it is questionable in origin, treatment procedures of the bone and area of discovery will closely adhere to Health and Safety Code 7050.5 and PRC 5097.98, including immediate notification of the County Coroner. All remains will be left in place and protected until they can be examined by the County Coroner; no work will occur in the area until the coroner has made a determination as to the origin of the remains. If the remains are determined by the coroner to be of Native American origin, the coroner will inform the NAHC. The NAHC will identify the Most Likely Descendant (MLD), who will provide recommendations regarding treatment of the remains within 48 hours of being granted access to the discovery location. Caltrans will coordinate with the MLD and the NAHC to ensure the remains are treated in a culturally sensitive manner consistent with PRC 5097.98 and Health and Safety Code 7070.5. No photographs or destructive analyses will be performed without the written permission of the MLD.	17	FNAE (2022)	District Cultural Studies/ District Design/ Resident Engineer/ Contractor	Construction	2023 SS Section: 14-2 SSP 14-1.02; SSP 14-2.03B				X

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CR-3: An ESA has been established for site CA-RIV-645 to protect and preserve intact portions of the site. ESA fencing will be established along the existing Caltrans ROW fence to demarcate the protected area. No proposed Project personnel or equipment will be permitted in the protected area; all work must be performed outside the ESA. An Archaeological Monitoring Area (AMA) has been established within the Area of Direct Impact within the boundary of site CA-RIV-645. No ground-disturbing activities will occur within the AMA unless an archaeological monitor is present. The establishment of the ESA will be performed in accordance with Caltrans Standard Specifications (Caltrans 2022e) and will be shown on proposed Project design plans (refer to Attachment 2 of the ESA Action Plan) and included in the specification.	17	FNAE (2022)	District Cultural Studies/ District Design/ Resident Engineer/ Contractor	Final Design/Construction	2023 SS Section: 14-2 SSP 14-1.02; SSP 14-2.03B				X
CR-4: All archaeological monitors will meet or exceed the PQS equivalency for Co-PI, Prehistoric Archaeology, as described in the PA Attachment 1 (FHWA et al. 2014). The Caltrans District 8 Cultural Studies Office will review and approve all monitor resumes before construction. The archaeological monitor must be present for the delineation of the ESA fence and all construction activities in the AMA. No construction activities may commence within the AMA without the archaeological monitor. A Native American monitor could be present for ground-disturbing activities in the AMA with the archaeological monitor, but construction activities can proceed without the Native American monitor present. The Native American monitor will be approved by one of the consulting Native American tribes.	18	FNAE (2022)	District Cultural Studies/ District Design/ Resident Engineer/ Contractor	Prior to start of construction.	2023 SS Section: 14-2 SSP 14-1.02; SSP 14-2.03B				X

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CR-5: A Dust Control Plan has been developed to protect rock art at site CA-RIV-645 from potential damage caused by dust. The plan includes placing a protective cover over the rock that contains the pictograph by the consulting archaeologist or archaeological monitor, along with the Native American monitor, and periodic inspections by the archaeologist and Native American monitor. Only the archaeological monitor, Consulting Archaeologist, Caltrans Archaeologist, and Native American monitor are permitted inside the ESA to install, inspect, and service the rock art protective covering. If requested by the archaeologists and Native American monitor, construction personnel may assist.	18	FNAE (2022)	District Cultural Studies/ District Design/ Resident Engineer/ Contractor	Final Design, Construction					X
WQ-1: Construction General Permit. Construction of the proposed Project will comply with the provisions of the NPDES General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit) Order No. WQ 2022-0057-DWQ (adopted on September 8, 2022 and effective on September 1, 2023), or any other subsequent permit. The proposed Project will comply with the Construction General Permit by preparing and implementing a SWPPP to address all construction-related activities, equipment, and materials that have the potential to impact water quality for the appropriate risk level. The SWPPP will identify the sources of pollutants that may affect the quality of stormwater and include BMPs to control the pollutants (for example, sediment control, catch basin inlet protection, construction materials management, and non-stormwater BMPs). All work will conform to the construction site BMP requirements specified in the latest edition of the Caltrans Stormwater Quality Handbooks: Construction Site Best Management Practices Manual to control and minimize the impacts of construction and construction-related activities, materials, and pollutants on the watershed. These include, but are not limited to, temporary sediment control, temporary soil stabilization, concrete waste management, street sweeping and vacuuming, wind erosion control, and other non-stormwater BMPs.	TBD	EIR/EA	District Design / District Storm Water/Resident Engineer/Contractor	Final Design, Construction	2023 SS Section: 13 SSP 13-3; SSP 13-7.02C; SSP 13-9.03				X

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WQ-2: Caltrans MS4 Permit. Design and operation of the proposed Project will comply with the provisions of the NPDES Permit, Statewide Stormwater Permit, WDRs for the State of California, Department of Transportation Order No. 2022-0033-DWQ, NPDES No. CAS000003 (Caltrans MS4 Permit), or any subsequent permit. This permit is applicable to the portions of the proposed Project within and outside of the Caltrans ROW. Caltrans-approved treatment and design pollution prevention BMPs will be implemented within and outside of the Caltrans ROW to the maximum extent practicable. Treatment BMPs will be sized and designed to retain and infiltrate the water quality volume and would not result in an increase in velocity or volume of downstream flow. Treatment BMPs include infiltration basins and biofiltration swales. Design pollution prevention BMPs include preservation of existing vegetation, slope/surface protection systems (permanent soil stabilization and replanting of vegetation), concentrated flow conveyance systems, and LID efforts.	TBD	EIR/EA	District Design / District Storm Water/Resident Engineer/Contractor	Final Design, Construction	2023 SS Section: 13 SSP 13-3; SSP 13-7.02C; SSP 13-9.03				X
GEO-1: Final Geotechnical Design Report. During the PS&E phase, site-specific geotechnical investigation - including exploration, testing and evaluation will be conducted based on the selected proposed Project alternative. The Geotechnical Design Report will characterize the proposed Project area subsurface conditions and include evaluations for liquefaction, expansion, collapse and corrosion potential, and slope stability. Borings and infiltration tests will also be required to support the design for new stormwater infiltration areas. The Project-specific findings and recommendations of the geotechnical investigation will be approved by Caltrans and incorporated into the final design of the selected Build Alternative.	TBD	EIR/EA	District Design	Prior to Final Design					X
GEO-2: Foundation Report. During the PS&E phase, a detailed Foundation Report will be prepared. Geotechnical investigation as part of the Foundation Report will address bridge widening, retaining walls, storm water conduits, and overhead signs. The Foundation Report findings and recommendations will be approved by Caltrans and incorporated into the final design of the selected Build Alternative.	TBD	EIR/EA	District Design	Prior to Final Design					X

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GEO-3: Excavations associated with construction may need shoring. Excavations during construction should be carried out in such a manner that failure and excessive ground movement do not occur. Where there is insufficient space for open excavations, shoring should be used to support the excavation.	TBD	EIR/EA	District Design/ Resident Engineer/ Contractor	Final Design, Construction					X
GEO-4: All temporary excavations, including utility trenches, retaining wall excavations, and other excavations should be performed in accordance with the proposed Project plans, specifications, OSHA and Cal-OSHA requirements, and the current edition of the California Construction Safety Orders. The Geotechnical Design Report and Foundation Report to be prepared during the PS&E phase will include an interpretation of the site-specific subsurface conditions to be used for temporary excavation or shoring design.	TBD	EIR/EA	District Design/ Resident Engineer/ Contractor	Final Design, Construction					X
GEO-5: The contractor must be responsible for providing a “competent person” as defined in Article 6 of the California Construction Safety Orders. During construction, exposed soil conditions should be regularly evaluated to verify that conditions are as anticipated. Close coordination between their competent person and the geotechnical engineer of record should be maintained to facilitate construction while providing safe excavations.	TBD	EIR/EA	Resident Engineer/Contractor	Construction					X

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PAL-1: Paleontological Mitigation Plan. The PMP will be prepared by a qualified paleontologist during final design. Preparation of the PMP shall follow the Caltrans guidelines in the Standard Environmental Reference (SER) Environmental Handbook, Volume 1, Chapter 8 (Caltrans 2017c), as well as guidelines from the Society of Vertebrate Paleontology. Following these guidelines, the PMP shall be prepared by a qualified paleontologist and shall include the following elements: • Required 1-hour preconstruction paleontological sensitivity training for earthmoving personnel; • A signed repository agreement; • Field and laboratory methods proposed (must be consistent with repository requirements; and • A required Paleontological Mitigation Report upon completion of proposed Project earthmoving.	27	PIR/PER (2019)	District Design/District Paleontologist /Resident Engineer/Contractor	Final Design, Prior to Construction	2023 SS Section: 14-7 SSP 14-7.04			X	
PAL-2: Worker Awareness Training. Prior to the start of construction, a worker awareness training on paleontological resources will be provided to all construction personnel before the start of construction. The training should include at minimum, the following: • The types of fossils that could occur at the proposed Project site; • The procedures that should be taken in the event of an unexpected fossil discovery; • Laws protecting paleontological resources; and • Penalties for destroying or removing paleontological resources.	TBD	EIR/EA	District Design/District Paleontologist/Resident Engineer/Contractor	Prior to Construction	2023 SS Section: 14-7 SSP 14-7.04				X
PAL-3: Discovery of Unanticipated Paleontological Resources. If unanticipated paleontological resources are discovered, all work within 60 feet of the discovery must cease and the construction Resident Engineer must be notified. Work cannot continue near the discovery until authorized by the Resident Engineer.	27	PIR/PER (2019)	Resident Engineer/Contractor/Monitor	Construction	2023 SS Section: 14-7.03				X

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HAZ-1: Soil sampling for full and partial acquisition properties and any locations where excess soil may be generated shall be conducted during the Caltrans Plans, Specifications, and Estimates (PS&E) phase and prior to ROW acquisition. Near-surface soils would be tested for chemicals of potential concern, including OCPs and arsenic associated with the former agricultural row crop areas, and ACMs, Title 22 metals, and termiticide pesticides associated with former structures.	35	ISA (2018)	District Design/District Environmental Engineering/Resident Engineer/Contractor	Prior to Final Design					X
HAZ-2: Before excavating, transporting, or stockpiling soil, the contractor shall prepare a Lead Compliance Plan in accordance with Caltrans Standard Specifications Section 7-1.02K(6)(j)(ii) and/or 7-1.02K(6)(j)(iii), the Caltrans Code of Safety Practices, the California Code of Regulations, and California Occupational Safety and Health Administration (Cal/OSHA) standards. The Lead Compliance Plan shall address the presence of lead in soils and paints in the proposed Project area, as well as the health and safety of construction workers.	35	ISA (2018)	Resident Engineer/ Contractor	Final Design, Construction	2023 SS Section: 14-11 SSP 14-11.09				X
HAZ-3: Striping paint on the paved roads associated with the proposed Project shall be sampled and tested for lead chromate in accordance with Caltrans' Construction Manual Chapter 4, Section 84, Markings, and Chapter 7-107, Hazardous Waste and Contamination, by trained and/or licensed professionals (Caltrans 2017a). The field and analytical data obtained during this study shall be used to provide a review of the sampling locations and descriptions, a summary of the analytical results, and recommendations for striping paint removal, containment, and offsite transportation and disposal, as appropriate.	35	ISA (2018)	Resident Engineer/ Contractor	Construction	2023 SS Section: 14-11 SSP 14-11.12				X

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HAZ-4: After property acquisition and before demolition, a demolition survey for existing structures proposed for demolition and/or modification shall be assessed for the possible presence of asbestos-containing materials (ACMs) and lead-based paints (LBPs). An Asbestos Compliance Plan shall be completed prior to the asbestos survey. The surveys shall be conducted by trained and/or licensed professionals in compliance with U.S. Environmental Protection Agency (EPA) requirements, the National Emission Standards for Hazardous Air Pollutants, 40 Code of Federal Regulations (CFR), South Coast Air Quality Management District (SCAQMD) Rule 1403, U.S. Department of Housing and Urban Development and California Department of Public Health guidelines, and Occupational Safety and Health Administration (OSHA) guidelines for worker safety. The results of these surveys shall provide a description of the ACM and LBP locations, estimated quantities, and recommendations for removal, containment, and offsite transportation and disposal.	35	ISA (2018)	Resident Engineer/ Contractor	Construction/ Prior to demolition	2023 SS Section: 14-9 SSP 14-9.02				X
HAZ-5: Per SCAQMD Rule 1403(d)(1)(B), notification and applicable fees shall be submitted to the SCAQMD at least 10 days before proceeding with any demolition or renovation of a structure. The construction contractor shall adhere to the requirements of SCAQMD Rule 1403 during renovation and demolition activities.	35	ISA (2018)	District Design/District Environmental Engineering/Resident Engineer/Contractor	Construction	2023 SS Section: 14-9 SSP 14-9.02				X
HAZ-6: If hazardous materials contamination or sources are suspected or identified during proposed Project construction activities, an environmental professional shall evaluate the required course of action. This course of action will follow the Unknown Hazards Procedures described in Caltrans Construction Manual Chapter 7 (Caltrans 2017a).	35	ISA (2018)	District Design/District Environmental Engineering/Resident Engineer/Contractor	Construction	2023 SS Section: 14-11.02				X
AQ-1: The construction contractor must comply with the Caltrans' Standard Specifications in Section 14-9 (2024). Section 14-9.02 specifically requires compliance by the contractor with all applicable laws and regulations related to air quality, including air pollution control district and air quality management district regulations and local ordinances.	49	AQR (2024)	District Design/District Environmental Engineering/Resident Engineer/Contractor	Final Design, Construction	2023 SS Section: 14-9 SSP 14-9.02				X

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AQ-2: Water or dust palliative will be applied to the site and equipment as often as necessary to control fugitive dust emissions.	50	AQR (2024)	District Design/District Environmental Engineering/Resident Engineer/Contractor	Final Design, Construction	2023 SS Section: 10-5 2023 SS Section 18				X
AQ-3: Soil binder will be spread on any unpaved roads used for construction purposes, and on all the proposed Project's construction parking areas.	50	AQR (2024)	District Design/District Environmental Engineering/Resident Engineer/Contractor	Final Design, Construction	2023 SS Section: 10-5				X
AQ-4: Trucks will be washed as they leave the proposed Project area as necessary to control fugitive dust emissions.	50	AQR (2024)	District Design/District Environmental Engineering/Resident Engineer/Contractor	Final Design, Construction					X
AQ-5: Construction equipment and vehicles will be properly tuned and maintained. All construction equipment will use low-sulfur fuel as required by California Code of Regulations Title 17, Section 93114.	50	AQR (2024)	District Design/District Environmental Engineering/Resident Engineer/Contractor	Final Design, Construction	2023 SS Section 7-1.02C 2023 SS Section: 14-9.02C				X
AQ-6: A dust control plan will be developed, during the design phase, documenting sprinkling, temporary paving, speed limits, and timely revegetation of disturbed slopes as needed to minimize construction impacts on existing communities.	50	AQR (2024)	District Design/District Environmental Engineering/Resident Engineer/Contractor	Final Design, Construction	2023 SS Section: 10-5				X
AQ-7: Equipment and materials storage sites will be located as far away from residential and park uses as practicable. Construction areas will be kept clean and orderly.	50	AQR (2024)	District Design/District Environmental Engineering/Resident Engineer/Contractor	Construction					X

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AQ-8: ESA-like areas or their equivalent will be established near sensitive air receptors. Within these areas, construction activities involving the extended idling of diesel equipment or vehicles will be prohibited, to the extent feasible.	50	AQR (2024)	District Design/District Environmental Engineering/Resident Engineer/Contractor	Final Design, Construction					X
AQ-9: Track-out reduction measures, such as gravel pads at the proposed Project's access points to minimize dust and mud deposits on roads affected by construction traffic, will be used.	50	AQR (2024)	Resident Engineer/ Contractor	Construction	2023 SS Section: 10-5				X
AQ-10: All transported loads of soils and wet materials will be covered before transport, or adequate freeboard (space from the top of the material to the top of the truck) will be provided to minimize the emission of dust (particulate matter) during transportation.	50	AQR (2024)	Resident Engineer/ Contractor	Construction	2023 SS Section: 14-9				X
AQ-11: Dust and mud that are deposited on paved, public roads due to construction activity and traffic will be promptly and regularly removed to reduce particulate matter emissions.	50	AQR (2024)	Resident Engineer/ Contractor	Construction	2023 SS Section: 14-9				X
AQ-12: To the extent feasible, construction traffic will be scheduled and routed to reduce congestion and related air quality impacts caused by idling vehicles along local roads during peak travel times.	50	AQR (2024)	Resident Engineer/ Contractor	Construction					X
NOI-1: Construction activities within the City right-of-way will comply with the allowed construction hours specified by the City's Noise Ordinance (7:00 a.m. to 8:00 p.m. on weekdays and weekends), and the control of noise from construction activities within the Caltrans right-of-way will conform to Caltrans Standard Specifications, Section 14-8.02, Noise Control. The nighttime noise level from the contractor's operations, between the hours of 9:00 p.m. and 6:00 a.m., will not exceed 86 maximum A-weighted decibels (dBA Lmax) at a distance of 50 feet.	8-1	NSR (2024)	District Design/District Environmental Engineering/Resident Engineer/Contractor	Construction	2023 SS Section 14-8 SSP 14-8.02				X

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BIO-1: Avoidance of Special-status Vegetation Communities. Before the initiation of construction activities, a qualified biologist will implement the following avoidance measures to avoid, minimize, and preserve in place special-status vegetation communities: • **BIO-1a.** The proposed Project impact area (that is, footprint of disturbance) will be minimized to the maximum extent feasible. Access to sites will be via pre-existing access routes to the greatest extent possible. • **BIO-1b.** The limits of disturbance will be clearly defined and marked in the field, and reviewed by a qualified biologist before the initiation of work. • **BIO-1c.** An environmentally sensitive area marking special-status vegetation communities will be established with brightly colored fencing or flagging. • **BIO-1d.** During clearing and grubbing activities, a biological monitor will be present to ensure the environmentally sensitive area is not disturbed by construction. • **BIO-1e.** The qualified project biologist will monitor construction activities for the duration of the proposed Project to ensure that practicable measures are being employed to avoid incidental disturbance of special-status vegetation communities outside the proposed Project impact area. • **BIO-1f.** If impacts cannot be avoided, temporarily impacted areas will be restored as required by the proposed Project. Any permanent impacts will be compensated as required for that resource by the proposed Project.	59	NES (2021)	District Design/District Biologist/Resident Engineer/Contractor	Design/Construction	2023 SS Section: 14-6 SSP 14-6.03D(1);				X

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BIO-2: Restoration of Temporarily Impacted Vegetation Communities. Site construction areas subjected to temporary ground disturbance from the limits of grading, staging areas, and temporary roads, will be recontoured to natural grade (if the grade was modified during the temporary disturbance activity), and revegetated with native species occurring in the proposed Project impact area under existing conditions. Revegetation may occur with cuttings from riparian species present in the proposed Project impact area or with an application of a native seed mix. Revegetation will occur before or during seasonal rains to promote passive restoration of the area to pre-project conditions (except that no invasive plants will be restored). This measure does not apply to situations that are urban/developed that are temporarily affected and will be returned to an urban/developed land use. Before seeding temporary ground disturbance areas, a qualified biologist will review the seeding palette to ensure the plant palette is appropriate. The qualified biologist will ensure no seeding of invasive plant species, as identified in the most recent version of the California Invasive Plant Inventory for the region and as identified within Table 6-2 of the Western Riverside County MSHCP, will occur.	59	NES (2021)	District Design/District Biologist/Resident Engineer/Contractor	Post-Construction	2023 SS Section: 14-6				X
BIO-3: Best Management Practices for Vegetation Communities and Avoidance and Minimization of Edge Effects on Wildlife Movement. The following best management practices (BMPs) will be implemented to minimize indirect impacts on special-status vegetation communities. ▪ **BIO-3a.** Equipment storage, fueling, and staging areas will be located on upland sites with minimal risks of direct drainage into special-status communities or the MSHCP Conservation Area, and will be demarcated with fencing and signage. These designated areas will be located in such a manner as to prevent any runoff from entering special-status communities. Necessary precautions through the implementation of BMPs will be taken to prevent the release of cement or other toxic substances into special-status communities or the MSHCP Conservation Area. Project-related spills of hazardous materials will be reported to the appropriate entities, including but not limited to the U.S. Fish and Wildlife Service and CDFW, and will be	60	NES (2021)	District Design/District Biologist/Resident Engineer/Contractor	Design/Construction	2023 SS Section: 14-6				X

Date of ECR: 08/27/2024
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(I-215/Keller Road New Interchange Project)

08-RIV-215
PM R14.10/R15.26

Project Phase:
☒ PA/ED (*DED/FED*)
☐ PS&E Submittal_____ %
☐ Construction

EA 08-0Q220
PN 0800020339
Generalist: Hannah Duarte
ECL: TBD

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							Date / Initials	YES	NO
cleaned up immediately and contaminated soils removed to approved disposal areas. ▪ **BIO-3b.** Silt fencing or other sediment-trapping materials, such as fiber rolls, will be installed at the downstream end of construction activities to minimize the transport of sediments off-site. ▪ **BIO-3c.** Settling ponds where sediment is collected will be cleaned in a manner that prevents sediment from re-entering the stream or damaging/disturbing adjacent areas. Sediment from settling ponds will be removed to a location where sediment cannot re-enter the stream or surrounding drainage area. Care will be exercised during removal of silt fencing to minimize release of debris or sediment into streams. ▪ **BIO-3d.** No erodible materials will be deposited into water courses or the adjacent MSHCP Conservation Area. Brush, loose soils, or other debris material will not be stockpiled within stream channels, on adjacent banks, or in the MSHCP Conservation Area. ▪ **BIO-3e.** Exotic species removed during construction will be properly handled to prevent sprouting or regrowth. Trucks carrying vegetation will be covered, and vegetation materials removed from the site will be disposed of in accordance with applicable laws and regulations. ▪ **BIO-3f.** Training of construction personnel will be provided. ▪ **BIO-3g.** Ongoing monitoring and reporting will occur for the duration of the construction activity to ensure implementation of BMPs. ▪ **BIO-3h.** Active construction areas will be watered regularly to minimize impacts on adjacent vegetation from dust. ▪ **BIO-3i.** All equipment maintenance, staging, and dispensing of fuel, oil, coolant, or any other toxic substances will occur only in designated areas within the proposed grading limits of the proposed Project site. These designated areas will be clearly marked and located in such a manner as to contain runoff. ▪ **BIO-3j.** Construction equipment will be cleaned of mud or other debris that may contain invasive plants and/or seeds, and inspected to reduce the potential of spreading noxious weeds before mobilizing to the site and before leaving the site during the course of construction.									

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▪ **BIO-3k.** Waste, dirt, rubble, or trash will not be deposited on native habitat. ▪ **BIO-3l.** If night lighting is required during construction, lighting will be directed away from the MSHCP Conservation Area to protect species within the MSHCP Conservation Area from direct night lighting. Any new permanent lighting part of the proposed Project will be directed away from the adjacent MSHCP Conservation Area. ▪ **BIO-3m.** Landscape plans for the proposed Project adjacent to the MSHCP Conservation Area will be consistent with Table 6-2 of the MSHCP, which indicates which invasive, non-native plant species are to be avoided.									
BIO-4: Wildlife Fencing. The proposed Project will install directional fencing for 300 feet along the western side of Antelope Road and approximately 50 feet on the northern and southern sides of PCL 16 on the western side of the SB merge lane per the proposed Project plans. The 8-foot-high fence would be buried to avoid dig outs from wildlife, and the material would be made of ¼-inch mesh hardware cloth.	12	NES Addendum (2023)	District Design/District Biologist/Resident Engineer/Contractor	Final Design, Construction	2023 SS Section: 14-6				X
BIO-5: Noise and Light Reduction Barrier. The proposed Project will install a noise and light reduction barrier, per the proposed Project plans, to minimize noise and light impacts on wildlife in adjacent conservation areas.	12	NES Addendum (2023)	District Design/District Biologist/Resident Engineer/Contractor	Final Design, Construction	.				X
BIO-6: Vegetative Cover at Culvert. The proposed Project will install native vegetation, indicative of surrounding habitat, at the western entrance of the 60-inch culvert and 48-inch culvert located within PCL 16.	TBD	EIR/EA	District Design/District Biologist/Resident Engineer/Contractor	Final Design, Construction					X
BIO-7: MSHCP Minor Amendment. A minor amendment to the MSHCP will be processed between the City of Murrieta and the RCA before the approval of the final environmental document; the MSHCP will include Warner Lane as a covered road.	14	NES Addendum (2023)	City of Murrieta	Prior to approval of the Final EIR/EA				X	

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BIO-8: Compensation for Riparian/Riverine Habitat and Special-status Vegetation Communities. Before initiating construction activities, Caltrans would submit a Determination of Biologically Equivalent or Superior Preservation (DBESP) to the wildlife agencies for review regarding impacts on riparian/riverine habitat. This submission is in compliance with the Western Riverside County Multiple Species Habitat Conservation Plan, Section 6.1.2, Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools (County of Riverside 2003). The DBESP would ensure replacement of any lost functions and values of riparian/riverine habitat as it relates to riparian species. Mitigation would include BMPs as determined by final site design to avoid and minimize downstream impacts on conserved resources from changes in drainage or water quality. Mitigation for permanent loss of functions or values would be compensated at a 2:1 ratio or as otherwise determined in coordination with the resource agencies. Mitigation would be through contribution to a mitigation bank approved by CDFW or through payment to an approved in-lieu fee program.	61	NES (2021)	City of Murrieta	Prior to Construction				X	
BIO-9: Avoidance of Jurisdictional Waters. Before the initiation of construction activities, an environmentally sensitive area demarcating jurisdictional waters will be established with brightly colored fencing or flagging.	76	NES (2021)	District Design/Resident Engineer/Contractor	Final Design, Construction	2023 SS Section: 14-6				X

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BIO-10: Restoration of Temporarily Impacted Jurisdictional Waters. Jurisdictional waters temporarily impacted by site construction activities will be restored to pre-existing conditions, including being recontoured to natural grade (if the grade was modified during the temporary disturbance activity), and revegetated with native species occurring in the proposed Project impact area under existing conditions. The restoration of temporarily impacted wetland waters (ephemeral ponds) will include the following: (1) a survey of the impacted wetlands during the growing season before construction activities to document the extent of the ponded area and the vegetation present within the wetland; (2) the salvage of topsoil from the impacted sites conducted by a qualified restoration ecologist at all impacted wetlands before ground-disturbing activities. The topsoil will be stored in a dry location outside of direct sunlight and will be used for the reestablishment of the pond.	76	NES (2021)	District Design/Resident Engineer/ Contractor	Design/Post-Construction	2023 SS Section: 14-6				X
BIO-11: Best Management Practices for Jurisdictional Waters. • **BIO-11a.** Water pollution and erosion control plans will be developed and implemented in accordance with RWQCB requirements. Plans for water pollution and erosion control will be prepared for all discretionary projects involving the movement of earth in excess of 50 cubic yards. The plans will describe sediment and hazardous materials control, dewatering or diversion structures, fueling and equipment management practices, and the use of plant material for erosion control. Plans will be reviewed and approved by the County and participating jurisdictions before construction. • **BIO-11b.** Short-term stream diversions will be accomplished by using sandbags or other methods that will result in minimal instream impacts.	76	NES (2021)	District Design/Resident Engineer/ Contractor	Design/Construction	2023 SS Section: 14-6				X

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BIO-12: Compensation for Impacts on Wetland and Non-wetland Jurisdictional Waters. Permanent impacts on wetland and non-wetland waters of the United States and jurisdictional streambed will be offset with compensatory mitigation at a 2:1 ratio or as otherwise determined in coordination with the resource agencies, including the USACE, RWQCB, and CDFW. Mitigation will be through contribution to an agency-approved mitigation bank or through payment to an approved in-lieu fee program.	78	NES (2021)	City of Murrieta/District Biologist	Prior to Construction				X	
BIO-13: Avoidance of Special-status Plants. Before the start of any ground- or vegetation-disturbing activities, a qualified biologist will establish environmentally sensitive areas (ESA) to protect and avoid special-status plants that occur outside of the proposed Project impact area and within 100 feet of the proposed Project impact area. The locations of ESAs will be clearly depicted on the proposed Project design plans. ESAs will be clearly delineated in the field with temporary construction fencing to ensure that avoided plants are not inadvertently harmed during construction. A qualified biologist will conduct weekly monitoring of the ESAs that protect special-status plant occurrences. Construction activities will stop in the vicinity (within 100 feet) of an ESA if it is determined as a result of monitoring that corrective actions are necessary to avoid and protect the ESA.	84	NES (2021)	District Design/District Biologist/Resident Engineer/Contractor	Final Design, Construction	2023 SS Section: 14-6				X

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BIO-14: Mitigation for Impacts on Special-status Plants. Before ground-disturbing activities affecting Ephemeral Ponds 15 or 16, the City will prepare and implement a mitigation plan for paniculate tarplant, if discovered during pre-construction surveys. The plan will include the following components: • Identification of suitable locations to establish similar habitat conditions based on soil, topography, and hydrology conditions. • Collection of seeds the season before construction activities and/or salvage of topsoil from the impacted occupied habitat will be conducted by a qualified restoration ecologist. The topsoil will be stored in a dry location outside of direct sunlight and will be used for the creation of the mitigation pond. • Performance criteria specific to the species and conditions at the impacted site. • Maintenance, monitoring, and reporting until performance criteria have been met.	86	NES (2021)	City of Murrieta/District and Consultant Biologists	Prior to Construction				X	
BIO-15: Avoidance of Raptor Nests. All vegetation removal and ground-disturbing activities will be planned outside the peak nesting season for birds (February 1 through September 30), if practicable. If vegetation removal would occur during those time periods, a preconstruction survey for active nests will be conducted by a qualified biologist no more than 3 days before the onset of ground-disturbing activities within the impact area and a 500-foot buffer. If active nests are found on the site, disturbance or removal of the nest will be avoided until the young have fledged and the nest is no longer active as determined by a qualified biologist. A no-disturbance buffer will be established as required and determined by the qualified biologist. The distance of the buffer will depend on the species, site conditions, and the proposed construction activities near the active nest. The qualified biologist will monitor active nests to confirm construction activities are not resulting in harm to or harassment of the nest. The qualified biological monitor will coordinate with the Resident Engineer to halt construction if construction activities would harm a nest.	97	NES (2021)	District Design/District Biologist/Resident Engineer/Contractor	Final Design, Construction	2023 SS Section: 14-6				X

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BIO-16: Avoidance of Non-listed Special-status Birds. All vegetation removal and ground-disturbing activities will be planned outside the peak nesting season for birds (February 1 through September 30) if practicable. If vegetation removal would occur during those time periods, a preconstruction survey for active nests will be conducted by a qualified biologist no more than 3 days before the onset of ground-disturbing activities within the proposed Project impact area and a 300-foot buffer. If active nests are found on the site, disturbance or removal of the nest will be avoided until the young have fledged and the nest is no longer active as determined by a qualified biologist. The qualified biologist will establish a no-activity buffer around the nest and will periodically monitor construction activities to confirm the nest is not being harmed or harassed by construction activities. The qualified biological monitor will have the authority to halt construction if construction activities would harm a nest.	109	NES (2021)	District Design/District Biologist/Resident Engineer/Contractor	Final Design, Construction	2023 SS Section: 14-6				X
BIO-17: Avoidance of Coastal California Gnatcatcher Nests. All vegetation removal and ground-disturbing activities will be planned outside the coastal California gnatcatcher breeding season (February 15 through August 30), if practicable. If vegetation removal would occur during those time periods, a preconstruction survey for active nests will be conducted by a qualified biologist no more than 3 days before the onset of ground-disturbing activities within the impact area and a 500-foot buffer. If active nests are found on the site, disturbance or removal of the nest will be avoided until the young have fledged and the nest is no longer active as determined by a qualified biologist. The qualified biologist will establish a no-activity buffer around the nest and will periodically monitor construction activities to confirm the nest is not being harmed or harassed by construction activities. A qualified biological monitor will be present during all vegetation removal and ground-disturbing activities that occur within the coastal California gnatcatcher breeding season and have the authority to halt construction if construction activities would harm a nest.	88	NES (2021)	District Design/District Biologist/Resident Engineer/Contractor	Final Design, Construction	2023 SS Section: 14-6				X

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BIO-18: Avoidance of Least Bell's Vireo Nests. Focused surveys for least Bell's vireo will be conducted during the appropriate season (April 10 through July 31) before ground disturbance. Any occupied habitat will be avoided to the maximum extent practicable. Potential impacts on occupied habitat will bet. All vegetation removal and ground-disturbing activities will be planned outside the least Bell's vireo breeding season (April 10 through July 31), if practicable. If vegetation removal would occur during those time periods, a preconstruction survey for active nests will be conducted by a qualified biologist no more than 3 days before the onset of ground-disturbing activities within the impact area and a 300-foot buffer. If active nests are found on the site, disturbance or removal of the nest will be avoided until the young have fledged and the nest is no longer active as determined by a qualified biologist. The qualified biologist will establish a no-activity buffer around the nest and will periodically monitor construction activities to confirm the nest is not being harmed or harassed by construction activities. A qualified biological monitor will be present during all vegetation removal and ground-disturbing activities that occur within the least Bell's vireo breeding season and will have the authority to halt construction if construction activities would harm a nest.	92	NES (2021)	District Design/District Biologist/Resident Engineer/Contractor	Final Design, Construction	2023 SS Section: 14-6				X

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BIO-19: Restoration of Temporarily Impacted Least Bell's Vireo Habitat. Site construction areas subjected to temporary ground disturbance from the limits of grading, staging areas, and temporary roads, will be recontoured to natural grade (if the grade was modified during the temporary disturbance activity), and revegetated with native species occurring in the proposed Project impact area under existing conditions. Revegetation may occur with cuttings from riparian species present in the proposed Project impact area or with an application of a native seed mix. Revegetation will occur before or during seasonal rains to promote passive restoration of the area to pre-project conditions (except that no invasive plants will be restored). Before seeding temporary ground disturbance areas, a qualified biologist will review the seeding palette to ensure the plant palette is appropriate for the proposed Project site and that no seeding of invasive plant species will occur, as identified in the most recent version of the California Invasive Plant Inventory for the region and as identified within Table 6-2 of the MSHCP.	93	NES (2021)	District Design/Resident Engineer/Contractor	Design/Post-Construction	2023 SS Section: 14-6				X
BIO-20: Avoidance of Burrowing Owl Active Burrows. Before initiation of construction activities, a burrowing owl preconstruction survey will be conducted in accordance with the burrowing owl survey instructions for the Western Riverside Multiple Species Habitat Conservation Plan area (County of Riverside 2003). In accordance with these instructions, this survey will occur within 30 days before ground-disturbing activities. A minimum of one survey site visit within the described time frame before disturbance is required to confirm presence or absence of owls on the site. Preconstruction surveys will be conducted by a qualified biologist. If surveys confirm that occupied burrowing owl habitat is located within the proposed Project impact area or within 500 feet of the impact area, avoidance measures will be implemented consistent with the requirements of the MSHCP.	101	NES (2021)	District Design/District Biologist/Resident Engineer/Contractor	Final Design, Construction	2023 SS Section: 14-6				X

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BIO-21: Compensation for Least Bell's Vireo Habitat. Before initiating construction activities, Caltrans will submit a DBESP to the wildlife agencies for impacts on riparian/riverine habitat in compliance with MSHCP Section 6.1.2, Protection of Species Associated with Riparian/Riverine areas and Vernal Pools. The DBESP will ensure replacement of any lost functions and values of riparian/riverine habitat, including least Bell's vireo habitat. Mitigation will include best management practices as determined by final site design to avoid and minimize downstream impacts on conserved resources from change in drainage or water quality. Mitigation for permanent loss of functions or values will be compensated at a 2:1 ratio or as otherwise determined in coordination with the resource agencies. Mitigation will be through contribution to a mitigation bank approved by CDFW or through payment to an approved in-lieu fee program.	93	NES (2021)	City of Murrieta/District and Consultant Biologists	Prior to Construction				X	

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WF-1: Implement Fire Prevention Practices during Construction. During final design, the following fire prevention measures would be incorporated into the Project specifications: • Internal combustion engines, stationary and mobile, would be equipped with spark arrestors. Spark arrestors would be in good working order. • Contractor would keep all construction sites and staging areas free of grass, brush, and other flammable materials. • Personnel would be trained in the practices of the fire safety plan relevant to their duties. • Construction and maintenance personnel would be trained and equipped to extinguish small fires. • Work crews would have fire-extinguishing equipment on hand, as well as emergency numbers and cell phone or other means of contacting the fire department. • Smoking would be prohibited while operating equipment and would be limited to paved or graveled areas or areas cleared of all vegetation. Smoking would be prohibited within 30 feet of any combustible material storage area (including fuels, gases, and solvents). Smoking would be prohibited in any location during a Red Flag Warning issued by the National Weather Service for the Project area.	TBD	EIR/EA	Resident Engineer/Contractor	Construction					X
WF-2: Wildfire Risk Reduction for the Traveling Public. The proposed Project would implement a standard Caltrans Integrated Vegetation Plan (IVP) to control invasive species. The IVP would include various methods of weed abatement such as mowing, weed whacking, hand removal, and applying herbicides.	TBD	EIR/EA	Resident Engineer/Contractor	Construction					X
GHG-1: Schedule truck trips outside of peak morning and evening commute hours.	TBD	EIR/EA	Resident Engineer/Contractor	Construction				X	

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GHG-2: For improved fuel efficiency from construction equipment: ▪ Maintain equipment in proper tune and working condition. ▪ Use right sized equipment for the job. ▪ Use equipment with new technologies.	TBD	EIR/EA	Contractor	Construction				X	
GHG-3: The construction contractor must supplement construction environmental training with information on methods to reduce GHG emissions related to construction.	TBD	EIR/EA	Contractor	Construction				X	
GHG-4: Recycle existing project features on-site, such as metal beam guardrail, lights, Sub-base Granular Material or native material that meets Caltrans specifications for incorporation into new work.	TBD	EIR/EA	Contractor	Construction	2023 SS Section: 14-10			X	
GHG-5: Reduce construction waste, such as reuse or recycle construction and demolition waste (reduces consumption of raw materials, reducing waste and transportation to landfill).	TBD	EIR/EA	Contractor	Construction	2023 SS Section: 14-10			X	
GHG-6: Select project features that minimize the need for irrigation and nonnative plants.	TBD	EIR/EA	Landscape Design	Design				X	
GHG-7: Include landscaping components such as mulch and compost application to improve carbon sequestration rates in soils and reduce organic waste.	TBD	EIR/EA	Landscape Design	Design				X	
GHG-8: Include mulch application around new and existing plants to retain soil moisture.	TBD	EIR/EA	Landscape Design	Design				X	
GHG-9: Design and install long-life pavement structures to minimize life-cycle costs. Consider future climate conditions in decisions.	TBD	EIR/EA	District Design	Design				X	
GHG-10: Select design alternatives that match existing grade as much as possible to reduce earthwork.	TBD	EIR/EA	District Design	Design				X	
GHG-11: Implement intelligent transportation systems and TDM elements to smooth traffic flow and increase system efficiency.	TBD	EIR/EA	District Design	Design				X	

Date of ECR: 08/27/2024
Date: (MONTH DAY YEAR of approved ED and type Note: this will not be populated in PA/ED phase)

ENVIRONMENTAL COMMITMENTS RECORD
(I-215/Keller Road New Interchange Project)

08-RIV-215
PM R14.10/R15.26

Project Phase:
☒ PA/ED (*DED/FED*)
☐ PS&E Submittal_____ %
☐ Construction

EA 08-0Q220
PN 0800020339
Generalist: Hannah Duarte
ECL: TBD

Avoidance, Minimization, and/or Mitigation Measures	Page	Environmental Analysis Source	Responsible for Development and/or Implementation of Measure	Timing/ Phase	SSP or NSSP:	Action(s) Taken to Implement Measure/if checked No, add Explanation here	PS&E Task Complete	Mitigation for significant impacts under CEQA?	
							Date / Initials	YES	NO
GHG-12: Coordinate controlled intersections so that traffic moves more efficiently through congested areas.	TBD	EIR/EA	Traffic Engineer	Design				X	
GHG-13: Where traffic signals or streetlights are installed, require the use of Light Emitting Diode technology or similar energy-efficient technology.	TBD	EIR/EA	Electrical Engineer	Design				X	

NSSP = Nonstandard Special Provisions; SSP = Standard Special Provisions; SS = Standard Specification

AQR = Air Quality Report, December 2024

CIA = Community Impact Assessment, February 2024

FNAE = Finding of No Adverse Effect without Standard Conditions, June 2022

ISA = Initial Site Assessment Report, December 2018

MSHCP Addendum = Western Riverside County Multiple Species Habitat Conservation Plan Consistency Analysis Addendum, November 2023

NES = Natural Environment Study, July 2021

NES Addendum = Natural Environment Study Addendum, November 2023

NSR = Noise Study Report, April 2024

PIR/PER = Paleontological Identification Report and Paleontological Evaluation Report, January 2019

VIA = Visual Impact Assessment, June 2019

Appendix E List of Acronyms

Abbreviation	Definition
°F	degree(s) Fahrenheit
µg/m^3	microgram(s) per cubic meter
a.m.	ante meridian
AADT	average annual daily traffic
AASHTO	American Association of State Highway and Transportation Officials
AB	Assembly Bill
ACHP	Advisory Council on Historic Preservation
ACM	asbestos-containing material
ACS	American Community Survey
ADA	Americans with Disabilities Act
ADI	area of direct impact(s)
ADL	aerially deposited lead
AGR	Agricultural Supply
AMA	Archaeological Monitoring Area
APE	area of potential effects
APN	assessor's parcel number
ARB	Air Resources Board
ASTM	ASTM International
Basin Plan	Water Quality Control Plan for the San Diego Basin
bgs	below ground surface
BMP	best management practice
BSA	Biological Study Area
Btu	British thermal unit(s)
CAAQS	California Ambient Air Quality Standards
CAFE	Corporate Average Fuel Economy
CAL FIRE	California Department of Forestry and Fire Protection
CAL-CET2021	Caltrans Construction Emissions Tool, version 1
Cal-IPC	California Invasive Plant Council
Caltrans (or Department)	California Department of Transportation
Caltrans MS4 Permit	Department of Transportation Order No. 2022-0033-DWQ, NPDES No. CAS000003

Abbreviation	Definition
CARB	California Air Resources Board
CAPTI	Climate Action Plan for Transportation Infrastructure
CCAA	California Clean Air Act
CDFW	California Department of Fish and Wildlife
CEQ	Council on Environmental Quality
CEQA	California Environmental Quality Act
CERT	Community Emergency Response Team
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
CH_4	methane
Charter	Charter Communications
CIA	Community Impact Assessment
CIA study area	an additional 0.5 mile beyond the proposed Project site
CMP	congestion management plan
CNPS	California Native Plant Society
CO	carbon monoxide
CO Protocol	Carbon Monoxide Protocol
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent
CRHR	California Register of Historical Resources
CWA	Clean Water Act
DAMP	Drainage Area Management Plan
dB	decibel
dBA	A-weighted decibel
DBESP	Determination of Biologically Equivalent or Superior Preservation
Department (or Caltrans)	California Department of Transportation
DSA	disturbed soil area
DTSC	Department of Toxic Substances Control
DWR	California Department of Water Resources
EA	Environmental Assessment
EDC	Economic Development Corridor
EIR	Environmental Impact Report
EMFAC	Emission Factor
EMWD	Eastern Municipal Water District

Abbreviation	Definition
EO	Executive Order
EPA	U.S. Environmental Protection Agency
ESA	environmentally sensitive area
FCAA	Federal Clean Air Act
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FIRM	Flood Insurance Rate Map
FTIP	Federal Transportation Improvement Program
FY	fiscal year
GHG	greenhouse gas
Guidelines	Section 404(b)(1) Guidelines
H_2S	hydrogen sulfide
H&SC	Health and Safety Code
HA	Hydrologic Area
HCM	Highway Capacity Manual
HCP	Habitat Conservation Plan
HOV	high-occupancy vehicle
HSA	Hydrologic Subarea
HFC	hydrofluorocarbon
HU	Hydrologic Unit
I-	Interstate
in/sec	inch(es) per second
IND	Industrial Service Supply
ISA	Initial Site Assessment Report
LBP	lead-based paint
LEDPA	least environmentally damaging practicable alternative
LID	low-impact development
L_{max}	highest instantaneous sound level measured during a specific period
$L_{eq(h}$	hourly equivalent sound level
LOS	level of service
LRFD	Load and Resistance Factor Design
MEP	maximum extent possible
MFR	multifamily residential
mg/kg	milligram(s) per kilogram
mg/L	milligram(s) per liter

Abbreviation	Definition
MHSP	City of Murrieta Hills Specific Plan
MHSPA	City of Murrieta Hills Specific Plan Amendment No. 012-3164
MLD	Most Likely Descendant/Most Likely Descendent
mm/yr	millimeter(s) per year
MMBtu	million British thermal unit(s)
MMT	million metric tons
MOU	Memorandum of Understanding
mph	mile(s) per hour
MPO	Metropolitan Planning Organization
MRZ	Mineral Resources Zone
MS4	municipal separate storm sewer system
MSAT	mobile-source air toxic
MSHCP	Multiple Species Habitat Conservation Plan
MT	metric ton(s)
MUN	Municipal and Domestic Supply
N_2O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NAC	noise abatement criteria
NAHC	Native American Heritage Commission
NB	northbound
NEPA	National Environmental Policy Act
NES	Natural Environment Study
NHD	National Hydrography Dataset
NHPA	National Historic Preservation Act of 1966
NHTSA	National Highway Traffic and Safety Administration
No.	number
NO_2	nitrogen dioxide
NOA	Notice of Availability
NOAA Fisheries	National Oceanic and Atmospheric Administration's National Marine Fisheries Service
NOP	Notice of Preparation
NOx	nitrogen oxide
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places

Abbreviation	Definition
O_3	ozone
OCP	organochlorine pesticide
OHWM	ordinary high water mark
ONT	Ontario International Airport
OSHA	Occupational Safety and Health Act
p.m.	post-meridian
PA	First Amended Section 106 Programmatic Agreement
PA&ED	Project Approval and Environment Document
Pb	lead
pCi/L	picocurie(s) per liter
PCL	Proposed Constrained Linkage
PDT	Project Development Team
Pilot Program	Surface Transportation Project Delivery Pilot Program
PM	particulate matter
$PM_{2.5}$	particulate matter with particles of 2.5 micrometers or smaller
PM_{10}	particulate matter with particles of 10 micrometers or smaller
PMP	Paleontological Mitigation Plan
POAQC	project of air quality concern
ppb	part(s) per billion
ppm	part(s) per million
PPV	peak particle velocity
PQS	Professionally Qualified Staff
PRC	California Public Resources Code
PROC	Industrial Process Supply
proposed Project	I-215/Keller Road New Interchange Project
PS&E	plans, specifications, and estimates
RAP	Relocation Assistance Program
RCA	Regional Conservation Authority
RCHSA-EHD	Riverside County Health Services Agency Environmental Health Department
RCIP	Riverside County Integrated Project
RCRA	Resource Conservation and Recovery Act
RCTC	Riverside County Transportation Commission
REC	recognized environmental condition

Abbreviation	Definition
REC-1	Contact Water Recreation
REC-2	Noncontact Water Recreation
RIVTAM	Riverside County Transportation Analysis Model
ROG	reactive organic gas
ROW	right-of-way
RSA	Regional Study Area
RTA	Riverside Transit Agency
RTIP	Regional Transportation Improvement Program
RTP	Regional Transportation Plan
RWQCB	Regional Water Quality Control Board
SB	southbound
SCAB	South Coast Air Basin
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCE	Southern California Edison
SCS	Sustainable Communities Strategy
SCUBA	self-contained underwater breathing apparatus
SDC	Seismic Design Criteria
SER	Standard Environmental Reference
SFR	single-family residential
SHPO	California State Historic Preservation Office
SHS	State Highway System
SIP	State Implementation Plan
SKR HCP	Stephen's Kangaroo Rat Habitat Conservation Plan
SLF	Sacred Lands File
SHS	State Highway System
SoCal Gas	Southern California Gas Company
SO_2	sulfur dioxide
sq. ft.	square foot (feet)
SSC	Species of Special Concern
SWMP	Stormwater Management Plan
SWPPP	Storm Water Pollution Prevention Plan
TASAS	Traffic Accident Surveillance and Analysis System
TCE	temporary construction easement
TMDL	total maximum daily load
TCWG	Transportation Conformity Working Group

Abbreviation	Definition
TMP	Transportation Management Plan
TOAR	Traffic Operations Analysis Report
TSCA	Toxic Substances Control Act
U.S. EPA	U.S. Environmental Protection Agency
U.S.C.	United States Code
UCL	upper confidence limit
UND	undeveloped land
USACE	U.S. Army Corps of Engineers
USDOT	United States Department of Transportation
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
VMT	vehicle mile(s) traveled
VOC	volatile organic compound
vplph	vehicle(s) per lane per hour
VRP	visibility-reducing particle
WARM	Warm Freshwater Habitat
WDR	Waste Discharge Requirement
WILD	Wildlife Habitat
Wildlife Agencies	U.S. Fish and Wildlife Service and California Department of Fish and Wildlife
WPCP	Water Pollution Control Program
WQMP	Water Quality Management Plan

Appendix F **List of Technical Studies**

Appendix F List of Technical Studies

The technical studies listed below were used in the preparation of this Environmental Impact Report/Environmental Assessment (EIR/EA):

- Air Quality Report (April 2019)
- Archaeological Survey Report (June 2022)
- Community Impact Assessment (February 2024)
- Conceptual Drainage Report (November 2018)
- Growth-Related Indirect Impacts Study (February 2024)
- Historic Property Survey Report (June 2022)
- Initial Site Assessment (December 4, 2018)
- Jurisdictional Delineation Report (October 2018)
- Location Hydraulic Study and Summary of Flood Encroachment (February 2018)
- Natural Environmental Study (July 2021)
- Natural Environmental Study Addendum (November 2023)
- Noise Study Report (April 2024)
- Paleontological Identification Report/Paleontological Evaluation Report (PIR/PER) (January 2019)
- Preliminary Geotechnical Design Report (January 16, 2019)
- Right of Way Data Sheets for Local Public Agencies (January 3, 2019)
- Scoping Questionnaire for Water Quality Issues (December 2018)
- Site Investigation and Aerially Deposited Lead Survey (February 6, 2019)
- Traffic Operations Analysis Report (TOAR) (July 2, 2018)

- Visual Impact Assessment (June 2019)
- Volume Development Report (June 2016)
- Water Quality Assessment Report (December 2019)
- Western Riverside County Multiple Habitat Species Conservation Plan Consistency (May 2019)

The following technical reports and addendum memorandums were prepared to address subsequent changes in guidelines or lapse of time since the original technical reports were completed, which required further analysis by some environmental disciplines:

- Air Quality Report Addendum (January 2025)
- Technical Report Addendum Memorandum, Hazardous Waste (February 2024)
- Scoping Questionnaire for Water Quality Issues (January 2024)
- Traffic Memorandum (June 2024)
- Technical Report Addendum Memorandum, Visual Resources (February 2024)

Appendix G **Notice of Preparation**

Appendix G **Notice of Preparation**

Notice of Preparation

Notice of Preparation

To: Responsible & Trustee Agencies

(Address)

From: California Department of Transportation,
District 8, Division of Environmental Planning
464 W. 4th Street, MS-820
San Bernardino, CA 92401

(Address)

Subject: Notice of Preparation of a Draft Environmental Impact Report

Caltrans District 8 will be the Lead Agency and will prepare an Environmental Impact Report for the project identified below. We need to know the views of your agency as to the scope and content of the environmental information which is germane to your agency's statutory responsibilities in connection with the proposed project. Your agency may need to use the EIR prepared by our agency when considering your permit or other approval for the project.

The project description, location, and the potential environmental effects are contained in the attached materials. A copy of an Initial Study (☐ is ☒ is not) attached.

Due to the time limits mandated by State law, your response must be sent at the earliest possible date but not later than 30 days after receipt of this notice.

Please send your response to Antonia Toledo, Senior Environmental Planner, MS 820 at the address shown above. We will need the name for a contact person in your agency.

Project Title: Interstate 215/Keller Road New Interchange Project

Project Applicant, if any: City of Murrieta

Date: 9/14/22

Signature: Gabrielle Duff for AT

Title: Senior Environmental Planner

Telephone: (909) 501-5741

Reference: California Code of Regulations, Title 14, (CEQA Guidelines) Sections 15082(a), 15103, and 15375.

Project Description:

The City of Murrieta (City), in cooperation with California Department of Transportation (Caltrans) District 8, County of Riverside (County), and the City of Menifee, proposes a new full interchange and auxiliary lanes at Interstate 215 (I-215) and Keller Road in Riverside County.

The project also includes widening and/or striping along Keller Road between Zeiders Road to the West and to Whitewood/Menifee Road to the East.

The project's primary improvements consist of the following:

- Construction Northbound (NB) and Southbound (SB) on and off-ramps for accessing I-215 from the existing Keller Road undercrossing.
- Construct auxiliary lanes in the NB and SB direction of I-215, from the Scott Road Interchange (IC) to the proposed Keller Road IC.
- Remove Antelope Road from Brians Way to Mapleton Avenue and circulate traffic onto an improved Brians Way and Warner Place. North (N) of Keller Road, Antelope Road is realigned to join Mapleton Avenue.
- Remove Scenic View Drive on the West side of the future IC, due to a conflict with the SB onramp. Scenic View Drive will not be replaced.

Location of Study Area:

The Keller Road Interchange would be located 1.5 miles North of the Clinton Keith Road overcrossing and 1.0 miles South of the Scott Road overcrossing (see Figure 1).

Along Keller Road, the project limits are from Zeiders Road to Whitewood Road. Along I-215, the project limits are from North of Clinton Keith Interchange to South of Scott Road Interchange.

Project Alternatives:

A total of five alternatives were considered early in the project study. One out of the five alternatives, Alternative 4 (Modified Partial Cloverleaf Interchange), was determined to not be viable and was eliminated from further evaluation. Four alternatives were retained for additional study as part of this current environmental effort. Alternatives 1, 2, 3, and 5 are described in further detail below.

Alternative 1 – No-Build

The No-Build Alternative assumes that no improvements will be made to the freeway mainline or to the existing I-215/Keller Road interchange. The existing conditions are two parallel bridges constructed in 1979 over Keller Road that carry Northbound and Southbound traffic for I-215. Without the planned improvements proposed as part of the project, the forecasted increased traffic demand would worsen over time resulting in increased congestion and decreased mainline freeway operations.

Alternative 2 – Spread Diamond Interchange

Alternative 2 proposes to reconstruct the I-215/Keller Road interchange in a spread diamond configuration (see Figure 2). Improvements under Alternative 2 include the construction of new Southbound on/off-ramps and Northbound on/off-ramps to and from the I-215 mainline, in a spread diamond configuration. Additionally, Alternative 2 proposes a Northbound auxiliary lane from Keller Road Northbound on-ramp to Scott Road Northbound off-ramp, a Southbound auxiliary lane from Scott Road Southbound on-ramp to Keller Road Southbound off-ramp, and a Southbound auxiliary lane from Keller Road Southbound on-ramp. Other improvements as part of Alternative 2 include the installation of signals at both the proposed Southbound and Northbound ramp intersections.

Alternative 3 – Partial Cloverleaf Interchange

Alternative 3 proposes to reconstruct the I-215/Keller Road interchange in a partial cloverleaf configuration (see Figure 3). Improvements under Alternative 3 include the construction of new Southbound on/off-ramps to and from the I-215 mainline, including a Southbound loop on-ramp at Northwest quadrant. Alternative 3 also includes the construction of new Northbound on/off-ramps to and from the I-215 mainline, including a Northbound loop on-ramp at Northwest quadrant. Additionally, Alternative 3 proposes a Northbound auxiliary lane from Keller Road Northbound on-ramp to Scott Road Northbound off-ramp, a Southbound auxiliary lane from Scott Road Southbound on-ramp to Keller Road Southbound off-ramp, and a Southbound auxiliary lane from Keller Road Southbound on-ramp. Other improvements as part of Alternative 3 include the widening of the existing I-215/Keller Road undercrossing to accommodate proposed loop on-ramps, as well as the installation of signals at both the proposed Southbound and Northbound ramp intersections.

Alternative 5 – Compact Diamond

Alternative 5 proposes to reconstruct the I-215/Keller Road interchange in a compact diamond configuration (see Figure 4). Improvements under Alternative 5 include the construction of new Southbound and Northbound on/off-ramps at Keller Road in a double roundabout configuration. Additionally, Alternative 5 proposes a Northbound auxiliary lane from Keller Road Northbound on-ramp to Scott Road Northbound off-ramp, and a Southbound auxiliary lane from Scott Road Southbound on-ramp to Keller Road Southbound off-ramp. Another improvement as part of Alternative 5 include the widening of the existing I-215/Keller Road undercrossing to accommodate proposed loop off-ramps.

Potential Environmental Effects:

Various environmental and community resources are known to exist within the limits of the study area and the potential effects to these resources will be studied in the Environmental Impact Report/Environmental Assessment (EIR/EA). Environmental effects anticipated for study include, but are not limited to: Aesthetic/Visual, Air Quality, Archaeological/Historical, Biological Resources, Drainage/Absorption, Economic/Jobs, Flood Plain/Flooding, Forest Land/Fire Hazard, Geologic/Seismic, Noise, Population/Housing Balance, Public Services/Facilities, Recreation/Parks, Soil Erosion/Compaction/Grading, Toxic/Hazardous, Traffic/Circulation, Vegetation, Water Quality, Water Supply/Groundwater, Growth Inducement, Land Use, Cumulative Effects, Energy, and Greenhouse Gases (GHG). Of these environmental resources, further study may determine potentially significant impacts to climate change due to new State policy regarding Greenhouse Gases (GHG). It is anticipated that the project will have a less than significant impact on all other environmental resources.

Public Scoping Meeting:

The public scoping period is one of the first steps in the environmental process. It is also one of the most important steps as it allows the public to weigh in on the direction for the required environmental studies and on the conceptual purpose and need statement which will be used to determine effectiveness of alternatives. The public scoping meeting will take place virtually on 10/19/2022 at 6:00 p.m.

Figure 1: Project Location

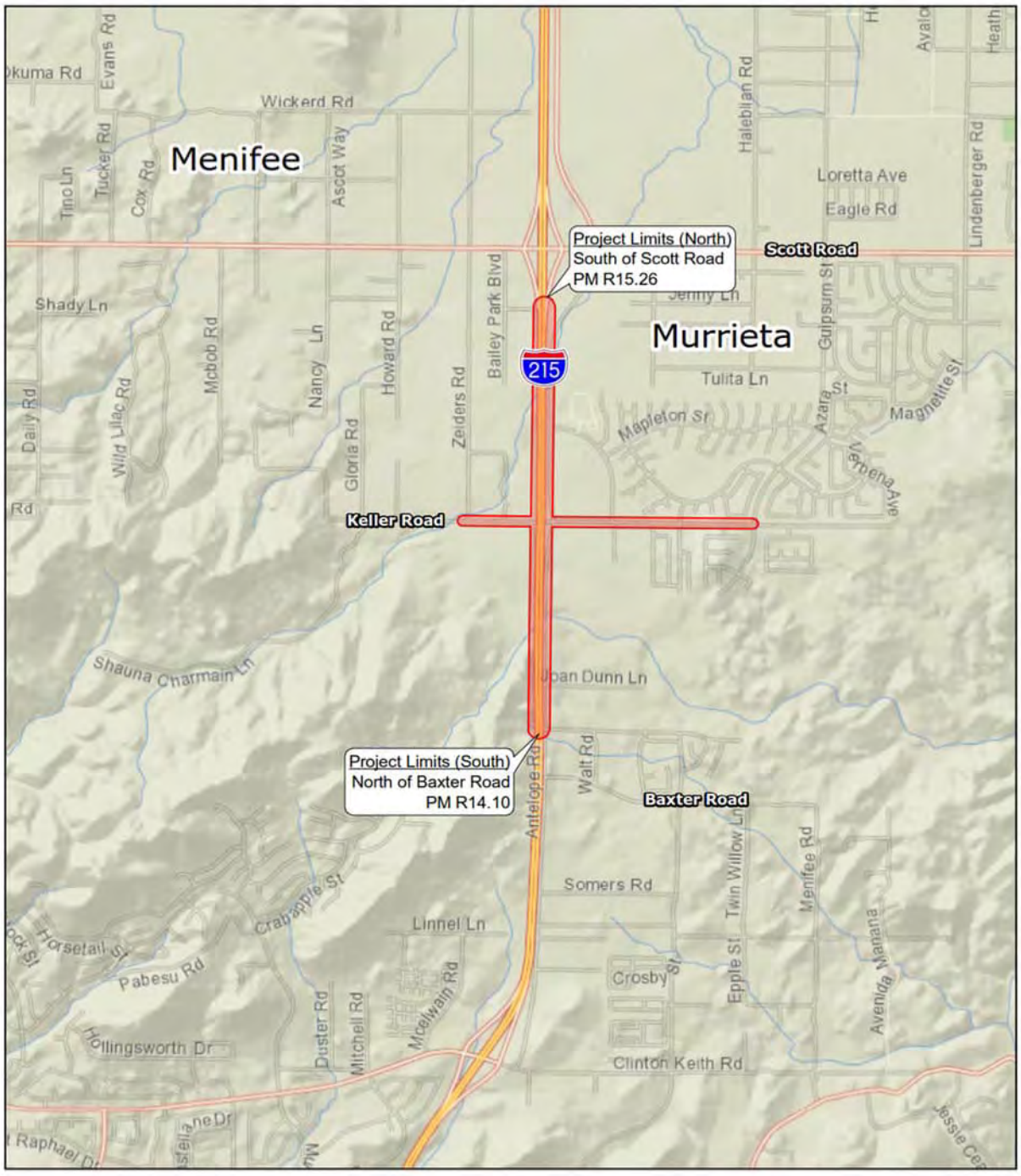


Figure 2: Build Alternative 2

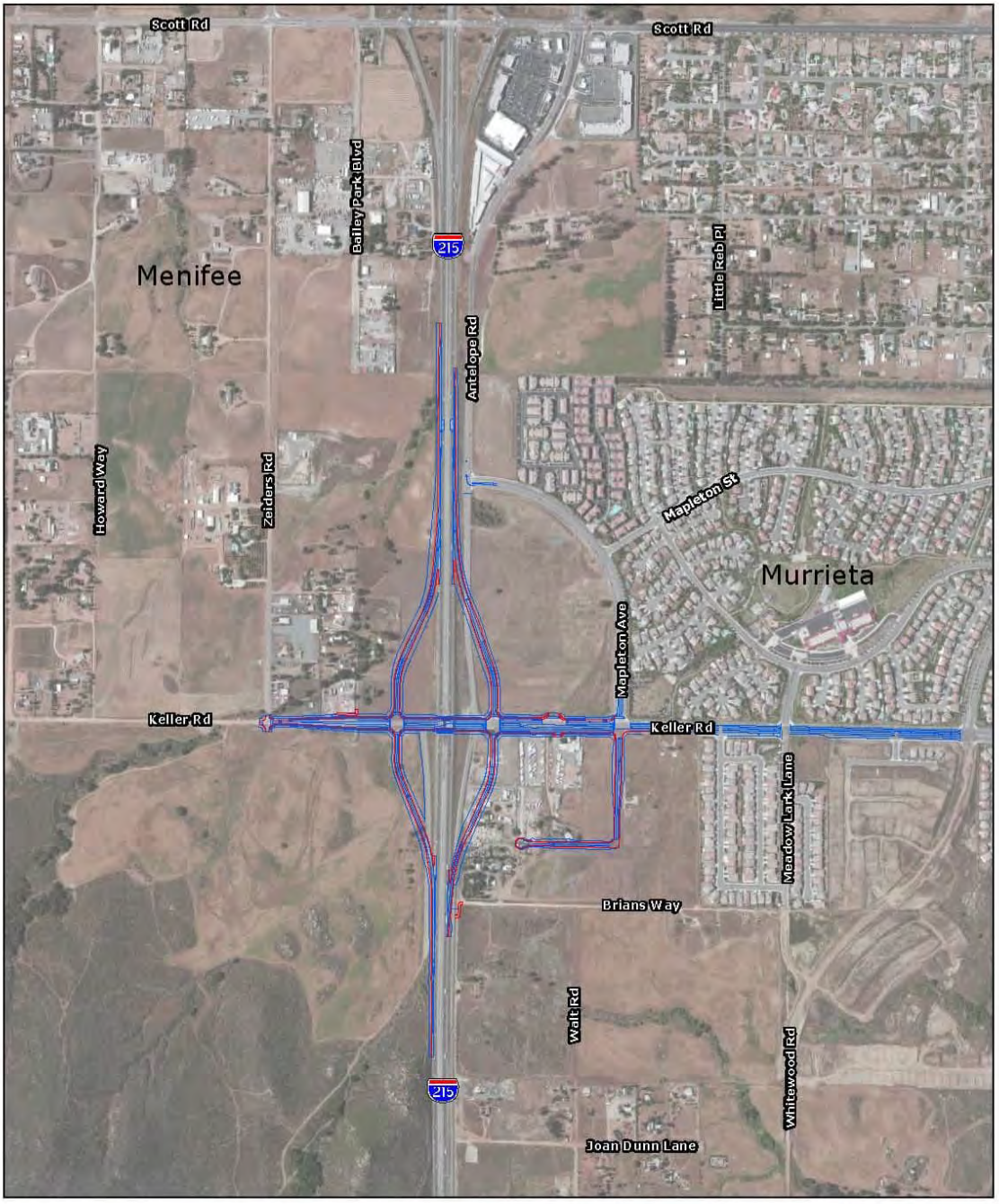


Figure 3: Build Alternative 3

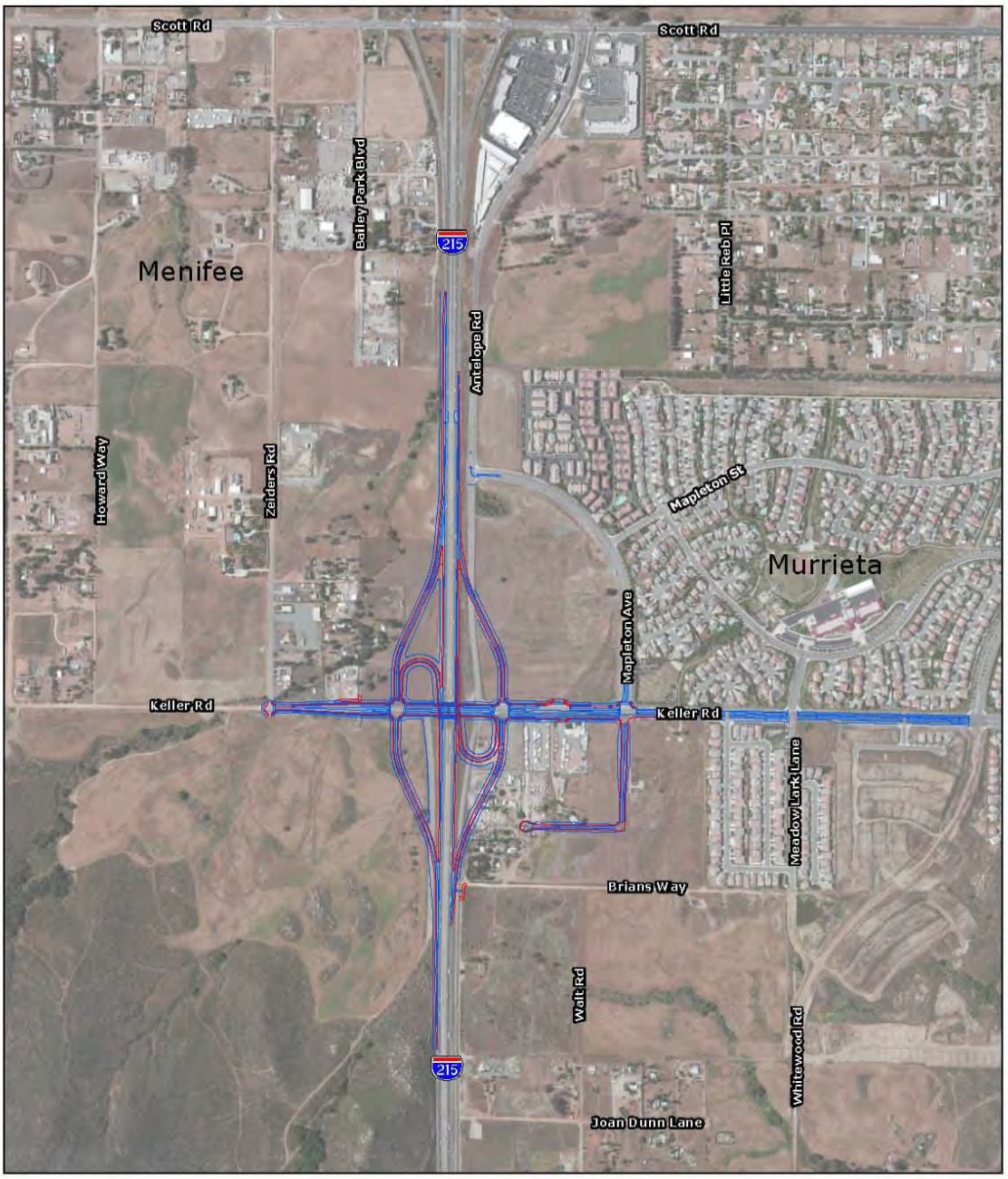


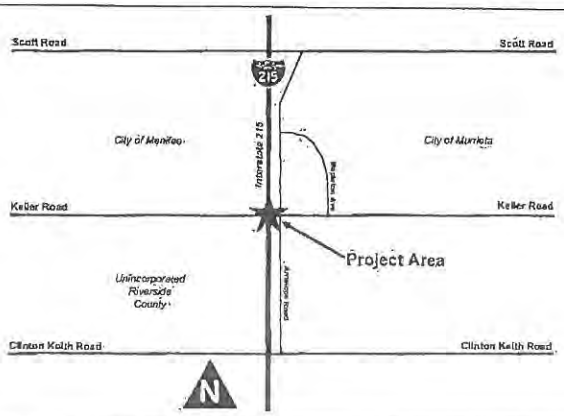
Figure 4: Build Alternative 5



PUBLIC NOTICE

Notice of Preparation of a
Draft Environmental Impact Report (EIR)/Environmental Assessment (EA)
for the Interstate 215/Keller Road New Interchange Project

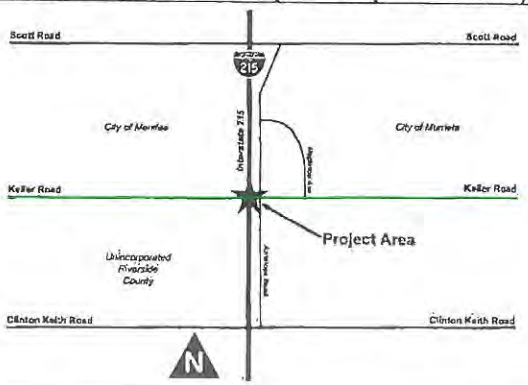
Announcement of a Virtual Public Scoping Meeting



WHAT IS BEING PLANNED?	The City of Murrieta (City), in cooperation with California Department of Transportation (Caltrans) District 8, County of Riverside (County) and the City of Menifee, proposes a new full interchange and auxiliary lanes at Interstate 215 (I-215) and Keller Road in Riverside County. The project also includes widening and/or striping along Keller Road between Zeiders Road to the west and to Whitewood/Menifee Road to the east. Four (4) alternatives have been identified for further evaluation: Alternative 1 (No-Build Alternative, Alternative 2 (Spread Diamond), Alternative 3 (Partial Cloverleaf), and Alternative 5 (Roundabout). The purpose of this project is to accommodate forecasted traffic demand and provide improved connectivity to the regional transportation system. The project is located in the City of Murrieta just east of the City of Menifee. Along Keller Road, the project limits are from Zeiders Road to Whitewood Rd. Along I-215, the project limits are from north of Clinton Keith Interchange to south of Scott Road Interchange.
WHY THIS AD?	This public notice is to inform the public of the availability of the Notice of Preparation (NOP) of a Draft Environmental Impact Report (EIR)/Environmental Assessment (EA). An Initial Study (IS) was drafted for the project; Caltrans determined through the IS process that an EIR/EA was recommended and would be prepared. Additionally, a date, time and location has been identified for a public scoping meeting (Virtual Zoom Meeting) with a presentation of the project by Caltrans staff before the Draft EIR/EA is prepared. A future public hearing will be scheduled once the Draft EIR/EA is prepared and available for public review.
WHAT'S AVAILABLE	The NOP will be available starting on **October 5, 2022**, for review and copying (for a fee) at the Caltrans District 8 Office, 464 W 4th Street, MS-830, San Bernardino, CA 92401, on weekdays from 8:00 AM to 4:00 PM. Due to COVID-19 protocols, please provide a minimum 24-hour notice prior to visiting the District office to view available documents. The NOP is also available at the following locations during normal business hours: ▪ Murrieta City Hall: 1 Town Square, Murrieta, CA 92562 ▪ Murrieta Public Library: 8 Town Square, Murrieta, CA 92562 Electronic copies can be requested at 215NewKellerRdIC@dot.ca.gov.
WHERE YOU COME IN	Please submit comments in writing no later than **5:00 PM, November 21, 2022** to: Tatiana Torres, Environmental Planner, Office of Environmental Studies "D", California Department of Transportation, District 8, 464 W. 4th Street, MS 820, San Bernardino, CA 92401-1400, or via e-mail to 215NewKellerRdIC@dot.ca.gov. The date we will begin accepting comments is **October 5, 2022.**
WHEN & WHERE?	A virtual public scoping meeting will be held on the following date and location to give you an opportunity to talk about the project with City and Caltrans staff: **Wednesday, October 19, 2022, 6:00 PM to 7:30 PM** Via Zoom at https://zoom.us/join, enter Meeting ID: 864-2605-6850 and Passcode: 2151019 (Name and email address will be required to join meeting) Via phone at +1 669-444-9171 Individuals who require special accommodations (American Sign Language interpreter, documentation in alternate formats, etc.) are requested to contact Tatiana Torres at (909) 260-5191, 215NewKellerRdIC@dot.ca.gov at least 14 days prior to the scheduled meeting date. TDD users may contact the California Relay Service TDD line at 1-800-735-2929 or Voice Line at 1-800-735-2922.
CONTACT	For more information about this project or any transportation matter, please contact the Caltrans District 8 Office of Public Affairs at (909) 383-4631. For individuals with sensory disabilities, this document may be made available in Braille, large print, audiocassette, or a computer disk. To obtain a copy in one of these formats, please contact Tatiana Torres via phone (909) 260-5191 or by email at 215NewKellerRdIC@dot.ca.gov. TDD users may contact the California Relay Service at 1 (800) 735-2929 (TTY to Voice), 1 (800) 735-2922 (Voice to TTY), 1 (800) 854-7784 (From or to Speech to Speech) or dial 711.

AVISO PÚBLICO

Aviso de preparación de un borrador del Reporte de impacto ambiental (EIR) y Evaluación ambiental (EA) para el Proyecto del cruce de la Interestatal 215 y Keller Road
Anuncio de reunión pública (foro abierto)



¿QUÉ SE PLANEA HACER?	La Ciudad de Murrieta (Ciudad), en cooperación con el Distrito 8 del Departamento de Transporte de California (Caltrans), el Condado de Riverside (Condado) y la Ciudad de Menifee, propone un nuevo intercambio completo y carriles auxiliares en la Interestatal 215 (I-215) y Keller Road en el Condado de Riverside. El proyecto también incluye la ampliación y/o trazado de líneas a lo largo de Keller Road entre Zeiders Road hacia el oeste y Whitewood/Menifee Road hacia el este. Se han identificado cuatro (4) alternativas para una evaluación más detallada: Alternativa 1 (Alternativa de no construir), Alternativa 2 (Diamante extendido), Alternativa 3 (Hoja de trébol parcial) y Alternativa 5 (Rotonda). El propósito de este proyecto es acomodar la demanda de tráfico pronosticada y proporcionar conectividad mejorada al sistema de transporte regional. El proyecto está ubicado en la ciudad de Murrieta, justo al este de la ciudad de Menifee. A lo largo de Keller Road, los límites del proyecto son desde Zeiders Road hasta Whitewood Road. A lo largo de la I-215, los límites del proyecto son desde el norte de Clinton Keith intercambio hasta el sur de Scott Road intercambio.
¿POR QUÉ HACEMOS ESTE ANUNCIO?	Este aviso público es para informarle sobre la disponibilidad del Aviso de preparación (NOP) de un borrador de Reporte de impacto ambiental (EIR)/Evaluación ambiental (EA). Se preparó un Estudio inicial (IS) para el proyecto, y Caltrans determinó, a través de ese proceso, que la elaboración de un EIR y EA es recomendado. Además, se ha identificado la fecha, hora y lugar para una reunión de alcance público (Reunión Virtual por Zoom) con una presentación del proyecto por parte del personal de Caltrans antes de que se prepare el Borrador EIR/EA. Una vez que el Borrador EIR/EA esté preparado y disponible para revisión pública, se programará una audiencia pública.
¿QUÉ ESTÁ DISPONIBLE?	El NOP estará disponible a partir del **5 de Octubre 2022**, para su revisión y copia (por una tarifa) en la Oficina del Distrito 8 de Caltrans, 464 W 4th Street, MS-830, San Bernardino, CA, entre semana de 8:00 AM a 4:00 PM. Debido a los protocolos del COVID-19, proporcione un aviso mínimo de 24 horas antes de visitar la oficina del Distrito para ver los documentos disponibles. El NOP también está disponible en las siguientes ubicaciones durante horas laborales: • Murrieta City Hall: 1 Town Square, Murrieta, CA 92562 • Murrieta Public Library: 8 Town Square, Murrieta, CA 92562 Se pueden solicitar copias electrónicas en 215NewKellerRdIC@dot.ca.gov.
¿DÓNDE PUEDE COMENTAR?	Favor de enviar sus comentarios por escrito antes de las **5:00 PM, 21 de Noviembre 2022** a: Tatiana Torres, Environmental Planner, Office of Environmental Studies "D", California Department of Transportation, District 8, 464 W. 4th Street, MS 820, San Bernardino, CA 92401-1400, o por correo electrónico a 215NewKellerRdIC@dot.ca.gov. Comentarios serán aceptados a partir del **5 de Octubre 2022**.
¿CUÁNDO Y DÓNDE?	Se llevará a cabo una reunión pública virtual de alcance en la siguiente fecha y lugar para darle la oportunidad de hablar sobre el proyecto con el personal de Caltrans y de la Ciudad. **Miércoles, 19 de Octubre 2022, 6:00 PM a 7:30 PM** Por Zoom en https://zoom.us/join, ingrese "Meeting ID" 864-2605-6850 y "Passcode" 2151019 (Se requerirá su nombre y correo electrónico para unirse a la reunión) Por teléfono al +1 669-444-9171 Las personas que requieran arreglos especiales (intérprete de lenguaje de señas estadounidense, documentación en formatos alternativos, etc.) deben contactar a Tatiana Torres at (909) 260-5191, 215NewKellerRdIC@dot.ca.gov al menos 14 días antes de la fecha la reunión programada. Los usuarios de TDD pueden comunicarse con la línea TDD del Servicio de retransmisión de California al 1-800-735-2929 o Línea de Voz al 1-800-735-2922.
CONTACTO	Para obtener más información sobre este proyecto o cualquier asunto de transporte, comuníquese con la Oficina de Relaciones Públicas del Distrito 8 de Caltrans al (909) 383-4631. Para personas con discapacidades sensoriales, este documento puede estar disponible en Braille, letra grande, casete de audio o disco compactor. Para obtener una copia en uno de estos formatos, póngase en contacto con Tatiana Torres por teléfono al (909) 260-5191 o por correo electrónico a 215NewKellerRdIC@dot.ca.gov. Los usuarios de TDD pueden comunicarse con el Servicio de retransmisión de California al 1 (800) 735-2929 (TTY a Voz), 1 (800) 735-2922 (Voz a TTY), 1 (800) 854-7784 (De o a Voz a Voz) o marcar 711.

Appendix H Transportation Conformity Working Group Documents

PM Conformity Hot Spot Analysis
Project Summary Form for Interagency Consultation

The purpose of this form is to provide sufficient information to allow the Transportation Conformity Working Group (TCWG) to determine if a project requires a project-level PM hot spot analysis pursuant to Federal Conformity Regulations.

The form is not required under the following circumstances:

1. The project sponsor determines that a project-level PM hot spot analysis is required or otherwise elects to perform the analysis; or
2. The project does not require a project-level PM hot spot analysis since it:
    a. Is exempt pursuant to 40 CFR 93.126; or
    b. Is a traffic signal synchronization project under 40 CFR 93.128; or
    c. Uses no Federal funds AND requires no Federal approval; or
    d. Is located in a Federal PM attainment area (note: PM10 and PM2.5 areas differ).

Projects other than those listed above may or may not need a project-level PM hot spot analysis depending on whether it is considered a "Project of Air Quality Concern" (POAQC), and should be brought before the TCWG for a determination.

It is the responsibility of the project sponsor to ensure that the form is filled out completely and provides a sufficient level of detail for the TCWG to make an informed decision on whether or not a project requires a project-level PM hot spot analysis. For example, the TCWG will be reviewing the effects of the project, and thus part of the required information includes build/no build traffic data. It is also the responsibility of the project sponsor to ensure a representative is available to discuss the project at the TCWG meeting if necessary.

Instructions:

1) Fill out form in its entirety. Enter information in gray input fields.

2) Be sure to include FTIP ID#. See http://www.scag.ca.gov/ftip/index.htm if necessary.

3) Submit completed form to your local Transportation Commission who will submit it to the MPO. Caltrans projects can be submitted by Caltrans District representatives.

The TCWG meets the fourth Tuesday of each month at SCAG Headquarters, 818 W. 7th Street, 12th Floor, Los Angeles, CA 90017. Participation is also available via teleconference. Call (213) 236-1800 prior to meeting to get the call-in number and pass-code.

Forms must be submitted by the second Tuesday of the month to be considered at that month's TCWG meeting.

REFERENCE

Criteria for Projects of Air Quality Concern (40 CFR 93.123(b)) – PM_{10} and $PM_{2.5}$ Hot Spots

(i) New highway projects that have a significant number of diesel vehicles, and expanded highway projects that have a significant increase in the number of diesel vehicles;
(ii) Projects affecting intersections that are at Level-of-Service D, E, or F with a significant number of diesel vehicles, or those that will change to Level-of-Service D, E, or F because of increased traffic volumes from a significant number of diesel vehicles related to the project;
(iii) New bus and rail terminals and transfer points that have a significant number of diesel vehicles congregating at a single location;
(iv) Expanded bus and rail terminals and transfer points that significantly increase the number of diesel vehicles congregating at a single location; and
(v) Projects in or affecting locations, areas, or categories of sites which are identified in the PM10 or PM2.5 applicable implementation plan or implementation plan submission, as appropriate, as sites of violation or possible violation.

Links to more information:

http://www.fhwa.dot.gov/environment/conform.htm

http://www.epa.gov/otaq/stateresources/transconf/index.htm

TABLE 1
Type of Project

- New state highway
- Change to existing state highway
- New regionally significant street
- Change to existing regionally significant street
- New interchange
- Reconfigure existing interchange
- Intersection channelization
- Intersection signalization
- Roadway realignment
- Bus, rail, or inter-modal facility/terminal/transfer point
- Truck weight/inspection station
- At or affects location identified in the SIP as a site of actual or possible violation of NAAQS

RTIP ID# *(required)* 3M10WT03

TCWG Consideration Date: June 25, 2024

Project Description *(clearly describe project)*
The City of Murrieta in cooperation with the California Department of Transportation (Caltrans) District 8, proposes to construct improvements for a new interchange on Interstate (I) 215 at the existing Keller Road undercrossing located in the City of Murrieta (City), Riverside County (County), California (see attached Figures 1 – 4). The project's primary improvements consist of the following:

- Construction northbound (NB) and southbound (SB) on and off-ramps for accessing I-215 from the existing Keller Road undercrossing.
- Construct auxiliary lanes in the NB and SB direction of I-215, from the Scott Road interchange (IC) to the proposed Keller Road IC.
- Remove Antelope Road from Brians Way to Mapleton Avenue and circulate traffic onto an improved Brians Way and Warner Place. North (N) of Keller Road, Antelope Road is realigned to join Mapleton Avenue.
- Remove Scenic View Drive on the west side of the future IC, due to a conflict with the SB on-ramp. Scenic View Drive will not be replaced.

Four alternatives, including the "No-Build" scenario, have been identified for further study and final approval prior to the Plans, Specifications and Estimate phase of the project. The build alternatives are included as attachments to this memorandum.

Alternative 1 No-Build
Alternative 1 proposes that the I-215 connection to Keller Road not be constructed. Traffic conditions are expected to worsen as a result of increased demand created by new development in the vicinity of the project. Despite the completion of planned improvements to the City arterial street system and the I-215/Scott Road IC, I-215 in the project vicinity would operate at a Caltrans non-compliant Level of Service (LOS) D or worse during peak hours. Nine of 13 local street intersections within the project vicinity would operate at LOS E or worse during peak hours with five non-compliant with Riverside County Congestion Management Plan minimum standards.

Alternatives 2, 3 and 5 Build
Proposed build alternatives include Alternative 2, a spread diamond interchange (Type L-2), Alternative 3, a partial cloverleaf interchange (Type L-9), and Alternative 5, a compact diamond interchange (Type L-1). Proposed Alternative 4, a modified partial cloverleaf (Type L-9) was eliminated from further consideration. Proposed design elements for Alternatives 2 – 5 are below.

Planned Improvement	Alternative(s)
• Antelope Road, adjacent to I-215 would be closed south of Mapleton Ave./ Antelope Road and turned into a cul-de-sac south of Brians Way/ Antelope Road to accommodate the proposed Keller Rd. NB off- and on-ramps.	2, 3, 5
• Construct new retaining walls to accommodate widening below the I-215 bridge structure and at the northbound off-ramp to Keller Road.	2, 3, 5
• Access to several properties along Antelope Road between Keller Rd and Brians Way will be removed due to construction of the NB off- and on-ramps. Access to these properties will be reestablished via construction of a new 1,600-foot cul-de-sac. Entrance to the new access road would be across from the Mapleton Ave/Keller Rd intersection.	2, 3, 5

Planned Improvement	Alternative(s)
• Widening and/or striping of the existing Keller Road from two to four lanes (two in each direction) east of I-215, including median and dedicated right turn lanes. Widening and/or striping of the existing Keller Road west of I-215 from two to four lanes (two in each direction), before transitioning to 2 lanes at Zeiders Road.	2, 3. 5
• NB and SB on/off-ramps to and from the I-215 mainline.	2, 3
• 300-foot NB auxiliary lane from the Keller Road NB on-ramp to the Scott Road NB off-ramp.	2, 3, 5
• 1,300-foot SB auxiliary lane from the Scott Road SB on-ramp to the Keller Road SB off-ramp.	2, 3, 5
• 300-foot SB auxiliary lane from the Keller Road SB on-ramp.	2, 3
• SB loop on-ramp at the I-215/Keller Road northwest quadrant.	3
• NB loop on-ramp at the I-215/Keller Road southeast quadrant.	3
• Widening existing I-215 bridge to accommodate loop on-ramps.	3
• Construct new SB and NB on- and off-ramps at Keller Road in a double roundabout configuration	5
• Widening existing I-215 bridge to accommodate loop off-ramps.	5

Type of Project *(use Table 1 on instruction sheet)*
Reconstruct existing underpass as an interchange.

County	**Narrative Location/Route & Postmiles:** Interstate 215/Keller Road, Riverside County – Post Miles R14.1 to R15.26 **Caltrans Projects – EA#** 0Q220
Riverside	

Lead Agency: CALTRANS

Contact Person	**Phone#**	**Fax#**	**Email**
Joe D'Onofrio	602-650-4916	602-253-1202	Joe.D'Onofri

Hot Spot Pollutant of Concern *(check one or both)* **PM2.5** √ **PM10** √

Federal Action for which Project-Level PM Conformity is Needed *(check appropriate box)*

Categorical Exclusion (NEPA)	√ **EA or Draft EIS**	**FONSI or Final EIS**	**PS&E or Construction**	√ **Other**

Scheduled Date of Federal Action: 11/2024

NEPA Assignment – Project Type *(check appropriate box)*

Exempt	**Section 326 –Categorical Exemption**	√ **Section 327 – Non-Categorical Exemption**

Current Programming Dates *(as appropriate)*

	PE/Environmental	**ENG**	**ROW**	**CON**
Start	1/2018	10/2024	11/2024	4/2026
End	11/2024	10/2025	12/2025	12/ 2027

Project Purpose and Need (Summary): *(attach additional sheets as necessary)*

The purpose of the new I-215/Keller Road interchange is as follows:

- Provide improved connectivity to the regional transportation system and for future economic development.
- Improve mobility and accessibility for all users between I-215, the Cities of Murrieta and Menifee, and unincorporated Riverside County.
- Improve both goods movement along Keller Road and I-215 and emergency response times to the medical hospital, east of the interchange, by reducing delays at intersections.
- Improve local road access to I-215 in the project area, enhancing climate resiliency for the community.
- Promote equitable, accessible, and sustainable travel options by providing multimodal facilities traversing the project area, such as continuous facilities for pedestrian and bicycle traffic, including new sidewalks and Class II bike lanes.
- Enhance safety by providing safety improvements to the new interchange and along Keller Road, such as new lighting, curb and gutter, sidewalks, and standard vertical clearance under the Keller Road undercrossing.
- Provide interregional continuity and consistency with Caltrans Active Transportation Plan, SCAG's RTP/SCS, and the County integrated project plans for the Cities of Murrieta and Menifee and the County.

The I-215/Keller Road interchange is needed due to the following key factors:

- Forecast population growth and future economic development in the project area, such as The North Murrieta Business Corridor Focus Area, will result in operational challenges at existing adjacent interchanges.
- Consistent with the adopted land use plans for the Cities of Murrieta and Menifee, and the County, planned development in the project area is anticipated to require infrastructure improvements to accommodate future growth (for example, development of the Kaiser campus and Murrieta Hills Community). Operational challenges at Keller Road, I-215/Clinton Keith, and I-215/Scott Road interchanges are anticipated due to forecast population growth and planned development.
- Pedestrian and multimodal accessibility and connectivity are limited in the project area. There are locations without sidewalks, and where existing sidewalks and bike lanes are discontinuous. Such limitations could increase both community reliance on vehicular travel to access goods and services, and traffic delays in the future.

As discussed in the City of Murrieta's current general plan, "Murrieta 2035 General Plan" (adopted July 19, 2011), the City's population has grown from 24,334 in 1992, to 110,949 in 2020, approximately quadrupling in size. The area south of Keller Road is identified as The North Murrieta Business Corridor Focus Area. It is anticipated that the corridor will add an additional 1.7 million square feet of commercial uses and 7.7 million square feet of office and research uses to create a medical corridor and a high technology/office/research employment center, along with commercial uses that support business and employment needs, such as restaurants or hotels.

It is forecasted that there will be a traffic demand of over 195,000 vehicles per day in year 2040 along the I-215 corridor within the project limits.

Surrounding Land Use/Traffic Generators *(especially effect on diesel traffic)*
Land uses in the immediate vicinity of the I-215/Keller Road interchange include a mix of commercial properties, residential uses and undeveloped land. The closest residential use is a mobile home park located approximately 490 feet east of I-215 on the south side of Keller Road. Single-family residential developments are located north of Keller Road, 525 feet west of I-215 and 500 – 1,310 feet east of I-215. Additionally, there is a new medical facility (Kaiser Permanente) approximately 250 feet east of I-215.

Opening Year: Build and No Build LOS, AADT, % and # trucks, truck AADT of proposed facility

Table 1. Opening Year (2027) I-215 Level of Service (AM/PM)

Location	Alt 1	Alt 2	Alt 3	Alt 5
I-215 Southbound				
Freeway Mainline N of Scott Rd	C/B	C/B	C/B	C/B
Freeway Mainline between Scott Rd and Keller Road	C/B	B/B	B/B	B/B
Freeway Mainline between Keller Rd and Clinton Keith Road	C/B	C/B	C/B	C/B
Freeway Mainline S of Clinton Keith Rd	D/B	C/B	C/B	C/B
I-215 Northbound				
Freeway Mainline N of Scott Rd	B/C	B/C	B/C	B/C
Freeway Mainline between Scott Rd and Keller Road	C/C	B/B	B/B	B/B
Freeway Mainline between Keller Rd and Clinton Keith Road	C/C	B/C	B/C	B/C
Freeway Mainline S of Clinton Keith Rd	B/C	B/C	B/C	B/C

As reported in the I-215/Keller Road Interchange PA-ED Traffic Operations Report (traffic report), the projected Level of Service (LOS) on I-215 for the opening year under No-Build and Build conditions (Table 1) indicates that the freeway will continue to operate at free flow or better conditions during the AM and PM peak hours in the 2027 opening year. Slight improvements are anticipated in both the NB and SB directions between Clinton Keith Road and Scott Road.

Table 2. Opening Year (2027) I-215 Annual Average Daily Traffic (AADT) [1]				
Location	Alt 1	Alt 2	Alt 3	Alt 5
Freeway Mainline S of Clinton Keith Rd	105,400	103,500	103,500	103,500
Freeway Mainline between Clinton Keith Rd and Scott Rd	95,000	96,000	96,000	96,000
Freeway Mainline N of Scott Rd	85,200	87,700	87,700	87,700

1. AADT estimated from Caltrans 2014 AADT counts multiplied by ratio of Caltrans 2014 peak hour counts to I-215/Keller Road Interchange PA-ED Traffic Operations Analysis (PN#: 8000020339, EA 0Q220) Values are rounded to the nearest 100.

As shown in Table 2, the 2027 opening year traffic will remain below the 125,000 AADT threshold established in Environmental Protection Agency (EPA) guidance (EPA420-B-06-902) for a POAQC, with a slight shift in volumes north of Scott Road under the Build Alternatives.

Table 3. Opening Year (2027) I-215 Percent Trucks, Truck Increase and AADT [1]				
Location	Alt 1	Alt 2	Alt 3	Alt 5
Freeway Mainline S of Clinton Keith Rd				
Truck % [2]	7.25	7.25	7.25	7.25
AADT	7,642	7,504	7,504	7,504
Truck Increase above No-Build	--	83	83	83
Freeway Mainline between Clinton Keith Rd and Scott Rd				
Truck % [2]	7.25	7.25	7.25	7.25
AADT	6,888	6,960	6,960	6,960
Truck Increase above No-Build	--	83	83	83
Freeway Mainline N of Scott Rd				
Truck % [2]	7.2	7.2	7.2	7.2
AADT	6,134	6,314	6,314	6,314
Truck Increase above No-Build	--	61	61	61

1. AADT estimated from Caltrans 2016 AADT counts multiplied by ratio of Caltrans 2016 peak hour counts to I-215/Keller Road Interchange PA-ED Traffic Operations Analysis (PN#: 8000020339, EA 0Q220) peak hour projections.
2. As reported by Caltrans 2014 AADT Truck Traffic counts.

As shown in Table 3, the 2027 opening year truck traffic was calculated from total AADT and Caltrans 2014 peak hour traffic counts, which estimate volumes for 2 to 5-axle trucks between 7.2 to 7.25-percent of total traffic, below the 8-percent threshold for a POAQC per EPA guidelines.

FTIP Horizon Year / Design Year: Build and No Build LOS, AADT, % and # trucks, truck AADT of proposed facility

Table 4. FTIP Horizon Year (2047) I-215 Level of Service (AM/PM)				
Location	Alt 1	Alt 2	Alt 3	Alt 5
I-215 Southbound				
Freeway Mainline N of Scott Rd	C/B	C/B	C/B	C/B
Freeway Mainline between Scott Rd and Keller Road	D/B	C/B	C/B	C/B
Freeway Mainline between Keller Rd and Clinton Keith Road	D/B	C/B	C/B	C/B
Freeway Mainline S of Clinton Keith Rd	C/B	C/B	C/B	C/B
I-215 Northbound				
Freeway Mainline N of Scott Rd	B/C	B/C	B/C	B/C
Freeway Mainline between Scott Rd and Keller Road	B/C	B/B	B/B	B/B
Freeway Mainline between Keller Rd and Clinton Keith Road	B/C	C/D	C/D	C/D
Freeway Mainline S of Clinton Keith Rd	B/C	B/C	B/C	B/C

As presented in the traffic report, Level of Service (LOS) on I-215 for the Final 2017 Federal Transportation Improvement Program (FTTP) horizon year (2047) under No-Build and Build conditions (Table 4) indicates that the freeway will continue to operate at free flow or better conditions during the AM and PM peak hour, with the exception of the NB direction between Keller Road and Clinton Keith Road. Slight improvements are anticipated in both the NB and SB directions between Keller Road and Scott Road.

Table 5. FTIP Horizon Year (2047) I-215 Annual Average Daily Traffic (AADT) [1]				
Location	Alt 1	Alt 2	Alt 3	Alt 5
Freeway Mainline S of Clinton Keith Rd	121,900	125,200	125,200	125,200
Freeway Mainline between Clinton Keith Rd and Scott Rd	117,000	122,600	122,600	122,600
Freeway Mainline N of Scott Rd	104,000	111,400	111,400	111,400

1. AADT estimated from Caltrans 2016 AADT counts multiplied by ratio of Caltrans 2016 peak hour counts to I-215/Keller Road Interchange PA-ED Traffic Operations Analysis (PN#: 8000020339, EA 0Q220)

As shown in Table 5, the horizon year (2047) projections indicate that AADT will remain below the 125,000 POAQC threshold for all project alternatives; however, mainline freeway segments S of Clinton Keith Road may slightly exceed the threshold under the Build Alternatives.

Table 6. Horizon Year (2047) I-215 Percent Trucks, Truck Increase and AADT [1]				
Location	Alt 1	Alt 2	Alt 3	Alt 5
Freeway Mainline S of Clinton Keith Rd				
Truck % [2]	7.25	7.25	7.25	7.25
AADT	8,838	9,077	9,077	9,077
Truck Increase above No-Build	--	340	340	340
Freeway Mainline between Clinton Keith Rd and Scott Rd				
Truck % [2]	7.25	7.25	7.25	7.25
AADT	8,483	8,889	8,889	8,889
Truck Increase above No-Build	--	340	340	340
Freeway Mainline N of Scott Rd				
Truck % [2]	7.2	7.2	7.2	7.2
AADT	7,488	8,021	8,021	8,021
Truck Increase above No-Build	--	532	532	532

1. AADT estimated from Caltrans 2016 AADT counts multiplied by ratio of Caltrans 2016 peak hour counts to I-215/Keller Road Interchange PA-ED Traffic Operations Analysis (PN#: 8000020339, EA 0Q220) peak hour projections.
2. As reported by Caltrans 2014 AADT Truck traffic counts.

The horizon year (2047) truck traffic was calculated from total AADT and Caltrans 2014 peak hour traffic counts, which estimate volumes for 2 to 5-axle trucks between 7.2 to 7.25-percent of total traffic. Despite the exceedance of the AADT total traffic threshold for a POAQC, truck volumes are anticipated to remain below the 10,000 vehicles per day.

Opening Year: If facility is an interchange(s) or intersection(s), Build and No Build cross-street LOS, AADT, % and # trucks, truck AADT

Table 7. Opening Year (2027) Keller Road Level of Service (AM/PM)				
Location	Alt 1	Alt 2	Alt 3	Alt 5
Zeiders Road/Keller Road	A/A	D/D	D/D	D/D
Scenic View Drive/Keller Road	A/A	Removed		
Antelope Road/Keller Road	B/A	Intersection Relocated		
Mapleton Avenue/Keller Road	B/B	C/C	C/C	C/C
Whitewood Road/Keller Road	D/D	D/D	D/D	D/D

n/a – data not available

Per the traffic report, LOS at existing (2014) intersections of Keller Road with cross-streets (Zeiders Road, Scenic View Drive, Mapleton Avenue, Whitewood Road) are operating at free flow or better (LOS A – C) conditions, with the exception of the signalized intersection at Antelope Road during the AM peak period. FTIP opening year (2027) traffic on Keller Road for the No-Build scenario assumes a planned realignment of Antelope Road would occur without the project. As shown in Table 7, LOS for 2027 is predicted to degrade from A/D (AM and PM peak) under the No-Build to C/D (AM and PM peak) for the Build alternatives on Keller Road. However, the I-215/Keller Road interchange ramp terminus intersections (not listed) are forecast in the traffic report to operate at an acceptable LOS (B/C) for all alternatives in opening year 2027.

Table 8. Opening Year (2027) Keller Road Percent Trucks, Truck Increase and AADT [1]					
Location	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5
Keller Road W of I-215					
AADT	3,298	17,752	17,752	17,752	17,752
Truck % [2]	5.0	5.0	5.0	5.0	5.0
Truck AADT	165	888	888	888	888
Truck Increase above No-Build	--	723	723	723	723

Table 8 cont'd. Opening Year (2027) Keller Road Percent Trucks, Truck Increase and AADT [1]					
Keller Road under I-215					
AADT	3,612	10,993	10,993	10,993	10,993
Truck % [2]	5.0	5.0	5.0	5.0	5.0
Truck AADT	181	550	550	550	550
Truck Increase above No-Build	--	369	369	369	369
Keller Road E of I-215					
AADT	10,262	24,987	24,987	24,987	24,987
Truck % [2]	5.0	5.0	5.0	5.0	5.0
Truck AADT	513	1,249	1,249	1,249	1,249
Truck Increase above No-Build	--	736	736	736	736

1. AADT estimated from Caltrans 2016 AADT counts multiplied by ratio of Caltrans 2016 peak hour counts to I-215/Keller Road Interchange PA-ED Traffic Operations Analysis (PN#: 8000020339, EA 0Q220) peak hour projections.
2. Typical truck percentage for an arterial street.

Opening year (2027) traffic at the I-215/Keller Road interchange (Table 8) for the No-Build scenario was extrapolated from total 2014 AADT reported in the traffic report using a 3.2-percent annual growth rate. For the Build Alternatives, opening year volumes are based on a 25 – 26% reduction factor from FTIP horizon year (2047) volumes. Truck percentages for all alternatives were assumed to be 5-percent for a typical arterial street and truck AADT was derived by taking this percentage of the extrapolated total AADT. Although LOS on Keller Road during AM peak hours is predicted to remain acceptable at Mapleton Avenue (Table 7), LOS will operate at less than acceptable levels at the remaining intersections; however, a significant number of diesel fueled vehicles including trucks, would not affect these intersections.

RTP Horizon Year / Design Year: If facility is an interchange (s) or intersection(s), Build and No Build cross-street LOS, AADT, % and # trucks, truck AADT

Table 9. Horizon Year (2047) Keller Road Level of Service (AM/PM)				
Location	Alt 1	Alt 2	Alt 3	Alt 5
Zeiders Road/Keller Road	E/F	C/D	C/D	C/D
Scenic View Drive/Keller Road	B/A	Removed		
Antelope Road/Keller Road	Intersection Relocated			
Mapleton Avenue/Keller Road	D/E	D/D	D/D	D/D
Whitewood Road/Keller Road	D/D	D/D	D/D	D/D
n/a – data not available				

Horizon year (2047) traffic on Keller Road for the No-Build scenario assumes a planned realignment of Antelope Road would occur without the project. For the Build alternatives, the Antelope realignment and new I-215/Keller Road interchange were assumed. As shown in Table 9, LOS in 2047 is predicted to improve from B/E (AM peak) and A/F (PM peak) under the No-Build to C/D (AM peak) and D/D (PM peak) for the Build alternatives on Keller Road. Additionally, the I-215/Keller Road interchange ramp terminus intersections (not listed) are forecast in the traffic report to operate at an acceptable LOS for all alternatives in the horizon year 2047, with the exception of the NB on ramp during the PM peak hour. However, for the Build alternatives, the storage space provided at the off-ramps and along the Keller Road segment between the roundabout intersections is forecast to adequately accommodate the 95th percentile peak hour queue lengths.

Table 10. Horizon Year (2047) Keller Road Percent Trucks, Truck Increase and AADT [1]					
Location	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5
Keller Road W of I-215					
Truck % [2]	5.0	5.0	5.0	5.0	5.0
AADT	799	1189	1189	1189	1189
Truck Increase above No-Build	--	390	390	390	390
Keller Road @ I-215					
Truck % [2]	5.0	5.0	5.0	5.0	5.0
AADT	828	736	736	736	736
Truck Increase above No-Build	--	-92	-92	-92	-92
Keller Road E of I-215					
Truck % [2]	5.0	5.0	5.0	5.0	5.0
AADT	1,020	1,673	1,673	1,673	1,673
Truck Increase above No-Build	--	653	653	653	653

1. AADT estimated from Caltrans 2016 AADT counts multiplied by ratio of Caltrans 2016 peak hour counts to I-215/Keller Road Interchange PA-ED Traffic Operations Analysis (PN#: 8000020339, EA 0Q220) peak hour projections.
2. Typical truck percentage for an arterial street.

Truck percentages were assumed to be 5-percent for a typical arterial street and truck AADT was derived by taking this percentage of the total AADT for all horizon year (2047) scenarios. All intersections on Keller Road are projected to operate at less than acceptable levels (Table 9); however, as shown in the Table 10, a significant number of diesel fueled vehicles including trucks, would not affect these intersections.

Describe potential traffic redistribution effects of congestion relief *(impact on other facilities)*
As discussed above, the purpose of the project is to accommodate forecasted intraregional traffic demand at the I-215/Clinton Keith and I-215/Scott Road interchanges and the I-215/Keller Road undercrossing. The project will provide improved connectivity to the regional transportation system for the existing Loma Linda University Medical Center-Murrieta and planned Kaiser-Permanente health facilities and help achieve the goals of the Murrieta 2035 General Plan Circulation Element and the Southern California Association of Government's 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy, regarding access to the regional transportation system.

While the operational LOS on I-215 mainline will improve over current conditions and future interchange ramps will operate at acceptable LOS, the potential redistribution effects of congestion relief on I-215 will maintain poor LOS on local arterials including Keller Road

Comments/Explanation/Details *(attach additional sheets as necessary)*
The proposed I-215/Keller Road IC project is not a Project of Air Quality concern because:

i) It is an expanded highway project that will not result in a significant increase in the number of diesel vehicles as the predicted future truck percentages are below 8% of 125,000 vehicles (10,000 AADT truck volumes) for the opening (2027) and RTP horizon (2047) years;
ii) Although the project affects intersections that are predicted to operate at LOS C or D for the opening (2027) and horizon (2047) years, those intersections will not be affected by a significant number of diesel vehicles related to the project;

In addition, the project does not incorporate new bus or rail terminals and transfer points that significantly increase the number of diesel vehicles congregating in a single location nor expand existing bus or rail terminals or transfer points.

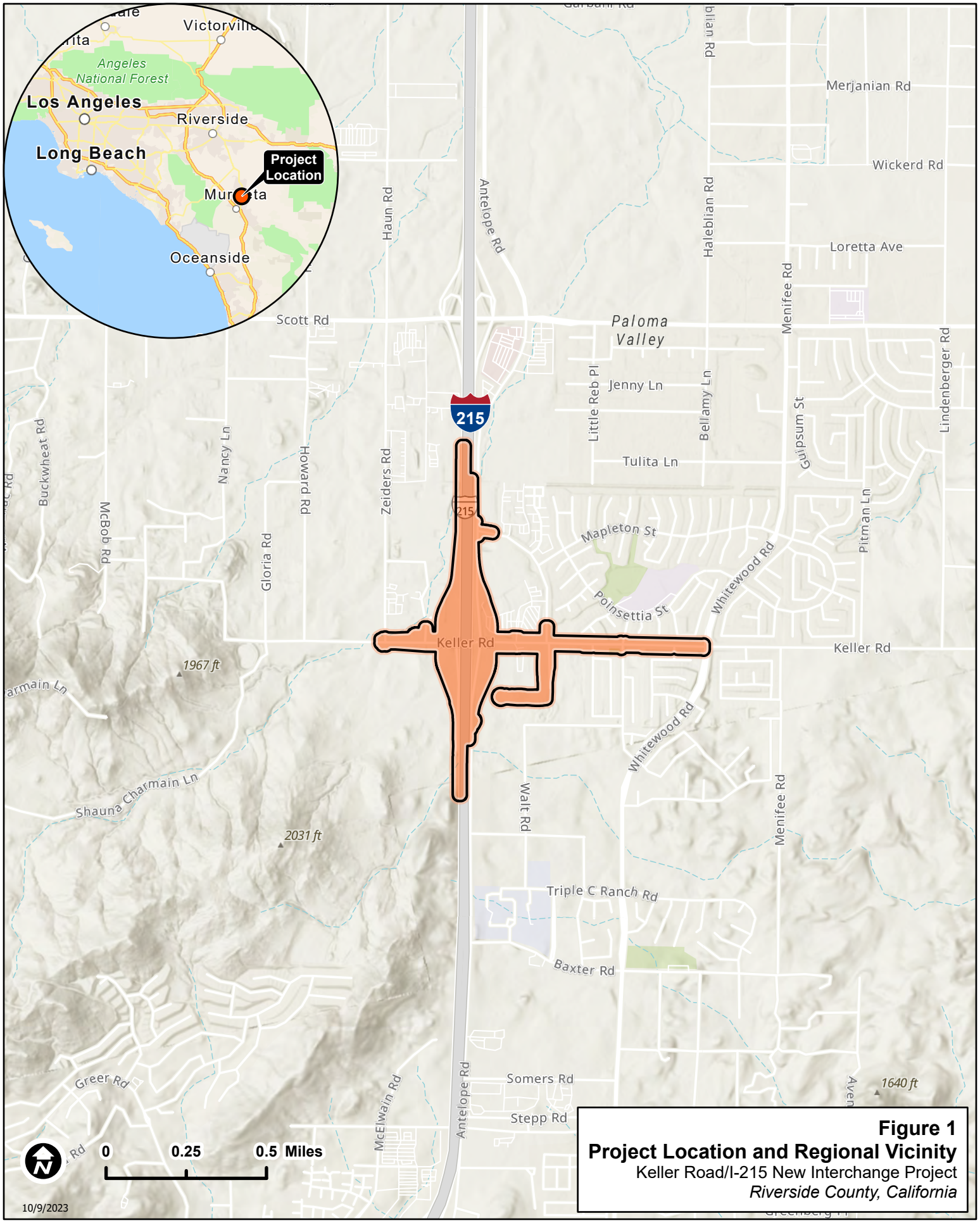
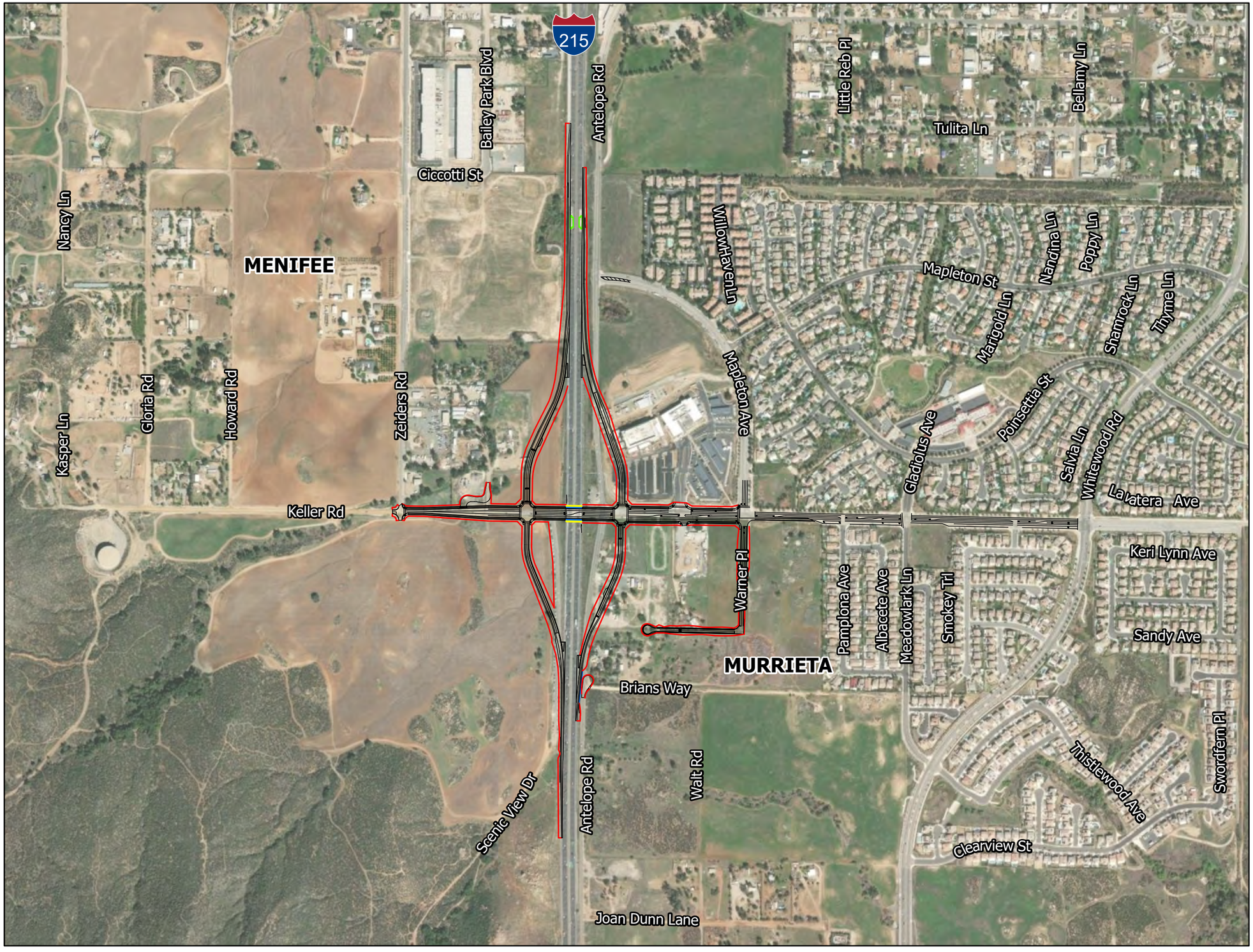


Figure 1
Project Location and Regional Vicinity
Keller Road/I-215 New Interchange Project
Riverside County, California





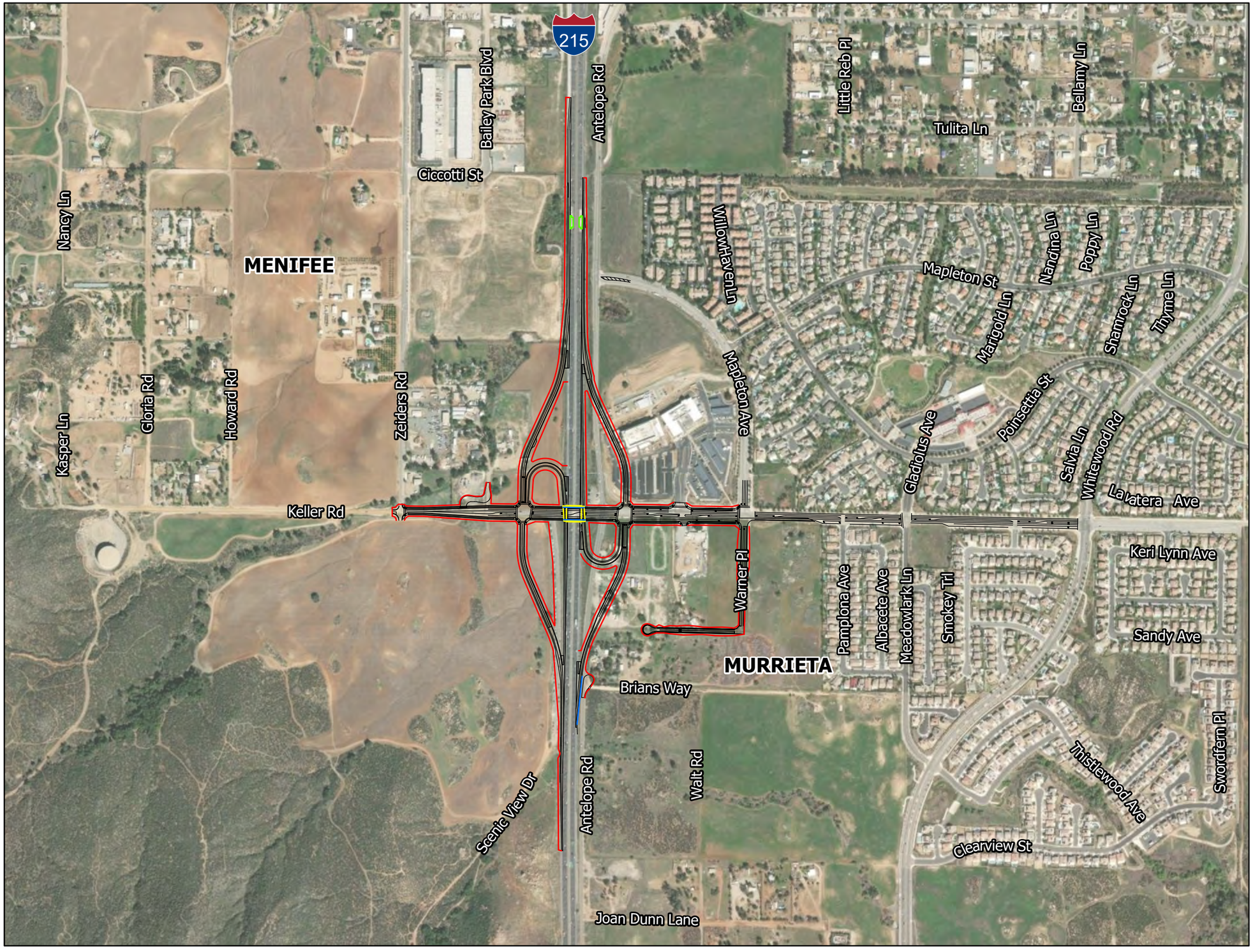
Legend

- Striping and Edge of Pavement
- Cut and Fill
- Bridge Structure
- Soundwalls
- Weigh-In Motion System (Existing)

Data Source:
Caltrans
Riverside County GIS

0 250 500 750 1000
Feet

Figure 2
Alternative 2
Spread Diamond Interchange
Keller Road/I-215 Interchange Project
Riverside County, California





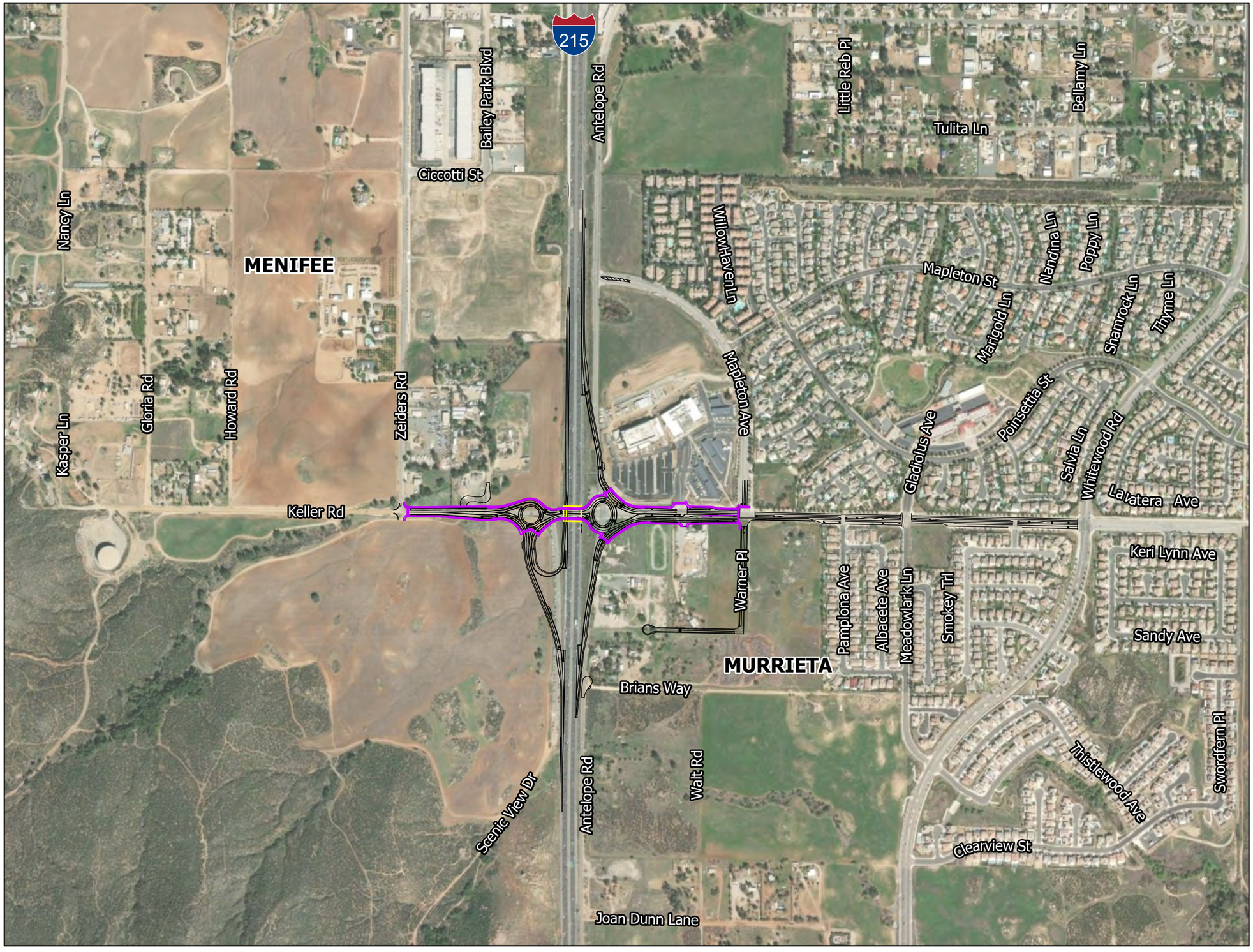
Legend

- Striping and Edge of Pavement
- Cut and Fill
- Bridge Structure
- Soundwalls
- Weigh-In Motion System (Existing)

Data Source:
Caltrans
Riverside County GIS

0 250 500 750 1000
Feet

Figure 3
Alternative 3
Partial Cloverleaf Interchange
Keller Road/I-215 Interchange Project
Riverside County, California





Legend

- Striping and Edge of Pavement
- Bridge Structure
- Pedestrian Pathway

Data Source:
Caltrans
Riverside County GIS

0 250 500 750 1000
Feet

Figure 4
Alternative 5
Compact Diamond Interchange
Keller Road/I-215 Interchange Project
Riverside County, California

TRANSPORTATION CONFORMITY WORKING GROUP

Meeting Minutes

June 25, 2024
10:00 a.m. – 12:00 p.m.

The meeting was held via Zoom, teleconference, and in-person. A digital recording of the meeting is available for listening in SCAG's office.

Attendee List

SCAG Staff:

Banuelos, Ryan
Barajas, Agustin
Calderon, Karen
Luo, Rongsheng
Sangkapichai, Mana
Sun, Lijin

Via Zoom and Teleconference:

Bade, Rabindra	*Caltrans*	*District 12*
Berge, Brent	*Caltrans*	*District 11*
Brugger, Ron	*LSA*	
D'Onofrio, Joe	*Jacobs*	
Dorantes, Michael	*U.S. EPA*	*Region 9*
Emery, Edward	*RCTC*	
Espinosa Araiza, Erika	*Caltrans*	*Headquarters (HQ)*
Galbreath, Holly	*Ventura County APCD (VCAPCD)*	
Garfio, Angel	*OCTA*	
Gaschot, Bertrand	*Mojave Desert AQMD (MDAQMD)*	
Getachew, Eleni	*Impact Sciences*	
Habib, Remon	*City of Lake Elsinore*	
Hager, Mark	*HDR*	
Hsu, Vicky	*HDR*	
Huddleston, Lori	*LA Metro, Long Range Planning*	
Kaushik, Deepak	*Iteris*	
Lay, Keith	*ICF*	
Lee, David	*Caltrans*	*District 8*
Lin, Serena	*HDR*	
Lods, Barbara	*Antelope Valley AQMD (AVAQMD)*	
Marroquin, Nancy	*LA Metro, Long Range Planning*	
Moran, Nohemi	*SBCTA*	
Morris, Michael	*FHWA*	
O'Connor, Karina	*U.S. EPA*	*Region 9*
Odufalu, Olufemi	*Caltrans*	*District 8*
Richmai, Michael	*LA Metro*	
Sutherland, Anders	*Terry A Hayes Associates*	
Vaca, Erika	*Caltrans*	*Headquarters (HQ)*
Wong, Alison	*Caltrans*	*District 7*
Yoon, Andrew	*Caltrans*	*District 7*

TRANSPORTATION CONFORMITY WORKING GROUP

MEETING SUMMARY

1. CALL TO ORDER AND SELF-INTRODUCTIONS

Rabindra Bade, TCWG Chair, called the meeting to order at 10:02 a.m.

2. PUBLIC COMMENT PERIOD

None.

3. CONSENT CALENDAR

3.1. May 28, 2024 TCWG Meeting Minutes

The meeting minutes were approved.

4. INFORMATION ITEMS

4.1. Review of PM Hot Spot Interagency Review Forms

- 3M10WT03: it was reaffirmed that this project is not a project of air quality concern.
- RIV060109: it was reaffirmed that this project is not a project of air quality concern.

Erika Espinosa Araiza, Caltrans HQ, noted that TCWG was moving away from circulating information and concurrences via e-mails after meetings. All TCWG concurrences must occur at the meeting.

4.2. RTP Update

Agustin Barajas, SCAG, reported the following:

- On June 6, 2024, SCAG's Regional Council approved the public release of draft Amendment No. 1 to Connect SoCal 2024 in conjunction with the draft 2025 FTIP, including the associated federally required draft transportation conformity analyses.
- The 30-day public review and comment period would begin July 12, 2024 and end August 12, 2024.
- SCAG's Regional Council would consider the proposed final Amendment No. 1 to Connect SoCal 2024 and the proposed final 2025 FTIP, including the associated proposed final transportation conformity analyses for approval in Fall 2024. Federal approval was anticipated in December 2024.

4.3. FTIP Update

Agustin Barajas, SCAG, reported the following:

- The 2023 FTIP Administrative Modification No. 23-29 was approved on May 31, 2024.
- SCAG staff were reviewing and finalizing the 2023 FTIP Amendment No. 23-30 and Administrative Modification No. 23-31, which included programming updates from SCAG's call for projects for STBG, CMAQ, and CRP federal funding.
- The next 2023 FTIP amendment opportunities would be Administrative Modifications No. 23-32 and Amendment No. 23-33, which would be due to SCAG staff on July 9, 2024 and July 16, 2024, respectively.

4.4. EPA Update

Karina O'Connor, EPA, reported the following:

- EPA was tracking multiple sanctions clocks for the SCAG region. Many clocks were paused with EPA actions, as reported at previous TCWG meetings.
- Two highway sanctions clocks were related to the new source review (NSR) rules in the MDAQMD and the AVAQMD, and two highway sanctions clocks were related to failure to submit the required SIPs by the South Coast AQMD.
- MDAQMD's litigation concerning its NSR rules would affect EPA's ability to turn off the highway sanction clock. Oral

arguments were scheduled for August 2024. However, the Federal Implementation Plan (FIP) for the NSR rules would be due in November 2024. EPA was working on and would publish the FIP by that deadline.

- Regarding the failure to submit the required PM2.5 SIP elements for the 2012 annual PM2.5 standard in the South Coast Air Basin, South Coast AQMD had adopted the said SIP on June 7, 2024 but had not yet submitted to EPA through CARB.
- There was another pending highway sanction clock that had not begun but was expected to begin soon. It was related to EPA's proposed disapproval of South Coast AQMD's Clean Air Act 182(e)(5) Contingency Measure Plan for the 1997 8-hour ozone standard. EPA was under a consent decree to finalize that proposed action by the end of July 2024.

4.4.1. Status Update on the SCAQMD Lawsuit against EPA (Case No. 2:23-cv-02646)

Michael Dorantes, EPA, reported no updates.

4.5. ARB Update

Lijin Sun, SCAG, reported the following on behalf of CARB staff:

- CARB staff was developing the next version of the EMFAC model, also known as EMFAC202Y. The alpha version for EMFAC202Y would be released in July 2024 for MPOs to review and testing purposes and to provide feedback. CARB staff would share the link once it became available.
- CARB staff also completed the VMT offset demonstration and motor vehicle emissions budgets (MVEBs) for the Coachella Valley Extreme nonattainment area 75 ppb ozone SIP. This item would be presented to TCWG for interagency consultation at the July TCWG meeting.

4.6. Air Districts Updates

4.6.1. Status Update on EPA Final Limited Disapproval of Reasonable Available Control Technology Demonstrations for Sources Covered by the EPA's 2016 Oil and Gas Control Techniques Guidelines for VCAPCD

Holly Galbreath, VCAPCD, reported no updates.

4.6.2. Status Update on EPA Proposed Limited Disapproval of SCAQMD Rules 1106, 1106.1, and 1107; Final Limited Disapproval of SCAQMD Rule 1118; Final Limited Disapproval of Reasonable Available Control Technology Demonstrations for Sources Covered by the EPA's 2016 Oil and Gas Control Techniques Guidelines for SCAQMD; Failure to Submit Contingency Measures for the 2008 8-Hour Ozone NAAQS for Coachella Valley Ozone Nonattainment Area; Failure to Submit the Required 2012 Annual Fine Particulate Matter State Implementation Plan Elements for the South Coast Air Basin; Failure to Submit State Implementation Plan Submissions for the 2012 Annual Fine Particulate Matter in the South Coast Air Basin; EPA Proposed Disapproval of the Contingency Measure Plan for the 1997 8-hour Ozone NAAQS in the South Coast Air Basin

No representative was present to provide updates.

4.6.3. Status Update on EPA Final Limited Disapproval of MDAQMD Rule 1160; Final Disapproval of MDAQMD Rule 315; Failure to Submit Contingency Measures for the 2008 8-Hour Ozone NAAQS for San Bernardino County Portion of West Mojave Desert Ozone Nonattainment Area; Final Limited Disapproval of MDAQMD Rules 1301, 1302, 1303, 1304, and 1305; Final Limited Disapproval of MDAQMD Rule 1157; and Proposed Limited Disapproval of MDAQMD Rule 401

Bertrand Gaschot, MDAQMD, reported no updates.

4.6.3.1. Status Update on the MDAQMD Lawsuit against EPA (Case No. 23-1411)

Bertrand Gaschot, MDAQMD, reported no updates.

4.6.4. Status Update on EPA Final Disapproval of AVAQMD Rule 315; Failure to Submit Contingency Measures for the 2008 8-Hour Ozone NAAQS for Antelope Valley Portion of West Mojave Desert Ozone Nonattainment Area; and Final Limited Disapproval of AVAQMD Rules 1301, 1302, 1303, 1304, 1305, and 1309

Barbara Lods, AVAQMD, reported no updates.

4.6.4.1. Status Update on the AVAQMD Lawsuit against EPA (Case No. 23-1614)

Barbara Lods, AVAQMD, reported no updates.

5. INFORMATION SHARING

- Lijin Sun, SCAG, acknowledged that this was Rabindra Bade's last meeting as the TCWG Chair and thanked him for his contributions to TCWG this year.
- Rabindra Bade, Caltrans District 12, thanked TCWG members, projects representatives for PM hot spot interagency forms, SCAG staff, and the public for their support and contributions to TCWG discussions.
- Lijin Sun, SCAG, announced that she would be out of office and requested all PM Hot Spot Interagency Forms be sent to Karen Calderon for the next two (July and August) TCWG meetings.

6. ADJOURNMENT

The next TCWG meeting would be held on Tuesday, July 23, 2024 in-person, via Zoom, and by teleconference. Please submit PM Hot Spot Analysis Interagency Review Forms for the next meeting to Karen Calderon, calderon@scag.ca.gov, by Tuesday, July 9, 2024.

PM Conformity Hot Spot Analysis
Project Summary Form for Interagency Consultation

The purpose of this form is to provide sufficient information to allow the Transportation Conformity Working Group (TCWG) to determine if a project requires a project-level PM hot spot analysis pursuant to Federal Conformity Regulations.

The form is not required under the following circumstances:

1. The project sponsor determines that a project-level PM hot spot analysis is required or otherwise elects to perform the analysis; or
2. The project does not require a project-level PM hot spot analysis since it:
    a. Is exempt pursuant to 40 CFR 93.126; or
    b. Is a traffic signal synchronization project under 40 CFR 93.128; or
    c. Uses no Federal funds AND requires no Federal approval; or
    d. Is located in a Federal PM attainment area (note: PM10 and PM2.5 areas differ).

Projects other than those listed above may or may not need a project-level PM hot spot analysis depending on whether it is considered a "Project of Air Quality Concern" (POAQC), and should be brought before the TCWG for a determination.

It is the responsibility of the project sponsor to ensure that the form is filled out completely and provides a sufficient level of detail for the TCWG to make an informed decision on whether or not a project requires a project-level PM hot spot analysis. For example, the TCWG will be reviewing the effects of the project, and thus part of the required information includes build/no build traffic data. It is also the responsibility of the project sponsor to ensure a representative is available to discuss the project at the TCWG meeting if necessary.

Instructions:

1) Fill out form in its entirety. Enter information in gray input fields.

2) Be sure to include FTIP ID#. See http://www.scag.ca.gov/ftip/index.htm if necessary.

3) Submit completed form to your local Transportation Commission who will submit it to the MPO. Caltrans projects can be submitted by Caltrans District representatives.

The TCWG meets the fourth Tuesday of each month at SCAG Headquarters, 818 W. 7th Street, 12th Floor, Los Angeles, CA 90017. Participation is also available via teleconference. Call (213) 236-1800 prior to meeting to get the call-in number and pass-code.

Forms must be submitted by the second Tuesday of the month to be considered at that month's TCWG meeting.

REFERENCE

Criteria for Projects of Air Quality Concern (40 CFR 93.123(b)) – PM_{10} and $PM_{2.5}$ Hot Spots

(i) New highway projects that have a significant number of diesel vehicles, and expanded highway projects that have a significant increase in the number of diesel vehicles;
(ii) Projects affecting intersections that are at Level-of-Service D, E, or F with a significant number of diesel vehicles, or those that will change to Level-of-Service D, E, or F because of increased traffic volumes from a significant number of diesel vehicles related to the project;
(iii) New bus and rail terminals and transfer points that have a significant number of diesel vehicles congregating at a single location;
(iv) Expanded bus and rail terminals and transfer points that significantly increase the number of diesel vehicles congregating at a single location; and
(v) Projects in or affecting locations, areas, or categories of sites which are identified in the PM10 or PM2.5 applicable implementation plan or implementation plan submission, as appropriate, as sites of violation or possible violation.

Links to more information:

http://www.fhwa.dot.gov/environment/conform.htm

http://www.epa.gov/otaq/stateresources/transconf/index.htm

TABLE 1
Type of Project

- New state highway
- Change to existing state highway
- New regionally significant street
- Change to existing regionally significant street
- New interchange
- Reconfigure existing interchange
- Intersection channelization
- Intersection signalization
- Roadway realignment
- Bus, rail, or inter-modal facility/terminal/transfer point
- Truck weight/inspection station
- At or affects location identified in the SIP as a site of actual or possible violation of NAAQS

RTIP ID# *(required)* RIV100107

TCWG Consideration Date: 10/23/18

Project Description *(clearly describe project)*
The City of Murrieta in cooperation with the California Department of Transportation (Caltrans) District 8, proposes to construct improvements for a new interchange on Interstate 215 (I-215) at the existing Keller Road undercrossing located in the City of Murrieta, Riverside County, California (see attached Figures 1 – 4). The project's primary improvements consist of the following:

- Construction northbound (NB) and southbound (SB) on and off-ramps for accessing I-215 from the existing Keller Road undercrossing.
- Construct auxiliary lanes in the NB and SB direction of I-215, from the Scott Road interchange (IC) to the proposed Keller Road IC.
- Remove Antelope Road from Brians Way to Mapelton Avenue, and circulate traffic onto an improved Brians Way and Warner Place. North (N) of Keller Road, Antelope Road is realigned to join Mapleton Avenue.
- Remove Scenic View Drive on the west side of the future IC, due to a conflict with the SB on-ramp. Scenic View Drive will not be replaced.

Four alternatives, including the "No-Build" scenario, have been identified for further study and final approval prior to the Plans, Specifications and Estimate phase of the project. The build alternatives are included as attachments to this memorandum.

Alternative 1 No-Build
Alternative 1 proposes that the I-215 connection to Keller Road not be constructed. Traffic conditions are expected to worsen as a result of increased demand created by new development in the vicinity of the project. Despite the completion of planned improvements to the City arterial street system and the I-215/Scott Road IC, I-215 in the project vicinity would operate at a Caltrans non-compliant Level of Service (LOS) D or worse during peak hours. Nine of 13 local street intersections within the project vicinity would operate at LOS E or worse during peak hours with 5 non-compliant with Riverside County Congestion Management Plan minimum standards.

Alternatives 2, 3 and 5 Build
Proposed alternatives include Alternative 2, a spread diamond interchange (Type L-2), Alternative 3, a partial cloverleaf interchange (Type L-9), and Alternative 5, a compact diamond interchange (Type L-1). Proposed Alternative 4, a modified partial cloverleaf (Type L-9) was eliminated from further consideration. Proposed design elements for Alternatives 2 – 5 are below.

Planned Improvement	Alternative(s)
• Antelope Road, adjacent to I-215 would be closed south of Mapleton Ave./ Antelope Road and turned into a cul-de-sac south of Brians Way/ Antelope Road to accommodate the proposed Keller Rd. NB off- and on-ramps.	2, 3, 5
• Construct new retaining walls to accommodate widening below the I-215 bridge structure and at the northbound off-ramp to Keller Road.	2, 3, 5
• Access to several properties along Antelope Road between Keller Rd and Brians Way will be removed due to construction of the NB off- and on-ramps. Access to these properties will be reestablished via construction of a new 1,600-foot cul-de-sac. Entrance to the new access road would be across from the Mapleton Ave/Keller Rd intersection.	2, 3, 5

Planned Improvement	Alternative(s)
• Widening and/or striping of the existing Keller Road from two to four lanes (two in each direction) east of I-215, including median and dedicated right turn lanes. Widening and/or striping of the existing Keller Road west of I-215 from two to four lanes (two in each direction), before transitioning to 2 lanes at Zeiders Road.	2, 3. 5
• NB and SB on/off-ramps to and from the I-215 mainline.	2, 3
• 300-foot NB auxiliary lane from the Keller Road NB on-ramp to the Scott Road NB off-ramp.	2, 3, 5
• 1,300-foot SB auxiliary lane from the Scott Road SB on-ramp to the Keller Road SB off-ramp.	2, 3, 5
• 300-foot SB auxiliary lane from the Keller Road SB on-ramp.	2, 3
• SB loop on-ramp at the I-215/Keller Road northwest quadrant.	3
• NB loop on-ramp at the I-215/Keller Road southeast quadrant.	3
• Widening existing I-215 bridge to accommodate loop on-ramps.	3
• Construct new SB and NB on- and off-ramps at Keller Road in a double roundabout configuration	5
• Widening existing I-215 bridge to accommodate loop off-ramps.	5

Type of Project *(use Table 1 on instruction sheet)*
Reconstruct existing underpass as an interchange.

County	**Narrative Location/Route & Postmiles:** Interstate 215/Keller Road, Riverside County – Post Miles R14.1 to R15.26
Riverside	**Caltrans Projects – EA#** 0Q2200

Lead Agency: CALTRANS

Contact Person	**Phone#**	**Fax#**	**Email**
Joe D'Onofrio	602-650-4916	602-253-1202	Joe.D'Onofri

Hot Spot Pollutant of Concern *(check one or both)* **PM2.5** √ **PM10** √

Federal Action for which Project-Level PM Conformity is Needed *(check appropriate box)*

Categorical Exclusion (NEPA)	√ **EA or Draft EIS**	**FONSI or Final EIS**	**PS&E or Construction**	**Other**

Scheduled Date of Federal Action: 01/2020

NEPA Assignment – Project Type *(check appropriate box)*

Exempt	**Section 326 –Categorical Exemption**	√ **Section 327 – Non-Categorical Exemption**

Current Programming Dates *(as appropriate)*

	PE/Environmental	**ENG**	**ROW**	**CON**
Start	1/2018	8/2018	1/2020	8/2020
End	1/2020	4/2020	8/2020	7/2023

Project Purpose and Need (Summary): *(attach additional sheets as necessary)*

The purpose of the new I-215/Keller Road interchange is to:

- Accommodate forecasted traffic demand.
- Provide improved connectivity to the regional transportation system.

The I-215/Keller Road interchange is needed due to the following key factors:

- Forecasted increased traffic demand resulting in increased congestion and decreased mainline freeway operations.
- Forecasted increased traffic demand on local streets, including Keller Road, and I 215/Clinton Keith and I-215/Scott Road interchanges resulting from planned growth in accordance with North Murrieta Business Corridor described in the Murrieta 2035 General Plan (adopted July 19, 2011) and existing Kaiser-Permanente health facilities and Loma Linda University Medical Center south and north of Keller Road west of I-215.

As discussed in the City of Murrieta's current general plan, "Murrieta 2035 General Plan" (adopted July 19, 2011), the City's population has grown from 24,334 in 1992, to 100,714 in 2009, approximately quadrupling in size. The area south of Keller Road is identified as The North Murrieta Business Corridor Focus Area. It is anticipated that the corridor will add an additional 1.7 million square feet of commercial uses and 7.7 million square feet of office and research uses to create a medical corridor and a high technology/office/research employment center, along with commercial uses that support business and employment needs, such as restaurants or hotels.

It is forecasted that there will be a traffic demand of over 195,000 vehicles per day in year 2040 along the I-215 corridor within the project limits.

Surrounding Land Use/Traffic Generators *(especially effect on diesel traffic)*
Land uses in the immediate vicinity of the I-215/Keller Road interchange include a mix of commercial properties, residential uses and undeveloped land. The closest residential use is a mobile home park located approximately 150 meters east of I-215 on the south side of Keller Road. Single-family residential developments are located north of Keller Road, 160 meters west of I-215 and 155 – 400 meters east of I-215.

Opening Year: Build and No Build LOS, AADT, % and # trucks, truck AADT of proposed facility

Table 1. Opening Year (2020) I-215 Level of Service (AM/PM)

Location	Alt 1	Alt 2	Alt 3	Alt 5
I-215 Southbound				
Freeway Mainline N of Scott Rd	C/B	C/B	C/B	C/B
Freeway Mainline between Scott Rd and Keller Road	C/B	B/B	B/B	B/B
Freeway Mainline between Keller Rd and Clinton Keith Road	C/B	C/B	C/B	C/B
Freeway Mainline S of Clinton Keith Rd	D/B	C/B	C/B	C/B
I-215 Northbound				
Freeway Mainline N of Scott Rd	B/C	B/C	B/C	B/C
Freeway Mainline between Scott Rd and Keller Road	C/C	B/B	B/B	B/B
Freeway Mainline between Keller Rd and Clinton Keith Road	C/C	B/C	B/C	B/C
Freeway Mainline S of Clinton Keith Rd	B/C	B/C	B/C	B/C

As reported in the I-215/Keller Road Interchange PA-ED Traffic Operations Report (traffic report), the projected Level of Service (LOS) on I-215 for the opening year under No-Build and Build conditions (Table 1) indicates that the freeway will continue to operate at free flow or better conditions during the AM and PM peak hours in the 2020 opening year. Slight improvements are anticipated in both the NB and SB directions between Clinton Keith Road and Scott Road.

Table 2. Opening Year (2020) I-215 Annual Average Daily Traffic (AADT) [1]				
Location	Alt 1	Alt 2	Alt 3	Alt 5
Freeway Mainline S of Clinton Keith Rd	105,400	103,500	103,500	103,500
Freeway Mainline between Clinton Keith Rd and Scott Rd	95,000	96,000	96,000	96,000
Freeway Mainline N of Scott Rd	85,200	87,700	87,700	87,700

1. AADT estimated from Caltrans 2014 AADT counts multiplied by ratio of Caltrans 2014 peak hour counts to I-215/Keller Road Interchange PA-ED Traffic Operations Analysis (PN#: 8000020339, EA 0Q220) Values are rounded to the nearest 100.

As shown in Table 2, the 2020 opening year traffic will remain below the 125,000 AADT threshold established in Environmental Protection Agency (EPA) guidance (EPA420-B-06-902) for a POAQC, with a slight shift in volumes north of Scott Road under the Build Alternatives.

Table 3. Opening Year (2020) I-215 Percent Trucks, Truck Increase and AADT [1]				
Location	Alt 1	Alt 2	Alt 3	Alt 5
Freeway Mainline S of Clinton Keith Rd				
Truck % [2]	7.25	7.25	7.25	7.25
AADT	7,642	7,504	7,504	7,504
Truck Increase above No-Build	--	83	83	83
Freeway Mainline between Clinton Keith Rd and Scott Rd				
Truck % [2]	7.25	7.25	7.25	7.25
AADT	6,888	6,960	6,960	6,960
Truck Increase above No-Build	--	83	83	83
Freeway Mainline N of Scott Rd				
Truck % [2]	7.2	7.2	7.2	7.2
AADT	6,134	6,314	6,314	6,314
Truck Increase above No-Build	--	61	61	61

1. AADT estimated from Caltrans 2016 AADT counts multiplied by ratio of Caltrans 2016 peak hour counts to I-215/Keller Road Interchange PA-ED Traffic Operations Analysis (PN#: 8000020339, EA 0Q220) peak hour projections.
2. As reported by Caltrans 2014 AADT Truck Traffic counts.

As shown in Table 3, the 2020 opening year truck traffic was calculated from total AADT and Caltrans 2014 peak hour traffic counts, which estimate volumes for 2 to 5-axle trucks between 7.2 to 7.25-percent of total traffic, below the 8-percent threshold for a POAQC per EPA guidelines.

FTIP Horizon Year / Design Year: Build and No Build LOS, AADT, % and # trucks, truck AADT of proposed facility

Table 4. FTIP Horizon Year (2040) I-215 Level of Service (AM/PM)				
Location	Alt 1	Alt 2	Alt 3	Alt 5
I-215 Southbound				
Freeway Mainline N of Scott Rd	C/B	C/B	C/B	C/B
Freeway Mainline between Scott Rd and Keller Road	D/B	C/B	C/B	C/B
Freeway Mainline between Keller Rd and Clinton Keith Road	D/B	C/B	C/B	C/B
Freeway Mainline S of Clinton Keith Rd	C/B	C/B	C/B	C/B
I-215 Northbound				
Freeway Mainline N of Scott Rd	B/C	B/C	B/C	B/C
Freeway Mainline between Scott Rd and Keller Road	B/C	B/B	B/B	B/B
Freeway Mainline between Keller Rd and Clinton Keith Road	B/C	C/D	C/D	C/D
Freeway Mainline S of Clinton Keith Rd	B/C	B/C	B/C	B/C

As presented in the traffic report, Level of Service (LOS) on I-215 for the Final 2017 Federal Transportation Improvement Program (FTTP) horizon year (2040) under No-Build and Build conditions (Table 4) indicates that the freeway will continue to operate at free flow or better conditions during the AM and PM peak hour, with the exception of the NB direction between Keller Road and Clinton Keith Road. Slight improvements are anticipated in both the NB and SB directions between Keller Road and Scott Road.

Table 5. FTIP Horizon Year (2040) I-215 Annual Average Daily Traffic (AADT) [1]				
Location	Alt 1	Alt 2	Alt 3	Alt 5
Freeway Mainline S of Clinton Keith Rd	121,900	125,200	125,200	125,200
Freeway Mainline between Clinton Keith Rd and Scott Rd	117,000	122,600	122,600	122,600
Freeway Mainline N of Scott Rd	104,000	111,400	111,400	111,400

1. AADT estimated from Caltrans 2016 AADT counts multiplied by ratio of Caltrans 2016 peak hour counts to I-215/Keller Road Interchange PA-ED Traffic Operations Analysis (PN#: 8000020339, EA 0Q220)

As shown in Table 5, the FTIP horizon year (2040) projections indicate that AADT will remain below the 125,000 POAQC threshold for all project alternatives; however, mainline freeway segments S of Clinton Keith Road may slightly exceed the threshold under the Build Alternatives.

Table 6. Horizon Year (2040) I-215 Percent Trucks, Truck Increase and AADT [1]				
Location	Alt 1	Alt 2	Alt 3	Alt 5
Freeway Mainline S of Clinton Keith Rd				
Truck % [2]	7.25	7.25	7.25	7.25
AADT	8,838	9,077	9,077	9,077
Truck Increase above No-Build	--	340	340	340
Freeway Mainline between Clinton Keith Rd and Scott Rd				
Truck % [2]	7.25	7.25	7.25	7.25
AADT	8,483	8,889	8,889	8,889
Truck Increase above No-Build	--	340	340	340
Freeway Mainline N of Scott Rd				
Truck % [2]	7.2	7.2	7.2	7.2
AADT	7,488	8,021	8,021	8,021
Truck Increase above No-Build	--	532	532	532

1. AADT estimated from Caltrans 2016 AADT counts multiplied by ratio of Caltrans 2016 peak hour counts to I-215/Keller Road Interchange PA-ED Traffic Operations Analysis (PN#: 8000020339, EA 0Q220) peak hour projections.
2. As reported by Caltrans 2014 AADT Truck traffic counts.

The FTIP horizon year (2040) truck traffic was calculated from total AADT and Caltrans 2014 peak hour traffic counts, which estimate volumes for 2 to 5-axle trucks between 7.2 to 7.25-percent of total traffic. Despite the exceedance of the AADT total traffic threshold for a POAQC, truck volumes are anticipated to remain below the 10,000 vehicles per day.

Opening Year: If facility is an interchange(s) or intersection(s), Build and No Build cross-street LOS, AADT, % and # trucks, truck AADT

Table 7. Opening Year (2020) Keller Road Level of Service (AM/PM)				
Location	Alt 1	Alt 2	Alt 3	Alt 5
Zeiders Road/Keller Road	A/A	D/D	D/D	D/D
Scenic View Drive/Keller Road	A/A	Removed		
Antelope Road/Keller Road	B/A	Intersection Relocated		
Mapleton Avenue/Keller Road	B/B	C/C	C/C	C/C
Whitewood Road/Keller Road	D/D	D/D	D/D	D/D

n/a – data not available

Per the traffic report, LOS at existing (2014) intersections of Keller Road with cross-streets (Zeiders Road, Scenic View Drive, Mapleton Avenue, Whitewood Road) are operating at free flow or better (LOS A – C) conditions, with the exception of the signalized intersection at Antelope Road during the AM peak period. FTIP opening year (2020) traffic on Keller Road for the No-Build scenario assumes a planned realignment of Antelope Road would occur without the project. As shown in Table 7, LOS for 2020 is predicted to degrade from A/D (AM and PM peak) under the No-Build to C/D (AM and PM peak) for the Build alternatives on Keller Road. However, the I-215/Keller Road interchange ramp terminus intersections (not listed) are forecast in the traffic report to operate at an acceptable LOS (B/C) for all alternatives in opening year 2020.

Table 8. Opening Year (2020) Keller Road Percent Trucks, Truck Increase and AADT [1]					
Location	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5
Keller Road W of I-215					
AADT	3,298	17,752	17,752	17,752	17,752
Truck % [2]	5.0	5.0	5.0	5.0	5.0
Truck AADT	165	888	888	888	888
Truck Increase above No-Build	--	723	723	723	723
Keller Road under I-215					
AADT	3,612	10,993	10,993	10,993	10,993
Truck % [2]	5.0	5.0	5.0	5.0	5.0
Truck AADT	181	550	550	550	550
Truck Increase above No-Build	--	369	369	369	369

Table 8 cont'd. Opening Year (2020) Keller Road Percent Trucks, Truck Increase and AADT [1]					
Keller Road E of I-215					
AADT	10,262	24,987	24,987	24,987	24,987
Truck % [2]	5.0	5.0	5.0	5.0	5.0
Truck AADT	513	1,249	1,249	1,249	1,249
Truck Increase above No-Build	--	736	736	736	736

1. AADT estimated from Caltrans 2016 AADT counts multiplied by ratio of Caltrans 2016 peak hour counts to I-215/Keller Road Interchange PA-ED Traffic Operations Analysis (PN#: 8000020339, EA 0Q220) peak hour projections.
2. Typical truck percentage for an arterial street.

Opening year (2020) traffic at the I-215/Keller Road interchange (Table 8) for the No-Build scenario was extrapolated from total 2014 AADT reported in the traffic report using a 3.2-percent annual growth rate. For the Build Alternatives, opening year volumes are based on a 25 – 26% reduction factor from FTIP horizon year (2040) volumes. Truck percentages for all alternatives were assumed to be 5-percent for a typical arterial street and truck AADT was derived by taking this percentage of the extrapolated total AADT. Although LOS on Keller Road during AM peak hours is predicted to remain acceptable at Mapleton Avenue (Table 7), LOS will operate at less than acceptable levels at the remaining intersections; however, a significant number of diesel fueled vehicles including trucks, would not affect these intersections.

RTP Horizon Year / Design Year: If facility is an interchange (s) or intersection(s), Build and No Build cross-street LOS, AADT, % and # trucks, truck AADT

Table 9. Horizon Year (2040) Keller Road Level of Service (AM/PM)				
Location	Alt 1	Alt 2	Alt 3	Alt 5
Zeiders Road/Keller Road	E/F	C/D	C/D	C/D
Scenic View Drive/Keller Road	B/A	Removed		
Antelope Road/Keller Road	Intersection Relocated			
Mapleton Avenue/Keller Road	D/E	D/D	D/D	D/D
Whitewood Road/Keller Road	D/D	D/D	D/D	D/D

n/a – data not available

FTIP horizon year (2040) traffic on Keller Road for the No-Build scenario assumes a planned realignment of Antelope Road would occur without the project. For the Build alternatives, the Antelope realignment and new I-215/Keller Road interchange were assumed. As shown in Table 9, LOS in 2040 is predicted to improve from B/E (AM peak) and A/F (PM peak) under the No-Build to C/D (AM peak) and D/D (PM peak) for the Build alternatives on Keller Road. Additionally, the I-215/Keller Road interchange ramp terminus intersections (not listed) are forecast in the traffic report to operate at an acceptable LOS for all alternatives in the FTIP horizon year 2040, with the exception of the NB on ramp during the PM peak hour. However, for the Build alternatives, the storage space provided at the off-ramps and along the Keller Road segment between the roundabout intersections is forecast to adequately accommodate the 95th percentile peak hour queue lengths.

Table 10. Horizon Year (2040) Keller Road Percent Trucks, Truck Increase and AADT [1]					
Location	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5
Keller Road W of I-215					
Truck % [2]	5.0	5.0	5.0	5.0	5.0
AADT	799	1189	1189	1189	1189
Truck Increase above No-Build	--	390	390	390	390
Keller Road @ I-215					
Truck % [2]	5.0	5.0	5.0	5.0	5.0
AADT	828	736	736	736	736
Truck Increase above No-Build	--	-92	-92	-92	-92
Keller Road E of I-215					
Truck % [2]	5.0	5.0	5.0	5.0	5.0
AADT	1,020	1,673	1,673	1,673	1,673
Truck Increase above No-Build	--	653	653	653	653

1. AADT estimated from Caltrans 2016 AADT counts multiplied by ratio of Caltrans 2016 peak hour counts to I-215/Keller Road Interchange PA-ED Traffic Operations Analysis (PN#: 8000020339, EA 0Q220) peak hour projections.
2. Typical truck percentage for an arterial street.

Truck percentages were assumed to be 5-percent for a typical arterial street and truck AADT was derived by taking this percentage of the total AADT for all horizon year (2040) scenarios. All intersections on Keller Road are projected to operate at less than acceptable levels (Table 9); however, as shown in the Table 10, a significant number of diesel fueled vehicles including trucks, would not affect these intersections.

Describe potential traffic redistribution effects of congestion relief *(impact on other facilities)*
As discussed above, the purpose of the project is to accommodate forecasted intraregional traffic demand at the I-215/Clinton Keith and I-215/Scott Road interchanges and the I-215/Keller Road undercrossing. The project will provide improved connectivity to the regional transportation system for the existing Loma Linda University Medical Center-Murrieta and planned Kaiser-Permanente health facilities and help achieve the goals of the Murrieta 2035 General Plan Circulation Element and the Southern California Association of Government's 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy, regarding access to the regional transportation system.

While the operational LOS on I-215 mainline will improve over current conditions and future interchange ramps will operate at acceptable LOS, the potential redistribution effects of congestion relief on I-215 will maintain poor LOS on local arterials including Keller Road

Comments/Explanation/Details *(attach additional sheets as necessary)*
The proposed I-215/Keller Road IC project is not a Project of Air Quality concern because:

i) It is an expanded highway project that will not result in a significant increase in the number of diesel vehicles as the predicted future truck percentages are below 8% of 125,000 vehicles (10,000 AADT truck volumes) for the opening (2020) and RTP horizon (2040) years;
ii) Although the project affects intersections that are predicted to operate at LOS C or D for the opening (2020) and horizon (2040) years, those intersections will not be affected by a significant number of diesel vehicles related to the project;

In addition, the project does not incorporate new bus or rail terminals and transfer points that significantly increase the number of diesel vehicles congregating in a single location nor expand existing bus or rail terminals or transfer points.

Finally, the project does not affect locations, areas, or categories of sites identified in the applicable PM10 or PM2.5 implementation plan or plan submission as sites of violation or possible violation. The closest SCAQMD monitoring location which measured a violation of the PM2.5 24-hour National Ambient Air Quality Standard as recently as 2017 is located approximately 30 miles to the northwest at the Mira Loma Van Buren station.

Although maximum 24-hour concentrations exceed the standard at two stations, the most recent 3-year average of the 98th percentile validated data (2015–2017), which is the threshold for violating the national standard, was exceeded at only one Basin station in Metropolitan Riverside County (Mira Loma Van Buren station) with a value of 39.9 µg/m3 (114 percent of the 24-hour NAAQS). The design value at this station, which is a statistic measuring progress toward achieving a standard, exceeded the PM2.5 NAAQS at Mira Loma (39 µg/m3), down from 43 µg/m3 recorded in 2016. Similarly, the design value recorded at the Riverside-Rubidoux station (34 µg/m3) is down from 36 µg/m3 recorded in 2016.This indicates progress toward attainment of the PM2.5 24-hour standard for the South Coast Air Basin, with a target date of 12/31/2019.

No violations of the PM10 24-hour standard were recorded at these stations.

There is no State 24-hour PM2.5 standard.

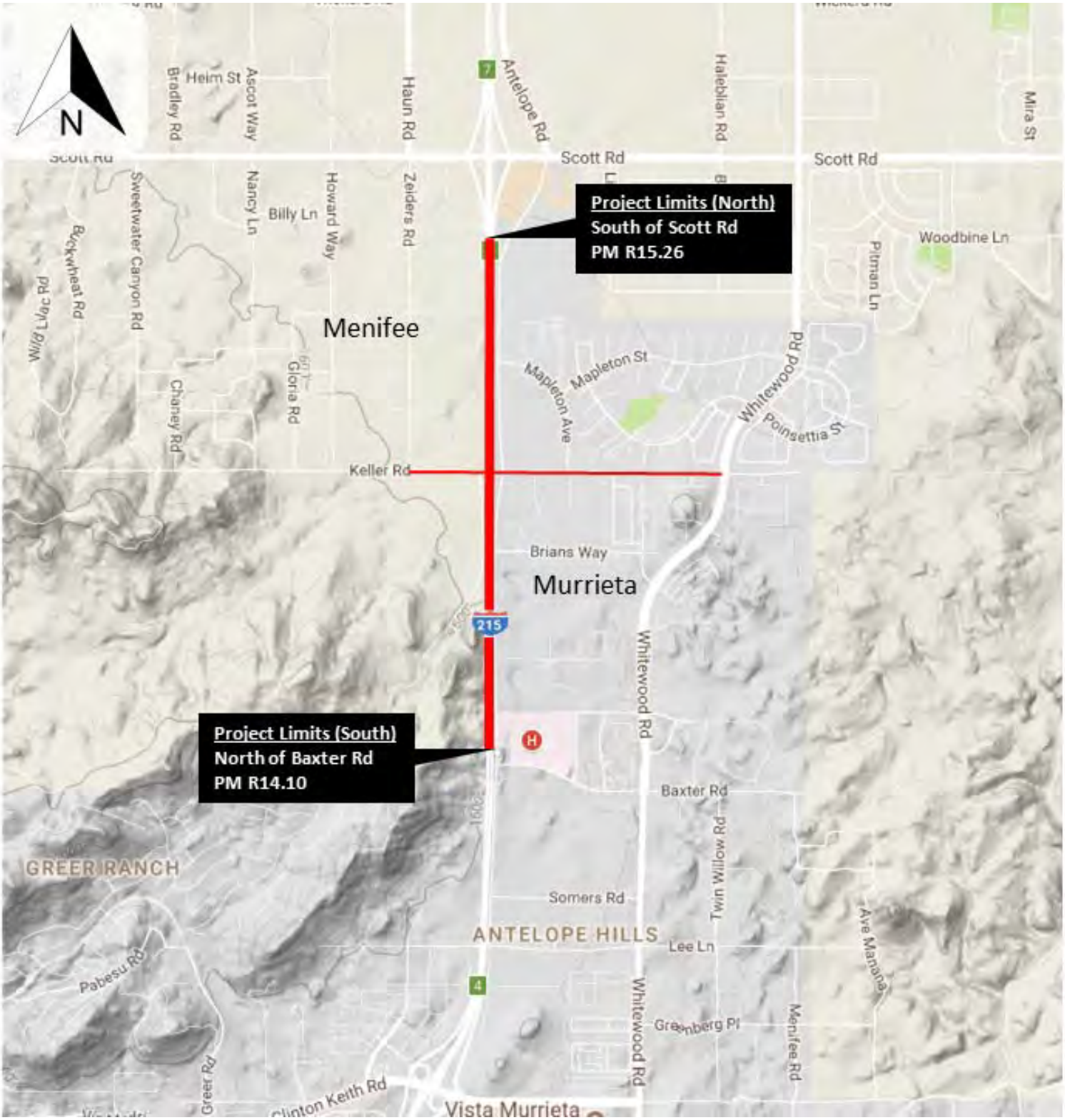
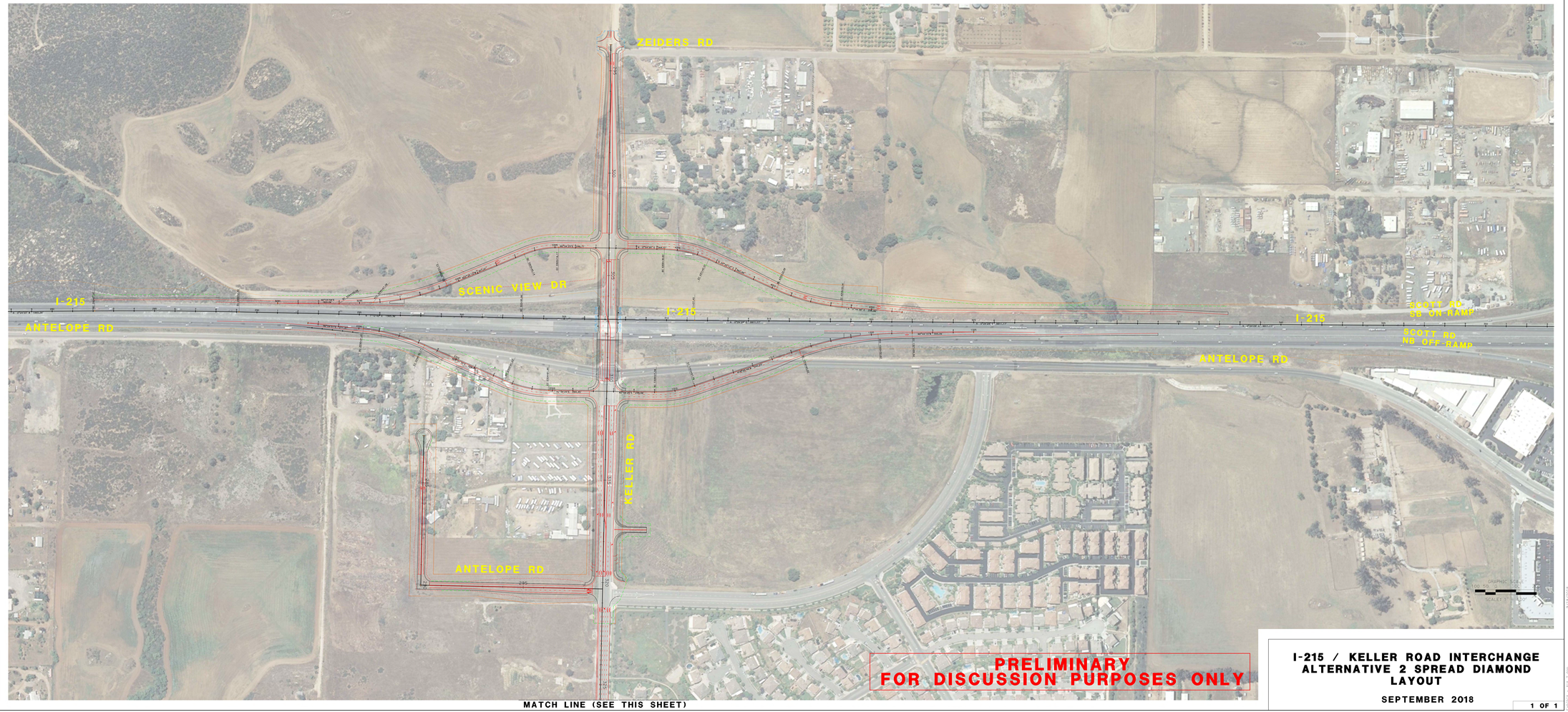


Figure 1 - Project Location Map

MATCH LINE (SEE THIS SHEET)





LEGEND

EXISTING RIGHT OF WAY
PROPOSED RIGHT OF WAY
PROPOSED RETAINING WALL

MATCH LINE (SEE THIS SHEET)

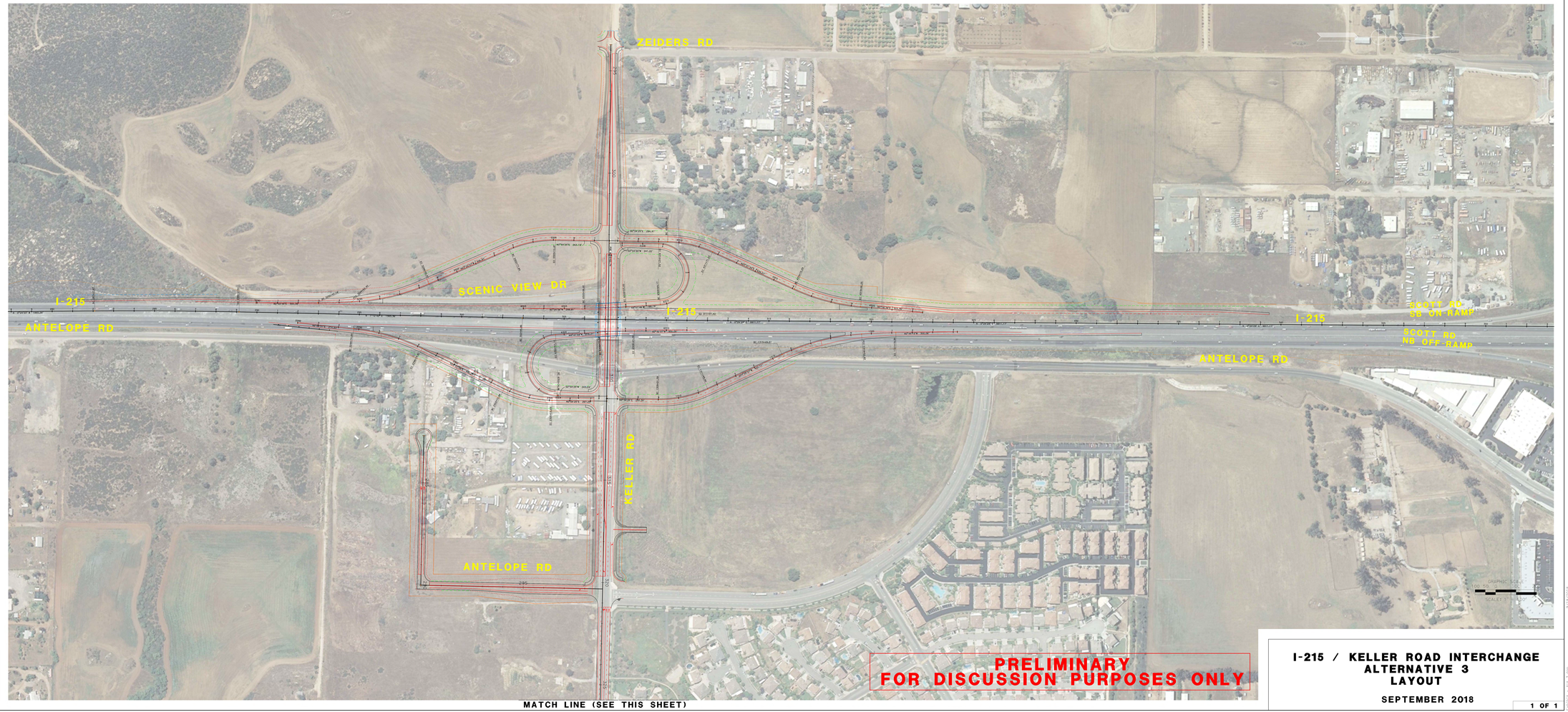
PRELIMINARY
FOR DISCUSSION PURPOSES ONLY

I-215 / KELLER ROAD INTERCHANGE ALTERNATIVE 2 SPREAD DIAMOND LAYOUT

SEPTEMBER 2018

MATCH LINE (SEE THIS SHEET)





LEGEND

EXISTING RIGHT OF WAY
PROPOSED RIGHT OF WAY
PROPOSED RETAINING WALL

MATCH LINE (SEE THIS SHEET)

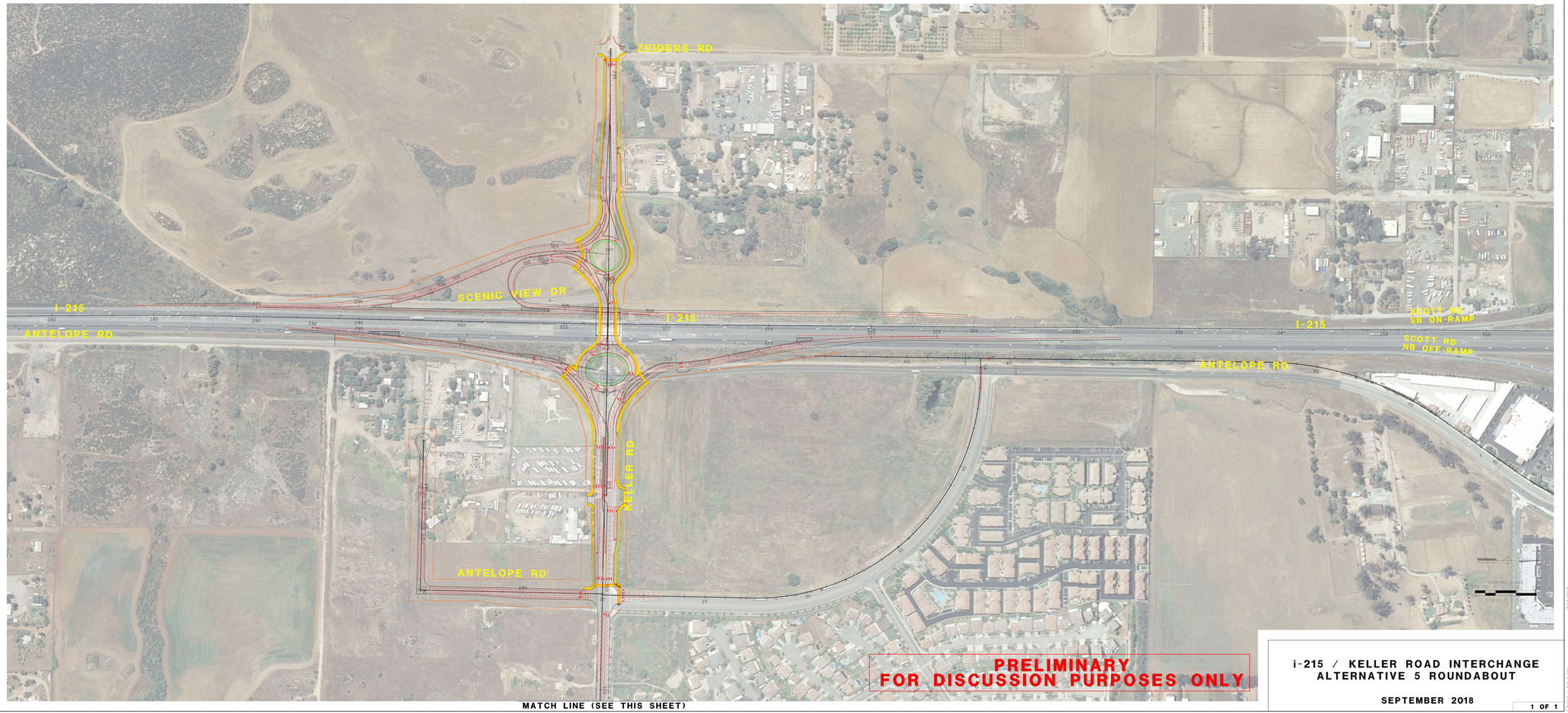
PRELIMINARY
FOR DISCUSSION PURPOSES ONLY

I-215 / KELLER ROAD INTERCHANGE
ALTERNATIVE 3
LAYOUT

SEPTEMBER 2018

MATCH LINE (SEE THIS SHEET)





LEGEND

EXISTING RIGHT OF WAY
PROPOSED RIGHT OF WAY
PROPOSED RETAINING WALL

PRELIMINARY
FOR DISCUSSION PURPOSES ONLY

MATCH LINE (SEE THIS SHEET)

i-215 / KELLER ROAD INTERCHANGE
ALTERNATIVE 5 ROUNDABOUT

SEPTEMBER 2018

TRANSPORTATION CONFORMITY WORKING GROUP
of the
SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS

October 23, 2018
Minutes

THE FOLLOWING MINUTES ARE A SUMMARY OF THE MEETING OF THE TRANSPORTATION CONFORMITY WORKING GROUP. A DIGITAL RECORDING OF THE ACTUAL MEETING IS AVAILABLE FOR LISTENING IN SCAG'S OFFICE.

The Meeting of the Transportation Conformity Working Group was held at the SCAG office in Los Angeles.

In Attendance:

Huddleston, Lori	Metro
Mejia, James	SBCTA
Morris, Michael	FHWA

SCAG:

Asuncion, John
Louie, Matthew

Via Teleconference:

Cacatian, Ben	VCAPCD
Christian, Shalanda	Caltrans Headquarters
Chiou, Wayne	Caltrans District 12
D'onofrio, Joe	Jacobs Engineering
Lau, Charles	Caltrans District 7
Lazarus, Margery	City of Moreno Valley
McFall, Valarie	TCA
Nord, Greg	OCTA
Pereira, Melina	Caltrans District 11
Sanchez, Lucas	Caltrans Headquarters
Slavick, Michael	LSA Associates
Stauffer, Panah	EPA Region 9
Salcedo, Hector	Michael Baker International
Tax, Wienke	EPA Region 9
Torres, Tatiana	Caltrans District 8
Vaughn, Joseph	FHWA
Walsh, Jason	Jacobs Engineering
Yoon, Andrew	Caltrans District 7

TRANSPORTATION CONFORMITY WORKING GROUP
of the
SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS

October 23, 2018
Minutes

1.0 CALL TO ORDER AND SELF-INTRODUCTION

Lori Huddleston, TCWG Chair, called the meeting to order at 10:07 am.

2.0 PUBLIC COMMENT PERIOD

None.

3.0 CONSENT CALENDAR

3.1. Revised August 28, 2018 TCWG Meeting Minutes
The meeting minutes were approved.

3.2. September 25, 2018 TCWG Meeting Minutes
The meeting minutes were approved.

4.0 INFORMATION ITEMS

4.1 Review of PM Hot Spot Interagency Review Forms

1) SR-74 Widening
It was determined that this was not a POAQC (EPA concurrence was received before the meeting).

2) RIV100107
It was determined that this was not a POAQC (EPA concurrence was received before the meeting).

In response to a comment, project consultant will check PM_{10} off under "Hot Spot Pollutant of Concern" on page 2 of the PM hot spot interagency review form and resubmit updated form to SCAG for record purposes.

3) RIV031215
Project will be brought back as an item on December 4, 2018 TCWG meeting agenda.

4) RIV080904
It was reaffirmed that this was not a POAQC (EPA concurrence was received before the meeting).

The next two updated PM hot spot review forms are for informational update only:

5) **LA01119update**
PM hot spot review form was updated to reflect minor changes to description of No Build and Build Alternatives as well as selection of preferred alternative with no change to traffic data.

6) **LALS04update**
PM hot spot review form was updated to reflect minor project scope change with no change to traffic data.

4.2 FTIP Update

John Asuncion, SCAG, reported that 2019 FTIP was under state and federal review and anticipated to receive federal approval by mid December 2018.

In response to a question, Mr. Asuncion, SCAG, stated that 2019 FTIP Amendment #19-01 was also under state and federal review and anticipated to receive federal approval concurrently with 2019 FTIP by mid December 2018; in addition, SCAG was processing two subsequent 2019 FITP Amendments.

4.3 RTP Update

John Asuncion, SCAG, reported that SCAG initiated project submittal call in early September 2018 and project submittals by county transportation commissions would be due November 1, 2018.

In response to a question, Mr. Asuncion, SCAG, confirmed that 2016 RTP/SCS Amendment #3 was anticipated to receive federal approval by mid December 2018.

4.4 EPA Update

Wienke Tax, EPA Region 9, reported the following:

- EPA staff would report on South Coast NO_2 maintenance status at next TCWG meeting.
- South Coast Serious nonattainment area state implementation plan for 2006 24-hour $PM_{2.5}$ standard was proposed for approval in October 2018 with comment period ending on November 2, 2018. EPA would subsequently address any comments received and prepare final rule.

4.5 ARB Update

None.

4.6 Air Districts Update
None.

5.0 INFORMATION SHARING

Lucas Sanchez, Caltrans Headquarters, reminded that Caltrans District 4 in Oakland would host a 3-day course *Introduction to Transportation Conformity* from March 25 through March 27, 2019. In addition, Mr. Sanchez stated that there was still room for enrollment especially for local partners and, if interested, email Mr. Sanchez or Mr. Tavitas for more information about enrollment.

John Asuncion, SCAG, noted that this would be Lori Huddleston's last meeting under her current term as TCWG Chair and thanked her for her outstanding services on behalf of SCAG and TCWG.

Lori Huddleston, TCWG Chair, introduced and welcomed James Mejia, SBCTA, as new TCWG Chair starting next meeting.

6.0 ADJOURNMENT

The meeting was adjourned at 10:44 am. The next Transportation Conformity Working Group meeting will be held on Tuesday, December 4, 2018 at the SCAG main office in downtown Los Angeles. Note that the TCWG meetings for November and December will be combined due to Thanksgiving and Christmas holidays.