

Hamner Avenue Bridge Replacement Project

CITY OF NORCO
RIVERSIDE COUNTY, CALIFORNIA
08– RIV – Hamner Avenue
Federal Project Number: BRLSZ-5956(230)

Initial Study with Proposed Mitigated Negative Declaration



**Prepared by the City of Norco (CEQA Lead Agency) in cooperation with the
Riverside County Transportation Department and
State of California Department of Transportation**

August 2018

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Initial Study with Proposed Mitigated Negative Declaration
Project Information

Project Proponent:	County of Riverside Transportation Department 3525 14th Street Riverside, CA 92501
Project Title:	Hamner Avenue Bridge Replacement Project
Project Location:	The proposed project is located in the City of Norco, Riverside County, California. The proposed project covers a distance of approximately 0.7 mile on Hamner Avenue. Starting from the southern end, the proposed project would extend from Detroit Street, cross over the Santa Ana River, and reach its northern terminus at Citrus Street. In general, all work is anticipated to occur within the existing transportation right of way, with the exception of potential staging areas north and south of the Santa Ana River and temporary construction easements.
Project Description:	The County of Riverside Transportation Department, in cooperation with the City of Norco and California Department of Transportation (Caltrans), is proposing to replace the existing Hamner Avenue Bridge with a new bridge. The new bridge would include three 12-foot lanes and a 4-foot shoulder in each direction (northbound and southbound) separated by a 4-foot curbed median, along with a 12-foot barrier separated multipurpose trail on the east side of the bridge. To the north and south of the bridge, Hamner Avenue would include three 12-foot lanes and a 4-foot shoulder in each direction along with a 5-foot sidewalk on the east side of the roadway.
Findings	Pursuant to the provisions of the California Environmental Quality Act (CEQA), the City of Norco has determined that the proposed project would not have a significant effect on the environment. Following an Initial Study and assessment of possible adverse impacts, the proposed project was determined not to have a significant impact on the environment with the inclusion of mitigation measures, which would reduce potential adverse impacts to less-than-significant levels. Therefore, the City of Norco has prepared a Mitigated Negative Declaration with mitigation measures in accordance with the provisions of CEQA.
Mitigation Measures:	Refer to the Sections 2.1 through 2.20 of this Initial Study and to Appendix C, Mitigation Monitoring and Reporting Program.

A copy of the Initial Study is available for review at the following locations:

- Riverside County Transportation Department, 3525 14th Street, Riverside, 92501;
- Norco Public Library, 3240 Hamner Ave, Suite 101B, Norco, 92860; and
- City of Norco Planning Department, 2870 Clark Avenue Norco, 92860

In addition, the Initial Study will be available at the Riverside County Department of Transportation website:

<http://rcprojects.org/hamnerbridge/>

Please submit your comments on this Initial Study with Proposed Mitigated Negative Declaration in writing no later than September 24, 2018 to Jan Bulinski, Riverside County Transportation Department, 3525 14th Street, Riverside, CA 92501, or JBulinski@RIVCO.ORG. The date we will begin accepting comments is August 24, 2018.

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INTRODUCTION

PROPOSED MITIGATED NEGATIVE DECLARATION

Pursuant to: Division 13, Public Resources Code

Project Description

The County of Riverside Transportation Department, in cooperation with the City of Norco and California Department of Transportation (Caltrans), proposes to replace the existing Hamner Avenue Bridge (Bridge Number 56C0446) over the Santa Ana River and widen Hamner Avenue from Detroit Street to Citrus Street in the City of Norco, Riverside County, California. The project covers a distance of approximately 0.7 mile. The City of Norco is the lead agency under the California Environmental Quality Act (CEQA).

The proposed project would replace the existing two-lane Hamner Avenue Bridge with a new bridge. The new bridge would include three 12-foot lanes and a 4-foot shoulder in each direction (northbound and southbound) separated by a 4-foot curbed median, along with a 12-foot barrier separated multipurpose trail on the east side of the bridge. To the north and south of the bridge, Hamner Avenue would include three 12-foot lanes and a 4-foot shoulder in each direction along with a 5-foot sidewalk on the east side of the roadway. At the intersection with Citrus Street, two northbound dedicated left-turn lanes would be included. At the intersection with Detroit Street, one southbound dedicated left-turn would be included. Shoulders would taper down and stop before reaching both intersections to match the roadway striping north of Citrus Street and south of Detroit Street. In addition, a dedicated left-turn lane would be included in the southbound direction at the intersection with Detroit Street. A trail ramp would be constructed at the northeast and southeast ends of the bridge to connect the planned Regional Santa Ana River Trail with the barrier-separated multipurpose trail on the new Hamner Avenue Bridge (see Figure 1-3).

Determination

This proposed Mitigated Negative Declaration (MND) is included to give notice to interested agencies and the public that it is the City of Norco's intent to adopt an MND for this project. This does not mean that the City's decision regarding the project is final. This MND is subject to modification based on comments received by interested agencies and the public.

An Initial Study has been prepared for this project; pending public review, the City expects to determine from this study that the proposed project would not have a significant effect on the environment for the following reasons:

1. The proposed project would have no effect on: Agricultural and Forestry Resources, Land Use and Planning, Mineral Resources, Population and Housing, Public Services, Recreation, and Tribal Cultural Resources.
2. In addition, the proposed project would have no significant effect on: Cultural Resources, Paleontological Resources, Geology and Soils, Greenhouse Gas Emissions, Hazards and Hazardous Materials, Hydrology and Water Quality, Noise, Transportation and Traffic, and Utilities and Service Systems.

3. The proposed project would have less-than-significant effects with mitigation for Aesthetics, Air Quality and Biological Resources. Mitigation measures for impacts on these resource areas are as follows:

Aesthetics

AES-1 - Install Visual Barriers between Construction Work Areas and Sensitive Receptors and Clean Work Areas. The contractor shall install visual barriers to obstruct undesirable views of construction activities from sensitive receptors, namely residents and recreational areas that are located adjacent to the construction site. The visual barrier may be chain link fencing with privacy slats, fencing with windscreen material, wood or concrete barrier/soundwall, or other similar barrier. The visual barrier shall be a minimum of 6 feet high to help to maintain the privacy of residents and block long-term ground-level views toward construction activities. While this visual barrier would introduce a visual intrusion, it would greatly reduce the visual effects associated with visible construction activities and screening construction activities and protecting privacy is deemed desirable. The contractor shall also conduct daily visual inspections to ensure the immediate surroundings of construction work areas are free from construction-related clutter and to maintain the areas in a clean and orderly manner throughout the construction period.

AES-2 - Apply Minimum Lighting Standards. All artificial outdoor lighting will be limited to safety and security requirements, designed using Illuminating Engineering Society design guidelines and in compliance with International Dark-Sky Association–approved fixtures. All lighting will be designed to have minimum impact on the surrounding environment and will use downcast, cut-off type fixtures that direct the light only toward objects requiring illumination. Shielding will be utilized, where needed, to ensure light pollution is minimized. Therefore, lights will be installed at the lowest allowable height and cast low-angle illumination while minimizing incidental light spill onto adjacent properties, open spaces, or backscatter into the nighttime sky. The lowest allowable illuminance level will be used for all lighted areas and the amount of nighttime lights needed to light an area will be minimized to the highest degree possible. Light fixtures will have non-glare finishes that will not cause reflective daytime glare. Lighting will be designed for energy efficiency and have daylight sensors or be timed with an on/off program. Lights will provide good color rendering with natural light qualities with the minimum intensity feasible for security, safety, and personnel access. Lighting, including light color rendering and fixture types, will be designed to be aesthetically pleasing. LED lighting will avoid the use of blue-rich white light lamps and use a correlated color temperature that is no higher than 3,000 Kelvin (International Dark-Sky Association 2010a, 2010b, 2015). Wherever possible and pragmatic, the County will use fixtures and lighting control systems that conform to the International Dark-Sky Association’s Fixture Seal of Approval program. In addition, LED lights will use shielding to ensure nuisance glare and that light spill does not affect sensitive residential viewers.

Air Quality

AQ-1: The construction contractor will reduce emissions of NO_x by 20 percent relative to the South Coast Air Basin fleetwide averages for the types of construction equipment used

during the grading phase. This could be achieved by implementing one or more of the following, or other methods:

- Use of NO_x filters for all off-road construction equipment.
- Use of Tier 4-compliant off-road construction equipment.
- Use of newer construction equipment and vehicles.
- Extension of the grading/excavation phase such that per-day emissions would be below SCAQMD regional mass emissions thresholds.

Biological Resources

BIO-1: Santa Ana sucker

- H. If water diversion/dewatering activities are necessary, an approved, qualified biologist will conduct a preliminary underwater survey of the affected area noting habitat and any Santa Ana sucker present prior to any water diversion. Water diversions will be conducted outside of the spawning season for Santa Ana sucker (i.e., February 15–July 31) to the greatest extent feasible. If the Santa Ana sucker is present, then a relocation program will be implemented. The pre-construction survey and relocation program will require approval from US Fish and Wildlife Service (USFWS).
- If Santa Ana sucker are present, exclusion nets will be placed around the diversion work area. Once diversion of flow is complete, exclusion nets will be removed. Seining will then be conducted inside the exclusion area to remove and relocate Santa Ana sucker prior to the commencement of diversion activities. As the diversion of flow is taking place, the biologist(s) will patrol the dewatering area in order to capture stranded fish. A combination of seining, dip netting, and hand capture will be utilized.
 - All captured Santa Ana sucker will be placed into coolers filled with river water. Fish will remain in coolers for the shortest time necessary. Air pumps will be used to maintain oxygenated water supply. The coolers will be kept shaded at all times. The water temperature in the coolers and condition of captured Santa Ana sucker will be closely monitored. Ice (or frozen water bottles) will be used, as necessary, to maintain cool water (similar to ambient or less than 85 °F) or ambient river water will be used. Any Santa Ana sucker removed from the site will be relocated upstream or downstream of the project area, as determined appropriate by the qualified biologist, in consultation with the USFWS. A summary report will be provided to the USFWS for all diversions resulting in relocation of Santa Ana sucker.
 - If capture and relocation of Santa Ana sucker is necessary, it will be achieved through one or more of the following methods: the use of fine mesh (2–4 millimeters [0.08–0.16 inch]), knotless seine nets; fine mesh (4–6 millimeters [0.16–0.24 inch]) knotless hoop nets, modified hoop nets, or similar traps; or dip nets of 0.5 millimeters (0.20 inch) or finer mesh for survey of larval Santa Ana sucker. The survey methods will be selected to minimize the potential injury or mortality to Santa Ana sucker and potential disturbance or damage to breeding areas. If seines are used, particular care shall be taken to avoid incidental injury or mortality to Santa Ana sucker that may be

- caught and suffocated in algal mats or sand. Care shall also be taken to keep Santa Ana sucker in water as much as possible. Larval fishes should be kept submerged in a dip net until species is identified and released at the point of capture. Use of unconventional sampling gear will first be approved by the USFWS.
- Prior to activities that may involve handling Santa Ana sucker, the qualified biologist will ensure that all participants' hands are free of sunscreen, lotion, or insect repellent.
 - The qualified biologist will submit a brief report to the USFWS identifying the number of any native fish species that were relocated and any other measures that were taken to minimize effects on Santa Ana sucker.
 - If pile-driving activities are to take place and would occur during the spawning season (i.e., February 15–July 31), underwater sound monitoring will occur within the project footprint to the greatest extent feasible. This data collection may be used to minimize effects on this species for future construction activities according to the USFWS, but will not change the current construction activities or mitigation requirements of the project.

BIO-6: Bats

- C. To avoid direct mortality, humane evictions and exclusions of roosting bats shall be performed under the supervision of a qualified bat biologist in the fall (September or October) prior to bridge demolition activities. Eviction/exclusion may be implemented in one or two phases at the discretion of the qualified bat biologist and in coordination with the project design team. To avoid potential mortality of flightless juvenile bats, evictions and exclusions of bats cannot be performed during the bat maternity season (April 1–August 31). Winter months (generally November through February, but specifically periods during which nighttime temperatures are consistently less than 50 °F) are also inappropriate for bat eviction because not all individuals in a roost will emerge on any given night. In addition, long-distance movements to other roost sites are more difficult during the winter when prey availability is scarce, resulting in high mortality rates of evicted bats.
- E. Bat roosting habitat will be incorporated into the design of the new bridge. The specifications for this replacement habitat shall be designed in consultation with a qualified bat biologist and California Department of Fish and Wildlife (CDFW) during the permitting phase.

BIO-10: Wetlands and waters

- A. The project limits of disturbance, including the upstream, downstream, and lateral extents on either side of any stream adjacent to the project footprint, will be clearly defined and marked in the field. The biological monitor will review the limits of disturbance prior to initiation of construction activities. The upstream and downstream limits of project disturbance, plus the lateral limits of disturbance on either side of the stream, will be clearly defined and marked in the field, including ESA fencing installed during construction to ensure avoidance of jurisdictional areas.

The following mitigation measures and compensatory mitigation measures would be implemented in order to reduce potentially significant impacts to a less-than-significant level. The table below provides an estimate of the amount of mitigation credits that would be required for the project based on preliminary engineering designs and anticipated mitigation ratios (pending agency approval). Compensatory mitigation for riparian/riverine resources, endangered species, and wetlands and other waters through the Riverside Corona Resource Conservation District (RCRCD) In-Lieu Fee Program and mitigation credits may be combined, as applicable, to avoid double counting impacts on the same area. Coordination with all involved parties (i.e., Western Riverside County Regional Conservation Authority (RCA), RCRCD, US Fish and Wildlife Service (USFWS), CDFW, and US Army Corps of Engineers (USACE) would take place to develop a mitigation strategy to address impacts on biological resources and to determine the specifics of mitigation as the project moves forward into the drafting of the Determination of Biologically Equivalent or Superior Preservation (DBESP) and permitting phase.

Anticipated Mitigation Credits Required for Project Impacts

Impact Type	Impacts (acres)	Mitigation Ratio	Mitigation Credits Needed (acres) ¹
Permanent impacts <i>Includes riparian habitat, Santa Ana sucker critical habitat (PCEs² only), least Bell's vireo critical habitat (PCEs only), federal non-wetland waters, CDFW streambed, and CDFW riparian</i>	0.36	3:1	1.08
Temporary impacts <i>Includes riparian habitat, Santa Ana sucker critical habitat (PCEs only), least Bell's vireo critical habitat (PCEs only), federal non-wetland waters, CDFW streambed, and CDFW riparian</i>	5.38	1.25:1 ³	1.35
Geotechnical boring activities, temporary impacts <i>Includes riparian habitat and least Bell's vireo critical habitat (PCEs only)</i>	0.23 ⁴	2:1	0.46
PQP conserved lands, permanent impacts	0.31	2:1	0.62
RCRCD conservation lands, temporary impacts	1.05	2:1 ⁵	0.79
New shading, permanent impacts	0.65	2:1	1.30
Total	-	-	5.59
<p>¹ The required mitigation credits that are included here are a preliminary estimate and are subject to change. The estimates are based on preliminary engineering designs and anticipated mitigation ratios; the agencies could require higher ratios during the permitting phase and alterations to the preliminary engineering design may occur during the construction phase.</p> <p>² PCEs = Primary Constituent Elements.</p> <p>³ 1:1 in-kind restoration would be done on site. An additional 0.25:1 mitigation would be purchased off site to address temporal losses.</p> <p>⁴ To avoid double-counting impacts on the same area, the 0.23 acre of temporary impacts for geotechnical boring work (covered under a separate Natural Environment Study [Minimal Impacts] Report [Caltrans 2018d]) was subtracted from the temporary impacts for the Hamner Avenue Bridge Replacement Project.</p> <p>⁵ 1.25:1 mitigation would be done for temporary impacts on all biological resources; an additional 0.75:1 mitigation would be purchased for temporary impacts on RCRCD conservation lands (for a total 2:1 ratio).</p>			

BIO-2: Compensatory mitigation for Santa Ana sucker

- A. Compensation for impacts on Santa Ana sucker will occur at a minimum 3:1 ratio for permanent impacts and 1.25:1 ratio for temporary impacts. The 1.25:1 mitigation ratio for temporary impacts is intended to address temporal loss of habitat and consists of a 0.25:1 ratio of offsite mitigation, in addition to a 1:1 ratio of in-kind, onsite restoration (see measure **BIO-8A** below). Mitigation will consist of purchasing Santa Ana sucker occupied lands from the RCRCO In-Lieu Fee Program or other agency-approved mitigation provider.

BIO-4: Compensatory mitigation for least Bell's vireo

- A. Compensation for impacts on least Bell's vireo will occur at a minimum 3:1 ratio for permanent impacts and 1.25:1 ratio for temporary impacts. The 1.25:1 mitigation ratio for temporary impacts is intended to address temporal loss of habitat and consists of a 0.25:1 ratio of offsite mitigation, in addition to a 1:1 ratio of in-kind, onsite restoration. Mitigation will consist of purchasing least Bell's vireo occupied lands from an agency-approved mitigation provider. Temporary impacts will be mitigated in kind at their current locations via onsite restoration of temporarily affected Fremont Cottonwood Forest/Black Willow Thickets. This will occur upon completion of construction and will consist of returning affected areas to original grade and preconstruction conditions (see Measure **BIO-8A** below).
- B. A copy of fee payment to a USFWS-approved mitigation bank to satisfy mitigation for permanent impacts will be provided to USFWS prior to impacts on least Bell's vireo suitable habitat.

BIO-8: Compensatory mitigation riparian habitat

- A. Compensation for impacts on riparian habitats will occur at a minimum 3:1 ratio for permanent impacts and 1.25:1 ratio for temporary impacts. The 1.25:1 mitigation ratio for temporary impacts is intended to address temporal loss of habitat and consists of a 0.25:1 ratio of offsite mitigation, in addition to a 1:1 ratio of in-kind, onsite restoration. Mitigation will consist of purchasing offsite riparian lands from the RCRCO In-Lieu Fee Program or other agency-approved mitigation provider. Onsite restoration will occur upon completion of construction and consist of returning affected areas to original contour grades, decompacting the soil, and revegetation with hydroseeding and/or container plantings to match existing riparian habitats. No planting will occur after the first year of restoration if flooding results in a 30 percent or more loss of cover within temporarily affected areas. Weeding will occur for 5 years following restoration as directed by a Habitat Mitigation and Monitoring Plan.
- B. Permanent impacts from new shade effects will be mitigated off site at a 2:1 ratio. This mitigation is in addition to the compensation for temporary impacts on those same areas, which will be mitigated in kind at their current locations via onsite restoration (at a 1:1 ratio), as well as a 0.25:1 ratio of offsite mitigation to address temporal impacts (see measure **BIO-8A**). Mitigation will consist of purchasing riparian lands from the RCRCO In-Lieu Fee Program or other agency-approved mitigation provider.

- C. An MSHCP fee payment of 5 percent of capacity enhancement will be made for the project. This includes the cost of four additional lanes and the new bridge structure.
- D. Impacts on RCRCDD conservation lands will be fully documented and coordinated with RCRCDD and RCA, including an account of temporal losses. Temporary impacts on RCRCDD conservation lands will be mitigated at a 2:1 ratio, which consists of a 1:1 ratio of offsite mitigation to address temporal losses of conservation lands, in addition to a 1:1 ratio of in-kind, onsite restoration of temporarily affected areas (see measure **BIO-8A**). Mitigation will consist of purchasing riparian lands from the RCRCDD In-Lieu Fee Program or other agency-approved mitigation provider.

BIO-11: Compensatory mitigation for CDFW wetlands and non-wetlands

- A. To address effects on jurisdictional areas, a compensatory mitigation plan will be developed during the permitting phase.
- B. Permanent impacts on wetlands and other waters will be mitigated off site at a minimum 3:1 ratio through purchase from the RCRCDD In-Lieu Fee Program or other agency-approved mitigation bank/mitigation program. Temporary impacts on wetlands and other waters will be mitigated at a minimum 1.25:1 ratio in kind via onsite restoration. The 1.25:1 mitigation ratio for temporary impacts is intended to address temporal loss of habitat and consists of a 0.25:1 ratio of offsite mitigation, in addition to in-kind, onsite restoration at a 1:1 ratio.

BIO-13: Compensatory mitigation for MSHCP lands

- A. PQP conserved lands that are to be permanently removed will be mitigated at a 2:1 ratio off site. In addition, riparian/riverine portions of PQP conserved lands that are temporarily affected will be replaced in kind at a 1.25:1 ratio. The 1.25:1 mitigation ratio for temporary impacts is intended to address temporal loss of habitat and consists of a 0.25:1 ratio of offsite mitigation, in addition to a 1:1 ratio of in-kind, onsite restoration. This shall be coordinated with riparian/riverine compensation and jurisdictional resources permitting. Prior to land acquisition, an equivalency report will be provided that analyzes the existing biological resources being permanently removed to the biological resources supported by the lands proposed for acquisition. The resource values will need to be equivalent. Execution of this measure will include compensatory mitigation needed for riparian/riverine resources (measures **BIO-8A**, **BIO-8B**, and **BIO-8D**) and least Bell's vireo (measure **BIO-4**) at the Santa Ana River.



STEVE KING
Planning Director
City of Norco



Date

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Chapter 1 Proposed Project

1.1 Project Location

The County of Riverside Transportation Department, in cooperation with the City of Norco and California Department of Transportation (Caltrans), proposes to replace the existing Hamner Avenue Bridge (Bridge Number 56C0446) over the Santa Ana River and widen Hamner Avenue from Detroit Street to Citrus Street in the City of Norco, Riverside County, California. The project covers a distance of approximately 0.7 mile. See Figures 1-1 and 1-2 for the regional location and project vicinity. The City of Norco is the lead agency under the California Environmental Quality Act (CEQA).

1.2 Background

Hamner Avenue is an approximately 8.5-mile stretch of road extending through the Cities of Norco and Eastvale. The corridor runs parallel to Interstate 15 (I-15) and extends from Riverside Drive in the City of Eastvale at the north end to the northern boundary of the City of Norco at the south end. Hamner Avenue serves not only as a local arterial but also as an alternate route to I-15. For more than seven decades, the Hamner Avenue Bridge, which is one of the few all-weather crossings over the Santa Ana River in the region, has been a critical link between Norco and the unincorporated areas to the north in Riverside County (subsequently the newly formed City of Eastvale).

The bridge site is near the border between Norco and Eastvale, approximately 1,300 feet to the west of the I-15 bridges over the Santa Ana River in the City of Norco, California. The existing structure has two traffic lanes, one in each direction with no shoulders. It carries heavy traffic bypassing I-15 when there is congestion, maintenance activities, or an emergency on the freeway. The existing reinforced concrete bridge is approximately 676 feet long and 36 feet wide. The bridge was constructed in 1939. It was widened and seismically upgraded in 1978. The bridge widening project provided a cantilevered sidewalk on the east side of the structure and installed cable restrainers through the expansion joints for seismic retrofitting.

1.3 Project Description

This section describes the proposed project that was developed to meet the identified project objectives, while avoiding or minimizing environmental impacts. The alternatives are the Build Alternative and the No Build Alternative.

The proposed project would replace the existing Hamner Avenue Bridge with a new bridge. The new bridge would include three 12-foot lanes and a 4-foot shoulder in each direction (northbound and southbound) separated by a 4-foot curbed median, along with a 12-foot barrier separated multipurpose trail on the east side of the bridge. To the north and south of the bridge, Hamner Avenue would include three 12-foot lanes and a 4-foot shoulder in each direction along with a 5-foot sidewalk on the east side of the roadway. At the intersection with Citrus Street, two northbound dedicated left-turn lanes would be included. At the intersection with Detroit Street,

one southbound dedicated left-turn would be included. Shoulders would taper down and stop before reaching both intersections to match the roadway striping north of Citrus Street and south of Detroit Street. In addition, a dedicated left-turn lane would be included in the southbound direction at the intersection with Detroit Street. A trail ramp would be constructed at the northeast and southeast ends of the bridge to connect the planned Regional Santa Ana River Trail with the barrier-separated multipurpose trail on the new Hamner Avenue Bridge (see Figure 1-3). The project would also include relocating utilities, constructing retaining walls, and installing temporary signage. In addition, two potential staging areas are identified in Figure 1-2.

The following would also be part of the proposed project:

- Utilities would be relocated either into the bridge or outside of the new bridge/roadway, as needed, to accommodate the proposed improvements.
- Best management practices (BMPs) for water quality treatment would be provided as part of the proposed project where feasible.
- Retaining walls would be constructed to avoid permanent right of way takes and utility impacts as well as to accommodate construction staging.
- Construction and permanent signage would be incorporated within the project's limits of disturbance, where necessary.
- Pedestrian facilities would be compliant with Americans with Disabilities Act standards.

The proposed project would not require the relocation of residences and/or businesses; however, temporary construction easements would be needed for construction access on the western side of the existing bridge.

The proposed project is included in the Southern California Association of Governments' (SCAG's) 2016–2040 Regional Transportation Plan/Sustainable Communities Strategy (2016 RTP/SCS) under Project ID 3A01WT159 and SCAG's 2017 Federal Transportation Improvement Program (FTIP) under Project ID RIV121204. A revised project description has been sent to SCAG, which will be included in the next FTIP amendment. The proposed project is described as:

Bridge No. 56C0446, in Western Riverside County in the City of Norco, on Hamner Avenue over Santa Ana River from Detroit Street to Citrus Street: Replace existing 2 lane bridge and approach roads with a 6 lane facility including 4ft shoulders and dedicated left turn lanes at Detroit and Citrus Streets. Bridge includes a 4ft curbed median and a 12ft multi-purpose trail connecting to regional trails.

This project would be funded by the federal Bridge Reconstruction and Replacement Program and California Senate Bill 132. Total project cost is estimated to be \$56,339,000.

1.3.1 Project Objectives

The objectives of the proposed project are to:

- Provide a structurally sufficient, all-weather local roadway crossing structure over the Santa Ana River between the Cities of Norco and Eastvale.

- Remove an existing capacity bottleneck across the Santa Ana River.
- Provide bicycle and pedestrian access to the planned Santa Ana River Trail adjacent to the project site.

The existing Hamner Avenue Bridge has a sufficiency rating of 69.3, and is rated “structurally deficient,” a status triggered by the deck condition rating of 3.¹ The Hamner Avenue Bridge is one of very few local roadways that cross the Santa River within the project vicinity. The existing Hamner Avenue Bridge is narrower than roadway segments to the north and south of the project limits, and the bridge is a capacity bottleneck, providing only one lane in each direction. Given the existing and projected increases in demand, congestion is expected to increase over time. The Santa Ana River Trail is currently in the planning stages, and would travel along the Santa Ana River in the project vicinity. The trail would be multipurpose, providing a path for bicyclists and pedestrians.

1.4 Purpose of this Initial Study with Proposed Negative Declaration

CEQA was enacted in 1970 for the purpose of providing decision-makers and the public with information regarding environmental effects of proposed projects; identifying means of avoiding environmental damage; and disclosing to the public the reasons behind a project’s approval, even if it leads to environmental damage. As the CEQA lead agency, the City of Norco has determined that the proposed project is subject to CEQA and no exemptions apply. Therefore, preparation of an initial study (IS) is required.

An IS is a preliminary analysis conducted by the lead agency, in consultation with other agencies (responsible or trustee agencies, as applicable), to determine whether there is substantial evidence that a project may have a significant effect on the environment. If the IS concludes that the project, with mitigation, may have a significant effect on the environment, an environmental impact report should be prepared; otherwise the lead agency may adopt a negative declaration or mitigated negative declaration.

This IS has been prepared in accordance with CEQA (Public Resources Code Section 21000 et seq.) and the State CEQA Guidelines (Title 14, California Code of Regulations, Section 15000 et seq.).

1.5 Permits and Approvals Needed

The following permits, reviews, and approvals would be required for project construction:

¹ The condition of different parts of a bridge is rated on a scale of 0 to 9 (with 9 being “excellent” and zero being “failed”). A structurally deficient bridge is one for which the deck (riding surface), the superstructure (supports immediately beneath the driving surface), or the substructure (foundation and supporting posts and piers) are rated in condition 4 or less.

Table 1-1. Permits, Reviews, and Approvals

Agency	Permit/Approval	Status
California Department of Fish and Wildlife (CDFW)	Section 1602 Streambed Alteration Agreement	Application to be submitted after approval of the Environmental Document.
	Consistency Review for Biological Resources with the Western Riverside County Multi-Species Habitat Conservation Plan (MSHCP)	Provide request to CDFW for MSHCP Consistency.
Regional Water Quality Control Board	Clean Water Act Section 401 Water Quality Certification	Application to be submitted after approval of the Environmental Document.
U.S. Army Corps of Engineers	Clean Water Act Section 404 Nationwide Permit 14	Permit application to be submitted after approval of Environmental Document.
Regional Conservation Authority (RCA)	MSHCP Consistency Review for Biological Resources	Provide request to RCA for MSHCP Consistency.
U.S. Fish and Wildlife Service (USFWS)	MSHCP Consistency Review for Biological Resources	Provide request to USFWS for MSHCP Consistency.



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**Figure 1-1
Regional Vicinity Map
Hamner Avenue Bridge Replacement Project**

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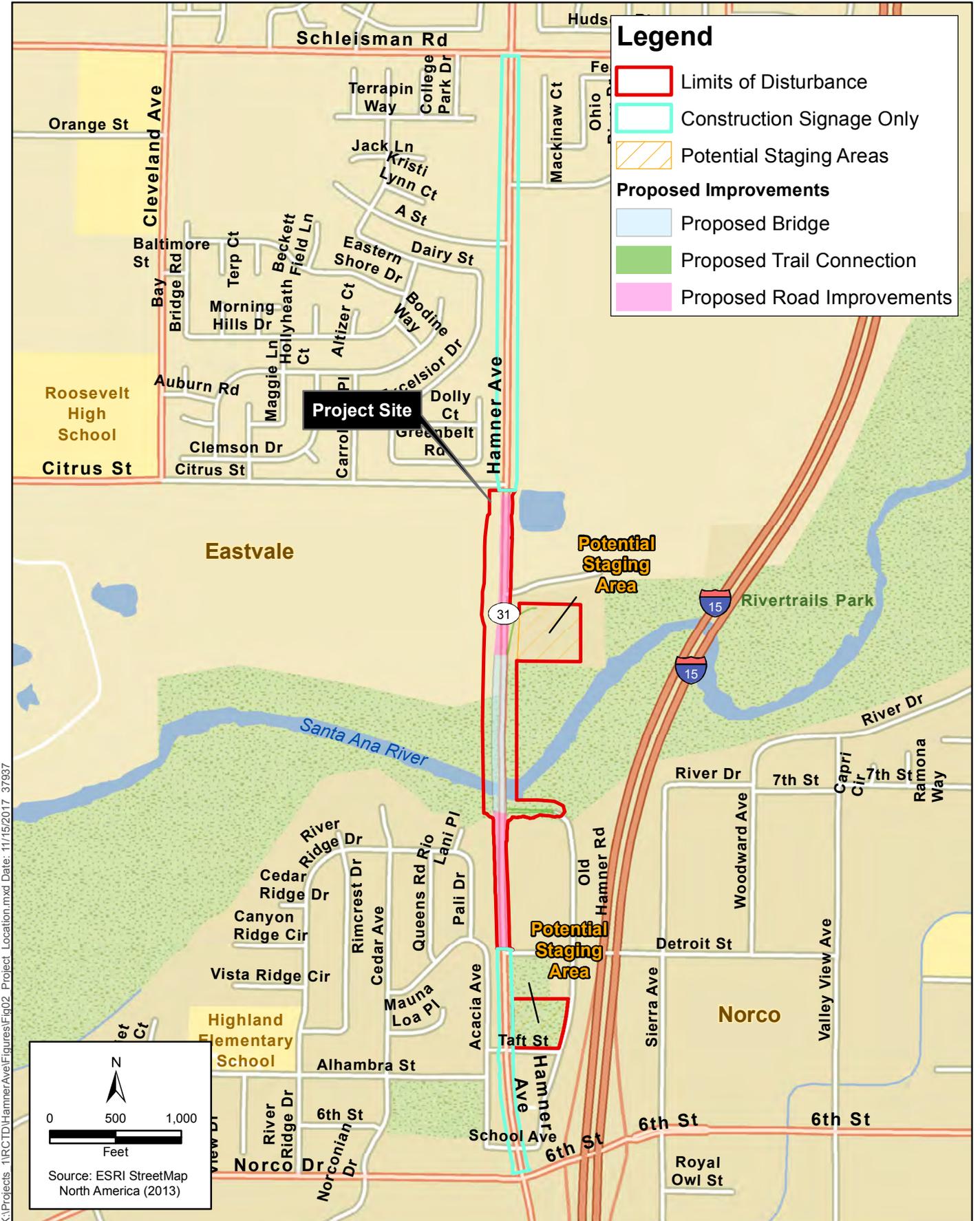
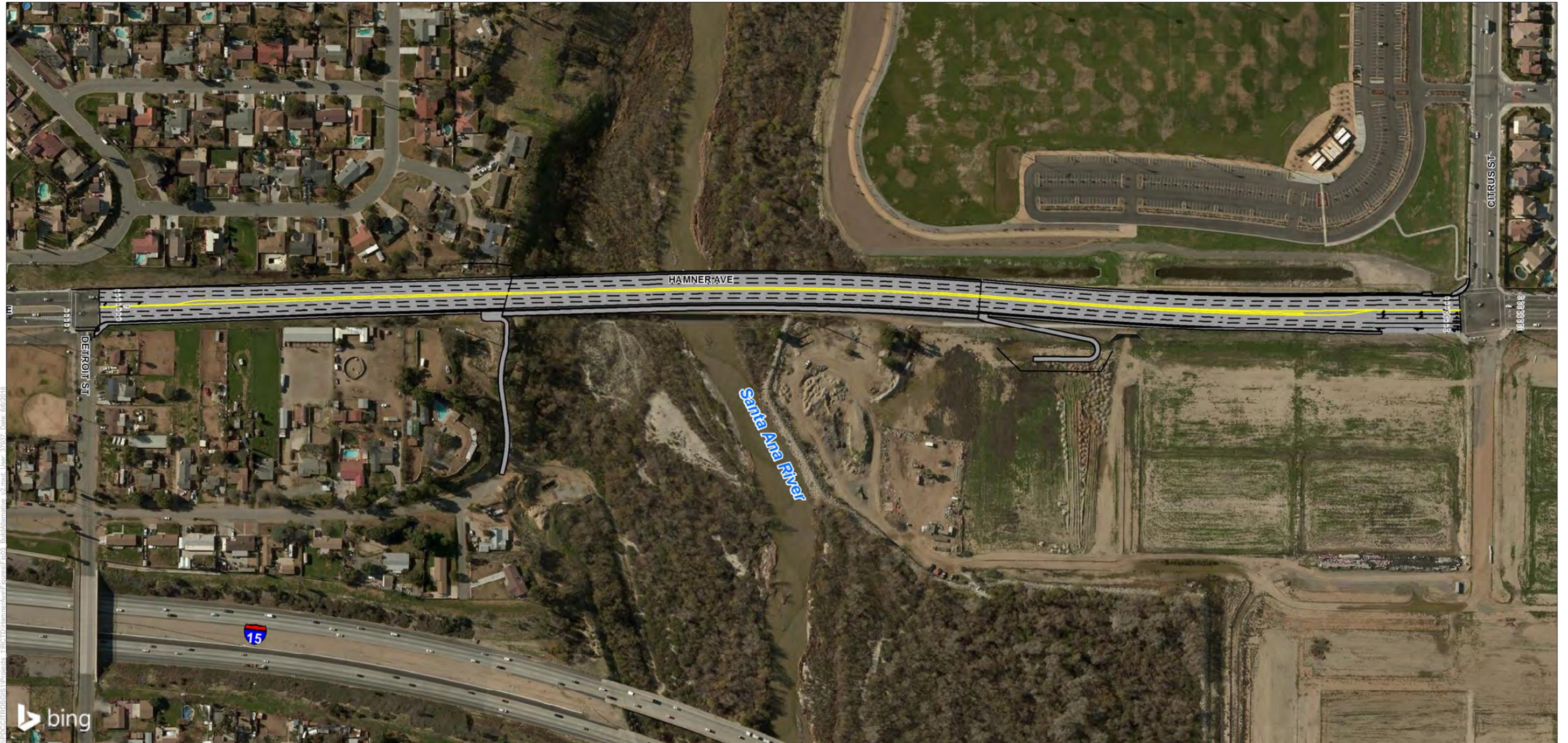


Figure 1-2
 Project Location
 Hamner Avenue Bridge Replacement Project

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- Legend**
- Project Layout
 - Median

Source: Bing Maps, Microsoft Corporation

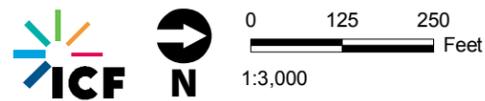


Figure 1-3
Build Alternative
Hamner Avenue Bridge Replacement Project

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Chapter 2 CEQA Checklist

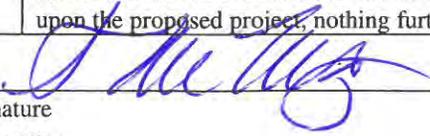
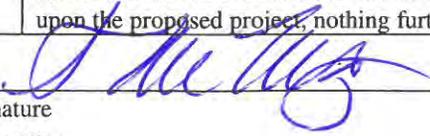
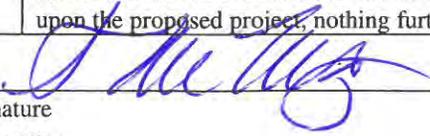
Environmental Factors Potentially Affected:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

	Aesthetics		Agriculture Resources		Air Quality
	Biological Resources		Cultural Resources		Paleontological Resources
	Geology/Soils		Greenhouse Gas Emissions		Hazards & Hazardous Materials
	Hydrology/Water Quality		Land Use/Planning		Mineral Resources
	Noise		Population/Housing		Public Services
	Recreation		Transportation/Traffic		Tribal Cultural Resources
	Utilities/Service Systems		Mandatory Findings of Significance		

Determination:

On the basis of this initial evaluation:

<input type="checkbox"/>	I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.		
<input checked="" type="checkbox"/>	I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.		
<input type="checkbox"/>	I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.		
<input type="checkbox"/>	I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.		
<input type="checkbox"/>	I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to the earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.		
<table border="1" style="width: 100%;"> <tr> <td style="width: 70%; vertical-align: bottom;">  Signature Steve King Planning Director City of Norco </td> <td style="width: 30%; vertical-align: bottom;"> 8-9-18 Date </td> </tr> </table>		 Signature Steve King Planning Director City of Norco	8-9-18 Date
 Signature Steve King Planning Director City of Norco	8-9-18 Date		

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2.1 Aesthetics

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

2.1.1 Regulatory Setting

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” (California Public Resources Code [PRC] Section 21001(b)).

2.1.2 Discussion of Environmental Evaluation Question 2.1 – Aesthetics

The information used in this section is from the May 2018 *Visual Impact Assessment* (VIA) (Caltrans 2018a).

a) Would the project have a substantial adverse effect on a scenic vista?

Less-than-Significant Impact. The project area lies in western Riverside County in a transition zone between downtown Los Angeles and its suburban sprawl and the easterly communities that compose Southern California’s high desert corridor. The landscape varies throughout the region, which is characterized by the rolling foothills of its mountain ranges, such as the Santa Ana, San Gabriel, San Bernardino, and San Jacinto Mountains, as well as by flatter topographical areas with light undulation that are populated by a mix of residential housing and communities, commercial and mixed-use developments, industrial properties, agricultural and suburban land uses, and vacant land/open space.

The landscape in the immediate project area is characterized by gently sloping terrain with distant views of the aforementioned mountain ranges, depending on the position, speed, and angle of the viewer. Looking north, there are available (distant) views of the hills and ridgelines that form the San Gabriel and San Bernardino Mountains. To the east, parts of La Sierra Hills are visible. Facing south, Beacon Hill can be seen and, in places, views extend beyond to the Santa Ana Mountains. To the west, open space and vegetation/landscaping provide scenic relief.

There are a mixture of land uses in the project vicinity. The proposed bridge would cross the Santa Ana River, which has natural elements, including shrubs, trees, and the waterway itself. Immediately to the north (on the east side) is unoccupied, vacant land. Soccer fields that are part of the Eastvale Community Park and the SilverLakes Sports and Equestrian Complex are east and west of Hamner Avenue to the south of Citrus Street. North and east of the intersection of Hamner Avenue/Citrus Street lies SilverLakes Sports and Equestrian Complex, and to the northwest lies a single-family residential community that has single and multi-story homes. There are no designated scenic vistas in the general plans of the Cities of Norco or Eastvale. There are no other protected resources, historic or otherwise, in the proposed project vicinity.

Construction activities would introduce heavy equipment and associated vehicles into the viewshed of all viewer groups. The proposed project's general construction activities, construction staging/stockpiling, storage of construction materials, presence of construction equipment, and temporary traffic barricades would result in temporary construction impacts by altering the composition of the viewsheds throughout the project corridor. However, construction activities would be minor, temporary in duration, and governed by local, state, and federal regulations and standards designed to minimize their potential to affect adjacent sensitive uses in negative ways.

The proposed project would not obstruct more distant views (in the middleground and background of any given viewshed) to the mountain ranges that lie north and south, to the hills to the east, to Beacon Hill, or any other visual resources within the project corridor. For some viewers, such as drivers, the higher elevation of the proposed bridge relative to existing conditions would enhance middleground and background views of the hills and mountain ranges to the north and south of the project site. Although the proposed project may slightly alter the visual composition of views within the project corridor by adding new and/or altered visible elements, the changes would be minor. Therefore, the proposed project would have a less-than-significant impact on a scenic vista.

b) Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

Less-than-Significant Impact. There are no roadways in the project area that are officially designated by state plans as a scenic highway or route worthy of protection for maintaining and enhancing scenic viewsheds. The proposed bridge replacement is approximately 4.5 miles north of the segments of I-15 and State Route 91 (SR-91) that have been determined by Caltrans to be Eligible State Scenic Highways, although neither segment has been officially designated. There are no other protected resources, historic or otherwise, that have been found to occur throughout the proposed project alignment.

The proposed project would not damage scenic resources along a state scenic highway. The key visual resources in the setting are views of the mountain ridgelines. Such views would not be affected by the proposed project. As detailed in the VIA, although the proposed project may slightly alter the visual composition of views within the project corridor by adding new and/or altered visible elements, it would result in a moderate-low resource change for all viewer groups. In addition, the proposed project would be consistent with

applicable regulations, standards, and policies outlined in guidance documents, such as local general plans (Cities of Norco and Eastvale) and the Riverside County General Plan. Therefore, the proposed project would result in less-than-significant impacts on scenic resources.

c) Would the project substantially degrade the existing visual character or quality of the site and its surroundings?

Less-than-Significant Impact with Mitigation. As discussed above, proposed project construction activities, staging/stockpiling, storage of construction materials, presence of construction equipment, and temporary traffic barricades would result in temporary construction impacts by altering the composition of the viewsheds throughout the project corridor. However, construction activities would be minor, temporary in duration, and governed by local, state, and federal regulations and standards designed to minimize their potential to affect adjacent sensitive uses in negative ways. In addition, the contractor would conduct daily visual inspections to ensure the immediate surroundings of construction staging areas are free from construction-related clutter and to maintain the areas in a clean and orderly manner throughout the construction period. Furthermore, **AES-1** would ensure that staging areas are screened within views and that work areas are cleaned throughout the construction period.

As discussed in the VIA, primary visual resource changes associated with the proposed project include replacing the existing Hamner Avenue Bridge with a new elevated bridge, which would include three 12-foot lanes and a 4-foot shoulder in each direction (northbound and southbound) separated by a 4-foot curbed median. In addition, a 12-foot barrier separated multipurpose trail on the east side of the bridge would be constructed. The proposed project would replace the existing bridge, which has one 12-foot lane in each direction, along with a 4-foot wide timber sidewalk attached to the east side of the bridge and separated from traffic by a concrete traffic railing.

The widened roadway and bridge structure would require earthmoving along the edges of the depressed roadway on the south side of the Santa Ana River to provide sufficient space for the additional travel lanes. The cut into the existing slopes lining the Hamner Avenue roadway would involve vegetation removal and the placement of new retaining walls with aesthetic treatments. The aesthetic treatments would include horse designs, emblematic of the City of Norco. In addition, a dedicated left-turn lane would be included in the southbound direction at the intersection with Detroit Street. A trail ramp would be constructed at the northeast and southeast ends of the bridge to connect the planned Regional Santa Ana River Trail with the barrier-separated multipurpose trail on the new Hamner Avenue Bridge. Although some vegetation removal and installation of retaining walls would be required, the proposed project would not change the existing condition of having a bridge crossing over the Santa Ana River. Because the modifications are mostly in keeping with the existing visual character of the project area, project activities would not be a major visual resource change for most viewers. Therefore, the proposed project would result in a less-than-significant impact on the visual character and quality of the project site and surrounding area.

d) Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Less-than-Significant Impact with Mitigation. The proposed project would not create a new source of substantial light or glare that would negatively affect daytime or nighttime views in the area. The new bridge structure and removal of vegetation could slightly increase glare in the project area, but glare associated with the river is already a prominent visual element in the area where gaps in vegetation allow for views of the river. New bridge, roadway, and intersection lighting could include light-emitting diode (LED) lighting for security and safety purposes. This would result in a source of nighttime light and glare that could potentially negatively affect nighttime views in the area if lighting is not properly designed and shielding is not employed. **AES-2** would apply minimum lighting standards to lessen light and glare impacts caused by project lighting. Therefore, the proposed project would not create a new source of substantial light or glare that would adversely affect day or nighttime views in the area.

2.1.3 Avoidance, Minimization, and/or Mitigation Measures

The following measures would be incorporated into the proposed project. These would be designed and implemented with concurrence of the Caltrans District Landscape Architect.

AES-1 - Install Visual Barriers between Construction Work Areas and Sensitive Receptors and Clean Work Areas. The contractor shall install visual barriers to obstruct undesirable views of construction activities from sensitive receptors, namely residents and recreational areas that are located adjacent to the construction site. The visual barrier may be chain link fencing with privacy slats, fencing with windscreen material, wood or concrete barrier/soundwall, or other similar barrier. The visual barrier shall be a minimum of 6 feet high to help to maintain the privacy of residents and block long-term ground-level views toward construction activities. While this visual barrier would introduce a visual intrusion, it would greatly reduce the visual effects associated with visible construction activities and screening construction activities and protecting privacy is deemed desirable. The contractor shall also conduct daily visual inspections to ensure the immediate surroundings of construction work areas are free from construction-related clutter and to maintain the areas in a clean and orderly manner throughout the construction period.

AES-2 - Apply Minimum Lighting Standards. All artificial outdoor lighting will be limited to safety and security requirements, designed using Illuminating Engineering Society design guidelines and in compliance with International Dark-Sky Association–approved fixtures. All lighting will be designed to have minimum impact on the surrounding environment and will use downcast, cut-off type fixtures that direct the light only toward objects requiring illumination. Shielding will be utilized, where needed, to ensure light pollution is minimized. Therefore, lights will be installed at the lowest allowable height and cast low-angle illumination while minimizing incidental light spill onto adjacent properties, open spaces, or backscatter into the nighttime sky. The lowest allowable illuminance level will be used for all lighted areas and the amount of nighttime lights needed to light an area will be minimized to the highest degree possible. Light fixtures will have non-glare finishes that will not cause reflective daytime glare. Lighting will be designed for energy efficiency

and have daylight sensors or be timed with an on/off program. Lights will provide good color rendering with natural light qualities with the minimum intensity feasible for security, safety, and personnel access. Lighting, including light color rendering and fixture types, will be designed to be aesthetically pleasing. LED lighting will avoid the use of blue-rich white light lamps and use a correlated color temperature that is no higher than 3,000 Kelvin (International Dark-Sky Association 2010a, 2010b, 2015). Wherever possible and pragmatic, the County will use fixtures and lighting control systems that conform to the International Dark-Sky Association's Fixture Seal of Approval program. In addition, LED lights will use shielding to ensure nuisance glare and that light spill does not affect sensitive residential viewers.

2.2 Agricultural and Forestry Resources

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
<p>II. AGRICULTURE AND FORESTRY 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:</p>				
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

2.2.1 Regulatory Setting

CEQA requires analysis of a project to determine whether it would convert agricultural land, Williamson Act contract land, and forest land to other 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.

2.2.2 Discussion of Environmental Evaluation Question 2.2 – Agricultural Resources

The analysis in this section is based on information provided in the City of Norco General Plan, City of Eastvale General Plan, and the California Important Farmland Finder website of the California Department of Conservation (City of Eastvale 2012; City of Norco 1989, 2012, 2014; California Department of Conservation 2016).

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

No Impact. The proposed project would replace the existing, two-lane Hamner Avenue Bridge with a new, six-lane bridge by adding two 12-foot lanes in each direction. No new permanent right of way would be required. According to the General Plan Land Use Map and Zoning Map for the City of Norco, the primary land uses immediately adjacent to the project corridor are residences, recreational resources, open space, and commercial buildings. According to the Farmland Mapping and Monitoring Program, no agricultural uses including Prime, Unique, or Farmland of Statewide Importance exist within or immediately adjacent to the proposed project; therefore, no impacts on designated farmlands would occur.

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

No Impact. The proposed project area is not zoned for agricultural uses and is not subject to the provisions of the Farmland Protection Policy Act. In addition, there are no agricultural preserves or parcels under Williamson Act contracts within the project area. Therefore, the proposed project would not conflict with existing zoning for agricultural use or Williamson Act contracts.

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

No Impact. As discussed in Item (a), the proposed project would occur within existing right of way. Land uses immediately adjacent to the project area are zoned for residential, commercial, and open space uses; therefore, no impacts would occur on forest land, timberland, or timberland production.

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

No Impact. The proposed project would not result in the loss or conversion of forest land because there is no forest land within the project area.

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

No Impact. The proposed project would widen Hamner Avenue from two lanes to six lanes from Detroit to Citrus Street and would not involve changes that would result in the conversion of farmland to non-agricultural use or forest land to non-forest use.

2.2.3 Avoidance, Minimization, and/or Mitigation Measures

No impacts have been identified; therefore, no measures are required.

2.3 Air Quality

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
<p>III. AIR QUALITY: Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:</p>				
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

2.3.1 Regulatory Setting

Federal

The Clean Air Act (CAA) was first enacted in 1963 but has been amended numerous times in subsequent years (1967, 1970, 1977, and 1990). The CAA establishes the National Ambient Air Quality Standards (NAAQS) and specifies future dates for achieving compliance. The CAA also mandates that the states submit and implement a State Implementation Plan (SIP) for local areas not meeting those standards. The plans must include pollution control measures that demonstrate how the standards will be met. The project area is within a basin that is designated as a nonattainment area for certain pollutants that are regulated under the CAA.

The 1990 amendments to the CAA identify specific emission-reduction goals for areas not meeting the NAAQS. These amendments require both a demonstration of reasonable further progress toward attainment and incorporation of additional sanctions for failure to attain or meet interim milestones. The sections of the CAA that would most substantially affect development of the proposed project include Title I (Nonattainment Provisions) and Title II (Mobile-Source Provisions).

Title I provisions were established with the goal of attaining the NAAQS for criteria pollutants. The Riverside County portion of the South Coast Air Basin (Basin) in which the project is located fails to meet national standards for ozone (O₃) and particulate matter 2.5 microns or less in diameter (PM_{2.5}) and therefore is considered a federal nonattainment area for those pollutants.

State

The California Clean Air Act, signed into law in 1988, requires all areas of the state to achieve and maintain the California Ambient Air Quality Standards (CAAQS) by the earliest practical date. The CAAQS incorporate additional standards for most of the criteria pollutants and set standards for other pollutants recognized by the state. In general, the California standards are more health protective than the corresponding NAAQS. California has also set standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. The Basin is in attainment with these California standards for sulfates, hydrogen sulfide, visibility-reducing particles, and vinyl chloride, but is a nonattainment area for O₃, particulate matter 10 microns or less in diameter (PM₁₀), and PM_{2.5}.

Local

The project lies within the Riverside County portion of the Basin, which is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). SCAQMD has jurisdiction over an area of approximately 10,743 square miles, including all of Orange County; Los Angeles County, except for the Antelope Valley; the non-desert portion of western San Bernardino County; and the western and Coachella Valley portions of Riverside County. The Basin is a sub-region of the SCAQMD jurisdiction. Although air quality in this area has improved, the Basin requires continued diligence to meet air quality standards.

SCAQMD has adopted a series of air quality management plans (AQMPs) to meet the CAAQS and NAAQS. These plans require, among other emissions-reducing activities, control technology for existing sources, control programs for area sources and indirect sources, an SCAQMD permitting system designed to allow no net increase in emissions from any new or modified (i.e., previously permitted) emission sources, and transportation control measures. The 2016 AQMP is the most recent plan to be adopted by the SCAQMD Governing Board (adopted on March 3, 2017). The 2016 AQMP includes the integrated strategies and measures needed to meet the NAAQS. The 2016 AQMP demonstrates future attainment of the 1-hour and 8-hour O₃ NAAQS as well as the latest 24-hour and annual PM_{2.5} standards.

In addition to the air quality efforts of SCAQMD, SCAG, which serves as the Metropolitan Planning Organization (MPO) for the six-county Southern California region, is mandated to comply with federal and state transportation and air quality regulations. Federal transportation law requires that SCAG develop an RTP for a 20-year minimum period. SCAG must also develop an FTIP that allocates monies over a 4-year period to implement the RTP. The FTIP must be consistent with the RTP (e.g., projects, scope, implementation schedules). In addition, in the federal nonattainment or maintenance areas, the RTP and FTIP must comply with the transportation conformity requirements of the U.S. Environmental Protection Agency's (EPA) Transportation Conformity Regulations.

To comply with the CAA in achieving the NAAQS, SIPs are required to be developed for federal nonattainment and maintenance areas. In California, SIP development is a joint effort of the local air agencies and the California Air Resources Board (ARB) working with federal, state and local agencies (including the MPOs). Local AQMPs are prepared in response to federal and state requirements.

The SIP may include two important components relative to transportation conformity requirements—emissions budgets (for all criteria pollutant SIPs) and Transportation Control Measures (TCMs) (for O₃ and CO SIPs only). Emissions budgets set an upper limit, which transportation activities (for SIP purposes motor vehicles are also known as “on-road mobile sources”) are permitted to emit. TCMs, required for serious and above O₃ nonattainment areas and serious CO nonattainment areas, are strategies to reduce emissions from on-road mobile sources. The 2016 RTP/SCS must conform to the applicable SIPs (i.e., emissions budgets and TCMs) in the SCAG region.

2.3.2 Discussion of Environmental Evaluation Question 2.3 – Air Quality

The information in this section is based on the March 2018 *Air Quality Report* prepared for the proposed project (Caltrans 2018b).

a) Would the project conflict with or obstruct implementation of the applicable air quality plan?

No Impact. A project would conflict with or obstruct implementation of a regional air quality plan if it would be inconsistent with the growth assumptions of the plan. The proposed project is included in SCAG’s 2016–2040 RTP/SCS under Project ID 3A01WT159 and SCAG’s 2017 FTIP Amendment 2 under Project ID RIV121204. The 2016–2040 RTP/SCS was adopted by SCAG’s Regional Council on April 7, 2016, and the Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) found that the RTP/SCS conformed to the SIP on June 1, 2016. SCAG adopted Amendment 2 to the 2017 FTIP in which the project is included on January 3, 2017, and FHWA and FTA found that Amendment 2 to the 2017 FTIP conformed to the SIP on February 21, 2017. A subsequent modification to the funding of the project was made in Administrative Modification 15 to the 2017 to the 2017 FTIP, which was approved by SCAG on December 20, 2017. Because the proposed project is included as proposed in both the SCAG 2016–2040 RTP/SCS and the 2017 FTIP, which were found to conform to the SIP responsible for attaining and maintaining compliance with air quality standards, the proposed project would not conflict with or obstruct implementation of an air quality plan. No impacts would result.

b) Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?

Less-than-Significant Impact with Mitigation.

Construction

As detailed in the March 2018 *Air Quality Report*, site preparation and construction of the widened replacement bridge would involve clearing, cut-and-fill activities, grading, demolition of the existing bridge, and paving roadway surfaces. During construction, short-term degradation of air quality is expected from the release of particulate emissions (airborne dust) generated by excavation, grading, hauling, and other activities related to construction. Emissions from construction equipment powered by gasoline and diesel engines are also anticipated and would include CO, nitrogen oxides (NO_x), volatile organic compounds (VOCs), directly emitted PM₁₀ and PM_{2.5}, and toxic air contaminants such as diesel exhaust

particulate matter. Construction activities may temporarily cause delays that could result in temporary increases in emissions from traffic during the delays. These emissions would be temporary and limited to the immediate area surrounding the construction site.

Construction emissions were estimated using the latest Sacramento Metropolitan Air Quality Management District's Road Construction Model (<http://www.airquality.org/ceqa/>), Version 8.1.0. While the model was developed for Sacramento conditions in terms of fleet emission factors, silt loading, and other model assumptions, it is considered appropriate and adequate for estimating road construction emissions by the SCAQMD (in its CEQA guidance) and is used for that purpose in this project analysis.

Construction emissions were estimated for the project alternatives using detailed equipment inventories and project construction scheduling information provided by T.Y. Lin, the project designer, combined with emissions factors from the EMFAC 2014 and OFFROAD models. Construction-related emissions for the Build Alternative are presented in Tables 2.3-1 and 2.3-2. The emissions presented are based on the best information available at the time of calculations. The emissions represent the peak daily construction emissions that would be generated by the Build Alternative.

Table 2.3-1. Construction-Period Emissions Estimates (No Control Measures Implemented)

	VOC (lbs/day)	CO (lbs/day)	NO _x (lbs/day)	PM ₁₀ (lbs/day)	PM _{2.5} (lbs/day)
Grubbing/Land Clearing	1	10	12	11	3
Grading/Excavation	10	77	111	15	7
Drainage/Utilities/Sub-Grade	6	55	66	13	5
Paving	1	13	12	1	1
Maximum daily	10	77	111	15	7
SCAQMD Regional Significance Threshold	75	550	100	150	55
Emissions of SO _x would be less than one pound per day for each phase of construction. Emissions estimated using the Sacramento Metropolitan Air Quality Management District Road Construction Model, version 8.1.0 using project-specific data provided by design staff.					

Because the SCAQMD threshold for NO_x would be exceeded during the grading/excavation phase of project construction, control measures would be implemented to achieve reductions as part of measure **AQ-1**. With the implementation of the NO_x control measures, construction-period impacts would be less than significant. Construction emissions are estimated to be below SCAQMD thresholds, as shown in Table 2.3-2.

Table 2.3-2. Construction-Period Emissions Estimates (With NO_x Control Measures)

	VOC (lbs/day)	CO (lbs/day)	NO_x (lbs/day)	PM₁₀ (lbs/day)	PM_{2.5} (lbs/day)
Grubbing/Land Clearing	1	10	10	10	2
Grading/Excavation	10	77	89	13	5
Drainage/Utilities/Sub-Grade	6	55	53	12	4
Paving	1	13	10	< 1	< 1
Maximum daily	10	77	89	13	5
SCAQMD Regional Significance Threshold	75	550	100	150	55
Emissions of SO _x would be less than one pound per day for each phase of construction. Emissions estimated using the Sacramento Metropolitan Air Quality Management District Road Construction Model, version 8.1.0 using project-specific data provided by design staff.					

Operation

Operational emissions take into account long-term changes in emissions due to the project (excluding the construction phase). The operational emissions analysis compares forecasted emissions for existing/baseline, the No Build Alternative, and the Build Alternative for Existing (2017), Opening Year (2023), and RTP/SCS Horizon Year (2040).

Operational emissions of criteria pollutants and their precursors would occur as a result of the changes in roadway operations resulting from project implementation. In addition, operational emissions during different time periods are affected by changes in circulation patterns, population growth, and reductions in per-vehicle emissions as older, less efficient vehicles are retired and replaced by cleaner vehicles. Estimates of emissions are based on data developed using an approved traffic microsimulation model, the pertinent output of which is vehicle miles traveled (VMT) apportioned into 5-mile-per-hour speed bins. The VMT data were then used as the input into CT-EMFAC 2014, which provides an estimate of emissions, as shown in Table 2.3-3.

As shown in Table 2.3-3, emissions of criteria pollutants and their precursors would be either reduced or marginally increased for particulate matter, at Opening Year 2023 and Horizon Year 2040 relative to existing (2017) conditions. Although there would be some increases in emissions under the Build Alternative relative to the No Build Alternative in both the 2023 Opening Year and the 2040 Horizon Year, these differences in emissions would not be substantial and would not exceed SCAQMD's regional significance thresholds. Therefore, operational impacts related to the potential of the project to violate any air quality standard or contribute substantially to an existing or projected air quality violation would be less than significant. No mitigation for long-term operations is required.

Table 2.3-3. Summary of Comparative Emissions Analysis

	VOC (lbs/day)	CO (lbs/day)	NO_x (lbs/day)	PM₁₀ (lbs/day)*	PM_{2.5} (lbs/day)*
Baseline (Existing Conditions) 2017	40	301	71	31	10
2023 Opening Year No Build Alternative	27	180	42	30	10
2023 Opening Year Build Alternative	34	237	55	40	13
2023 Opening Year Net Emissions (Build – No Build)	7	57	13	10	3
2040 Horizon Year No Build Alternative	14	94	17	29	9
2040 Horizon Year Build Alternative	17	116	20	36	11
2040 Horizon Year Net Emissions (Build – No Build)	3	22	3	7	2
SCAQMD Regional Significance Thresholds	55	550	55	150	55
<p>* Includes re-entrained road dust. Emissions of SO_x would be negligible based on the use of ultra-low sulfur diesel and gasoline. The VMT data study area is based on the average trip length of traffic on the bridge, which is approximately 15 miles. Although VMT is greater under the Build Alternative than under the No Build Alternative, the increase in VMT reflects the increased travel over the widened bridge relative to alternative routes, and does not signify new trip generation would result from the project implementation. The proposed project would not change land uses in the project vicinity, and would therefore not generate new trips. Emissions were estimated using project-specific VMT data apportioned into 5-mile-per-hour speed bins as input into CT-EMFAC 2014.</p>					

c) Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

Less-than-Significant Impact with Mitigation. As discussed above and in the March 2018 *Air Quality Report*, the proposed project would result in short-term generation of criteria and precursor pollutants during the construction period, but this would be controlled through the implementation of measure **AQ-1** and standard control measures identified in measure **AQ-2**. Long-term operations would result in net reductions in pollutant emissions relative to existing conditions as a result of the retirement of older, less efficient vehicles and replacement with cleaner vehicles. When comparing the Build Alternative to the No Build Alternative at the 2023 Opening Year and 2040 Horizon Year, emissions would be greater under the Build Alternative than under the No Build Alternative. These increases, however, would not be substantial and would not exceed SCAQMD regional significance thresholds. Therefore, the project would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment. Construction-period impacts would be less than significant with implementation of measures **AQ-1** and **AQ-2** and long-term operational impacts would be less than significant.

d) Would the project expose sensitive receptors to substantial pollutant concentrations?

Less-than-Significant Impact with Mitigation. On the basis of research showing that the zone of greatest concern near roadways is within 500 feet (or 150 meters), sensitive receptors within 500 feet (or 150 meters) have been identified in Table 2.3-4.

Table 2.3-4. Sensitive Receptors Located within 500 Feet of the Project Site

Receptor	Description	Distance Between Receptor and Project (feet)
Eastvale Community Park	Park with soccer fields	300
SilverLakes Sports and Equestrian Complex	Park with soccer fields	50
Residential community to the northwest of Hamner Avenue/Citrus Street	Single-family residences	50
Residential community to the southwest of the Santa Ana River	Single-family residences	50

Construction

As discussed in Item (a) above, construction of the proposed project would result in the short-term generation of pollutants in the vicinity of identified sensitive receptors. However, given the linear nature of the project, construction activities would proceed in a linear manner and would not be localized at any given location near sensitive receptors for a substantial period of time.

Implementation of measures **AQ-1** and **AQ-2** would limit emissions at locations near identified sensitive receptors such that their exposure to substantial pollutant concentrations would not occur. Construction-period impacts related to sensitive receptors would be less than significant with mitigation incorporated.

Operation*Carbon Monoxide Hotspot Analysis*

The CO Protocol was developed for project-level conformity (hot-spot) analysis and was approved for use by the U.S. EPA in 1997. It provides qualitative and quantitative screening procedures, as well as quantitative (modeling) analysis methods to assess project-level CO impacts. The qualitative screening step is designed to avoid the use of detailed modeling for projects that clearly cannot cause a violation, or worsen an existing violation, of the CO standards. Although the protocol was designed to address federal standards, it has been recommended for use by several air pollution control districts in their CEQA analysis guidance documents and should also be valid for California standards because the key criterion (8-hour concentration) is similar: 9 parts per million (ppm) for the federal standard and 9.0 ppm for the state standard. As discussed in the March 2018 *Air Quality Report*, the proposed project was evaluated using the CO Protocol. Through this screening process, it was determined that the Build Alternative is not expected to result in a new or more severe exceedance of either the NAAQS or CAAQS.

Particulate Matter Hotspot Analysis

In November 2015, the U.S. EPA released an updated version of Transportation Conformity Guidance for Quantitative Hot-Spot Analyses in PM_{2.5} and PM₁₀ Nonattainment and Maintenance Areas (Guidance) for quantifying the local air quality impacts of transportation projects and comparing them to the particulate matter NAAQS (75 FR 79370). The U.S. EPA originally released the quantitative guidance in December 2010, and released a revised version in November 2013 to reflect the approval of EMFAC 2011 and U.S. EPA's 2012 PM NAAQS final rule. The November 2015 version reflects MOVES2014 and its subsequent minor revisions such as MOVES2014a, to revise design value calculations to be more consistent with other U.S. EPA programs, and to reflect guidance implementation and experience in the field. Note that EMFAC, not MOVES, should be used for project hot-spot analysis in California. The Guidance requires a hot-spot analysis to be completed for a project of air quality concern. On December 5, 2017, the project was presented to the members of the Transportation Conformity Working Group at an in-person meeting, and the members of the group determined that the project was not a project of air quality concern.

Although project operation would involve emissions of pollutants in the project vicinity, the project would not create hotspots that would result in exposure of sensitive receptors to substantial pollutant concentrations.

e) Would the project create objectionable odors affecting a substantial number of people?

Less-than-Significant Impact. Some phases of construction, particularly asphalt paving, would result in short-term odors in the immediate area of each paving site. Such odors would be quickly dispersed below detectable thresholds as distance from the site increases. Project operation would not create objectionable odors. Impacts from objectionable odors would be less than significant.

2.3.3 Avoidance, Minimization, and/or Mitigation Measures

The following measures would minimize construction-period emissions.

AQ-1: The construction contractor will reduce emissions of NO_x by 20 percent relative to the South Coast Air Basin fleetwide averages for the types of construction equipment used during the grading phase. This could be achieved by implementing one or more of the following, or other methods:

- Use of NO_x filters for all off-road construction equipment.
- Use of Tier 4-compliant off-road construction equipment.
- Use of newer construction equipment and vehicles.
- Extension of the grading/excavation phase such that per-day emissions would be below SCAQMD regional mass emissions thresholds.

AQ-2: The following standard measures would reduce air quality impacts resulting from construction activities:

- The construction contractor must comply with Caltrans' Standard Specifications in Section 14-9 (2015).
 - 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.
- Water or a dust palliative will be applied to the site and equipment as often as necessary to control fugitive dust emissions, consistent with SCAQMD Rule 403.
- Soil binder will be spread on any unpaved roads used for construction purposes, and on all project construction parking areas.
- Trucks will be washed as they leave the right of way as necessary to control fugitive dust emissions.
- Construction equipment and vehicles will be properly tuned and maintained. All construction equipment will use low sulfur fuel as required by the California Code of Regulations Title 17, Section 93114.
- A dust control plan will be developed documenting sprinkling, temporary paving, speed limits, and timely revegetation of disturbed slopes as needed to minimize construction impacts on existing communities.
- 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.
- Environmentally sensitive areas 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.
- Track-out reduction measures, such as gravel pads at project access points to minimize dust and mud deposits on roads affected by construction traffic, will be used.
- 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 emission of dust during transportation.
- 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.
- 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.
- Mulch will be installed or vegetation planted as soon as practical after grading to reduce windblown particulate matter in the area.

2.4 Biological Resources

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
IV. BIOLOGICAL RESOURCES: Would the project:				
a) Have a substantial adverse effect either directly or through habitat modifications, on any species identified as a candidate, sensitive or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2.4.1 Regulatory Setting

Wetlands and Other Waters

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 (CWA) (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. 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. EPA.

The USACE issues two types of 404 permits: General and Standard permits. There are two types of General permits: Regional permits and Nationwide permits. Regional permits are issued for a general category of activities when they are similar in nature and cause minimal environmental impacts. 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 Nationwide Permit may be permitted under one of USACE's Standard permits. There are two types of Standard permits: Individual permits and Letters of Permission. For Standard permits, the USACE decision to approve is based on compliance with U.S. EPA's Section 404(b)(1) Guidelines (U.S. EPA 40 Code of Federal Regulations [CFR], 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 that 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, this EO states that a federal agency, such as the FHWA and/or Caltrans, 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.

At the state level, wetlands and waters are regulated primarily by the State Water Resources Control Board (SWRCB), the Regional Water Quality Control Boards (RWQCB) and the California Department of Fish and Wildlife (CDFW). In certain circumstances, the Coastal Commission (or Bay Conservation and Development Commission or 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 which 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 Section 2.10, *Hydrology and Water Quality*, for additional details.

Plant Species

The U.S. Fish and Wildlife Service (USFWS) and 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).

The regulatory requirements for FESA can be found at USC 16, Section 1531, et seq. See also 50 CFR Part 402. The regulatory requirements for CESA can be found at California Fish and Game Code, Section 2050, et seq. Caltrans projects are also subject to the Native Plant Protection Act, found at California Fish and Game Code, Section 1900–1913, and CEQA, California PRC, Sections 2100–21177.

Animal Species

Many state and federal laws regulate impacts on wildlife. The USFWS, the National Oceanic and Atmospheric Administration’s National Marine Fisheries Service (NOAA Fisheries Service), and the 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 Acts. Species listed or proposed for listing as threatened or endangered are discussed in the *Threatened and Endangered Species* section 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 Service candidate species.

Federal laws and regulations relevant to wildlife include the following:

- National Environmental Policy Act (NEPA)
- Migratory Bird Treaty Act (MBTA)
- 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

Threatened and Endangered Species

The primary federal law protecting threatened and endangered species is the FESA: 16 USC Section 1531, et seq. See also 50 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 FHWA, are required to consult with the USFWS and the NOAA Fisheries Service 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, a Letter of Concurrence and/or documentation of a No Effect finding. Section 3 of 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 CESA, California Fish and Game Code Section 2050, et seq. CESA emphasizes early consultation to avoid potential impacts on rare, endangered, and threatened species and to develop appropriate planning to offset project-caused losses of listed species populations and their essential habitats. The CDFW is the agency responsible for implementing CESA. Section 2081 of the 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 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 the 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 on CESA species by issuing a Consistency Determination under Section 2080.1 of the California Fish and Game Code.

Western Riverside MSHCP

The Western Riverside Multiple Species Habitat Conservation Plan (MSHCP), a comprehensive regional Habitat Conservation Plan, was adopted in June 2003. Major participants in the regional planning effort included, but were not limited to, Caltrans, CDFW, USFWS, Riverside County, Riverside County Transportation Commission, 14 cities, and interested individuals and groups. The purpose of the MSHCP was to develop methods and procedures that provide for development while protecting environmental resources in the western Riverside County area over a 75-year period. Caltrans signed the Implementation Agreement on December 15, 2003.

The MSHCP, among other things, provides impact mitigation for future County projects on existing routes in the covered area of western Riverside County. Participation by the County is intended to streamline the environmental process for future transportation projects in western Riverside County (e.g., through pre-mitigation) and save money over the long term.

The project involves an existing facility and therefore is a Covered Activity within the MSHCP boundaries of the Eastvale Area Plan (Subunit 1: Santa Ana River – Central) and the Cities of Riverside/Norco Area Plan (Subunit 1: Santa Ana River – South). Portions of the Biological Study Area (BSA) occur within Criteria Cells 786 and 876. The BSA overlaps with Public/Quasi-Public (PQP) conserved lands (Object ID 605 and 553) and Existing Core A.

Portions of the project would occur in the following MSHCP survey areas:

- Narrow Endemic Survey Area 7: San Diego ambrosia (*Ambrosia pumila*), San Miguel savory (*Clinopodium chandleri*), Brand’s phacelia (*Phacelia stellaris*)
- Burrowing Owl Survey Area

Although survey areas for least Bell’s vireo (*Vireo bellii pusillus*), southwestern willow flycatcher (*Empidonax traillii extimus*), and western yellow-billed cuckoo (*Coccyzus americanus*)

occidentalis) are not provided by the MSHCP, if potential habitat is present and potential direct and/or indirect effects could occur, then focused surveys would be necessary. A full review of potential riparian/riverine and vernal pool resources is also required by the MSHCP.

In summary, the MSHCP requires the project to fulfill the requirements presented in MSHCP Volume I, Sections 3.2.3, 6.1.2, 6.1.3, 6.1.4, 6.3.2, 7.5.1, 7.5.2, and 7.5.3, and follow the BMPs in Appendix C of the MSHCP.

A consistency review by the wildlife agencies (USFWS and CDFW) would be performed to ensure that the project is consistent with the requirements of the MSHCP. Because there is a federal nexus for the project, the consistency review would result in a streamlined Biological Opinion from USFWS. Take would be provided through the MSHCP.

2.4.2 Discussion of Environmental Evaluation Question 2.4 – Biological Resources

Information used in this section is from the *Natural Environment Study* (NES) (May 2018) (Caltrans 2018c) and *Jurisdictional Delineation* (September 2017) (Caltrans 2017a).

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

Less-than-Significant Impact with Mitigation.

Special-Status Plant Species. A literature review determined that 49 special-status plant species may occur within the BSA. Nine of these special-status plant species are federally and/or state-listed endangered, threatened, or candidate species. Of the nine, the following two were determined to potentially occur within the BSA based on species requirements and BSA conditions: San Diego ambrosia and Santa Ana River woollystar (*Eriastrum densifolium* ssp. *sanctorum*). Suitable habitat is not present within the BSA for Braunton's milkvetch (*Astragalus brauntonii*), marsh sandwort (*Arenaria paludicola*), Munz's onion (*Allium munzii*), Nevin's barberry (*Berberis nevinii*), salt marsh bird's-beak (*Chloropyron maritimum* ssp. *maritimum*), thread-leaved brodiaea (*Brodiaea filifolia*), or slender-horned spineflower (*Dodecahema leptoceras*). These species are not discussed further. Fourteen non-listed special-status plant species were determined to have suitable habitat present within the BSA. The BSA for focused rare plant surveys included a 100-foot buffer from the edge of proposed permanent disturbance limits determined from the preliminary engineering design (Figure 2.4-1).

San Diego ambrosia is listed as an endangered species by USFWS. No critical habitat for San Diego ambrosia occurs within the BSA. Suitable habitat for this species occurs in the BSA along the floodplain terraces of the Santa Ana River. The focused rare plant survey conducted in May 2017 during the blooming period for this species was negative. Because San Diego ambrosia was known to be present and visible in the regional area during the 2017 growing season, but has not been detected within the project vicinity for over 77 years, and was not observed within the BSA during the focused rare plant survey, there is no reasonable

evidence for this species to occur. Therefore, it is considered absent from the BSA. No direct or indirect impacts from the proposed project are anticipated; therefore, it is Caltrans' determination that the project would have *no effect* on San Diego ambrosia, and avoidance, minimization, and/or mitigation measures are not needed.

The Santa Ana River woollystar is listed as an endangered species by CDFW and USFWS. No critical habitat for this species has been designated by the USFWS. Suitable habitat for Santa Ana River woollystar occurs in the BSA along the floodplain terraces of the Santa Ana River. However, suitable Riversidian alluvial fan sage scrub habitats and alluvial terraces in which this species is usually found generally do not exist within the BSA, so this species is unlikely to occur. This highly conspicuous perennial plant was not detected during the May 2017 focused rare plant survey. Because Santa Ana River woollystar is a conspicuous perennial plant and was not detected during the focused survey, it is considered absent from the BSA. No direct or indirect impacts from the proposed project are anticipated; therefore, it is Caltrans' determination that the project would have *no effect* on Santa Ana River woollystar, and avoidance, minimization, and/or mitigation measures are not needed.

Fourteen non-listed special-status plant species were determined to have suitable habitat present in the BSA: many-stemmed dudleya (*Dudleya multicaulis*), lucky morning-glory (*Calystegia felix*), California saw-grass (*Cladium californicum*), paniculate tarplant (*Deinandra paniculata*), southern California black walnut (*Juglans californica*), prostrate navarretia (*Navarretia prostrata*), Brand's star phacelia (*Phacelia stellaris*), Fish's milkwort (*Polygala cornuta* var. *fishiae*), white rabbit-tobacco (*Pseudognaphalium leucocephalum*), prairie wedge grass (*Sphenopholis obtusata*), Parish's bush-mallow (*Lycium parishii*), Robinson's pepper-grass (*Lepidium virginicum* var. *robinsonii*), Coulter's Matilija poppy (*Romneya coulteri*), and San Bernardino aster (*Symphyotrichum defoliatum*). None of these species were observed during the May 2017 focused rare plant survey and they are considered absent from the BSA. No direct or indirect impacts from the proposed project are anticipated; therefore, no avoidance, minimization, and/or mitigation measures are needed.

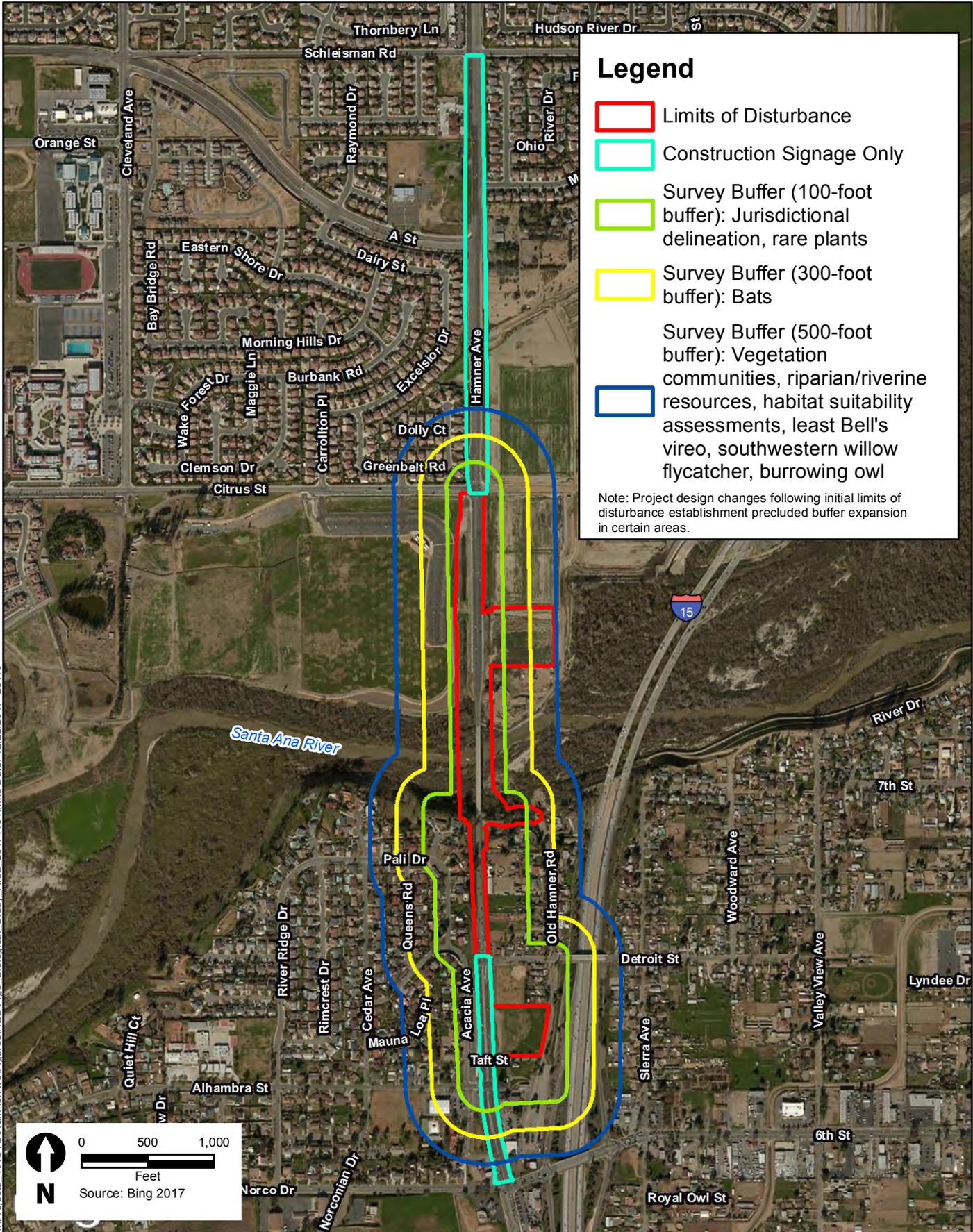
Special-Status Wildlife Species. A literature review determined that 42 special-status wildlife species may occur within the BSA. Eleven of these special-status wildlife species are federally and/or state-listed endangered, threatened, or candidate species. Of the 11, the following three were determined to occur or potentially occur within the BSA based on species requirements and BSA conditions: Santa Ana sucker (*Catostomus santaanae*), least Bell's vireo, and southwestern willow flycatcher. Suitable habitat is not present within the BSA for Delhi Sands flower-loving fly (*Rhaphiomidas terminatus abdominalis*), steelhead (*Oncorhynchus mykiss irideus*, Southern California coast distinct population segment), arroyo toad (*Anaxyrus californicus*), Swainson's hawk (*Buteo swainsoni*), western yellow-billed cuckoo (*Coccyzus americanus occidentalis*), coastal California gnatcatcher (*Poliophtila californica californica*), San Bernardino Merriam's Kangaroo Rat (*Dipodomys merriami parvus*), and Stephens' kangaroo rat (*Dipodomys stephensi*). These species are not discussed further. Fifteen non-listed special-status wildlife species were determined to have suitable habitat present within the BSA. A 500-foot buffer was used for general habitat assessments for special-status wildlife species and protocol surveys for least Bell's vireo, southwestern willow flycatcher, and burrowing owl (*Athene cunicularia*), and a 300-foot buffer was used

for the bat habitat assessment and emergence survey; buffers were applied to the BSA around the project limits of disturbance (Figure 2.4-1).

Santa Ana sucker is listed as a threatened species by USFWS and a State Species of Special Concern by CDFW. The project limits of disturbance contain 8.76 acres of federally designated critical habitat for the Santa Ana sucker within the Santa Ana River corridor. It is located within the 2010 final critical habitat Subunit 1B, which encompasses approximately 4,771 acres located within the Cities of Colton, Corona, Rialto, Riverside, and Norco, in Riverside and San Bernardino Counties, California. Most areas of Subunit 1B are currently occupied by Santa Ana sucker.

In the BSA, potentially suitable habitat for Santa Ana sucker is located within the Santa Ana River. The river at the Hamner Avenue Bridge crossing is perennial, having surface flow throughout the year (even in drought years). This portion of the river is somewhat deep and relatively homogenous, with a constricted low-flow channel that lacks scour locations and is generally not suitable for breeding, but does function for dispersal, refuge, and foraging. Channel substrates are predominantly fine sand and silt, rather than the coarse materials preferred by Santa Ana sucker.

Santa Ana sucker is known to occur within this stretch of the Santa Ana River, although there are no data available indicating that the BSA includes or overlaps with any spawning or nursery areas. However, individuals do move through the BSA on a regular (annual or more frequent) basis given their routine presence above and below the BSA and the species' known movement patterns during normal biological cycles. Based on the known range of Santa Ana sucker, the BSA has been assumed to be occupied by Santa Ana sucker. No Santa Ana sucker focused surveys were conducted.



Legend

- Limits of Disturbance
- Construction Signage Only
- Survey Buffer (100-foot buffer): Jurisdictional delineation, rare plants
- Survey Buffer (300-foot buffer): Bats
- Survey Buffer (500-foot buffer): Vegetation communities, riparian/riverine resources, habitat suitability assessments, least Bell's vireo, southwestern willow flycatcher, burrowing owl

Note: Project design changes following initial limits of disturbance establishment precluded buffer expansion in certain areas.

0 500 1,000

 Feet
 Source: Bing 2017

Figure 2.4-1
Biological Study Area
Hamner Avenue Bridge Replacement Project

K:\Projects_1\RCTD\HammerAve\Figures\NES\Fig6 Biological Study Area_20171101.mxd Date: 12/22/2017 25119

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The proposed project would span the current active river channel of the Santa Ana River; no bents or columns would be constructed within the current active channel. As such, no direct permanent impacts would occur on currently occupied Santa Ana sucker habitat from the new bridge. However, bridge bents and columns would be constructed within the Santa Ana River floodplain (see NES for details). Consequently, the project would result in direct permanent impacts on Santa Ana sucker critical habitat from bridge construction. The project would also result in direct temporary impacts due to construction work areas and access. Temporary and permanent direct impacts on Santa Ana sucker critical habitat are provided in Table 2.4-1. The temporary impacts on Santa Ana sucker critical habitat along the Santa Ana River are based on conservative preliminary design estimates to allow for flexibility of temporary construction work areas during the final design phase of the project. Bridge construction would require a temporary trestle to provide an elevated platform for falsework. The span of the trestle is currently uncertain, but it is anticipated that temporary piles would need to be installed within the active channel to provide the footing for the trestle. The actual temporary impacts on Santa Ana sucker critical habitat would likely be refined (i.e., reduced) during the design and permitting phase of the project (Table 2.4-1). Any change in impact areas would be provided to the Western Riverside Regional Conservation Authority (RCA) and USFWS should they be larger than anticipated.

Table 2.4-1. Impacts on Santa Ana Sucker Critical Habitat

	Permanent Impact (acre)	Temporary Impact (acre)
Critical habitat with PCEs	0.25	4.37
Critical habitat without PCEs*	1.70	2.44
Total	1.95	6.81
*Critical habitat not containing the Primary Constituent Elements (PCEs) for Santa Ana sucker includes developed areas, non-native land cover types, and paved roads.		

Hydrological connectivity would be maintained during project construction. No dewatering or construction within the entire current active river channel is anticipated other than potential placement of diversion structures or coffer dams, if required for temporary trestle construction; thus, no injury to or death of individual Santa Ana sucker is anticipated. If water diversions are required, then it is anticipated that water would be diverted only within a portion of the channel, while the remainder of the channel remains open to allow hydrological connectivity. Otherwise, a culvert pipe or system of pipes would be installed under a temporary coffer dam that would maintain hydrological connectivity for the duration of trestle installation and/or bridge construction.

Project construction also has the potential for indirect effects on Santa Ana sucker and its suitable habitat and critical habitat from a possible decrease in water quality due to erosion and construction runoff, turbidity, temporary changes to bed materials or existing channel contours or slope, or downstream siltation. Reduced water quality could also result in indirect effects on occupied Santa Ana sucker downstream where this species is known to breed and where restoration efforts are currently being implemented by the Riverside-Corona Resources Conservation District (RCRCD) to improve habitat for breeding. However, these

indirect impacts are expected to be greatly reduced with implementation of measure **BIO-1**. As described in this measure, a qualified biological monitor would be present during all relevant construction and would ensure that BMPs would be implemented to minimize siltation and changes to channel bed and bank contours and avoid measurable adverse effects on Santa Ana sucker and its critical habitat. Construction in the stream channel would be tightly restricted by aquatic resource permit conditions. Equipment and vehicles would not be maintained or stored in areas that are subject to, or potentially subject to, flows. Equipment operation within flowing water would be limited to trestle and/or diversion dam construction.

Noise and vibration disturbances from pile driving could also result in indirect effects on Santa Ana sucker, should individuals be present within the area during the time that pile driving occurs. Vibratory pile driving may be used. However, the implementation of avoidance and minimization measures would reduce impacts.

The new bridge could potentially result in an increase of 0.03 acre of total shading on the unvegetated active river channel. This could permanently affect potentially occupied habitat for Santa Ana sucker by altering the riparian plant and macroinvertebrate community within this area. However, the area of active river channel that could potentially be shaded was based on the entire width of the new bridge and includes areas outside of the active channel. It is the maximum amount of potential increase in shading and would likely be substantially less due to the height and direction of the new bridge.

Operation of the expanded bridge and roadway would not result in any relevant changes to volumes, flow regimes, point sources, or the quality of upland water flows (e.g., stormwater flows). The project would implement BMPs for permanent operating conditions, including water quality control measures, which would minimize runoff from bridge and roadway surface flows at the Hamner Avenue Bridge.

Standard measures implemented to comply with the project SWPPP, and permit conditions for impacts on jurisdictional waters required by USACE, CDFW, and RWQCB, would ensure avoidance and minimization of impacts on water quality. Based on the minor indirect impacts on Santa Ana sucker and its critical habitat and the inclusion of measure **BIO-1**, it is Caltrans' determination that the project *may affect, but is not likely to adversely affect* Santa Ana sucker or its critical habitat. Implementation of compensatory measure **BIO-2** would fully compensate for any impacts on Santa Ana sucker. Impacts would be considered less than significant with incorporation of measures **BIO-1** and **BIO-2**.

Least Bell's vireo is listed as an endangered species by CDFW and USFWS. The BSA contains 68.02 acres of federally designated critical habitat for least Bell's vireo. The BSA is located within the Santa Ana River critical habitat area for this species, which occurs along the Santa Ana River corridor in San Bernardino and Riverside Counties. The critical habitat stretches from approximately 3.0 miles upstream of Van Buren Boulevard west to the Prado Dam and includes all lands within the Prado Flood Control Basin.

Suitable habitat conditions for least Bell's vireo are present within the Fremont Cottonwood Forest/Black Willow Thickets along the Santa Ana River. Protocol surveys were conducted in potentially suitable riparian habitats in the BSA between May 2 and July 31, 2017. Eight

least Bell's vireo territories were mapped and tracked during the 2017 protocol surveys. Of these, four were confirmed to be nesting, three had probable nesting, and one was abandoned.

The project would directly affect least Bell's vireo through permanent and temporary removal and disturbance of occupied Fremont Cottonwood Forest/Black Willow Thickets habitat (see discussion under Item [b] below). In addition, permanent and temporary impacts on designated critical habitat would occur (Table 2.4-2). Five of the eight territories that were mapped during the 2017 protocol surveys occur within the project limits of disturbance; one of these territories had confirmed nesting, three had probable nesting, and one was abandoned.

Due to funding schedule constraints, the project must be completed by January 2023, which puts the project on a tight and restricted schedule. Consequently, construction would take place across at least two nesting seasons and it may not be possible to avoid removing vegetation during the breeding season. Because least Bell's vireo nests occur within the project limits of disturbance and work is expected to occur during the spring and summer months, direct mortality of nestling least Bell's vireo during vegetation clearing and grubbing could potentially occur if active nests are within construction areas. Nonetheless, every effort would be made to clear vegetation outside of the nesting season. In addition, avoidance, minimization, and mitigation measures below have been incorporated into the project to minimize take of least Bell's vireo.

Table 2.4-2. Impacts on Least Bell's Vireo Critical Habitat

	Permanent Impact (acre)	Temporary Impact (acre)
Critical habitat with PCEs	0.26	4.33
Critical habitat without PCEs*	4.67	8.44
Total	4.93	12.77
*Critical habitat not containing the Primary Constituent Elements (PCEs) for least Bell's vireo includes developed areas, non-native land cover types, and paved roads.		

The project has the potential to temporarily directly affect least Bell's vireo from noise and vibration associated with construction, including proposed pile driving operations for temporary trestle piles should vibratory pile driving not be possible. Because the work on the bridge is expected to occur during spring and summer months, it is anticipated that potential impacts on nesting least Bell's vireo adjacent to the project limits of disturbance from noise would occur. Masking (i.e., the inability to hear environmental cues and animal signals) could limit an individual's ability to communicate and receive important cues from the environment and other wildlife, which could negatively affect their ability to procreate and respond to a threat, as well as increase the risk of predation. However, depending on the noise levels and duration, birds may also adjust behavior to the disturbance, such as adjusting calling height and location, turning their heads, increasing their call volume, and timing calls during periods of low noise.

If nighttime construction occurs, then least Bell's vireo nesting in the area could be disturbed by night lighting and construction noise. Increased risk of predation and harassment could

occur due to predators (e.g., raccoon [*Procyon lotor*], common raven [*Corvus corax*], feral cats) attracted to project-related food trash and debris. Increased predation risks could result in mortality of both adults and nestlings.

The direct effects from exposure to increased noise levels, night lighting, and increased risk of predation and harassment could lead to behavioral modifications and negative physiological stressors. Behavioral modifications, including habitat avoidance and nest abandonment, could result in decreased reproductive success. Habitat avoidance could reduce the availability of suitable nesting and foraging habitat for least Bell's vireo, making successful reproduction more challenging. Nest abandonment could result in egg failure and/or the death of nestlings. Physiological stressors could lead to energetic losses and increased stressors to the body, potentially resulting in lowered reproductive performance, increased susceptibility to diseases and predation, inability to successfully forage and feed young, and death of both adults and nestlings. Depending on whether individuals are migrating through, establishing territories, foraging, or nesting in the area, all life stages of least Bell's vireo associated with the breeding season could be exposed to these stressors.

Potential indirect impacts may include edge effects and degradation of riparian habitat and water quality associated with litter, fire, introduction of invasive plant species, erosion, sedimentation, chemical spills during construction, and dust and pollutants associated with vehicles and machinery. Indirect effects on suitable habitat could cause least Bell's vireo to cease using the area within and adjacent to the construction footprint if habitat restoration has limited success and/or habitat degradation was severe enough to diminish resources needed for foraging, nest placement, and nest construction. Habitat avoidance could strain individuals searching for suitable nesting and foraging habitat that could result in lowered reproductive success. Fires within suitable least Bell's vireo habitat could result in loss of suitable foraging and nesting habitat and, if active nests are in the area, death of nestlings.

Operation of the expanded bridge and roadway is not expected to result in any relevant changes to foraging or nesting least Bell's vireo or their habitat. Because individuals utilizing the area are already acclimated to traffic noise, lighting, and other road disturbances, no appreciable increases in impacts from operation are anticipated. Bridge shading is not anticipated to substantially reduce nesting or foraging habitat. Bridge lighting is being designed to reduce or eliminate spillover into suitable habitat. Project operation would not contribute to an increased risk of degradation of riparian habitat or overall water quality.

Project construction impacts are expected to be reduced with the implementation of measure **BIO-3**. However, the proposed construction impacts on least Bell's vireo and its suitable habitat and critical habitat would be biologically substantial and would trigger take considerations under FESA, CESA, MBTA, and similar provisions of the California Fish and Game Code. As a Covered Activity under the MSHCP, take of least Bell's vireo as a result of the project has been anticipated and addressed in the Biological Opinion for the MSHCP. Take of least Bell's vireo would also be addressed in the Biological Opinion issued for the project as part of the MSHCP consistency determination.

Based on possible direct and indirect impacts on least Bell's vireo and its critical habitat, it is Caltrans' determination that the project *may affect, is likely to adversely affect* least Bell's vireo and its critical habitat.

Avoidance and minimization measure **BIO-3** would be incorporated into the project in order to minimize impacts on least Bell's vireo. Implementation of compensatory measure **BIO-4** would fully compensate for any impacts on least Bell's vireo. Impacts would be considered less than significant with incorporation of measures **BIO-3** and **BIO-4** and implementation of the MSHCP.

Southwestern willow flycatcher is listed as a threatened species by USFWS and a State Species of Special Concern by CDFW. No critical habitat for southwestern willow flycatcher occurs within the BSA. Suitable habitat conditions for southwestern willow flycatcher are present within the Fremont Cottonwood Forest/Black Willow Thickets along the Santa Ana River. Protocol surveys for southwestern willow flycatcher were conducted in potentially suitable riparian habitats in the BSA between May 20 and July 14, 2017. This species was not observed during protocol surveys conducted in spring 2017. Therefore, it is considered absent from the BSA. No direct or indirect impacts from the proposed project are anticipated; therefore, it is Caltrans' determination that the project would have *no effect* on southwestern willow flycatcher, and avoidance, minimization, and/or mitigation measures are not needed.

Burrowing owl is a California Species of Special Concern and is not federally or state-listed. It is protected during the nesting season by the MBTA and under Sections 3503 and 3800 of the California Fish and Game Code. Sections 2503, 3503.5, and 2800 of the California Fish and Game Code also prohibit the take, possession, or destruction of birds, their nests, or eggs. All potentially suitable habitat to support burrowing owl within the MSHCP Burrowing Owl Survey Area portions of the BSA were examined during the habitat assessment in July 2017. Following the habitat assessment and burrow survey, four subsequent protocol burrowing owl surveys were conducted July through August 2017 in areas throughout the MSHCP Burrowing Owl Survey Area portions of the BSA that contained suitable burrows and the potential to support burrowing owl. Potential suitability of burrows ranged from collapsed and too small to high-quality, open, and clear burrows. The majority of the burrows were located on slopes between the streets surrounding the public parks and within the parks themselves, with absent or maintained weedy vegetation surrounding most. California ground squirrel activity was high at the time of the habitat assessment and protocol surveys. Foraging habitat in the form of public maintained parks surrounds the burrow locations, except for the Santa Ana River bordering the burrow locations to the south, which has very tall riparian habitat. No burrowing owls or their sign were observed. The closest documented burrowing owls are located approximately 3–6 miles from the BSA. Neither burrowing owl nor its sign was observed during protocol surveys. As a result, this species is considered absent from the BSA, no direct or indirect impacts from the proposed project are anticipated, and no compensatory mitigation is required. Although no burrowing owls were observed within the BSA, they could subsequently inhabit suitable habitat within the BSA in areas that were previously determined to be unoccupied. As a result, measure **BIO-5**, which includes a pre-construction survey within the BSA, would be implemented within 30 days prior to the start of construction activities. If burrowing owls have colonized the project site prior to the initiation of construction, the project proponent shall immediately inform the RCA and

CDFW, and would need to coordinate further with RCA and CDFW, including the possibility of preparing a Burrowing Owl Protection and Relocation Plan. Impacts would be considered less than significant with incorporation of measure **BIO-5**.

Special-status bats with the potential to occur in the BSA are California western mastiff bat (*Eumops perotis*), western yellow bat (*Lasiurus xanthinus*), pallid bat (*Antrozous pallidus*), pocketed free-tailed bat (*Nyctinomops femorosaccus*), and big free-tailed bat (*Nyctinomops macrotis*). A bat habitat assessment was conducted in July 2017 for all bridges, undercrossings, and culverts (greater than 5 feet in diameter) within the BSA. Results from the assessment confirmed potential roosting habitat within Hamner Avenue Bridge and the surrounding riparian habitat. No bats were observed within the Hamner Avenue Bridge during the habitat assessment, but the expansion cracks showed signs of potential staining from old bat urine and a strong odor of bat urine and feces was detected when walking over the wooden walkway on the bridge. No other sign of bats was detected under the bridge or within the palm tree or other large-leaf trees near the bridge.

An emergence survey was conducted in August 2017. Visual inspection of the bridge prior to nightfall showed no bats within the expansion cracks or any other area of the underside of the bridge. No bats were visually observed leaving the bridge to forage during outflights or under the bridge during post-outflight inspection. Bats visually observed during the emergence survey flew under the bridge from the surrounding riparian habitat. Bat detectors picked up calls within the frequency of Yuma myotis (*Myotis yumanensis*), California myotis (*M. californicus*), Mexican-free tailed bat (*Tadarida brasiliensis*), and western yellow bat, with the majority of calls being within the range of myotis species. However, the quality of the calls was low due to the dense riparian habitat and the constant traffic noise from Hamner Avenue, making exact identification difficult.

Although no bats were detected during the habitat assessment and none were observed leaving the bridge during the emergence survey, both the Hamner Avenue Bridge and I-15 bridges over the Santa Ana River just upstream of the project are known to support roosting bats, and highly variable numbers of bats ranging from a few to over a thousand individuals have been reported at these locations. As such, roosting bats could be present prior to construction. Bridge construction and removal or trimming of suitable roost trees could directly harm roosting bats. Temporary indirect effects such as noise, vibration, dust, night lighting, and human encroachment from construction could disturb roosting bats should they be present within the BSA. In addition, construction could temporarily impede access to roost sites in the holes and crevices of bridges, culverts, and vegetation. Although roosting habitat in the current bridge would be lost, roosting areas for bats are being incorporated into the design of the new bridge, which would increase future potential roosting habitat by providing more roosting crevices. Also, although project construction may temporarily limit potential roosting habitat within the Hamner Avenue Bridge, there are other roosts available within the I-15 bridges over the Santa Ana River approximately 1,100 feet to the east of the BSA, so project construction would not displace bats from the area.

Avoidance and minimization measure **BIO-6** would be incorporated to avoid and minimize impacts on special-status bat species. With the implementation of measure **BIO-6**, the proposed project is not expected to affect bats or their roosting habitat; therefore, specific

compensatory mitigation is not included. Compensatory mitigation may be required during the permitting phase, which would benefit bat species by increasing roosting habitat availability. Impacts would be considered less than significant with incorporation of measure **BIO-6**.

Two non-listed special-status wildlife species were determined to be present and seven were determined to have a potential to occur within the BSA: arroyo chub (*Gila orcuttii*), silvery legless lizard (*Anniella pulchra pulchra*), two-striped garter snake (*Thamnophis hammondi*), tricolored blackbird (*Agelaius tricolor*), golden eagle (*Aquila chrysaetos*; foraging only), white-tailed kite (*Elanus leucurus*), and San Diego black-tailed jackrabbit (*Lepus californicus bennettii*). During construction of the project, potentially suitable habitat for special-status wildlife species would be removed. Should these species be present, vegetation clearing and grading could result in direct mortality, nest destruction, and nest abandonment, and construction noise and activities could result in disturbance and increased risk of predation. Indirect impacts (e.g., degradation of habitat through noise, dust, human presence, increased fire risk) on potential habitat adjacent to the project limits of disturbance during construction could also occur. Avoidance and minimization measure **BIO-7** would be incorporated to avoid and minimize impacts on non-listed special-status wildlife species. With the implementation of measure **BIO-7**, the proposed project is not expected to affect non-listed special-status wildlife species; therefore, specific compensatory mitigation is not included. Impacts would be considered less than significant with incorporation of measure **BIO-7**.

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

Less-than-Significant Impact with Mitigation. Three Natural Communities of Special Concern described by Sawyer et al. (2009) were identified in the BSA: Fremont Cottonwood Forest/Black Willow Thickets, Mulefat Thickets, and California Bulrush Marsh. The species composition of these vegetation communities generally matches that of the Southern Cottonwood-Willow Riparian Forest, Mule Fat Scrub, and Coastal and Valley Freshwater Marsh, respectively, described by Holland (1986). These communities are classified as sensitive by CDFW because they have restricted range and cumulative losses throughout the region, and potentially support a high number of endemic and/or listed sensitive plant and wildlife species. A total of 17.65 acres of these sensitive vegetation communities occur within the BSA. The BSA for vegetation community and riparian/riverine resources mapping included a 500-foot buffer from the edge of proposed permanent disturbance limits determined from the preliminary engineering design (Figure 2.4-1).

Riparian habitat occurs throughout the central portion of the BSA along the Santa Ana River, as well as in smaller patches within the earthen flood control channel to the west of Hamner Avenue and north of the Santa Ana River. Fremont Cottonwood Forest/Black Willow Thickets was the dominant riparian habitat within the BSA (16.46 acres) and occurs along both the north and south banks of the Santa Ana River and in the northern portion of the earthen flood control channel. An estimated 0.16 acre of Mulefat Thickets was identified and mapped within the southern portion of the earthen flood control channel and along the

outside edge of the Fremont Cottonwood Forest/Black Willow Thickets on the southern side of the Santa Ana River. An estimated 1.03 acres of California Bulrush Marsh was identified and mapped along the banks and on the sandbars of the Santa Ana River and in the northern portion of the earthen flood control channel.

The project would directly and permanently remove a small portion of Fremont Cottonwood Forest/Black Willow Thickets, Mulefat Thickets, and California Bulrush Marsh (Table 2.4-3). Permanent impacts would include the removal of existing vegetation and encroachment into the plant community that may have permanent effects. Temporary direct impacts include construction work area clearing and grubbing, incidental disturbances within areas adjacent to construction areas, equipment staging, and temporary construction access routes. Because riparian habitats provide highly productive habitats for plants and wildlife, are essential to maintaining water quality functions and values, and have declined appreciably over the past decades, the direct impacts of the project on riparian habitats would be biologically substantial.

The temporary impacts on riparian habitats are based on conservative preliminary design estimates to allow for flexibility of temporary construction work areas during the final design phase and are generally identified as a worst-case scenario (i.e., the entire existing Hamner Avenue right of way in many cases). The permanent impact acreages presented in Table 2.4-3 are also conservative. The permanent impacts include the footprint from the new bridge piers and abutments; however, the removal and restoration of the existing bridge piers would result in a reduction of overall permanent impacts from bridge piers. Any change in impact areas during the design and permitting phase of the project would be provided to RCA, CDFW, and USFWS.

Table 2.4-3. Impacts on Riparian Habitats

	Permanent Impact (acre)	Temporary Impact (acre)
Fremont Cottonwood Forest/Black Willow Thickets	0.25	3.96
Mulefat Thickets	<0.01	0.06
California Bulrush Marsh	0.00	0.31
Total	0.26	4.33

The new Hamner Avenue Bridge would be a solid bridge with no gap between the northbound and southbound lanes, totaling 100 feet, 6 inches in width. The existing Hamner Avenue Bridge is 36 feet, 4 inches wide, resulting in an increased width of 64 feet, 2 inches. Approximately 1.13 acres of riparian habitat could potentially be shaded by the new bridge. Of this, 0.65 acre would be new shading from the replacement bridge because some shading (0.48 acre) already occurs from the existing bridge (i.e., a 42 percent increase in the amount of shaded acreage). This would result in permanent shading that could directly affect riparian habitats. Lack of full sunlight to plants can result in reduced photosynthetic capacity, a reduction in root and shoot biomass, an alteration in the timing of flowering and seed maturation, and stunted growth after defoliation, which can then lead to an overall reduction in the quality of the habitat. However, the area of riparian habitat that could potentially be shaded was based on the entire width of the bridge; it is the maximum amount of area that

could be shaded and would likely be substantially less. Although the new bridge design is wider than the current bridge, it is also taller (32–40 feet compared to 18 feet), which would allow more light from the morning and late afternoon periods to reach the vegetation underneath. The bridge is also oriented from north to south, so sunlight is expected to reach the ground through the majority of the day as the sun moves from east to west. Consequently, the height and direction of the bridge may result in no significant additional shading; therefore, estimates of shading impacts are worst-case. In addition, the existing habitat already experiences shading from the current bridge and has adapted, at least to some extent, to limited lighting. The project would also mitigate for net shade effects (see **BIO-8** in Section 2.4.3), which would further reduce any potential effects from shading.

Temporary indirect impacts may be caused by construction activities (e.g., dust, increased fire risk, chemical spills, sedimentation, and littering) on riparian habitat adjacent to the limits of disturbance, which could lead to temporary degradation of riparian habitat and water quality. The use of construction equipment at the edge of the project limits of disturbance could also damage adjacent native vegetation. However, these impacts are expected to be greatly reduced with implementation of the avoidance and minimization measure **BIO-9**.

Once the project is constructed, there could be indirect impacts in the form of habitat degradation through risk of fire, air pollution, litter, and noise. However, the operation of the project would not be different from current conditions and would not pose an increase in risk. Furthermore, human disturbance (i.e., homeless encampments) would not be expected to increase from current conditions, as the temporary work area would undergo restoration for at least 5 years and would have sparse cover for the first few years, providing less concealment for homeless encampments. The wider roadbed would also create a less permeable surface and, thus, could alter surface flows into storm drain facilities and riparian/riverine features. Drainage design and water quality BMPs proposed and required as part of the project is not anticipated to increase the amount of roadway pollutants entering riparian/riverine resources or federal and state jurisdictional water features.

Temporary construction easements may be required for project construction, including a temporary trestle that would span the river and provide the support for the bridge falsework. Approximately 1.05 acres of RCRCDC conservation lands to the west of Hamner Avenue Bridge would be temporarily affected. In addition to direct loss of habitat and indirect effects from construction activities, as described above, the direct removal of mature riparian habitat would result in a temporal loss of biological functions to resources within the mitigation area, including wetlands and habitat supporting endangered species. The impacts on RCRCDC conservation lands, including potential mitigation areas, would be coordinated with RCRCDC and other stakeholders to develop a mitigation strategy and reduce impacts to the maximum extent feasible.

Measure **BIO-9** would be incorporated into the project in order to avoid and minimize impacts on riparian habitats. Implementation of compensatory mitigation **BIO-8** would fully compensate for any impacts on riparian habitats. Impacts would be considered less than significant with incorporation of measures **BIO-8** and **BIO-9**.

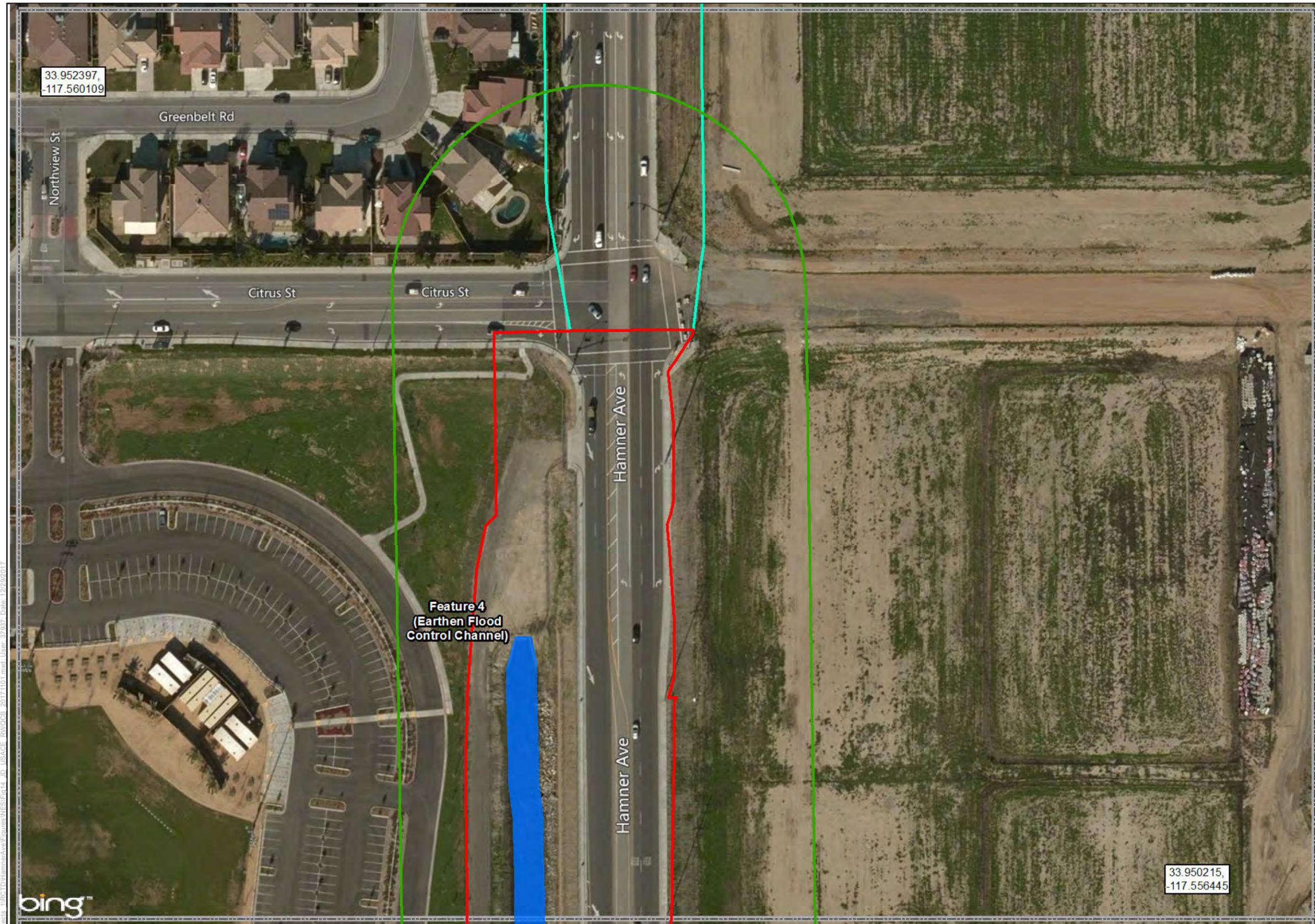
- c) **Would the project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?**

Less-than-Significant Impact with Mitigation. Jurisdictional delineation surveys for aquatic resources were conducted on July 5, 6, and 25, 2017, and August 1, 2017. The BSA for the jurisdictional delineation included a 100-foot buffer from the edge of proposed permanent disturbance limits determined from the preliminary engineering design (Figure 2.4-1). Areas of potential jurisdiction were evaluated according to CDFW criteria. For a few locations, an additional area beyond the buffer was reviewed for context. Wetland sample points were evaluated where a dominance of hydrophytic vegetation was present. In total, 4.47 acres of USACE/RWQCB non-wetland Waters of the U.S., 0.68 acre of USACE/RWQCB wetland Waters of the U.S., 1.59 acres of CDFW unvegetated streambed, and 7.22 acres of vegetated streambed and associated riparian vegetation were mapped within the BSA. Total potential jurisdiction is provided in Table 2.4-4 and illustrated on Figure 2.4-2.

Table 2.4-4. Potential USACE, RWQCB, and CDFW Jurisdiction within the BSA

Feature Type	USACE/RWQCB		CDFW	
	Non-Wetland WoUS (acres/linear feet)	Wetland WoUS (acres/linear feet)	Unvegetated Streambed (acres/linear feet)	Riparian (acres/linear feet)
Feature 1: Santa Ana River	3.84/410	0.45/621	0.50/164	6.81/752
Feature 2: Concrete Trapezoidal Ditch	0.05/687	---	0.11/687	---
Feature 3: Concrete Trapezoidal Ditch	0.02/306	---	0.05/306	---
Feature 4: Earthen Flood Control Channel	0.56/891	0.24/374	0.93/696	0.41/444
Total	4.47/2,294	0.69/995	1.59/1,853	7.22/1,196

Temporary and permanent impacts on potential USACE, RWQCB, and CDFW jurisdiction are provided in Tables 2.4-5 and 2.4-6. The locations of these jurisdictional features are shown on Figure 2.4-2a through f (USACE/RWQCB jurisdiction) and Figure 2.4-3a through f (CDFW jurisdiction) and are identified by Feature ID. The temporary impacts on aquatic resources along the Santa Ana River and earthen flood control channel are based on conservative preliminary design estimates to allow for flexibility of temporary construction work areas during the final planning phase of the proposed project. The actual temporary impacts on aquatic resources would be refined from those described in this report during the permitting phase of the proposed project (Tables 2.4-5 and 2.4-6).



Legend

- Limits of Disturbance
- Construction Signage Only
- Survey Area (100-foot buffer)
- - Swale

USACE/RWQCB Jurisdiction

- Non-Wetland Waters of the U.S.
- Wetland Waters of the U.S.

Note: Project design changes following initial limits of disturbance establishment precluded buffer expansion in certain areas.

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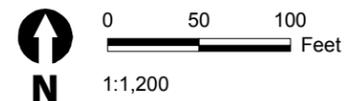
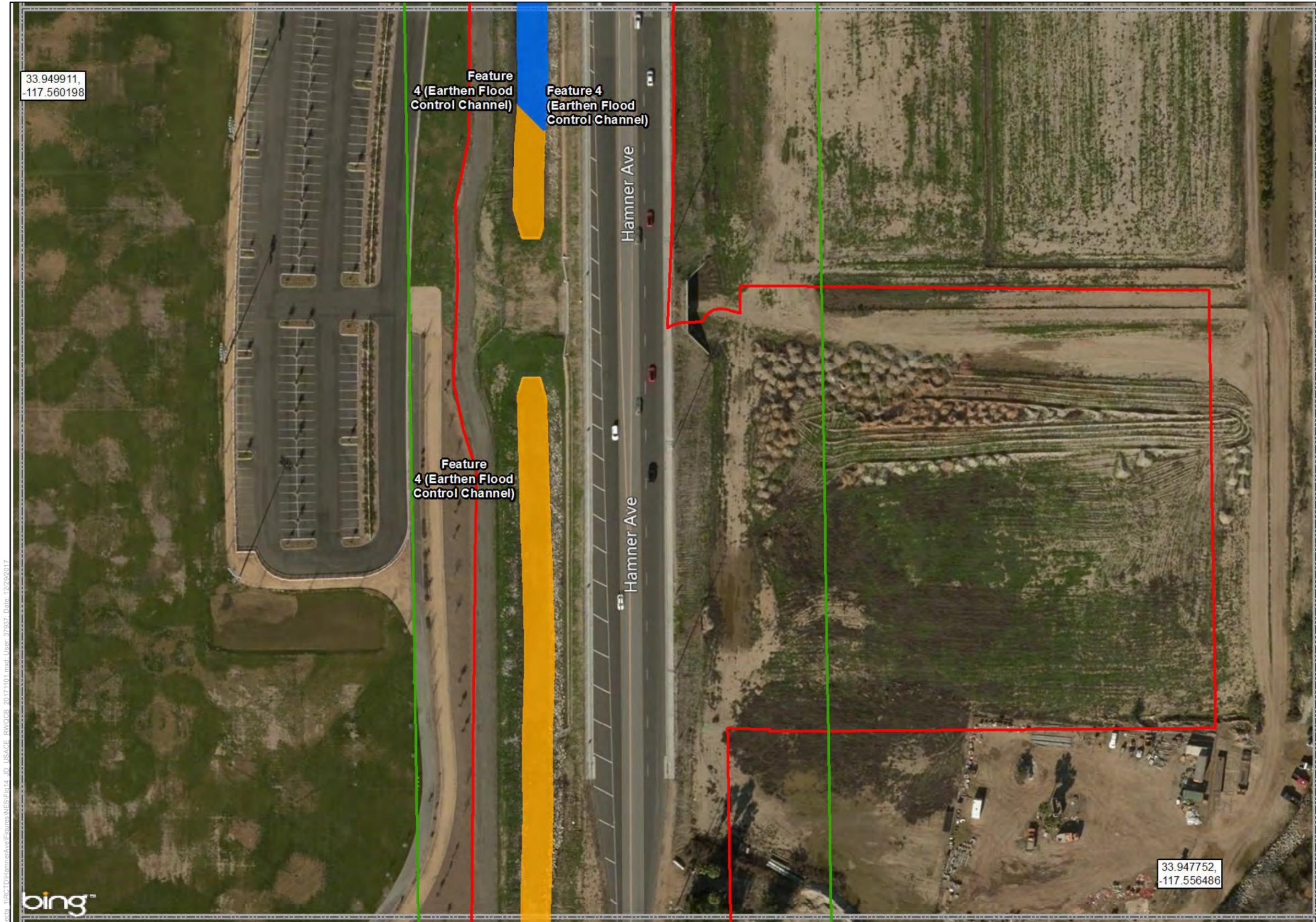


Figure 2.4-2a
USACE/RWQCB Results
Hamner Avenue Bridge Replacement Project

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Legend

- Limits of Disturbance
- Survey Area (100-foot buffer)
- - Swale

USACE/RWQCB Jurisdiction

- Non-Wetland Waters of the U.S.
- Wetland Waters of the U.S.

Note: Project design changes following initial limits of disturbance establishment precluded buffer expansion in certain areas.

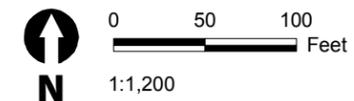


Figure 2.4-2b
USACE/RWQCB Results
Hamner Avenue Bridge Replacement Project

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Legend

- Limits of Disturbance
- Survey Area (100-foot buffer)
- - Swale

USACE/RWQCB Jurisdiction

- Non-Wetland Waters of the U.S.
- Wetland Waters of the U.S.

Note: Project design changes following initial limits of disturbance establishment precluded buffer expansion in certain areas.

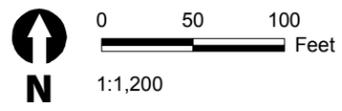


Figure 2.4-2c
USACE/RWQCB Results
Hamner Avenue Bridge Replacement Project

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Legend

- Limits of Disturbance
- Survey Area (100-foot buffer)
- - - Swale

USACE/RWQCB Jurisdiction

- Non-Wetland Waters of the U.S.
- Wetland Waters of the U.S.

Note: Project design changes following initial limits of disturbance establishment precluded buffer expansion in certain areas.

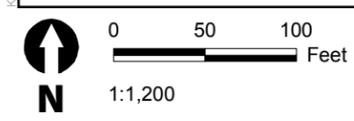
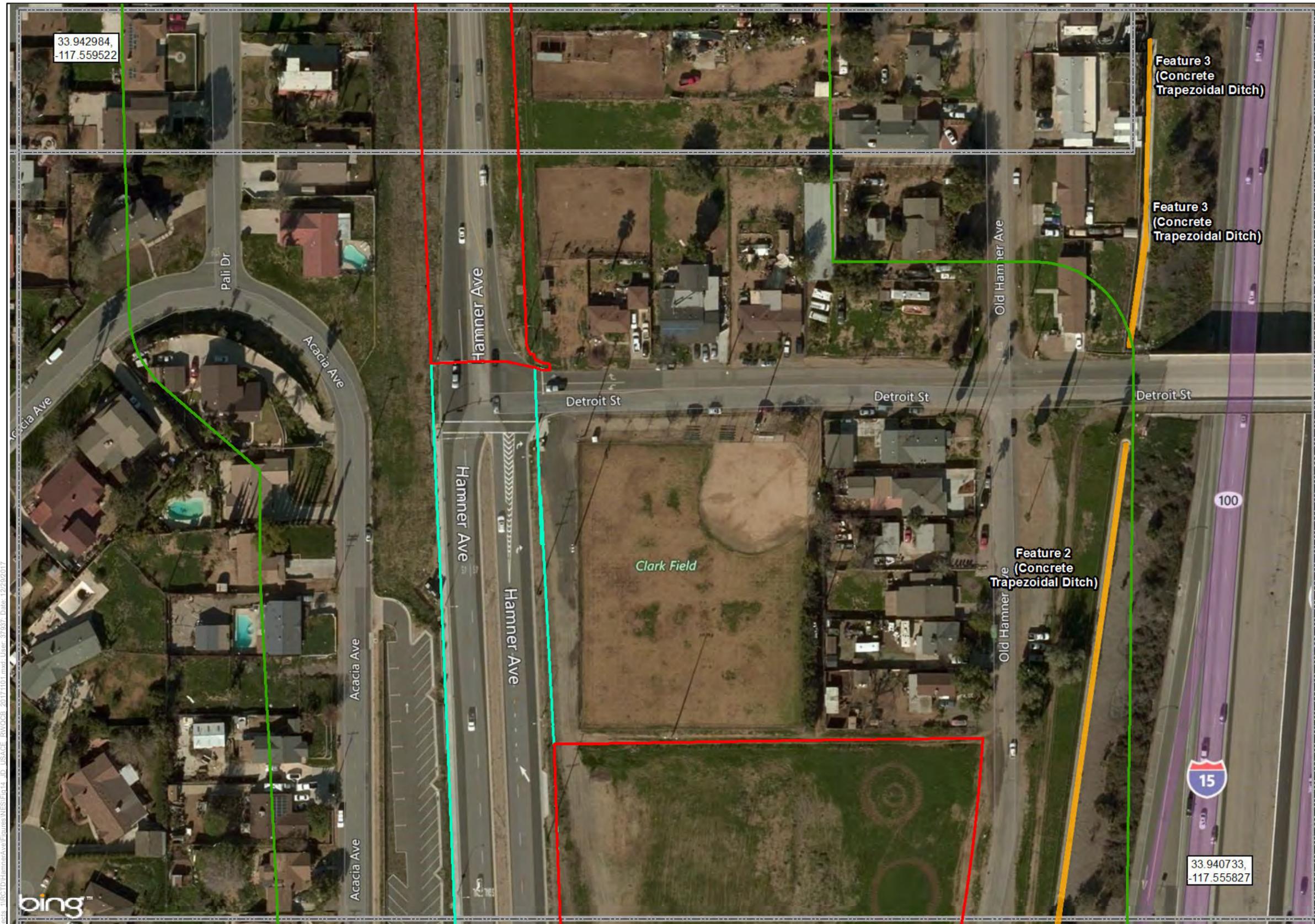


Figure 2.4-2d
USACE/RWQCB Results
Hamner Avenue Bridge Replacement Project

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- Legend**
- Limits of Disturbance
 - Construction Signage Only
 - Survey Area (100-foot buffer)
 - - - Swale
- USACE/RWQCB Jurisdiction**
- Non-Wetland Waters of the U.S.
 - Wetland Waters of the U.S.
- Note: Project design changes following initial limits of disturbance establishment precluded buffer expansion in certain areas.

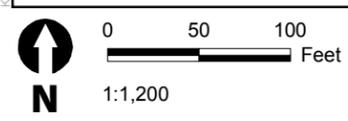
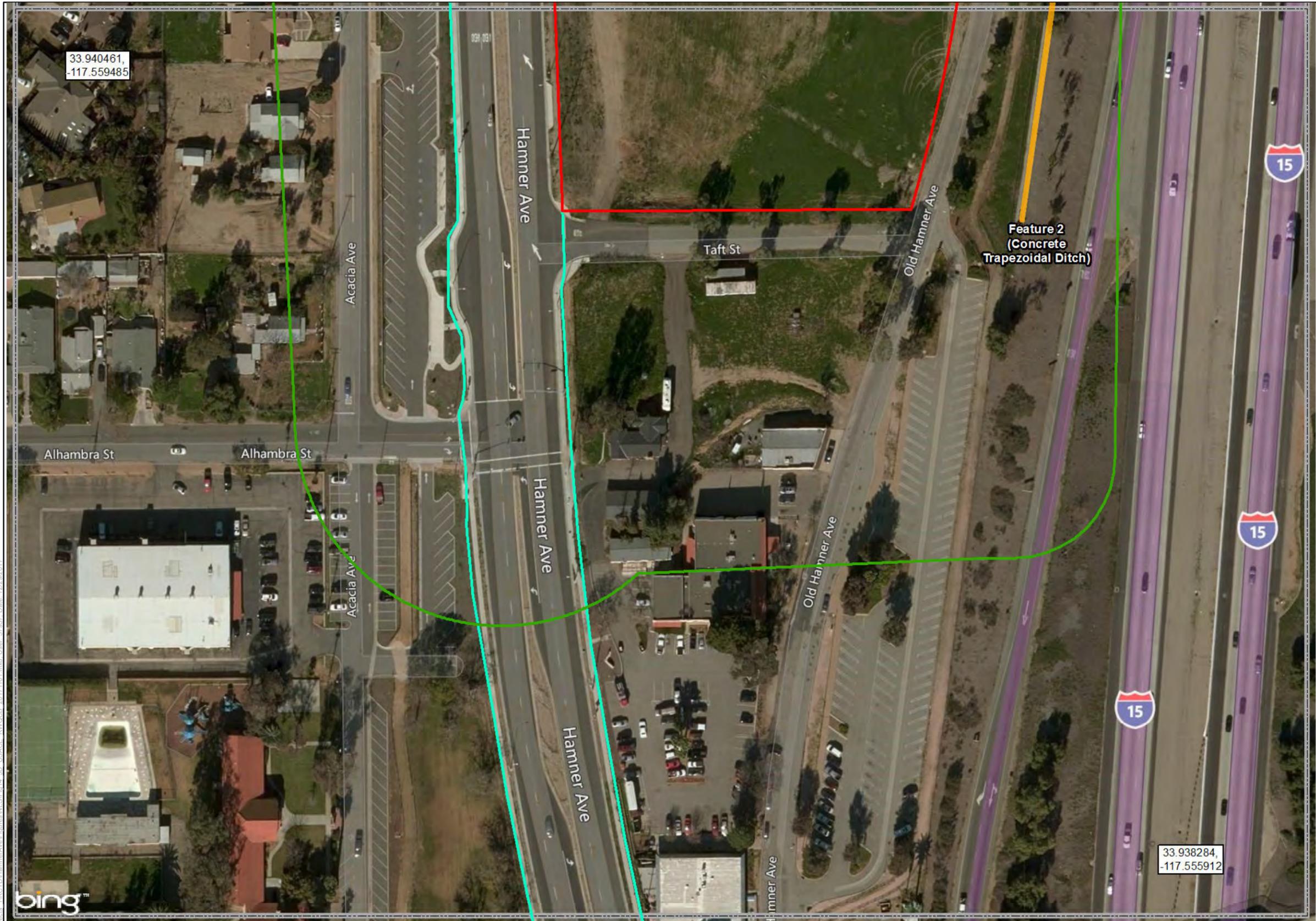


Figure 2.4-2e
USACE/RWQCB Results
Hamner Avenue Bridge Replacement Project

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Legend

- Limits of Disturbance
- Construction Signage Only
- Survey Area (100-foot buffer)
- - Swale

USACE/RWQCB Jurisdiction

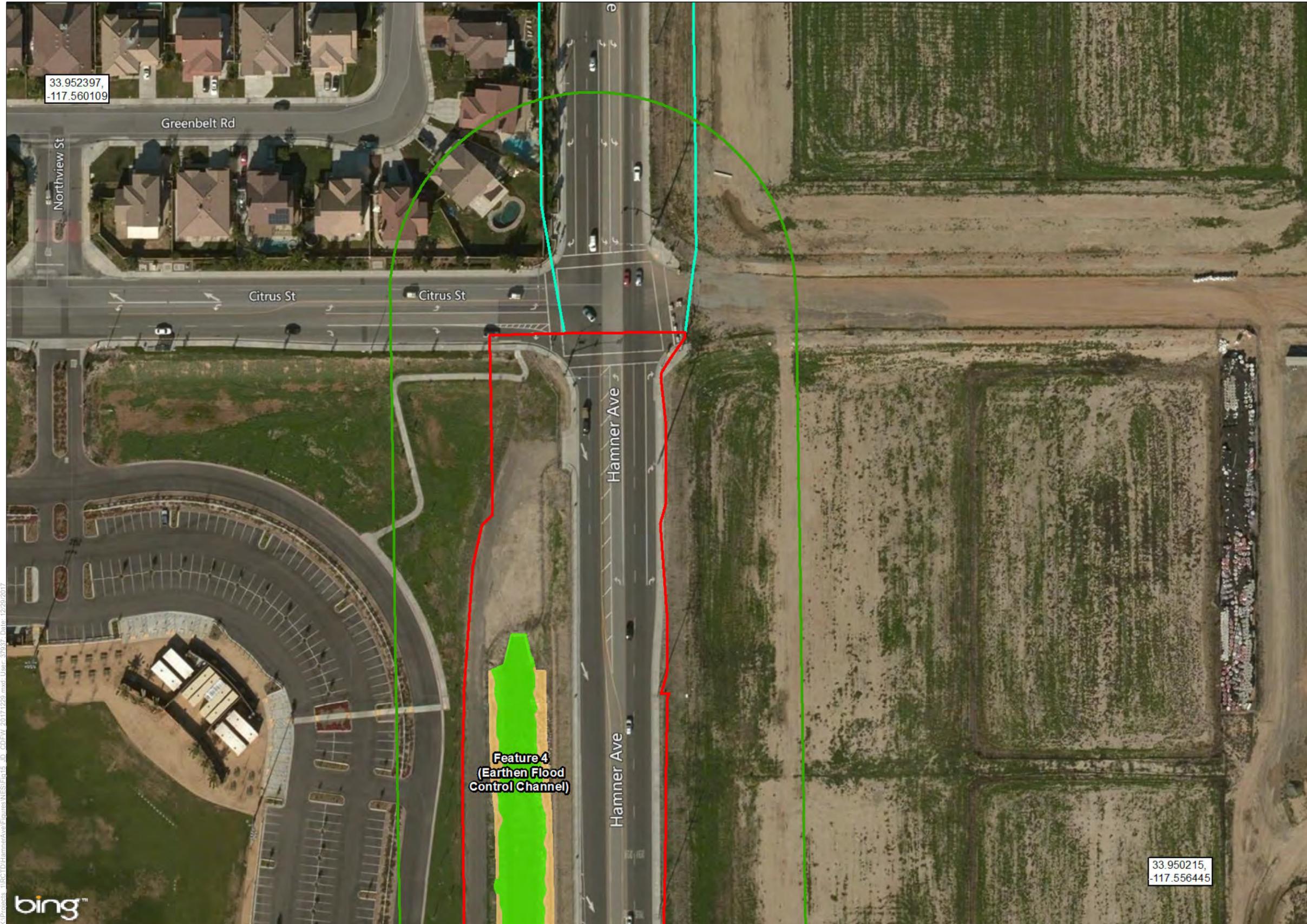
- Non-Wetland Waters of the U.S.
- Wetland Waters of the U.S.

Note: Project design changes following initial limits of disturbance establishment precluded buffer expansion in certain areas.



Figure 2.4-2f
USACE/RWQCB Results
Hamner Avenue Bridge Replacement Project

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- Legend**
- Limits of Disturbance
 - Construction Signage Only
 - Survey Area (100-foot buffer)
- CDFW Jurisdiction**
- Riparian
 - Unvegetated Streambed
- Note: Project design changes following initial limits of disturbance establishment precluded buffer expansion in certain areas.

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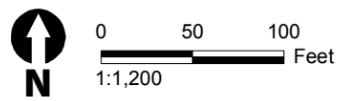


Figure 2.4-3a
CDFW Results
Hamner Avenue Bridge Replacement Project

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Legend

- Limits of Disturbance
- Survey Area (100-foot buffer)

CDFW Jurisdiction

- Riparian
- Unvegetated Streambed

Note: Project design changes following initial limits of disturbance establishment precluded buffer expansion in certain areas.

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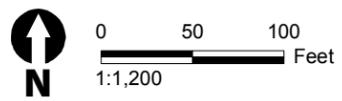
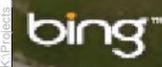
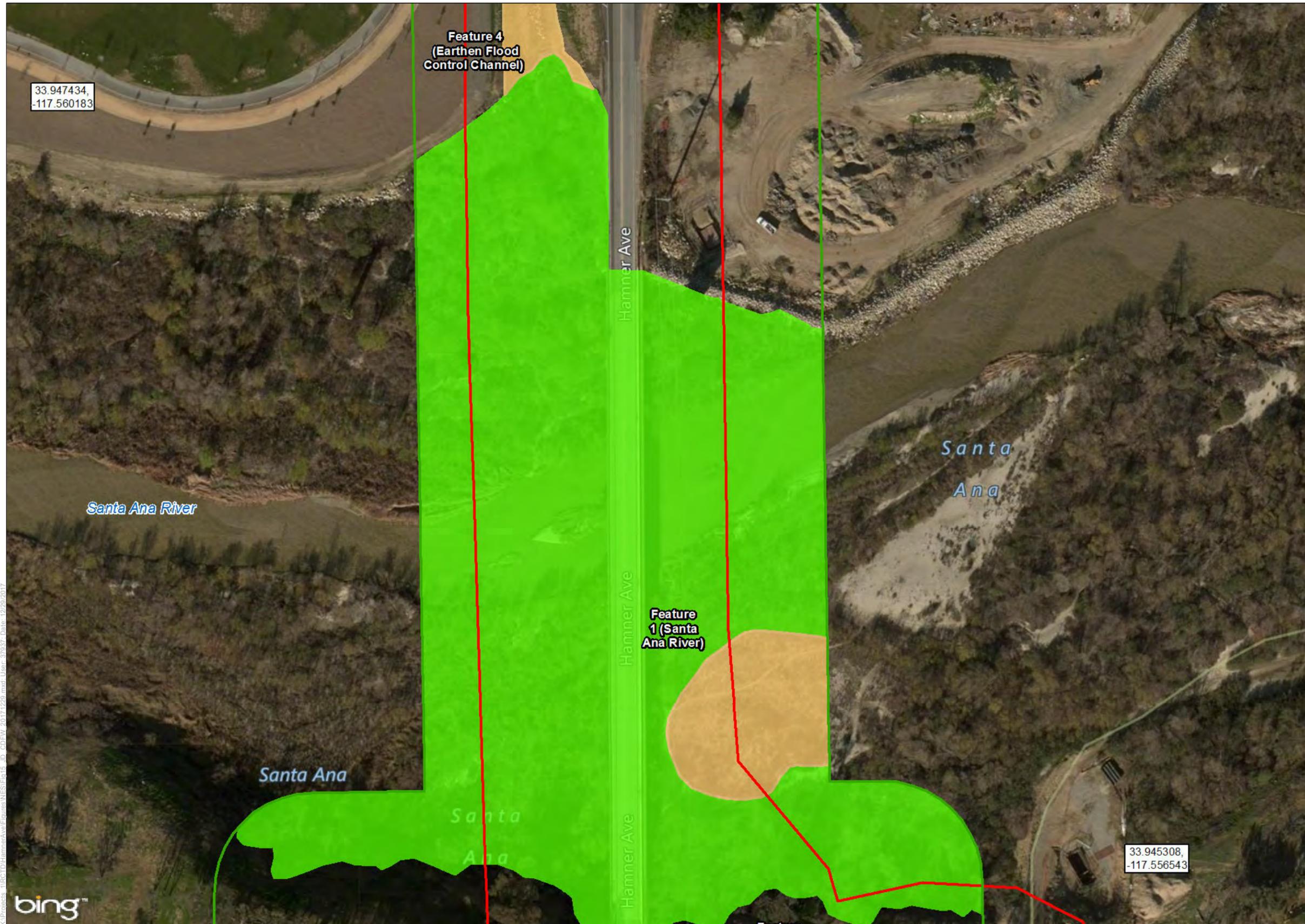


Figure 2.4-3b
CDFW Results
Hamner Avenue Bridge Replacement Project

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Legend

- Limits of Disturbance
- Survey Area (100-foot buffer)

CDFW Jurisdiction

- Riparian
- Unvegetated Streambed

Note: Project design changes following initial limits of disturbance establishment precluded buffer expansion in certain areas.

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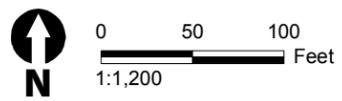
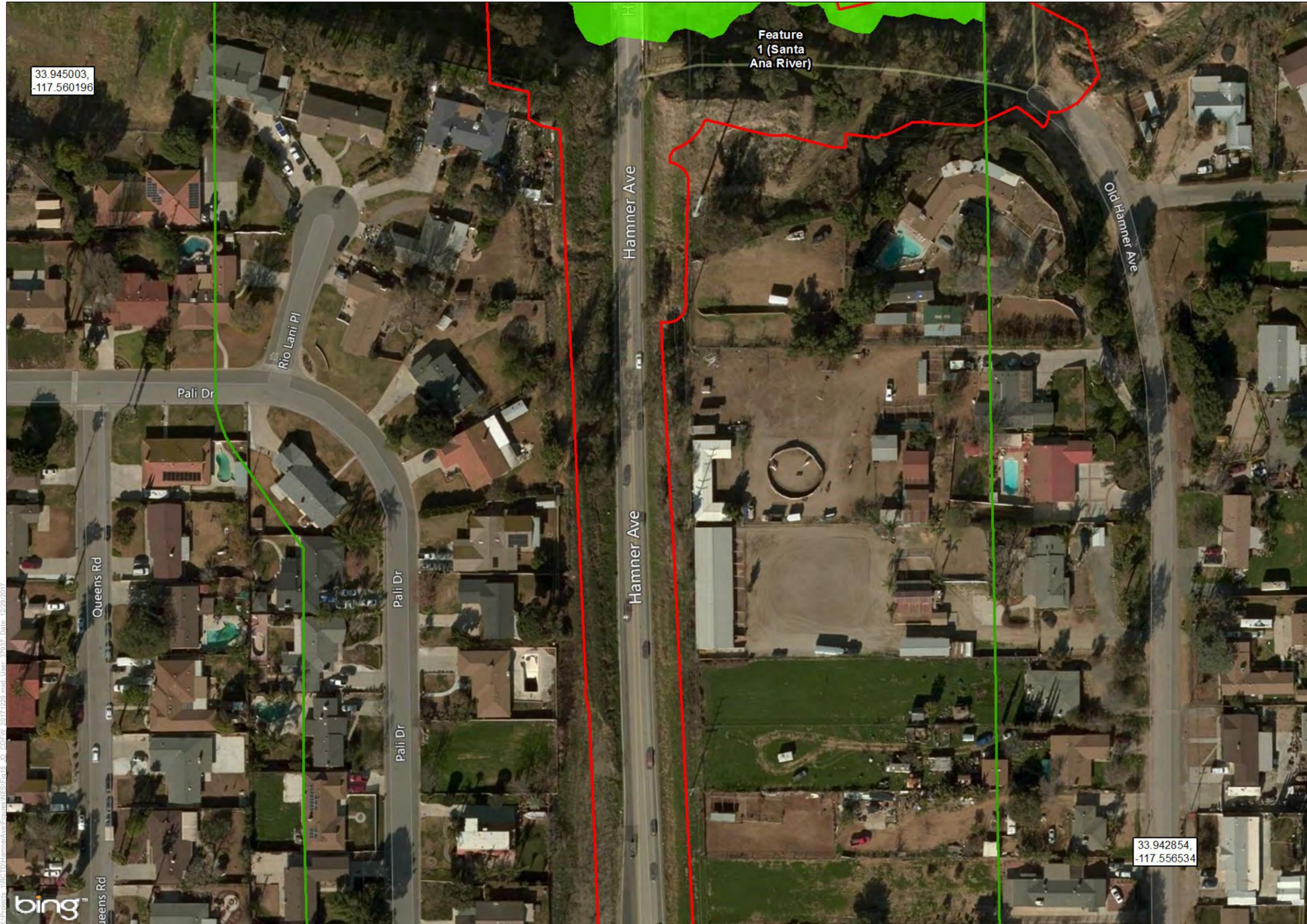


Figure 2.4-3c
CDFW Results
Hamner Avenue Bridge Replacement Project

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- Legend**
- ▭ Limits of Disturbance
 - ▭ Survey Area (100-foot buffer)
- CDFW Jurisdiction**
- ▭ Riparian
 - ▭ Unvegetated Streambed

Note: Project design changes following initial limits of disturbance establishment precluded buffer expansion in certain areas.

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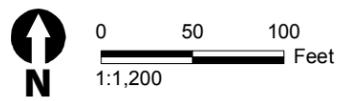


Figure 2.4-3d
CDFW Results
Hamner Avenue Bridge Replacement Project

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- Legend**
- Limits of Disturbance
 - Construction Signage Only
 - Survey Area (100-foot buffer)
- CDFW Jurisdiction**
- Riparian
 - Unvegetated Streambed

Note: Project design changes following initial limits of disturbance establishment precluded buffer expansion in certain areas.

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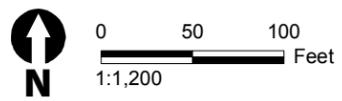


Figure 2.4-3e
CDFW Results
Hamner Avenue Bridge Replacement Project

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Legend

- Limits of Disturbance
- Construction Signage Only
- Survey Area (100-foot buffer)

CDFW Jurisdiction

- Riparian
- Unvegetated Streambed

Note: Project design changes following initial limits of disturbance establishment precluded buffer expansion in certain areas.

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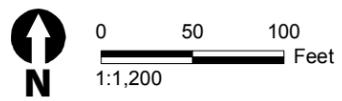


Figure 2.4-3f
CDFW Results
Hamner Avenue Bridge Replacement Project

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Table 2.4-5. Impacts on Potential USACE and RWQCB Jurisdiction

Feature ID	Permanent Impacts (acres)		Temporary Impacts (acres)	
	Wetland	Non-wetland	Wetland	Non-wetland
Feature 1: Santa Ana River	0.00	0.01	0.25	2.30
Feature 2: Concrete Trapezoidal Ditch	–	–	–	–
Feature 3: Concrete Trapezoidal Ditch	–	–	–	–
Feature 4: Earthen Flood Control Channel	0.00	0.02	0.24	0.54
Total	0.00	0.03	0.49	2.84

Table 2.4-6. Impacts on Potential CDFW Jurisdiction

Feature ID	Permanent Impacts (acres)		Temporary Impacts (acres)	
	Riparian	State Streambed	Riparian	State Streambed
Feature 1: Santa Ana River	0.27	0.00	4.17	0.19
Feature 2: Concrete Trapezoidal Ditch	–	–	–	–
Feature 3: Concrete Trapezoidal Ditch	–	–	–	–
Feature 4: Earthen Flood Control Channel	0.00	0.09	0.41	0.84
Total	0.27	0.09	4.58	1.03

The proposed project would require authorization from USACE (pursuant to Section 404 of the CWA), RWQCB (pursuant to Section 401 of the CWA and Porter-Cologne), and CDFW (pursuant to Section 1602 of the California Fish and Game Code) as a result of impacts on jurisdictional aquatic resources. A CWA Section 404 Nationwide Permit is expected to be required for the proposed project. Avoidance and minimization measure **BIO-10** would be incorporated into the project in order to minimize impacts on aquatic resources.

Implementation of compensatory measure **BIO-11** (see Section 2.4.3) would fully compensate for any impacts on aquatic resources. Impacts would be considered less than significant with incorporation of measures **BIO-10** and **BIO-11**.

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

Less-than-Significant Impact. As discussed in the NES, the Santa Ana River functions as a wildlife movement corridor that provides year-round water, cover, and connections to open space in the surrounding region. The earthen flood control channel to the west of Hamner Avenue does not have a permanent water source, and seasonal surface flows do not reach or connect with the Santa Ana River. It does, however, provide a connection for terrestrial wildlife to the riparian corridor along the Santa Ana River. It has one large 12-foot box culvert that separates the channel into two distinct reaches (north and south), as well as an access road that runs underneath Hamner Avenue near the center of the channel. The channel

and access road could serve as connection points for wildlife movement from urban areas to the north and on the eastern and western sides of Hamner Avenue.

The project would not permanently affect existing wildlife movement through these corridors because no new barriers to wildlife movement would be created and none would be permanently reduced or eliminated by the project. However, the project would widen Hamner Avenue and its associated bridge over the Santa Ana River corridor, which could temporarily affect this wildlife corridor during construction. Temporary impacts on wildlife corridors could occur during construction due to the increased presence of equipment, structures, and construction personnel. Construction activities would reduce the passable area, which may temporarily deter terrestrial wildlife movement. With the proposed trestle system, flow within the river would remain unimpeded, continuing to provide passage for aquatic species.

The addition of four lanes (two in each direction) to Hamner Avenue and the Hamner Avenue Bridge could potentially increase the risk of vehicle strikes. For some wildlife species, widening the roadway and increasing the area of the active roadway could pose a greater risk when attempting to cross the facility. Although riparian resources that have high value to wildlife movement or provide live-in habitat would be bridged by the facility, the bridge is replacing a current structure, not adding a new facility in a previously undisturbed area. Therefore, wildlife within this region are already adapted to having a roadway in this location and would continue to maintain safe movement patterns within the riparian areas. In addition, avoidance and minimization measure **BIO-12** would be employed to deter wildlife from crossing the roadways and encourage wildlife to remain within the riparian corridor. Furthermore, although the roadway would be wider following construction, the bridge would also be substantially higher than the existing bridge, which should aid wildlife movement.

Avoidance and minimization measure **BIO-12** would reduce impacts and wildlife movement would be expected to return to preconstruction conditions once construction activities are complete. Project impacts on wildlife movement are expected to be less than significant and do not require compensatory mitigation with implementation of the avoidance and minimization measure **BIO-12**.

Native bird species and their nests are protected under the MBTA. The MBTA states that all migratory birds and their parts (including eggs, nests, and feathers) are fully protected. The MBTA prohibits the take, possession, import, export, transport, selling, purchase, barter, or offering for sale, purchase, or barter, any migratory bird, its eggs, parts, and nests, except as authorized under a valid permit. The California Fish and Game Code protects nesting birds and nongame birds from take or nest destruction. Measures **BIO-3**, **BIO-5**, and **BIO-7** would be implemented in order to minimize potential impacts on nesting and migratory birds and ensure compliance with the MBTA and California Fish and Game Code. No further action is necessary.

e) **Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?**

No Impact. The proposed project would not conflict with any local policies or ordinances protecting biological resources. Because no oak trees were observed within the BSA, the County of Riverside Oak Tree Management Guidelines is not applicable to the project.

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

Less-than-Significant Impact with Mitigation. The project is a Covered Activity under the MSHCP. A literature review determined that the project occurs within Existing Core A; PQP conserved lands (Object ID 605 and 553); Narrow Endemic Survey Area 7 (San Diego ambrosia, San Miguel savory, and Brand's phacelia); and Burrowing Owl Survey Area. The project does not occur within MSHCP-designated Amphibian Species Survey Areas, Mammal Species Survey Areas, Proposed Noncontiguous Habitat Block, or any Criteria Areas.

In compliance with the MSHCP, habitat assessments were performed for riparian/riverine resources, vernal pools and fairy shrimp habitat, Narrow Endemic Plant Species, and burrowing owl. Based on survey results, four MSHCP riparian/riverine resources (Fremont Cottonwood Forest/Black Willow Thicket, Mulefat Thickets, California Bulrush Marsh, and Open Water) and least Bell's vireo were found to be present within the BSA. Two MSHCP Covered Wildlife Species, yellow warbler and yellow-breasted chat, were detected within the BSA and Santa Ana sucker, also a Covered Species, was assumed to be present based on known records of occurrence. No Narrow Endemic Plant Species, MSHCP Covered Plant Species, MSHCP Criteria Area and Species-Specific Objectives Plant Species, southwestern willow flycatcher, burrowing owl, or MSHCP Criteria Area and Species-Specific Objectives Wildlife Species were observed during focused and/or protocol surveys. Habitat evaluations determined that suitable habitat does not exist within the BSA for vernal pools, fairy shrimp, or western yellow-billed cuckoo (nesting).

The project would result in permanent and temporary direct impacts on Existing Core A, Criteria Cells (786 and 876), and PQP conserved lands located within the project limits of disturbance. During construction, and until habitat has been restored to its original condition, approximately 4.37 acres of riparian habitat within Existing Core A would be temporarily removed (Table 2.4-7). Because the project would not structurally deter wildlife movement, and because all temporarily affected areas would be restored, the overall functionality of Existing Core A would not be appreciably affected by the project. The project would also result in the permanent removal and temporary disturbance of Criteria Cells (786 and 876) and PQP conserved lands (Table 2.4-7). The majority of the lands within Criteria Cells that would be disturbed consist of ruderal areas and developed lands along the Hamner Avenue roadway and the majority of PQP conserved lands that would be affected occur on ruderal areas along the southeast portion of the paleochannel between the current roadway and Old Hamner Avenue. This area is along a disturbed hillside below a residence. Implementation of

compensatory measure **BIO-13** would fully compensate for any impacts on MSHCP lands. Impacts would be considered less than significant with incorporation of measure **BIO-13**.

Table 2.4-7. Impacts on MSHCP Lands

MSHCP Lands	Overall Impacts		Riparian/Riverine Resources Portions Only	
	Permanent Impact (acre)	Temporary Impact (acre)	Permanent Impact (acre)	Temporary Impact (acre)
Existing Core A	1.23	5.92	0.25	4.37
Criteria Cells (786 and 876)	7.06	10.12	0.25	4.62
PQP Conserved Lands	0.31	0.70	0.00	0.20

The project would permanently remove and temporarily disturb 0.26 acre and 4.78 acres, respectively, of MSHCP riparian/riverine resources during construction activities (Table 2.4-8), indirectly affect MSHCP riparian/riverine resources (see discussion under Items [b] and [c]), indirectly affect Santa Ana sucker (see discussion under Item [a]), directly and indirectly affect least Bell's vireo (see discussion under Item [a]), and directly and indirectly affect yellow warbler and yellow-breasted chat (see discussion under Item [a]). Santa Ana sucker, least Bell's vireo, yellow warbler, and yellow-breasted chat are all Covered Species under the MSHCP. As such, any potential impacts from the project on these species would be fully covered by the MSHCP. Avoidance and minimization measures **BIO-1**, **BIO-3**, **BIO-7**, and **BIO-9** would be incorporated into the project in order to minimize impacts on riparian/riverine resources and Covered Species. Implementation of compensatory measures **BIO-2**, **BIO-4**, and **BIO-8** would fully compensate for any impacts on riparian/riverine resources, Santa Ana sucker, and least Bell's vireo. Impacts would be considered less than significant with incorporation of measures **BIO-1** through **BIO-4** and **BIO-7** through **BIO-9**.

Table 2.4-8. Impacts on MSHCP Riparian/Riverine Resources

	Permanent Impact (acre)	Temporary Impact (acre)
Fremont Cottonwood Forest/Black Willow Thicket	0.25	3.96
Mulefat Thickets	<0.01	0.06
California Bulrush Marsh	0.00	0.31
Open Water	0.00	0.45
Total	0.26	4.78

Under the MSHCP, a project needs to address potential indirect effects on MSHCP conservation areas through potential degradation of water quality by drainages, the introduction of toxins, night lighting, noise, and invasive species. The necessary avoidance and minimization measures for consistency with the MSHCP are presented in Section 2.4.3 below. These measures are consistent with the MSHCP requirements found in Volume I, Sections 3.2.3, 6.1.2, 6.1.3, 6.1.4, 6.3.2, 7.5.1, 7.5.2, and 7.5.3, and Appendix C of the MSHCP document and their implementation would ensure full project compliance with the MSHCP.

The MSHCP provides full mitigation under NEPA and CEQA for impacts on the majority of the biological resources that have been identified as being potentially affected by the project. For compliance with the MSHCP, a Determination of Biologically Equivalent or Superior Preservation (DBESP) report that provides analysis of direct and indirect impacts, avoidance and minimization measures, and the functions and values of the resources being affected as related to MSHCP Covered Species and resources, would be prepared. A consistency review would be required from RCA, with concurrence that the proposed project is consistent with the requirements of the MSHCP.

The project would not occur within the boundaries of any other adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

2.4.3 Avoidance, Minimization, and/or Mitigation Measures

The following measures have been incorporated into the project in order to minimize potential impacts on biological resources. Note that mitigation measures follow avoidance/minimization measures, and, as a result, measures are not numerically ordered.

BIO-1: Santa Ana sucker

- A. A preconstruction notification will be provided to USFWS and CDFW in writing at least 5 days prior to project initiation.
- B. A qualified biologist will conduct a training program for project and construction personnel (MSHCP Volume I, Section 7.5.3) prior to grading. The training will include a description of the species of concern and their habitats, the general provisions of the Endangered Species Acts (FESA and CESA) and the MSHCP, the need to adhere to the provisions of the acts and the MSHCP, the penalties associated with violating the provisions of the acts, the general measures that are being implemented to conserve the species of concern as they relate to the proposed project, and the access routes to and project site boundaries within which the project activities must be accomplished (MSHCP Volume I, Appendix C).
- C. Mud, silt, or other pollutants from construction activities will not be placed within drainages and will not be allowed to enter a flowing stream. New surface flows will be treated prior to reaching waterways.
- D. All portable toilets will be placed on a vegetated or dirt surface away from any streams, storm drains, or drainage swales.
- E. No equipment will be placed within a flowing stream or on directly adjacent banks.
- F. If feasible, silent piling via vibration methods will be employed during the construction of the trestle at the confluence of the earthen flood control channel and the Santa Ana River above the water level, as long as no cobble/rock is encountered.
- G. If water diversion is required, hydrological connectivity within the Santa Ana River will be maintained. Diversions, if required, will be conducted using coffer dams and pipes, sandbags, or other methods requiring minimal instream impacts. Silt fencing, sediment booms, or other sediment-trapping materials will be installed at the downstream end of

construction activity to minimize the transport of sediments off site. Settling ponds where sediment is collected will be utilized as feasible and cleaned out in a manner that prevents the sediment from reentering the river. Care will be exercised when removing silt fences, as feasible, to prevent debris or sediment from returning to the river (MSHCP Volume I, Section 7.5.3; MSHCP Volume I, Appendix C). Short-term diversions will consider effects on Santa Ana sucker and other wildlife (MSHCP Volume I, Section 7.5.3).

- H. If water diversion/dewatering activities are necessary, an approved, qualified biologist will conduct a preliminary underwater survey of the affected area noting habitat and any Santa Ana sucker present prior to any water diversion. Water diversions will be conducted outside of the spawning season for Santa Ana sucker (i.e., February 15–July 31) to the greatest extent feasible. If the Santa Ana sucker is present, then a relocation program will be implemented. The pre-construction survey and relocation program will require approval from USFWS.
- If Santa Ana sucker are present, exclusion nets will be placed around the diversion work area. Once diversion of flow is complete, exclusion nets will be removed. Seining will then be conducted inside the exclusion area to remove and relocate Santa Ana sucker prior to the commencement of diversion activities. As the diversion of flow is taking place, the biologist(s) will patrol the dewatering area in order to capture stranded fish. A combination of seining, dip netting, and hand capture will be utilized.
 - All captured Santa Ana sucker will be placed into coolers filled with river water. Fish will remain in coolers for the shortest time necessary. Air pumps will be used to maintain oxygenated water supply. The coolers will be kept shaded at all times. The water temperature in the coolers and condition of captured Santa Ana sucker will be closely monitored. Ice (or frozen water bottles) will be used, as necessary, to maintain cool water (similar to ambient or less than 85 °F) or ambient river water will be used. Any Santa Ana sucker removed from the site will be relocated upstream or downstream of the project area, as determined appropriate by the qualified biologist, in consultation with the USFWS. A summary report will be provided to the USFWS for all diversions resulting in relocation of Santa Ana sucker.
 - If capture and relocation of Santa Ana sucker is necessary, it will be achieved through one or more of the following methods: the use of fine mesh (2–4 millimeters [0.08–0.16 inch]), knotless seine nets; fine mesh (4–6 millimeters [0.16–0.24 inch]) knotless hoop nets, modified hoop nets, or similar traps; or dip nets of 0.5 millimeters (0.20 inch) or finer mesh for survey of larval Santa Ana sucker. The survey methods will be selected to minimize the potential injury or mortality to Santa Ana sucker and potential disturbance or damage to breeding areas. If seines are used, particular care shall be taken to avoid incidental injury or mortality to Santa Ana sucker that may be caught and suffocated in algal mats or sand. Care shall also be taken to keep Santa Ana sucker in water as much as possible. Larval fishes should be kept submerged in a dip net until species is identified and released at the point of capture. Use of unconventional sampling gear will first be approved by the USFWS.
 - Prior to activities that may involve handling Santa Ana sucker, the qualified biologist will ensure that all participants' hands are free of sunscreen, lotion, or insect repellent.

- The qualified biologist will submit a brief report to the USFWS identifying the number of any native fish species that were relocated and any other measures that were taken to minimize effects on Santa Ana sucker.
 - If pile-driving activities are to take place and would occur during the spawning season (i.e., February 15–July 31), underwater sound monitoring will occur within the project footprint to the greatest extent feasible. This data collection may be used to minimize effects on this species for future construction activities according to the USFWS, but will not change the current construction activities or mitigation requirements of the project.
- I. An authorized biologist will be present on site during construction within and adjacent to critical habitat to ensure that avoidance and minimization measures are in place according to specifications and monitor construction within the vicinity of the Santa Ana sucker populations at a frequency necessary to ensure that avoidance and minimization measures are properly followed. The biological monitor will report any non-compliance within 24 hours to USFWS.
- J. An Avoidance Management Plan and mitigation strategy will be prepared for Santa Ana sucker in coordination with RCRCDC, which will take into account restoration efforts being implemented by RCRCDC to improve Santa Ana sucker breeding habitat and temporary construction easements into RCRCDC conservation lands for Santa Ana sucker as a result of project construction.

BIO-3: Least Bell's vireo

- A. A USFWS authorized biologist with knowledge of least Bell's vireo and its habitat will function as a biological monitor. Prior to initiating project activities, the name(s) and resumés of all prospective biological monitors will be submitted to the appropriate USFWS office. The biological monitor will ensure compliance with the project avoidance and minimization measures, including Conservation Measures and Terms and Conditions of the Biological Opinion and the DBESP. The biological monitor will report any noncompliance immediately to RCA, USFWS, and CDFW.
- B. The biological monitor will be present during vegetation clearing, grading, and construction to monitor construction impacts, as stated in project environmental documents and any applicable permits.
- C. A USFWS authorized biologist will be present on site during construction within and adjacent to occupied least Bell's vireo habitat to ensure that avoidance and minimization measures are in place according to specifications, and to monitor construction within the vicinity of the least Bell's vireo territories at a frequency necessary to ensure that avoidance and minimization measures are properly followed. The biological monitor will report any non-compliance within 24 hours to USFWS.
- D. During final design, environmentally sensitive area (ESA) fencing specifications within occupied least Bell's vireo habitat along the limits of disturbance boundary will be approved by the USFWS prior to grading. The qualified biologist experienced with least Bell's vireo will be present on site when the fence is installed to minimize the disturbance

of least Bell's vireo territories from the fence installation. An ESA fence design will be submitted to the RCA and USFWS for approval at least 30 days prior to emplacement.

- E. Prior to vegetation clearing or construction within least Bell's vireo foraging and breeding habitat areas during the breeding season (March 15–September 15), a qualified biologist will conduct preconstruction surveys within 3 days prior to vegetation removal activities to identify the locations of any individual least Bell's vireo. If foraging individuals are found within the vegetation clearing area, the monitoring biologist will flush the species prior to vegetation clearing and earth-moving activities. If nesting activities or active nests are discovered within the project impact area, a buffer zone will be clearly marked in the field by construction personnel under the guidance of the biologist and no construction activities will occur within the buffer zone until the young have fledged or the nest is no longer active. If work is required within the buffer zone, then re-initiation of consultation with CDFW and USFWS will occur to address unanticipated effects on this species.
- F. To the extent feasible, no nighttime work will be conducted in areas adjacent to least Bell's vireo suitable habitat. If the work has to be performed during night time, then the lights will be shielded and/or directed away from the habitat to prevent light intrusion into the habitat area.
- G. Between March 15 and September 15, all heavy equipment will install and maintain mufflers or other noise-reducing features when working in the Santa Ana River floodplain. A biological monitor shall monitor at the edge of the project limits of disturbance along riparian habitats to ensure noise levels do not result in a disruption to nesting birds. If construction noise is negatively affecting nesting birds (e.g., a discernable negative change in behavior is observed, such as nest flushing or adults not immediately returning to the nest with prey), then work shall cease in the immediate area (unless authorized by the wildlife agencies) until adequate noise barriers can be established to reduce noise levels at the edge of the riparian corridor. Noise barriers may include temporary noise blankets, noise shrouds, and/or sound walls. It may be most effective to construct noise barriers well prior to March 15 to ensure construction delays do not occur. All noise barriers will be constructed within the project limits of disturbance.
- H. If pile driving activities are to take place and would occur during the breeding season (i.e., March 15–September 15), the following measures will be implemented:
 - The project will sponsor placement of two cowbird traps for each nesting season that pile driving activities occur. This measure will improve the productivity of least Bell's vireo during the breeding season, due to the potential loss in temporary reproductive output for any pile driving related noise effects during the breeding season.
 - Throughout the duration that pile driving activities occur during the least Bell's vireo breeding season, the biological monitor will conduct daily site visits to document how pile driving activities affect nesting least Bell's vireo. This data collection will be utilized by USFWS to provide guidance for future projects and will not impose additional restrictions on this project.

- I. A USFWS-approved biological monitor and/or designated biologist will serve as the contact source for any personnel who might inadvertently kill or injure a least Bell's vireo or who finds a dead, injured, or entrapped individual. The designated biological monitor and/or designated biologist will be identified within the Biological Resource Information program. The designated biological monitor's and/or designated biologist's name(s) and telephone number(s) shall be provided to RCA, USFWS, and CDFW.
- J. Any personnel who inadvertently kills or injures a least Bell's vireo shall immediately report the incident to the designated biological monitor and/or designated biologist, who will notify USFWS and CDFW immediately and in writing within 3 working days. Notification must include the date, time, and location of the incident or of the finding of a dead or injured animal, as well as any other pertinent information.
- K. Restoration plans for any temporarily affected areas within least Bell's vireo suitable habitat will be developed and approved by the County, RCA, CDFW, and USFWS. Such restoration plans will be implemented prior to the rainy season or within 12 months of the completion of major construction.
- L. No pets will be allowed in, or adjacent to, the project site.
- M. To avoid attracting predators of least Bell's vireo and other special-status species, the project site will be kept as clean of debris as possible. All food-related trash items will be enclosed in sealed containers and regularly removed from the site (MSHCP Volume I, Appendix C).
- N. Spoils and rubble will not be deposited outside the identified limits of construction and material waste generated by the project will be disposed of off site.

BIO-5: Burrowing owls

- A. A 30-day pre-construction survey for burrowing owls is required prior to initial ground-disturbing activities to ensure that no owls have colonized the site in the days or weeks preceding construction. If burrowing owls have colonized the project site prior to the initiation of construction, the project proponent shall immediately inform the RCA and the wildlife agencies, and will need to coordinate further with RCA and the wildlife agencies, including the possibility of preparing a Burrowing Owl Protection and Relocation Plan. The Burrowing Owl Protection and Relocation Plan will be subject to the review and approval of the RCA and wildlife agencies prior to initiating ground disturbance. Potential measures may include an avoidance buffer around active burrows, elimination of potential unoccupied burrows, and/or passive relocation.

BIO-6: Bats

- A. Prior to the start of project construction, a daytime assessment will be conducted by a qualified bat biologist to reexamine structures that are suitable for bat use. If bat sign is observed at that time, then nighttime bat surveys will be conducted to confirm whether the structures with suitable habitat identified during the preliminary assessment are utilized by bats for day roosting and/or night roosting, to ascertain the level of bat foraging and roosting activity at each of these locations, and to perform exit counts to visually determine the approximate number of bats utilizing the roosts. Acoustic

monitoring will also be used during these surveys to identify the bat species present and to determine an index of relative bat activity for that site on that specific evening.

- B. A qualified bat biologist will survey the BSA prior to construction to assess the potential for maternity roosts in the BSA. The surveys may include a combination of structure and tree inspection, sampling, exit counts, and acoustic surveys.
- C. To avoid direct mortality, humane evictions and exclusions of roosting bats shall be performed under the supervision of a qualified bat biologist in the fall (September or October) prior to bridge demolition activities. Eviction/exclusion may be implemented in one or two phases at the discretion of the qualified bat biologist and in coordination with the project design team. To avoid potential mortality of flightless juvenile bats, evictions and exclusions of bats cannot be performed during the bat maternity season (April 1–August 31). Winter months (generally November through February, but specifically periods during which nighttime temperatures are consistently less than 50 °F) are also inappropriate for bat eviction because not all individuals in a roost will emerge on any given night. In addition, long-distance movements to other roost sites are more difficult during the winter when prey availability is scarce, resulting in high mortality rates of evicted bats.
- D. The removal of mature trees and snags should be minimized to the greatest extent practicable. Prior to tree removal or trimming, large trees and snags shall be examined by a qualified bat biologist to ensure that no roosting bats are present. Palm frond trimming, if necessary, shall be conducted outside the maternity season (i.e., April 1–August 31) to avoid potential mortality of flightless young.
- E. During nighttime work for project construction, night lighting should be used only on the portion of the structure actively being worked on and focused on the direct area of work. Airspace access to and from the roost features of the structure shall not be obstructed except in direct work areas.
- F. Following the construction of the replacement bridge, street lighting at the new bridge should be directed away from the Santa Ana River drainage to the greatest extent feasible.
- G. If maternity sites are identified during the preconstruction bat habitat assessment, then no construction activities at that location will be allowed during the maternity season (i.e., April 1–August 31) unless a qualified bat biologist has determined the young have been weaned. If maternity sites are present, and it is anticipated that construction activities cannot be completed outside of the maternity season, then bat exclusion at maternity roost sites will be completed by the qualified bat biologist in consultation with CDFW either as soon as possible after the young have been weaned or outside of the maternity season or as otherwise approved by the qualified bat biologist in coordination with CDFW.
- H. Bat roosting habitat will be incorporated into the design of the new bridge. The specifications for this replacement habitat shall be designed in consultation with a qualified bat biologist and CDFW during the permitting phase.

BIO-7: Non-listed special-status wildlife species

- A. Due to the complexity of the project at the Santa Ana River, as well as the many mature trees along the County right of way, a Nesting Bird Management Plan will be drafted to provide a comprehensive approach to handling nesting birds well prior to the commencement of construction. It will include the following items:
- A qualified biologist will perform a detailed field review and document the location of raptor and/or corvid nests along with any sign of colonial nesting birds within the limits of disturbance and adjacent lands. This field review should occur in late spring/early summer to provide the best results.
 - Results of the field review will be used to draft approaches and survey methodologies for dealing with potential nesting species. This plan shall be coordinated with CDFW. The plan must provide assurance that birds protected under the MBTA and similar protections under the California Fish and Game Code will not be harmed. Details in this plan shall be coordinated with any water permitting that may have nesting bird stipulations.
 - If vegetation clearing is to occur during the breeding season for passerine birds (i.e., February 1–September 1) or raptors (i.e., January 1–September 1), the designated biologist will conduct a preconstruction survey of construction areas and an appropriate buffer no more than 72 hours prior to construction to identify the locations of avian nests. Should nests be found, an appropriate buffer will be established by a qualified biologist around each nest site. To the extent feasible, no construction will take place within this buffer until the nest is no longer active. In the event that construction must occur within the buffer areas, the designated biologist will ensure construction activities do not disturb or disrupt nesting activities. If the designated biologist determines that construction activities are disturbing or disrupting nesting activities, then they will notify the Resident Engineer, who has the authority to halt construction to reduce the noise and/or disturbance to the nests. Responses may include, but are not limited to, preventing idling of vehicle engines and other equipment whenever possible to reduce noise, installing a protective noise barrier between the nest and the construction activities, minimizing activities in the immediate vicinity, or working in other areas until the young have fledged.
 - Nesting bird habitat within the BSA will be resurveyed during the breeding bird season if there is a lapse in construction activities longer than 7 days.
 - Any bridges with swallow nesting habitat will be cleared of all swallow nests prior to any work conducted between February 1 and September 1. Swallow nests will be removed under the guidance of a qualified biologist prior to February 1, before swallows return to the nesting site. Removal of swallow nests that are under construction must be repeated as frequently as necessary to prevent nest completion or until a nest exclusion device is installed (such as netting or a similar mechanism that keeps swallows from building nests). Nest removal and exclusion device installation will be monitored by a qualified biologist. Such exclusion efforts must be continued to keep the structures free of swallows, as well as swifts utilizing bridge holes, until September 1 or completion of construction. All nest exclusion techniques will be coordinated between resource agencies, as applicable.

- B. For the ESA fencing installed in Existing Core A (Santa Ana River), the fencing must exclude reptiles and amphibians (to greatest extent feasible) from entering the project limits of disturbance. Once the ESA fencing has been installed, a preconstruction reptile and amphibian clearance survey will be conducted no more than 2 days prior to site grubbing and grading of lands in this area. The purpose of the survey is to locate any amphibians and reptiles within the project limits of disturbance and relocate these animals beyond the construction areas. If construction is to occur in stages, then the preconstruction survey will be scheduled to follow just prior to site grubbing and grading. Clearance surveys will be conducted during the appropriate time of day when reptiles and amphibians would be active.
- C. Preconstruction clearance surveys for sensitive wildlife species will be performed within 48 hours prior to construction to flush the species from the construction footprint. No nesting birds will be flushed during the nesting season. Bats will not be flushed but will be protected as specified in Section 4.3.5 of the MSHCP. Burrowing wildlife will be relocated from the site of temporary or permanent impacts as feasible during preconstruction clearance surveys.

BIO-9: Riparian habitat

- A. The limits of disturbance will be minimized to the maximum extent feasible (MSHCP Volume I, Section 7.5.3).
- B. Prior to clearing or construction, highly visible barriers (such as orange construction fencing) will be installed around all riparian habitats that will be avoided and are adjacent to the project limits of disturbance to designate ESAs to be preserved. The riparian communities that occur within the BSA are dynamic and likely change year to year depending on precipitation events, associated scour, and flood-control maintenance activities. As such, ESA fencing in areas to be avoided may need to be adjusted and installed just prior to construction. No grading or fill activity of any type will be permitted within these ESAs. All construction equipment will be operated in a manner to prevent accidental damage to nearby avoidance areas. Silt fence barriers will be installed at the ESA boundary to prevent accidental deposition of fill material in areas where vegetation is immediately adjacent to planned grading activities.
- C. No construction activities, materials, or equipment will be allowed within the ESAs. Construction personnel will strictly limit their activities, vehicles, equipment, and construction materials to the limits of disturbance and designated staging areas and routes of travel. The construction area(s) will be the minimal area necessary to complete the project and will be specified in the construction plans. Employees will be instructed that their activities are restricted to the construction areas. Access to sites will be from pre-existing access routes to the greatest extent possible (MSHCP Volume I, Section 7.5.3, and MSHCP Volume I, Appendix C).
- D. The ESA fencing will be inspected by the biological monitor at the close of each work day to ensure that it is in place and properly maintained. ESA fencing and exclusion fencing will remain in place and be maintained until project construction is completed.
- E. Hydrologic connectivity will be maintained within drainages during the duration of construction. No erodible materials will be deposited into watercourses or areas

demarcated with ESA fencing. Vegetation, loose soils, or other debris material will not be stockpiled within stream channels or on adjacent banks (MSHCP Volume I, Section 7.5.3, and MSHCP Volume I, Appendix C).

- F. Equipment storage, fueling, and staging areas shall be located on upland sites with minimal risks of direct drainage into riparian areas or other sensitive habitats. These designated areas shall be located in such a manner as to prevent any runoff from entering sensitive habitat. Necessary precautions shall be taken to prevent the release of cement or other toxic substances into surface waters. Project-related spills of hazardous materials shall be reported to appropriate entities including, but not limited to, the applicable jurisdictional city, USFWS, CDFW, and RWQCB and shall be cleaned up immediately and contaminated soils removed to approved disposal areas (MSHCP Volume I, Section 7.5.3).
- G. A SWPPP and a soil erosion and sedimentation plan will be developed prior to construction to minimize erosion and identify specific pollution prevention measures that will eliminate or control potential point and nonpoint pollution sources on site during and following the project construction phase. The plan will ensure that no pollutants or sediment from construction will enter waterways or ESA fenced areas. The SWPPP will identify specific BMPs to be implemented during project construction to avoid causing or contributing to any water quality standard exceedances. In addition, the SWPPP will contain provisions for changes to the plan such as alternative mechanisms, if necessary, during project design and/or construction to achieve the stated goals and performance standards. Sediment and erosion control measures will be implemented until such time that soils are determined to be successfully stabilized.
- H. New surface flows will be treated prior to reaching waterways.
- I. Prior to construction, the biological monitor will perform a preconstruction survey for sensitive plant and wildlife species to avoid. Surveys will focus on special-status species determined to have a potential to occur within the work area. Any sensitive plant populations immediately adjacent to the temporary work area will be flagged with ESA fencing and crews will be instructed to avoid these areas. The qualified project biologist will monitor construction activities for the duration of the proposed project at a frequency necessary to ensure that practicable measures are being employed and avoid incidental disturbance of habitat and species of concern outside the project footprint (MSHCP Volume I, Appendix C). Ongoing monitoring and reporting will occur for the duration of the construction activity to ensure implementation of BMPs and avoidance and minimization measures (MSHCP Volume I, Section 7.5.3).
- J. When work is conducted during the fire season (as identified by the Riverside County Fire Department), appropriate fire-fighting equipment (e.g., extinguishers, shovels, water tankers) will be available on the project site during all phases of project construction to help minimize the chance of human-caused wildfires. Shields, protective mats, and/or other fire preventative methods will be used during grinding, welding, and other spark-inducing activities. Personnel trained in fire hazards, preventative actions, and responses to fires will advise contractors regarding fire risk from all construction-related activities (MSHCP Volume I, Section 7.5.3).

- K. Active construction areas shall be watered regularly to control dust and minimize impacts on adjacent vegetation (MSHCP Volume I, Section 7.5.3).
- L. A weed abatement plan will be developed to minimize the spread and importation of non-native plant material during and after construction in compliance with EO 13112 and will include measures **BIO-13** through **BIO-17**.
- M. Any exotic species that are removed during construction will be properly handled to prevent sprouting or regrowth (MSHCP Volume I, Section 7.5.3). This means that care will be taken to not spread exotic plant seeds during plant removal and that plants will be removed prior to flowering, if feasible.
- N. 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. Cleaning of equipment will occur in a designated area at least 300 feet from ESA fencing.
- O. Trucks carrying loads of vegetation that will be removed from the project footprint will be covered and disposed of in accordance with applicable laws and regulations.
- P. Only certified weed-free straw, mulch, and/or fiber rolls will be used for erosion control. Fill material will be obtained from weed-free sources.
- Q. Post-construction, any disturbed areas remaining as bare ground will be returned to original grade, soils will be decompacted, and areas will be revegetated with hydroseed and/or container plantings to match existing riparian habitats. All revegetated areas will avoid the use of species listed in the California Invasive Plant Council's California Invasive Plant Inventory.
- R. A Lake and Streambed Alteration Agreement from CDFW for the Santa Ana River will be obtained. Indirect impacts from shading on riparian vegetation and the Santa Ana River will be addressed in the Lake and Streambed Alteration Agreement.
- S. A DBESP report that provides analysis of direct and indirect impacts, avoidance, minimization, and compensatory mitigation, along with the functions and values of the resources being affected as related to MSHCP Covered Species and resources, will be prepared and submitted to RCA, USFWS, and CDFW for a consistency review and approval.
- T. The resource agencies and permittee (i.e., County) shall have the right to access and inspect the project site to ensure compliance with project approval conditions, including BMPs (MSHCP Volume I, Appendix C).

BIO-10: Wetlands and waters

- A. The project limits of disturbance, including the upstream, downstream, and lateral extents on either side of any stream adjacent to the project footprint, will be clearly defined and marked in the field. The biological monitor will review the limits of disturbance prior to initiation of construction activities. The upstream and downstream limits of project disturbance, plus the lateral limits of disturbance on either side of the stream, will be clearly defined and marked in the field, including ESA fencing installed during construction to ensure avoidance of jurisdictional areas.

BIO-12: Wildlife movement corridors

- A. Access and disturbance within the wildlife movement corridors during construction shall be kept to a minimum during evening and nighttime hours.
- B. To maintain functionality of the Santa Ana River as a wildlife undercrossing, a minimum 20-foot-wide and 6-foot-high opening underneath the bridge at the Hamner Avenue crossing will be maintained at all times during construction. The corridor will not be fully blocked by equipment or structures that could potentially serve as barriers to wildlife passage.
- C. Equipment maintenance, lighting, and staging will occur only in designated areas, and will not block or impede movement through wildlife corridors.
- D. Night lighting will be directed away from natural lands within the Santa Ana River in order to support potential linkage and core functions during construction. Nighttime construction activities within natural areas will use shielded lighting to prevent spillover into the corridor and to ensure that ambient lighting is not increased. Security lights on vehicles utilized in the Santa Ana River will not be left on overnight.
- E. Speed limits will be reduced to 5 miles per hour during any nighttime construction that occurs within wildlife movement corridors.

The following mitigation measures and compensatory mitigation measures would be implemented in order to reduce potentially significant impacts to a less-than-significant level. Table 2.4-9 provides an estimate of the amount of mitigation credits that would be required for the project based on preliminary engineering designs and anticipated mitigation ratios (pending agency approval). Compensatory mitigation for riparian/riverine resources, endangered species, and wetlands and other waters through the RCRC In-Lieu Fee Program and mitigation credits may be combined, as applicable, to avoid double counting impacts on the same area. Coordination with all involved parties (i.e., RCA, RCRC, USFWS, CDFW, and USACE) would take place to develop a mitigation strategy to address impacts on biological resources and to determine the specifics of mitigation as the project moves forward into the drafting of the DBESP and permitting phase.

Table 2.4-9. Anticipated Mitigation Credits Required for Project Impacts

Impact Type	Impacts (acres)	Mitigation Ratio	Mitigation Credits Needed (acres)¹
Permanent impacts <i>Includes riparian habitat, Santa Ana sucker critical habitat (PCEs² only), least Bell's vireo critical habitat (PCEs only), federal non-wetland waters, CDFW streambed, and CDFW riparian</i>	0.36	3:1	1.08
Temporary impacts <i>Includes riparian habitat, Santa Ana sucker critical habitat (PCEs only), least Bell's vireo critical habitat (PCEs only), federal non-wetland waters, CDFW streambed, and CDFW riparian</i>	5.38	1.25:1 ³	1.35
Geotechnical boring activities, temporary impacts <i>Includes riparian habitat and least Bell's vireo critical habitat (PCEs only)</i>	0.23 ⁴	2:1	0.46

Impact Type	Impacts (acres)	Mitigation Ratio	Mitigation Credits Needed (acres) ¹
PQP conserved lands, permanent impacts	0.31	2:1	0.62
RCRCD conservation lands, temporary impacts	1.05	2:1 ⁵	0.79
New shading, permanent impacts	0.65	2:1	1.30
Total	-	-	5.59

¹ The required mitigation credits that are included here are a preliminary estimate and are subject to change. The estimates are based on preliminary engineering designs and anticipated mitigation ratios; the agencies could require higher ratios during the permitting phase and alterations to the preliminary engineering design may occur during the construction phase.

² PCEs = Primary Constituent Elements.

³ 1:1 in-kind restoration would be done on site. An additional 0.25:1 mitigation would be purchased off site to address temporal losses.

⁴ To avoid double-counting impacts on the same area, the 0.23 acre of temporary impacts for geotechnical boring work (covered under a separate Natural Environment Study [Minimal Impacts] Report [Caltrans 2018d]) was subtracted from the temporary impacts for the Hamner Avenue Bridge Replacement Project.

⁵ 1.25:1 mitigation would be done for temporary impacts on all biological resources; an additional 0.75:1 mitigation would be purchased for temporary impacts on RCRCD conservation lands (for a total 2:1 ratio).

BIO-2: Compensatory mitigation for Santa Ana sucker

- A. Compensation for impacts on Santa Ana sucker will occur at a minimum 3:1 ratio for permanent impacts and 1.25:1 ratio for temporary impacts. The 1.25:1 mitigation ratio for temporary impacts is intended to address temporal loss of habitat and consists of a 0.25:1 ratio of offsite mitigation, in addition to a 1:1 ratio of in-kind, onsite restoration (see measure **BIO-8, Item A** below). Mitigation will consist of purchasing Santa Ana sucker occupied lands from the RCRCD In-Lieu Fee Program or other agency-approved mitigation provider.

BIO-4: Compensatory mitigation for least Bell's vireo

- A. Compensation for impacts on least Bell's vireo will occur at a minimum 3:1 ratio for permanent impacts and 1.25:1 ratio for temporary impacts. The 1.25:1 mitigation ratio for temporary impacts is intended to address temporal loss of habitat and consists of a 0.25:1 ratio of offsite mitigation, in addition to a 1:1 ratio of in-kind, onsite restoration. Mitigation will consist of purchasing least Bell's vireo occupied lands from an agency-approved mitigation provider. Temporary impacts will be mitigated in kind at their current locations via onsite restoration of temporarily affected Fremont Cottonwood Forest/Black Willow Thickets. This will occur upon completion of construction and will consist of returning affected areas to original grade and preconstruction conditions (see Measure **BIO-8, Item A** below).
- B. A copy of fee payment to a USFWS-approved mitigation bank to satisfy mitigation for permanent impacts will be provided to USFWS prior to impacts on least Bell's vireo suitable habitat.

BIO-8: Compensatory mitigation riparian habitat

- A. Compensation for impacts on riparian habitats will occur at a minimum 3:1 ratio for permanent impacts and 1.25:1 ratio for temporary impacts. The 1.25:1 mitigation ratio for temporary impacts is intended to address temporal loss of habitat and consists of a 0.25:1 ratio of offsite mitigation, in addition to a 1:1 ratio of in-kind, onsite restoration. Mitigation will consist of purchasing offsite riparian lands from the RCRCDD In-Lieu Fee Program or other agency-approved mitigation provider. Onsite restoration will occur upon completion of construction and consist of returning affected areas to original contour grades, decompacting the soil, and revegetation with hydroseeding and/or container plantings to match existing riparian habitats. No planting will occur after the first year of restoration if flooding results in a 30 percent or more loss of cover within temporarily affected areas. Weeding will occur for 5 years following restoration as directed by a Habitat Mitigation and Monitoring Plan.
- B. Permanent impacts from new shade effects will be mitigated off site at a 2:1 ratio. This mitigation is in addition to the compensation for temporary impacts on those same areas, which will be mitigated in kind at their current locations via onsite restoration (at a 1:1 ratio), as well as a 0.25:1 ratio of offsite mitigation to address temporal impacts (see measure **BIO-8, Item A**). Mitigation will consist of purchasing riparian lands from the RCRCDD In-Lieu Fee Program or other agency-approved mitigation provider.
- C. An MSHCP fee payment of 5 percent of capacity enhancement will be made for the project. This includes the cost of four additional lanes and the new bridge structure.
- D. Impacts on RCRCDD conservation lands will be fully documented and coordinated with RCRCDD and RCA, including an account of temporal losses. Temporary impacts on RCRCDD conservation lands will be mitigated at a 2:1 ratio, which consists of a 1:1 ratio of offsite mitigation to address temporal losses of conservation lands, in addition to a 1:1 ratio of in-kind, onsite restoration of temporarily affected areas (see measure **BIO-8, Item A**). Mitigation will consist of purchasing riparian lands from the RCRCDD In-Lieu Fee Program or other agency-approved mitigation provider.

BIO-11: Compensatory mitigation for CDFW wetlands and non-wetlands

- A. To address effects on jurisdictional areas, a compensatory mitigation plan will be developed during the permitting phase.
- B. Permanent impacts on wetlands and other waters will be mitigated off site at a minimum 3:1 ratio through purchase from the RCRCDD In-Lieu Fee Program or other agency-approved mitigation bank/mitigation program. Temporary impacts on wetlands and other waters will be mitigated at a minimum 1.25:1 ratio in kind via onsite restoration. The 1.25:1 mitigation ratio for temporary impacts is intended to address temporal loss of habitat and consists of a 0.25:1 ratio of offsite mitigation, in addition to in-kind, onsite restoration at a 1:1 ratio.

BIO-13: Compensatory mitigation for MSHCP lands

- A. PQP conserved lands that are to be permanently removed will be mitigated at a 2:1 ratio off site. In addition, riparian/riverine portions of PQP conserved lands that are temporarily affected will be replaced in kind at a 1.25:1 ratio. The 1.25:1 mitigation ratio for temporary impacts is intended to address temporal loss of habitat and consists of a 0.25:1 ratio of offsite mitigation, in addition to a 1:1 ratio of in-kind, onsite restoration. This shall be coordinated with riparian/riverine compensation and jurisdictional resources permitting. Prior to land acquisition, an equivalency report will be provided that analyzes the existing biological resources being permanently removed to the biological resources supported by the lands proposed for acquisition. The resource values will need to be equivalent. Execution of this measure will include compensatory mitigation needed for riparian/riverine resources (measures **BIO-8, Items A, B, and D**) and least Bell's vireo (measure **BIO-4**) at the Santa Ana River.

2.5 Cultural Resources

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
V. CULTURAL RESOURCES: Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? [see Section 2.6]	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

2.5.1 Regulatory Setting

Historical resources are considered under CEQA, as well as California PRC Section 5024.1, which established the California Register of Historical Resources (CRHR). PRC Section 5024 requires state agencies to identify and protect state-owned resources that meet the National Register of Historic Places listing criteria. It further specifically requires Caltrans to inventory state-owned structures in its rights of way.

2.5.2 Discussion of Environmental Evaluation Question 2.5 – Cultural Resources

The information used in this section is from the June 2018 *Historic Property Survey Report* (HPSR) (Caltrans 2018e) and June 2018 *Archaeological Survey Report* (ASR) (Caltrans 2018f).

a) Would the project Cause a substantial adverse change in the significance of a historical resource as defined in § 15064.5?

No Impact. As discussed in the HPSR, a records search was conducted at the Eastern Information Center at the University of California, Riverside on August 24, 2017. The records search included a review of all available cultural resources surveys and excavation reports as well as site records within a 1-mile radius of the project area of potential effects (APE). The National Register of Historic Places, CRHR, California Inventory of Historic Resources, California Historical Landmarks, California Points of Historical Interest, State Historic Resources Commission, and Caltrans Historic Highway Bridge Inventory were also consulted. The record search revealed that five previous studies encompass all or parts of the APE with an additional 23 studies having taken place within a 1-mile radius. One previously recorded isolate (P-33-017220) was recorded within the APE. Eleven cultural resources (two prehistoric artifact scatters and nine built environment) were previously recorded within 1 mile of the project. Due to the distance of project activities from historic resources, no historic properties would be affected by construction and operation of the proposed project.

b) Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?

No Impact. As documented in the ASR, a pedestrian survey was conducted on August 28, 2017, which covered the limits of disturbance, as that was the area within which impacts on archaeological resources (if present) would potentially result. No resources were found during the pedestrian survey. Therefore, it is determined that there is a low likelihood of encountering subsurface archaeological material during activities associated with the proposed project. Land uses in the area include dense residential and commercial development, disturbed open areas, community parks, and public infrastructure.

The record search and previous studies of the project vicinity indicate that prehistoric cultural resources are located on terraces above rivers and streams, safely above water. The proposed project is not located on such a terrace but cuts through the steep hills above the riverbed. The proposed staging areas are either within the active floodplain channel or on flat, exposed areas of the uplands. Each portion of the APE has undergone extensive alteration, either by fluvial processes or by earthmoving activities through grading or disking. No significant cultural resources have been previously recorded within the project APE and, as no new resources were identified as a result of the current study, it is unlikely that cultural resources would be affected during the proposed bridge/roadway project. Given the extent of fluvial processes, and the level of previous disturbance, the potential for the APE to encompass subsurface cultural resources is judged to be low. No cultural resource impacts are anticipated as a result of proposed project activities; therefore, the proposed project would not cause a change in the significance of an archaeological resource pursuant to State CEQA Guidelines §15064.5.

If cultural materials are discovered during construction, all work must halt or be diverted within a 60-foot radius of the discovery until a qualified archaeologist can assess the nature and significance of the find.

c) See discussion in Section 2.6, *Paleontological Resources*.

d) Would the project disturb any human remains, including those interred outside of formal cemeteries?

No Impact. Based on the results of the cultural resource record searches, surveys, and Native American consultation detailed in the HPSR and ASR, there is no evidence of human remains within the project vicinity that would be affected by the proposed project. Measure **CR-2** would be implemented if human remains are unexpectedly encountered during construction.

2.5.3 Avoidance, Minimization, and/or Mitigation Measures

The following standard measures would be implemented to minimize potential cultural resource impacts:

CR-1: If cultural materials are discovered during construction, all work must halt or be diverted within a 60-foot radius of the discovery until a qualified archaeologist can assess the nature and significance of the find.

CR-2: If human remains are discovered, State Health and Safety Code Section 7050.5 states that further disturbances and activities must stop in any area or nearby area suspected to overlie remains, and the County Coroner must be contacted. If suspected human remains are discovered during construction, all work must halt or be diverted within a 60-foot radius of the discovery until the Coroner has made its determination. Pursuant to California PRC Section 5097.98, if the remains are thought to be Native American, the coroner will notify the Native American Heritage Commission (NAHC), which will then notify the Most Likely Descendant. At this time, the person who discovered the remains will contact the District 8 Environmental Branch and the County so that they may work with the Most Likely Descendant on the respectful treatment and disposition of the remains. Further provisions of PRC 5097.98 are to be followed as applicable.

2.6 Paleontological Resources

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
VI(c). CULTURAL RESOURCES: Would the project:				
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

2.6.1 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. Under California law, paleontological resources are protected by CEQA.

2.6.2 Discussion of Environmental Evaluation Question 2.6 – Paleontological Resources

The information used in this section is based on the March 2018 Paleontology Literature/Records Review conducted for the proposed project by the San Bernardino County Museum (SBCM 2018).

c) Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less-than-Significant Impact. As discussed in the Paleontology Literature/Records Review, no recorded paleontological resource localities are present in the immediate vicinity of the project site and no resource localities are recorded by the SBCM within one mile of the project in any direction. However, seven fossil localities (SBCM 5.5.48-54) are found approximately 1.5 miles northwest of the proposed project in a geologic unit, Qyf3a, of similar age as those mapped within the project boundaries. These localities have produced fossils representing extinct taxa including ground sloth (*Megalonyx* sp.), horse (*Equus* sp.), and bison (*Bison* sp.), in addition to gastropoda and mammalia microfossils. Therefore, based on the similarity of the project site to a nearby geologic unit with known fossil localities, paleontological resources could be encountered during the construction period.

In order to address the potential for finding paleontological resources, a Paleontological Mitigation Plan (PMP) (CR-3), as described below under Section 2.6.3, would be prepared and implemented prior to commencement of project construction.

2.6.3 Avoidance, Minimization, and/or Mitigation Measures

The following measure would be implemented to address potential paleontological resource impacts:

CR-3: A PMP will be developed and implemented prior to commencement of project construction. The PMP will follow the guidelines of Caltrans and the recommendations of the Society of Vertebrate Paleontology, and it will be prepared and submitted to Caltrans for review during the Plans, Specifications, and Estimates (PS&E) phase of the project. Society of Vertebrate Paleontology recommendations include:

- Having the qualified paleontologist attend the preconstruction meeting to consult with the grading and excavation contractors.
- Providing a paleontological monitor on site to inspect paleontological resources on a full-time basis during the original cutting of previously undisturbed deposits of high or moderate paleontological resource potential and on a part-time basis during the original cutting of previously undisturbed deposits of low paleontological resource potential.
- Having the qualified paleontologist or paleontological monitor salvage and recover paleontological resources.
- Collecting stratigraphic data (by the qualified paleontologist and/or paleontological monitor) to provide a stratigraphic context for recovered paleontological resources.
- Preparing (i.e., repairing and cleaning), sorting, and cataloging recovered paleontological resources.
- Donating prepared fossils, field notes, photographs, and maps to a scientific institution with permanent paleontological collections, such as the San Bernardino County Museum.
- Completing a final summary report that outlines the results of the mitigation program.

2.7 Geology and Soils

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
VII. GEOLOGY AND SOILS: Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area, or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

2.7.1 Regulatory Setting

For geologic and topographic features, the applicable 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 CEQA.

Earthquakes are prime considerations in the design and retrofit of structures. Caltrans’ Office of Earthquake Engineering is responsible for assessing the seismic hazard for Caltrans projects. Structures are designed using Caltrans Seismic Design Criteria (SDC). The SDC provide 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 Caltrans’ Division of Engineering Services, Office of Earthquake Engineering, Seismic Design Criteria.

2.7.2 Discussion of Environmental Evaluation Question 2.7 – Geology and Soils

a) Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

a. 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.

No Impact. The proposed project area is not within or adjacent to an earthquake fault zone (California Department of Conservation 2018). In addition, the project area is not located on any known “active” earthquake fault trace. Therefore, the potential for ground rupture due to onsite active faulting is low, and no impacts are anticipated.

a. ii) Strong seismic ground shaking?

Less-than-Significant Impact. The project area is within a seismically active region of Southern California and would therefore experience the effects of seismic ground shaking. The nearest known active faults to the project area are the San Andreas Fault and the San Jacinto Fault.

Compliance with the current Caltrans procedures regarding seismic design is anticipated to avoid or minimize any significant impacts related to seismic ground shaking. Seismic design would also meet city and county requirements under the Uniform Building Code. Therefore, through adherence to standard seismic design practices, the proposed project would result in a less-than-significant impact.

a. iii) Seismic-related ground failure, including liquefaction?

Less-than-Significant Impact. Liquefaction occurs primarily in loose, saturated, fine- to medium-grained soils in areas where the groundwater table is within approximately 50 feet of the ground surface. Shaking causes the soils to lose strength and behave as liquid. According to the *Eastvale Area Plan*, there is a high very high potential for liquefaction within the project area, specifically along the Santa Ana River (County of Riverside 2014). In addition, the City of Norco *Local Hazard Mitigation Plan* states that there is a moderately high potential for liquefaction along the Santa Ana River (City of Norco 2017).

In areas where the potential for liquefaction is high, the potential for lateral spreading and other secondary effects, such as seismic-induced settlement, is also high. A comprehensive geotechnical study, including a field investigation and laboratory soil testing, would be performed during the PS&E phase of the proposed project, which is standard practice on all Caltrans projects that involve potential liquefaction. Recommendations from that study would be implemented into the proposed project. Therefore, a less-than-significant impact as a result of seismic-related ground-failure is anticipated.

a.iv) Landslides?

No Impact. The project site is in an area with varied topography due to the presence of the Santa Ana River, which has contributed to the formation of hillsides in the southern portion of the project alignment. According to the Safety Element of the *City of Norco General Plan*, the area to the south of the proposed project is identified as having moderate soil instability

(City of Norco 2013:4). As such, landslides in this area are possible. The proposed project would involve the installation of a retaining wall in the potentially affected area along the southern portion of the project alignment, which would be designed to current seismic standards. During the installation of the retaining wall, minor sloughing of the slope could occur, but this would not be considered a landslide. Therefore, although there is sufficient slope stability in the general vicinity, the proposed project would be designed so that it would not expose people or structures to potential substantial adverse effects.

b) Would the project result in substantial soil erosion or the loss of topsoil?

No Impact. As discussed in the December 2017 *Water Quality Assessment Report* (Caltrans 2017b), the proposed project would result in the disturbance of approximately 8 acres of soil area. There would also be an increase of approximately 3 acres of impervious surface under the proposed project. The additional impervious surface area would increase stormwater runoff and the volume of downstream flow. Conveyance systems, such as overside drains, ditches, rock slope protection, and treatment BMPs, would be included in the project to reduce downstream impacts to the maximum extent practicable. Temporary construction BMPs, which are standard practices for erosion and water quality control, would be implemented to minimize the potential increase in sediment loading and would be included in the project SWPPP. Federal and state jurisdictions require that an approved SWPPP be prepared for projects that involve greater than 1 acre of disturbance. A SWPPP specifies BMPs that would minimize erosion and keep all products of erosion from moving off site into receiving waters. Earthwork in the project area would be performed in accordance with the current edition of Caltrans' Standard Specifications, the project SWPPP, and the requirements of applicable government agencies; therefore, the proposed project would result in no impacts related to soil erosion and topsoil loss.

c) Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

No Impact. The proposed project would travel over a portion of the Santa Ana River that is considered susceptible to liquefaction. A comprehensive geotechnical study, including a field investigation and laboratory soil testing, would be performed during the PS&E phase of the proposed project to ensure that significant impacts related to soil stability would not occur. Recommendations would be incorporated into the proposed project and earthwork in the project area would be performed in accordance with the current edition of Caltrans' Standard Specifications; therefore, the proposed project would result in no impacts.

d) Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?

No Impact. Soils within the project area consist mostly of Natural Resources Conservation Service hydrologic soil groups "A/D," with the A representing sand, loamy sand, or sandy loam soils, and the D representing clay loam, silty clay loam, sandy clay, silty clay, or clay (NRCS 2018). Expansive soils are primarily composed of clay or clayey textures and have a high shrink-swell potential; therefore, it is anticipated that the proposed project would be

constructed on expansive soils. However, a comprehensive geotechnical study, including a field investigation and laboratory soil testing, would be performed during the PS&E phase of the proposed project. Recommendations identified in this study would be implemented into the proposed project. Therefore, the project is anticipated to result in no impacts.

- e) **Would the project have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?**

No Impact. The proposed project is a bridge and road widening project and would not require septic tanks or water disposal systems.

2.7.3 Avoidance, Minimization, and/or Mitigation Measures

Measures WQ-1 and WQ-2 (from Section 2.10.3) would be implemented to minimize soil erosion.

2.8 Greenhouse Gas Emissions

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
VIII. GREENHOUSE GAS EMISSIONS: Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

2.8.1 Regulatory Setting

The term greenhouse gas (GHG) is used to describe atmospheric gases that absorb solar radiation and subsequently emit radiation in the thermal infrared region of the energy spectrum, trapping heat in the Earth's atmosphere. These gases include carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), and water vapor, among others. A growing body of research attributes long-term changes in temperature, precipitation, and other elements of Earth's climate to large increases in GHG emissions since the mid-nineteenth century, particularly from human activity related to fossil fuel combustion. Anthropogenic GHG emissions of particular interest include CO₂, CH₄, N₂O, and fluorinated gases.

GHGs differ in how much heat each traps in the atmosphere (global warming potential, or GWP). CO₂ is the most important GHG, so amounts of other gases are expressed relative to CO₂, using a metric called "carbon dioxide equivalent" (CO₂e). The global warming potential of CO₂ is assigned a value of 1, and the warming potential of other gases is assessed as multiples of CO₂. For example, the 2007 International Panel on Climate Change *Fourth Assessment Report* calculates the GWP of CH₄ as 25 and the GWP of N₂O as 298, over a 100-year time horizon.² Generally, estimates of all GHGs are summed to obtain total emissions for a project or given time period, usually expressed in metric tons (MTCO₂e), or million metric tons (MMTCO₂e).³

As evidence has mounted for the relationship of climate changes to rising GHGs, federal and state governments have established numerous policies and goals targeted to improving energy efficiency and fuel economy, and reducing GHG emissions. Nationally, electricity generation is the largest source of GHG emissions, followed by transportation. In California, however, transportation is the largest contributor to GHGs.

At the federal level, NEPA (42 USC Part 4332) requires federal agencies to assess the environmental effects of their proposed actions prior to making a decision on the action or project.

² See Table 2.14 in IPCC Fourth Assessment Report: Climate Change 2007 (AR4): The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change [Solomon, S., D. Qin, M. Manning, Z. Chen, M. Marquis, K.B. Averyt, M. Tignor and H.L. Miller (eds.)]. Cambridge University Press, Cambridge, United Kingdom, and New York, NY, USA. <http://www.ipcc.ch/pdf/assessment-report/ar4/wg1/ar4-wg1-chapter2.pdf>.

³ See <http://www.airquality.org/Businesses/CEQA-Land-Use-Planning/CEQA-Guidance-Tools>.

To date, no national standards have been established for nationwide mobile-source GHG reduction targets, nor have any regulations or legislation been enacted specifically to address climate change and GHG emissions reduction at the project level. However, the U.S. EPA and the National Highway Traffic Safety Administration issued the first corporate fuel economy (CAFE) standards in 2010, requiring cars and light-duty vehicles to achieve certain fuel economy targets by 2016, with the intention of gradually increasing the targets and the range of vehicles to which they would apply.

California has enacted aggressive GHG reduction targets, starting with Assembly Bill (AB) 32, the California Global Warming Solutions Act of 2006. AB 32 is California's signature climate change legislation. It set the goal of reducing statewide GHG emissions to 1990 levels by 2020, and required the ARB to develop a Scoping Plan that describes the approach California will take to achieve that goal and to update it every 5 years. In 2015, Governor Jerry Brown enhanced the overall adaptation planning effort with EO B-30-15, establishing an interim GHG reduction goal of 40 percent below 1990 levels by 2030, and requiring state agencies to factor climate change into all planning and investment decisions.

Senate Bill (SB) 375, the Sustainable Communities and Climate Protection Act of 2008, furthered state climate action goals by mandating coordinated transportation and land use planning through preparation of SCS. The ARB sets GHG emissions reduction targets for passenger vehicles for each region. Each regional metropolitan planning organization must include in its regional transportation plan an SCS proposing actions toward achieving the regional emissions reduction targets.⁴

With these and other State Senate and Assembly bills and executive orders, California advances an innovative and proactive approach to dealing with GHG emissions and climate change.

2.8.2 Discussion of Environmental Evaluation Question 2.8 – Greenhouse Gas Emissions

- a) Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?**

Less-than-Significant Impact.

Construction

Construction-period GHG emissions would result from material processing, onsite construction equipment use, and traffic delays due to construction. These emissions would be generated at different levels throughout the construction phase; their frequency of occurrence can be reduced through innovations in plans and specifications and by implementing better traffic management during construction phases.

⁴ <https://www.arb.ca.gov/cc/sb375/sb375.htm>

In addition, with innovations such as longer pavement lives, improved traffic management plans, and changes in materials, the GHG emissions produced during construction can be offset to some degree by longer intervals between maintenance and rehabilitation activities.

Table 2.8-1 shows construction-period emissions, which are estimated to be 3,965 metric tons over the 34-month construction duration. Due to the short-term duration of construction activities, impacts related to generation of GHGs would be less than significant.

Table 2.8-1. Modeled Annual CO₂e Emissions and Vehicle Miles Traveled, by Alternative

Alternative	CO₂e Emissions (Metric Tons)	Annual Vehicle Miles Traveled¹
Total Construction Emissions	3,965	N/A
2017 Existing/Baseline	18,185	87,988
2023 Opening Year		
No Build Alternative	14,724	87,195
Build Alternative	19,073	115,975
2040 Horizon Year		
No Build Alternative	10,314	84,946
Build Alternative	12,545	105,906
N/A = Not applicable Sources: CT-EMFAC2014; November 2017 Traffic Operations Analysis. ¹ Annual VMT values derived from Daily VMT values multiplied by 347, per ARB methodology (ARB 2008). Note: The VMT data study area is based on the average trip length of traffic on the bridge, which is approximately 15 miles. Although VMT is greater under the Build Alternative than under the No Build Alternative, the increase in VMT reflects the increased travel over the widened bridge relative to alternative routes, and does not signify new trip generation would result from project implementation. The proposed project would not change land uses in the project vicinity, and would therefore not generate new trips.		

Operation

As identified in Table 2.8-1, estimated annual operational emissions of GHGs would be 19,073 MTCO₂e at the 2023 Opening Year under the Build Alternative, and would be 12,545 MTCO₂e at the 2040 Horizon Year under the Build Alternative. The proposed project has been estimated to result in greater operational emissions of GHGs than under the No Build Alternative, but the difference in emissions would not be substantial. Furthermore, although VMT would be greater under the Build Alternative than under the No Build Alternative, the increase in VMT reflects the increased travel over the widened bridge relative to alternative routes, and therefore it is concluded that new trip generation would not result from project implementation. The proposed project would not change land uses in the project vicinity, and therefore would not be expected to generate new trips. Consequently, impacts related to generation of GHGs during long-term operations would be less than significant.

b) Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

No Impact. The proposed project is identified in the SCAG 2016–2040 RTP/SCS under project number 3A01WT159. The SCAG 2016–2040 RTP/SCS includes several major initiatives that the proposed project would either directly implement or would support. The proposed project would directly implement the RTP/SCS initiative to improve highway and arterial capacity by adding capacity in the form of the widened replacement bridge, which are specifically identified as part of the initiative (SCAG 2016:6).

As discussed in the 2016–2040 RTP/SCS, the target reduction for GHGs at 2035 with RTP/SCS implementation is 18 percent per capita relative to a 2005 baseline. There are no impacts related to the potential for the project to conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.

2.8.3 Avoidance, Minimization, and/or Mitigation Measures

No measures are required.

2.9 Hazards and Hazardous Materials

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
IX. HAZARDS AND HAZARDOUS MATERIALS: Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Impair implementation of, or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Expose people or structures to a significant risk of loss, injury, or death involving wildland fires; including where wildlands are adjacent to urbanized areas, or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

2.9.1 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 of 1980 (CERCLA) and the Resource Conservation and Recovery Act of 1976 (RCRA). The purpose of CERCLA, often referred to as “Superfund,” is to identify and clean up 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 of 1992
- Clean Water Act
- Clean Air Act

- Safe Drinking Water Act
- Occupational Safety and Health Act
- Atomic Energy Act
- Toxic Substances Control Act
- Federal Insecticide, Fungicide, and Rodenticide Act

In addition to the acts listed above, 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 clean up 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.

2.9.2 Discussion of Environmental Evaluation Question 2.9 – Hazards and Hazardous Materials

Information used in this section is based on the September 2017 *Phase I Initial Site Assessment (ISA) for the Replacement of Hamner Avenue Bridge* (Diaz Yourman & Associates 2017) and the *Asbestos Survey and Lead-based Paint Inspection Report* (Caltrans 2018g).

a) Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

No Impact. As identified in the ISA, there are four Recognized Environmental Conditions (RECs) within and adjacent to the existing project right of way. Table 2.9-1 provides a summary of these four RECs.

Table 2.9-1. Summary of Recognized Environmental Conditions within and Adjacent to the Project Right of Way

REC Source/Location	Contaminants of Potential Concern	Potentially Affected Media
Former agricultural land adjacent to the project footprint	Herbicides pesticides	Soil
Existing Hamner Avenue Bridge over Santa Ana River	ACM, LBP	Existing bridge bearing pads, hinge and joint seal materials, and coatings and graffiti
Project ROW	LBP, Chromium	Yellow thermoplastic striping
Project ROW	ADL	Soil
ACM = asbestos-containing material LBP = lead-based paint ADL = aerielly deposited lead. ROW = right of way		

As shown in Table 2.9-1, the ISA report found that herbicides and pesticides have the potential to exist in former agricultural land located adjacent to the project footprint and asbestos-containing material (ACM) and lead-based paint (LBP) have potential to exist in the bridge bearing pads, hinge, and joint seal materials, and coatings and graffiti. Within the project right of way, LBP and chromium may exist in the yellow striping. In addition, based on a review of historical topographic maps and aerial photographs, much of the project right of way, including Hamner Avenue, had been constructed prior to the prohibition of vehicular leaded fuels. Therefore, soils adjacent to paved areas within the project limits may contain aerielly deposited lead (ADL) from vehicle exhaust.

No underground storage tanks (USTs) or aboveground storage tanks (ASTs) were observed within or adjacent to the project right of way. The USTs and ASTs that were observed nearest to the project right of way during site reconnaissance were located at 3480 Hamner Avenue, approximately 0.25 mile south of the southern project terminus.

Additional sampling and laboratory testing for ACM and LBP were conducted following preparation of the ISA. A field survey of accessible areas of the existing Hamner Bridge was conducted for the presence of suspect ACM and LBP. Suspect ACMs observed at the time of the inspection were sampled and analyzed. A total of six bulk samples of presumed ACM were collected for analysis. None of the materials sampled were reported to contain asbestos; however, the potential exists for additional suspect ACM to be exposed during demolition and/or renovation activities. Such materials should be sampled and analyzed for asbestos content prior to any renovation and/or demolition activities that could affect these materials. Implementation of standard measure **HAZ-1** would ensure that no impacts would occur.

A representative number of painted surfaces/components were tested for LBP along Hamner Bridge. A total of 53 readings (including six calibration readings) were collected. Of the 53 readings taken, one reading contained a lead content greater than 1.0 milligram per square centimeter, which is the current regulatory threshold for the requirement of lead-safe work practices as assessed. This reading was of the black paint located on metal mounting hardware associated with the wood sidewalk support beam. Lead-containing paints were

identified in the yellow roadway centerline paint, which contained a lead concentration of 0.15 percent lead. In addition, the potential exists for additional suspected lead-containing materials to be exposed during demolition and/or renovation activities. As identified in standard measure **HAZ-2**, prior to construction and in order to avoid potential impacts from pavement striping during construction, testing and removal requirements for yellow striping and pavement marking materials would be performed in accordance with Caltrans specifications. Such materials should be sampled and analyzed for lead content prior to any renovation and/or demolition activities that could affect these materials. In addition, implementation of standard measure **HAZ-1** would ensure that no impacts would occur.

The proposed project would not include the routine use, transport, or disposal of hazardous materials unless ACM and LBP from pavement striping and/or potential polychlorinated biphenyls are unexpectedly identified during construction. Any transport of hazardous materials to the site and removal of hazardous wastes from the site would comply with state and federal regulations and therefore would result in a less-than-significant impact. Standard measures and recommendations to address hazardous waste/materials are included in Section 2.9.3 below.

b) Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

No Impact. Implementation of the proposed project is not expected to 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. Construction-related hazardous materials would be used during construction of the proposed project, including fuel, solvents, paints, oils, grease, and caulking. It is possible that any of these substances could be released during construction activities. However, compliance with federal, state, and local regulations, such as the RCRA and U.S. Department of Transportation hazardous materials regulations, would ensure that all hazardous materials are used, stored, and disposed of properly, which would minimize potential impacts related to a hazardous materials release during the construction phase of the project.

As identified in Item (a), four RECs were identified either within or adjacent to the project footprint. Construction activities involving these RECs or construction activity adjacent to these RECs has the potential to create a hazard to the public through upset and accident conditions. However, recommendations of the *Asbestos Survey and Lead-based Paint Inspection Report* would be followed during demolition and construction activities to reduce the potential for upset and accident conditions, as identified in standard implementation of **HAZ-2**.

Following these recommendations and the avoidance and minimization measures identified below, the proposed project would not result in impacts.

- c) **Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?**

Less-than-Significant Impact. There are two schools located within 0.25 mile of the project's limits of disturbance. Table 2.9-2 provides the schools' names, addresses, and approximate distance to the project's limits of disturbance.

Table 2.9-2. Schools within 0.25 mile of the Project's Limits of Disturbance

School	Address	Approximate distance from project area
Highland Elementary School	2301 Alhambra Street, Norco	0.3 mile
Turning Point Christian School	2000 Norco Drive, Norco	0.2 mile

As previously discussed in Item (a), there are four RECs within or adjacent to the project right of way. Additionally, excavation activities in the vicinity of the RECs identified may disturb or result in the release of other hazardous materials. However, impacts due to exposure to or disturbance of hazardous materials or wastes would generally be limited to the project site. Furthermore, any hazardous waste being hauled to or from the project site would have to be secured and contained to prevent its release, in accordance with existing federal and state regulations for the hauling of such waste. Given this fact, and because the proposed project would comply with all applicable regulations, impacts on nearby schools would be less than significant. Additionally, implementation of measures **HAZ-1** and **HAZ-2** would ensure that no adverse impacts on nearby schools would occur. The impact would be less than significant.

- d) **Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?**

No Impact. According to the California Department of Toxic Substances Control's EnviroStor database, neither the project site nor nearby properties are identified sites included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. Therefore, implementation of the proposed project would not create a significant hazard to the public or the environment.

- e) **For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?**

No Impact. The nearest airport is the Los Angeles-Ontario International Airport. However, the proposed project is outside of the Los Angeles-Ontario International Airport Influence Area (City of Ontario 2011). Additionally, the project would not include any features that would interfere with any air traffic flight paths or other airport activities. No impacts are anticipated.

f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?

No Impact. The proposed project is not located within the vicinity of a private airstrip; therefore, no impacts would occur.

g) Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

No Impact. The proposed project would improve the ability of emergency service providers to serve the community, as it would reduce congestion and improve operational efficiency of Hamner Avenue in the project area. Therefore, the proposed project would not interfere with an emergency response or evacuation plan. During the construction period, emergency response times could increase temporarily due to increased traffic congestion (caused by temporary lane closures, speed reductions, and the presence of construction personnel and equipment, etc.) in the area. During project construction, a Traffic Management Plan (TMP) would be implemented to minimize these obstructions, which would help to ensure continued emergency access to the proposed project area and nearby properties. No impact would occur with the implementation of a TMP.

h) Would the project expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

No Impact. The proposed project would improve an existing roadway and would not expose people to a greater risk of loss, injury, or death due to wildland fires than presently exists. According to the Department of Forestry and Fire Protection, the project site is not located within a Very High Fire Hazard Severity Zones (Department of Forestry and Fire Protection 2007), as it traverses almost completely developed portions of Norco, with the exception of the open space areas in and around the Santa Ana River.

2.9.3 Avoidance, Minimization, and/or Mitigation Measures

The following standard measures would be implemented to minimize potential impacts:

HAZ-1: Should any previously unknown hazardous waste/material be encountered during construction, Caltrans Hazards Procedures for Construction will be followed.

HAZ-2: Prior to construction, in order to avoid potential impacts from pavement striping removal during construction, testing and removal requirements for yellow striping, pavement marking materials, and bridge paints will be performed in accordance with Caltrans Standard Specifications Sections 14-11.12 and 14-11.13A.

2.10 Hydrology and Water Quality

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
X. HYDROLOGY AND WATER QUALITY: Would the project:				
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge, such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Create or contribute runoff water, which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Place housing within a 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map, or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Place within a 100-year flood hazard area, structures which would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i) Expose people or structures to a significant risk of loss, injury, or death involving flooding; including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
j) Inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

2.10.1 Regulatory Setting

Federal

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 from any point source unlawful unless the discharge is in compliance with a National Pollutant Discharge Elimination System (NPDES) permit. Known today as the CWA, the act has been amended by Congress several times. In the 1987 amendments, Congress directed dischargers of stormwater from municipal and industrial/construction point sources to comply with the NPDES permit scheme. Important CWA sections are:

- Sections 303 and 304, which require states to promulgate water quality standards, criteria, and guidelines.
- Section 401, which requires an applicant for a federal license or permit to conduct any activity that may result in a discharge to waters of the United States to obtain certification from the state that the discharge will comply with other provisions of the act. (Most frequently required in tandem with a Section 404 permit request [see below].)
- Section 402, which establishes NPDES, a permitting system for the discharge of any pollutant (except dredged or fill material) into waters of the United States. RWQCBs administer this permitting program in California. Section 402(p) requires permits for discharges of stormwater from industrial/construction and Municipal Separate Storm Sewer Systems (MS4s).
- Section 404, which establishes a permit program for the discharge of dredged or fill material into waters of the United States. This permit program is administered by USACE.

The objective of the CWA is “to restore and maintain the chemical, physical, and biological integrity of the nation’s waters.”

USACE issues two types of 404 permits: Standard and General permits. For General permits, there are two types: Regional permits and Nationwide permits. Regional permits are issued for a general category of activities when they are similar in nature and have a minimal environmental effect. Nationwide permits are issued to authorize a variety of minor project activities with no more than minimal effects. There are also two types of Standard permits: Individual permits and Letters of Permission. Ordinarily, projects that do not meet the criteria for a Nationwide permit may be permitted under one of USACE’s Standard permits. For Standard permits, the USACE decision to approve is based on compliance with the U.S. EPA’s Section 404(b)(1) Guidelines (40 CFR 230) and whether permit approval is in the public interest. The 404(b)(1) Guidelines, which were developed by U.S. EPA in conjunction with USACE, allow the discharge of dredged or fill material into the aquatic system (waters of the United States) only if there is no practicable alternative that would have less adverse effects. The guidelines state that USACE may not issue a permit if there is a Least Environmentally Damaging Practicable Alternative to the proposed discharge that would have less adverse effects on waters of the United States and not have any other significant adverse environmental consequences. Per the guidelines, documentation is needed to verify 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 standards, jeopardize the continued existence of listed species, violate marine sanctuary protections, or cause “significant degradation” to waters of the United States. In addition, every permit from USACE, even if not subject to the 404(b)(1) Guidelines, must meet general requirements (see 33 CFR 320.4).

National Flood Insurance Program

In 1968, Congress created the National Flood Insurance Program (NFIP) in response to the rising cost of taxpayer-funded disaster relief for flood victims and the increasing amount of damage caused by floods. The NFIP makes federally backed flood insurance available for communities that agree to adopt and enforce floodplain management ordinances to reduce future flood damage. The Federal Emergency Management Agency (FEMA) manages the NFIP. FEMA

creates Flood Insurance Rate Maps (FIRMs) that designate 100-year floodplain zones and delineate flood hazard areas. A 100-year floodplain zone is the area that has a one in one hundred (1 percent) chance of being flooded in any year, based on historical data.

The FEMA FIRM of the project area is map number 06065C0683G (FEMA 2017). It shows that project site including the proposed bridge and the area north of the Santa Ana River would be located over a FEMA Flood Zone AE. The roadway to the area south of the Santa Ana River is within a FEMA Flood Zone X. Zone AE includes areas subject to inundation by the 1-percent-annual-chance flood event. Zone X delineates areas of 0.2 percent annual chance flood; areas of 1 percent annual chance flood with average depths of less than 1 foot, or with drainage areas less than 1 square mile; and areas protected by levees from 1 percent annual chance flood.

State

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act (Porter-Cologne Act), established in 1969 under Division 7 (Water Quality) of the California Water Code, complements the CWA. It established the SWRCB and divided the state into nine regions, each overseen by a RWQCB. The SWRCB is the primary state agency with responsibility for protecting the quality of the state's surface and groundwater supplies, although much of its daily implementation authority is delegated to the RWQCBs, which are responsible for implementing CWA Sections 401, 402 and 303(d). In general, the SWRCB manages both water rights and statewide regulation of water quality; the RWQCBs focus exclusively on water quality within their regions.

The Porter-Cologne Act provides for development and periodic review of Water Quality Control Plans (basin plans) for each region. Basin plans identify beneficial uses of water bodies and their tributaries as well as water quality objectives to protect those uses. Basin plans are implemented primarily by using the NPDES permitting system to regulate waste discharges so that water quality objectives are met. Basin plans are updated every three years and provide the technical basis for determining WDRs and taking enforcement actions.

Beneficial uses represent the services and qualities of a water body (i.e., the reasons the water body is considered valuable). Water quality objectives represent the standards necessary to protect and support designated beneficial uses.

The project lies within the jurisdiction of the Santa Ana RWQCB. The Santa Ana RWQCB is responsible for implementing the Water Quality Control Plan for the Santa Ana River Basin, which was last updated in 2008, with minor editorial corrections made in 2011.

State Water Resources Control Board and Regional Water Quality Control Boards

The SWRCB adjudicates water rights, sets water pollution control policy, and issues water board orders on matters of statewide application. It also oversees water quality functions throughout the state by approving basin plans, total maximum daily loads (TMDLs), and NPDES permits. The 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 Program

Municipal Separate Storm Sewer Systems

CWA Section 402 mandates programmatic permits for municipalities to address stormwater discharges, which are regulated under the NPDES General Permit for MS4 Permit.

MS4 permits require cities and counties to develop and implement programs and measures that reduce pollutants in stormwater discharges to the maximum extent possible, including through management practices, control techniques, system design and engineering methods, and other measures, as appropriate. As part of permit compliance, permit holders create stormwater management plans for their respective locations. These plans outline the requirements for municipal operations, industrial and commercial businesses, construction sites, and planning and land development. The requirements may include multiple measures to control pollutants in stormwater discharges. During implementation of specific projects under the program, project applicants are required to follow the guidance contained in the stormwater management plans, as defined by the permit holder in that location.

Therefore, the project would comply with the Riverside County and Santa Ana Region MS4 Permit.

Construction General Permit

Construction General Permit (Order No. 2009-009-DWQ, as amended by 2010-0014-DWQ and 2012-006-DWQ), adopted on November 16, 2010, became effective on February 14, 2011. The permit regulates stormwater discharges from construction sites that result in a Disturbed Soil Area of 1 acre or greater and/or are smaller sites that are part of a larger common plan of development. For all projects that are subject to the Construction General Permit, applicants are required to develop and implement an effective SWPPP.

By law, all stormwater discharges associated with construction activity where clearing, grading, and excavation results in soil disturbance of at least 1 acre must comply with the provisions of the Construction General Permit. Operators of regulated construction sites are required to develop stormwater pollution prevention plans; implement sediment, erosion, and pollution prevention control measures; and 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 based on the potential for erosion and pollution transport to receiving waters. Requirements apply according to the risk level determined. For example, a Risk Level 3 (highest risk) project requires compulsory stormwater runoff pH and turbidity monitoring as well as pre- and post-construction aquatic biological assessments during specified seasonal windows.

Construction General Permit Risk Level Assessment

A construction site risk assessment was performed; the result was determined to be Risk Level 2. The risk level was based on the procedure described in the Construction General Permit, including two major elements: (1) project sediment risk (the relative amount of sediment that can be discharged, given the project and location details) and (2) receiving water risk (the risk sediment discharges pose to the receiving waters). Project sediment risk is determined by

multiplying the R, K, and LS factors from the Revised Universal Soil Loss Equation to obtain an estimate of project-related bare-ground soil loss, expressed in tons per acre. The receiving-water risk is based on whether or not a project drains to a sediment-sensitive water body. A sediment-sensitive water body is on the most-recent 303(d) list of water bodies that are impaired by sediment, has a U.S. EPA-approved TMDL implementation plan for sediment, or has the beneficial uses of COLD, SPAWN, and MIGRATORY.

2.10.2 Discussion of Environmental Evaluation Question 2.10 – Hydrology and Water Quality

The information in this section is from the December 2017 *Water Quality Assessment Report* (Caltrans 2017b) and December 2017 *Location Hydraulic Study Report* (Chang Consultants 2017) prepared for the proposed project.

a) Would the project violate any water quality standards or waste discharge requirements?

Less-than-Significant Impact. The project site is in Riverside County, within the Middle Santa Ana River (MSAR) watershed (Hydrologic Area) (see Figure 1-2). The project site is primarily in the Chino Split Hydrologic Sub Area. The southern portion of the project site is located in the Temescal Hydrologic Sub Area (Caltrans 2012). The Santa Ana River Reach 3 crosses the project alignment (Figure 1-2). Major tributaries to the Santa Ana River Reaches 3 and 4 include Temescal Creek, Day Creek, San Sevaine Channel, Box Springs Channel, and Anza Channel (Riverside County Flood Control and Water Conservation District 2015).

Currently, there is one bacteria TMDL adopted for freshwaters in the Santa Ana River Watershed: MSAR Bacteria TMDL, which became effective on May 16, 2007. The Santa Ana Water Board adopted the MSAR Bacteria TMDL in 2005; it was subsequently approved by the EPA on May 16, 2007. The TMDL established compliance targets for both fecal coliform and *E. coli*. TMDLs have not yet been developed and approved for the copper and lead impairments in Santa Ana River Reach 3.

Potential impacts of the proposed project on existing water quality include temporary increases in sediments, oil, grease, and chemical pollutants during construction as well as potential long-term discharges of sediments and other pollutants that collect in stormwater runoff. Short-term or temporary construction impacts on water quality have the potential to occur during demolition, minor land-disturbance activities, material and equipment use and storage at staging areas, and other construction activities. The proposed project would disturb approximately 8 acres of soil area. However, water quality impacts would be avoided or minimized because construction would comply with the NPDES General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities (SWRCB 2013). The construction activities of the proposed project would also be required to comply with the California Construction General Permit, NPDES Number CAS000002, Order No. 2009-0009-DWQ.

Long-term impacts on water quality could occur from the increased impervious area and operational and maintenance activities. However, impacts from these operational and maintenance activities would be avoided or minimized because design of the project would

comply with the Riverside County Municipal Stormwater Permit (Order No. R8-2010-0033, NPDES Permit No. CAS618033). The new net increase in impervious surfaces would total approximately 3 acres. No existing treatment BMPs would be removed as part of the project. The proposed project is required to implement treatment BMPs from the water volume generated by the new net impervious area. The project design includes BMPs, such as drainage swales. The BMPs would be included in the project-specific SWPPP and would provide adequate protection against water quality degradation during construction.

Implementation of measures **WQ-1** and **WQ-2** would ensure that potential water quality impacts are minimized or avoided. Therefore, the proposed project would not violate any water quality standards or waste discharge requirements.

- b) Would the project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?**

No Impact. The project site is not within an area that is used to recharge surface water. While the surface water body of the Santa Ana River recharges groundwater, no recharge basins were identified in the immediate project area. Changes, if any, to groundwater occurrences and levels due to project construction and operation would not affect regional groundwater production detrimentally or change existing water quality. Shallow groundwater dewatering is necessary for the footings of the bridge replacement. If dewatering is discharged to storm drains or surface waters as part of the proposed project, the contractor would be required to comply with the requirements of the Santa Ana RWQCB's Low-Threat Discharge General Permit. No impact related to the depletion of groundwater supplies or substantial interference with groundwater recharge would occur.

- c) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?**

Less-than-Significant Impact. During the construction period, diversions of the flow of the Santa Ana River using coffer dams may be required to allow for the installation of falsework and piers. These temporary diversions would involve a minor redirection of the flow away from the active work sites, which could involve a different watercourse than under existing conditions. However, this change is expected to be incremental and is not expected to result anything more than minimal erosion or siltation.

Following the construction period, the project would result in a permanent increase of approximately 3 acres of impervious surfaces. The project would include new drainage facilities on the bridge and connect to the existing stormwater system. The proposed drainage system includes curb inlets on both sides of the street, interconnected by a series of cross and lateral culverts. The bridge deck would be equipped with grate inlets in close proximity to remove roadway discharge. The Riverside County Hydrology manual indicates that the soils in this area are mostly type D. Type D soils have very slow infiltration rates and are not

suitable for infiltration-type BMPs. Therefore, an infiltration basin should be avoided. The runoff south of the proposed bridge is partially treated through the proposed vegetated swale 1, which would be vegetated with drought tolerant species. The proposed vegetated swale 2 would be designed to treat the bridge deck and part of the roadway, north of the bridge. The proposed vegetated swales would be designed to treat the water quality volume. Vegetated swales are vegetated covering the side slopes and bottom that collect and slowly convey runoff flow to downstream discharge points. They are designed to treat runoff through filtering by the vegetation in the channel, filtering through a subsoil matrix, and/or infiltration into the underlying soils. Vegetated swales are effective for removing total suspended solids, sediment, oil and grease, organics and metals. The inlet locations and pipe sizes were designed for traffic safety and were examined in both 10-year and 100-year storm conditions (Table 2.10-1).

The proposed project design would incorporate additional post-construction measures and other permanent erosion control elements to ensure that stormwater runoff would not cause channel erosion or hydromodification in compliance with the Santa Ana Region's Transportation Project Guidance (**WQ-1**).

- d) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?**

Less-than-Significant Impact. During construction, a temporary stream flow diversion method would be installed to allow for construction activities to take place along the banks of the active Santa Ana River. BMPs would be employed to protect the active stream while allowing for upstream flow to pass the work site. The project may affect drainage patterns, as well as water volume, depth, and flow rate. The bridge crossing has a base flood elevation of approximately 596.7 feet at the project site. The top of the existing bridge at north end is at elevation 593.91 feet and the soffit elevation is at 590.66 feet. The *Preliminary Drainage Study* indicates the existing Hamner Avenue Bridge lacks the conveyance capacity for the 100-year flow of 157,200 cubic feet per second. The new bridge would be designed to handle existing flows within the Santa Ana River. The proposed bridge profile would provide at least 9.7 feet of clearance to the soffit from the 100-year flood elevation (596.7 feet) at the north end of the bridge. Minimal channel improvements would be required within the vicinity of the bridge. (T.Y. Lin 2017).

As detailed in Table 2.10-1, the proposed project would result in an increase in runoff compared to the existing conditions. The inlets would be sized for capacity (proposed conditions) to comply with the Riverside County Hydrology Manual.

Table 2.10-1. Proposed vs. Existing Hydrologic Analysis Results

Location	Flow (cubic feet per second)			
	Existing 10-Year Peak Flow	Proposed 10-Year Peak Flow	Existing 100-Year Peak Flow	Proposed 100-Year Peak Flow
Hamner Ave South of Bridge	1.93	5.72	2.90	8.36

Outlet to Santa Ana River (S)	N/A	10.06	N/A	15.05
Hamner Ave North of Bridge	6.45	7.05	9.58	10.51
Outlet to Existing Inlet (Citrus St)	1.58	3.15	2.40	4.72
Inlet at Citrus Intersection (SW)	1.04	1.04	1.56	1.56

Source: T.Y. Lin 2017

A further investigation of the proposed storm drain configuration should be completed during the design of the project (T.Y. Lin 2017). Drainage patterns during post-construction conditions would remain unchanged but would result in an increase in runoff from the additional impervious surfaces and could affect channel erosion or cause hydromodification (T.Y. Lin 2017).

It is not anticipated that the project would result in hydrologic impacts, such as flooding. As a result, the proposed project would have no impacts on the drainage pattern of the area and would not result in substantial flooding on or off site due to runoff.

e) Would the project create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

No Impact. As described above under Item (a), the proposed project would result in an increase in impervious surface area that would result in an increase in stormwater runoff. However, due to the implementation of permanent BMPs, it is not anticipated that the project would result in hydrologic impacts, such as flooding, that would result in the exceedance of the drainage system's capacity or contribute a substantial amount of polluted runoff. Therefore, no impacts related to the capacity of existing and planned stormwater drainage systems would occur. In addition, an NPDES General Construction permit and a SWPPP (measure **WQ-2**) would be required to address sediment control during construction activities. No impacts related to polluted runoff would occur.

f) Would the project otherwise substantially degrade water quality?

Less-than-Significant Impact. As described above under Items (a) through (e), the proposed project would result in less-than-significant short-term construction and long-term operational impacts on water quality. Construction impacts would be minimized through the implementation of measures **WQ-1** and **WQ-2**, and water quality impacts would be less than significant.

g) Would the project place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

No Impact. The proposed project would replace the existing two-lane bridge and roadway with a six-lane bridge and roadway, and no housing is proposed. Therefore, no housing would be placed within a 100-year flood hazard area.

h) Would the project place within a 100-year flood hazard area structures which would impede or redirect flood flows?

No Impact. The FEMA FIRM of the project area is map number 06065C0683G (FEMA 2017). It shows the project site including the proposed bridge and the area north of the Santa Ana River would be located over a FEMA Flood Zone AE with a base flood elevation of approximately 596.7 feet at the bridge crossing (T.Y. Lin 2017). The top of the existing bridge at its north end is at elevation 593.91 feet, and the soffit elevation is at 590.66 feet (T.Y. Lin 2017). The existing Hamner Avenue Bridge therefore lacks the conveyance capacity for the 100-year flow of 157,200 cubic feet per second (T.Y. Lin 2017). This condition would be rectified with implementation of the project. Construction of the new Hamner Avenue Bridge crossing over the Santa Ana River involves building two abutments and six bents, with each bent consisting of three 6-foot to 8-foot diameter columns. One abutment and two bents would be built on the south side of the river and four bents and one abutment would be built on the north side of the river. Four of these bents would be located within the Santa Ana River floodplain (two on each bank), although none would be placed within the active river channel.

The roadway to the area south of the Santa Ana River is within a FEMA Flood Zone X. Zone AE includes areas subject to inundation by the 1 percent annual chance flood event. Zone X delineates areas of 0.2 percent annual chance flood; areas of 1 percent annual chance flood with average depths of less than 1 foot, or with drainage areas less than 1 square mile; and areas protected by levees from 1 percent annual chance flood.

Hydraulic analyses were performed for the proposed project. It was determined that the proposed project would follow the current alignment and would lengthen and raise the bridge opening; this would increase conveyance in the main river channel. In addition, the project would reduce the number of piers from eight under existing conditions to six. The increased bridge opening and reduced number of piers would not result in a significant impact on the 100-year water surface elevation, and the water surface elevations would generally be lowered by the widened bridge opening. Therefore, no impacts related to placing structures within a 100-year flood hazard area that would impede or redirect flood flows would occur.

i) Would the project expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?

No Impact. As discussed above, under Item (h), the proposed project would widen a bridge within a FEMA-designated 100-year (1-percent annual chance) floodplain. Because the proposed project would increase conveyance in the main river channel and the design of the bridge opening would generally lower water surface elevations, the proposed project would not expose people or structures to a significant risk of loss, injury or death involving flooding. No impacts would occur.

j) Would the project expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of inundation by seiche, tsunami, or mudflow?

No Impact. The proposed project is located in an area where there is no risk of tsunami or seiche, and mudflow is not known to occur in the area.

2.10.3 Avoidance, Minimization, and/or Mitigation Measures

The following measures would be implemented to minimize potential impacts.

WQ-1: Treatment control BMPs will be implemented to the maximum extent practicable, consistent with the requirements of the NPDES permit and Waste Discharge Requirements for Riverside County Municipal Stormwater Permit Order No. R8-2010-0033, NPDES Permit No. CAS618033. The project design shall incorporate post-construction measures and other permanent erosion control elements to ensure that stormwater runoff would not cause channel erosion or hydromodification within the Santa Ana River. The proposed project would comply with the Low Impact Development: Guidance and Standards for Transportation Projects for the Santa Ana Region Riverside County Co-Permittees. Under that guidance, transportation projects shall incorporate the following Low-Impact Development Principles and BMPs to the maximum extent practicable: conserve natural areas to the extent feasible; minimize the impervious footprint; minimize disturbances to natural drainage; design and construct pervious areas to receive runoff from impervious areas; and use landscaping that minimizes irrigation and runoff, promotes surface runoff and infiltration, and minimizes the use of pesticides and fertilizers.

The proposed project shall incorporate stormwater treatment BMPs that preserve the existing hydrology to the maximum extent practical. Runoff from the roadway shall be conveyed to pervious swales. Pollutants in the stormwater runoff from the roadway shall be filtered through the pervious swales prior to being discharged from the project site. Maintenance of the roadside ditches shall include debris, litter, and sediment removal.

WQ-2: 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. 2009-0009-DWQ, NPDES No. CAS000002, and any subsequent permits in effect at the time of construction.

The proposed project will comply with the Construction General Permit by preparing and implementing a SWPPP to address issues related to construction-related activities, equipment, and materials that have the potential to affect water quality. The SWPPP is a project-specific document that calculates the site's risk level during construction, includes guidelines for monitoring and reporting, and provides Erosion Control Plan and BMP details for the construction site. The SWPPP also includes Construction Site BMPs, which are implemented to minimize sediment and erosion during construction. The SWPPP will identify the sources of pollutants that may affect the quality of stormwater and include BMPs to control the pollutants, such as sediment control measures, catch basin inlet protection, construction materials management, and non-stormwater BMPs.

Permit Registration Documents, which include a Notice of Intent, Risk Assessment, Site Map, SWPPP, and other compliance-related documents required by the Construction General Permit, would be electronically filed through the SWRCB's Storm Water Multiple

Application and Report Tracking System (SMARTS) prior to the start of construction. Additionally, within 90 days of when construction is complete and the site is stabilized, a Notice of Termination will be electronically filed through the SWRCB's SMARTS.

2.11 Land Use and Planning

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
XI. LAND USE AND PLANNING: Would the project:				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

2.11.1 Discussion of Environmental Evaluation Question 2.11 – Land Use and Planning

a) Would the project physically divide an established community?

No Impact. The proposed improvements would be primarily within existing right of way or temporary construction easements. Because Hamner Avenue is an existing roadway, no physical division would be created. Roadways are considered an integral part of development and land use patterns because they are required to facilitate travel and connectivity between areas. Implementation of the proposed project would not diminish access to or the ability to use project-adjacent vacant land and open spaces, nor would it physically divide an established community.

b) Would the project conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

No Impact. The *City of Norco General Plan* and the *City of Eastvale General Plan* include policies that support circulation system improvements. Policy 1.3 of the *City of Norco General Plan* states that the City of Norco shall “develop a circulation system of City streets, excluding freeways, capable of serving existing and future increases in traffic” and Policy 1.7 states that the City of Norco shall “establish a signalized arterial street system that provides an acceptable level of service during peak hours under build out conditions” (City of Norco 2000). Goal C-1 of the *City of Eastvale General Plan* states that the City of Eastvale shall “provide a transportation system with sufficient flexibility in design and operation to respond to changes in concentrations of population and employment activities over time” and Goal C-4 states that the City of Eastvale shall “work with local, regional, state, and federal agencies to establish and maintain effective transportation and infrastructure systems” (City of Eastvale 2012). The proposed project would help to fulfill the aforementioned policies.

The proposed project is included in the SCAG 2016–2040 RTP/SCS under Project ID 3A01WT159 and SCAG 2017 FTIP under Project ID RIV121204. The current description in

the FTIP and RTP is consistent with the proposed project. Therefore, the proposed project would not conflict with any existing plans, policies, or regulations.

c) Would the project conflict with any applicable habitat conservation plan or natural community conservation plan?

No Impact. The proposed project is located within the WRMSHCP area. As detailed in the NES prepared for the proposed project, a consistency review by the wildlife agencies (USFWS and CDFW) would be performed to ensure that the project is consistent with the requirements of the MSHCP (Caltrans 2018c). Because there is a federal nexus for the project, the consistency review would result in a streamlined Biological Opinion from USFWS. As discussed in Section 2.4, the proposed project would be in compliance with the requirements of the WRMSHCP. Therefore, no impact would result.

2.11.2 Avoidance, Minimization, and/or Mitigation Measures

Measures related to biological resources identified in Section 2.4 would be implemented to ensure that the proposed project would not conflict with a habitat conservation plan. No additional measures are required.

2.12 Mineral Resources

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
XII. MINERAL RESOURCES: Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

2.12.1 Discussion of Environmental Evaluation Question 2.12 – Mineral Resources

The information in this section is from the Conservation Element of the *City of Norco General Plan* (City of Norco 2014).

a) Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

No Impact. The Surface Mining and Reclamation Act designates Mineral Resource Zones (MRZ) that are of statewide or regional importance. The project corridor primarily traverses land that contains no zoning classification. However, the southern portion of the project corridor traverses land that is designated as MRZ-3, which is an area “where the available geologic information indicates that mineral deposits are likely to exist; however, the significance of the deposit is undetermined.” Most of this designated land has already been developed and is no longer available for mineral extraction.

The proposed project would occur primarily within the existing transportation right of way. No new permanent right of way would be acquired for the project. Temporary construction easements would be needed during the construction period. However, because these areas would be used temporarily for construction access, there would be no loss of availability of a known mineral resource of value to the region or state. No impacts are anticipated.

b) Would the project 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?

No Impact. As discussed above under Item (a), because the proposed project would occur primarily within the existing transportation right of way and only minor amounts of land outside of the right of way would be utilized for temporary construction easements, there would be no loss of availability of a locally important mineral resource recovery site. Therefore, there would be no impact.

2.12.2 Avoidance, Minimization, and/or Mitigation Measures

No avoidance, minimization, and/or mitigation measures are required.

2.13 Noise

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
XIII. NOISE: Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

2.13.1 Regulatory Setting

CEQA requires a strictly baseline versus build analysis to assess whether a proposed project would have a noise impact. If a proposed project is determined to have a significant noise impact under CEQA, then mitigation measures must be incorporated into the project unless those measures are not feasible. The CEQA noise analysis is included at the end of this section.

For highway transportation projects with FHWA (and Caltrans, as assigned) involvement, the federal-Aid Highway Act of 1970 and the associated 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 A-weighted decibels [dBA]) is lower than the NAC for commercial areas (72 dBA). Table 2.13-1 lists the noise abatement criteria for use in the NEPA 23 CFR 772 analysis.

Table 2.13-1. 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 ¹	67 (Exterior)	Residential.
C ¹	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 (water resources, water treatment, electrical, etc.), and warehousing.
G	No NAC—reporting only	Undeveloped lands that are not permitted.
¹ Includes undeveloped lands permitted for this activity category.		

Table 2.13-2 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.

Table 2.13-2. Noise Levels of Common Activities

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	— 110 —	Rock band
Jet fly-over at 1,000 feet	— 100 —	
Gas lawnmower at 3 feet	— 90 —	
Diesel truck at 50 feet at 50 mph	— 80 —	Food blender at 3 feet Garbage disposal at 3 feet
Noisy urban area, daytime	— 70 —	Vacuum cleaner at 10 feet Normal speech at 3 feet
Gas lawnmower at 100 feet Commercial area	— 60 —	
Heavy traffic at 300 feet	— 50 —	Large business office Dishwasher (next room)
Quiet urban daytime	— 40 —	Theater; large conference room (background)
Quiet urban nighttime	— 30 —	Library
Quiet suburban nighttime	— 20 —	Bedroom at night; concert
Quiet rural nighttime	— 10 —	Broadcast/recording studio
Lowest threshold of human hearing	— 0 —	Lowest threshold of human hearing

Source: Caltrans 2013.

According to the *Caltrans Traffic Noise Analysis Protocol for New Highway Construction, Reconstruction, and Retrofit Barrier Projects, May 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 increase) or when the future noise level with the project approaches or exceeds the NAC. Approaching the NAC is defined as coming within 1 dBA of the NAC.

If it is determined that the project would 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 project.

Caltrans' *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. A minimum 5 dBA reduction in the future noise level at an affected

location must be achieved for an abatement measure to be considered feasible for that location. Other considerations include topography, access requirements, other noise sources, and safety considerations. The reasonableness determination consists of three factors used in determining whether a proposed noise abatement measure is reasonable including: achieving the design goal of 7-decibel (dB) noise reduction at a minimum of one receiver in the affected area, residents' acceptance of the abatement measure, and the cost of abatement per benefited residence. In addition, barriers should be designed to intercept the line of sight from the exhaust stack of a truck to the first tier of receptors, as stated in Caltrans' *Highway Design Manual*, Chapter 1100.

The Protocol defines the procedure for assessing the reasonableness of noise barriers from a cost perspective. A cost-per-residence allowance is calculated for each benefited residence (i.e., residences that receive at least 5 dB of noise reduction from a noise barrier that provides a 7 dB reduction for at least one receptor). The allowance is \$95,000 per benefited receptor. Total allowances are calculated by multiplying the cost per residence by the number of benefited residences.

2.13.2 Discussion of Environmental Evaluation Question 2.13 – Noise

Information in this section is from the April 2018 *Noise Study Report* (NSR) (Caltrans 2018h) and the May 2018 *Noise Abatement Decision Report* (NADR) (Caltrans 2018i).

a) Would the project result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Less-than-Significant Impact. A field investigation was conducted to identify land uses that could be subject to traffic and construction noise impacts. Land uses in the project area were categorized according to land use type, the extent of frequent human use, and activity category, as defined in Table 2.13-1. Although all land uses were evaluated in this analysis, as stated in the Traffic Noise Analysis Protocol, the focus of this impact analysis was on locations of frequent human use that would benefit from a lowered noise level—specifically, locations with defined outdoor activity areas, such as residences and recreational areas. Two noise-sensitive land uses were identified within the project area: Residential (Activity Category B) and active sports areas/parks (Activity Category C). Another land use in the project area was a parking lot (Activity Category F), which would not be subject to noise impacts. The noise monitoring and modeling locations are shown on Figures 2.13-1a through 2.13-1f.



Legend

- Existing Wall
- Project Improvements
- Proposed Bridge
- Proposed Trails
- Project Area

Receivers

- Long-Term
 - Measurement/Modeling Location
 - Modeling Location
- Short-Term
 - Measurement/Modeling Location

Proposed Wall (6'-16' Height)

- Barrier STA171+70
- Barrier STA172+45
- Barrier STA173+20

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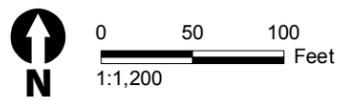
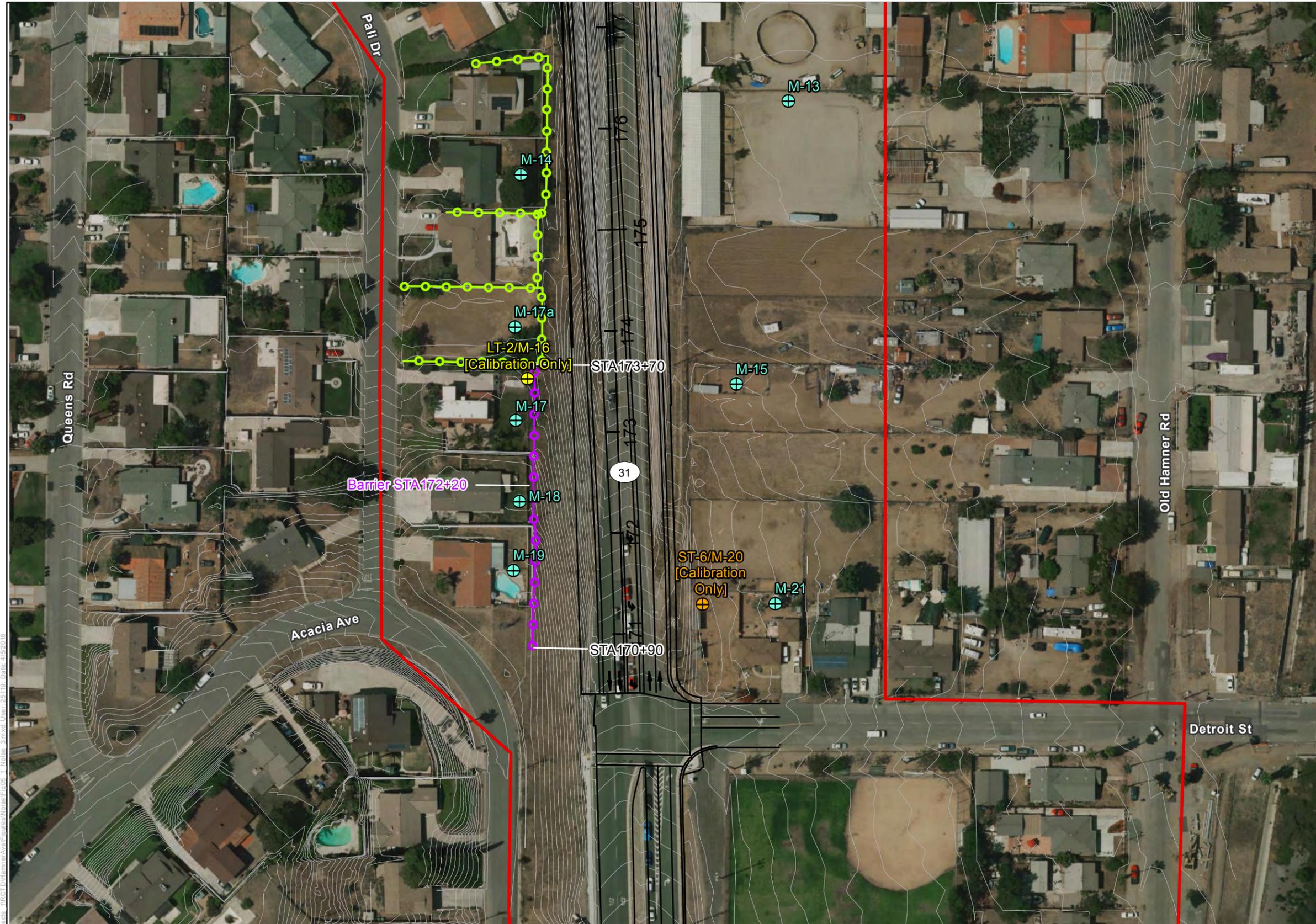


Figure 2.13-1a
Noise Measurement and Modeling Locations
Hamner Avenue Bridge Replacement Project

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Legend

- Existing Wall
- Project Improvements
- Proposed Bridge
- Proposed Trails
- Project Area

Receivers

- Long-Term
 - Measurement/Modeling Location
- Modeling Location
 -
- Short-Term
 -
- Proposed Wall
 -

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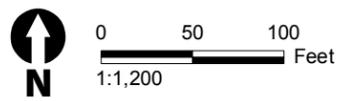
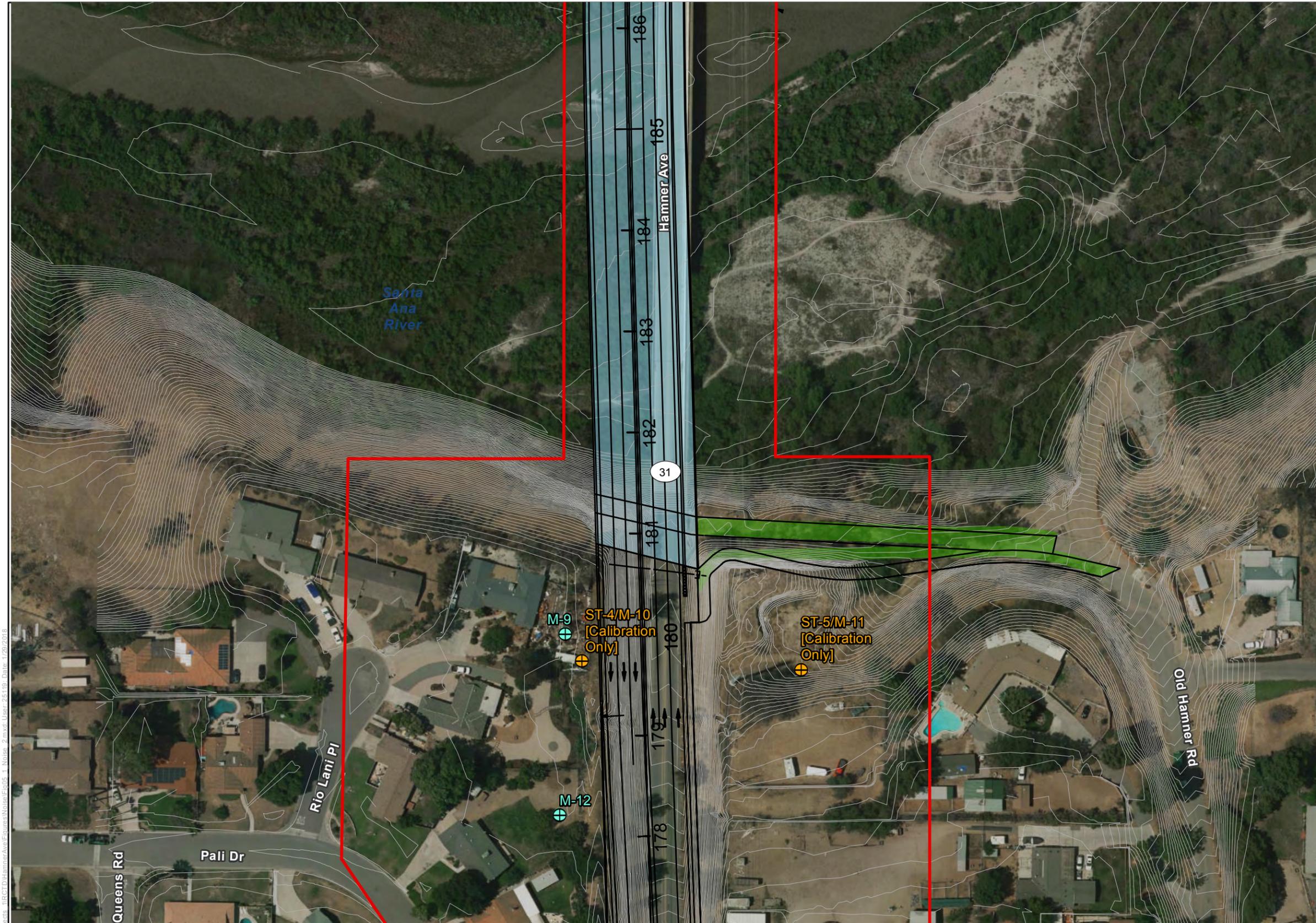


Figure 2.13-1b
Noise Measurement and Modeling Locations
Hamner Avenue Bridge Replacement Project

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Legend

- Existing Wall
- Project Improvements
- Proposed Bridge
- Proposed Trails
- Project Area

Receivers

- Long-Term
 - Measurement/Modeling Location
 - Modeling Location
- Short-Term
 - Measurement/Modeling Location

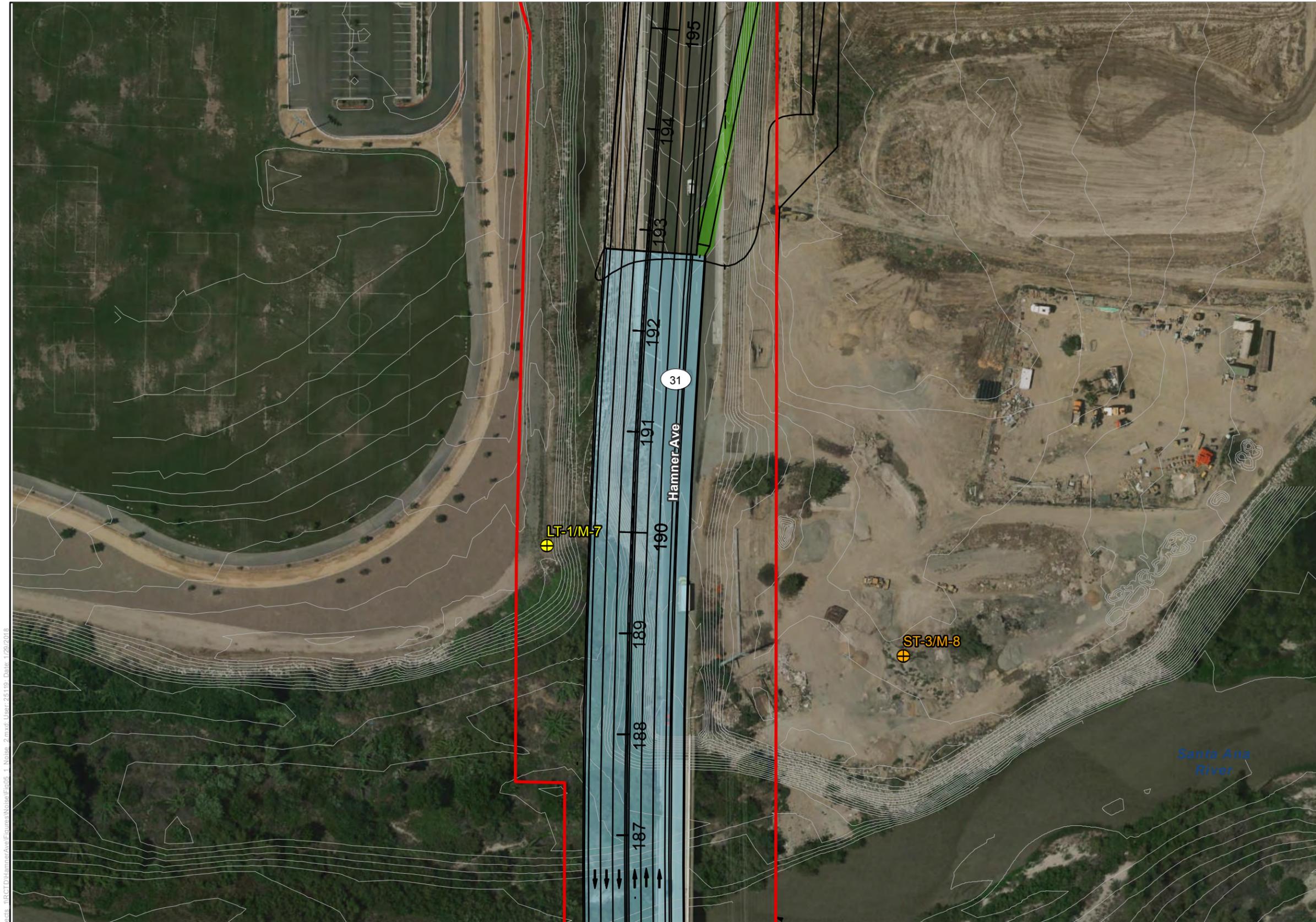
Proposed Wall (6'-16' Height)

- Barrier STA171+70
- Barrier STA172+45
- Barrier STA173+20

Figure 2.13-1c
Noise Measurement and Modeling Locations
Hamner Avenue Bridge Replacement Project

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Legend

- Existing Wall
- Project Improvements
- Proposed Bridge
- Proposed Trails
- Project Area

Receivers

- Long-Term
 - Measurement/Modeling Location
 - Modeling Location
- Short-Term
 - Measurement/Modeling Location

Proposed Wall (6'-16' Height)

- Barrier STA171+70
- Barrier STA172+45
- Barrier STA173+20

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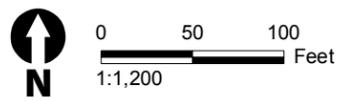
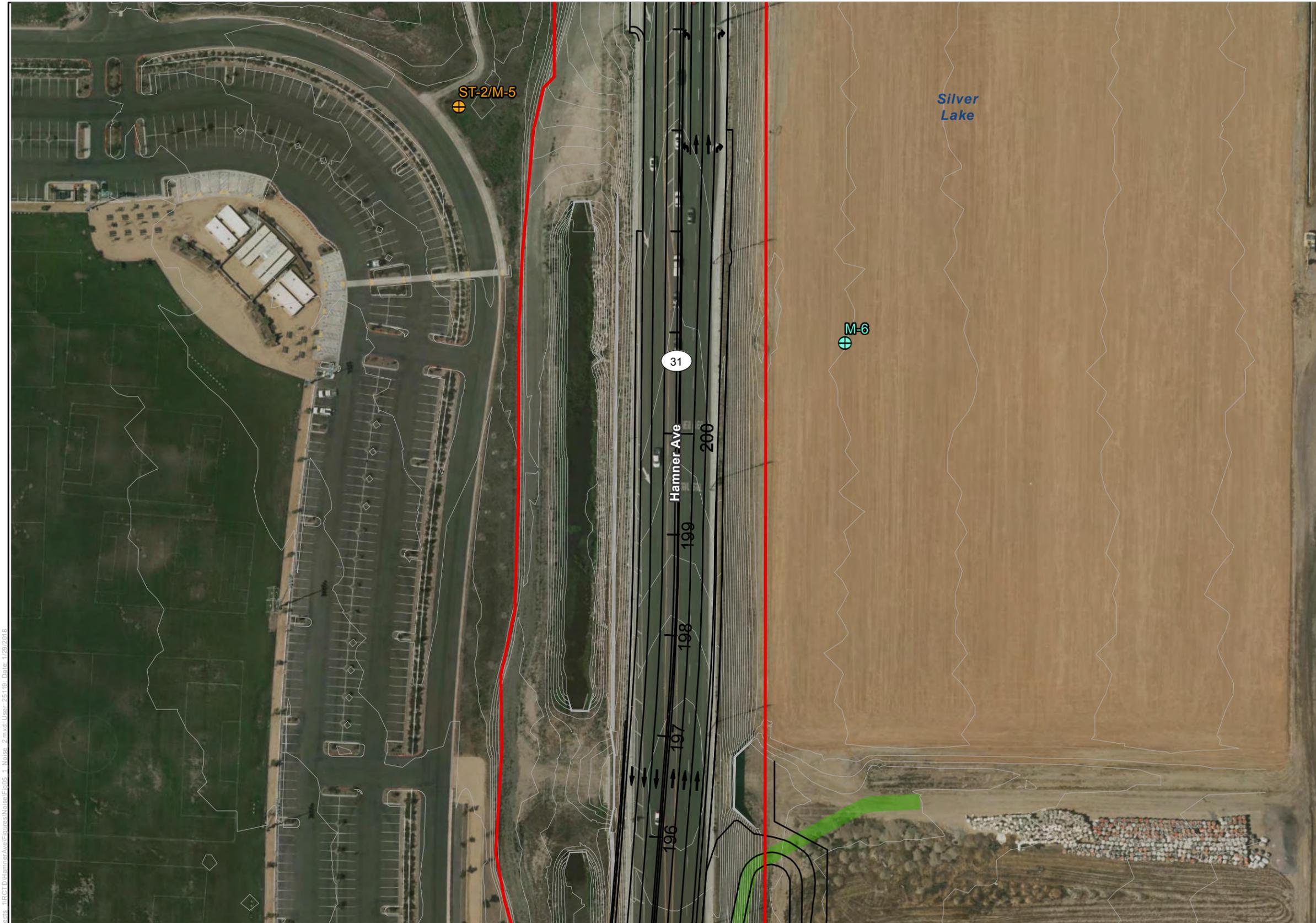


Figure 2.13-1d
Noise Measurement and Modeling Locations
Hammer Avenue Bridge Replacement Project

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Legend

- Existing Wall
- Project Improvements
- Proposed Bridge
- Proposed Trails
- Project Area

Receivers

- Long-Term
 - Measurement/Modeling Location
 - Modeling Location
- Short-Term
 - Measurement/Modeling Location

Proposed Wall (6'-16' Height)

- Barrier STA171+70
- Barrier STA172+45
- Barrier STA173+20

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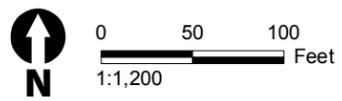


Figure 2.13-1e
Noise Measurement and Modeling Locations
Hammer Avenue Bridge Replacement Project

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Legend

- Existing Wall
- Project Improvements
- Proposed Bridge
- Proposed Trails
- Project Area

Receivers

- Long-Term
 - ⊕ Measurement/Modeling Location
 - ⊕ Modeling Location
- Short-Term
 - ⊕ Measurement/Modeling Location

Proposed Wall (6'-16' Height)

- Barrier STA171+70
- Barrier STA172+45
- Barrier STA173+20

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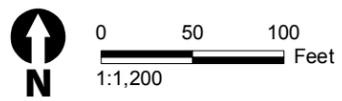


Figure 2.13-1f
Noise Measurement and Modeling Locations
Hamner Avenue Bridge Replacement Project

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Temporary changes in noise levels in the vicinity of the project site are anticipated due to construction activities, and permanent changes are anticipated due to operation of the proposed project. According to Caltrans' *Traffic Noise Analysis Protocol*, there is potential for a project to cause a significant adverse environmental effect due to noise if the project is predicted to result in a substantial noise increase (i.e., 12-dB increase) over the existing noise level or when future predicted Horizon Year 2040 noise levels with the project approach or exceed NAC. To determine if the substantial noise increase is a significant adverse environmental effect, consideration is given to the context and intensity of the substantial noise increase. Context refers to the project setting and uniqueness, or sensitive nature of the noise receiver(s). Intensity refers to the project-induced substantial noise increase (i.e., the increase over the existing condition); it also refers to the number of residential units affected and the absolute noise levels.

Existing Noise Measurements

As part of the traffic noise study, two long-term (48-hour) and six short-term (20-minute) noise measurements were taken along the project alignment. The measurement locations are identified in Figure 2.13-1a through f.

TNM 2.5 was used to compare measured traffic noise levels with modeled noise levels at field measurement locations, using traffic count data collected at the time of the noise measurements. In cases where modeled noise level values differ from measured values by more than 2 dB, calibration factors (K-factors) are used to adjust predicted noise levels at the respective receiver locations as well as nearby receivers that are representative of a similar noise environment.

Because of the uniqueness of the terrain and elevation differences between residential properties south of the Hamner Avenue Bridge compared to the existing roadway, short-term measurements ST-4, ST-5, and ST-6 were exclusively used for calibration.

K-factors and comparisons between measured and modeled noise levels at each measurement location are listed in Table 2.13-3.

Table 2.13-3. Comparison of Measured and Modeled Worst-Noise-Hour Sound Levels

Measurement Location	Measured Existing Sound Level (dBA)	Modeled Existing Sound Level (dBA)	Measured Minus Modeled (dB)	K-Factor Used (dB)	K-Factor Applied to Additional Modeled Receiver(s)
ST-1	58.2	57.3	0.9	0	—
ST-2	56.1	56.3	-0.2	0	—
ST-3	56.7	56.9	-0.2	0	—
ST-4 [calibration only]	54.9	56.6	-1.7	0	—
ST-5 [calibration only]	50.4	46.2	4.2	+4.2	—

Measurement Location	Measured Existing Sound Level (dBA)	Modeled Existing Sound Level (dBA)	Measured Minus Modeled (dB)	K-Factor Used (dB)	K-Factor Applied to Additional Modeled Receiver(s)
ST-6 [calibration only]	67.1	66.8	0.3	0	—

Existing and Future Modeled Noise Levels

Traffic noise modeling results for existing and design-year conditions, with and without the project, are summarized in Table 2.13-5. Predicted traffic noise levels under design-year 2045 Build conditions are compared with existing conditions and design-year 2045 No Build conditions. The comparison with existing conditions is included in the analysis to identify traffic noise impacts under 23 CFR 772. The comparison to No Build conditions indicates the direct effect of the project. Modeling results are rounded to the nearest decibel.

For the design year, traffic noise levels are predicted to range from 52 to 68 dBA hourly equivalent sound level (Leq(h)) under No Build conditions and 56 to 68 dBA Leq(h) under Build conditions.

The results in Table 2.13-5 indicate that the predicted noise levels at receivers M-17, M-18, and M-19 in the design year would approach or exceed the NAC of 66 dBA Leq(h) for Activity Category B land uses (residential) under both No Build and Build conditions. Therefore, traffic noise impacts are predicted at land uses represented by M-17, M-18, and M-19, and noise abatement must be considered at these locations.

Noise abatement is considered where noise impacts are predicted in areas of frequent human use that would benefit from a lowered noise level. According to 23 CFR 772(13)(c) and 772(15)(c), federal funding may be used for the following abatement measures.

- Construction of noise barriers, including acquisition of property rights, either within or outside the highway right of way.
- Traffic management measures including, but not limited to, traffic control devices and signing for prohibition of certain vehicle types, time-use restrictions for certain vehicle types, modified speed limits, and exclusive lane designations.
- Alteration of horizontal and vertical alignment.
- Acquisition of real property or interests therein (predominantly unimproved property) to serve as a buffer zone to preempt development that would be adversely affected by traffic noise.
- Noise insulation of Activity Category D land use facilities listed in Table 2.13-1. Post-installation maintenance and operational costs for noise insulation are not eligible for federal-aid funding.

Noise barriers are the only form of noise abatement considered for this project. Each noise barrier has been evaluated for feasibility based on achievable noise reduction. For each noise barrier found to be acoustically feasible, reasonable cost allowances were calculated by multiplying the number of benefited receptors by \$95,000. Table 2.13-4 summarizes results at receiver locations for the one noise barrier (Noise Barrier STA172+20) that has been evaluated in detail for this project.

For any noise barrier to be considered reasonable from a cost perspective, the estimated cost of the noise barrier should be equal to or less than the total cost allowance calculated for the barrier. The cost calculations of the noise barrier must include all items appropriate and necessary for construction of the barrier, such as traffic control, drainage modification, retaining walls, landscaping for graffiti abatement, and right of way costs. Construction cost estimates are not provided in this NSR, but are presented in the NADR.

The design of noise barriers presented in this report is preliminary and has been conducted at a level appropriate for environmental review and not for final design of the project. Preliminary information on the physical location, length, and height of noise barriers is provided in this report. If pertinent parameters change substantially during the final project design, preliminary noise barrier designs may be modified or eliminated from the final project. A final decision on the construction of the noise abatement would be made upon completion of the final project design.

The following is a discussion of noise abatement considered for each modeled receiver where traffic noise impacts are predicted.

Receivers M-17 through M-19

Traffic noise impacts are predicted at the residential properties represented by receivers M-17, M-18, and M-19. As impacts are predicted to occur, noise abatement must be considered. As shown in Table 2.13-5, the design year build condition noise level would be 67–68 dBA Leq, which would approach or exceed the NAC (67 dBA Leq) for Activity Category B land uses. Receivers M-17 through M-19 represent a total of three noise-sensitive receptors. Detailed modeling analysis was conducted for a noise barrier just inside the right of way. This was the preferred location identified for the barrier because this location is close to the property line of the homes but does not require temporary construction easements. The evaluated barrier is identified as Noise Barrier STA172+20 in Figure 2.13-1a. The total barrier length is approximately 280 feet. The barrier starts at station 170+90 and terminates at station 173+70. Barrier heights in the range of 6 to 16 feet were evaluated in 2-foot increments. Table C-1 in Appendix C of the NSR summarizes the results of the analysis for Noise Barrier STA172+20 and identifies the height at which the barrier would block line of sight to an 11.5-foot truck stack. Table 2.13-4 summarizes the calculated noise reductions and reasonable allowances for each barrier height. Based on the analysis, barrier heights of 6 to 16 feet were found to be feasible and to meet the design goal of 7 dB insertion loss and a barrier height of 10 feet would provide benefit (8 to 11 dB reduction) to all three receivers and block the line of sight at all receivers. Therefore, all barrier heights would be included for consideration in the NADR.

Table 2.13-4. Summary of Reasonable Allowances – Noise Barrier STA172+20

Barrier I.D. & Location:	Barrier STA172+20 located off the right of way					
Predicted Sound Level without Barrier						
Design Receiver:	M-17					
Design Year Noise Level, dBA Leq(h):	67 dBA					
Design Year Noise Level Minus Existing Noise Level:	3 dB					
Design Year with Barrier	6-Foot Barrier	8-Foot Barrier	10-Foot Barrier	12-Foot Barrier	14-Foot Barrier	16-Foot Barrier
Barrier Noise Reduction	8 dBA	9 dBA	11 dBA	12 dBA	13 dBA	13 dBA
Number of Benefited Residences	2	3	3	3	3	3
Reasonable Allowance Per Benefited Residence	\$95,000	\$95,000	\$95,000	\$95,000	\$95,000	\$95,000
Total Reasonable Allowance	\$190,000	\$285,000	\$285,000	\$285,000	\$285,000	\$285,000
Note: An NADR will be prepared that will identify noise barrier construction cost and the noise barriers that are reasonable from a cost perspective.						

Construction Noise

As detailed in the NSR, there would be short-term construction noise under the Build Alternative. During construction of the project, noise from construction activities may intermittently dominate the noise environment in the immediate area of construction. Construction noise is regulated by Caltrans' provisions in Section 14-8.02, "Noise Control," of the 2015 Standard Specifications and Special Provisions (SSP 14-8.02).

During construction of the project, noise from construction activities may intermittently dominate the noise environment in the immediate area of construction. Construction noise is regulated by Caltrans' provisions in Section 14-8.02, Noise Control, of the 2015 Standard Specifications, which states the following:

Do not exceed 86 dBA maximum noise level (L_{max}) at 50 feet from the job site activities from 9 p.m. to 6 a.m.

Equip an internal combustion engine with the manufacturer-recommended muffler. Do not operate an internal combustion engine on the job site without the appropriate muffler.

Table 2.13-6 summarizes noise levels produced by construction equipment that is commonly used on roadway construction projects. Construction equipment is expected to generate noise levels ranging from 70 to 90 dB at a distance of 50 feet, and noise produced by construction equipment would be reduced over distance at a rate of about 6 dB per doubling of distance.

Table 2.13-6. Construction Equipment Noise

Equipment	Maximum Noise Level (dBA at 50 feet)
Scrapers	89
Bulldozers	85
Heavy Trucks	88
Backhoe	80
Pneumatic Tools	85
Concrete Pump	82
Source: Federal Transit Administration 2006. See also: http://www.fhwa.dot.gov/environment/noise/construction_noise/handbook/handbook09.cfm	

Construction would be conducted in accordance with applicable local noise standards and Caltrans' provisions in Section 14-8.02, "Noise Control," of the 2015 Standard Specifications and Special Provisions (**NOI-1**). Therefore, construction noise impacts would be less than significant.

Construction noise would be short term, intermittent, and overshadowed by local traffic noise. Additionally, implementation of measure **NOI-1** below would further minimize the temporary noise impacts from construction:

As directed by the City, the contractor would implement appropriate additional noise mitigation measures, which may include changing the location of stationary construction equipment, turning off idling equipment, rescheduling construction activity, notifying

adjacent residents in advance of construction work, and installing acoustic barriers around stationary construction noise sources.

b) Would the project result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

Less-than-Significant Impact. Any groundborne noise or vibration would be limited to the construction period and would be short in duration. Compliance with local jurisdiction noise restrictions and Caltrans' Standard Specifications as outlined in **NOI-1** would minimize vibration effects. Therefore, groundborne vibration and noise effects are considered less than significant.

The proposed project does not involve changes that would result in noticeable increases in groundborne vibration or groundborne noise levels from use or maintenance of the roadway when compared with the No Build Alternative. Once the project is complete, long-term increases in groundborne noise levels from use or maintenance of the roadway would be less than significant.

c) Would the project result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

Less-than-Significant Impact. The predicted traffic noise levels under design-year conditions were found to approach or exceed the NAC of 67 dBA for Activity Category B at three of the modeled locations for the Build Alternative. Modeled receptors are shown on Figure 1 in Appendix A of the NADR.

One noise barrier was analyzed (STA172+20) in the NSR. This barrier was modeled just inside the right of way. The evaluated noise barrier is shown on Figure 1 in Appendix A of the NADR. Wall heights in the range of 6 to 16 feet were analyzed. All evaluated barriers were found to meet the feasibility requirement. The noise barrier was analyzed for feasibility (i.e., providing a minimum noise reduction of 5 dB at affected receivers) as well as the ability to break the line of sight of an 11.5-foot truck stack.

For noise-sensitive receptors where traffic noise levels would approach or exceed the NAC, noise abatement in the form of sound walls was considered. According to the NAC adopted in the Protocol, for proposed noise abatement to be considered feasible, the noise abatement must be designed to provide a minimum of 5 dBA of noise reduction at affected receptors. In addition to meeting the feasibility criteria, the proposed noise abatement should meet the design goal (i.e., 7 dBA insertion loss at a minimum of one benefited receptor) and be reasonable from a cost perspective.

The final decision on noise abatement would be made prior to completion of the project design and the public involvement processes. Therefore, with the inclusion of the recommended barrier (STA172+20), impacts would be less than significant.

d) Would the project result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

Less-than-Significant Impact. Construction of the proposed project could potentially result in a temporary increase in ambient noise levels in the project vicinity. Noise associated with the use of construction equipment is estimated between 82 and 89 dBA Lmax at a distance of 50 feet from the active construction area for the grading phase. Each piece of construction equipment operates as an individual point source. The worst-case composite noise level at the nearest residence during this phase of construction would be 89 dBA Lmax (at a distance of 50 feet from an active construction area). In addition to the standard construction equipment, the project may require the use of pile drivers; however, the use of pile drivers is not anticipated at this time. Pile driving generates noise levels of up to 96 dBA Lmax at 50 feet. In order to ensure that noise effects are minimized during the construction period, construction activities would be conducted in accordance with applicable local noise standards and Caltrans' provisions in Section 14-8.02, "Noise Control," of the 2010 Standard Specifications and Special Provisions (**NOI-1**). Temporary ambient noise increases due to construction would be considered less than significant with implementation of minimization measure **NOI-1**.

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 expose people residing or working in the project area to excessive noise levels?

No Impact. The proposed project is located within the easternmost boundary of the San Bernardino International Airport Influence Area; however, no habitable structures are proposed as part of the proposed project. Therefore, no noise impacts related to air traffic would occur.

f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

No Impact. The proposed project is not located within the vicinity of a private airstrip and no habitable structures are proposed as part of the proposed project. Therefore, no noise impacts related to air traffic would occur.

2.13.3 Avoidance, Minimization, and/or Mitigation Measures

The following measures would be implemented to minimize potential noise impacts:

NOI-1: Construction will be conducted in accordance with applicable local noise standards and Caltrans' provisions in Section 14-8.02, "Noise Control," of the 2015 Standard Specifications and Special Provisions.

NOI-2: Abatement in the form of sound barrier STA172+20 has been included to reduce traffic noise impacts at affected receptors along the project alignment.

2.14 Population and Housing

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
XIV. POPULATION AND HOUSING: Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

2.14.1 Discussion of Environmental Evaluation Question 2.14 – Population and Housing

- a) Would the project induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?**

No Impact. The proposed project would widen the existing Hamner Avenue from two lanes (one lane in each direction) to six lanes (three lanes in each direction) from Citrus Avenue to Detroit Street. The proposed project is needed to reduce congestion and improve operational efficiency along Hamner Avenue within the project limits. The proposed project is not expected to induce growth beyond that already anticipated by the local general and regional plans. The proposed project is consistent with SCAG’s 2017 FTIP and the 2016–2040 RTP/SCS and the goals and policies of the applicable planning documents of the Cities of Norco and Eastvale. The improvements are designed to increase capacity to meet the demands of existing and future traffic. The proposed project would not induce substantial population growth in the area, directly or indirectly. The pattern and rate of population and housing growth would be consistent with those contemplated in existing plans for the area. No developable land areas would be made more accessible by the proposed project and the proposed project would not open new areas to development or lead to change in land use and density.

Because the proposed project is anticipated to accommodate existing and future travel demand in the corridor related to existing and planned growth approved by local jurisdictions and not contribute to unplanned growth in the area, the proposed project is not considered growth-inducing. Therefore, no direct or indirect long-term impacts related to population growth are anticipated with the implementation of the proposed project.

- b) Would the project displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?**

No Impact. The proposed project would add two lanes in each direction of the existing Hamner Avenue and would be constructed within the existing transportation right of way or temporary construction easements. The proposed project would not result in any partial or

full acquisitions of properties adjacent to the project area; as such, the proposed project would not displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere. No impacts would occur.

c) Would the project displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

No Impact. As mentioned above under Item (b), implementation of the proposed project would not result in partial or full acquisitions of properties adjacent to the project area. As such, the proposed project would not displace substantial numbers of people, necessitating the construction of replacement housing elsewhere. No impacts would occur.

2.14.2 Avoidance, Minimization, and/or Mitigation Measures

No measures are required.

2.15 Public Services

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
XV. 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 following public services:				
Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

2.15.1 Discussion of Environmental Evaluation Question 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:

a1) Fire protection?

No Impact. Fire protection and emergency medical services in the study area are provided by the Riverside County Fire Department, which provides fire protection and emergency medical services to the City of Norco and the City of Eastvale through a cooperative agreement between the City and the County. The closest stations to the study area are Station 27 at 7067 Hamner Avenue in the City of Eastvale and Station 47 at 3902 Hillside Avenue in the City of Norco. Table 2.15-1 shows the locations of the nearest fire stations serving the project study area and the distance of these facilities to the project site.

Construction activities have the potential to result in temporary, localized, site-specific disruptions in the proposed project area involving partial and/or complete roadway and lane closures and detours. This could lead to an increase in delay times for emergency response vehicles during construction. These detours and traffic lane closures would be included in the TMP that is prepared and coordinated with a public information program during construction.

The proposed project involves improvements to an existing roadway. The proposed project would not result in an increase in population, and therefore would not increase demand for community services. No fire stations would be acquired or displaced; therefore, there would be no effect on the delivery of fire services. The proposed project would not induce growth or increase population in the study area or the greater community beyond that

previously planned for and would not result in the need for additional fire protection. The proposed project would improve the ability of fire service providers to serve the community, as it would reduce congestion and improve operational efficiency by providing lane continuity with the existing segments of freeway to the west and east of the project limits, which would likely reduce response times for these services. No impacts from operation of the proposed project would occur.

Table 2.15-1. Fire, Police, and Emergency Medical Services

Facilities	Location	Distance from Project
Fire		
Riverside Station 27	7067 Hamner Avenue, Eastvale	0.4 mile
Riverside Station 47	3902 Hillside Avenue, Norco	1.1 miles
Police		
Norco Sheriff's Station	2870 Clark Avenue, Norco	1.1 miles
Emergency Services		
Corona Regional Medical Center	800 South Main Street, Corona	4.6 miles
Source: Google Earth 2018.		

a2) Police protection?

No Impact. Law enforcement and police protection services in the study area are provided by the Riverside County Sheriff's Department. As shown in Table 2.15-2, the nearest station is at 2870 Clark Avenue in the City of Norco, approximately 1.1 miles south of the project footprint. As mentioned previously in Item (a1), the temporary lane closure or detours could affect the response times for police service providers; however, there are enough alternative access routes that police services providers would still have ample access to all parts of the study area and neighboring communities. In addition, implementation of a construction-period TMP would ensure that access is maintained to and from the project area and that the police service providers are notified prior to the start of construction activities. No impacts would occur.

As mentioned previously, the proposed project would not induce population growth in the area beyond that previously planned for and would not result in the need for additional police protection. No impacts from operation of the proposed project would occur. The improved roadway would likely improve emergency access through the project area, which would be a beneficial impact.

a3) Schools?

No Impact. Schools within 0.5 mile of the project site are shown in Table 2.15-3. The Corona-Norco Unified School District is the school district in the study area.

Table 2.15-3. Schools Serving the Project Study Area

School	Address	Distance from the Site
Highland Elementary School	2301 Alhambra Street, Norco	0.3 mile
Turning Point Christian School	2000 Norco Drive, Norco	0.2 mile
Eleanor Roosevelt High School	7447 Scholar Way, Corona	0.5 mile
Source: Google Earth 2018.		

As shown in Table 2.15-3, there are three schools within 0.5 mile of the project area that could potentially be temporarily disrupted by construction activities of the Build Alternative. Although congestion would increase during construction of the Build Alternative, implementation of the TMP would help ensure that disruptions are minimized. No traffic-generating development would occur in conjunction with implementation of the proposed project.

a4) Parks?

No Impact. Recreational resources within 0.5 mile of the project footprint are shown in Table 2.15-4. No parks are located within the project limits of disturbance and none are anticipated to be directly or indirectly affected by the proposed project. As mentioned previously, the proposed project would not induce population growth in the area beyond that previously planned for and would not result in the need for additional parks or recreational facilities.

Table 2.15-4. Parks within 0.5 mile of the Project's Limits of Disturbance

Park	Address	Distance from the Site (miles)
Community Center Park	3900 Acacia Avenue, Norco	Adjacent
Neil Snipes Park	Intersection of Fifth Street and Hamner Avenue	0.4 mile
Clark Field	1740 Detroit, Norco	Adjacent
River Trails Park	Along the south side of the Santa Ana River	Adjacent
Eastvale Trail	Along the north side of the Santa Ana River	0.1 mile
Eastvale Community Park	12750 Citrus Street	0.1 mile
Google Earth 2018		

a5) Other Public Facilities?

No Impact. Riverside Transit Agency operates its Route 3 buses along Hamner Avenue. Bus stops and routes would not be removed as a result of the proposed project, but may experience temporary delays during construction, which would be addressed through the implementation of the TMP.

2.15.2 Avoidance, Minimization, and/or Mitigation Measures

No measures are required; however, a TMP would be implemented to minimize potential construction-period impacts.

2.16 Recreation

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
XVI. RECREATION:				
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

2.16.1 Discussion of Environmental Evaluation Question 2.16 – Recreation

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?

No Impact. As detailed in Chapter 1, the proposed project would widen Hamner Avenue from Citrus Street to Detroit Street. All improvements are expected to occur within the existing transportation right of way and, as such, implementation of the proposed project would not result in the increased use of existing parks or recreational facilities.

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?

No Impact. Under the proposed project, a trail ramp would be constructed at the northeast and southeast ends of the bridge to connect the planned Regional Santa Ana River Trail with the barrier-separated multipurpose trail on the new Hamner Avenue Bridge.

2.16.2 Avoidance, Minimization, and/or Mitigation Measures

No measures are required.

2.17 Transportation and Traffic

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

2.17.1 Discussion of Environmental Evaluation Question 2.17 – Transportation and Traffic

Information used in this section is from the November 2017 *Traffic Operations Analysis Report (TOAR): Hamner Avenue Bridge Replacement at Santa Ana River* (County of Riverside Transportation Department 2017).

- a) Would the project conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?**

No Impact. The existing capacity of the two-lane Hamner Avenue Bridge across the Santa Ana River is insufficient to carry the current traffic demand. The ambient growth within the region along the projected socioeconomic data contained in the 2016 SCAG RTP indicates that the Horizon Year 2045 Average Daily Traffic (ADT) volume across the bridge would increase by over 22 percent when compared to the Existing (2017) ADT volume.

The proposed project would reduce congestion and improve operational efficiency by providing lane continuity with the existing segments of Hamner Avenue. As shown in Table

2.17-1, in the Horizon Year 2045, all roadway segments analyzed as part of the proposed project would operate at level of service (LOS) D or better after implementation of the proposed project.

Table 2.17-1. Roadway Segment LOS Analysis – Horizon Year 2045 Build Conditions

Segment	Roadway Classification	ADT	LOS E Capacity	LOS
South of Limonite Avenue	6-Lane Arterial	34,000	53,900	C
Between Schleisman Road and Citrus Street	6-Lane Arterial	29,500	53,900	C
Over Santa Ana River	6-Lane Arterial	39,000	53,900	C
North of Norco Drive/Sixth Street	4-Lane Arterial	34,600	35,900	D

Under the proposed project, the following intersections within the study area would operate at LOS E or F condition under the Horizon Year 2045 AM and/or PM peak hours.

- Hamner Avenue/Limonite Avenue – PM peak hour
- Hamner Avenue/Schleisman Road – AM and PM peak hours
- Hamner Avenue/Citrus Street – AM and PM peak hours
- Hamner Avenue/Detroit Street – PM peak hour
- Hamner Avenue/Norco Drive/Sixth Street – AM and PM peak hours

Although these intersections would operate at LOS E or F condition under the proposed project, the proposed project would operate at better conditions than the No Build Alternative. Table 2.17-2 presents the network performance analysis summary comparing the No Build Alternative to the proposed project for Horizon Year 2045. As seen in the table, the proposed project would significantly improve traffic operations along Hamner Avenue in comparison to the No Build Alternative. On a total network basis, the total delay per vehicle and stop delay per vehicle is expected to decrease by at least 50 percent during the AM peak hour and by 33 percent during the PM peak hour under the proposed project.

Table 2.17-2. Roadway Segment LOS Analysis – Horizon Year 2045 Build Conditions

Signalized Intersection	Peak Hour	No Build		Build	
		Total Delay/ Vehicle	Stop Delay/ Vehicle	Total Delay/ Vehicle	Stop Delay/ Vehicle
Hamner Avenue/Citrus Street	AM	208.1	196.3	61.7	47.4
	PM	193.2	186.7	34.0	25.5
Hamner Avenue/Detroit Street	AM	86.0	35.6	16.9	10.1
	PM	197.6	154.5	61.9	48.2
Total Network Performance of All 5 Study Intersections	AM	165.0	128.9	83.1	58.5
	PM	219.9	192.2	146.3	117.1

The purpose of the proposed project is to reduce congestion by eliminating an existing bottleneck caused by the reduction in the number of lanes along the existing Hamner Avenue

bridge, which would be consistent with 23 CFR 450.320–Congestion management process in transportation management areas.

- b) Would the project conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?**

No Impact. The proposed project would not conflict with the County’s congestion management program as established by the County congestion management agency. The proposed project is consistent with relevant transportation planning documents, as the proposed improvements to Hamner Avenue bridge are included in SCAG’s 2016–2040 RTP/SCS under Project ID 3A01WT159 and SCAG’s 2017 FTIP under Project ID RIV121204. Therefore, there would be no impact.

- c) Would the project result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?**

No Impact. The project proposes to add lanes to the existing Hamner Avenue bridge median and would not cause a change in air traffic patterns; therefore, there would be no impact.

- d) Would the project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?**

No Impact. The proposed project would not substantially increase hazards because of a design feature or incompatible uses. In general, it is anticipated that the proposed project would improve traffic safety along Hamner Avenue within the project limits, as it would eliminate the existing bottleneck and improve future traffic congestion. It is also anticipated that it would improve safety through the addition of bicycle/pedestrian infrastructure under the expansion of the Santa Ana River Trail.

- e) Would the project result in inadequate emergency access?**

Less-than-Significant Impact. The Build Alternative would improve emergency access along this portion of Hamner Avenue, as it would reduce congestion in the area, which would likely reduce response times for emergency services along Hamner Avenue. Construction activities have the potential to result in temporary, localized, site-specific disruptions in the proposed project area involving partial and/or complete roadway and lane closures and detours. This could lead to an increase in delay times for emergency response vehicles during construction; however, the proposed project would include the preparation and implementation of a TMP. Impacts would be less than significant during the construction period.

f) Would the project conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

No Impact. The proposed project is not anticipated to conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities or otherwise decrease the performance or safety of such facilities. One of the objectives of the proposed project is to provide bicycle and pedestrian access to the planned Santa Ana River Trail adjacent to the project site. In addition, detours for bicycles and pedestrians would be included in all areas potentially affected by construction. Therefore, there would be no impact.

2.17.2 Avoidance, Minimization, and/or Mitigation Measures

No measures are required. Implementation of a TMP would minimize impacts during the construction period.

2.18 Tribal Cultural Resources

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
XVIII. 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:				
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	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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 Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

2.18.1 Regulatory Setting

CEQA requires the consideration of cultural resources that are historical resources and tribal cultural resources, as well as “unique” archaeological resources. California PRC Section 5024.1 established the 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, 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.

2.18.2 Discussion of Environmental Evaluation Question 2.18 – Tribal Cultural Resources

Letters, serving as formal notice of this project, were sent in September 2017 to tribal representatives identified in Table 2.18-1. Eleven tribes responded to the outreach letters, with seven tribes deferring consultation to other tribes and four tribes formally requesting tribal consultation with the County regarding the first phase of planning under CEQA (PRC Section 21080.3.1, subdivisions (b) and (d)), and mitigation of potential impacts on tribal, cultural, and environmental resources. Formal consultation occurred with the Soboba Band of Luiseño Indians, Temecula (Pechanga) Band of Luiseño Indians, and Gabrieleño Band of Mission Indians-Kizh Nation. The County received a letter from the Morongo Band of Mission Indians requesting formal consultation but no response was received from subsequent requests to consult.

On March 6, 2018, Mr. Ontiveros of the Soboba Band of Luiseño Indians sent a letter recommending that Caltrans and the County enter into an agreement with the Soboba Band to monitor during initial ground-disturbing activities. The Soboba Band of Luiseño Indians believe that the proposed project location is in a culturally sensitive area and implementation may cause a substantial adverse change in the significance of potential tribal cultural resources; however, the Soboba Band did not provide information about specific resources that meet the definition of a “tribal cultural resource” within the project vicinity. On March 15, 2018, the County sent a letter acknowledging the request to have a Native American monitor present during ground-disturbing activities, but denied the request because of its position that Native American monitoring will not be conducted if there is no substantial evidence of a tribal cultural resource, if no archaeological resources have been identified, or the probability of identifying buried cultural resources is low based on the geomorphology of the area. The Soboba Band did not respond to the monitoring denial letter and a consultation close out letter was sent on June 18, 2018. The County met with Temecula Band (Pechanga) on February 6, 2018, to discuss the project and incorporated the tribe’s comments into the HPSR. The County also received comments on the HPSR from the Kizh Nation and responded to the comments on April 4, 2018. Consultation close out letters were sent on June 18, 2018. See Table 2.18-1 and Appendix B for the AB 52 tribal correspondence record.

Table 2.18-1. Native American Contacts

Native American Group/ Individual	Date of First Contact: Letter	Dates of Replies	Follow-Up Contact:	Comments
Andreas J. Heredia, Cahuilla Band of Indians	9/6/2017	11/7/17	Email: 10/10/17 Email: 11/7/17	Received an email 11/7/17 from the Tribe saying they have no interest in the project.
Doug Todd Welmas, Cabazon Band of Mission Indians	9/6/2017	-	Email: 10/10/17 Phone: 11/7/17 Letter: 12/8/17	None.
Darrell Mike, Twenty Nine Palms Band of Mission Indians	9/6/2017	10/6/2017		Expressed no concerns regarding the project, and deferred to the other tribes in the area.
Michael Mirelez, Torres Martinez Desert Cahuilla Indians	9/6/2017		Email: 10/10/17 Phone: 11/7/17	Per 11/7/17 Mr. Mirelez deferred to the Soboba Tribe

Native American Group/ Individual	Date of First Contact: Letter	Dates of Replies	Follow-Up Contact:	Comments
Joe Ontiveros, Soboba Band of Luiseño Indians	9/6/2017	10/4/17 3/6/18	Meeting: 11/29/17 Letter: 1/24/17 including HPSR Phone: 2/23/18 Email: 2/27/18	Mr. Ontiveros requested formal consultation under AB 52 on 10/4/17. On 3/6/18, Mr. Ontiveros sent a letter recommending that Caltrans and the County enter into an agreement with the Soboba Band to monitor during initial ground disturbing activities. On 3/15/2018, the County sent a letter acknowledging the request to have a Native American monitor present during ground-disturbing activities, but denied the request because of its position that Native American monitoring will not be conducted if there is no substantial evidence of a tribal cultural resource, if no archaeological resources have been identified, or the probability of identifying buried cultural resources is low based on the geomorphology of the area.
Lee Clauss, San Manuel Band of Mission Indians	9/6/2017	10/4/17		Expressed no concerns about the project, as it is outside ancestral territory.
Jim McPherson, Rincon Band of Luiseño Indians	9/6/2017	10/9/2017	Email: 10/10/17	Expressed general concern about impacts on historic and cultural resources, but stated that the project location is not within territory. Recommended locating a tribe within the project area regarding direction on handling any inadvertent findings.
Joseph D. Hamilton, Ramona Band of Cahuilla	9/6/2017		Email: 10/10/17 Email/Phone: 11/7/17 Email: 1/24/18 with HPSR Phone: 2/23/18 Email: 2/27/18	No response
Mike Jackson Sr., Quechen Indian Nation	9/6/2017	10/11/17	Phone: 10/10/17 Email: 11/7/17 Letter: 12/8/17	Expressed no concerns regarding the project, and deferred to the other tribes in the area.

Native American Group/ Individual	Date of First Contact: Letter	Dates of Replies	Follow-Up Contact:	Comments
Ebru Ozdil, Temecula Band of Luiseño Indians	9/6/2017	10/10/17	Email: 10/10/17	In an email on 10/10/17 Ms. Ozdil expressed interest in consultation. The County sent the HPSR for review on 1/24/18. On 2/6/18 the County met with Ms Ozdil regarding the ethnography section of the HPSR. On 3/26/18 the County received requested edits to the ethnography section of the HPSR.
Shasta Gaughen, Pala Band of Mission Indians	9/6/2017	9/12/17		Expressed that the project is not within boundaries of the Pala Indian Reservation and Traditional Use Area, and declined consultation. Deferred to Tribes in close proximity to the project.
Ray Huaute, Morongo Band of Mission Indians	9/6/2017		Email: 10/10/17 Phone: 11/7/17 Letter: 12/8/17 Email: 1/24/18 with HPSR Phone: 2/23/18 Letter: 2/27/18	On 1/23/18 the County received a letter from Ray Huaute requesting consultation. On 1/24/18, an email was sent to Mr. Huaute, which included a copy of the HPSR. No response was received from subsequent requests to confer.
Amanda Berrera, Colorado River Indian Tribes	9/6/2017		Email: 10/10/17 Phone: 11/7/17 Letter: 12/8/17	No response
Andrew Salas Gabrieleño Band of Mission Indians - Kizh Nation	9/6/2017	11/8/17	Email: 10/10/17 Phone: 11/7/17 Email: 1/24/18 with HPSR, and again on 2/23/18	The County received comments on the HPSR from Andrew Salas on 3/21/18. The County responded to the comments on 4/4/18.
Patricia Garcia-Plotkin, Agua Caliente	9/6/2017	9/27/17		The project is not within a Traditional Use Area and they deferred to other Tribes

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:

- 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)?**

No Impact. The NAHC was contacted regarding the project on August 17, 2017. The NAHC responded in a letter on August 28, 2017, stating that a search of its Sacred Lands File did not yield any sacred lands or traditional cultural properties within the project vicinity. The County has extended an invitation to local tribal representatives to consult on the CEQA review, as shown in Table 2.18-1. As discussed above, Mr. Ontiveros of the Soboba Band indicated that the proposed project location is in a culturally sensitive area; however, he did not provide specific information on resources that would meet the definition of a “tribal cultural resource.” Therefore, the proposed project would not cause a substantial adverse change in the significance of a tribal cultural resource and no impacts would occur.

- 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 Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.**

No Impact. Pursuant to PRC Section 21080.3.1 (AB 52), California Native American tribes traditionally and culturally affiliated with the project area can request notification of projects in their traditional cultural territory. The County sent AB 52 letters on September 6, 2017, and received requests for consultation from the Soboba Band of Luiseño Indians, Temecula (Pechanga) Band of Luiseño Indians, Morongo Band of Mission Indians, and Gabrieleño Band of Mission Indians-Kizh Nation. Consultation efforts with the tribes are summarized in Table 2.18-1. Based on the AB 52 consultation process, the County determined that no impacts would occur on tribal cultural resources given the lack of substantial evidence and criteria set forth in subdivision (c) of PRC Section 5024.1. However, in the event that a Tribal Cultural Resource is unexpectedly identified during the course of the proposed project, and the County determines that the project may cause a substantial adverse change to a Tribal Cultural Resource, the County will rely on mitigation measures described in the Public Resources Code that, if the County determines to be feasible, may avoid or minimize the significant adverse impacts (PRC Section 21084.3 (b)). Therefore, standard measure TCR-1 would be implemented to ensure no impact on a Tribal Cultural Resource would occur.

2.18.3 Avoidance, Minimization, and/or Mitigation Measures

The following measure would be implemented.

TCR-1. In the event that a Tribal Cultural Resource is unexpectedly identified during the course of the proposed project, and the County determines that the project may cause a substantial adverse change to a Tribal Cultural Resource, the County will work with the consulting tribe(s) to employ one or more of the following standard mitigation measures:

1. Avoidance and preservation of the resources in place, including, but not limited to, planning and construction to avoid the resources and protect the cultural and natural context, or planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.
2. Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:

- i. Protecting the cultural character and integrity of the resource.
 - ii. Protecting the traditional use of the resource.
 - iii. Protecting the confidentiality of the resource.
 - iv. Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.
3. Protecting the resource.

2.19 Utilities and Service Systems

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

2.19.1 Discussion of Environmental Evaluation Question 2.18 – Utilities and Service Systems

a) Would the project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

No Impact. Construction of the proposed project would generate a minimal amount of wastewater. The primary source of wastewater would be from sanitary waste generated by construction workers. Portable waste facilities would be provided for use by all workers, and sanitary waste generated from the use of these facilities would be disposed of by an approved contractor at an approved disposal site.

In addition, construction activities, including site preparation and grading, could result in sedimentation and water contamination from liquids such as solvents and paints. As such, BMPs would be employed during construction, such as sediment and erosion control measures to prevent pollutants from leaving the site.

Operation of the proposed project would not generate the need for additional wastewater treatment because the proposed project would widen an existing roadway and does not contain elements that would generate wastewater. Therefore, the proposed project would not exceed wastewater treatment requirements. No impacts would occur.

b) Would the project require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

No Impact. As described above, construction of the proposed project would generate a minimal amount of wastewater and operation of the proposed project would not generate wastewater. The proposed project is needed to reduce congestion and improve operational efficiency along Hamner Avenue within the project limits. Therefore, the proposed project would not require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities. There would be no impact.

c) Would the project require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

Less-than-Significant Impact. As detailed in the *Water Quality Assessment Report for Hamner Avenue Bridge Replacement* (Caltrans 2017b), the existing onsite drainage system includes Hamner Avenue and cut side slopes south of the bridge from Detroit Street to the bridge, the existing Hamner bridge deck over the Santa Ana River, and the Hamner Avenue roadway portion north of the bridge up to the Citrus Street intersection, which is on fill. The surface runoff from northbound Hamner Avenue to the bridge sheet flows to the Santa Ana River. The southbound lanes surface discharge from Detroit Street continues over to the bridge deck, with no drainage inlets, until it ultimately discharges into the existing detention basin north of Hamner Avenue. Both northbound and southbound lanes flow south and discharge into the existing curb inlets that flow north to the Citrus Street Intersection.

Although drainage patterns during post-construction conditions would remain unchanged, the proposed project would result in an increase in runoff from the additional impervious surfaces and could affect channel erosion or cause hydromodification. However, the design of the proposed project would protect slopes and storm drain outlet locations. The slopes along the northeast section of the abutment and ramp would be lined with rock to help prevent seepage, erosion, and weathering. In addition, the project would include new drainage facilities on the bridge and connect to the existing stormwater system. The proposed drainage system includes curb inlets on both sides of the street, interconnected by a series of cross and lateral culverts. The bridge deck would be equipped with grate inlets in close proximity to remove roadway discharge. In addition, a swale would be installed in the northwestern section of the project site.

Furthermore, while the existing bridge lacks the conveyance capacity for the 100-year flow of the Santa Ana River, the new bridge would be designed to have sufficient capacity. The existing bridge lacks conveyance capacity because the bridge crossing has a base flood elevation of 596.7 feet at the project site, while the top of the existing bridge at north end is at elevation 593.91 feet and the soffit elevation is at 590.66 feet elevation. The proposed bridge profile would provide at least 9.7 feet of clearance to the soffit from the 100-year flood elevation of 596.7 feet at the north end of the bridge. Therefore, this component of the proposed project would have a beneficial impact on existing drainage conditions.

- d) Would the project have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?**

No Impact. The proposed project would improve operational efficiency for vehicles along Hamner Avenue within the project limits and would not require new or expanded water entitlements. Therefore, there would be no impact.

- e) Would the project 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?**

No Impact. As detailed in Item (a), construction of the proposed project would generate a minimal amount of wastewater and operation of the proposed project would not generate wastewater. Because of the proposed project's minimal generation of wastewater, there would be no impact.

- f) Would the project be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?**

No Impact. The proposed project would require the use of a local landfill to dispose of demolition materials. The use of local landfills would be temporary during construction. It is Caltrans' policy to recycle materials whenever possible. The proposed project would be served by a landfill with sufficient capacity to serve its solid waste disposal needs during construction; therefore, there would be no impact.

- g) Would the project comply with federal, state, and local statutes and regulations related to solid waste?**

No Impact. The proposed project would be in compliance with all federal, state, and local solid waste statutes and regulations; therefore, there would be no impact.

2.19.2 Avoidance, Minimization, and/or Mitigation Measures

No measures are required. Measures **WQ-1** and **WQ-2** in Section 2.10.3 would be implemented to address impacts on drainage facilities.

2.20 Mandatory Findings of Significance

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
XX. MANDATORY FINDINGS OF SIGNIFICANCE				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal; or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

2.20.1 Discussion of Environmental Evaluation Question 2.19 – Mandatory Findings of Significance

- a) **Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?**

Less-than-Significant Impact with Mitigation. As discussed in Section 2.4 (*Biological Resources*), the proposed project would directly and permanently remove a small portion of Fremont Cottonwood Forest/Black Willow Thickets, Mulefat Thickets, and California Bulrush Marsh (Table 2.4-3). Permanent impacts would include the removal of existing vegetation and encroachment into the plant community that may have permanent effects. Temporary direct impacts include construction work area clearing and grubbing, incidental disturbances within areas adjacent to construction areas, equipment staging, and temporary construction access routes. Because riparian habitats provide highly productive habitats for plants and wildlife, are essential to maintaining water quality functions and values, and have declined appreciably over the past decades, the direct impacts of the project on riparian habitats would be biologically substantial.

Project activities would also have impacts on Santa Ana sucker (designated threatened species by USFWS and a State Species of Special Concern by CDFW) and least Bell’s vireo (designated endangered species by CDFW and USFWS) critical habitat, as identified in Tables 2.4-1 and 2.4-2.

As a Covered Activity under the MSHCP, take of least Bell's vireo as a result of the project has been anticipated and addressed in the Biological Opinion for the MSHCP. Take of least Bell's vireo would also be addressed in the Biological Opinion issued for the project as part of the MSHCP consistency determination.

A combination of avoidance and minimization measures and compensatory mitigation provided in this report would reduce the overall impacts on biological resources within the BSA to a less-than-significant level.

The proposed project would not 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 reduce the number or restrict the range of a rare or endangered plant or animal. Through the incorporation of avoidance and minimization measures and compensatory mitigation, the proposed project would result in a less-than-significant impact on biological resources.

As discussed in Section 2.6 (Paleontological Resources), the proposed project is located in an area with soil deposits that have the potential to contain paleontological resources, thereby making it an area of high paleontological sensitivity. In order to reduce these impacts, a PMP (measure **CR-3**) would be prepared. Therefore, the proposed project would have a less-than-significant impact related to a period of California prehistory through the incorporation of mitigation.

- 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)?**

Less-than-Significant Impact with Mitigation. As detailed in Section 2.20.2 (Cumulative Impacts), with mitigation, the proposed project would not result in cumulatively considerable effects when combined with past, present, and reasonable foreseeable future projects and therefore would have a less-than-significant impact with mitigation.

- c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?**

Less-than-Significant Impact. Operation of the project would not result in the exposure of persons to any substantially adverse natural or human-made hazards that could directly or indirectly cause substantial adverse effects on human beings, such as geologic hazards, air emissions, hazardous materials, or flooding. All potential effects that could result in substantial exposure of persons to hazards during construction of the project are fully addressed with recommended avoidance and minimization measures, and no permanent impacts have been identified as significant in this IS. Avoidance and minimization measures would be incorporated into the project in order to reduce and control the effects the project would have on the environment.

2.20.2 Cumulative Impacts

Cumulative impacts are those that result from past, present, and reasonably foreseeable future actions, combined with the potential impacts of this 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 on 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.

State 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 State CEQA Guidelines.

A review of the cities' and county's websites was conducted in order to compile a list of past, present, and reasonably foreseeable future projects. The projects are listed in Table 2.20-1.

Table 2.20-1. Cumulative Projects List

Name	Jurisdiction	Description	Status
Santa Ana River Trail Expansion	Lead & Sponsor Agency: Riverside County Regional Park and Open-Space District Implementing Agency: Riverside County Transportation Commission	Construction of this 12.8-mile section of the Santa Ana River Trail system, which when completed will provide the only direct trail connection through Orange, Riverside, and San Bernardino Counties. The proposed section of trail in Prado Basin would facilitate pedestrian, equestrian, and cycling trail use with nature-viewing opportunities, and provide a non-motorized transit route that does not otherwise exist in the area. The 12.8-mile section is located in western Riverside County.	Unknown.
Hamner Avenue Roadway Widening	Riverside County Transportation Department	Hamner Avenue roadway widening to three lanes in each direction north of Citrus Street, south of Detroit Street, and north of Limonite Avenue. The project would remove existing bottlenecks on Hamner Avenue.	Project is currently in the design phase.

The following analysis evaluates the project's potential to contribute considerably to a cumulative impact.

As discussed previously, the proposed project would have no effect on agricultural resources, land use, mineral resources, population and housing, and recreation, and it would not contribute either directly or indirectly to a cumulatively considerable impact in these resource areas. The potential for the proposed project to result in cumulative impacts that would be considered significant in the above-mentioned resource areas is considered low, as there are no impacts anticipated from the proposed project on these resources, and the proposed project does not have the potential to result in cumulative impacts that would affect the health or sustainability of any of these resource areas.

For resources identified as having a less-than-significant impact with mitigation or a less-than--significant impact, a preliminary review of the potential impacts identified was conducted to determine if a reasonably foreseeable cumulative impact could occur. Based on this review, it was determined that the resources that could potentially contribute to significant cumulative impacts to a potentially considerable degree when combined with past, present, and reasonably foreseeable future projects are: aesthetics, air quality, biological resources, paleontological resources, geology/soils, hazards/hazardous materials, hydrology and water quality, noise, public services and utilities, and transportation/traffic. A cumulative evaluation for these environmental resource topic areas is provided below.

Aesthetics

The resource study area (RSA) for aesthetics is considered to be the area within 1 mile of the project site. The typical land uses within this area include recreational resources, single-family residences, open space, and undeveloped land. Visual quality within the project area is moderate and no scenic vistas would be measurably affected as a result of the proposed project. The primary visual resources in the proposed project viewshed include views of the San Gabriel and San Bernardino Mountains. The proposed project corridor would retain its existing alignment and topographic variation, and the project would not call for land acquisition, extensive landscaping removal, or demolition. Views of primary and secondary visual resources would therefore be retained.

When considered in conjunction with the identified the Santa Ana River Trail Expansion and Hamner Avenue roadway widening, the incremental effect of the proposed project on visual resources is not deemed cumulatively significant under CEQA. The Santa Ana River Trail Expansion would not result in any distinctive changes to existing landscape, affect any scenic vistas, or damage scenic resources, as it would travel along the Santa Ana River and would not protrude vertically. Therefore, the proposed project, in consideration with the Santa Ana River Trail Expansion, would not result in a significant cumulative impact related to aesthetics.

Air Quality

The RSA for the project is within the South Coast Air Basin (Basin) that is under the jurisdiction of SCAQMD. The U.S. EPA has classified the SCAB as an extreme nonattainment area for the federal 8-hour O₃ standard. The U.S. EPA has classified the SCAB as a serious nonattainment area for the federal PM_{2.5} standard. ARB has classified the SCAB as an extreme nonattainment

area for the state 1-hour O₃ standard and as a nonattainment area for the state 8-hour O₃ standard. ARB has classified the SCAB as a nonattainment area for the state PM₁₀ and PM_{2.5} standards.

The proposed project is included in SCAG's 2016–2040 RTP/SCS under Project ID 3A01WT159 and SCAG's 2017 FTIP Amendment 2 under Project ID RIV121204. The 2016–2040 RTP/SCS was adopted by SCAG's Regional Council on April 7, 2016, and FHWA and FTA found that the RTP/SCS conformed to the SIP on June 1, 2016. SCAG adopted Amendment 2 to the 2017 FTIP in which the project is included on January 3, 2017, and FHWA and FTA found that Amendment 2 to the 2017 FTIP conformed to the SIP on February 21, 2017. A subsequent modification to the funding of the project was made in Administrative Modification 15 to the 2017 to the 2017 FTIP, which was approved by SCAG on December 20, 2017. Because the proposed project is included as proposed in both the SCAG 2016–2040 RTP/SCS and the 2017 FTIP, which were found to conform to the SIP responsible for attaining and maintaining compliance with air quality standards, the proposed project would not conflict with or obstruct implementation of an air quality plan. Therefore, air quality impacts would not be cumulatively considerable.

Biological Resources

The RSA for biological resources includes the area within 1 mile of each side of the project site. This area considers the minimal, incremental effects of the project on biological resources within the project vicinity, as well as other projects in the region with similar levels of development and types of biological resources. The Santa Ana River Trail Expansion and the Hamner Avenue roadway widening are the only cumulative projects in this area. The construction schedule of the Santa Ana River Trail Expansion is unknown at this time, but could overlap with the proposed project. Construction of the Hamner Avenue Roadway widening is scheduled to be completed in advance of the construction of the proposed project.

Studies and surveys conducted within the BSA included a vegetation community/land use mapping, general biological resource surveys, focused rare plant surveys, focused and protocol wildlife surveys, and a jurisdictional delineation of aquatic resources. A literature review was performed for Santa Ana sucker. Focused surveys were conducted for San Diego ambrosia, Santa Ana River woollystar, and special-status bats. Protocol surveys were conducted for least Bell's vireo, southwestern willow flycatcher, and burrowing owl.

The BSA contains eight vegetation/land cover types: Fremont Cottonwood Forest/Black Willow Thickets, Mulefat Thickets, California Bulrush Marsh, Open Water, Eucalyptus Groves, Ruderal, Annual Brome Grasslands, and developed land. A total of 179.31 acres of these vegetation communities are within the BSA, with most of the acreage consisting of developed lands associated with residential developments and public facilities. Three Natural Communities of Special Concern were observed within the BSA (Fremont Cottonwood Forest/Black Willow Thickets, Mulefat Thickets, and California Bulrush Marsh), totaling 17.65 acres. Least Bell's vireo was the only listed species observed during focused and protocol surveys. In addition, Santa Ana sucker was assumed present based on available suitable habitat and known records of occurrence. Designated critical habitat for Santa Ana sucker and least Bell's vireo also occurs along the Santa Ana River portions of the BSA. Four aquatic resource features were mapped within the BSA (Features 1–4): the Santa Ana River, two concrete trapezoidal ditches, and an earthen flood control channel. In total, 4.47 acres of USACE/RWQCB non-wetland Waters of

the U.S., 0.68 acre of USACE/RWQCB wetlands, 1.59 acres of CDFW un-vegetated streambed, and 7.22 acres of vegetated streambed and associated riparian vegetation were identified.

Separate environmental analysis of the Santa Ana River Trail Expansion will be conducted to determine whether it will result in impacts on biological resources; detailed environmental analysis is not available at this time. However, given the proximity of the Santa Ana River Trail Expansion project to the Santa Ana River and the undeveloped natural areas within the design footprint, it is reasonable to assume that it would have permanent and/or temporary impacts on natural communities (including removal and disturbance of vegetation), as well as possible direct and indirect impacts on special-status plant and wildlife species. Because the Santa Ana River Trail Expansion project occurs within the same region as the proposed project, it is likely that some of the natural communities that may potentially be affected are the same as the three riparian habitats that occur within the proposed project area, resulting in adverse impacts on these communities and the special-status plant and wildlife species occurring within them.

The proposed project would permanently remove a biologically substantial amount of riparian habitat at the Santa Ana River crossing (0.26 acre). Given the amount of impact proposed, and because the majority of this impact would occur at the Santa Ana River, the project could make a cumulatively considerable contribution to a regional decline of riparian habitat. However, all direct impacts would be fully addressed by measures **BIO-8** and **BIO-9** and consistency with the MSHCP would fully address any potential cumulative impacts on this resource from the project. The Santa Ana River Trail Expansion project is also a Covered Activity under the MSHCP and, therefore, potential impacts on riparian habitats from this project would be fully addressed through consistency with the MSHCP. Implementation of avoidance and minimization measures and compensatory mitigation for impacts on riparian habitat during the permitting phase of this project and the Santa Ana River Trail Expansion project would ensure that riparian habitat would be sustained within the region.

Approximately 0.25 acre and 0.26 acre of Santa Ana sucker and least Bell's vireo critical habitat containing Primary Constituent Elements, respectively, would be permanently affected by the project. Measures **BIO-1** and **BIO-3** would reduce the likelihood of take of individuals during construction. The compensatory mitigation measures **BIO-2** and **BIO-4** and the preparation of a DBESP would ensure no net loss of suitable habitat and full consistency with the MSHCP. Because proposed direct impacts would be mitigated, the potential for cumulative effects rests on evaluating the incremental increase in potential cumulative effects from operation of the project against the existing operational effects of Hamner Avenue and other future projects. The project may incrementally increase pollution and noise in the area. The project would treat surface runoff, so pollutants would not flow into the habitat below. Consistency with the MSHCP fully addresses potentially cumulative impacts on Santa Ana sucker and least Bell's vireo. This includes compensation for lost critical habitat from construction of the project. The Santa Ana River Trail Expansion project is also a Covered Activity under the MSHCP and, therefore, potential impacts on Covered Species, including Santa Ana sucker and least Bell's vireo, from that project would be fully addressed through consistency with the MSHCP. Implementation of avoidance and minimization measures and compensatory mitigation for impacts on Santa Ana sucker and least Bell's vireo during the permitting phase of this project and the Santa Ana River Trail Expansion project would ensure that these species would be sustained within the region.

The project would result in the temporary disturbance of 0.49 acre of jurisdictional wetland Waters of the U.S, as well as the permanent removal of 0.03 acre and the temporary disturbance of 2.84 acres of non-wetland Waters of the U.S. In addition, the project would result in the permanent removal and temporary disturbance of 0.09 acre and 1.03 acres, respectively, of state jurisdictional streambeds, as well as 0.27 acre of permanent removal and 4.58 acres of temporary disturbance of CDFW jurisdictional riparian resources. The compensatory mitigation measure **BIO-11** would ensure no net loss of jurisdictional and other waters. The Santa Ana River Trail Expansion project may also result in permanent or temporary impacts on wetlands and other Waters of the U.S. Implementation of avoidance and minimization measures during the permitting phase of that project would ensure that impacts on jurisdictional and other waters remain at a less-than-significant level and that no cumulative impacts occur.

The Hamner Avenue roadway widening project would expand the roadway in areas to the north and south of the proposed project within the public right of way, almost all of which is located adjacent to developed properties. Given that construction and operation of the widened roadway would be geographically separated from the locations that would be affected by construction of the proposed project and Santa Ana River Trail Expansion project, effects of the roadway widening in combination with the proposed project would not be cumulatively considerable.

Cultural/Paleontological Resources

The RSA includes the area within 0.5 mile of each side of the project. The construction schedule for the portion of the Santa Ana River Trail that could occur in the vicinity of the proposed project is unknown at this time, but could potentially overlap with the proposed project.

The project vicinity represents an area of high paleontological sensitivity. Measure **CR-3** has been proposed would reduce these impacts. Future projects in the area could also be located in this area of high paleontological resource sensitivity and could have the potential to affect these resources. In addition, cumulative project impacts on paleontological resources would vary based on the footprint of each project. All projects that could affect cultural and paleontological resources would be required to evaluate and assess impacts and, if necessary, provide mitigation measures as required by CEQA. Furthermore, with the implementation of the PMP, the contribution of the proposed project to the cumulative destruction of subsurface paleontological resources would not be cumulatively considerable.

Once the proposed project and other projects are operational, they would not have the potential to affect unknown and nonrenewable paleontological resources. Therefore, operation of the proposed project, in conjunction with other projects, would not result in significant cumulative impacts under CEQA related to unknown and nonrenewable paleontological resources.

Geology/Soils

The RSA includes the area within 0.5 mile of each side of the project. The proposed project, in conjunction with other planned projects in the vicinity, may result in short-term increases in erosion due to grading activities. However, construction in accordance with the accepted engineering standards and building codes, on a project-by-project basis, would reduce the potential for structural damage due to seismic activity to the maximum extent feasible.

Greenhouse Gas Emissions

GHG emissions and climate change are exclusively cumulative impacts; there are no non-cumulative GHG emissions impacts from a climate change perspective. Climate change is the result of cumulative global emissions. No single project, when considered in isolation, can cause climate change because a single project's emissions are not enough to change the radiative balance of the atmosphere. Because climate change is the result of GHG emissions and GHGs are emitted by innumerable sources worldwide, global climate change will have a significant cumulative impact on the natural environment as well as human development and activity. As such, GHGs and climate change are cumulatively considerable, even though the contribution may be individually limited (SCAQMD 2008). SCAQMD methodology and thresholds are thus cumulative in nature.

As discussed above, the project would be consistent with adopted plans and regulations that aim to reduce GHG emissions. Therefore, the project would not contribute to a cumulatively significant impact related to GHG emissions and climate change.

Hazards/Hazardous Materials

The RSA includes the area within 0.5 mile of each side of the project. The Santa Ana River Trail Expansion and the Hamner Avenue roadway widening are the only cumulative projects in this area.

Site grading and the use and transport of petroleum-based lubricants, solvents, fuels, and paints to and from the site could create impacts related to the creation of a hazard through upset or accident conditions involving the release of a known or unknown hazardous material. Any hazardous waste that is generated during construction of the proposed project would be collected and transported away from the site. Impacts would be less than significant and would not have the potential to contribute to hazards associated with cumulative projects because these types of impacts would occur in small localized areas intermittently. Avoidance and/or minimization measures **HAZ-1** and **HAZ-2** would be implemented to minimize these potential impacts. These impacts do not have the potential to contribute to hazards associated with cumulative projects because these types of impacts would be localized, occurring only in the immediate vicinity of the project sites. In addition, the implementation of appropriate minimization/avoidance measures during construction of the proposed project would further reduce the impact.

As with the proposed project, the Santa Ana River Trail Expansion would require site grading and the use and transport of petroleum-based lubricants, solvents, fuels, and paints to and from the site and could create impacts related to the creation of a hazard through upset or accident conditions involving the release of a known or unknown hazardous material. However, these impacts would also occur in small localized areas intermittently.

Therefore, the proposed project, in combination with the Santa Ana River Trail Expansion, would not result in a significant cumulative impact related to hazards and hazardous materials.

Hydrology and Water Quality

This cumulative analysis examines the effects of the proposed project in combination with other current projects, probable future projects, and projected future growth. The geographic context

for the analysis of cumulative impacts associated with surface hydrology and water quality is the MSAR watershed. The context for groundwater hydrology is the Chino South and Temescal groundwater basins. The context for cumulative hydrology and water quality impacts is geographic and a function of whether impacts could affect surface water features/watersheds, municipal storm drainage systems of Riverside County, floodplain, or groundwater, each of which has its own physical boundary. This analysis accounts for anticipated cumulative growth within the potentially affected geographic area, as represented by full implementation of the *City of Norco General Plan*.

Development of the proposed project, combined with other past and future development within the potentially affected geographic area, could degrade stormwater quality through an increase in impervious surface area as well as an increase in contaminated runoff, which could ultimately violate water quality standards and affect beneficial uses within the MSAR watershed and the Chino South groundwater basins. The quality of stormwater runoff varies with surrounding land uses, topography, and the amount of impervious cover as well as the intensity and frequency of irrigation or rainfall. During construction, runoff may contain sediments as well as construction materials and wastes (e.g., concrete debris) resulting from site clearing, demolition/pavement removal, cut-and-fill activities, minor grading and excavation, and construction and paving. During operation, runoff may contain oil, grease, metals that accumulate in streets and driveways, pesticides, herbicides, particulate matter, nutrients, animal waste, litter, and oxygen-demanding substances from landscaped areas. The highest pollutant concentrations are generally in stormwater runoff generated at the beginning of the wet season and during the “first-flush” where approximately 80 percent of all accumulated pollutants are washed off surfaces with the first 0.5 inch of rainfall, with street surfaces being the primary sources of pollutants in urban areas.

Cumulative development could affect water quality if the land use changes, the intensity of the land use changes, and/or drainage conditions are altered to facilitate the introduction of pollutants to surface or groundwater resources. Changes in land use would alter the type and amount of pollutants in stormwater runoff (e.g., higher fecal coliform concentrations are present in runoff from residential lands compared with commercial lands). An increase in the intensity of a land use would increase potential pollutant loads. Alterations in drainage patterns could increase pollutant loads by increasing the amount of stormwater runoff, transporting pollutants in stormwater runoff, causing or contributing to erosion if the rate of runoff increases, or exposing vulnerable areas to infiltration or runoff.

Construction of the proposed project as well as other planned projects in the vicinity would result in surface disturbances through the grading and compaction associated with typical development activities. Existing vegetation would be removed, thereby increasing the potential for erosion. Consistent with municipal stormwater programs required by the MS4 Permit and Construction General Permit, the project-specific SWPPP would include construction BMPs. Therefore, the proposed project would not contribute to a cumulative water quality impact during construction.

During project operation, the proposed project could contribute to the degradation of water quality and a cumulative impact if any altered land use would result in an increase in the type and concentration of pollutants in stormwater runoff. New development projects would increase impervious surface areas, which would result in increased stormwater runoff. Therefore, new

development projects would need to be consistent with the municipal stormwater programs from Riverside County and City of Norco and include post-construction design measures, such as Low-Impact Development, vegetative areas, and biofiltration swales, which provide water quality treatment. The proposed project does not represent a significant departure from the existing land use of the area but does increase the impervious surface area. Stormwater runoff would be directed to two vegetated swales to treat the runoff. Other storm drains would be modified to accommodate the widened roadway. Swales trap particulate pollutants (suspended solids and trace metals), promote infiltration, and reduce the flow velocity of stormwater runoff. Vegetated swales are effective for removing total suspended solids, sediment, oil and grease, organics and metals.

The proposed project would comply with pre- and post-construction stormwater controls. The proposed project would not have adverse effects on water quality in the project area and therefore would not make considerable contributions to a cumulative water quality impact.

Additionally, related projects would need to analyze current storm drain systems to assess runoff capacity. Cumulative growth and development could cause an increase in stormwater runoff, which would have an impact on the current storm systems. If the storm drain system does not have adequate capacity for increased runoff, then the storm drain system would need to be upgraded to accommodate the increases. Assessment would need to be analyzed during new development to make sure the increase in stormwater is managed appropriately.

Related projects would need to implement project-specific measures such as complying with the NPDES Construction General Permit (for projects disturbing more than 1 acre) and MS4 Permits, Cities of Norco and Eastvale requirements and guidance, and BMPs during the construction phase. These measures would help ensure that future development within the MSAR watershed would not have a cumulative adverse water quality impact. Cumulative impacts on water quality, as well as the proposed project's contribution to cumulative impacts, would not be cumulatively considerable.

Noise

The RSA for noise includes the area within 0.5 mile of each side of the project. Construction of the related projects in the area, including the Santa Ana River Trail, could potentially overlap with the proposed project. Construction activities for the Hamner Avenue roadway widening project would be complete prior to the commencement of construction of the proposed project, so effects would not be cumulative. Caltrans' provisions in Section 14-8.02, "Noise Control," of the 2015 Standard Specifications and Special Provisions and city and county municipal codes would place restrictions and time limits on construction activities. Due to adherence to these codes, the cumulative impact associated with the projects' construction noise would be less than significant. In addition, because construction-related noise generated under the proposed project would be addressed by implementation of the noise control measures provided in **NOI-1**, construction-related impacts from the proposed project would not result in a cumulatively considerable impact.

Cumulative noise impacts were considered for the future Horizon Year 2045, which accounts for future development in the project area, including traffic that would be facilitated through implementation of the proposed project and the Hamner Avenue roadway widening. As a result,

the analysis contained in Section 2.13 constitutes the operational noise cumulative analysis for the project. As discussed in Section 2.13.2, the proposed project would contribute to elevated noise levels within the noise RSA. Noise abatement (**NOI-2**) would be implemented for the proposed project in order to mitigate potential noise impacts on sensitive noise receptors; therefore, the project would not contribute either directly or indirectly to cumulatively considerable noise impacts.

Public Services and Utilities

The RSA includes the area within 0.5 mile of each side of the project site. The Santa Ana River Trail Expansion and the Hamner Avenue roadway widening are the only cumulative projects in this area. The construction schedule for the Santa Ana River Trail Expansion is unknown at this time, but could overlap with the proposed project. If construction activities of the Santa Ana River Trail Expansion occurs at the same time in the project area, they could result in temporary, localized, site-specific disruptions, including partial and/or complete street and lane closures, and detours. This could lead to an increase in delay times for emergency response vehicles during construction. As mentioned, a construction-period TMP would be prepared for the project and would ensure that access is maintained to and from the project area and that police are notified prior to the start of construction activities. It is anticipated that the Santa Ana River Trail Expansion would implement a construction-period TMP as well to minimize traffic disruptions. Therefore, the proposed project, in combination with the Santa Ana River Trail Expansion, would not result in a significant cumulative impact related to public services.

Recreation

The RSA includes the area within 0.5 mile of each side of the project site. The Santa Ana River Trail Expansion and the Hamner Avenue roadway widening are the only cumulative projects in this area. The construction schedule of the Santa Ana River Trail Expansion is unknown at this time, but could overlap with the proposed project. The Santa Ana River Trail Expansion is a planned recreational facility that will increase recreational opportunities in the area. Separate environmental analysis of the Santa Ana River Trail Expansion will be conducted to determine whether it will result in environmental impacts. Because at this time the impacts are unknown, the Santa Ana River Trail Expansion could result in a significant impact. Under the proposed bridge replacement, a trail ramp would be constructed at the northeast and southeast ends of the bridge to connect the planned Regional Santa Ana River Trail with the barrier-separated multipurpose trail on the new Hamner Avenue Bridge. Because this component of the proposed project would be built within existing right of way and would result in minor impacts, the proposed project would not result in a cumulatively considerable contribution to the potential significant cumulative impact related to recreation.

Traffic/Transportation

The RSA includes the area within 0.5 mile of each side of the project site. The Santa Ana River Trail Expansion and the Hamner Avenue roadway widening are the only cumulative projects in this area. The construction schedule of the Santa Ana River Trail Expansion is unknown at this time, but could overlap with the proposed project. The Santa Ana River Trail Expansion is a planned recreational facility that will increase recreational opportunities in the area. The proposed project and the future transportation projects would include the preparation of a TMP would include identification of detour routes within the construction area, placement of

appropriate signs, cones, and barricades in the vicinity of construction, scheduling of construction activities during off-peak hours, and development of plans that ensure emergency access and entry to existing residences and businesses within the construction areas. Construction impacts would be temporary and would be less than significant with the implementation of a TMP. Construction-related impacts from the proposed project would not result in cumulatively considerable traffic impacts.

The operational traffic analysis for the proposed project is based on future traffic conditions in the Year 2045, which accounts for future development in the project area and the implementation of related projects in the study area, including the Hamner Avenue roadway widening project. As a result, the analysis in Section 2.17 constitutes the operational cumulative analysis for the proposed project. The Horizon Year 2045 No Build Alternative versus Build Alternative operational results demonstrate the traffic enhancement value of the proposed project improvements. The total delay per vehicle and stop delay per vehicle is expected to decrease by at least 50 percent during the AM peak hour and by 33 percent during the PM peak hour under the proposed project. Because the proposed project would improve existing conditions, it is not anticipated to contribute to permanent cumulative impacts that affect mobility in the project area.

The Santa Ana River Trail expansion may be under construction in the same timeframe as the proposed project, but the Hamner Avenue roadway widening project is scheduled to be complete prior to the commencement of construction of the proposed project. To the extent that construction periods overlap, there is a potential for cumulative local level traffic impacts from multiple project detours and lane reductions occurring simultaneously in and adjacent to the project area, potentially resulting in deterioration of traffic operations on local roadways. The Cities of Norco and Eastvale and Riverside County would coordinate the timing of project detours and lane closures for all projects in the area in order to minimize traffic impacts. The proposed project would have no adverse short-term impacts on traffic/transportation; therefore, the project would not contribute either directly or indirectly to a cumulatively considerable impact.

Utilities and Service Systems

The RSA includes the area within 0.5 mile of each side of the project site. The Santa Ana River Trail Expansion and the Hamner Avenue roadway widening are the only cumulative projects in this area. The construction schedule for the Santa Ana River Trail Expansion is unknown at this time, but could overlap with the proposed project. Currently, the County of Riverside meets all of its water supply needs by utilizing groundwater sources located in the San Bernardino Bunker Hill Basin and the Riverside Basin (County of Riverside 2016). In addition, six landfills are located within the county that serve solid waste. The proposed project would generate a minimal amount of wastewater, would not require the construction of new drainage facilities (with the exception of overside drains, a swale, and other features to protect water quality), would have sufficient water supplies, and would be served by a landfill with sufficient permitted capacity. As with the proposed project, the Santa Ana River Trail Expansion is expected to generate a minimal amount of wastewater, have sufficient water supplies, and be served by a landfill with sufficient space. Therefore, the proposed project, in combination with the Santa Ana River Trail Expansion, would not result in a significant impact related to utilities and service systems.

Tribal Cultural Resources

The RSA includes the area within 0.5 mile of each side of the project. The Santa Ana River Trail Expansion and the Hamner Avenue roadway widening are the only cumulative projects in this area. Given the limited number of projects in the vicinity of the proposed project and that the construction schedule of the related project is unknown, the potential for cumulative impacts would not be substantial. With implementation of measure **TCR-1**, impacts resulting from the proposed project, in combination with the Santa Ana River Trail Expansion, would not result in a significant cumulative impact related to tribal cultural resources.

2.20.3 Avoidance, Minimization, and/or Mitigation Measures

No additional measures are needed beyond those identified under the individual resource discussions.

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Chapter 4 References

Aesthetics

- California Department of Transportation (Caltrans). 2018a. *Visual Impact Assessment, Hamner Avenue Bridge Replacement Project*. May.
- International Dark-Sky Association. 2010a. Seeing Blue. April 2010. *Nightscape 80*: 8-12. Available: [http://darksky.org/wp-content/uploads/bsk-pdf-manager/29_SEEINGBLUE\(1\).PDF](http://darksky.org/wp-content/uploads/bsk-pdf-manager/29_SEEINGBLUE(1).PDF). Accessed: May 2, 2017.
- . 2010b. *Visibility, Environmental, and Astronomical Issues Associated with Blue-Rich White Outdoor Lighting*. May 4, 2010. Available: <http://www.ida.darksky.org/assets/documents/Reports/IDA-Blue-Rich-Light-White-Paper.pdf>. Accessed: May 2, 2017.
- . 2015. IDA Issues New Standards on Blue Light at Night. April 2015. *Nightscape, The 2014 Annual Report*. 94: 10. Available: <http://darksky.org/wp-content/uploads/2015/06/NS94.pdf>. Accessed: May 2, 2017.

Agricultural and Mineral Resources

- California Department of Conservation. 2016. California Important Farmland Finder. Available: <https://maps.conservation.ca.gov/DLRP/CIFF/>. Accessed: May 25, 2018.
- City of Eastvale. 2012. *City of Eastvale General Plan*. Adopted June 13, 2012. Available: <http://www.eastvaleca.gov/home/showdocument?id=2360>. Accessed: June 8, 2018.
- City of Norco. 1989. General Plan: Open-Space Element. Available: <http://www.norco.ca.us/civicax/filebank/blobdload.aspx?BlobID=25454>. Accessed: May 25, 2018.
- . 2012. General Plan Land Use Map. Available: <http://www.norco.ca.us/civicax/filebank/blobdload.aspx?BlobID=25450>. Accessed: May 25, 2018.
- . 2014. General Plan: Conservation Element. Available: <http://www.norco.ca.us/civicax/filebank/blobdload.aspx?BlobID=25450>. Accessed: May 25, 2018.

Air Quality

- California Department of Transportation (Caltrans). 2018b. *Air Quality Report, Hamner Avenue Bridge Replacement Project*. March.

Biological Resources

- California Department of Transportation (Caltrans). 2017a. *Jurisdictional Delineation Report for the Hamner Avenue Bridge Replacement Project*. September.
- . 2018c. *Hamner Avenue Bridge Replacement Project Natural Environment Study*. May.
- . 2018d. *Natural Environment Study (Minimal Impacts), Geotechnical Borings at Hamner Avenue and the Santa Ana River*. January.
- Holland, R. F. 1986. Preliminary Descriptions of the Terrestrial Natural Communities of California. California Department of Fish and Wildlife. The Resources Agency, ed., p. 156. Sacramento, CA.
- Sawyer, J. O., T. Keeler-Wolf, and J. M. Evens. 2009. *A Manual of California Vegetation, Second Edition*. California Native Plant Society, Sacramento. 1300 pp.

Cultural Resources

- California Department of Transportation (Caltrans). 2018e. *Historic Property Survey Report*. June.
- . 2018f. *Geotechnical Borings at Hamner Avenue and the Santa Ana River Project Archaeological Survey Report*. June.

Paleontological Resources

- San Bernardino County Museum (SBCM). 2018. *Paleontology Literature/Records Review*. March.

Geology and Soils

- California Department of Conservation. 2018. *Earthquake Zones of Required Investigation*. Available: <https://maps.conservation.ca.gov/cgs/EQZApp/app/>. Accessed: May 20, 2018.
- California Department of Transportation (Caltrans). 2017b. *Water Quality Assessment Report, Hamner Avenue Bridge Replacement Project*. December.
- City of Norco. 2013. *City of Norco General Plan*. Safety Element. Available: <http://www.norco.ca.us/civicax/filebank/blobdload.aspx?BlobID=25455>. Accessed: May 25, 2018.
- . 2017. *Local Hazard Mitigation Plan*. Available: <http://www.norco.ca.us/civicax/filebank/blobdload.aspx?BlobID=24754>. Accessed: May 20, 2018.

County of Riverside. 2014. *Eastvale Area Plan*. Available:
http://planning.rctlma.org/Portals/0/genplan/general_plan_2014/GPA960/GPAVolume2/3EastvaleArea%20Plan-%20GPA%20No%20960%20Volume%202%202014-02-20.pdf.
Accessed: May 20, 2018.

Natural Resources Conservation Services (NRCS). 2018. Web Soil Survey. Available:
<https://websoilsurvey.sc.egov.usda.gov>. Accessed: June 3, 2018.

Greenhouse Gases

California Air Resources Board (ARB). 2008. Climate Change Scoping Plan Appendices (Volume II). Available:
https://www.arb.ca.gov/cc/scopingplan/document/appendices_volume2.pdf. Accessed: May 25, 2018.

Southern California Association of Governments (SCAG). 2016. 2016–2040 Regional Transportation Plan/Sustainable Communities Strategy.

Hazards and Hazardous Materials

California Department of Transportation (Caltrans). 2018g. *Asbestos Survey and Lead-based Paint Inspection Report, Hamner Avenue Bridge Over Santa Ana River*. February.

California Department of Toxic Substances Control. 2018. EnviroStor Database. Hazardous Waste and Substances Site List (Cortese). Available:
[https://www.envirostor.dtsc.ca.gov/public/search?cmd=search&reporttype=CORTESE&site_type=CSITES,OPEN,FUDS,CLOSE&status=ACT,BKLG,COM,COLUR&reporttitle=HAZARDOUS+WASTE+AND+SUBSTANCES+SITE+LIST+\(CORTESE\)](https://www.envirostor.dtsc.ca.gov/public/search?cmd=search&reporttype=CORTESE&site_type=CSITES,OPEN,FUDS,CLOSE&status=ACT,BKLG,COM,COLUR&reporttitle=HAZARDOUS+WASTE+AND+SUBSTANCES+SITE+LIST+(CORTESE)).
Accessed: June 3, 2018.

City of Ontario. 2011. Ontario International Airport Land Use Compatibility Plan. Available:
<http://www.ontarioplan.org/alucp-for-ontario-international-airport/>. Accessed: May 25, 2018.

Department of Forestry and Fire Protection. 2007. *Fire Hazard Severity Zones in SRA*. Available: http://frap.fire.ca.gov/webdata/maps/los_angeles/fhszs_map.19.pdf.

Diaz Yourman & Associates. 2017. *Phase I Initial Site Assessment for the Replacement of Hamner Avenue Bridge Over Santa Ana River*. Prepared for T.Y. Lin International. September.

Hydrology and Water Quality

California Department of Transportation (Caltrans). 2012. Water Quality Planning Tool. Available: <http://svctenvims.dot.ca.gov/wqpt/wqpt.aspx>. Accessed: September 11, 2017.

- . 2017b. *Water Quality Assessment Report, Hamner Avenue Bridge Replacement Project*. December.
- Chang Consultants. 2017. *Location Hydraulic Study Report, Hamner Avenue Bridge Replacement at Santa Ana River*. December.
- Federal Emergency Management Agency (FEMA). 2017. FIRM number 06065C0683G.
- Riverside County Flood Control and Water Conservation District. 2015. Middle Santa Ana River Watershed Fact Sheet. Available: http://rcflood.org/downloads/NPDES/Documents/SA_WAP/AppH_SubwatershedFactSheets.pdf. Accessed: October 23, 2017.
- State Water Resources Control Board (SWRCB). 2013. NPDES General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities.
- T.Y. Lin International. 2017. *Hamner Avenue Bridge Replacement Project, Preliminary Drainage Study*.

Land Use

- City of Norco. 2000. *City of Norco General Plan – Circulation Element*. Available: <http://www.norco.ca.us/civicax/filebank/blobdload.aspx?BlobID=25449>. Accessed: May 29, 2018.
- City of Eastvale. 2012. *City of Eastvale General Plan*. Available: <http://www.eastvaleca.gov/home/showdocument?id=2360>. Accessed: May 29, 2018.
- California Department of Transportation (Caltrans). 2018c. *Natural Environment Study prepared for the Hamner Avenue Bridge Replacement Project*.

Mineral Resources

- City of Norco. 2014. *City of Norco General Plan – Conservation Element*. Available: <http://www.norco.ca.us/civicax/filebank/blobdload.aspx?BlobID=25450>. Accessed: June 8, 2018.

Noise

- California Department of Transportation (Caltrans). 2013. *Transportation and Construction Vibration Guidance Manual*. September. Available: http://www.dot.ca.gov/hq/env/noise/pub/TCVGM_Sep13_FINAL.pdf.
- . 2018h. *Hamner Avenue Bridge Replacement Project Noise Study Report*. April.

———. 2018i. *Hamner Avenue Bridge Replacement Project Noise Abatement Decision Report*. April.

Federal Transit Administration (FTA). 2006. *Transit Noise and Vibration Impact Assessment*. Available: https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA_Noise_and_Vibration_Manual.pdf.

Public Services

Google Earth. 2018. Project Area Aerial Imagery. Available: <https://www.google.com/earth/>. Accessed: May 25, 2018.

Transportation and Traffic

County of Riverside Transportation Department. 2017. *Final Traffic Operations Analysis, Hamner Avenue Bridge Replacement at Santa Ana River*. Prepared by ADVANTEC Consulting Engineers, Diamond Bar, CA. November.

Utilities and Service Systems

California Department of Transportation (Caltrans). 2017b. *Water Quality Assessment Report, Hamner Avenue Bridge Replacement Project*. December.

Cumulative Impacts

County of Riverside. 2016. Riverside Public Utilities 2016 Water Quality Report. Available: https://riversideca.gov/utilities/pdf/WQAR2016_web.pdf. Accessed: May 25, 2018.

South Coast Air Quality Management District (SCAQMD). 2008. Interim CEQA GHG Significance Threshold for Stationary Sources, Rules and Plans. Available: [http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-\(ghg\)-ceqa-significance-thresholds/ghgboardsynopsis.pdf?sfvrsn=2](http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/ghgboardsynopsis.pdf?sfvrsn=2). Accessed: June 1, 2018.

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Appendix A Acronyms

AB	Assembly Bill
ACM	asbestos-containing material
ADL	aerially deposited lead
ADT	Average Daily Traffic
APE	area of potential effects
AQMP	air quality management plan
ARB	California Air Resources Board
ASR	Archaeological Survey Report
AST	aboveground storage tank
Basin	South Coast Air Basin
BMP	best management practice
BSA	Biological Study Area
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CAFE	corporate fuel economy
Caltrans	California Department of Transportation
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act of 1980
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
CH ₄	methane
CO ₂	carbon dioxide
CO ₂ e	carbon dioxide equivalent
CRHR	California Register of Historical Resources
CWA	Clean Water Act
dB	decibel
dBA	A-weighted decibel
DBESP	Determination of Biologically Equivalent or Superior Preservation
EO	Executive Order
ESA	environmentally sensitive area
FEMA	Federal Emergency Management Agency
FESA	Federal Endangered Species Act
FHWA	Federal Highway Administration
FIRM	Flood Insurance Rate Map
FTA	Federal Transit Administration
FTIP	Federal Transportation Improvement Program
GHG	greenhouse gas
Guidance	Transportation Conformity Guidance for Quantitative Hot-Spot Analyses in PM _{2.5} and PM ₁₀ Nonattainment and Maintenance Areas
GWP	global warming potential
HPSR	Historic Property Survey Report
I-15	Interstate 15
IS	initial study
ISA	Initial Site Assessment

K-factors	calibration factors
LBP	lead-based paint
LED	light-emitting diode
LEDPA	least environmentally damaging practicable alternative
Leq(h)	hourly equivalent sound level
Lmax	maximum noise level
LOS	level of service
MBTA	Migratory Bird Treaty Act
MMTCO ₂ e	million metric tons carbon dioxide equivalent
MND	Mitigated Negative Declaration
MPO	Metropolitan Planning Organization
MRZ	Mineral Resource Zone
MS4	Municipal Separate Storm Sewer System
MSAR	Middle Santa Ana River
MSHCP	Multiple Species Habitat Conservation Plan
MTCO ₂ e	metric tons carbon dioxide equivalent
N ₂ O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NAC	noise abatement criteria
NADR	Noise Abatement Decision Report
NAHC	Native American Heritage Commission
NEPA	National Environmental Policy Act
NES	Natural Environment Study
NFIP	National Flood Insurance Program
NOAA Fisheries Service	National Ocean and Atmospheric Administration's National Marine Fisheries Service
NO _x	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NSR	Noise Study Report
O ₃	ozone
PM10	particulate matter 10 microns or less in diameter
PM2.5	particulate matter 2.5 microns or less in diameter
PMP	Paleontological Mitigation Plan
Porter-Cologne Act	Porter-Cologne Water Quality Control Act
ppm	part per million
PQP	Public/Quasi-Public
PRC	Public Resources Code
PS&E	Plans, Specifications, and Estimates
RCA	Western Riverside Regional Conservation Authority
RCRA	Resource Conservation and Recovery Act of 1976
RCRCD	Riverside-Corona Resources Conservation District
REC	Recognized Environmental Conditions
RSA	resource study area
RTP	Regional Transportation Plan
RWQCB	Regional Water Quality Control Boards
SB	Senate Bill
SBCM	An Bernardino County Museum

SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCS	Sustainable Communities Strategy
SDC	Seismic Design Criteria
SIP	State Implementation Plan
SMARTS	Storm Water Multiple Application and Report Tracking System
SR-91	State Route 91
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TCM	Transportation Control Measure
TMDL	total maximum daily load
TMP	Traffic Management Plan
TOAR	Traffic Operations Analysis Report
U.S. EPA	U.S. Environmental Protection Agency
USACE	U.S. Army Corps of Engineers
USC	United States Code
USFWS	U.S. Fish and Wildlife Service
UST	underground storage tank
VIA	Visual Impact Assessment
VMT	vehicle miles traveled
VOC	volatile organic compound
WDR	Waste Discharge Requirement

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Appendix B AB 52 Tribal Correspondence Record

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COUNTY OF RIVERSIDE

TRANSPORTATION AND LAND MANAGEMENT AGENCY



*Juan C. Perez, P.E., T.E.
Transportation and Land
Management Agency Director*

*Patricia Romo, P.E.
Director of Transportation*

Transportation Department

September 6, 2017

Andreas J. Heredia
Cahuilla Band of Indians
52701 Highway 371
Anza, CA 92539

**Subject: Notification of Hamner Avenue Bridge Replacement
Pursuant to Public Resources Code Section 21080.3.1 and 21080.3.2 (AB 52)**

Dear Mr. Heredia:

This letter is formal notification of the County of Riverside's proposed Hamner Avenue Bridge Replacement, which is subject to compliance with the California Environmental Quality Act (CEQA). The County of Riverside (County) is the lead CEQA agency responsible for consulting with California Native American Tribes pursuant to Public Resources Codes Section 2108.3.1 and 21080.3.2 (AB 52). Accordingly, this letter provides a brief description of the proposed project, its location, and lead agency contact information. Pursuant to AB 52, the Cahuilla Band of Indians has 30 days to request in writing its desire to consult on this particular project. The request to consult must be received on or before October 6, 2017, and shall provide the name of the tribe's designated lead contact person.

Project Description

The County of Riverside Transportation Department (County), in cooperation with the Cities of Norco and Eastvale and the California Department of Transportation (Caltrans), proposes to replace the existing Hamner Avenue Bridge over the Santa Ana River and to widen Hamner Avenue from Detroit Street to Citrus Street in the City of Norco, Riverside County, California. The proposed project would replace the existing Hamner Avenue Bridge with a new bridge. The new bridge would include three 12-foot lanes and a 4-foot shoulder in each direction (northbound and southbound) separated by a 4-foot curbed median, along with a 12-foot barrier separated multipurpose trail on the east side of the bridge. To the north of the bridge Hamner Avenue would include three 12-foot lanes and a 4-foot shoulder in each direction along with a 5-foot sidewalk on the east side of the roadway. At the intersection with Citrus Street the outside northbound lane would become a dedicated right turn lane and a northbound dedicated left turn lane would be included. In the southbound direction Hamner Avenue would transition from two lanes to three lanes just south of Citrus Street. South of the bridge Hamner Avenue would include three 12-foot lanes and an 4-foot shoulder in each direction along with a 5-foot sidewalk

on the east side of the roadway and would transition to two 12-foot lanes in each direction prior to reaching Detroit Street. In addition, a dedicated left turn lane would be included in the southbound direction at the intersection with Detroit Street. A trail ramp would be constructed at the southeast end of the bridge to connect the planned Regional Santa Ana River Trail with the barrier separated multipurpose trail on the new Hamner Avenue Bridge.

Project Location

Hamner Avenue over the Santa Ana River in Norco, California.

Contact Information

The County lead contact for AB 52 Consultation on this project is:

Jan Bulinski
Senior Transportation Planner
3525 14th Street
Riverside, CA 92501

If the Cahuilla Band of Indians wishes to consult with the County regarding the Hamner Avenue Bridge Replacement, please indicate in writing via letter addressed to the lead contact at the address provided above within 30 days (on or before October 6, 2017) and provide the name of the tribe's designated lead contact person.

Sincerely,



Jan Bulinski
Senior Transportation Planner

Enclosure:
Project Location Map

Bulinski, Jan

From: Cultural Department <culturaldirector@cahuilla.net>
Sent: Tuesday, November 07, 2017 2:26 PM
To: Bulinski, Jan
Subject: Re: Hamner Avenue Bridge Replacement

Good Afternoon

The Cahuilla Cultural Department has reviewed the Hamner Avenue Bridge Replacement project and The Cahuilla Band has NO comment or interest in this project.

Thank You

From: Bulinski, Jan <JBulinski@RIVCO.ORG>
Sent: Tuesday, November 7, 2017 8:24:20 AM
To: anthonymad2002@gmail.com; Cultural Department
Subject: Hamner Avenue Bridge Replacement

Good morning,

I had previously sent a letter and email to Andres Heredia inquiring about the Tribe's interest in consultation per AB52 about the Hamner Avenue Bridge Replacement Project over the Santa Ana River in Norco, CA. We have just begun the environmental process and preliminary design. I was unaware that you were the cultural director until just recently. Please let me know if you are interested in this project.

Jan Bulinski
Senior Transportation Planner
Riverside County Transportation Dept.
3525 14th Street
Riverside, CA 92502

jbulinski@rivco.org
951.955.6859

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County of Riverside California



COUNTY OF RIVERSIDE

TRANSPORTATION AND LAND MANAGEMENT AGENCY



*Juan C. Perez, P.E., T.E.
Transportation and Land
Management Agency Director*

*Patricia Romo, P.E.
Director of Transportation*

Transportation Department

September 6, 2017

Doug Todd Welmas
Cabazon Band of Mission Indians
84-245 Indio Springs Parkway
Indio, CA 92203

**Subject: Notification of Hamner Avenue Bridge Replacement
Pursuant to Public Resources Code Section 21080.3.1 and 21080.3.2 (AB 52)**

Dear Mr. Welmas:

This letter is formal notification of the County of Riverside's proposed Hamner Avenue Bridge Replacement, which is subject to compliance with the California Environmental Quality Act (CEQA). The County of Riverside (County) is the lead CEQA agency responsible for consulting with California Native American Tribes pursuant to Public Resources Codes Section 2108.3.1 and 21080.3.2 (AB 52). Accordingly, this letter provides a brief description of the proposed project, its location, and lead agency contact information. Pursuant to AB 52, the Cabazon Band of Mission Indians has 30 days to request in writing its desire to consult on this particular project. The request to consult must be received on or before October 6, 2017, and shall provide the name of the tribe's designated lead contact person.

Project Description

The County of Riverside Transportation Department (County), in cooperation with the Cities of Norco and Eastvale and the California Department of Transportation (Caltrans), proposes to replace the existing Hamner Avenue Bridge over the Santa Ana River and to widen Hamner Avenue from Detroit Street to Citrus Street in the City of Norco, Riverside County, California. The proposed project would replace the existing Hamner Avenue Bridge with a new bridge. The new bridge would include three 12-foot lanes and a 4-foot shoulder in each direction (northbound and southbound) separated by a 4-foot curbed median, along with a 12-foot barrier separated multipurpose trail on the east side of the bridge. To the north of the bridge Hamner Avenue would include three 12-foot lanes and a 4-foot shoulder in each direction along with a 5-foot sidewalk on the east side of the roadway. At the intersection with Citrus Street the outside northbound lane would become a dedicated right turn lane and a northbound dedicated left turn lane would be included. In the southbound direction Hamner Avenue would transition from two lanes to three lanes just south of Citrus Street. South of the bridge Hamner Avenue would include three 12-foot lanes and an 4-foot shoulder in each direction along with a 5-foot sidewalk

on the east side of the roadway and would transition to two 12-foot lanes in each direction prior to reaching Detroit Street. In addition, a dedicated left turn lane would be included in the southbound direction at the intersection with Detroit Street. A trail ramp would be constructed at the southeast end of the bridge to connect the planned Regional Santa Ana River Trail with the barrier separated multipurpose trail on the new Hamner Avenue Bridge.

Project Location

Hamner Avenue over the Santa Ana River in Norco, California.

Contact Information

The County lead contact for AB 52 Consultation on this project is:

Jan Bulinski
Senior Transportation Planner
3525 14th Street
Riverside, CA 92501

If the Cabazon Band of Mission Indians wishes to consult with the County regarding the Hamner Avenue Bridge Replacement, please indicate in writing via letter addressed to the lead contact at the address provided above within 30 days (on or before October 6, 2017) and provide the name of the tribe's designated lead contact person.

Sincerely,



Jan Bulinski
Senior Transportation Planner

Enclosure:
Project Location Map



Patricia Romo, P.E.
Director of Transportation

COUNTY OF RIVERSIDE

TRANSPORTATION AND LAND MANAGEMENT AGENCY

Mojahed Salama, P.E.
Deputy for Transportation/Capital Projects
Richard Lantis, P.L.S.
*Deputy for Transportation/Planning and
Development*

Transportation Department

December 8, 2017

Jacquelyn Barnum
Cabazon Band of Mission Indians
84-245 Indio Springs Parkway
Indio, CA 92203

Subject: Follow-up for Initiation of Consultation for Hamner Avenue Bridge Replacement Project Pursuant to Public Resources Code Section 2180.3.1 and 2180.3.2 (AB 52)

Dear Ms. Barnum:

This letter serves as a follow-up to consult on the County of Riverside's proposed Hamner Avenue Bridge Replacement Project, pursuant to Public Resources Codes Section 2108.3.1 and 21080.3.2 (AB 52). In accordance with Public Resources Codes Section 2108.3.1(e), the County mailed you a registered letter dated September 6, 2017 initiating the consultation process. The County also sent an email and phoned on October 10, 2017 and November 7, 2017 respectively. As no response has yet been received, the County is sending you this follow-up letter requesting that you contact me in order to determine your involvement in the AB 52 process. Consultation may be conducted in person or if you prefer, by email, letter, or telephone.

The County will be concluding the consultation process with the Cabazon Band of Mission Indians for this project unless we receive a response from you within 30 days of the date of this letter. If no response is received within this time frame, the County will consider AB 52 consultation with the Tribe to be complete.

Please contact me if you would like to arrange a date and time for a consultation meeting.

Sincerely,

Jan Bulinski
Senior Transportation Planner
3525 14th Street
Riverside, CA 92501

951-955-6859
jbulinski@rivco.org



COUNTY OF RIVERSIDE

TRANSPORTATION AND LAND MANAGEMENT AGENCY



Juan C. Perez, P.E., T.E.
*Transportation and Land
Management Agency Director*

Patricia Romo, P.E.
Director of Transportation

Transportation Department

September 6, 2017

Darrell Mike
Twenty Nine Palms Band of Mission Indians
46-200 Harrison Place
Coachella, CA 92236

**Subject: Notification of Hamner Avenue Bridge Replacement
Pursuant to Public Resources Code Section 21080.3.1 and 21080.3.2 (AB 52)**

Dear Mr. Mike:

This letter is formal notification of the County of Riverside's proposed Hamner Avenue Bridge Replacement, which is subject to compliance with the California Environmental Quality Act (CEQA). The County of Riverside (County) is the lead CEQA agency responsible for consulting with California Native American Tribes pursuant to Public Resources Codes Section 2108.3.1 and 21080.3.2 (AB 52). Accordingly, this letter provides a brief description of the proposed project, its location, and lead agency contact information. Pursuant to AB 52, the Twenty Nine Palms Band of Mission Indians has 30 days to request in writing its desire to consult on this particular project. The request to consult must be received on or before October 6, 2017, and shall provide the name of the tribe's designated lead contact person.

Project Description

The County of Riverside Transportation Department (County), in cooperation with the Cities of Norco and Eastvale and the California Department of Transportation (Caltrans), proposes to replace the existing Hamner Avenue Bridge over the Santa Ana River and to widen Hamner Avenue from Detroit Street to Citrus Street in the City of Norco, Riverside County, California. The proposed project would replace the existing Hamner Avenue Bridge with a new bridge. The new bridge would include three 12-foot lanes and a 4-foot shoulder in each direction (northbound and southbound) separated by a 4-foot curbed median, along with a 12-foot barrier separated multipurpose trail on the east side of the bridge. To the north of the bridge Hamner Avenue would include three 12-foot lanes and a 4-foot shoulder in each direction along with a 5-foot sidewalk on the east side of the roadway. At the intersection with Citrus Street the outside northbound lane would become a dedicated right turn lane and a northbound dedicated left turn lane would be included. In the southbound direction Hamner Avenue would transition from two lanes to three lanes just south of Citrus Street. South of the bridge Hamner Avenue would include three 12-foot lanes and an 4-foot shoulder in each direction along with a 5-foot sidewalk

on the east side of the roadway and would transition to two 12-foot lanes in each direction prior to reaching Detroit Street. In addition, a dedicated left turn lane would be included in the southbound direction at the intersection with Detroit Street. A trail ramp would be constructed at the southeast end of the bridge to connect the planned Regional Santa Ana River Trail with the barrier separated multipurpose trail on the new Hamner Avenue Bridge.

Project Location

Hamner Avenue over the Santa Ana River in Norco, California.

Contact Information

The County lead contact for AB 52 Consultation on this project is:

Jan Bulinski
Senior Transportation Planner
3525 14th Street
Riverside, CA 92501

If the Twenty Nine Palms Band of Mission Indians wishes to consult with the County regarding the Hamner Avenue Bridge Replacement, please indicate in writing via letter addressed to the lead contact at the address provided above within 30 days (on or before October 6, 2017) and provide the name of the tribe's designated lead contact person.

Sincerely,



Jan Bulinski
Senior Transportation Planner

Enclosure:
Project Location Map



TWENTY-NINE PALMS BAND OF MISSION INDIANS

46-200 Harrison Place . Coachella, California . 92236 . Ph. 760.863.2444 . Fax: 760.863.2449

October 6, 2017

Jan Bulinski, Senior Transportation Planner
County of Riverside | Transportation Department
3525 14th Street
Riverside, CA 92501

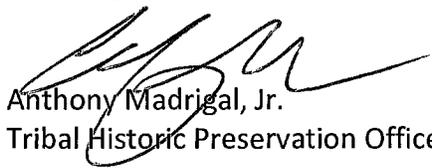
**RE: Notification of Hamner Avenue Bridge Replacement
Pursuant to Public Resources Code Section 21080.3.1 and 21080.3.2 (AB 52)**

Dear Mr. Bulinski,

This letter is in regards to consultation in compliance with AB 52 (California Public Resources Code § 21080.3.1), for the formal notification of the Hamner Avenue Bridge Replacement Project. This project entails the replacement of the Hamner Avenue Bridge and to widen Hamner Avenue. The Tribal Historic Preservation Office (THPO) is not aware of any additional cultural resources or any Tribal Cultural Resources, as defined California Public Resources Code § 21074 (a) (1) (A)-(B), within the project area. We currently have no interest in the project and defer to the comments of other tribes. If there are inadvertent discoveries of archaeological remains or resources, construction should stop immediately, and the appropriate agency and tribe(s) should be notified.

If you have any questions, please do not hesitate to contact the THPO at (760) 775-3259 or by email: TNPConsultation@29palmsbomi-nsn.gov.

Sincerely,



Anthony Madrigal, Jr.
Tribal Historic Preservation Officer

cc: Darrell Mike, Twenty-Nine Palms Tribal Chairman
Sarah Bliss, Twenty-Nine Palms Tribal Cultural Specialist



COUNTY OF RIVERSIDE
TRANSPORTATION AND
LAND MANAGEMENT AGENCY



Juan C. Perez, P.E., T.E.
Transportation and Land
Management Agency Director

Patricia Romo, P.E.
Director of Transportation

Transportation Department

September 6, 2017

Michael Mirelez
Torres Martinez Desert Cahuilla Indians
P.O. Box 1160
Thermal, CA 92274

Subject: Notification of Hamner Avenue Bridge Replacement
Pursuant to Public Resources Code Section 21080.3.1 and 21080.3.2 (AB 52)

Dear Mr. Mirelez:

This letter is formal notification of the County of Riverside's proposed Hamner Avenue Bridge Replacement, which is subject to compliance with the California Environmental Quality Act (CEQA). The County of Riverside (County) is the lead CEQA agency responsible for consulting with California Native American Tribes pursuant to Public Resources Codes Section 21083.1 and 21080.3.2 (AB 52). Accordingly, this letter provides a brief description of the proposed project, its location, and lead agency contact information. Pursuant to AB 52, the Torres Martinez Desert Cahuilla Indians has 30 days to request in writing its desire to consult on this particular project. The request to consult must be received on or before October 6, 2017, and shall provide the name of the tribe's designated lead contact person.

Project Description

The County of Riverside Transportation Department (County), in cooperation with the Cities of Norco and Eastvale and the California Department of Transportation (Caltrans), proposes to replace the existing Hamner Avenue Bridge over the Santa Ana River and to widen Hamner Avenue from Detroit Street to Citrus Street in the City of Norco, Riverside County, California. The proposed project would replace the existing Hamner Avenue Bridge with a new bridge. The new bridge would include three 12-foot lanes and a 4-foot shoulder in each direction (northbound and southbound) separated by a 4-foot curbed median, along with a 12-foot barrier separated multipurpose trail on the east side of the bridge. To the north of the bridge Hamner Avenue would include three 12-foot lanes and a 4-foot shoulder in each direction along with a 5-foot sidewalk on the east side of the roadway. At the intersection with Citrus Street the outside northbound lane would become a dedicated right turn lane and a northbound dedicated left turn lane would be included. In the southbound direction Hamner Avenue would transition from two lanes to three lanes just south of Citrus Street. South of the bridge Hamner Avenue would include three 12-foot lanes and an 4-foot shoulder in each direction along with a 5-foot sidewalk

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Project Location

Hamner Avenue over the Santa Ana River in Norco, California.

Contact Information

The County lead contact for AB 52 Consultation on this project is:

Jan Bulinski
Senior Transportation Planner
3525 14th Street
Riverside, CA 92501

If the Torres Martinez Desert Cahuilla Indians wishes to consult with the County regarding the Hamner Avenue Bridge Replacement, please indicate in writing via letter addressed to the lead contact at the address provided above within 30 days (on or before October 6, 2017) and provide the name of the tribe's designated lead contact person.

Sincerely,



Jan Bulinski
Senior Transportation Planner

Enclosure:
Project Location Map



COUNTY OF RIVERSIDE
TRANSPORTATION AND
LAND MANAGEMENT AGENCY



Juan C. Perez, P.E., T.E.
Transportation and Land
Management Agency Director

Patricia Romo, P.E.
Director of Transportation

Transportation Department

September 6, 2017

Joe Ontiveros
Soboba Band of Luiseño Indians
P.O. Box 487
San Jacinto, Ca92581

Subject: Notification of Hamner Avenue Bridge Replacement
Pursuant to Public Resources Code Section 21080.3.1 and 21080.3.2 (AB 52)

Dear Mr. Ontiveros:

This letter is formal notification of the County of Riverside's proposed Hamner Avenue Bridge Replacement, which is subject to compliance with the California Environmental Quality Act (CEQA). The County of Riverside (County) is the lead CEQA agency responsible for consulting with California Native American Tribes pursuant to Public Resources Codes Section 2108.3.1 and 21080.3.2 (AB 52). Accordingly, this letter provides a brief description of the proposed project, its location, and lead agency contact information. Pursuant to AB 52, the Soboba Band of Luiseño Indians has 30 days to request in writing its desire to consult on this particular project. The request to consult must be received on or before October 6, 2017, and shall provide the name of the tribe's designated lead contact person.

Project Description

The County of Riverside Transportation Department (County), in cooperation with the Cities of Norco and Eastvale and the California Department of Transportation (Caltrans), proposes to replace the existing Hamner Avenue Bridge over the Santa Ana River and to widen Hamner Avenue from Detroit Street to Citrus Street in the City of Norco, Riverside County, California. The proposed project would replace the existing Hamner Avenue Bridge with a new bridge. The new bridge would include three 12-foot lanes and a 4-foot shoulder in each direction (northbound and southbound) separated by a 4-foot curbed median, along with a 12-foot barrier separated multipurpose trail on the east side of the bridge. To the north of the bridge Hamner Avenue would include three 12-foot lanes and a 4-foot shoulder in each direction along with a 5-foot sidewalk on the east side of the roadway. At the intersection with Citrus Street the outside northbound lane would become a dedicated right turn lane and a northbound dedicated left turn lane would be included. In the southbound direction Hamner Avenue would transition from two lanes to three lanes just south of Citrus Street. South of the bridge Hamner Avenue would include three 12-foot lanes and an 4-foot shoulder in each direction along with a 5-foot sidewalk

on the east side of the roadway and would transition to two 12-foot lanes in each direction prior to reaching Detroit Street. In addition, a dedicated left turn lane would be included in the southbound direction at the intersection with Detroit Street. A trail ramp would be constructed at the southeast end of the bridge to connect the planned Regional Santa Ana River Trail with the barrier separated multipurpose trail on the new Hamner Avenue Bridge.

Project Location

Hamner Avenue over the Santa Ana River in Norco, California.

Contact Information

The County lead contact for AB 52 Consultation on this project is:

Jan Bulinski
Senior Transportation Planner
3525 14th Street
Riverside, CA 92501

If the Soboba Band of Luiseño Indians wishes to consult with the County regarding the Hamner Avenue Bridge Replacement, please indicate in writing via letter addressed to the lead contact at the address provided above within 30 days (on or before October 6, 2017) and provide the name of the tribe's designated lead contact person.

Sincerely,



Jan Bulinski
Senior Transportation Planner

Enclosure:
Project Location Map

October 4, 2017

Attn: Jan Bulinski, Senior Transportation Planner
Riverside County Transportation Department
3525 14th Street
Riverside, CA 92501



RE: AB 52 Consultation; Hamner Avenue Bridge Replacement – Hamner Avenue over the Santa Ana River – City of Norco, Riverside County, CA

The Soboba Band of Luiseño Indians has received your notification pursuant under Assembly Bill 52.

Soboba Band of Luiseño Indians is requesting to initiate formal consultation with the County of Riverside. A meeting can be scheduled by contacting me via email or phone. All contact information has been included in this letter.

I look forward to hearing from and meeting with you soon.

Sincerely,

Joseph Ontiveros, Director of Cultural Resources
Soboba Band of Luiseño Indians
P.O. Box 487
San Jacinto, CA 92581
Phone (951) 654-5544 ext. 4137
Cell (951) 663-5279
jontiveros@soboba-nsn.gov

Confidentiality: The entirety of the contents of this letter shall remain confidential between Soboba and the County of Riverside. No part of the contents of this letter may be shared, copied, or utilized in any way with any other individual, entity, municipality, or tribe, whatsoever, without the expressed written permission of the Soboba Band of Luiseño Indians.



COUNTY OF RIVERSIDE
TRANSPORTATION AND
LAND MANAGEMENT AGENCY

Patricia Romo, P.E.
Director of Transportation

Mojahed Salama, P.E.
Deputy for Transportation/Capital Projects
Richard Lantis, P.L.S.
Deputy for Transportation/Planning and
Development

Transportation Department

October 17, 2017

Joe Ontiveros, Cultural Resource Director
Soboba Band of Luiseño Indians
P.O. Box 487
San Jacinto, CA 92581

**Subject: Initiation of Consultation for Hamner Avenue Bridge Replacement
Pursuant to Public Resources Code Section 20180.3.1 and 21080.3.2 (AB 52)**

Dear Mr. Ontiveros:

I have received your request to consult on the County of Riverside's proposed Hamner Avenue Bridge Replacement, which is subject to compliance with the California Environmental Quality Act (CEQA). As stated in the notification letter dated September 6, 2017, the County of Riverside (County) is the lead CEQA agency for the proposed project and is responsible for consulting with California Native American Tribes pursuant to Public Resources Codes Section 2108.3.1 and 21080.3.2 (AB 52). The proposed project includes replacement of the existing bridge over the Santa Ana River and widen Hamner Avenue from Detroit Street to Citrus Street in the cities of Eastvale and Norco in Riverside County.

As the County's point of contact for the purpose of AB 52 consultation for the Hamner Avenue Bridge Replacement, I would like to propose a formal consultation meeting with you at the County's Transportation Department office to discuss the project. The purpose of this meeting would be to begin consultation with you and discuss tribal concerns regarding the proposed project and potential impacts to tribal cultural resources. Early identification of the Tribe's concerns will allow the County to evaluate options to avoid and minimize potential impacts to tribal cultural resources as the project is developed and refined.

Please contact me within 30 days in order to arrange a date and time for a consultation meeting. If you prefer, consultation may also be conducted by email, letter, or telephone whichever format is most convenient for you. I can be reached at 3525 14th Street, Riverside, CA 92501, 951-955-6859, jbulinski@rivco.org.

Sincerely,

A handwritten signature in cursive script that reads 'Jan Bulinski'.

Jan Bulinski
Senior Transportation Planner



COUNTY OF RIVERSIDE
TRANSPORTATION AND
LAND MANAGEMENT AGENCY

Patricia Romo, P.E.
Director of Transportation

Mojahed Salama, P.E.
Deputy for Transportation/Capital Projects
Richard Lantis, P.L.S.
Deputy for Transportation/Planning and
Development

Transportation Department

June 18, 2018

Joe Ontiveros
Soboba Band of Luiseño Indians
P.O. Box 487
San Jacinto, CA 92581

Subject: Notice of Consultation Conclusion for Hamner Avenue Bridge Replacement Pursuant to Public Resources Code Section 2180.3.1 and 21080.3.2 (AB 52)

Dear Mr. Ontiveros:

This letter serves as a formal notification that the County of Riverside (County) is concluding consultation with Soboba Band of Luiseño Indians for the proposed Hamner Avenue Bridge Replacement Project pursuant to Public Resources Codes Section 2108.3.1 and 21080.3.2 (AB 52). The County has discussed the Project with the Tribe and the potential impacts that it may have on tribal cultural resources on:

1/24/18 Email transmitting HPSR for review
1/29/18 Meeting regarding the project
2/23/18 Phone message regarding HPSR
3/6/18 Letter with HPSR comments
3/15/18 Letter responding to comments

It is my understanding that your comments regarding the HPSR have been resolved through the Section 106 process with Caltrans.

At this time, the County is concluding AB 52 consultation with the Tribe for the Hamner Avenue Bridge Replacement. *If the Tribe does not agree that consultation for this project has concluded, please notify me via telephone or email within 7 days.*

Sincerely,

Jan Bulinski
Senior Transportation Planner
(951) 955-6859
jbulinski@rivco.org



COUNTY OF RIVERSIDE

TRANSPORTATION AND LAND MANAGEMENT AGENCY



*Juan C. Perez, P.E., T.E.
Transportation and Land
Management Agency Director*

*Patricia Romo, P.E.
Director of Transportation*

Transportation Department

September 6, 2017

Lee Clauss
San Manuel Band of Mission Indians
26569 Community Center Drive
Highland, CA 92346

**Subject: Notification of Hamner Avenue Bridge Replacement
Pursuant to Public Resources Code Section 21080.3.1 and 21080.3.2 (AB 52)**

Dear Mr. Clauss:

This letter is formal notification of the County of Riverside's proposed Hamner Avenue Bridge Replacement, which is subject to compliance with the California Environmental Quality Act (CEQA). The County of Riverside (County) is the lead CEQA agency responsible for consulting with California Native American Tribes pursuant to Public Resources Codes Section 2108.3.1 and 21080.3.2 (AB 52). Accordingly, this letter provides a brief description of the proposed project, its location, and lead agency contact information. Pursuant to AB 52, the San Manuel Band of Mission Indians has 30 days to request in writing its desire to consult on this particular project. The request to consult must be received on or before October 6, 2017, and shall provide the name of the tribe's designated lead contact person.

Project Description

The County of Riverside Transportation Department (County), in cooperation with the Cities of Norco and Eastvale and the California Department of Transportation (Caltrans), proposes to replace the existing Hamner Avenue Bridge over the Santa Ana River and to widen Hamner Avenue from Detroit Street to Citrus Street in the City of Norco, Riverside County, California. The proposed project would replace the existing Hamner Avenue Bridge with a new bridge. The new bridge would include three 12-foot lanes and a 4-foot shoulder in each direction (northbound and southbound) separated by a 4-foot curbed median, along with a 12-foot barrier separated multipurpose trail on the east side of the bridge. To the north of the bridge Hamner Avenue would include three 12-foot lanes and a 4-foot shoulder in each direction along with a 5-foot sidewalk on the east side of the roadway. At the intersection with Citrus Street the outside northbound lane would become a dedicated right turn lane and a northbound dedicated left turn lane would be included. In the southbound direction Hamner Avenue would transition from two lanes to three lanes just south of Citrus Street. South of the bridge Hamner Avenue would include three 12-foot lanes and an 4-foot shoulder in each direction along with a 5-foot sidewalk

on the east side of the roadway and would transition to two 12-foot lanes in each direction prior to reaching Detroit Street. In addition, a dedicated left turn lane would be included in the southbound direction at the intersection with Detroit Street. A trail ramp would be constructed at the southeast end of the bridge to connect the planned Regional Santa Ana River Trail with the barrier separated multipurpose trail on the new Hamner Avenue Bridge.

Project Location

Hamner Avenue over the Santa Ana River in Norco, California.

Contact Information

The County lead contact for AB 52 Consultation on this project is:

Jan Bulinski
Senior Transportation Planner
3525 14th Street
Riverside, CA 92501

If the San Manuel Band of Mission Indians wishes to consult with the County regarding the Hamner Avenue Bridge Replacement, please indicate in writing via letter addressed to the lead contact at the address provided above within 30 days (on or before October 6, 2017) and provide the name of the tribe's designated lead contact person.

Sincerely,



Jan Bulinski
Senior Transportation Planner

Enclosure:
Project Location Map

Chmiel, Karolina

From: Bulinski, Jan <JBulinski@RIVCO.ORG>
Sent: Wednesday, October 4, 2017 3:38 PM
To: Calvert, Brian
Subject: FW: Hamner Avenue Bridge Replacement

[AB52 response](#)

From: Lee Clauss [mailto:LClauss@sanmanuel-nsn.gov]
Sent: Wednesday, October 04, 2017 3:37 PM
To: Bulinski, Jan <JBulinski@RIVCO.ORG>
Subject: Hamner Avenue Bridge Replacement

Good afternoon, Jan,

On September 8, 2017, the Cultural Resources Management Department for San Manuel Band of Mission Indians (SMBMI) received correspondence regarding the Hamner Bridge Replacement Project located in Norco, Riverside County, CA, from the County of Riverside Transportation Department. I am writing today to inform you that this project exists outside of Serrano ancestral territory and, as such, SMBMI will not be requesting consulting party status under CEQA or requesting to participate in the scoping, development, and/or review of documents created pursuant to CEQA or any related CA Public Resources Code.

Should you have any questions about the content of this communication, please do not hesitate to contact me at your convenience.

Respectfully,

Lee Clauss

DIRECTOR, CULTURAL RESOURCES MANAGEMENT
O: (909) 864-8933 x3248
Internal: 50-3248
M: (909) 633-5851
26569 Community Center Drive, Highland California 92346



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[County of Riverside California](#)



COUNTY OF RIVERSIDE
TRANSPORTATION AND
LAND MANAGEMENT AGENCY



Juan C. Perez, P.E., T.E.
Transportation and Land
Management Agency Director

Patricia Romo, P.E.
Director of Transportation

Transportation Department

September 6, 2017

Jim McPherson
Rincon Band of Luiseño Indians
1 West Tribal Road
Valley Center, CA 92082

Subject: Notification of Hamner Avenue Bridge Replacement
Pursuant to Public Resources Code Section 21080.3.1 and 21080.3.2 (AB 52)

Dear Mr. McPherson:

This letter is formal notification of the County of Riverside's proposed Hamner Avenue Bridge Replacement, which is subject to compliance with the California Environmental Quality Act (CEQA). The County of Riverside (County) is the lead CEQA agency responsible for consulting with California Native American Tribes pursuant to Public Resources Codes Section 21080.3.1 and 21080.3.2 (AB 52). Accordingly, this letter provides a brief description of the proposed project, its location, and lead agency contact information. Pursuant to AB 52, the Rincon Band of Luiseño Indians has 30 days to request in writing its desire to consult on this particular project. The request to consult must be received on or before October 6, 2017, and shall provide the name of the tribe's designated lead contact person.

Project Description

The County of Riverside Transportation Department (County), in cooperation with the Cities of Norco and Eastvale and the California Department of Transportation (Caltrans), proposes to replace the existing Hamner Avenue Bridge over the Santa Ana River and to widen Hamner Avenue from Detroit Street to Citrus Street in the City of Norco, Riverside County, California. The proposed project would replace the existing Hamner Avenue Bridge with a new bridge. The new bridge would include three 12-foot lanes and a 4-foot shoulder in each direction (northbound and southbound) separated by a 4-foot curbed median, along with a 12-foot barrier separated multipurpose trail on the east side of the bridge. To the north of the bridge Hamner Avenue would include three 12-foot lanes and a 4-foot shoulder in each direction along with a 5-foot sidewalk on the east side of the roadway. At the intersection with Citrus Street the outside northbound lane would become a dedicated right turn lane and a northbound dedicated left turn lane would be included. In the southbound direction Hamner Avenue would transition from two lanes to three lanes just south of Citrus Street. South of the bridge Hamner Avenue would include three 12-foot lanes and an 4-foot shoulder in each direction along with a 5-foot sidewalk

on the east side of the roadway and would transition to two 12-foot lanes in each direction prior to reaching Detroit Street. In addition, a dedicated left turn lane would be included in the southbound direction at the intersection with Detroit Street. A trail ramp would be constructed at the southeast end of the bridge to connect the planned Regional Santa Ana River Trail with the barrier separated multipurpose trail on the new Hamner Avenue Bridge.

Project Location

Hamner Avenue over the Santa Ana River in Norco, California.

Contact Information

The County lead contact for AB 52 Consultation on this project is:

Jan Bulinski
Senior Transportation Planner
3525 14th Street
Riverside, CA 92501

If the Rincon Band of Luiseño Indians wishes to consult with the County regarding the Hamner Avenue Bridge Replacement, please indicate in writing via letter addressed to the lead contact at the address provided above within 30 days (on or before October 6, 2017) and provide the name of the tribe's designated lead contact person.

Sincerely,



Jan Bulinski
Senior Transportation Planner

Enclosure:
Project Location Map

RINCON BAND OF LUISEÑO INDIANS

Cultural Resources Department

1 W. Tribal Road · Valley Center, California 92082 ·
(760) 297-2330 Fax:(760) 297-2339



October 9, 2017

Jan Bulinski
County of Riverside
Transportation and Land Management Agency
Transportation Department
4080 Lemon Street, 8th Floor
Riverside, CA 92501

Re: Hammer Avenue Bridge Replacement Project

Dear Ms. Bulinski:

This letter is written on behalf of the Rincon Band of Luiseño Indians. Thank you for inviting us to submit comments on the Hammer Avenue Bridge Replacement Project. Rincon is submitting these comments concerning your projects potential impact on Luiseño cultural resources.

The Rincon Band has concerns for the impacts to historic and cultural resources and the finding of items of significant cultural value that could be disturbed or destroyed and are considered culturally significant to the Luiseño people. This is to inform you, your identified location is not within the Luiseño Aboriginal Territory. We recommend that you locate a tribe within the project area to receive direction on how to handle any inadvertent findings according to their customs and traditions.

If you would like information on tribes within your project area, please contact the Native American Heritage Commission and they will assist with a referral.

Thank you for the opportunity to protect and preserve our cultural assets.

Sincerely,



Destiny Colocho
Manager
Rincon Cultural Resources Department

Bo Mazzetti
Tribal Chairman

Tishmall Turner
Vice Chairwoman

Steve Stallings
Council Member

Laurie E. Gonzalez
Council Member

Alfonso Kolb
Council Member



COUNTY OF RIVERSIDE

TRANSPORTATION AND LAND MANAGEMENT AGENCY



*Juan C. Perez, P.E., T.E.
Transportation and Land
Management Agency Director*

*Patricia Romo, P.E.
Director of Transportation*

Transportation Department

September 6, 2017

Joseph D. Hamilton
Ramona Band of Cahuilla
56310 Highway 371, Suite B
P.O. Box 391670
Anza, CA 92539

**Subject: Notification of Hamner Avenue Bridge Replacement
Pursuant to Public Resources Code Section 20180.3.1 and 21080.3.2 (AB 52)**

Dear Mr. Hamilton:

This letter is formal notification of the County of Riverside's proposed Hamner Avenue Bridge Replacement, which is subject to compliance with the California Environmental Quality Act (CEQA). The County of Riverside (County) is the lead CEQA agency responsible for consulting with California Native American Tribes pursuant to Public Resources Codes Section 2108.3.1 and 21080.3.2 (AB 52). Accordingly, this letter provides a brief description of the proposed project, its location, and lead agency contact information. Pursuant to AB 52, the Ramona Band of Cahuilla has 30 days to request in writing its desire to consult on this particular project. The request to consult must be received on or before October 6, 2017, and shall provide the name of the tribe's designated lead contact person.

Project Description

The County of Riverside Transportation Department (County), in cooperation with the Cities of Norco and Eastvale and the California Department of Transportation (Caltrans), proposes to replace the existing Hamner Avenue Bridge over the Santa Ana River and to widen Hamner Avenue from Detroit Street to Citrus Street in the City of Norco, Riverside County, California. The proposed project would replace the existing Hamner Avenue Bridge with a new bridge. The new bridge would include three 12-foot lanes and a 4-foot shoulder in each direction (northbound and southbound) separated by a 4-foot curbed median, along with a 12-foot barrier separated multipurpose trail on the east side of the bridge. To the north of the bridge Hamner Avenue would include three 12-foot lanes and a 4-foot shoulder in each direction along with a 5-foot sidewalk on the east side of the roadway. At the intersection with Citrus Street the outside northbound lane would become a dedicated right turn lane and a northbound dedicated left turn lane would be included. In the southbound direction Hamner Avenue would transition from two lanes to three lanes just south of Citrus Street. South of the bridge Hamner Avenue would

include three 12-foot lanes and an 4-foot shoulder in each direction along with a 5-foot sidewalk on the east side of the roadway and would transition to two 12-foot lanes in each direction prior to reaching Detroit Street. In addition, a dedicated left turn lane would be included in the southbound direction at the intersection with Detroit Street. A trail ramp would be constructed at the southeast end of the bridge to connect the planned Regional Santa Ana River Trail with the barrier separated multipurpose trail on the new Hamner Avenue Bridge.

Project Location

Hamner Avenue over the Santa Ana River in Norco, California.

Contact Information

The County lead contact for AB 52 Consultation on this project is:

Jan Bulinski
Senior Transportation Planner
3525 14th Street
Riverside, CA 92501

If the Ramona Band of Cahuilla wishes to consult with the County regarding the Hamner Avenue Bridge Replacement, please indicate in writing via letter addressed to the lead contact at the address provided above within 30 days (on or before October 6, 2017) and provide the name of the tribe's designated lead contact person.

Sincerely,



Jan Bulinski
Senior Transportation Planner

Enclosure:
Project Location Map



COUNTY OF RIVERSIDE
TRANSPORTATION AND
LAND MANAGEMENT AGENCY

Patricia Romo, P.E.
Director of Transportation

Majahed Salama, P.E.
Deputy for Transportation/Capital Projects
Richard Lantis, P.L.S.
Deputy for Transportation/Planning and
Development

Transportation Department

June 18, 2018

Joseph D. Hamilton
Ramona Band of Cahuilla
56310 Highway 371, Suite B
P.O. Box 391670
Anza, CA 92539

Subject: Notice of Consultation Conclusion for Hamner Avenue Bridge Replacement Pursuant to Public Resources Code Section 20180.3.1 and 21080.3.2 (AB 52)

Dear Mr. Hamilton:

This letter serves as a formal notification that the County of Riverside (County) is concluding consultation with Ramona Band of Cahuilla for the proposed Hamner Avenue Bridge Replacement Project pursuant to Public Resources Codes Section 2108.3.1 and 21080.3.2 (AB 52). The County has contacted the Tribe about the Project and the potential impacts that it may have on tribal cultural resources on:

10/10/17 Sent email
11/7/17 Sent email and called
1/24/18 Sent email with Historic Property Survey Report (HPSR) attached
2/23/18 Phone message regarding HPSR

No response has been received regarding the HPSR document. At this time, the County is concluding AB 52 consultation with the Tribe for the Hamner Avenue Bridge Replacement. *If the Tribe does not agree that consultation for this project has concluded, please notify me via telephone or email within 7 days.*

Sincerely,

Jan Bulinski
Senior Transportation Planner
(951) 955-6859
jbulinski@rivco.org



COUNTY OF RIVERSIDE

TRANSPORTATION AND LAND MANAGEMENT AGENCY



*Juan C. Perez, P.E., T.E.
Transportation and Land
Management Agency Director*

*Patricia Romo, P.E.
Director of Transportation*

Transportation Department

September 6, 2017

Mike Jackson Sr
Quechen Indian Nation
Fort Yuma Indian Reservation
P.O. Box 1899
Yuma, AZ 85366

**Subject: Notification of Hamner Avenue Bridge Replacement
Pursuant to Public Resources Code Section 20180.3.1 and 21080.3.2 (AB 52)**

Dear Mr. Jackson:

This letter is formal notification of the County of Riverside's proposed Hamner Avenue Bridge Replacement, which is subject to compliance with the California Environmental Quality Act (CEQA). The County of Riverside (County) is the lead CEQA agency responsible for consulting with California Native American Tribes pursuant to Public Resources Codes Section 2108.3.1 and 21080.3.2 (AB 52). Accordingly, this letter provides a brief description of the proposed project, its location, and lead agency contact information. Pursuant to AB 52, the Quechen Indian Nation has 30 days to request in writing its desire to consult on this particular project. The request to consult must be received on or before October 6, 2017, and shall provide the name of the tribe's designated lead contact person.

Project Description

The County of Riverside Transportation Department (County), in cooperation with the Cities of Norco and Eastvale and the California Department of Transportation (Caltrans), proposes to replace the existing Hamner Avenue Bridge over the Santa Ana River and to widen Hamner Avenue from Detroit Street to Citrus Street in the City of Norco, Riverside County, California. The proposed project would replace the existing Hamner Avenue Bridge with a new bridge. The new bridge would include three 12-foot lanes and a 4-foot shoulder in each direction (northbound and southbound) separated by a 4-foot curbed median, along with a 12-foot barrier separated multipurpose trail on the east side of the bridge. To the north of the bridge Hamner Avenue would include three 12-foot lanes and a 4-foot shoulder in each direction along with a 5-foot sidewalk on the east side of the roadway. At the intersection with Citrus Street the outside northbound lane would become a dedicated right turn lane and a northbound dedicated left turn lane would be included. In the southbound direction Hamner Avenue would transition from two lanes to three lanes just south of Citrus Street. South of the bridge Hamner Avenue would

include three 12-foot lanes and an 4-foot shoulder in each direction along with a 5-foot sidewalk on the east side of the roadway and would transition to two 12-foot lanes in each direction prior to reaching Detroit Street. In addition, a dedicated left turn lane would be included in the southbound direction at the intersection with Detroit Street. A trail ramp would be constructed at the southeast end of the bridge to connect the planned Regional Santa Ana River Trail with the barrier separated multipurpose trail on the new Hamner Avenue Bridge.

Project Location

Hamner Avenue over the Santa Ana River in Norco, California.

Contact Information

The County lead contact for AB 52 Consultation on this project is:

Jan Bulinski
Senior Transportation Planner
3525 14th Street
Riverside, CA 92501

If the Quechen Indian Nation wishes to consult with the County regarding the Hamner Avenue Bridge Replacement, please indicate in writing via letter addressed to the lead contact at the address provided above within 30 days (on or before October 6, 2017) and provide the name of the tribe's designated lead contact person.

Sincerely,



Jan Bulinski
Senior Transportation Planner

Enclosure:
Project Location Map

Chmiel, Karolina

From: Bulinski, Jan <JBulinski@RIVCO.ORG>
Sent: Wednesday, October 11, 2017 10:26 AM
To: Calvert, Brian
Subject: FW: Hamner Ave Bridge replacement

For your records

From: Manfred Scott [mailto:scottmanfred@yahoo.com]
Sent: Wednesday, October 11, 2017 10:18 AM
To: Bulinski, Jan <JBulinski@RIVCO.ORG>
Subject: Re: Hamner Ave Bridge replacement

Good morning Jan Bulinski

The Quechan Cultural Committee has no concerns on the Hammer Avenue Bridge Replacement, and that you refer to the other tribes closer to your area and we also request a tribal monitor, if the other tribes wish to do so. but keep us informed of other future projects.

Mr. Keeny Escalanti is our Tribal President same address and telephone

Manfred Scott
Quechan Cultural Committee
Acting Chairperson
P.O. Box 1899 Yuma AZ 85366-1899

cell (928) 750-2519
scottmanfred@yaoo.com

On Tuesday, October 10, 2017 1:47 PM, "Bulinski, Jan" <JBulinski@RIVCO.ORG> wrote:

Hello Mr. Scott,

It was nice talking to you this afternoon. Thank you for the updated contact for the Tribe. Attached is a letter I sent to Mr. Jackson on September 6, 2017 regarding consultation per AB52 on the Hamner Ave Bridge replacement project on Hamner Ave over the Santa Ana River in Norco, CA. Please let me know if you are interested in this project. We have just begun the environmental process and preliminary design.

Regards,

Jan Bulinski
Senior Transportation Planner
Riverside County Transportation Dept.
3525 14th Street
Riverside, CA 92502



COUNTY OF RIVERSIDE

TRANSPORTATION AND LAND MANAGEMENT AGENCY



*Juan C. Perez, P.E., T.E.
Transportation and Land
Management Agency Director*

*Patricia Romo, P.E.
Director of Transportation*

Transportation Department

September 6, 2017

Ebru Odzil
Temecula Band of Luiseño Indians
P.O. Box 2183
Temecula, CA 92593

**Subject: Notification of Hamner Avenue Bridge Replacement
Pursuant to Public Resources Code Section 21080.3.1 and 21080.3.2 (AB 52)**

Dear Ms. Odzil:

This letter is formal notification of the County of Riverside's proposed Hamner Avenue Bridge Replacement, which is subject to compliance with the California Environmental Quality Act (CEQA). The County of Riverside (County) is the lead CEQA agency responsible for consulting with California Native American Tribes pursuant to Public Resources Codes Section 2108.3.1 and 21080.3.2 (AB 52). Accordingly, this letter provides a brief description of the proposed project, its location, and lead agency contact information. Pursuant to AB 52, the Temecula Band of Luiseño Indians has 30 days to request in writing its desire to consult on this particular project. The request to consult must be received on or before October 6, 2017, and shall provide the name of the tribe's designated lead contact person.

Project Description

The County of Riverside Transportation Department (County), in cooperation with the Cities of Norco and Eastvale and the California Department of Transportation (Caltrans), proposes to replace the existing Hamner Avenue Bridge over the Santa Ana River and to widen Hamner Avenue from Detroit Street to Citrus Street in the City of Norco, Riverside County, California. The proposed project would replace the existing Hamner Avenue Bridge with a new bridge. The new bridge would include three 12-foot lanes and a 4-foot shoulder in each direction (northbound and southbound) separated by a 4-foot curbed median, along with a 12-foot barrier separated multipurpose trail on the east side of the bridge. To the north of the bridge Hamner Avenue would include three 12-foot lanes and a 4-foot shoulder in each direction along with a 5-foot sidewalk on the east side of the roadway. At the intersection with Citrus Street the outside northbound lane would become a dedicated right turn lane and a northbound dedicated left turn lane would be included. In the southbound direction Hamner Avenue would transition from two lanes to three lanes just south of Citrus Street. South of the bridge Hamner Avenue would include three 12-foot lanes and an 4-foot shoulder in each direction along with a 5-foot sidewalk

on the east side of the roadway and would transition to two 12-foot lanes in each direction prior to reaching Detroit Street. In addition, a dedicated left turn lane would be included in the southbound direction at the intersection with Detroit Street. A trail ramp would be constructed at the southeast end of the bridge to connect the planned Regional Santa Ana River Trail with the barrier separated multipurpose trail on the new Hamner Avenue Bridge.

Project Location

Hamner Avenue over the Santa Ana River in Norco, California.

Contact Information

The County lead contact for AB 52 Consultation on this project is:

Jan Bulinski
Senior Transportation Planner
3525 14th Street
Riverside, CA 92501

If the Temecula Band of Luiseño Indians wishes to consult with the County regarding the Hamner Avenue Bridge Replacement, please indicate in writing via letter addressed to the lead contact at the address provided above within 30 days (on or before October 6, 2017) and provide the name of the tribe's designated lead contact person.

Sincerely,



Jan Bulinski
Senior Transportation Planner

Enclosure:
Project Location Map

Chmiel, Karolina

From: Bulinski, Jan <JBulinski@RIVCO.ORG>
Sent: Tuesday, October 10, 2017 3:03 PM
To: Calvert, Brian
Subject: FW: Hamner Ave Bridge replacement - Request for AB52 Consultation

fyi

From: Ebru Ozdil [mailto:eozdil@pechanga-nsn.gov]
Sent: Tuesday, October 10, 2017 3:02 PM
To: Bulinski, Jan <JBulinski@RIVCO.ORG>
Cc: Analyst Intern <analystintern@pechanga-nsn.gov>
Subject: RE: Hamner Ave Bridge replacement - Request for AB52 Consultation

Hi Jan,

Thank you for contacting us regarding this project. We are interested in this project and would like to start our AB52 consultation to receive additional information to identify our concerns and level of involvement.

Again, thank you for checking and looking forward to working together on this project.

Have a great day!

*Ebru T. Ozdil
Planning Specialist
Pechanga Band of Mission Indians
P.O. Box 2183
Temecula, CA 92593*

Office:(951)-770-6313
Fax:(951)-693-2314
eozdil@pechanga-nsn.gov*

****Please update my number – last 4 digit changed***

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From: Bulinski, Jan [mailto:JBulinski@RIVCO.ORG]
Sent: Tuesday, October 10, 2017 1:26 PM
To: Ebru Ozdil <eozdil@pechanga-nsn.gov>
Subject: Hamner Ave Bridge replacement

Hello Ms. Ozdil,

I sent a letter to you on September 6, 2017 regarding your interest in consultation per AB52 on the Hamner Ave Bridge replacement project on Hamner Ave over the Santa Ana River in Norco, CA. Please let me know if you are interested in this project. We have just begun the environmental process and preliminary design.

Regards,

Jan Bulinski
Senior Transportation Planner
Riverside County Transportation Dept.
3525 14th Street
Riverside, CA 92502

jbulinski@rivco.org
951.955.6859

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[County of Riverside California](#)



Patricia Romo, P.E.
Director of Transportation

COUNTY OF RIVERSIDE
TRANSPORTATION AND
LAND MANAGEMENT AGENCY

Mojahed Salama, P.E.
Deputy for Transportation/Capital Projects
Richard Lantis, P.L.S.
Deputy for Transportation/Planning and
Development

Transportation Department

June 18, 2018

Ebru Odzil
Temecula Band of Luiseño Indians
P.O. Box 2183
Temecula, CA 92593

Subject: Notice of Consultation Conclusion for Hamner Avenue Bridge Replacement Pursuant to Public Resources Code Section 2180.3.1 and 21080.3.2 (AB 52)

Dear Ms. Odzil:

This letter serves as a formal notification that the County of Riverside (County) is concluding consultation with Temecula Band of Luiseño Indians for the proposed Hamner Avenue Bridge Replacement Project pursuant to Public Resources Codes Section 2108.3.1 and 21080.3.2 (AB 52). The County has discussed the Project with the Tribe and the potential impacts that it may have on tribal cultural resources on:

1/24/18 Sent email with Historic Property Survey Report (HPSR) attached
2/6/18 Discussed project in quarterly meeting

As a result of these consultation efforts, the HPSR includes requested changes to the ethnography section provided by the Tribe.

At this time, the County is concluding AB 52 consultation with the Tribe for the Hamner Avenue Bridge Replacement. *If the Tribe does not agree that consultation for this project has concluded, please notify me via telephone or email within 7 days.*

Sincerely,

A handwritten signature in blue ink that reads 'Jan Bulinski'.

Jan Bulinski
Senior Transportation Planner
(951) 955-6859
jbulinski@rivco.org



COUNTY OF RIVERSIDE

TRANSPORTATION AND LAND MANAGEMENT AGENCY



*Juan C. Perez, P.E., T.E.
Transportation and Land
Management Agency Director*

*Patricia Romo, P.E.
Director of Transportation*

Transportation Department

September 6, 2017

Shasta Gaughen
Pala Band of Mission Indians
PMB 50, 35008 Pala Temecula Road
Pala, CA 92059

**Subject: Notification of Hamner Avenue Bridge Replacement
Pursuant to Public Resources Code Section 21080.3.1 and 21080.3.2 (AB 52)**

Dear Ms. Gaughen:

This letter is formal notification of the County of Riverside's proposed Hamner Avenue Bridge Replacement, which is subject to compliance with the California Environmental Quality Act (CEQA). The County of Riverside (County) is the lead CEQA agency responsible for consulting with California Native American Tribes pursuant to Public Resources Codes Section 2108.3.1 and 21080.3.2 (AB 52). Accordingly, this letter provides a brief description of the proposed project, its location, and lead agency contact information. Pursuant to AB 52, the Pala Band of Mission Indians has 30 days to request in writing its desire to consult on this particular project. The request to consult must be received on or before October 6, 2017, and shall provide the name of the tribe's designated lead contact person.

Project Description

The County of Riverside Transportation Department (County), in cooperation with the Cities of Norco and Eastvale and the California Department of Transportation (Caltrans), proposes to replace the existing Hamner Avenue Bridge over the Santa Ana River and to widen Hamner Avenue from Detroit Street to Citrus Street in the City of Norco, Riverside County, California. The proposed project would replace the existing Hamner Avenue Bridge with a new bridge. The new bridge would include three 12-foot lanes and a 4-foot shoulder in each direction (northbound and southbound) separated by a 4-foot curbed median, along with a 12-foot barrier separated multipurpose trail on the east side of the bridge. To the north of the bridge Hamner Avenue would include three 12-foot lanes and a 4-foot shoulder in each direction along with a 5-foot sidewalk on the east side of the roadway. At the intersection with Citrus Street the outside northbound lane would become a dedicated right turn lane and a northbound dedicated left turn lane would be included. In the southbound direction Hamner Avenue would transition from two lanes to three lanes just south of Citrus Street. South of the bridge Hamner Avenue would include three 12-foot lanes and an 4-foot shoulder in each direction along with a 5-foot sidewalk

**PALA TRIBAL HISTORIC
PRESERVATION OFFICE**

PMB 50, 35008 Pala Temecula Road
Pala, CA 92059
760-891-3510 Office | 760-742-3189 Fax



September 12, 2017

Jan Bulinski
County of Riverside
Senior Transportation Planner
3525 14th Street
Riverside, CA 92501

Re: AB-52 Consultation; Hamner Avenue Bridge Replacement

Dear Ms. Bulinski:

The Pala Band of Mission Indians Tribal Historic Preservation Office has received your notification of the project referenced above. This letter constitutes our response on behalf of Robert Smith, Tribal Chairman.

We have consulted our maps and determined that the project as described is not within the boundaries of the recognized Pala Indian Reservation. The project is also beyond the boundaries of the territory that the tribe considers its Traditional Use Area (TUA). Therefore, we decline AB-52 consultation at this time, but do not waive our right to request consultation under other applicable laws in the future. At this point we defer to the wishes of Tribes in closer proximity to the project area.

We appreciate involvement with your initiative and look forward to working with you on future efforts. If you have questions or need additional information, please do not hesitate to contact me by telephone at 760-891-3515 or by e-mail at sgaughen@palatribe.com.

Sincerely,

A handwritten signature in black ink that reads "Shasta C. Gaughen". The signature is fluid and cursive, with the first name being the most prominent.

Shasta C. Gaughen, PhD
Tribal Historic Preservation Officer
Pala Band of Mission Indians



COUNTY OF RIVERSIDE

TRANSPORTATION AND LAND MANAGEMENT AGENCY



*Juan C. Perez, P.E., T.E.
Transportation and Land
Management Agency Director*

*Patricia Romo, P.E.
Director of Transportation*

Transportation Department

September 6, 2017

Ray Huaute
Morongo Band of Mission Indians
12700 Pumarra Road
Banning, CA 92220

**Subject: Notification of Hamner Avenue Bridge Replacement
Pursuant to Public Resources Code Section 21080.3.1 and 21080.3.2 (AB 52)**

Dear Mr. Huaute:

This letter is formal notification of the County of Riverside's proposed Hamner Avenue Bridge Replacement, which is subject to compliance with the California Environmental Quality Act (CEQA). The County of Riverside (County) is the lead CEQA agency responsible for consulting with California Native American Tribes pursuant to Public Resources Codes Section 2108.3.1 and 21080.3.2 (AB 52). Accordingly, this letter provides a brief description of the proposed project, its location, and lead agency contact information. Pursuant to AB 52, the Morongo Band of Mission Indians has 30 days to request in writing its desire to consult on this particular project. The request to consult must be received on or before October 6, 2017, and shall provide the name of the tribe's designated lead contact person.

Project Description

The County of Riverside Transportation Department (County), in cooperation with the Cities of Norco and Eastvale and the California Department of Transportation (Caltrans), proposes to replace the existing Hamner Avenue Bridge over the Santa Ana River and to widen Hamner Avenue from Detroit Street to Citrus Street in the City of Norco, Riverside County, California. The proposed project would replace the existing Hamner Avenue Bridge with a new bridge. The new bridge would include three 12-foot lanes and a 4-foot shoulder in each direction (northbound and southbound) separated by a 4-foot curbed median, along with a 12-foot barrier separated multipurpose trail on the east side of the bridge. To the north of the bridge Hamner Avenue would include three 12-foot lanes and a 4-foot shoulder in each direction along with a 5-foot sidewalk on the east side of the roadway. At the intersection with Citrus Street the outside northbound lane would become a dedicated right turn lane and a northbound dedicated left turn lane would be included. In the southbound direction Hamner Avenue would transition from two lanes to three lanes just south of Citrus Street. South of the bridge Hamner Avenue would include three 12-foot lanes and an 4-foot shoulder in each direction along with a 5-foot sidewalk

on the east side of the roadway and would transition to two 12-foot lanes in each direction prior to reaching Detroit Street. In addition, a dedicated left turn lane would be included in the southbound direction at the intersection with Detroit Street. A trail ramp would be constructed at the southeast end of the bridge to connect the planned Regional Santa Ana River Trail with the barrier separated multipurpose trail on the new Hamner Avenue Bridge.

Project Location

Hamner Avenue over the Santa Ana River in Norco, California.

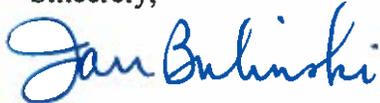
Contact Information

The County lead contact for AB 52 Consultation on this project is:

Jan Bulinski
Senior Transportation Planner
3525 14th Street
Riverside, CA 92501

If the Morongo Band of Mission Indians wishes to consult with the County regarding the Hamner Avenue Bridge Replacement, please indicate in writing via letter addressed to the lead contact at the address provided above within 30 days (on or before October 6, 2017) and provide the name of the tribe's designated lead contact person.

Sincerely,



Jan Bulinski
Senior Transportation Planner

Enclosure:
Project Location Map



Patricia Romo, P.E.
Director of Transportation

COUNTY OF RIVERSIDE

TRANSPORTATION AND LAND MANAGEMENT AGENCY

Mojahed Salama, P.E.
Deputy for Transportation/Capital Projects
Richard Lantis, P.L.S.
*Deputy for Transportation/Planning and
Development*

Transportation Department

December 8, 2017

Ray Huaute
Morongo Band of Mission Indians
12700 Pumarra Road
Banning, CA 92220

Subject: Follow-up for Initiation of Consultation for Hamner Avenue Bridge Replacement Project Pursuant to Public Resources Code Section 2180.3.1 and 2180.3.2 (AB 52)

Dear Mr. Huaute:

This letter serves as a follow-up to consult on the County of Riverside's proposed Hamner Avenue Bridge Replacement Project, pursuant to Public Resources Codes Section 2108.3.1 and 21080.3.2 (AB 52). In accordance with Public Resources Codes Section 2108.3.1(e), the County mailed you a registered letter dated September 6, 2017 initiating the consultation process. The County also sent an email and phoned on October 10, 2017 and November 7, 2017 respectively. As no response has yet been received, the County is sending you this follow-up letter requesting that you contact me in order to determine your involvement in the AB 52 process. Consultation may be conducted in person or if you prefer, by email, letter, or telephone.

The County will be concluding the consultation process with the Morongo Band of Mission Indians for this project unless we receive a response from you within 30 days of the date of this letter. If no response is received within this time frame, the County will consider AB 52 consultation with the Tribe to be complete.

Please contact me if you would like to arrange a date and time for a consultation meeting.

Sincerely,

Jan Bulinski
Senior Transportation Planner
3525 14th Street
Riverside, CA 92501

951-955-6859
jbulinski@rivco.org

MORONGO
BAND OF
MISSION
INDIANS



**MORONGO BAND OF MISSION INDIANS
TRIBAL HISTORIC PRESERVATION OFFICE**

12700 PUMARRA RD BANNING, CA 92220

OFFICE 951-755-5025 FAX 951-572-6004

Date: 1/23/2018

Re:

AB 52 (ASSEMBLY BILL 52) NOTIFICATION (Hammer Bridge Replacement Project)

Dear,

Jan Bulinski

Senior Transportation Planner

County of Riverside

Thank you for contacting the Morongo Band of Mission Indians (MBMI) Cultural Heritage Department regarding the above referenced project(s). After conducting a preliminary review of the project, the tribe would like to respectfully issue the following comments and/or requests:

- The project is located outside of the Tribe's aboriginal territory and is not within an area considered to be a traditional use area or one in which the Tribe has cultural ties. We recommend contacting the appropriate tribe(s) who may have cultural affiliations to the project area. We have no further comments at this time.
- The project is located within the Tribe's aboriginal territory or in an area considered to be a traditional use area or one in which the Tribe has cultural ties. In order to further evaluate the project for potential impacts to tribal cultural resources, we would like to formally request the following:
 - A thorough records search be conducted by contacting one of the California Historical Resources Information System (CHRIS) Archaeological Information Centers and a copy of the search results be provided to the tribe.
 - Tribal monitor participation during the initial pedestrian field survey of the Phase I Study of the project and a copy of the results of that study. In the event the pedestrian survey has already been conducted, MBMI requests a copy of the Phase I study be provided to the tribe as soon as it can be made available.
 - MBMI Tribal Cultural Resource Monitor(s) be present during all required ground disturbing activities pertaining to the project.
- The project is located with the current boundaries of the Morongo Indian Reservation. Please contact the Morongo Cultural Heritage Department for further details.

Please be aware that this letter is merely intended to notify your office that the tribe has received your letter requesting tribal consultation for the above mentioned project and is requesting to engage in consultation. Specific details regarding the tribe's involvement in the project must be discussed on a project by project basis during the tribal consultation process. This letter does not constitute "meaningful" tribal consultation nor does it conclude the consultation process. Under federal and state law, "meaningful" consultation is understood to be an ongoing government-to-government process and may involve requests for additional information, phone conferences and/or face-to-face meetings. If you have any further questions or concerns regarding this letter, please contact the Morongo Cultural Heritage office at (951) 755-5139.

Sincerely,

Raymond Huaute
Cultural Resource Specialist
Morongo Band of Mission Indians
Email: rhuaute@morongo-nsn.gov
Phone: (951) 755-5025



COUNTY OF RIVERSIDE
TRANSPORTATION AND
LAND MANAGEMENT AGENCY

Patricia Romo, P.E.
Director of Transportation

Mojahed Salama, P.E.
Deputy for Transportation/Capital Projects
Richard Lantis, P.L.S.
Deputy for Transportation/Planning and
Development

Transportation Department

June 18, 2018

Ray Huaute
Morongo Band of Mission Indians
12700 Pumarra Road
Banning, CA 92220

Subject: Notice of Consultation Conclusion for Hamner Avenue Bridge Replacement Pursuant to Public Resources Code Section 20180.3.1 and 21080.3.2 (AB 52)

Dear Mr. Huaute:

This letter serves as a formal notification that the County of Riverside (County) is concluding consultation with Morongo Band of Mission Indians for the proposed Hamner Avenue Bridge Replacement Project pursuant to Public Resources Codes Section 2108.3.1 and 21080.3.2 (AB 52). The County has contacted the Tribe about the Project and the potential impacts that it may have on tribal cultural resources on:

10/10/17 Sent email
11/7/17 Left phone message
12/8/18 Sent follow up letter
1/23/18 Received letter from Tribe wishing to consult
1/24/18 Sent email with Historic Property Survey Report (HPSR) attached
2/23/18 Phone message regarding HPSR

No response has been received regarding the HPSR document. At this time, the County is concluding AB 52 consultation with the Tribe for the Hamner Avenue Bridge Replacement. *If the Tribe does not agree that consultation for this project has concluded, please notify me via telephone or email within 7 days.*

Sincerely,

Jan Bulinski
Senior Transportation Planner
(951) 955-6859
jbulinski@rivco.org



COUNTY OF RIVERSIDE

TRANSPORTATION AND LAND MANAGEMENT AGENCY



*Juan C. Perez, P.E., T.E.
Transportation and Land
Management Agency Director*

*Patricia Romo, P.E.
Director of Transportation*

Transportation Department

September 6, 2017

Amanda Berrera
Colorado River Indian Tribes
26600 Mohave Road
Parker, AZ 85344

**Subject: Notification of Hamner Avenue Bridge Replacement
Pursuant to Public Resources Code Section 21080.3.1 and 21080.3.2 (AB 52)**

Dear Ms. Berrera:

This letter is formal notification of the County of Riverside's proposed Hamner Avenue Bridge Replacement, which is subject to compliance with the California Environmental Quality Act (CEQA). The County of Riverside (County) is the lead CEQA agency responsible for consulting with California Native American Tribes pursuant to Public Resources Codes Section 2108.3.1 and 21080.3.2 (AB 52). Accordingly, this letter provides a brief description of the proposed project, its location, and lead agency contact information. Pursuant to AB 52, the Colorado River Indian Tribes has 30 days to request in writing its desire to consult on this particular project. The request to consult must be received on or before October 6, 2017, and shall provide the name of the tribe's designated lead contact person.

Project Description

The County of Riverside Transportation Department (County), in cooperation with the Cities of Norco and Eastvale and the California Department of Transportation (Caltrans), proposes to replace the existing Hamner Avenue Bridge over the Santa Ana River and to widen Hamner Avenue from Detroit Street to Citrus Street in the City of Norco, Riverside County, California. The proposed project would replace the existing Hamner Avenue Bridge with a new bridge. The new bridge would include three 12-foot lanes and a 4-foot shoulder in each direction (northbound and southbound) separated by a 4-foot curbed median, along with a 12-foot barrier separated multipurpose trail on the east side of the bridge. To the north of the bridge Hamner Avenue would include three 12-foot lanes and a 4-foot shoulder in each direction along with a 5-foot sidewalk on the east side of the roadway. At the intersection with Citrus Street the outside northbound lane would become a dedicated right turn lane and a northbound dedicated left turn lane would be included. In the southbound direction Hamner Avenue would transition from two lanes to three lanes just south of Citrus Street. South of the bridge Hamner Avenue would include three 12-foot lanes and an 4-foot shoulder in each direction along with a 5-foot sidewalk

on the east side of the roadway and would transition to two 12-foot lanes in each direction prior to reaching Detroit Street. In addition, a dedicated left turn lane would be included in the southbound direction at the intersection with Detroit Street. A trail ramp would be constructed at the southeast end of the bridge to connect the planned Regional Santa Ana River Trail with the barrier separated multipurpose trail on the new Hamner Avenue Bridge.

Project Location

Hamner Avenue over the Santa Ana River in Norco, California.

Contact Information

The County lead contact for AB 52 Consultation on this project is:

Jan Bulinski
Senior Transportation Planner
3525 14th Street
Riverside, CA 92501

If the Colorado River Indian Tribes wishes to consult with the County regarding the Hamner Avenue Bridge Replacement, please indicate in writing via letter addressed to the lead contact at the address provided above within 30 days (on or before October 6, 2017) and provide the name of the tribe's designated lead contact person.

Sincerely,



Jan Bulinski
Senior Transportation Planner

Enclosure:
Project Location Map



*Patricia Romo, P.E.
Director of Transportation*

COUNTY OF RIVERSIDE

TRANSPORTATION AND LAND MANAGEMENT AGENCY

*Mojahed Salama, P.E.
Deputy for Transportation/Capital Projects
Richard Lantis, P.L.S.
Deputy for Transportation/Planning and
Development*

Transportation Department

December 8, 2017

Brian Etsitty
Colorado River Indian Tribes
26600 Mohave Road
Parker, AZ 85344

Subject: Follow-up for Initiation of Consultation for Hamner Avenue Bridge Replacement Project Pursuant to Public Resources Code Section 2180.3.1 and 2180.3.2 (AB 52)

Dear Mr. Etsitty:

This letter serves as a follow-up to consult on the County of Riverside's proposed Hamner Avenue Bridge Replacement Project, pursuant to Public Resources Codes Section 2108.3.1 and 21080.3.2 (AB 52). In accordance with Public Resources Codes Section 2108.3.1(e), the County mailed you a registered letter dated September 6, 2017 initiating the consultation process. The County also sent an email and phoned on October 10, 2017 and November 7, 2017 respectively. As no response has yet been received, the County is sending you this follow-up letter requesting that you contact me in order to determine your involvement in the AB 52 process. Consultation may be conducted in person or if you prefer, by email, letter, or telephone.

The County will be concluding the consultation process with the Colorado River Indian Tribes for this project unless we receive a response from you within 30 days of the date of this letter. If no response is received within this time frame, the County will consider AB 52 consultation with the Tribe to be complete.

Please contact me if you would like to arrange a date and time for a consultation meeting.

Sincerely,

Jan Bulinski
Senior Transportation Planner
3525 14th Street
Riverside, CA 92501

951-955-6859
jbulinski@rivco.org



COUNTY OF RIVERSIDE

TRANSPORTATION AND LAND MANAGEMENT AGENCY



*Juan C. Perez, P.E., T.E.
Transportation and Land
Management Agency Director*

*Patricia Romo, P.E.
Director of Transportation*

Transportation Department

September 6, 2017

Andrew Salas
Gabrieleño Band of Mission Indians – Kizh Nation
P.O. Box 393
Covina, CA 91723

**Subject: Notification of Hamner Avenue Bridge Replacement
Pursuant to Public Resources Code Section 21080.3.1 and 21080.3.2 (AB 52)**

Dear Mr. Salas:

This letter is formal notification of the County of Riverside's proposed Hamner Avenue Bridge Replacement, which is subject to compliance with the California Environmental Quality Act (CEQA). The County of Riverside (County) is the lead CEQA agency responsible for consulting with California Native American Tribes pursuant to Public Resources Codes Section 2108.3.1 and 21080.3.2 (AB 52). Accordingly, this letter provides a brief description of the proposed project, its location, and lead agency contact information. Pursuant to AB 52, the Gabrieleño Band of Mission Indians – Kizh Nation has 30 days to request in writing its desire to consult on this particular project. The request to consult must be received on or before October 6, 2017, and shall provide the name of the tribe's designated lead contact person.

Project Description

The County of Riverside Transportation Department (County), in cooperation with the Cities of Norco and Eastvale and the California Department of Transportation (Caltrans), proposes to replace the existing Hamner Avenue Bridge over the Santa Ana River and to widen Hamner Avenue from Detroit Street to Citrus Street in the City of Norco, Riverside County, California. The proposed project would replace the existing Hamner Avenue Bridge with a new bridge. The new bridge would include three 12-foot lanes and a 4-foot shoulder in each direction (northbound and southbound) separated by a 4-foot curbed median, along with a 12-foot barrier separated multipurpose trail on the east side of the bridge. To the north of the bridge Hamner Avenue would include three 12-foot lanes and a 4-foot shoulder in each direction along with a 5-foot sidewalk on the east side of the roadway. At the intersection with Citrus Street the outside northbound lane would become a dedicated right turn lane and a northbound dedicated left turn lane would be included. In the southbound direction Hamner Avenue would transition from two lanes to three lanes just south of Citrus Street. South of the bridge Hamner Avenue would include three 12-foot lanes and an 4-foot shoulder in each direction along with a 5-foot sidewalk

on the east side of the roadway and would transition to two 12-foot lanes in each direction prior to reaching Detroit Street. In addition, a dedicated left turn lane would be included in the southbound direction at the intersection with Detroit Street. A trail ramp would be constructed at the southeast end of the bridge to connect the planned Regional Santa Ana River Trail with the barrier separated multipurpose trail on the new Hamner Avenue Bridge.

Project Location

Hamner Avenue over the Santa Ana River in Norco, California.

Contact Information

The County lead contact for AB 52 Consultation on this project is:

Jan Bulinski
Senior Transportation Planner
3525 14th Street
Riverside, CA 92501

If the Gabrieleño Band of Mission Indians – Kizh Nation wishes to consult with the County regarding the Hamner Avenue Bridge Replacement, please indicate in writing via letter addressed to the lead contact at the address provided above within 30 days (on or before October 6, 2017) and provide the name of the tribe’s designated lead contact person.

Sincerely,



Jan Bulinski
Senior Transportation Planner

Enclosure:
Project Location Map



GABRIELEÑO BAND OF MISSION INDIANS - KIZH NATION

Historically known as The San Gabriel Band of Mission Indians
recognized by the State of California as the aboriginal tribe of the Los Angeles basin

Riverside County
Transportation Planner
3525 14th St.
Riverside, CA 92502

November 8, 2017

Re: AB52 Consultation request for the Hamner Ave Bridge replacement Project on Hamner Ave over the Santa Ana River in Norco, CA

Dear Jan Bullinski,

Please find this letter as a written request for consultation regarding the above-mentioned project pursuant to Public Resources Code § 21080.3.1, subd. (d). Your project lies within our ancestral tribal territory, meaning belonging to or inherited from, which is a higher degree of kinship than traditional or cultural affiliation. Your project is located within a sensitive area and may cause a substantial adverse change in the significance of our tribal cultural resources. Most often, a records search for our tribal cultural resources will result in a "no records found" for the project area. The Native American Heritage Commission (NAHC), ethnographers, historians, and professional archaeologists can only provide limited information that has been previously documented about California Native Tribes. This is the reason the NAHC will always refer the lead agency to the respective Native American Tribe of the area because the NAHC is only aware of general information and are not the experts on each California Tribe. Our Elder Committee & tribal historians are the experts for our Tribe and are able to provide a more complete history (both written and oral) regarding the location of historic villages, trade routes, cemeteries and sacred/religious sites in the project area. Therefore, to avoid adverse effects to our tribal cultural resources, we would like to consult with you and your staff to provide you with a more complete understanding of the prehistoric use(s) of the project area and the potential risks for causing a substantial adverse change to the significance of our tribal cultural resources.

Consultation appointments are available on Wednesdays and Thursdays at our offices at 910 N. Citrus Ave. Covina, CA 91722 or over the phone. Please call toll free 1-844-390-0787 or email gabrielenoindians@yahoo.com to schedule an appointment.

** Prior to the first consultation with our Tribe, we ask all those individuals participating in the consultation to view a video produced and provided by CalEPA and the NAHC for sensitivity and understanding of AB52. You can view their videos at: <http://calepa.ca.gov/Tribal/Training/> or <http://nahc.ca.gov/2015/12/ab-52-tribal-training/>

With Respect,

Andrew Salas, Chairman

Andrew Salas, Chairman

Albert Perez, treasurer |

PO Box 595, Covina, CA 91723

Nadine Salas, Vice-Chairman

Martha Gonzalez Lemos, treasurer |

www.gabrielenoindians.org

Christina Swindall Martinez, secretary

Richard Gradias, Chairman of the Council of Elders

gabrielenoindians@yahoo.com



Patricia Romo, P.E.
Director of Transportation

COUNTY OF RIVERSIDE

TRANSPORTATION AND LAND MANAGEMENT AGENCY

Mojahed Salama, P.E.
Deputy for Transportation/Capital Projects
Richard Lantis, P.L.S.
Deputy for Transportation/Planning and
Development

Transportation Department

June 18, 2018

Andrew Salas, Chairman
Gabrieleno Band of Mission Indians – Kizh Nation
P.O. Box 393
Covina, CA 91723

**Subject: Notice of Consultation Conclusion for Hamner Avenue Bridge Replacement
Pursuant to Public Resources Code Section 2180.3.1 and 21080.3.2 (AB 52)**

Dear Mr. Salas:

This letter serves as a formal notification that the County of Riverside (County) is concluding consultation with Gabrieleno Band of Mission Indians – Kizh Nation for the proposed Hamner Avenue Bridge Replacement Project pursuant to Public Resources Codes Section 2108.3.1 and 21080.3.2 (AB 52). The County has discussed the Project with the Tribe and the potential impacts that it may have on tribal cultural resources on:

1/24/18 Email transmitting HPSR for review
1/29/18 Meeting regarding the project
2/23/18 Phone message regarding HPSR
3/6/18 Letter with HPSR comments
3/15/18 Letter responding to comments

We have included your recommended references in the final HPSR document. All other comments have been resolved.

At this time, the County is concluding AB 52 consultation with the Tribe for the Hamner Avenue Bridge Replacement. *If the Tribe does not agree that consultation for this project has concluded, please notify me via telephone or email within 7 days.*

Sincerely,

Jan Bulinski
Senior Transportation Planner
(951) 955-6859
jbulinski@rivco.org



COUNTY OF RIVERSIDE

TRANSPORTATION AND LAND MANAGEMENT AGENCY



*Juan C. Perez, P.E., T.E.
Transportation and Land
Management Agency Director*

*Patricia Romo, P.E.
Director of Transportation*

Transportation Department

September 6, 2017

Pattie Garcia-Plotkin
Agua Caliente Band of Cahuilla Indians
5401 Dinah Shore Drive
Palm Springs, CA 92264

**Subject: Notification of Hamner Avenue Bridge Replacement
Pursuant to Public Resources Code Section 21080.3.1 and 21080.3.2 (AB 52)**

Dear Ms. Garcia-Plotkin:

This letter is formal notification of the County of Riverside's proposed Hamner Avenue Bridge Replacement, which is subject to compliance with the California Environmental Quality Act (CEQA). The County of Riverside (County) is the lead CEQA agency responsible for consulting with California Native American Tribes pursuant to Public Resources Codes Section 2108.3.1 and 21080.3.2 (AB 52). Accordingly, this letter provides a brief description of the proposed project, its location, and lead agency contact information. Pursuant to AB 52, the Agua Caliente Band of Cahuilla Indians has 30 days to request in writing its desire to consult on this particular project. The request to consult must be received on or before October 6, 2017, and shall provide the name of the tribe's designated lead contact person.

Project Description

The County of Riverside Transportation Department (County), in cooperation with the Cities of Norco and Eastvale and the California Department of Transportation (Caltrans), proposes to replace the existing Hamner Avenue Bridge over the Santa Ana River and to widen Hamner Avenue from Detroit Street to Citrus Street in the City of Norco, Riverside County, California. The proposed project would replace the existing Hamner Avenue Bridge with a new bridge. The new bridge would include three 12-foot lanes and a 4-foot shoulder in each direction (northbound and southbound) separated by a 4-foot curbed median, along with a 12-foot barrier separated multipurpose trail on the east side of the bridge. To the north of the bridge Hamner Avenue would include three 12-foot lanes and a 4-foot shoulder in each direction along with a 5-foot sidewalk on the east side of the roadway. At the intersection with Citrus Street the outside northbound lane would become a dedicated right turn lane and a northbound dedicated left turn lane would be included. In the southbound direction Hamner Avenue would transition from two lanes to three lanes just south of Citrus Street. South of the bridge Hamner Avenue would include three 12-foot lanes and an 4-foot shoulder in each direction along with a 5-foot sidewalk

on the east side of the roadway and would transition to two 12-foot lanes in each direction prior to reaching Detroit Street. In addition, a dedicated left turn lane would be included in the southbound direction at the intersection with Detroit Street. A trail ramp would be constructed at the southeast end of the bridge to connect the planned Regional Santa Ana River Trail with the barrier separated multipurpose trail on the new Hamner Avenue Bridge.

Project Location

Hamner Avenue over the Santa Ana River in Norco, California.

Contact Information

The County lead contact for AB 52 Consultation on this project is:

Jan Bulinski
Senior Transportation Planner
3525 14th Street
Riverside, CA 92501

If the Agua Caliente Band of Cahuilla Indians wishes to consult with the County regarding the Hamner Avenue Bridge Replacement, please indicate in writing via letter addressed to the lead contact at the address provided above within 30 days (on or before October 6, 2017) and provide the name of the tribe's designated lead contact person.

Sincerely,



Jan Bulinski
Senior Transportation Planner

Enclosure:
Project Location Map

Chmiel, Karolina

From: Bulinski, Jan <JBulinski@RIVCO.ORG>
Sent: Wednesday, September 27, 2017 1:44 PM
To: Calvert, Brian
Subject: FW: AB 52 Consultation - Hamner Bridge Project

fyi

From: Fossum, Larry (TRBL) [mailto:lfossum@aguacaliente.net]
Sent: Wednesday, September 27, 2017 1:42 PM
To: Bulinski, Jan <JBulinski@RIVCO.ORG>
Subject: AB 52 Consultation - Hamner Bridge Project

Dear Jan:

A records check of the Agua Caliente Band of Cahuilla Indians Tribal Historic Preservation Office's cultural registry revealed that this project is not located within the Tribe's Traditional Use Area. Therefore, we defer to other tribes in the area. This letter shall conclude our consultation efforts.

Cordially,

Larry Fossum
On behalf of Patricia Garcia-Plotkin
Director of Historic Preservation
Agua Caliente Band of Cahuilla Indians

The information contained in this message may be privileged and confidential and protected from disclosure. If the reader of this message is not the intended recipient, or an employee or agent responsible for delivering this message to the intended recipient, you are hereby notified that any dissemination, distribution, or copying of this communication is strictly prohibited. If you have received this communication in error, please notify us immediately by replying to the message and deleting it from your computer

Confidentiality Disclaimer

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[County of Riverside California](#)

Appendix C Mitigation Monitoring and Reporting Program

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MITIGATION MONITORING AND REPORTING PROGRAM

08-RIV-Hamner
BRLSZ-5956(230)

Hamner Avenue Bridge Replacement Project

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									YES	NO
AESTHETICS										
AES-1 - Install Visual Barriers between Construction Work Areas and Sensitive Receptors and Clean Work Areas. The contractor shall install visual barriers to obstruct undesirable views of construction activities from sensitive receptors, namely residents and recreational areas that are located adjacent to the construction site. The visual barrier may be chain link fencing with privacy slats, fencing with windscreen material, wood or concrete barrier/soundwall, or other similar barrier. The visual barrier shall be a minimum of 6 feet high to help to maintain the privacy of residents and block long-term ground-level views toward construction activities. While this visual barrier would introduce a visual intrusion, it would greatly reduce the visual effects associated with visible construction activities and screening construction activities and protecting privacy is deemed desirable. The contractor shall also conduct daily visual inspections to ensure the immediate surroundings of construction work areas are free from construction-related clutter and to maintain the areas in a clean and orderly manner throughout the construction period.	2-6	June 2018 <i>Visual Impact Assessment</i>	Construction Contractor	Construction						

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<p>AES-2 - Apply Minimum Lighting Standards. All artificial outdoor lighting will be limited to safety and security requirements, designed using Illuminating Engineering Society design guidelines and in compliance with International Dark-Sky Association–approved fixtures. All lighting will be designed to have minimum impact on the surrounding environment and will use downcast, cut-off type fixtures that direct the light only toward objects requiring illumination. Shielding will be utilized, where needed, to ensure light pollution is minimized. Therefore, lights will be installed at the lowest allowable height and cast low-angle illumination while minimizing incidental light spill onto adjacent properties, open spaces, or backscatter into the nighttime sky. The lowest allowable illuminance level will be used for all lighted areas and the amount of nighttime lights needed to light an area will be minimized to the highest degree possible. Light fixtures will have non-glare finishes that will not cause reflective daytime glare. Lighting will be designed for energy efficiency and have daylight sensors or be timed with an on/off program. Lights will provide good color rendering with natural light qualities with the minimum intensity feasible for security, safety, and personnel access. Lighting, including light color rendering and fixture types, will be designed to be aesthetically pleasing. LED lighting will avoid the use of blue-rich white light lamps and use a correlated color temperature that is no higher than 3,000 Kelvin (International Dark-Sky Association 2010a, 2010b, 2015). Wherever possible and pragmatic, the County will use fixtures and lighting control systems that conform to the International Dark-Sky Association’s Fixture Seal of</p>	2-6	June 2018 <i>Visual Impact Assessment</i>	Construction Contractor	Construction and Post-Construction							

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										YES	NO
Approval program. In addition, LED lights will use shielding to ensure nuisance glare and that light spill does not affect sensitive residential viewers.											
AIR QUALITY											
AQ-1: The construction contractor will reduce emissions of NO _x by 20 percent relative to the South Coast Air Basin fleetwide averages for the types of construction equipment used during the grading phase. This could be achieved by implementing one or more of the following, or other methods: <ul style="list-style-type: none"> • Use of NO_x filters for all off-road construction equipment. • Use of Tier 4-compliant off-road construction equipment. • Use of newer construction equipment and vehicles. • Extension of the grading/excavation phase such that per-day emissions would be below SCAQMD regional mass emissions thresholds. 	2-18	March 2018 <i>Air Quality Report</i>	Construction Contractor	Construction							

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										YES	NO
<p>AQ-2: The following standard measures would reduce air quality impacts resulting from construction activities:</p> <ul style="list-style-type: none"> • The construction contractor must comply with Caltrans' Standard Specifications in Section 14-9 (2015). <ul style="list-style-type: none"> ○ 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. • Water or a dust palliative will be applied to the site and equipment as often as necessary to control fugitive dust emissions, consistent with SCAQMD Rule 403. • Soil binder will be spread on any unpaved roads used for construction purposes, and on all project construction parking areas. • Trucks will be washed as they leave the right of way as necessary to control fugitive dust emissions. • Construction equipment and vehicles will be properly tuned and maintained. All construction equipment will use low sulfur fuel as required by the California Code of Regulations Title 17, Section 93114. • A dust control plan will be developed documenting sprinkling, temporary paving, speed limits, and timely revegetation of disturbed slopes as needed to minimize construction impacts on existing communities. 	2-19	March 2018 <i>Air Quality Report</i>	Construction Contractor	Construction							

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										YES	NO
<ul style="list-style-type: none"> • 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. • Environmentally sensitive areas 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. • Track-out reduction measures, such as gravel pads at project access points to minimize dust and mud deposits on roads affected by construction traffic, will be used. • 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 emission of dust during transportation. • 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. • 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. • Mulch will be installed or vegetation planted as soon as practical after grading to reduce windblown particulate matter in the area. 											

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									YES	NO
BIOLOGICAL RESOURCES										
<p>BIO-1: Santa Ana sucker</p> <p>A. A preconstruction notification will be provided to USFWS and CDFW in writing at least 5 days prior to project initiation.</p> <p>B. A qualified biologist will conduct a training program for project and construction personnel (MSHCP Volume I, Section 7.5.3) prior to grading. The training will include a description of the species of concern and their habitats, the general provisions of the Endangered Species Acts (FESA and CESA) and the MSHCP, the need to adhere to the provisions of the acts and the MSHCP, the penalties associated with violating the provisions of the acts, the general measures that are being implemented to conserve the species of concern as they relate to the proposed project, and the access routes to and project site boundaries within which the project activities must be accomplished (MSHCP Volume I, Appendix C).</p> <p>C. Mud, silt, or other pollutants from construction activities will not be placed within drainages and will not be allowed to enter a flowing stream. New surface flows will be treated prior to reaching waterways.</p> <p>D. All portable toilets will be placed on a vegetated or dirt surface away from any streams, storm drains, or drainage swales.</p> <p>E. No equipment will be placed within a flowing stream or on directly adjacent banks.</p> <p>F. If feasible, silent piling via vibration methods will be employed during the construction of the</p>	2-67	May 2018 <i>Natural Environment Study</i>	Construction Contractor Qualified Biologist	Before and during Construction						

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<p>trestle at the confluence of the earthen flood control channel and the Santa Ana River above the water level, as long as no cobble/rock is encountered.</p> <p>G. If water diversion is required, hydrological connectivity within the Santa Ana River will be maintained. Diversions, if required, will be conducted using coffer dams and pipes, sandbags, or other methods requiring minimal instream impacts. Silt fencing, sediment booms, or other sediment-trapping materials will be installed at the downstream end of construction activity to minimize the transport of sediments off site. Settling ponds where sediment is collected will be utilized as feasible and cleaned out in a manner that prevents the sediment from reentering the river. Care will be exercised when removing silt fences, as feasible, to prevent debris or sediment from returning to the river (MSHCP Volume I, Section 7.5.3; MSHCP Volume I, Appendix C). Short-term diversions will consider effects on Santa Ana sucker and other wildlife (MSHCP Volume I, Section 7.5.3).</p> <p>H. If water diversion/dewatering activities are necessary, an approved, qualified biologist will conduct a preliminary underwater survey of the affected area noting habitat and any Santa Ana sucker present prior to any water diversion. Water diversions will be conducted outside of the spawning season for Santa Ana sucker (i.e., February 15–July 31) to the greatest extent feasible. If the Santa Ana sucker is present, then a relocation program will be</p>											

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										YES	NO
<p>implemented. The pre-construction survey and relocation program will require approval from USFWS.</p> <ul style="list-style-type: none"> ○ If Santa Ana sucker are present, exclusion nets will be placed around the diversion work area. Once diversion of flow is complete, exclusion nets will be removed. Seining will then be conducted inside the exclusion area to remove and relocate Santa Ana sucker prior to the commencement of diversion activities. As the diversion of flow is taking place, the biologist(s) will patrol the dewatering area in order to capture stranded fish. A combination of seining, dip netting, and hand capture will be utilized. ○ All captured Santa Ana sucker will be placed into coolers filled with river water. Fish will remain in coolers for the shortest time necessary. Air pumps will be used to maintain oxygenated water supply. The coolers will be kept shaded at all times. The water temperature in the coolers and condition of captured Santa Ana sucker will be closely monitored. Ice (or frozen water bottles) will be used, as necessary, to maintain cool water (similar to ambient or less than 85 °F) or ambient river water will be used. Any Santa Ana sucker removed from the site will be relocated upstream or downstream of the project area, as determined appropriate by the qualified biologist, in consultation with the USFWS. A summary report will be 											

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										YES	NO
<p>provided to the USFWS for all diversions resulting in relocation of Santa Ana sucker.</p> <ul style="list-style-type: none"> ○ If capture and relocation of Santa Ana sucker is necessary, it will be achieved through one or more of the following methods: the use of fine mesh (2–4 millimeters [0.08–0.16 inch]), knotless seine nets; fine mesh (4–6 millimeters [0.16–0.24 inch]) knotless hoop nets, modified hoop nets, or similar traps; or dip nets of 0.5 millimeters (0.20 inch) or finer mesh for survey of larval Santa Ana sucker. The survey methods will be selected to minimize the potential injury or mortality to Santa Ana sucker and potential disturbance or damage to breeding areas. If seines are used, particular care shall be taken to avoid incidental injury or mortality to Santa Ana sucker that may be caught and suffocated in algal mats or sand. Care shall also be taken to keep Santa Ana sucker in water as much as possible. Larval fishes should be kept submerged in a dip net until species is identified and released at the point of capture. Use of unconventional sampling gear will first be approved by the USFWS. ○ Prior to activities that may involve handling Santa Ana sucker, the qualified biologist will ensure that all participants' hands are free of sunscreen, lotion, or insect repellent. 											

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										YES	NO
<ul style="list-style-type: none"> o The qualified biologist will submit a brief report to the USFWS identifying the number of any native fish species that were relocated and any other measures that were taken to minimize effects on Santa Ana sucker. o If pile-driving activities are to take place and would occur during the spawning season (i.e., February 15–July 31), underwater sound monitoring will occur within the project footprint to the greatest extent feasible. This data collection may be used to minimize effects on this species for future construction activities according to the USFWS, but will not change the current construction activities or mitigation requirements of the project. I. An authorized biologist will be present on site during construction within and adjacent to critical habitat to ensure that avoidance and minimization measures are in place according to specifications and monitor construction within the vicinity of the Santa Ana sucker populations at a frequency necessary to ensure that avoidance and minimization measures are properly followed. The biological monitor will report any non-compliance within 24 hours to USFWS. J. An Avoidance Management Plan and mitigation strategy will be prepared for Santa Ana sucker in coordination with RCRC, which will take into account restoration efforts being implemented by RCRC to improve Santa Ana sucker breeding habitat and temporary 											

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										YES	NO
construction easements into RCRCDC conservation lands for Santa Ana sucker as a result of project construction.											
<p>BIO-3: Least Bell's vireo</p> <p>A. A USFWS authorized biologist with knowledge of least Bell's vireo and its habitat will function as a biological monitor. Prior to initiating project activities, the name(s) and resumés of all prospective biological monitors will be submitted to the appropriate USFWS office. The biological monitor will ensure compliance with the project avoidance and minimization measures, including Conservation Measures and Terms and Conditions of the Biological Opinion and the DBESP. The biological monitor will report any noncompliance immediately to RCA, USFWS, and CDFW.</p> <p>B. The biological monitor will be present during vegetation clearing, grading, and construction to monitor construction impacts, as stated in project environmental documents and any applicable permits.</p> <p>C. A USFWS authorized biologist will be present on site during construction within and adjacent to occupied least Bell's vireo habitat to ensure that avoidance and minimization measures are in place according to specifications, and to monitor construction within the vicinity of the least Bell's vireo territories at a frequency necessary to ensure that avoidance and minimization measures are properly followed. The biological monitor will report any non-compliance within 24 hours to USFWS.</p> <p>D. During final design, environmentally sensitive</p>	2-69	May 2018 <i>Natural Environment Study</i>	Construction Contractor Qualified Biologist	Before and during Construction							

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<p>area (ESA) fencing specifications within occupied least Bell's vireo habitat along the limits of disturbance boundary will be approved by the USFWS prior to grading. The qualified biologist experienced with least Bell's vireo will be present on site when the fence is installed to minimize the disturbance of least Bell's vireo territories from the fence installation. An ESA fence design will be submitted to the RCA and USFWS for approval at least 30 days prior to emplacement.</p> <p>E. Prior to vegetation clearing or construction within least Bell's vireo foraging and breeding habitat areas during the breeding season (March 15–September 15), a qualified biologist will conduct preconstruction surveys within 3 days prior to vegetation removal activities to identify the locations of any individual least Bell's vireo. If foraging individuals are found within the vegetation clearing area, the monitoring biologist will flush the species prior to vegetation clearing and earth-moving activities. If nesting activities or active nests are discovered within the project impact area, a buffer zone will be clearly marked in the field by construction personnel under the guidance of the biologist and no construction activities will occur within the buffer zone until the young have fledged or the nest is no longer active. If work is required within the buffer zone, then re-initiation of consultation with CDFW and USFWS will occur to address unanticipated effects on this species.</p>											

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										YES	NO
<p>F. To the extent feasible, no nighttime work will be conducted in areas adjacent to least Bell's vireo suitable habitat. If the work has to be performed during night time, then the lights will be shielded and/or directed away from the habitat to prevent light intrusion into the habitat area.</p> <p>G. Between March 15 and September 15, all heavy equipment will install and maintain mufflers or other noise-reducing features when working in the Santa Ana River floodplain. A biological monitor shall monitor at the edge of the project limits of disturbance along riparian habitats to ensure noise levels do not result in a disruption to nesting birds. If construction noise is negatively affecting nesting birds (e.g., a discernable negative change in behavior is observed, such as nest flushing or adults not immediately returning to the nest with prey), then work shall cease in the immediate area (unless authorized by the wildlife agencies) until adequate noise barriers can be established to reduce noise levels at the edge of the riparian corridor. Noise barriers may include temporary noise blankets, noise shrouds, and/or sound walls. It may be most effective to construct noise barriers well prior to March 15 to ensure construction delays do not occur. All noise barriers will be constructed within the project limits of disturbance.</p> <p>H. If pile driving activities are to take place and would occur during the breeding season (i.e., March 15–September 15), the following measures will be implemented:</p>											

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										YES	NO
<ul style="list-style-type: none"> o The project will sponsor placement of two cowbird traps for each nesting season that pile driving activities occur. This measure will improve the productivity of least Bell's vireo during the breeding season, due to the potential loss in temporary reproductive output for any pile driving related noise effects during the breeding season. o Throughout the duration that pile driving activities occur during the least Bell's vireo breeding season, the biological monitor will conduct daily site visits to document how pile driving activities affect nesting least Bell's vireo. This data collection will be utilized by USFWS to provide guidance for future projects and will not impose additional restrictions on this project. <p>I. A USFWS-approved biological monitor and/or designated biologist will serve as the contact source for any personnel who might inadvertently kill or injure a least Bell's vireo or who finds a dead, injured, or entrapped individual. The designated biological monitor and/or designated biologist will be identified within the Biological Resource Information program. The designated biological monitor's and/or designated biologist's name(s) and telephone number(s) shall be provided to RCA, USFWS, and CDFW.</p> <p>J. Any personnel who inadvertently kills or injures a least Bell's vireo shall immediately report the incident to the designated biological monitor and/or designated biologist, who will notify</p>											

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										YES	NO
<p>USFWS and CDFW immediately and in writing within 3 working days. Notification must include the date, time, and location of the incident or of the finding of a dead or injured animal, as well as any other pertinent information.</p> <p>K. Restoration plans for any temporarily affected areas within least Bell's vireo suitable habitat will be developed and approved by the County, RCA, CDFW, and USFWS. Such restoration plans will be implemented prior to the rainy season or within 12 months of the completion of major construction.</p> <p>L. No pets will be allowed in, or adjacent to, the project site.</p> <p>M. To avoid attracting predators of least Bell's vireo and other special-status species, the project site will be kept as clean of debris as possible. All food-related trash items will be enclosed in sealed containers and regularly removed from the site (MSHCP Volume I, Appendix C).</p> <p>N. Spoils and rubble will not be deposited outside the identified limits of construction and material waste generated by the project will be disposed of off site.</p>											
<p>BIO-5: Burrowing owls</p> <p>A. A 30-day pre-construction survey for burrowing owls is required prior to initial ground-disturbing activities to ensure that no owls have colonized the site in the days or weeks preceding construction. If burrowing owls have colonized the project site prior to the initiation of construction, the project proponent shall immediately inform the RCA and the wildlife</p>	2-71	May 2018 <i>Natural Environment Study</i>	Construction Contractor Qualified Biologist	Before and during Construction							

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										YES	NO
agencies, and will need to coordinate further with RCA and the wildlife agencies, including the possibility of preparing a Burrowing Owl Protection and Relocation Plan. The Burrowing Owl Protection and Relocation Plan will be subject to the review and approval of the RCA and wildlife agencies prior to initiating ground disturbance. Potential measures may include an avoidance buffer around active burrows, elimination of potential unoccupied burrows, and/or passive relocation.											
<p>BIO-6: Bats</p> <p>A. Prior to the start of project construction, a daytime assessment will be conducted by a qualified bat biologist to reexamine structures that are suitable for bat use. If bat sign is observed at that time, then nighttime bat surveys will be conducted to confirm whether the structures with suitable habitat identified during the preliminary assessment are utilized by bats for day roosting and/or night roosting, to ascertain the level of bat foraging and roosting activity at each of these locations, and to perform exit counts to visually determine the approximate number of bats utilizing the roosts. Acoustic monitoring will also be used during these surveys to identify the bat species present and to determine an index of relative bat activity for that site on that specific evening.</p> <p>B. A qualified bat biologist will survey the BSA prior to construction to assess the potential for maternity roosts in the BSA. The surveys may include a combination of structure and tree inspection, sampling, exit counts, and acoustic</p>	2-71	May 2018 <i>Natural Environment Study</i>	Construction Contractor Qualified Biologist	Before and during Construction							

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<p>surveys.</p> <p>C. To avoid direct mortality, humane evictions and exclusions of roosting bats shall be performed under the supervision of a qualified bat biologist in the fall (September or October) prior to bridge demolition activities. Eviction/exclusion may be implemented in one or two phases at the discretion of the qualified bat biologist and in coordination with the project design team. To avoid potential mortality of flightless juvenile bats, evictions and exclusions of bats cannot be performed during the bat maternity season (April 1–August 31). Winter months (generally November through February, but specifically periods during which nighttime temperatures are consistently less than 50 °F) are also inappropriate for bat eviction because not all individuals in a roost will emerge on any given night. In addition, long-distance movements to other roost sites are more difficult during the winter when prey availability is scarce, resulting in high mortality rates of evicted bats.</p> <p>D. The removal of mature trees and snags should be minimized to the greatest extent practicable. Prior to tree removal or trimming, large trees and snags shall be examined by a qualified bat biologist to ensure that no roosting bats are present. Palm frond trimming, if necessary, shall be conducted outside the maternity season (i.e., April 1–August 31) to avoid potential mortality of flightless young.</p> <p>E. During nighttime work for project construction, night lighting should be used only on the portion of the structure actively being worked</p>											

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<p>on and focused on the direct area of work. Airspace access to and from the roost features of the structure shall not be obstructed except in direct work areas.</p> <p>F. Following the construction of the replacement bridge, street lighting at the new bridge should be directed away from the Santa Ana River drainage to the greatest extent feasible.</p> <p>G. If maternity sites are identified during the preconstruction bat habitat assessment, then no construction activities at that location will be allowed during the maternity season (i.e., April 1–August 31) unless a qualified bat biologist has determined the young have been weaned. If maternity sites are present, and it is anticipated that construction activities cannot be completed outside of the maternity season, then bat exclusion at maternity roost sites will be completed by the qualified bat biologist in consultation with CDFW either as soon as possible after the young have been weaned or outside of the maternity season or as otherwise approved by the qualified bat biologist in coordination with CDFW.</p> <p>H. Bat roosting habitat will be incorporated into the design of the new bridge. The specifications for this replacement habitat shall be designed in consultation with a qualified bat biologist and CDFW during the permitting phase.</p>											
<p>BIO-7: Non-listed special-status wildlife species</p> <p>A. Due to the complexity of the project at the Santa Ana River, as well as the many mature trees along the County right of way, a Nesting Bird Management Plan will be drafted to</p>	2-73	May 2018 <i>Natural Environment Study</i>	Construction Contractor Qualified Biologist	Before and during Construction							

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<p>provide a comprehensive approach to handling nesting birds well prior to the commencement of construction. It will include the following items:</p> <ul style="list-style-type: none"> ○ A qualified biologist will perform a detailed field review and document the location of raptor and/or corvid nests along with any sign of colonial nesting birds within the limits of disturbance and adjacent lands. This field review should occur in late spring/early summer to provide the best results. ○ Results of the field review will be used to draft approaches and survey methodologies for dealing with potential nesting species. This plan shall be coordinated with CDFW. The plan must provide assurance that birds protected under the MBTA and similar protections under the California Fish and Game Code will not be harmed. Details in this plan shall be coordinated with any water permitting that may have nesting bird stipulations. ○ If vegetation clearing is to occur during the breeding season for passerine birds (i.e., February 1–September 1) or raptors (i.e., January 1–September 1), the designated biologist will conduct a preconstruction survey of construction areas and an appropriate buffer no more than 72 hours prior to construction to identify the locations of avian nests. Should nests be found, an appropriate buffer will be 											

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										YES	NO
<p>established by a qualified biologist around each nest site. To the extent feasible, no construction will take place within this buffer until the nest is no longer active. In the event that construction must occur within the buffer areas, the designated biologist will ensure construction activities do not disturb or disrupt nesting activities. If the designated biologist determines that construction activities are disturbing or disrupting nesting activities, then they will notify the Resident Engineer, who has the authority to halt construction to reduce the noise and/or disturbance to the nests. Responses may include, but are not limited to, preventing idling of vehicle engines and other equipment whenever possible to reduce noise, installing a protective noise barrier between the nest and the construction activities, minimizing activities in the immediate vicinity, or working in other areas until the young have fledged.</p> <ul style="list-style-type: none"> ○ Nesting bird habitat within the BSA will be resurveyed during the breeding bird season if there is a lapse in construction activities longer than 7 days. ○ Any bridges with swallow nesting habitat will be cleared of all swallow nests prior to any work conducted between February 1 and September 1. Swallow nests will be removed under the guidance of a qualified biologist prior to February 1, before swallows return to the nesting site. 											

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<p>Removal of swallow nests that are under construction must be repeated as frequently as necessary to prevent nest completion or until a nest exclusion device is installed (such as netting or a similar mechanism that keeps swallows from building nests). Nest removal and exclusion device installation will be monitored by a qualified biologist. Such exclusion efforts must be continued to keep the structures free of swallows, as well as swifts utilizing bridge holes, until September 1 or completion of construction. All nest exclusion techniques will be coordinated between resource agencies, as applicable.</p> <p>B. For the ESA fencing installed in Existing Core A (Santa Ana River), the fencing must exclude reptiles and amphibians (to greatest extent feasible) from entering the project limits of disturbance. Once the ESA fencing has been installed, a preconstruction reptile and amphibian clearance survey will be conducted no more than 2 days prior to site grubbing and grading of lands in this area. The purpose of the survey is to locate any amphibians and reptiles within the project limits of disturbance and relocate these animals beyond the construction areas. If construction is to occur in stages, then the preconstruction survey will be scheduled to follow just prior to site grubbing and grading. Clearance surveys will be conducted during the appropriate time of day when reptiles and amphibians would be active.</p>											

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C. Preconstruction clearance surveys for sensitive wildlife species will be performed within 48 hours prior to construction to flush the species from the construction footprint. No nesting birds will be flushed during the nesting season. Bats will not be flushed but will be protected as specified in Section 4.3.5 of the MSHCP. Burrowing wildlife will be relocated from the site of temporary or permanent impacts as feasible during preconstruction clearance surveys.											
BIO-9: Riparian habitat A. The limits of disturbance will be minimized to the maximum extent feasible (MSHCP Volume I, Section 7.5.3). B. Prior to clearing or construction, highly visible barriers (such as orange construction fencing) will be installed around all riparian habitats that will be avoided and are adjacent to the project limits of disturbance to designate ESAs to be preserved. The riparian communities that occur within the BSA are dynamic and likely change year to year depending on precipitation events, associated scour, and flood-control maintenance activities. As such, ESA fencing in areas to be avoided may need to be adjusted and installed just prior to construction. No grading or fill activity of any type will be permitted within these ESAs. All construction equipment will be operated in a manner to prevent accidental damage to nearby avoidance areas. Silt fence barriers will be installed at the ESA boundary to prevent accidental deposition of fill material in areas where vegetation is immediately adjacent to	2-74	May 2018 <i>Natural Environment Study</i>	Construction Contractor Qualified Biologist								

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										YES	NO
<p>planned grading activities.</p> <p>C. No construction activities, materials, or equipment will be allowed within the ESAs. Construction personnel will strictly limit their activities, vehicles, equipment, and construction materials to the limits of disturbance and designated staging areas and routes of travel. The construction area(s) will be the minimal area necessary to complete the project and will be specified in the construction plans. Employees will be instructed that their activities are restricted to the construction areas. Access to sites will be from pre-existing access routes to the greatest extent possible (MSHCP Volume I, Section 7.5.3, and MSHCP Volume I, Appendix C).</p> <p>D. The ESA fencing will be inspected by the biological monitor at the close of each work day to ensure that it is in place and properly maintained. ESA fencing and exclusion fencing will remain in place and be maintained until project construction is completed.</p> <p>E. Hydrologic connectivity will be maintained within drainages during the duration of construction. No erodible materials will be deposited into watercourses or areas demarcated with ESA fencing. Vegetation, loose soils, or other debris material will not be stockpiled within stream channels or on adjacent banks (MSHCP Volume I, Section 7.5.3, and MSHCP Volume I, Appendix C).</p> <p>F. Equipment storage, fueling, and staging areas shall be located on upland sites with minimal risks of direct drainage into riparian areas or</p>											

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										YES	NO
<p>other sensitive habitats. These designated areas shall be located in such a manner as to prevent any runoff from entering sensitive habitat. Necessary precautions shall be taken to prevent the release of cement or other toxic substances into surface waters. Project-related spills of hazardous materials shall be reported to appropriate entities including, but not limited to, the applicable jurisdictional city, USFWS, CDFW, and RWQCB and shall be cleaned up immediately and contaminated soils removed to approved disposal areas (MSHCP Volume I, Section 7.5.3).</p> <p>G. A SWPPP and a soil erosion and sedimentation plan will be developed prior to construction to minimize erosion and identify specific pollution prevention measures that will eliminate or control potential point and nonpoint pollution sources on site during and following the project construction phase. The plan will ensure that no pollutants or sediment from construction will enter waterways or ESA fenced areas. The SWPPP will identify specific BMPs to be implemented during project construction to avoid causing or contributing to any water quality standard exceedances. In addition, the SWPPP will contain provisions for changes to the plan such as alternative mechanisms, if necessary, during project design and/or construction to achieve the stated goals and performance standards. Sediment and erosion control measures will be implemented until such time that soils are determined to be successfully stabilized.</p>											

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										YES	NO
<p>H. New surface flows will be treated prior to reaching waterways.</p> <p>I. Prior to construction, the biological monitor will perform a preconstruction survey for sensitive plant and wildlife species to avoid. Surveys will focus on special-status species determined to have a potential to occur within the work area. Any sensitive plant populations immediately adjacent to the temporary work area will be flagged with ESA fencing and crews will be instructed to avoid these areas. The qualified project biologist will monitor construction activities for the duration of the proposed project at a frequency necessary to ensure that practicable measures are being employed and avoid incidental disturbance of habitat and species of concern outside the project footprint (MSHCP Volume I, Appendix C). Ongoing monitoring and reporting will occur for the duration of the construction activity to ensure implementation of BMPs and avoidance and minimization measures (MSHCP Volume I, Section 7.5.3).</p> <p>J. When work is conducted during the fire season (as identified by the Riverside County Fire Department), appropriate fire-fighting equipment (e.g., extinguishers, shovels, water tankers) will be available on the project site during all phases of project construction to help minimize the chance of human-caused wildfires. Shields, protective mats, and/or other fire preventative methods will be used during grinding, welding, and other spark-inducing activities. Personnel trained in fire hazards,</p>											

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<p>preventative actions, and responses to fires will advise contractors regarding fire risk from all construction-related activities (MSHCP Volume I, Section 7.5.3).</p> <p>K. Active construction areas shall be watered regularly to control dust and minimize impacts on adjacent vegetation (MSHCP Volume I, Section 7.5.3).</p> <p>L. A weed abatement plan will be developed to minimize the spread and importation of non-native plant material during and after construction in compliance with EO 13112 and will include measures BIO-13 through BIO-17.</p> <p>M. Any exotic species that are removed during construction will be properly handled to prevent sprouting or regrowth (MSHCP Volume I, Section 7.5.3). This means that care will be taken to not spread exotic plant seeds during plant removal and that plants will be removed prior to flowering, if feasible.</p> <p>N. 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. Cleaning of equipment will occur in a designated area at least 300 feet from ESA fencing.</p> <p>O. Trucks carrying loads of vegetation that will be removed from the project footprint will be covered and disposed of in accordance with applicable laws and regulations.</p> <p>P. Only certified weed-free straw, mulch, and/or fiber rolls will be used for erosion control. Fill</p>											

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<p>material will be obtained from weed-free sources.</p> <p>Q. Post-construction, any disturbed areas remaining as bare ground will be returned to original grade, soils will be decompacted, and areas will be revegetated with hydroseed and/or container plantings to match existing riparian habitats. All revegetated areas will avoid the use of species listed in the California Invasive Plant Council's California Invasive Plant Inventory.</p> <p>R. A Lake and Streambed Alteration Agreement from CDFW for the Santa Ana River will be obtained. Indirect impacts from shading on riparian vegetation and the Santa Ana River will be addressed in the Lake and Streambed Alteration Agreement.</p> <p>S. A DBESP report that provides analysis of direct and indirect impacts, avoidance, minimization, and compensatory mitigation, along with the functions and values of the resources being affected as related to MSHCP Covered Species and resources, will be prepared and submitted to RCA, USFWS, and CDFW for a consistency review and approval.</p> <p>T. The resource agencies and permittee (i.e., County) shall have the right to access and inspect the project site to ensure compliance with project approval conditions, including BMPs (MSHCP Volume I, Appendix C).</p>											
<p>BIO-10: Wetlands and waters</p> <p>A. The project limits of disturbance, including the upstream, downstream, and lateral extents on either side of any stream adjacent to the project</p>	2-76	<i>May 2018 Natural Environment Study</i>	Construction Contractor Biological	Before and during Construction							

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										YES	NO
footprint, will be clearly defined and marked in the field. The biological monitor will review the limits of disturbance prior to initiation of construction activities. The upstream and downstream limits of project disturbance, plus the lateral limits of disturbance on either side of the stream, will be clearly defined and marked in the field, including ESA fencing installed during construction to ensure avoidance of jurisdictional areas.			Monitor								
<p>BIO-12: Wildlife movement corridors</p> <p>A. Access and disturbance within the wildlife movement corridors during construction shall be kept to a minimum during evening and nighttime hours.</p> <p>B. To maintain functionality of the Santa Ana River as a wildlife undercrossing, a minimum 20-foot-wide and 6-foot-high opening underneath the bridge at the Hamner Avenue crossing will be maintained at all times during construction. The corridor will not be fully blocked by equipment or structures that could potentially serve as barriers to wildlife passage.</p> <p>C. Equipment maintenance, lighting, and staging will occur only in designated areas, and will not block or impede movement through wildlife corridors.</p> <p>D. Night lighting will be directed away from natural lands within the Santa Ana River in order to support potential linkage and core functions during construction. Nighttime construction activities within natural areas will use shielded lighting to prevent spillover into the corridor and to ensure that ambient lighting is not increased.</p>	2-77	May 2018 <i>Natural Environment Study</i>	Construction Contractor	Construction							

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										YES	NO
E. Security lights on vehicles utilized in the Santa Ana River will not be left on overnight. Speed limits will be reduced to 5 miles per hour during any nighttime construction that occurs within wildlife movement corridors.											
BIO-2: Compensatory mitigation for Santa Ana sucker A. Compensation for impacts on Santa Ana sucker will occur at a minimum 3:1 ratio for permanent impacts and 1.25:1 ratio for temporary impacts. The 1.25:1 mitigation ratio for temporary impacts is intended to address temporal loss of habitat and consists of a 0.25:1 ratio of offsite mitigation, in addition to a 1:1 ratio of in-kind, onsite restoration (see measure BIO-8, Item A below). Mitigation will consist of purchasing Santa Ana sucker occupied lands from the RCRCD In-Lieu Fee Program or other agency-approved mitigation provider.	2-78	<i>May 2018 Natural Environment Study</i>	Construction Contractor City/County	Final Design/Permitting Construction							
BIO-4: Compensatory mitigation for least Bell's vireo A. Compensation for impacts on least Bell's vireo will occur at a minimum 3:1 ratio for permanent impacts and 1.25:1 ratio for temporary impacts. The 1.25:1 mitigation ratio for temporary impacts is intended to address temporal loss of habitat and consists of a 0.25:1 ratio of offsite mitigation, in addition to a 1:1 ratio of in-kind, onsite restoration. Mitigation will consist of purchasing least Bell's vireo occupied lands from an agency-approved mitigation provider. Temporary impacts will be mitigated in kind at their current locations via onsite restoration of	2-78	<i>May 2018 Natural Environment Study</i>	Construction Contractor City/County	Final Design/Permitting Construction							

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										YES	NO
<p>temporarily affected Fremont Cottonwood Forest/Black Willow Thickets. This will occur upon completion of construction and will consist of returning affected areas to original grade and preconstruction conditions (see Measure BIO-8, Item A below).</p> <p>B. A copy of fee payment to a USFWS-approved mitigation bank to satisfy mitigation for permanent impacts will be provided to USFWS prior to impacts on least Bell's vireo suitable habitat.</p>											
<p>BIO-8: Compensatory mitigation riparian habitat</p> <p>A. Compensation for impacts on riparian habitats will occur at a minimum 3:1 ratio for permanent impacts and 1.25:1 ratio for temporary impacts. The 1.25:1 mitigation ratio for temporary impacts is intended to address temporal loss of habitat and consists of a 0.25:1 ratio of offsite mitigation, in addition to a 1:1 ratio of in-kind, onsite restoration. Mitigation will consist of purchasing offsite riparian lands from the RCRCO In-Lieu Fee Program or other agency-approved mitigation provider. Onsite restoration will occur upon completion of construction and consist of returning affected areas to original contour grades, decompacting the soil, and revegetation with hydroseeding and/or container plantings to match existing riparian habitats. No planting will occur after the first year of restoration if flooding results in a 30 percent or more loss of cover within temporarily affected areas. Weeding will occur for 5 years following restoration as directed by a Habitat Mitigation and Monitoring Plan.</p>	2-79	May 2018 <i>Natural Environment Study</i>	Construction Contractor City/County	Final Design/Permitting Construction							

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										YES	NO
<p>B. Permanent impacts from new shade effects will be mitigated off site at a 2:1 ratio. This mitigation is in addition to the compensation for temporary impacts on those same areas, which will be mitigated in kind at their current locations via onsite restoration (at a 1:1 ratio), as well as a 0.25:1 ratio of offsite mitigation to address temporal impacts (see measure BIO-8, Item A). Mitigation will consist of purchasing riparian lands from the RCRCO In-Lieu Fee Program or other agency-approved mitigation provider.</p> <p>C. An MSHCP fee payment of 5 percent of capacity enhancement will be made for the project. This includes the cost of four additional lanes and the new bridge structure.</p> <p>D. Impacts on RCRCO conservation lands will be fully documented and coordinated with RCRCO and RCA, including an account of temporal losses. Temporary impacts on RCRCO conservation lands will be mitigated at a 2:1 ratio, which consists of a 1:1 ratio of offsite mitigation to address temporal losses of conservation lands, in addition to a 1:1 ratio of in-kind, onsite restoration of temporarily affected areas (see measure BIO-8, Item A). Mitigation will consist of purchasing riparian lands from the RCRCO In-Lieu Fee Program or other agency-approved mitigation provider.</p>											
<p>BIO-11: Compensatory mitigation for CDFW wetlands and non-wetlands</p> <p>A. To address effects on jurisdictional areas, a compensatory mitigation plan will be developed during the permitting phase.</p>	2-79	May 2018 <i>Natural Environment Study</i>	Construction Contractor City/County	Final Design/Permitting Construction							

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										YES	NO
<p>B. Permanent impacts on wetlands and other waters will be mitigated off site at a minimum 3:1 ratio through purchase from the RCRC In-Lieu Fee Program or other agency-approved mitigation bank/mitigation program. Temporary impacts on wetlands and other waters will be mitigated at a minimum 1.25:1 ratio in kind via onsite restoration. The 1.25:1 mitigation ratio for temporary impacts is intended to address temporal loss of habitat and consists of a 0.25:1 ratio of offsite mitigation, in addition to in-kind, onsite restoration at a 1:1 ratio.</p>											
<p>BIO-13: Compensatory mitigation for MSHCP lands A. PQP conserved lands that are to be permanently removed will be mitigated at a 2:1 ratio off site. In addition, riparian/riverine portions of PQP conserved lands that are temporarily affected will be replaced in kind at a 1.25:1 ratio. The 1.25:1 mitigation ratio for temporary impacts is intended to address temporal loss of habitat and consists of a 0.25:1 ratio of offsite mitigation, in addition to a 1:1 ratio of in-kind, onsite restoration. This shall be coordinated with riparian/riverine compensation and jurisdictional resources permitting. Prior to land acquisition, an equivalency report will be provided that analyzes the existing biological resources being permanently removed to the biological resources supported by the lands proposed for acquisition. The resource values will need to be equivalent. Execution of this measure will include compensatory mitigation needed for</p>	2-80	May 2018 <i>Natural Environment Study</i>	Construction Contractor City/County	Final Design/Permitting Construction							

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										YES	NO
riparian/riverine resources (measures BIO-8, Items A, B, and D) and least Bell's vireo (measure BIO-4) at the Santa Ana River.											
CULTURAL RESOURCES											
CR-1: If cultural materials are discovered during construction, all work must halt or be diverted within a 60-foot radius of the discovery until a qualified archaeologist can assess the nature and significance of the find.	2-83	June 2018 <i>Archaeological Survey Report</i>	Construction Contractor	Construction							
CR-2: If human remains are discovered, State Health and Safety Code Section 7050.5 states that further disturbances and activities must stop in any area or nearby area suspected to overlie remains, and the County Coroner must be contacted. If suspected human remains are discovered during construction, all work must halt or be diverted within a 60-foot radius of the discovery until the Coroner has made its determination. Pursuant to California PRC Section 5097.98, if the remains are thought to be Native American, the coroner will notify the Native American Heritage Commission (NAHC), which will then notify the Most Likely Descendant. At this time, the person who discovered the remains will contact the District 8 Environmental Branch and the County so that they may work with the Most Likely Descendant on the respectful treatment and disposition of the remains. Further provisions of PRC 5097.98 are to be followed as applicable.	2-83	June 2018 <i>Archaeological Survey Report</i>	Construction Contractor	Construction							

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									YES	NO
PALEONTOLOGICAL RESOURCES										
<p>CR-3: A PMP will be developed and implemented prior to commencement of project construction. The PMP will follow the guidelines of Caltrans and the recommendations of the Society of Vertebrate Paleontology, and it will be prepared and submitted to Caltrans for review during the Plans, Specifications, and Estimates (PS&E) phase of the project. Society of Vertebrate Paleontology recommendations include:</p> <ul style="list-style-type: none"> • Having the qualified paleontologist attend the preconstruction meeting to consult with the grading and excavation contractors. • Providing a paleontological monitor on site to inspect paleontological resources on a full-time basis during the original cutting of previously undisturbed deposits of high or moderate paleontological resource potential and on a part-time basis during the original cutting of previously undisturbed deposits of low paleontological resource potential. • Having the qualified paleontologist or paleontological monitor salvage and recover paleontological resources. • Collecting stratigraphic data (by the qualified paleontologist and/or paleontological monitor) to provide a stratigraphic context for recovered paleontological resources. • Preparing (i.e., repairing and cleaning), sorting, and cataloging recovered paleontological resources. • Donating prepared fossils, field notes, photographs, and maps to a scientific institution 	2-85	IS/MND	Construction Contractor Qualified Paleontologist	Before and during Construction						

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Hamner Avenue Bridge Replacement Project

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										YES	NO
with permanent paleontological collections, such as the San Bernardino County Museum. <ul style="list-style-type: none"> Completing a final summary report that outlines the results of the mitigation program. 											
HAZARDS AND HAZARDOUS MATERIALS											
HAZ-1: Should any previously unknown hazardous waste/material be encountered during construction, Caltrans Hazards Procedures for Construction will be followed.	2-100	September 2017 <i>Phase 1 Initial Site Assessment</i>	Construction Contractor	Construction							
HAZ-2: Prior to construction, in order to avoid potential impacts from pavement striping removal during construction, testing and removal requirements for yellow striping, pavement marking materials, and bridge paints will be performed in accordance with Caltrans Standard Specifications Sections 14-11.12 and 14-11.13A.	2-100	September 2017 <i>Phase 1 Initial Site Assessment</i>	Construction Contractor	Before Construction							
HYDROLOGY AND WATER QUALITY											
WQ-1: Treatment control BMPs will be implemented to the maximum extent practicable, consistent with the requirements of the NPDES permit and Waste Discharge Requirements for Riverside County Municipal Stormwater Permit Order No. R8-2010-0033, NPDES Permit No. CAS618033. The project design shall incorporate post-construction measures and other permanent erosion control elements to ensure that stormwater runoff would not cause channel erosion or hydromodification within the Santa Ana River. The proposed project would comply with the Low Impact Development: Guidance and Standards for Transportation Projects for the Santa Ana Region Riverside County Co-Permittees. Under that guidance, transportation projects shall	2-109	December 2017 <i>Water Quality Assessment Report</i>	Construction Contractor	Final Design Before and during Construction							

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										YES	NO
<p>incorporate the following Low-Impact Development Principles and BMPs to the maximum extent practicable: conserve natural areas to the extent feasible; minimize the impervious footprint; minimize disturbances to natural drainage; design and construct pervious areas to receive runoff from impervious areas; and use landscaping that minimizes irrigation and runoff, promotes surface runoff and infiltration, and minimizes the use of pesticides and fertilizers.</p> <p>The proposed project shall incorporate stormwater treatment BMPs that preserve the existing hydrology to the maximum extent practical. Runoff from the roadway shall be conveyed to pervious swales. Pollutants in the stormwater runoff from the roadway shall be filtered through the pervious swales prior to being discharged from the project site. Maintenance of the roadside ditches shall include debris, litter, and sediment removal.</p>											
<p>WQ-2: 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. 2009-0009-DWQ, NPDES No. CAS000002, and any subsequent permits in effect at the time of construction.</p> <p>The proposed project will comply with the Construction General Permit by preparing and implementing a SWPPP to address issues related to construction-related activities, equipment, and materials that have the potential to affect water quality. The SWPPP is a project-specific document that calculates the site's risk level during</p>	2-110	December 2017 <i>Water Quality Assessment Report</i>	Construction Contractor	Final Design Before and during Construction							

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										YES	NO
<p>construction, includes guidelines for monitoring and reporting, and provides Erosion Control Plan and BMP details for the construction site. The SWPPP also includes Construction Site BMPs, which are implemented to minimize sediment and erosion during construction. The SWPPP will identify the sources of pollutants that may affect the quality of stormwater and include BMPs to control the pollutants, such as sediment control measures, catch basin inlet protection, construction materials management, and non-stormwater BMPs.</p> <p>Permit Registration Documents, which include a Notice of Intent, Risk Assessment, Site Map, SWPPP, and other compliance-related documents required by the Construction General Permit, would be electronically filed through the SWRCB's Storm Water Multiple Application and Report Tracking System (SMARTS) prior to the start of construction. Additionally, within 90 days of when construction is complete and the site is stabilized, a Notice of Termination will be electronically filed through the SWRCB's SMARTS.</p>											
NOISE											
<p>NOI-1: Construction will be conducted in accordance with applicable local noise standards and Caltrans' provisions in Section 14-8.02, "Noise Control," of the 2015 Standard Specifications and Special Provisions.</p>	2-139	April 2018 <i>Noise Study Report</i>	Construction Contractor	Construction							
<p>NOI-2: Abatement in the form of sound barrier STA172+20 has been included to reduce traffic noise impacts at affected receptors along the project alignment.</p>	2-139	April 2018 <i>Noise Study Report</i>	Construction Contractor	Construction							

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									YES	NO
TRIBAL CULTURAL RESOURCES										
<p>TCR-1. In the event that a Tribal Cultural Resource is unexpectedly identified during the course of the proposed project, and the County determines that the project may cause a substantial adverse change to a Tribal Cultural Resource, the County will work with the consulting tribe/s to employ one or more of the following standard mitigation measures:</p> <ol style="list-style-type: none"> 1. Avoidance and preservation of the resources in place, including, but not limited to, planning and construction to avoid the resources and protect the cultural and natural context, or planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria. 2. Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following: <ol style="list-style-type: none"> i. Protecting the cultural character and integrity of the resource; ii. Protecting the traditional use of the resource; iii. Protecting the confidentiality of the resource. iv. Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places 3. Protecting the resource. 	2-155	IS/MND	Construction Contractor	Construction						