I-210/San Gabriel River Bridge

HINGE REPLACEMENT PROJECT

INITIAL STUDY/ENVIRONMENTAL ASSESSMENT

AUGUST 2020

The environmental review, consultation, and any other action required in accordance with applicable federal laws for this project is being, or has been, carried-out by Caltrans under its assumption of responsibility pursuant to 23 USC 327.

Prepared by:
The State of California, Department of Transportation

I-210/San Gabriel River Bridge Hinge Replacement Project

LOS ANGELES COUNTY, CALIFORNIA
DISTRICT 7-LA-210 (PM R36.82)
EA 07-32520; EFIS 0716000082

Initial Study with Proposed Mitigated Negative Declaration/Environmental Assessment and Section 4(f) De Minimis Finding

Prepared by the
State of California, Department of Transportation

The environmental review, consultation, and any other actions required by applicable Federal environmental laws for this project are being, or have been, carried out by Caltrans pursuant to 23 USC 327 and the Memorandum of Understanding dated December 23, 2016 and executed by FHWA and Caltrans.

August 2020

SCH # _____
7-LA-210-PM R36.82
EA 07-32520
EFIS 0716000082

Replace hinges of the San Gabriel River Bridge (Bridge No. 53-1867) on Interstate 210 at post mile R36.82

INITIAL STUDY WITH PROPOSED MITIGATED NEGATIVE DECLARATION/ENVIRONMENTAL ASSESSMENT

Submitted Pursuant to:
(State) Division 13 Public Resources Code
(Federal) 42 USC 4332(2)(C), 49 USC 303 and/or USC 138

THE STATE OF CALIFORNIA
Department of Transportation

Responsible Agencies: California Transportation Commission (CTC)

Aug 26, 2020
Date

Ron Kosinski
Division of Environmental Planning
Deputy District Director
California Department of Transportation
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SCH # _____

PROPOSED MITIGATED NEGATIVE DECLARATION

Pursuant to: Division 13, State of California Public Resources Code

Project Description:

The California Department of Transportation (Caltrans) proposes a rehabilitation project to replace hinges of the San Gabriel River Bridge on Interstate 210 (I-210) in the City of Irwindale, within the County of Los Angeles. The San Gabriel River Bridge exists within the jurisdiction of Caltrans District 7 – Los Angeles, Bridge No. 53-1867 at post mile R36.82. This environmental document studies the effects of bridge rehabilitation to assess the cumulative impact of the proposed undertaking. The scope of work for the San Gabriel River Bridge includes:

- Demolition of hinge diaphragms at hinge 4 (between piers 4 and 5) and hinge 6 (between piers 6 and 7) and reconstruction using rapid setting concrete
- Upgrading the existing bridge median barrier
- Upgrades to the bridge railings in order to conform to current standards (Type 736)
- Removal and re-installation of electroliers

Determination:

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

Caltrans has prepared an Initial Study (IS) for this project, and pending public review, expects to determine from this study that the proposed project would not have a significant effect on the environment for the following reasons:

The proposed project would have **no effect** on Aesthetics, Agriculture and Forest Resources, Energy, Land Use and Planning, Mineral Resources, Noise, Population and Housing, Recreation, Tribal Cultural Resources, Utilities and Service Systems, and Wildfire.

The proposed project would have **less than significant effects** on Air Quality, Cultural Resources, Geology and Soils, Greenhouse Gas Emissions, Hazards and Hazardous Materials, Hydrology and Water Quality, Public Services, Transportation, and Wildfire.

With the following **minimization measures incorporated**, the proposed project would have **less than significant effects** on Biological Resources. Minimization measures are listed in **Appendix C**.

_____ _____

Ron Kosinski
Deputy District Director
District 7, Division of Environmental Planning
California Department of Transportation

Date

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Summary

California participated in the “Surface Transportation Project Delivery Pilot Program” (Pilot Program) pursuant to 23 USC 327, for more than five years, beginning July 1, 2007, and ending September 30, 2012. MAP-21 (P.L. 112- 141), signed by President Obama on July 6, 2012, amended 23 USC 327 to establish a permanent Surface Transportation Project Delivery Program. As a result, the Department entered into a Memorandum of Understanding pursuant to 23 USC 327 (NEPA Assignment MOU) with FHWA. The NEPA Assignmemtn MOU became effective October 1, 2012 and was renewed on December 23, 2016 for a term of five years. In summary, the Department continues to assume FHWA responsibilities under NEPA and other federal environmental laws in the same manner as was assigned under the Pilot Program, with minor changes. With NEPA Assignment, FHWA assigned and the Department assumed all of the United States Department of Transportation (USDOT) Secretary's responsibilities under NEPA. This assignment includes projects on the State Highway System and Local Assistance Projects off of the State Highway System within the State of California, except for certain categorical exclusions that FHWA assigned to the Department under the 23 USC 326 CE Assignment MOU, projects excluded by definition, and specific project exclusions.

The project as proposed and presented in this Initial Study/Environmental Assessment (IS/EA) by Caltrans is subject to state and federal environmental review requirements. The project documentation, therefore, has been prepared in compliance with both the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA). Caltrans is the lead agency under CEQA and NEPA. The Federal Highways Administration’s (FHWA’s) responsibility for environmental review, consultation, and any other action required in accordance with applicable Federal laws for this project is being, or has been, carried out by Caltrans under its assumption of responsibility pursuant to 23 U.S.C. 327.

Following receipt of public comments on this Draft IS/EA and distribution of the Final IS/EA, Caltrans will determine whether to certify the IS by issuing a Mitigated Negative Declaration (MND) under CEQA and determine if it is appropriate to certify the EA with a Finding of No Significant Impact (FONSI) under NEPA.

Caltrans proposes a bridge rehabilitation project to replace hinges of the San Gabriel River Bridge on Interstate 210 (I-210) in the City of Irwindale, within the County of Los Angeles. The San Gabriel River Bridge exists within the jurisdiction of Caltrans District 7 – Los Angeles, Bridge No. 53-1867 at post mile R36.82. This environmental document studies the effects of bridge rehabilitation on the surrounding environment and to assess the cumulative impact of the proposed undertaking. The scope of work for the San Gabriel River Bridge includes:

- Demolition of hinge diaphragms at hinge 4 (between piers 4 and 5) and hinge 6 (between piers 6 and 7) and reconstruction using rapid setting concrete
- Upgrading the existing bridge median barrier
- Upgrades to the bridge railings in order to conform to current standards (Type 736)
- Removal and re-installation of electroliers

Project Purpose

The purpose of the proposed project is to achieve the following objectives:

- To preserve the structural integrity of the bridge and to prevent bridge deck failure due to settlement and nonexistence of elastomeric bearing pads in the hinges.
- To bring the bridge into compliance with current safety standards by upgrading the bridge railing.

Project Need

The need for the proposed project is based on the recommendations included in the 2012 Structure Replacement and Improvement Needs (STRAIN) report produced by the Caltrans Office of Structure Maintenance and Investigations (OSMI). OSMI is responsible for managing highway structures. This includes performing bridge inspections and making structure work repair recommendations. The OSMI maintains several reports containing information on the condition and rehabilitation of bridges. The STRAIN report contains recommended improvements to structures. The STRAIN report from 2012 and a bridge inspection report from 2016 identified this bridge (bridge No. 53-1867) for hinge and railing upgrades.

Proposed Action and Alternatives Under Consideration

The proposed alternatives are Alternative 1 (No-Build Alternative), Alternative 2 (Multi-Stage Rehabilitation) and Alternative 3 (Single-Stage Rehabilitation). This proposed project contains several standardized project measures which are employed on most, if not all, Caltrans projects and were not developed in response to any specific environmental impact resulting from the proposed project. The measures are addressed in more detail in the Environmental Consequences sections found in Chapter 2 of this environmental document.

Alternative 1: No-Build Alternative

Alternative 1 consists of no construction. Bridge railings and hinges would remain in their current condition. The consequences of no build are continued deterioration of the San Gabriel River Bridge hinges, potentially causing bridge deck superstructure failure. This would result in reconstruction of this structure under a costly emergency project with major traffic disruption.

Alternative 2: Multi-Stage Rehabilitation

Alternative 2 consists of reconstruction of the hinge diaphragms in five stages where a part of the bridge open to east and westbound traffic would be available during construction while a portion of the bridge is being rehabilitated, this structure cost is $9,917,288 (Advanced Planning Study, 2018). Stage 1 will initiate by closing the westbound side of the freeway to allow construction on the north half of the bridge. Traffic on the westbound side of the freeway will be redirected to the eastbound side using a crossover staging method by removing the concrete median barriers and restriping the lane lines to allow three lanes in each direction. The hinge section will then be demolished and reconstructed. Construction equipment such as trucks, cranes, forklifts, boom forklifts, front loaders, and backhoes will be used for the construction of this project. The same procedure will be repeated for Stage 2 after closing the eastbound side of the freeway in order to complete construction on the south side of the bridge deck. Stage 3 consists of upgrading the existing bridge median barrier and replacing the concrete median barriers that were removed in

Stage 1. The work on the bridge overhang and railing will be conducted during nighttime hours in order to allow users of the trail to feel safe while traversing under the scaffolding during the daytime. Stage 4 will demolish and reconstruct the north side of the existing bridge overhang, along with upgrading the bridge railings, electroliers, and Midwest Guardrail System (MGS). The same procedure will be done for Stage 5 for the south side of the bridge to construct and upgrade the bridge overhang, bridge railing, electroliers, and MGS.

Alternative 3: Single-Stage Rehabilitation

Alternative 3 consists of reconstruction of the hinge diaphragms in a single stage of 134 hours closure, by closing both directions of the San Gabriel River Bridge to traffic, this structure cost is $11,508,220 (Advanced Planning Study, 2018). FHWA's accelerated bridge construction (ABC), the use of innovative design, planning, materials, and construction techniques to reduce on site construction time will be utilized. Construction equipment such as trucks, cranes, forklifts, boom forklifts, front loaders, and backhoes will be used in the riverbed for construction. The next step consists of upgrading the existing bridge median barrier and then demolition of the north and south side of the existing bridge overhang, reconstructing the new bridge overhang, and then upgrading the bridge railings, light posts, and MGS.

Summary of Potential Project Impacts

Environmental impacts associated with Alternative 1 (No Build), Alternative 2 (Multi-Stage Rehabilitation), and Alternative 3 (Single-Stage Rehabilitation) were analyzed as part of the Initial Study/Environmental Assessment and are summarized in **Table S-1**.

Table S-1. Summary of Potential Project Impacts and Proposed Avoidance, Minimization, and Mitigation Measures

Environmental Resource	Alternative 1 (No-Build)	Alternative 2 (Multi-Stage Rehabilitation) & Alternative 3 (Single-Stage Rehabilitation)	Avoidance, Minimization and Mitigation Measures
Existing and Future Land Use	If the proposed project were not built, there would be no alterations or improvements to the existing facilities, posing no changes to the existing environment, and no effects on existing growth patterns at the local level; therefore, it would present no potential for effects to such.	The proposed project does not have the potential to affect existing growth patterns on a local level, and simply aims to repair, rehabilitate, and enhance existing bridge facilities to prevent future deterioration and extend the life of the structure.	The proposed project will not result in property acquisition. Temporary construction easements (TCE) will be necessary in order to complete the proposed work, see Figure 1.1-b and Figure 1.1-c Temporary Construction Easements and Contractor Storage and Staging Area. Any land used as a TCE during construction would be returned to its original condition or better, prior to the return of that land to the original owner. The proposed project would not conflict with any land use plan, policy, or regulation of an agency with jurisdiction over the project with the purpose of avoiding or mitigating an environmental effect.

Environmental Resource	Alternative 1 (No-Build)	Alternative 2 (Multi-Stage Rehabilitation) & Alternative 3 (Single-Stage Rehabilitation)	Avoidance, Minimization and Mitigation Measures
Parks and Recreational Facilities	If the proposed project were not built, there would be no alterations or improvements to the existing facilities, posing no changes to the existing environment, and no disturbance to parks and recreational facilities; therefore, it would present no potential for effects to such.	All community/public park facilities in the project study area are protected under the California Park Preservation Act of 1971, but no permanent full or partial acquisitions, or displacement of these facilities would be required under Alternative 2 and 3.	PR-1 Temporary Detour of San Gabriel River Trail. A temporary detour plan will be available to the public if they feel unsafe around construction work, but the San Gabriel River Trail will be open with scaffolding at both the southern and northern side of the I-210 San Gabriel River Bridge. There are no Section 4(f) impacts.
Utilities and Emergency Services	If the proposed project were not built, there would be no alterations or improvements to the existing facilities, posing no changes to the existing environment, and no disturbance to utilities and/or emergency services; therefore, it would present no potential for effects to such.	The proposed project consists primarily of rehabilitation and restoration of existing bridge structure facilities, and no impacts to utilities are anticipated. Caltrans continues to coordinate with local jurisdictions, and a Transportation Management Plan (TMP) shall be implemented accordingly.	ES-1 Early and Continuing Coordination with Emergency Services. Early communication and planning with affected (if any) emergency service providers before and during construction will ensure minimization of any disruption of services and any effects as much as possible. UT-1 Early and Continuing Coordination with Utility Providers. Early communication and planning with affected (if any) utility providers before and during construction will ensure that all affected infrastructure will be relocated with consideration, and to minimize any disruption of services and any effects as much as possible. TMP-1 Transportation Management Plan. A Transportation Management Plan shall be implemented to provide detailed access and detour strategies that would minimize any effects on response times for fire, police, and emergency services. Caltrans shall maintain close coordination with local agencies and jurisdictions, including fire protection services, police, schools, and park agencies via a public outreach campaign

Environmental Resource	Alternative 1 (No-Build)	Alternative 2 (Multi-Stage Rehabilitation) & Alternative 3 (Single-Stage Rehabilitation)	Avoidance, Minimization and Mitigation Measures
			during the construction phase of the proposed project. TMP-2 Early and Continuing Transportation Management Plan Coordination with the City of Irwindale. Caltrans shall initiate early coordination with the City of Irwindale to achieve consensus and obtain concurrence on traffic management strategies during construction, and to ensure public access and availability of emergency and public services during the construction period.
Cultural Resources	If the proposed project were not built, none of the proposed improvements would be implemented and continued degradation of the hinge and railings at the San Gabriel River Bridge would compromise structural integrity and require more extensive mitigation and/or measures in the future.	Research and examination of previous technical reports and maps for the project study area show that there will be no activities that affect any cultural materials, and no historic properties affected.	There are no avoidance, minimization, or mitigation measures other than the project features described under Alternative 2.
Hydrology and Floodplain	If the proposed project were not built, none of the proposed improvements would be implemented and continued deterioration of the bridge hinge would compromise structural integrity and require more extensive mitigation and/or measures in the	For Alternative 2 and 3, there will be no longitudinal encroachment into the base floodplain or San Gabriel River's river bed that increases impervious area or increase flood elevation.	WDP-01 Water Diversion Plan. A Water Diversion Plan shall be developed and implemented in consultation with the National Oceanic and Atmospheric Administration, California Department of Fish and Wildlife, United States Fish and Wildlife Service, and the Regional Water Quality Control Board to divert water through the project site to reduce turbidity and prevent sediments from entering areas downstream of the project site.

Environmental Resource	Alternative 1 (No-Build)	Alternative 2 (Multi-Stage Rehabilitation) & Alternative 3 (Single-Stage Rehabilitation)	Avoidance, Minimization and Mitigation Measures
	future.		
Water Quality and Storm Water Runoff	If the proposed project were not built, none of the proposed improvements would be implemented and continued deterioration of the bridge hinge would compromise structural integrity and require more extensive mitigation and/or measures in the future.	The proposed project, as designed, has the potential to disturb 9.52 acres. Estimated net additional impervious area is calculated at zero (no net increase). Caltrans will comply with pertinent TMDL standards, and project engineers shall consider treatment controls for the proposed project and consult with the Caltrans NPDES Storm Water Coordinator to achieve compliance.	SWP-01 Stormwater Pollution Prevention Plan (SWPPP). Generally, construction project with a Disturbed Soil Area of more than one acre require a Stormwater Pollution Prevention Plan (SWPPP), to address water pollution control for the proposed undertaking. The Construction General Permit (CGP) requires that all stormwater discharges associated with construction activity, where said activity results in soil disturbance of one acre or more land area, must be permitted under the CGP and have a fully developed site SWPPP on-site prior to beginning any soil disturbing activities. As previously mentioned, construction of the proposed project will require an estimated soil disturbance of 9.52 acres, in which a SWPPP shall be developed and implemented to improve construction site water quality practices and control the impacts of stormwater pollution through Best Management Practices. Construction activities for the proposed project is estimated to cover approximately one year. The temporary construction best management practice categories suitable for controlling potential pollutants to be considered for the proposed project will be refined during the next project phase, and shall include, but not limited to the following: • Soil stabilization measures • Sediment control measures • Wind erosion control measures • Tracking control measures • Non-stormwater management • Waste management and materials pollution control DR-01 Bridge Deck Drainage

Environmental Resource	Alternative 1 (No-Build)	Alternative 2 (Multi-Stage Rehabilitation) & Alternative 3 (Single-Stage Rehabilitation)	Avoidance, Minimization and Mitigation Measures
			Improvement. With the demolition and reconstruction of the bridge deck overhang and bridge railing, bridge deck drainage will be affected. The reconstruction will allow water to be diverted from discharging directly into main flow of river, as it currently does. It will be channeled to abutment areas to allow water to gradually flow and infiltrate into the riverbed and then the main river channel.
Geology/Soils/ Seismic/ Topography	If the proposed project were not built, none of the proposed improvements would be implemented and continued deterioration of hinges at hinge 4 and 6 at the San Gabriel River Bridge (Bridge No. 53-1867) would compromise structural integrity and require more extensive mitigation and/or measures in the future.	Due to limited grading and excavation occurring at the project site, there are limited impacts from construction on the geology, soils, seismology or topography.	GS-01 Minimization of the Effects of Groundwater and Soil Excavation During Construction. It is recommended that remedial measures be taken to minimize the effect of groundwater and soil excavation during construction. A water diversion plan may be required during construction and the stability of these excavations is dependent on the total time the excavation is exposed, groundwater conditions, granular nature of the soil, and contractor operations.
Hazardous Waste/Materials	If the proposed project were not built, none of the proposed improvements would be implemented and continued deterioration of hinges at hinge 4 and 6 at the San Gabriel River Bridge (Bridge No. 53-1867) would compromise structural integrity and require more	Under federal and state environmental laws, acquisition of contaminated property creates permanent liability for the new property owner. Caltrans must exercise due diligence to prevent acquisition of contaminated property that may create long-term liability or detrimentally affect project cost, scope, or schedule. The project,	HW-01 Preparation of a Project Specific Site Investigation for Streambed. A Project-specific SI shall be prepared during the next project phase to evaluate the streambed because of streambed alteration and testing of the water that will be diverted. Water and sediment that do not meet the National Pollutant Discharge Elimination System permit requirements for discharge will be containerized and disposed at an appropriate disposal facility. HW-02 Survey for Asbestos Containing Materials and Lead

Environmental Resource	Alternative 1 (No-Build)	Alternative 2 (Multi-Stage Rehabilitation) & Alternative 3 (Single-Stage Rehabilitation)	Avoidance, Minimization and Mitigation Measures
	extensive mitigation and/or measures in the future.	as currently proposed, does not require the permanent acquisition of any property, but Temporary Construction Easements (TCEs) will be required on properties adjacent to the project study area, which will require a SI during the next project phase to determine the extent of potential contamination, and to develop construction remediation estimates.	Based Paint. In the event that existing bridge railings and medians will be disturbed, removed, and/or replaced during construction, an Asbestos Containing Materials and Lead Based Paint survey shall be prepared in compliance with the South Coast Air Quality Management District Air Quality Management Plan and National Emissions Standards for Hazardous Air Pollutants as regulated by the US EPA and California Air Resources Board. Asbestos and lead-based paint discovered during the surveys will be removed prior to bridge renovation or measures emplaced to protect the San Gabriel River and surrounding areas beneath the bridge from receiving any debris from the bridge renovation. HW-03 Removal of Yellow Thermoplastic and Yellow Paint Traffic Stripe and Pavement Marking Containing Hazardous Waste Concentrations of Lead and Chromium. Residue generated from removal of yellow thermoplastic and yellow paint traffic stripe and pavement marking will be collected, containerized, and disposed in a Class I hazardous waste disposal facility permitted in California. HW-04 Disposal of Treated Wood Waste. Treated Wood Waste is a non-Resource Conservation and Recovery Act hazardous waste that will be disposed in a California permitted hazardous waste landfill or specially lined non-hazardous waste disposal facility. HW-05 Removal of Electrical Equipment. Removal of electrical equipment will require disposal at an appropriate California permitted disposal facility to avoid waste from being disposed in a municipal landfill. HW-06 Acquisition of Contaminated

Environmental Resource	Alternative 1 (No-Build)	Alternative 2 (Multi-Stage Rehabilitation) & Alternative 3 (Single-Stage Rehabilitation)	Avoidance, Minimization and Mitigation Measures
			Parcels. The Site Investigation will be performed to determine the current condition of the property. If the Site Investigation detects hazardous substances and/or petroleum products on the property, Caltrans will require remediation of the parcels prior to acquisition to avoid future liability for contamination by Caltrans and protection of workers during maintenance and construction, and utility relocation by others.
Noise	If the proposed project were not built, none of the proposed improvements would be implemented and continued deterioration of hinges at hinge 4 and 6 at the San Gabriel River Bridge (Bridge No. 53-1867) would compromise structural integrity and require more extensive mitigation and/or measures in the future.	The proposed project is not a Type 1 project, and all noise would come from construction equipment. This project does not present the potential to affect sensitive receptors surrounding the project site.	NM-01 Equipment Noise Control. Equipment noise control should be applied to revising old equipment and designing new equipment to meet specified noise levels. Sound shielding may be able to control construction noise, for example sound blankets or other innovative sound absorbing materials could be used at the project site. NM-02 In-Use Noise Control. In-Use noise control where existing equipment is not permitted to produce noise levels in excess of specified limits. NM-03 Site Restrictions. Site restrictions is an attempt to achieve noise reduction through modifying the time, place, or method of operation of a particular source. NM-04 Personnel Training. Personal training of operators and supervisors is needed to become more aware of the construction site noise problem, and are given instruction on methods that they can implement to improve conditions in the local community.
Natural Communities	If the proposed project were not built, none of the proposed improvements would be implemented and continued	No permanent project impacts are anticipated to the Riversidean alluvial fan sage scrub and coastal sage scrub. The only project activities which will	NAT-01 Minimization of Impacts to Natural Communities. Temporary impacts to natural communities are limited to areas that will be disturbed during the water diversion creation. If during project activities, any alluvial fan sage scrub community is impacted, Caltrans

Environmental Resource	Alternative 1 (No-Build)	Alternative 2 (Multi-Stage Rehabilitation) & Alternative 3 (Single-Stage Rehabilitation)	Avoidance, Minimization and Mitigation Measures
	deterioration of hinges at hinge 4 and 6 at the San Gabriel River Bridge (Bridge No. 53-1867) would compromise structural integrity and require more extensive mitigation and/or measures in the future.	result in temporary impacts to the alluvial fan sage scrub and coastal sage scrub are the pre-construction activities such as the water diversion plan referenced in the Hydrology section of this chapter. Any impact to alluvial fan sage scrub or coastal sage scrub vegetation, within the water diversion area, shall be avoided by using an ESA fence.	will coordinate with California Department of Fish and Wildlife and Los Angeles County to determine whether any action is needed. Caltrans will have an agreement in place with an approved mitigation bank or an in-lieu fee program. NAT-02 Temporary Construction Easements. Temporary construction Easements (TCEs) will be obtained to provide contractor with construction access through an existing Los Angeles County flood control access road. The boundaries of the TCE will be fenced, and construction activity will not be allowed to occur beyond these limits. NAT-03 Heavy Equipment Storage. No heavy equipment will be stored within the San Gabriel River. Heavy equipment will be checked daily for leaks to avoid contamination. Drip pans will be placed under heavy equipment at the end of each day. NAT-04 Environmentally Sensitive Area Fence. Environmentally Sensitive Area (ESA) fence will be installed around alluvial fan sage scrub or coastal sage scrub vegetation
Wetlands and Other Waters	If the proposed project were not built, none of the proposed improvements would be implemented and continued deterioration of hinges at hinge 4 and 6 at the San Gabriel River Bridge (Bridge No. 53-1867) would compromise structural integrity and require more extensive	Approximately 4.32 acres of Waters of the U.S. will be temporarily impacted by the project activities. Caltrans has determined that there is no practicable alternative that can avoid wetlands. The proposed project includes all practicable measures to minimize harm to wetlands.	WET-01 Construction Work Window Restrictions. All work within San Gabriel River shall be conducted outside of the rainy season (November 1st through April 1st). WET-02 May 2019 thru July 2021. Commence and complete Formal or Informal Section 7, as well as, 1602, 404, and 401 permitting prior to October 2020 water diversions and vegetation clearing is required by the below steps. WET-03 May 2019 thru July 2021. Los Angeles County Flood Control Permit and Section 408 Permit from the United States Army Corps of Engineers need to be obtained by

Environmental Resource	Alternative 1 (No-Build)	Alternative 2 (Multi-Stage Rehabilitation) & Alternative 3 (Single-Stage Rehabilitation)	Avoidance, Minimization and Mitigation Measures
	mitigation and/or measures in the future.		Caltrans Design and/or Hydraulics. WET-04 In late October 2021 to late November 2021. Begin and complete clearing/grubbing of all vegetation within the project impact area prior to the start of the bird nesting season (but also before the brunt of the rainy season to avoid the difficulties of working in flowing water). A water diversion may be necessary. Caltrans' biologist will routinely check on the regrowth of vegetation within the project area. If bird and bat-suitable habitat begins to return, the Caltrans Biologist will determine whether it is necessary to re-trim or remove vegetation prior to the 2022 nesting season.
Plant Species	If the proposed project were not built, none of the proposed improvements would be implemented and continued deterioration of hinges at hinge 4 and 6 at the San Gabriel River Bridge (Bridge No. 53-1867) would compromise structural integrity and require more extensive mitigation and/or measures in the future.	No rare plant species were observed within the study area. Therefore, no impacts to rare plants due to project construction are anticipated. Caltrans will conduct pre-construction surveys. Surveys will be done by a qualified botanist with experience in locating and identifying rare plants, prior to initiation of work. If any rare plants are located within the project footprint they will be re-located to a safe location as deemed by the botanist and in coordination with CDFW.	No special-status plant species is known to occur within the project limits. As such, no avoidance, minimization or mitigation measures are proposed at this time.
Animal Species	If the proposed project were not built, none of the proposed improvements would be	The bridge rehabilitation will temporarily impact the observed animal species during pre-construction, such as	AN-01. Bat Relocation Away from Construction Areas. Alternate roost sites will be installed prior to any evictions and suitable habitat removal to encourage passive relocations. Alternative roost sites

Environmental Resource	Alternative 1 (No-Build)	Alternative 2 (Multi-Stage Rehabilitation) & Alternative 3 (Single-Stage Rehabilitation)	Avoidance, Minimization and Mitigation Measures
	implemented and continued deterioration of hinges at hinge 4 and 6 at the San Gabriel River Bridge (Bridge No. 53-1867) would compromise structural integrity and require more extensive mitigation and/or measures in the future.	prepping the construction site and water diversion plan implementation, and construction activities. White-throated swifts and northern rough-winged swallows use the weep holes in the I-210 bridge. These weep holes will be closed up before construction, so the birds are not living within the bridge during construction. Specific bat species utilize the center Line hinge joint as a year-round roost, and the presence of other bat species are using the areas under the bridge for night foraging. Bat houses have been created for bats to use when the bridge is under construction. The bat houses will be located close enough to the bridge so that current bat inhabitants will be able to easily locate a new roost, but far enough away to not be impacted by construction noise and will temporarily roost there until construction is complete.	are bat houses located within the project site, at least 200 feet away from construction activities to reduce noise impacts from construction work. AN-02. Swallow Exclusion. Closing weep holes (either with exclusion netting or tubes) within the bridge structure will avoid impact on observed bird species, weep holes will be reopened once construction is complete and birds can return to weep holes. AN-03. Clearing and Grubbing. Clearing and grubbing shall occur outside the maternity season mid-May to early July one year ahead of the false and support works installation. No trees will be cut down or trimmed without first being surveyed by a qualified biologist for the presence of bats roosting. Should bats be located within trees that are to be removed or trimmed, Caltrans will coordinate with California Department of Fish and Wildlife to determine how best to minimize impacts to these species. AN-04. Night Lighting. Special night time lighting to deter bats from the construction area are to be used when construction is active.
Threatened and Endangered Species	If the proposed project were not built, none of the proposed improvements would be implemented and continued deterioration of hinges at hinge 4	If the proposed project was built following Alternative 2, it would have no potential to result in impacts to federal or state listed species.	No federally listed species or their habitats were detected during recommended focused surveys. This project has no potential to result in impacts to federal or state listed species.

Environmental Resource	Alternative 1 (No-Build)	Alternative 2 (Multi-Stage Rehabilitation) & Alternative 3 (Single-Stage Rehabilitation)	Avoidance, Minimization and Mitigation Measures
	and 6 at the San Gabriel River Bridge (Bridge No. 53-1867) would compromise structural integrity and require more extensive mitigation and/or measures in the future.		
Invasive Species	If the proposed project were not built, none of the proposed improvements would be implemented and continued deterioration of hinges at hinge 4 and 6 at the San Gabriel River Bridge (Bridge No. 53-1867) would compromise structural integrity and require more extensive mitigation and/or measures in the future.	Under the EO, federal agencies cannot authorize, fund, or carry out actions that it believes are likely to cause or promote the introduction or spread of invasive species in the United States or elsewhere unless all reasonable measures to minimize risk of harm have been analyzed and considered. The Biological Provisions addressed the Invasive Species. If needed an invasive control plan will be developed.	INV-01. Equipment Cleaning. During construction, the construction contractor shall inspect and clean construction equipment at the beginning and end of each day and prior to transporting equipment from one project location to another. INV-02. Vegetation/Soil Disturbance. During construction, soil and vegetation disturbance will be minimized to the greatest extent feasible. INV-03. Fugitive Dust Control. During construction, the contractor shall ensure that all active portions of the construction site are watered a minimum of twice daily or more often when needed due to dry or windy conditions to prevent excessive amounts of dust. INV-04. Stockpile Dust Control. During construction, the contractor shall ensure that all active portions of the construction site are watered a minimum of twice daily or more often when needed due to dry or windy conditions to prevent excessive amounts of dust. INV-05. Materials Sourcing. During construction, soil/gravel/rock will be obtained from weed-free sources. Only certified weed-free straw, mulch, and/or fiber rolls will be used for erosion control. INV-06. Eradication Procedures. Eradication procedures (e.g., spraying and/or hand weeding) will

Environmental Resource	Alternative 1 (No-Build)	Alternative 2 (Multi-Stage Rehabilitation) & Alternative 3 (Single-Stage Rehabilitation)	Avoidance, Minimization and Mitigation Measures
			be outlined should an infestation occur; the use of herbicides will be prohibited within and adjacent to native vegetation, except as specifically authorized and monitored by the District Biologist and Landscape Architect.

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1.0 Proposed Project

1.1 Introduction

1.1.1 NEPA Assignment

California participated in the "Surface Transportation Project Delivery Pilot Program" (Pilot Program) pursuant to 23 USC 327, for more than five years, beginning July 1, 2007, and ending September 30, 2012. MAP-21 (P.L. 112-141), signed by President Obama on July 6, 2012, amended 23 USC 327 to establish a permanent Surface Transportation Project Delivery Program. As a result, Caltrans entered into a Memorandum of Understanding pursuant to 23 USC 327 (NEPA Assignment MOU) with Federal Highway Administration (FHWA). The NEPA Assignment MOU became effective October 1, 2012, and was renewed on December 23, 2016, for a term of five years. In summary, Caltrans continues to assume FHWA responsibilities under NEPA and other federal environmental laws in the same manner as was assigned under the Pilot Program, with minor changes. With NEPA Assignment, FHWA assigned and Caltrans assumed all of the United States Department of Transportation (USDOT) Secretary's responsibilities under NEPA. This assignment includes projects on the State Highway System and Local Assistance Projects off of the State Highway System within the State of California, except for certain categorical exclusions that FHWA assigned to Caltrans under the 23 USC 326 CE Assignment MOU, projects excluded by definition, and specific project exclusions.

Caltrans is the lead agency under the National Environmental Policy Act (NEPA) under Caltrans' assumption of responsibility pursuant to 23 U.S.C. 327, and the lead agency under the California Environmental Quality Act (CEQA). The proposed project is eligible for Federal funding and is thus listed in the Federal Transportation Improvement Program (FTIP ID: LALS04) and is included in the current *2016 Southern California Association of Governments (SCAG) Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS)*, though the proposed undertaking is not "capacity-increasing" by nature, and therefore not required to conform to or achieve Federal air quality standards. Because the proposed project is exempt from air quality conformity finding contingencies associated with approval for Federal funding, it is not required for inclusion in SCAG's regional air quality model for non-attainment areas, and therefore not listed or designated a unique RTP ID in the 2016 SCAG RTP/SCS.

1.1.2 Proposed Undertaking and General Setting

Caltrans proposes bridge a rehabilitation project to replace hinges of the San Gabriel River Bridge on Interstate 210 (I-210) in the City of Irwindale, within the County of Los Angeles. The San Gabriel River Bridge exists within the jurisdiction of Caltrans District 7 – Los Angeles, Bridge No. 53-1867 at post mile R36.82. This environmental document studies the effects of bridge rehabilitation on the surrounding environment and to assess the cumulative impact of the proposed undertaking. The scope of work for the San Gabriel River Bridge includes:

- Demolition of hinge diaphragms at hinge 4 (between piers 4 and 5) and hinge 6 (between piers 6 and 7) and reconstruction using rapid setting concrete
- Upgrading the existing bridge median barrier

- Upgrades to the bridge railings in order to conform to current standards (Type 736)
- Removal and re-installation of light posts

Figure 1.1-a is a map of the vicinity area surrounding the project site, an aerial of I-210 San Gabriel River Bridge with hinges and abutments called out on the map, for easier understanding of bridge component language and where they are located.

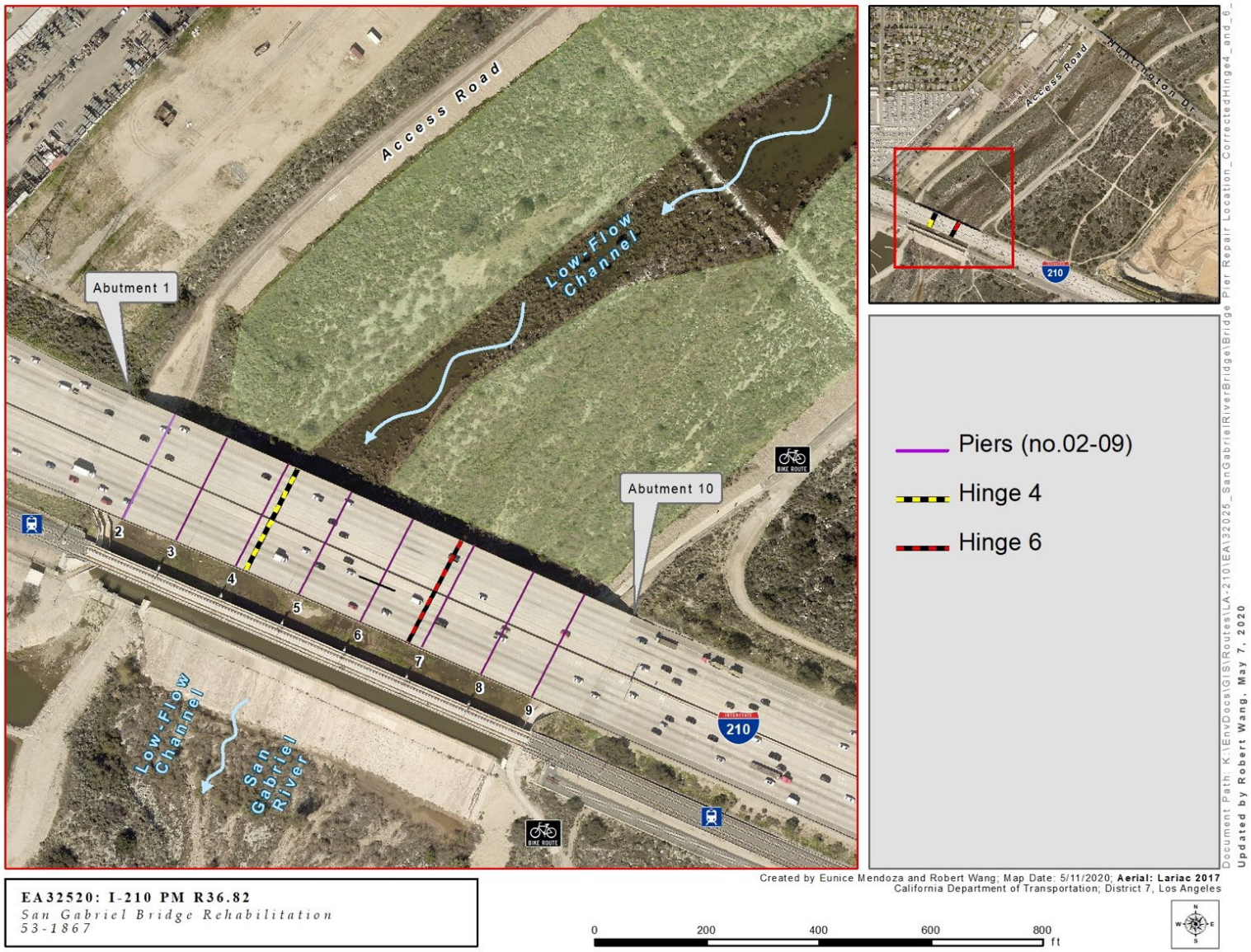

Figure 1.1-a. San Gabriel River Bridge Map with Bridge Components Called Out

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Work in between piers within the San Gabriel River will be accomplished through water diversion and the installation of a braced plywood debris container. Temporary Construction Easements (TCE) will be required to accommodate contractor access and equipment storage. The TCE will be approximately 65 feet width by 300 feet length on Assessor's Parcel Number (APN) 8604-019-902, owned by the U.S. Government. The LA County Service Road is within the eastside of this parcel. Temporary and intermittent closure of the San Gabriel River Bike Trail in the project study area will be required to mobilize construction equipment and materials, and to ensure the safety of the recreational facility users. **Figure 1.1-b** and **Figure 1.1-c** provide maps of the temporary construction easements that are necessary to complete construction on the I-210 San Gabriel River Bridge.

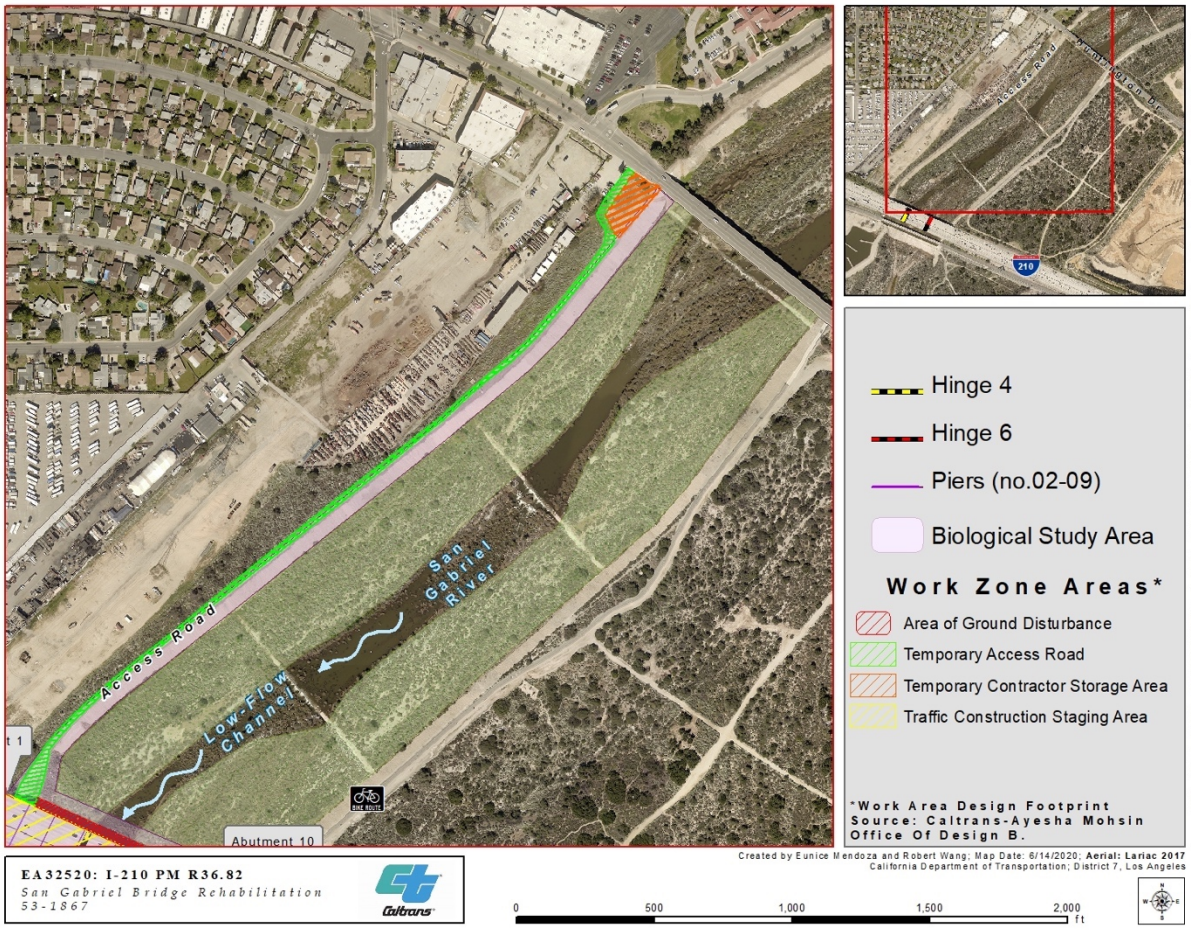

Figure 1.1-b. Temporary Construction Easements and Contractor Storage and Staging Area

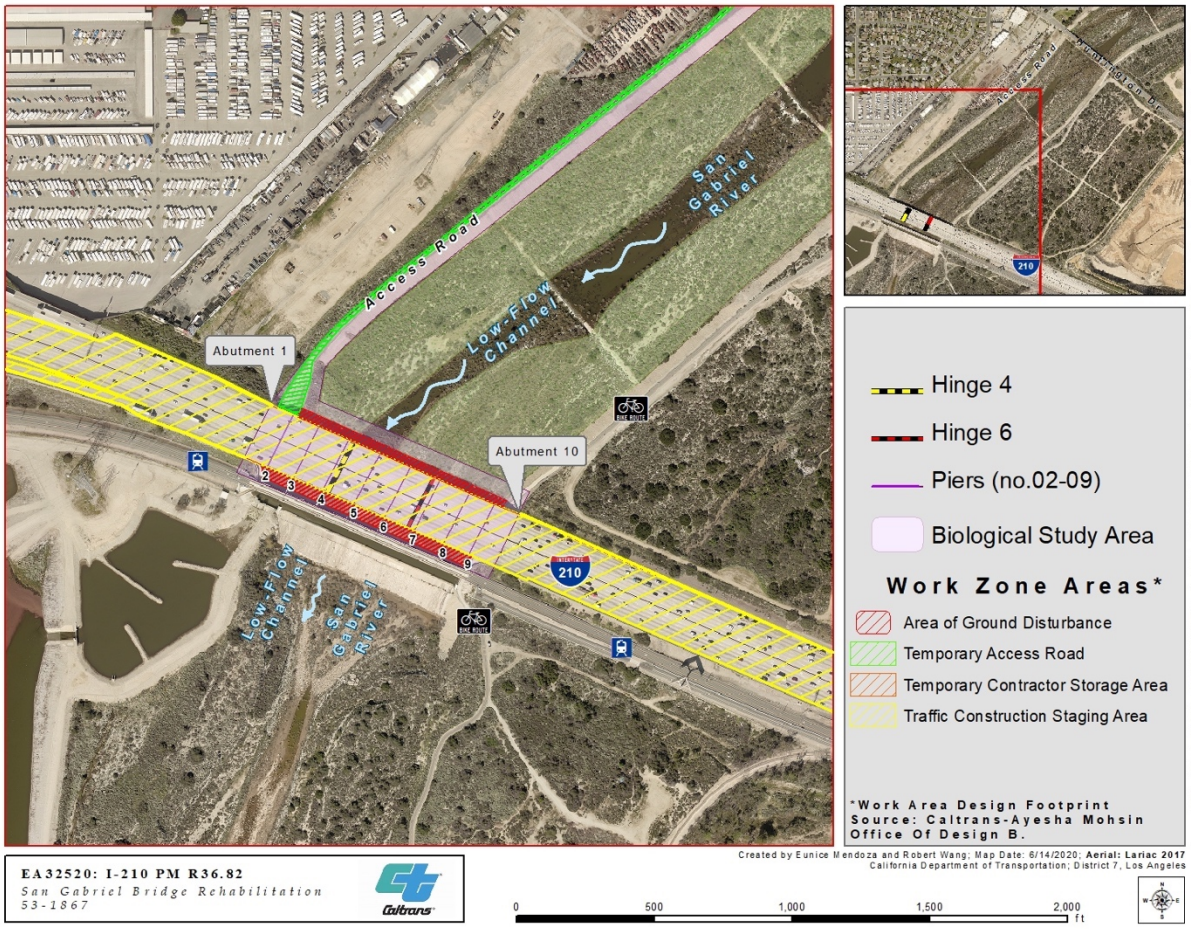

Figure 1.1-c. Temporary Construction Easements and Contractor Storage and Staging Area

The I-210, or the Foothill Freeway, is part of the National Highway System, and an essential link in both the Metropolitan Los Angeles and San Bernardino County multi-modal transportation networks and is considered a northern bypass route to Interstate 10 (I-10). It is an Interstate-Interregional Freeway which originates at its most western point at the Interstate 5 (I-5) junction in the City of San Fernando (Los Angeles County/Caltrans District 7), with its eastern terminus roughly 85 miles south at the I-10 Junction near the City of Redlands (San Bernardino County/Caltrans District 11). I-210 primarily serves major cities within the San Fernando Valley and Foothill communities within Los Angeles County and San Bernardino County and is a heavily used commuter and freight route which is considered one of the busiest and congested freeways in the United States. The I-210 facilities are used for international, interstate, and interregional travel and shipping through a corridor which is urbanized. Through Los Angeles County, I-210 functions as a major collector and distributor route that feeds I-5 and I-605, as well as State Routes 118, 2, 134 and 57. Bridge No. 53-1867 was built in 1968, has 12 lanes, 10 mixed flow lanes and 2 High Occupancy Vehicle (HOV) lanes at 246.20 feet long, the vehicles per day were 270,000 in 2017. The bridge contains continuous, 5-span, reinforced concrete (RC) box girder bridge on solid RC pier walls, open-end, seated abutments. **Figure 1.1-d** points out typical bridge

components (for example, bridge deck, piers, and an abutment) on the I-210 San Gabriel River Bridge.

Drone Imagery Source: Samer Momani, Associate Environmental Planner, District 7 Caltrans, March 2020

Figure 1.1-d. Image of I-210 San Gabriel River Bridge with Typical Bridge Components Labeled

Within the project limits, the I-210 highway facility and bridge structure traverse the San Gabriel River approximately four miles downstream from the headwaters in the Angeles National Forest. **Figure 1.1-e** is a map of the vicinity area surrounding the project site, an aerial of San Gabriel Valley cities and the San Gabriel River.

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Figure 1.1-e. Proposed Project Location and Vicinity

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1.2 Purpose and Need

1.2.1 Project Purpose

The purpose of the proposed project is to achieve the following objectives:

- To preserve the structural integrity of the bridge and to prevent bridge deck failure due to settlement and nonexistence of elastomeric bearing pads in the hinges.
- To bring the bridge into compliance with current safety standards by upgrading the bridge railing.

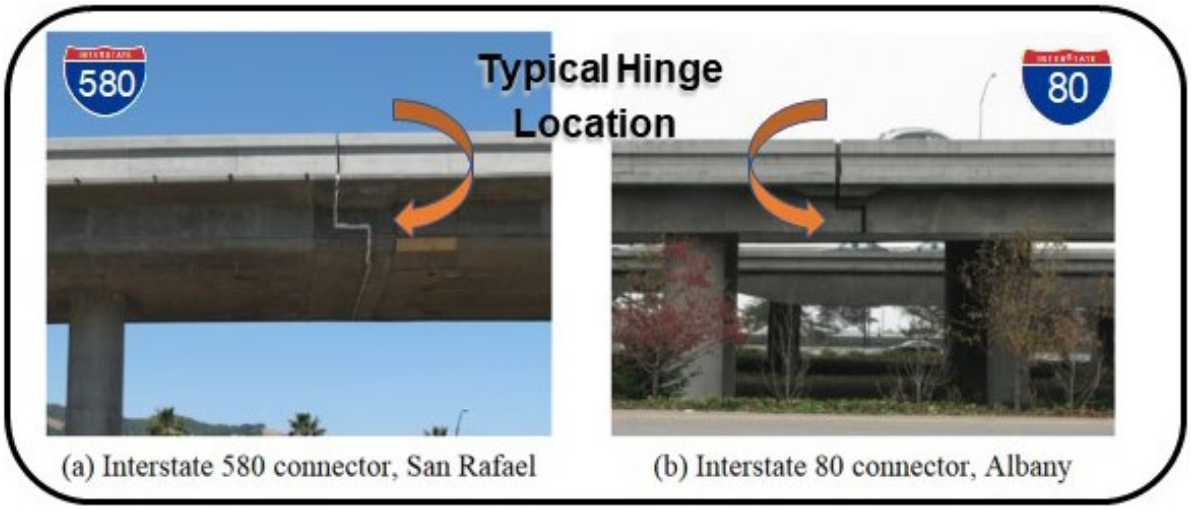
1.2.2 Project Need

The need for the proposed project is based on the recommendations included in the 2012 Structure Replacement and Improvement Needs (STRAIN) report produced by the Caltrans Office of Structure Maintenance and Investigations (OSMI). OSMI is responsible for managing highway structures. This includes performing bridge inspections and making structure work repair recommendations. The OSMI maintains several reports containing information on the condition and rehabilitation of bridges. The STRAIN report contains recommended improvements to structures.

The STRAIN report from 2012 and a bridge inspection report from 2016 identified this bridge (Bridge No. 53-1867) for hinge and railing upgrades.

The bridge inspection condition assessment used for this inspection is based on the American Association of State Highway and Transportation Officials Bridge Element inspection manual 2013 as defined in Moving Ahead for Progress in the 21st Century (MAP-21) federal law. The inspections were performed in 2012 and 2016 and recommends replacement of hinges 4 and 6 and bridge rail upgrades.

The bridge is currently fitted with older hinges and rails that no longer meet current standards. Bridge Hinges are used to support long spans of the bridge and allows it to expand and contract during earthquakes, temperature variations, and other strong movements. Bridge railings are designed to safely redirect vehicles to minimize injury and damage in the case of accidents. Replacing the bridge hinges and railings to current standards would improve highway safety for the motoring public. **Figure 1.2-a** shows a typical hinge location in bridges on Interstate 580 and Interstate 80.



Source: Berkeley Pacific Earthquake Engineering Reports (PEER) website, Matias A. Hube & Khalid A Mosalam

Figure 1.2-a. Example of Typical Hinge Location in Two Bridges

1.3 Independent Utility and Logical Termini

FHWA regulations [23 CFR 771.11(f)] require that this evaluation of the proposed undertaking connects logical termini and be of sufficient length to address environmental matters on a broad scope. Further, it stipulates that the proposed project have independent utility or independent significance, in that it be usable and require a reasonable expenditure even if no additional transportation improvements in the area are made. Lastly, it stipulates that the proposed project does not restrict consideration of alternatives for other reasonably foreseeable transportation improvements.

The proposed project is a stand-alone project intended to restore and rehabilitate the structural integrity of the bridge and to prevent bridge deck failure as well as to upgrade the bridge railing to current standards. It is independent of other Caltrans projects on I-210, and its purpose and need cannot be fulfilled by any other Caltrans project. Furthermore, the proposed project is in no way dependent on the implementation of other Caltrans projects on I-210, prior or subsequent, to this proposed undertaking. This environmental document studies the entire project area and is in no way dependent on the environmental document or mitigation proposals of any other project. Lastly, the proposed project does not restrict consideration of alternatives for other reasonably foreseeable transportation improvements. Based on the aforementioned, and pursuant to 23 CFR 771.11(f), this project has independent utility and logical termini.

1.4 Project Description

This section describes the proposed actions and proposed alternatives that were developed to meet the identified purpose and need of the project. The proposed alternatives are Alternative 1 (No-Build), Alternative 2 (Multi-Stage Rehabilitation), and Alternative 3 (Single-Stage Rehabilitation).

The San Gabriel River Bridge Hinge Replacement project is located in Los Angeles County on I-210 (Bridge No. 53-1867) in the City of Irwindale from post mile R36.82. Within the limits of the

proposed project, I-210 is a conventional twelve-lane, divided freeway with 12-foot lanes and 10-foot standard shoulders. The purpose of the project is to replace degrading hinges and older bridge railing models to bring the freeway into compliance with current standards.

1.5 Alternatives

1.5.1 Project Alternatives

Project alternatives are reviewed in the early stages of planning a project. There are many criteria used for evaluating alternatives. The project development team reviews the purpose and need of the project, the feasibility, and the project's ability to avoid environmental impacts in order to decide what alternative is the most practicable to choose. For this specific project, the project development team also reviewed traffic flow during project construction. I-210 is a heavily traveled freeway in Southern California, therefore the project team took that into consideration when reviewing closures that would be required for each alternative.

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

Alternative 1: No-Build Alternative

Alternative 1 consists of no construction. Bridge railings and hinges would remain in their current condition. The consequences of no build are continued deterioration of the San Gabriel River Bridge hinges, potentially causing bridge deck superstructure failure. This would result in reconstruction of this structure under a costly emergency project with major traffic disruption.

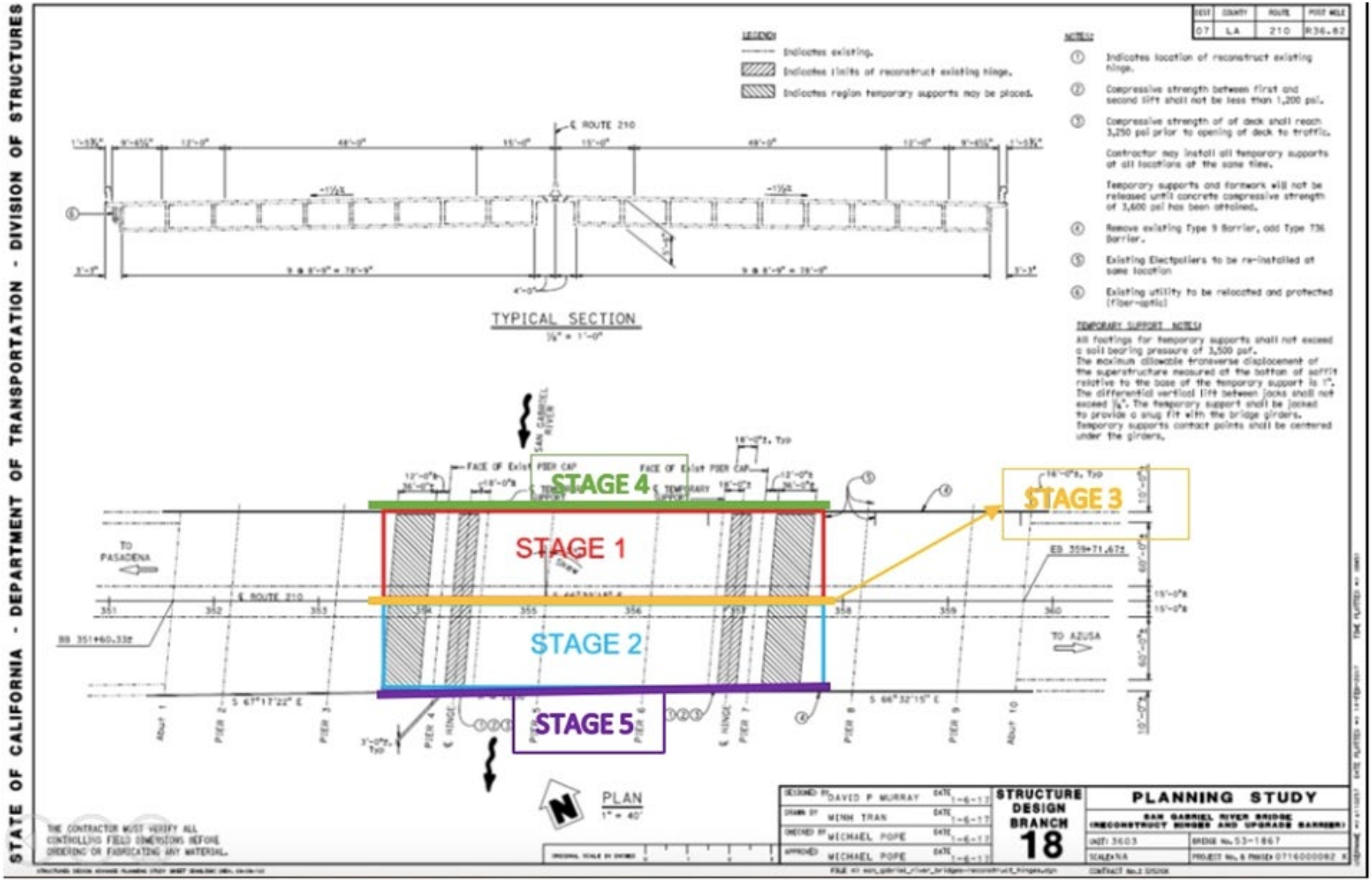
Alternative 2: Multi-Stage Rehabilitation

Alternative 2 consists of reconstruction of the hinge diaphragms in five stages where a part of the bridge open to east and westbound traffic would be available during construction while a portion of the bridge is being rehabilitated, this structure cost is $9,917,288 (Advanced Planning Study, 2018). Construction staging for the bridge hinge repair work on the San Gabriel River Bridge will consist of five stages. Work will begin by setting up temporary structural supports on both sides of the bridge and hinge. Scaffolding will be installed over the San Gabriel River Trail that is directly under the bridge in order to protect users of the trail during construction. Stage 1 will initiate by closing the westbound side of the freeway to allow construction on the north half of the bridge. Traffic on the westbound side of the freeway will be redirected to the eastbound side using a crossover staging method by removing the concrete median barriers and restriping the lane lines to allow three lanes in each direction. The hinge section will then be demolished and reconstructed. Construction equipment such as trucks, cranes, forklifts, boom forklifts, front loaders, and backhoes will be used for the construction of this project. The same procedure will be repeated for Stage 2 after closing the eastbound side of the freeway in order to complete construction on the south side of the bridge deck. Stage 3 consists of upgrading the existing bridge median barrier and replacing the concrete median barriers that were removed in Stage 1. The work on the bridge overhang and railing will be conducted during nighttime hours in order to allow users of the trail to feel safe while traversing under the scaffolding during the daytime. Stage

4 will demolish and reconstruct the north side of the existing bridge overhang, along with upgrading the bridge railings, electroliers, and Midwest Guardrail System (MGS). The same procedure will be done for Stage 5 for the south side of the bridge to construct and upgrade the bridge overhang, bridge railing, electroliers, and MGS.

FHWA's accelerated bridge construction (ABC), the use of innovative design, planning, materials, and construction techniques to reduce on site construction time will be applied for Stages 1 and 2. Stages 1 and 2 consist of major bridge rehabilitation work and would occur during two weekends, one being a long holiday weekend, in July 2022 with 126 hours of closure for each stage. Completing the bridge hinge repair in one month, especially in a month outside of the rainy season, allows for greater efficiency and ensures avoidance of water in the riverbed, which poses many risks to the project. The remaining stages would be completed normally.

Figure 1.5-a is a sheet from the Advanced Planning Study that shows where the stages of construction occur on the bridge for Alternative 2, with stage 1 occurring on the westbound side of the bridge, stage 2 occurring on eastbound side of the bridge, stage 3 occurring within the median of the bridge, stage 4 occurring on the rail and overhang of the west bound side, and lastly stage 5 occurring on the rail and overhang of the east bound side of the bridge.



Source: Caltrans Headquarters Structure Design Branch 18

Figure 1.5-a. Advanced Planning Study with Stages of Construction

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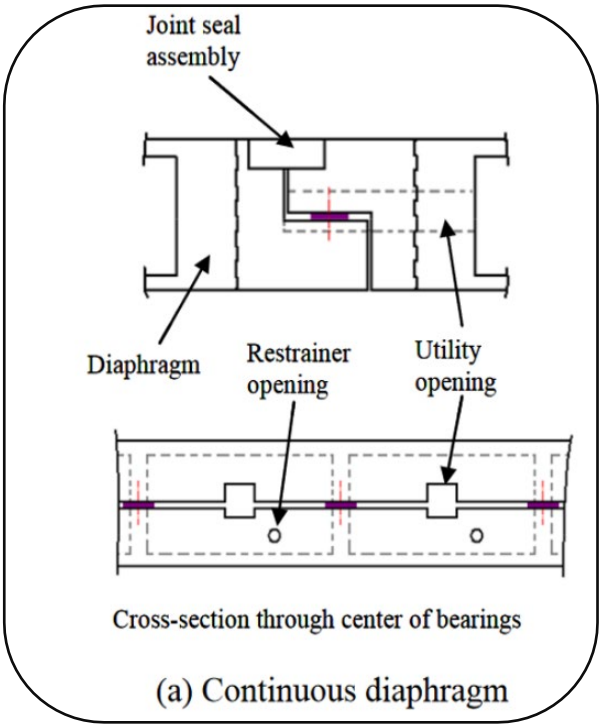
Alternative 3: Single-Stage Rehabilitation

Alternative 3 consists of reconstruction of the hinge diaphragms in a single stage of 134 hours closure, by closing both directions of the San Gabriel River Bridge to traffic, this structure cost is $9,917,288 (Advanced Planning Study, 2018). FHWA's ABC, the use of innovative design, planning, materials, and construction techniques to reduce on site construction time will be utilized. Construction equipment such as trucks, cranes, forklifts, boom forklifts, front loaders, and backhoes will be used in the riverbed for construction. A primary containment system at the bridge deck will be supplemented by a secondary containment at the river bed, this will prevent any debris from falling into the riverbed. Work would begin by setting up temporary structural supports on both sides of the hinge. After that, construction work would be initiated by closing both sides of the freeway, directing traffic to local roads. The hinge section demolition would be performed from the deck, the bridge will be cut 24' in width. Once demolition is complete, falsework stringers (horizontal steel I-Beams) would be erected with cranes followed by installation of rebar, concrete pouring, and construction of the deck. Work would be completed by installing the joint seal and conducting a final sweep to clean the deck. The next step consists of upgrading the existing bridge median barrier and then demolition of the north and south side of the existing bridge overhang, reconstructing the new bridge overhang, and then upgrading the bridge railings, light posts, and MGS.

Closing of this portion of the freeway and directing all traffic to local roads would result in unacceptable traffic delays, as every day there is an average of 270,000 cars on the freeway, these numbers are from 2017 (from Caltrans Supplemental Project Scope Summary Report, October 2019).

1.5.2 Common Design Features of the Build Alternatives

Alternative 2 and 3 have common design features. Both alternatives will fulfill the need to replace the hinges, railings, median, and light posts. Demolition of hinge diaphragms at hinge 4 (between piers 4 and 5) and hinge 6 (between piers 6 and 7) and reconstruction using rapid setting concrete will occur. In **Figure 1.5-b** is a drawing of a continuous diaphragm showing joint seal assembly, utility and restrainer openings in a cross-section of the center of bearings.



Source: Berkeley Pacific Earthquake Engineering Reports (PEER) website, Matias A. Hube & Khalid A Mosalam.

Figure 1.5-b. Continuous Diaphragm Diagram

Construction Manager/General Contractor (CMGC) Pilot Program

The proposed project was nominated and selected for the CMGC program. CMGC is a project delivery method that allows Caltrans to select a contractor early in the project development process to act in an advisory role. The CMGC Contractor provides constructability reviews, value engineering suggestions, construction estimates, and other construction- related recommendations. When design is completed to about 90 to 95 percent design, the CMGC Contractor will provide a price to construct the project. If the price is acceptable, the CMGC Contractor will become the general contractor and will construct the project. Project cost is $16 million and Request for Qualification (RFQ) is anticipated July 2020.

These procedures are a compilation of efforts and lessons learned from CMGC projects delivered by Caltrans and other state Departments of Transportation (DOTs). CMGC is an evolving contracting process. These procedures will be reviewed annually and updated periodically to address additional lessons learned, evolving approaches, and updates to federal and state laws, regulations, and policies. The Caltrans CMGC Program under the Division of Design is responsible for maintaining these procedures with collaboration with the FHWA California Division.

The bridge railing will be replaced along the expanse of the bridge and will be upgraded to current Caltrans standards. The railing type was chosen to be the most similar replacement to the original type which is a see-through railing, Type 85 railing is proposed for Alternative 2 and 3, this allows the travelers to still see beyond the bridge to the riparian area below. The median within the entirety of the bridge expanse will also be demolished and replaced with a median upgraded to

current Caltrans standards. Four existing light posts on eastbound I-210 will be affected, with three of them being on the bridge itself, future studies by Caltrans District 7 Electrical group will confirm if any more light posts will need to be upgraded to current Caltrans standards.

Figure 1.5-c shows Simulation of Bridge Type Railing, is a visual description of what a Type 85 see-through bridge railing looks like and **Figure 1.5-d** is a visual simulation showing what the freeway would look like with the new see-through bridge railing.

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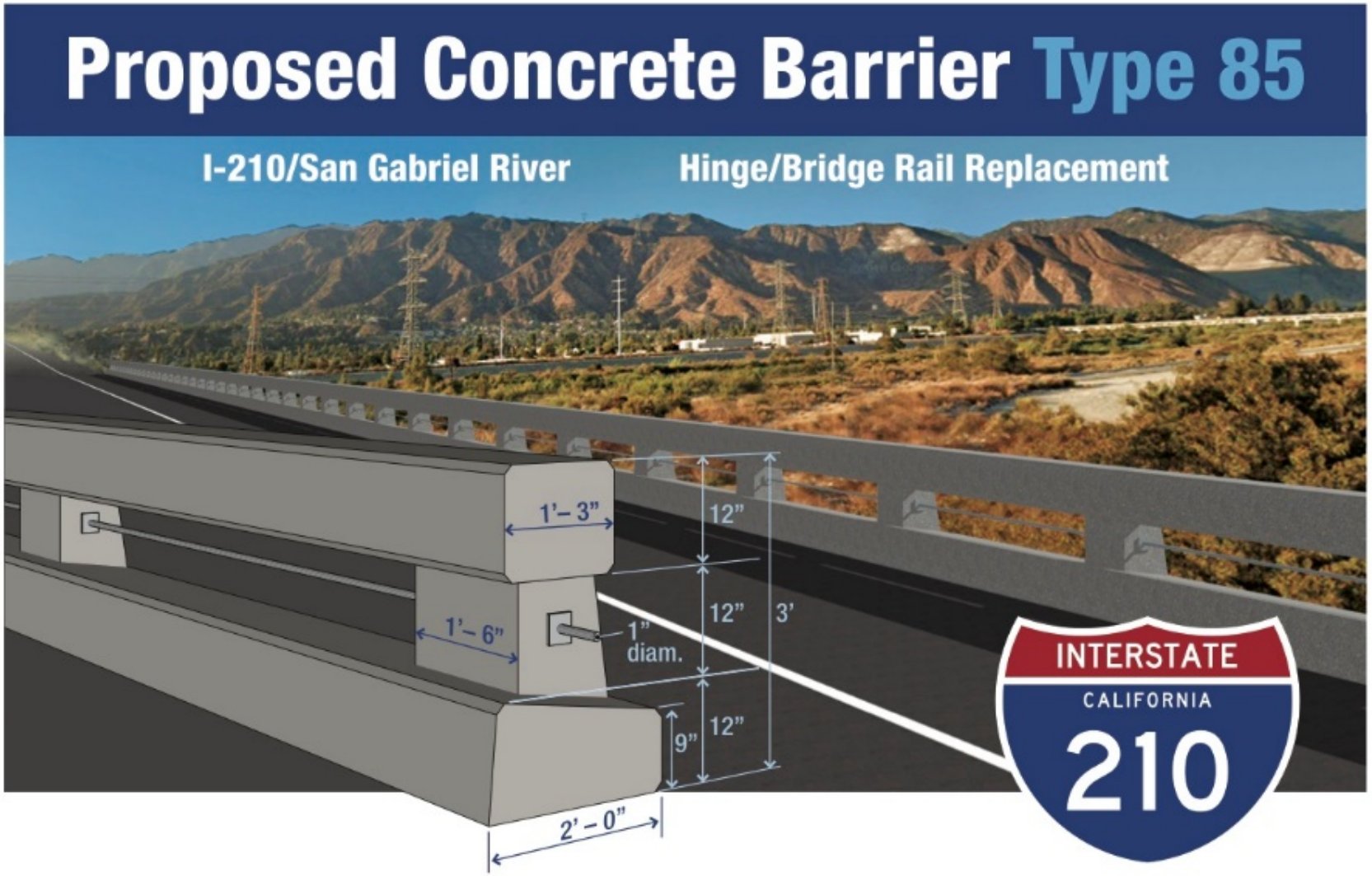

Source: Caltrans District 7 Graphics, March 2020 and DES Bridge Architecture and Aesthetics, 2020

Figure 1.5-c. Description of Hinge Diaphragm Components and Simulation of Bridge Type

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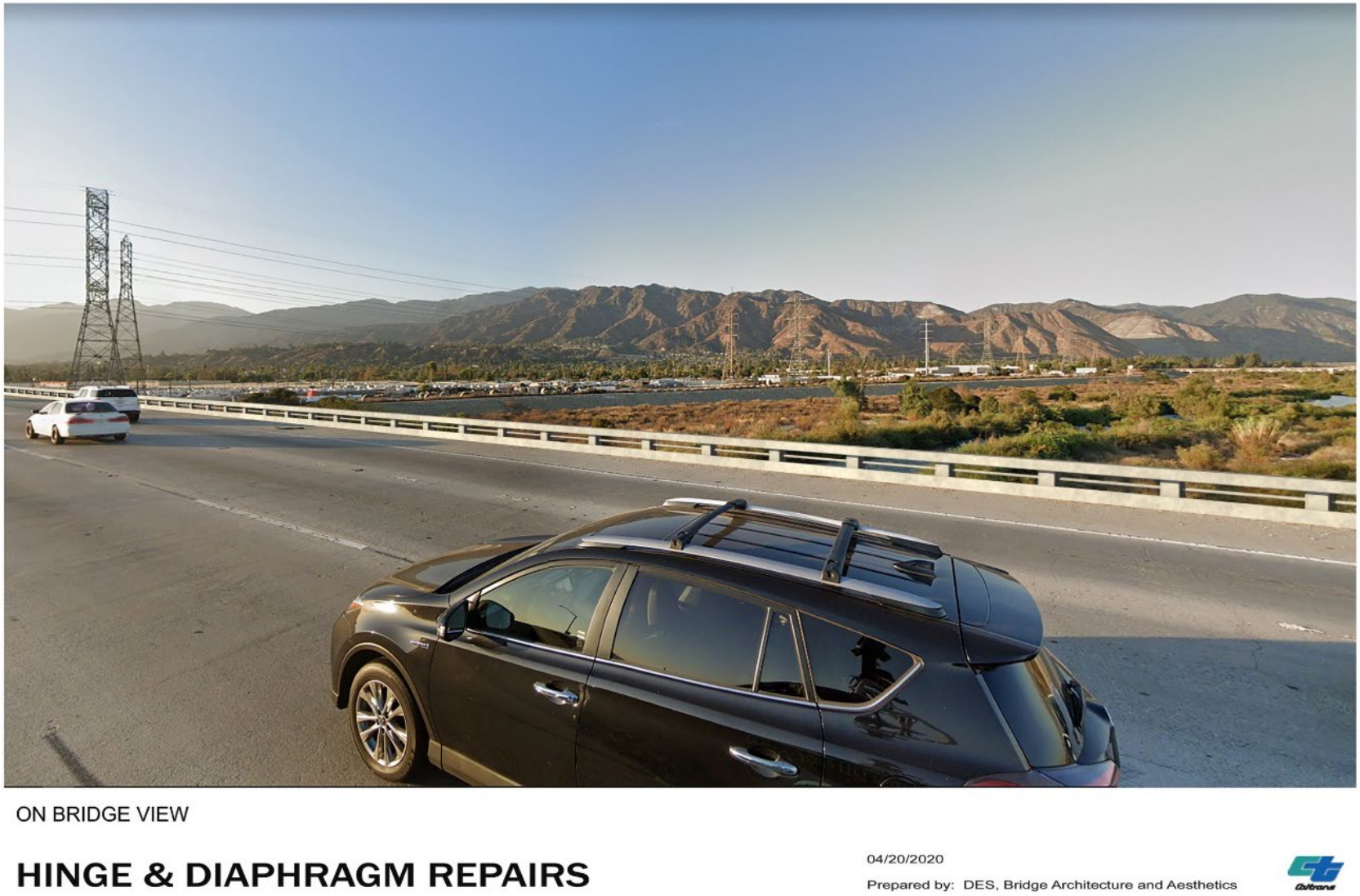

Source: Caltrans DES, 2020

Figure 1.5-d. Proposed Rail Rendering

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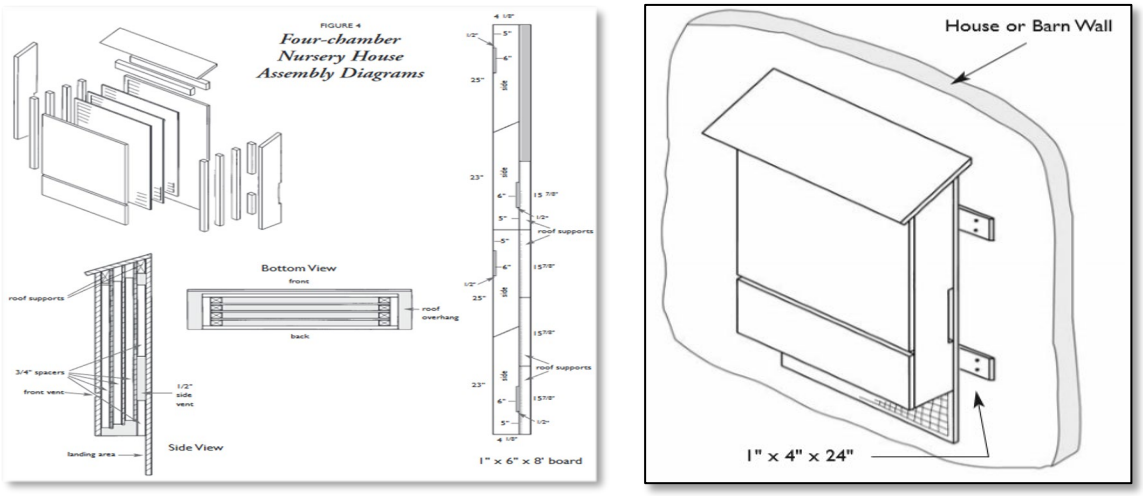
A Bat Survey and Mitigation Plan was written for Caltrans by Rincon Consultants, Inc, and the bat mitigation will be incorporated into Alternatives 2 and 3. Potential temporary impacts to the colony from the proposed construction work include noise and vibrations from the hinge's replacement, colony displacement during the work, and temporary loss of habitat within the bridge and surrounding vegetation due to trimming. Permanent impacts include large tree removals.

The mitigation plan suggests installing bat boxes surrounding the bridge. Bat box construction will be completed by Caltrans staff, for installation October 2020.

Figure 1.5-e shows Bat House Assembly Diagram is a drawing of how to assemble bat houses piece by piece, and the Assembled Bat Houses prototype image of 5 bat houses to be used for bat relocation is shown in **Figure 1.5-f**.



Source: Bat Conservation International © 2020 http://www.batcon.org/resources/getting-involved/bat-houses/build

Figure 1.5-e. Bat House Assembly Instructions Used to Create the Bat Houses

Source: Caltrans District 7 Environmental

Figure 1.5-f. Examples of Bat Houses

1.5.3 Unique Features of Build Alternatives

Alternative 1 is the no-build option where everything will stay as is, and no construction will be completed. Alternative 2 and 3's unique features consist of the differences between their staging options. **Table 1.5-a** summarizes the construction staging explained in Section 1.5.1 and discusses construction duration, freeway closures, impact on traffic circulation and bridge component replacements.

Table 1.5-a. Unique Features of Build Alternatives

Features	Alternative 2	Alternative 3
Construction Duration	3 months	1 month
Freeway Closures	Two 126-hour closures over two weekends, plus lane closures intermittently to complete bridge railing and median upgrades	One 134-hour closure over a holiday weekend, where hinges, bridge railings, electroliers, and medians will all be upgraded
Impact on Traffic Circulation	Traffic will be slowed due to reducing east and west bound traffic to 3 lanes each during the 126-hour closures, and slowed insignificantly during intermittent lane closures to complete construction	Traffic will be abruptly delayed due to full closure of the freeway and directing traffic away from the construction site, onto local roads
Bridge Component Replacements	Hinge 4 and 6, bridge railings and medians on the full length of the bridge, 4 light posts	Hinge 4 and 6, bridge railings and medians on the full length of the bridge, 4 light posts

1.5.4 Transportation System Management (TSM) and Transportation Demand Management (TDM) Alternatives

Transportation System Management (TSM) and Transportation Demand Management (TDM) Alternatives are generally reviewed when considering capacity increasing projects. TSM and TDM alternatives increase the efficiency of existing facilities by ramp metering, auxiliary lanes, and/or reversible lanes as well as promoting rideshare services. The proposed project is not capacity increasing therefore TSM and TDM alternatives are not applicable.

Reversible Lanes

Assembly Bill 2542 amended California Streets and Highways code to require, effective January 1, 2017, that Caltrans or a regional transportation planning agency demonstrate that reversible lanes were considered when submitting a capacity-increasing project or a major street or highway lane realignment project to the California Transportation Commission for approval (California Streets and Highways Code, Section 100.015). For projects that do not meet the criteria, this determination can be documented in the Project Initiation Document. The San Gabriel River Bridge Hinge Replacement Project is not capacity increasing or a lane realignment project, therefore reversible lanes are eliminated from the alternatives.

Access to Navigable Rivers

California Streets and Highways Code Section 84.5 states that during the design hearing process

relating to state highway projects that include the construction by Caltrans of a new bridge across a navigable ricer, there shall be included full consideration of, and a report on, the feasibility of providing a means of public access to the navigable river for public recreational purposes. The San Gabriel River Bridge Hinge Replacement Project is not building a new bridge over a navigable river, so feasibility of providing a means of public access was not considered.

No-Build (No-Action) Alternative

Under the NEPA, the no-build alternative can be used as a baseline for comparing environmental impacts; under the CEQA, the baseline for environmental impact analysis is the existing conditions at the time of the NOP or at the time at which environmental studies commenced. The following discussion is a summary of the existing conditions (or no-build scenario) at the time at which environmental studies commenced for the proposed undertaking.

1.5.5 Selection of the Preferred Alternative and the Final Decision Making Process

After the public circulation period, all comments will be considered, and Caltrans will select a preferred alternative and make the final determination of the project's effect on the environment. Under the CEQA, no unmitigable significant adverse impacts are identified, Caltrans prepared a Mitigated Negative Declaration (MND).

Similarly, if Caltrans, as assigned by the FHWA, determines the NEPA action does not significantly impact the environment, Caltrans will issue a Finding of No Significant Impact (FONSI).

1.5.6 Alternative Considered but Eliminated from Further Discussion

The bridge report (Attachment D in signed Project Scope Summary Report) recommended the following two options:

Option 1

Repair the hinge diaphragms by removing any unsound concrete, bond and dowel to the existing diaphragm, add reinforcement steel, and cast concrete to thicken the diaphragms. Repair hinges by injecting epoxy. This would be a short-term solution with recurring costs due to the type of repair, the previously described actions would need to happen consistently in the future, instead of replacing the hinge so it can last for many more years.

Option 2

Remove the entire diaphragms in the specific bay (between girders) and recast the diaphragms. Performing the job in one stage would require closing both directions of the freeway for approximately 134 hours, which would result in unacceptable traffic delays.

1.6 Permits and Approvals Needed

The following permits, licenses, agreements, and certifications (PLAC) would be required for project construction:

Table 1.6-a. Permits and Approvals Required for Project Construction

Agency	PLAC	Status
California Department of Fish and Wildlife	1602 Agreement for Streambed Alteration	Application for 1602 permit expected after Final IS/EA approval
California Water Resources Board	Section 401 Water Discharge Permit/Certification	Application for Section 401 permit/certification expected after Final IS/EA approval
Multiple Agencies (Los Angeles County Parks and Recreation, California Water Resources Board, Main San Gabriel Basin Water Master)	Right-of-Entry permitting for temporary construction easements and temporary access roads	Applications for Right-of-Entry expected after Final IS/EA approval
US Army Corps of Engineers	Clean Water Act (CWA), Section 404/408 permit for filing or dredging waters of the United States	Application for Section 404/408 permit expected after Final IS/EA approval

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

2.1 Topics Considered but Determined Not to be Relevant

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

- **Coastal Zone**: There will be no effects to coastal resources because the project is not located within the coastal zone. All federal development activities and development requiring federal permits or funding affecting land or water areas or resources within the coastal zone are subject to the Coastal Zone Management Act of 1972. From this, California established the California Coastal Act of 1976, establishing a permanent State Coastal Commission that requires each local government within the Coastal Zone prepare a Local Coastal Plan (LCP). Any development within the Coastal Zone requires a Coastal Development Permit.
- **Wild and Scenic Rivers:** No Wild and/or Scenic Designated rivers exist within the project study area; therefore, the proposed project does not have the potential to adversely affect resources protected by the National Wild and Scenic Rivers Act (16 United States Code (USC) 1271) and the California Wild and Scenic Rivers Act (CA Public Resources Code (PRC) Section 5093.50 et seq.).
- **Farmlands and Timberlands:** The proposed project is located in a semi-urban, somewhat industrial setting, but consists only of hinge replacement to the existing bridge, and no potential exists for direct or indirect irreversible conversion of protected farmlands or timberlands. In addition, a search of the California Department of Conservation Important California Farmland Mapping database indicates the area surrounding the project site is not designated as Prime Farmland, Farmland of Statewide Importance , nor unique farmland or grazing land (https://maps.conservation.ca.gov/dlrp/ciftimeseries/).
- **Growth:** The proposed project consists primarily of structural demolition of the existing bridge hinges and construction of new hinges. In consideration of the scope and nature of the proposed work, the associated physical changes do not present any potential to affect growth in the project study area.
- **Community Character and Cohesion:** The proposed project consists only of improvements to existing roadway facilities, and in consideration of the Cohesion scope and nature of the proposed work, the associated physical changes do not present any potential to adversely affect social or economic change in the project study area.
- **Relocations and Real Property Acquisition:** The proposed project's construction footprint will not need real property acquisitions or require property owners to relocate for the duration of construction.
- **Environmental Justice:** The proposed project consists primarily of rehabilitation and restoration of existing bridge and railing facilities. In consideration of the scope and nature of the proposed work, the associated physical changes do not present any potential to affect

social or economic change on minority and/or low-income populations in the project study area.

No minority or low-income populations that would be adversely affected by the proposed project have been identified as determined above. Therefore, this project is not subject to the provisions of Executive Order 12898.

Homelessness regulatory information (EO N-23-20): Caltrans shall develop and share a model lease template to allow counties and cities to use Caltrans property adjacent to highways or state roads in those jurisdictions on a short-term emergency basis to provide shelter for individuals who are homeless, building on recent partnerships with the cities of Los Angeles, San Jose, and San Francisco, and consistent with Streets and Highways code section 104.30. Priority for future partnerships to make state land available to counties and cities for short term emergency housing shall be given to jurisdictions where a shelter crisis declared pursuant to Government Code section 8698 et seq. is in effect.

- **Traffic and Transportation/Pedestrian and Bicycle Facilities:** The proposed project consists only of improvements to existing roadway facilities, and in consideration of the scope and nature of the proposed work, the associated physical changes do not present any potential to adversely affect traffic and transportation and/or pedestrian and bicycle facilities in the project study area.
- **Visual/Aesthetics**: The proposed project consists primarily of structural demolition of the existing bridge hinges and construction of new hinges, as well as replacement in kind of light posts and bridge railing, this will not change the viewshed In consideration of the scope and nature of the proposed work, the associated physical changes do not present any potential to adversely affect visual resources or aesthetics in the project study area.
- **Paleontology**: The proposed project consists only of improvements to existing roadway facilities, and in consideration of the scope and nature of the proposed work, the type and extent of excavation, and the geologic setting (e.g., proximity of fossiliferous strata), it was determined that paleontological resources are not an issue of concern.
- **Air Quality**: The proposed project consists only of improvements to existing roadway facilities, and is not capacity-increasing in nature, and in consideration of the scope of the proposed work, regional and/or project-level air quality conformity is not required and is exempt from respective analyses. The proposed project is exempt from air quality conformity under 40 Code of Federal Regulations (CFR) 93.126, under Table 2 the subtitle “Safety” and classification “Widening narrow pavements or reconstructing bridges (no additional travel lanes).”

  Climate Change: Neither the United States Environmental Protection Agency (U.S. EPA) nor the Federal Highway Administration (FHWA) has issued explicit guidance or methods to conduct project-level greenhouse gas analysis. FHWA emphasizes concepts of resilience and sustainability in highway planning, project development, design, operations, and maintenance. Because there have been requirements set forth in California legislation and executive orders on climate change, the issue is addressed in the California Environmental Quality Act (CEQA) chapter of this document. The CEQA analysis may be used to inform the

National Environmental Policy Act (NEPA) determination for the project.

- **Energy**: The proposed project does not add roadway capacity. This project includes replacing the hinge, to maintain the bridge structure, and to replace railings with current standard railings, protecting the traveling public. While construction would result in a short-term increase in energy use, once the project is completed and all of the freeway lanes opened, it is unlikely to change its current direct energy consumption.

2.2 Human Environment

2.2.1 Existing and Future Land Use

Within project limits, the Interstate 210/Foothill Freeway (I-210) facility is situated between the San Gabriel Mountains and San Gabriel Valley and spans one municipality, the City of Irwindale, within Los Angeles County. The I-210 facility provides interregional, recreation, and local commuter service through an urban corridor that serves as a main east/west thoroughfare for communities within the San Gabriel Valley, especially the City of Irwindale.

City of Irwindale

The project limits exist within the City of Irwindale's city limits. The City adopted a General Plan in 2008 which "serves as the constitution of the local government for which it has been prepared". Irwindale is located within the eastern portion of Los Angeles County, at the periphery of the greater Los Angeles metropolitan area. It is approximately 9.5 square miles. The San Gabriel River delineates the northern boundary of the City with the foothills of the nearby San Gabriel Mountains located further north. The City is located near the center of the San Gabriel Valley and is bisected by the San Gabriel River which runs from north to south. The City is bounded on the north by Duarte, on the east by Azusa, on the south by Baldwin Park, and on the west by the cities of Monrovia, Arcadia and Duarte.

The San Gabriel River is the main topographic feature found in the planning area. Regional access to the City is provided by the I-210 which crosses the northern portion of the City from east to west. Additionally, Interstate 605/San Gabriel River Freeway roughly parallels the San Gabriel River running through the city from north to south.

The majority of the City's population and development is located in the portion of the City located east of the river. Land uses found in the western portion of the City are dominated by large-scale quarry operations. The city also includes limited areas of more traditional urban development. The predominant land uses are "Open Space/Easement," "Industrial/Business Park," and "Quarry Overlay." Directly adjacent to the project limits are "Open Space/Easement" and "Regional Commercial." Development in the City of Irwindale has been centered around the quarries, the largest Vulcan Materials Company with limited residential or other industrial/commercial development within the City. Within their general plan, the citizens of Irwindale have recognized that quarry activities will eventually diminish, therefore they will need to pursue alternate means of economic development in the future. **Figure 2.2-a** illustrates the current land use planning designations as outlined in the 2008 City of Irwindale's General Plan. **Table 2.2-a.** identifies active development projects within the City of Irwindale.

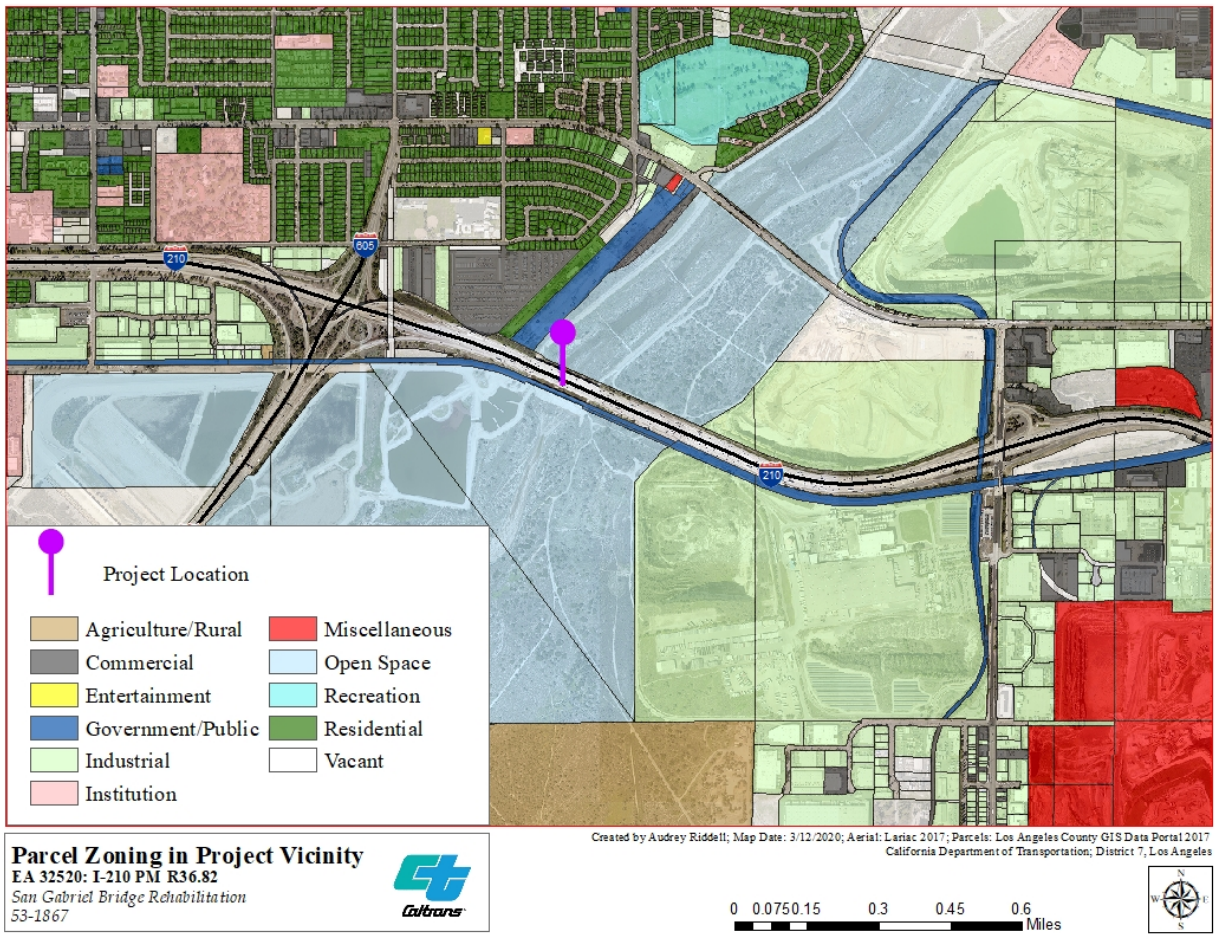


Figure 2.2-a. City of Irwindale Zoning

Table 2.2-a. Development Trends within the City of Irwindale

Name	Jurisdiction	Proposed Uses	Status
5175 Vincent Ave - Industrial	City of Irwindale	Warehouse of 545,000 square feet.	Grading occurring as of 3/3/2019. Environmental Analysis insufficient.
Park at Live Oak Specific Plan	City of Irwindale	Industrial park, logistics, commercial retail center, 78.3 acre property, surrounded by Interstate 605 on the southeast side, Arrow Highway to the N, and Live Oak Avenue to the southwest.	Environmental Impact Report supported and reviewed by the City. No construction.
12761 Schabarum Ave – Kaiser Permanente	City of Irwindale	Three-story 90,000 square foot outpatient medical office building (MOB), 11,357 square foot urban plaza along with a public amphitheater, 1,200 square foot native garden.	Environmental Impact Report completed. No construction.

Name	Jurisdiction	Proposed Uses	Status
16203 to 16233 Arrow Highway Industrial Project	City of Irwindale	Four industrial buildings collectively comprising a 132,410 square foot building footprint, plus an additional 6,000 square feet of mezzanine area.	Initial Study/Mitigated Negative Declaration. No construction.
5010 Azusa Canyon Road	City of Irwindale	Two speculative industrial tilt-up buildings totaling approximately 233,984 square feet and associated passenger vehicle and trailer parking.	Initial Study/Mitigated Negative Declaration. Approved by City Council. No Construction.
13131 Los Angeles Street	City of Irwindale	Demolition of the existing on-site buildings and structures for the construction of a stand-alone concrete tilt-up building (approximately 528,710 square feet).	Notice of Preparation on August 15, 2019. No construction.
Nu-Way Travel Center	City of Irwindale	Proposed regional commercial development of a Pilot Flying J Travel Center and New Truck Sales Dealership. Located at 13620 Live Oak Lane, Irwindale, CA.	No Environmental Impact Report. No construction.

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

This section provides an analysis of the consistency of the project with transportation and land use plans and policies included in state, regional, and local plans for the City of Irwindale (see **Table 2.2-b**).

Affected Environment

Federal Transportation Improvement Program and the 2016 Southern California Association of Governments Regional Transportation Plan/Sustainable Communities Strategy

The proposed project is listed in the Federal Transportation Improvement Program (FTIP) (FTIP ID: LALS04) as it is eligible for Federal funding. It is also included in the current 2016 Southern California Association of Governments Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), though the proposed undertaking is not “capacity increasing” by nature, and not required to conform to or achieve the plans laid out in such. The proposed project does not have the potential to affect existing local or regional traffic conditions, with the exception of minor traffic Delays during construction. The purpose of the project is only to repair and rehabilitate the existing bridge structure to prevent future deterioration.

City of Irwindale 2020 General Plan (2008)

The City of Irwindale Infrastructure Element has a section regarding coordination with Caltrans. This section states: Caltrans Coordination: The City will coordinate efforts with Caltrans to upgrade area freeways. The purpose of this undertaking is to ensure that the City is fully appraised

of roadway and facility improvement efforts in the early stages of planning and design. Caltrans Notice of Initiation of scoping sent out to City officials, has satisfied this statement in the City's Infrastructure Element.

Los Angeles County General Plan 2035 (2015)

The Los Angeles General Plan sets forth long-term policies that guide future development. Chapter 9 of the General Plan, Conservation and Natural Resources Element, relates to the work that will be occurring within the San Gabriel River. The County's role in the protection, conservation and preservation of natural resources and open space areas is vital. Most of the natural resources and open space areas in Los Angeles County are located within the unincorporated areas. The County must act as the steward for Los Angeles County's natural resources and available open space areas, and conserve and protect these lands and resources from inappropriate development patterns. The project site falls within one of the Los Angeles County Significant Ecological Area (SEA). SEAs are places where the County deems it important to facilitate a balance between development and biological resource conservation. The County considers authoritatively defined sensitive local native resources, including species on watch lists, as important resources to identify and conserve. SEAs are not preserves or conservation areas; rather, SEAs are areas in which planning decisions are made with extra sensitivity toward biological resources and ecosystem functions.

Table 2.2-b lists the project alternatives that have been analyzed for consistency with all applicable regional and local plans and programs.

Table 2.2-b. Consistency with Regional and Local Plans and Programs

Policy	Alternative 1 (No-Build)	Alternative 2 (Multi-Stage Rehabilitation)	Alternative 3 (Single-Stage Rehabilitation)
Resource Management Element Policy 23. The City of Irwindale will actively participate in decisions on the site or expansion of facilities of land uses (e.g., freeway expansions), to ensure the inclusion of air quality mitigation measures.	**Not Consistent.** Under the No-Build Alternative, no changes to the existing roadways would occur in the project area. This alternative would not include the City of Irwindale in making decisions regarding the freeway rehabilitation.	**Consistent.** Implementation of Alternative 2 would not expand the freeway, but the City of Irwindale will be involved with the environmental review of the proposed project.	**Consistent.** Implementation of Alternative 3 would not expand the freeway, but the City of Irwindale will be involved with the environmental review of the proposed project.
Goal C/NR 3: Permanent, sustainable preservation of genetically and physically diverse biological resources and ecological systems including: habitat linkages, forests, coastal zone, riparian habitats, streambeds, wetlands, woodlands, alpine habitat,	**Not Consistent.** Under the No-Build Alternative, no changes to the existing roadways would occur in the project area. This alternative would not preserve any biological resources.	**Consistent.** Implementation of Alternative 2 would mitigate any biological impacts.	**Consistent.** Implementation of Alternative 3 would mitigate any biological impacts.

Policy	Alternative 1 (No-Build)	Alternative 2 (Multi-Stage Rehabilitation)	Alternative 3 (Single-Stage Rehabilitation)
chaparral, shrublands, and Significant Ecological Areas (SEAs).			
Goal C/NR 5: Protected and useable local surface water resources	**Not Consistent.** Under the No-Build Alternative, no changes to the existing roadways would occur in the project area. This alternative would not protect local surface water resources.	**Consistent.** Implementation of Alternative 2 would mitigate any biological impacts.	**Consistent.** Implementation of Alternative 3 would mitigate any biological impacts.

Environmental Consequences

Alternative 1 (No-Build)

If the proposed project were not built, there would be no alterations or improvements to the existing facilities, posing no changes to the existing environment, and no effects on existing growth patterns at the local level; therefore, it would present no potential for effects to such.

Alternative 2 (Multi-Stage Rehabilitation)

The proposed project does not have the potential to affect existing growth patterns on a local level, and simply aims to repair, rehabilitate, and enhance existing bridge facilities to prevent future deterioration and extend the life of the structure. Therefore, the proposed undertaking is consistent with applicable state, regional, local land use, transportation, and habitat conservation plans and programs adopted for the area.

Alternative 3 (Single-Stage Rehabilitation)

The proposed project does not have the potential to affect existing growth patterns on a local level, and simply aims to repair, rehabilitate, and enhance existing bridge facilities to prevent future deterioration and extend the life of the structure. Therefore, the proposed undertaking is consistent with applicable state, regional, local land use, transportation, and habitat conservation plans and programs adopted for the area.

Avoidance, Minimization, and/or Mitigation Measures

The proposed project does not propose additional lanes to the existing facility and would not physically divide an established community.

The project would not conflict with any applicable habitat conservation plan or natural community conservation plan.

The proposed project will not result in property acquisition. Temporary construction easements (TCE) will be necessary in order to complete the proposed work, see **Figure 1.1-b** and **Figure 1.1-c** Temporary Construction Easements and Contractor Storage and Staging Area. Any land used as a TCE during construction would be returned to its original condition or better, prior to

the return of that land to the original owner. The proposed project would not conflict with any land use plan, policy, or regulation of an agency with jurisdiction over the project with the purpose of avoiding or mitigating an environmental effect.

2.2.3 Parks and Recreation Facilities

Regulatory Setting

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

Since the mid-1960s, federal transportation policy has reflected an effort to preserve publicly owned parks and recreation areas, waterfowl and wildlife refuges, and historic sites considered to have national, state, or local significance. The Department of Transportation Act of 1996 included a special provision to carry out this effort, which was 23 CFR 774, or Section 4(f). Section 4(f) stipulated that the Federal Highway Administration (FHWA) and other U.S. Department of Transportation agencies cannot approve the use of land from a significant publicly owned park, recreation area, wildlife or waterfowl refuge, or any significant historic site unless there is no feasible and prudent alternative to the use of land; and the action includes all possible planning to minimize harm to the property resulting from use.

Public Resources Code Section 5400-5409, as codified in the Public Park preservation act of 1971, states that “No city, city and county, county, public district, or agency of the state, including any division department or agency of the state department, or public utility, shall acquire any real property, which property is in use as a public park at the time of such entity pays or transfers to the legislative body of the entity operating the park sufficient compensation or land, or both.”

Affected Environment

The San Gabriel River Trail on the west and Bike Trail on the east within the Santa Fe Dam Recreational Area is within the Section 4(f) study area. The trail is a multi-use trail, and the bike trail is specifically for bikes, both trails run north-south, stretching from Azusa to Seal Beach. The San Gabriel Mountains provide a scenic background for the northern portion of the trail (within project limits), and the Pacific Ocean serves as the main destination in the south. The trail is a popular bicycle route. The bike trail segment within the project limits is paved and the trail segment is unpaved, it is surrounded by riparian vegetation and wildlife. The trail crosses beneath I-210 adjacent to where work will occur between piers 4 through 7, trail is approximately 550 feet and 350 feet away respectively. This San Gabriel River Trail is operated by Los Angeles County Department of Parks and Recreation and the San Gabriel River Bike Trail is operated by Los Angeles County Public Works; therefore, it is protected by the Park Preservation Act. Publicly owned parks and recreation areas are Section 4(f) resources. There are two steps in determining whether Section 4(f) applies to a federal transportation project: (1) the project must involve a resource that is protected by the provisions of Section 4(f), and (2) that there is a "use" of that resource. **Figure 2.2-b** and **Figure 2.2-c** are images of the San Gabriel River Trail as the recreational user of the trail approaches the bridge in both the north and south directions.

Source: Google Maps Street View

Figure 2.2-b. San Gabriel River Trail (Views Heading South and Under Bridge)

Figure 2.2-c. San Gabriel River Trail (Views Heading North and Approaching Bridge)

The following City of Duarte parks are within a one-mile radius of the project site, but will not be affected by construction work because of their locations.

- **Encanto Park**. This is an 11.5 acre park that includes an equestrian trail, multipurpose field, and picnic area with shelters and barbecues. As well as playground equipment, tennis courts, basketball courts and sand volleyball courts, and restrooms for visitors to use year-round.
- **Hacienda Park**. This is a 1.64 acre park that includes a picnic and barbecue area as well as playground equipment.
- **Otis Gordon Sports Park**. This is a 5.50 acre park that includes a picnic and barbecue area, playground equipment, lighted softball fields. This facility is leased by the City from the Duarte Unified School District for recreational uses.
- **Royal Oaks Park**. This is a 7.40 acre park that includes a recreation building, restrooms, playground equipment, picnic and barbecue area, lighted tennis and basketball courts, and volleyball courts.

Figure 2.2-d shows an aerial view of Irwindale and the project location, highlighting parks within a one-mile radius of the project location as well as outside of that radius.

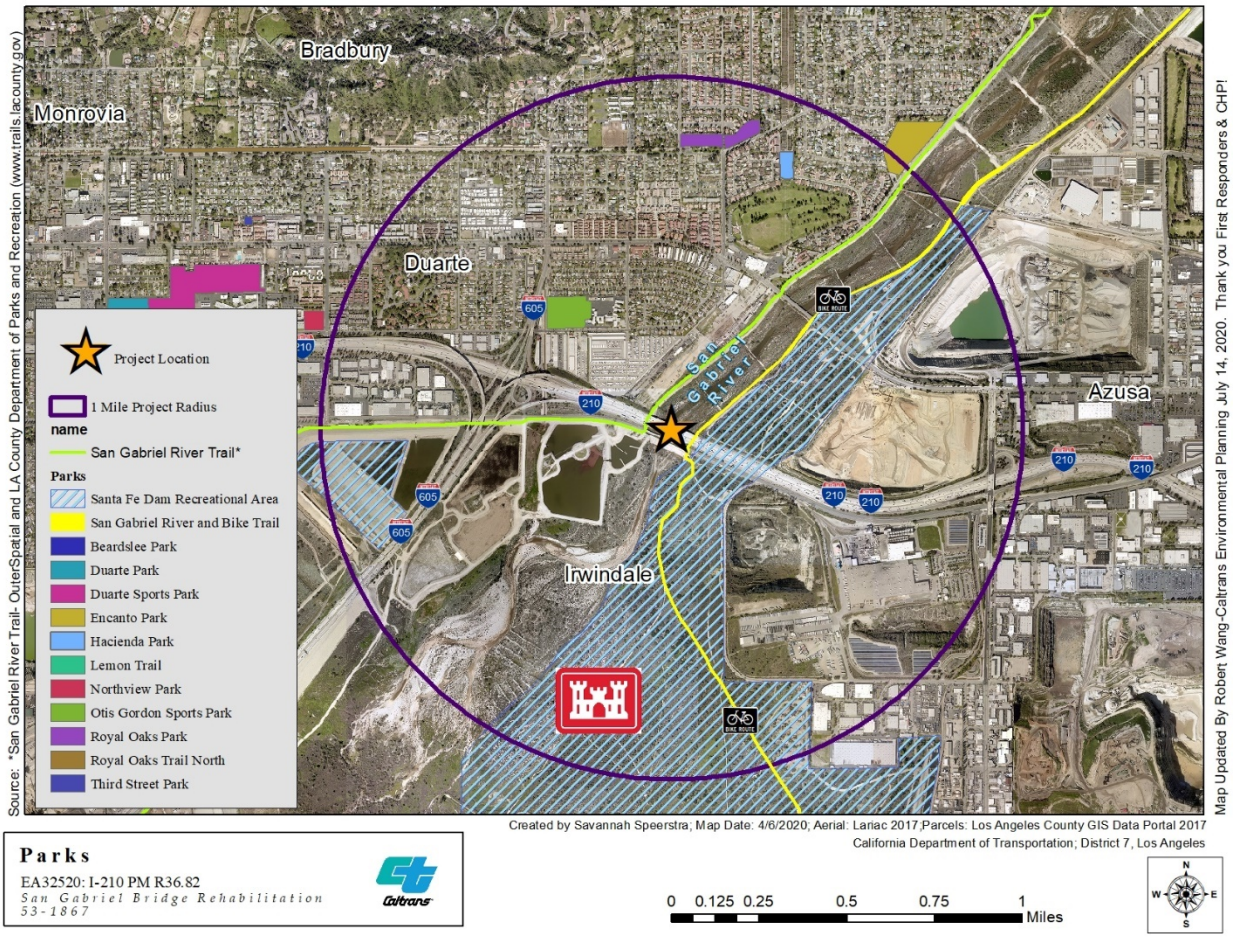


Figure 2.2-d. Map of Parks within the Project Study Area

Environmental Consequences

Alternative 1 (No-Build)

If the proposed project were not built, there would be no alterations or improvements to the existing facilities, posing no changes to the existing environment, and no disturbance to parks and recreational facilities; therefore, it would present no potential for effects to such.

Alternative 2 (Multi-Stage Rehabilitation)

Section 4(f) / Code of Federal Regulations, Title 23, Part 774 (23 CFR 774)

Caltrans considered the proposed project alternatives within the context of Section 4(f), and because it was found that there is no potential for effects on waterfowl and wildlife refuges, analyses were focused on (1) publicly owned parks and recreation areas within the project study area, and (2) historic sites considered to have national, state, or local significance. While all of the previously listed parks and recreational facilities within the project study area qualify as Section 4(f) protected properties, Alternative 2, as currently proposed, does not have the potential to affect every property. Caltrans further screened all Section 4(f) properties in the project study area and found that the proposed undertaking would only have the potential to affect one publicly

owned properties/facilities in the project study area. The proposed project consists of replacing the San Gabriel River Bridge hinges, median and bridge railings in five stages over three-day holiday weekends.

The bridge hinge and diaphragm repairs of the San Gabriel River Bridge will affect the East Side San Gabriel River Bike Trail and West Side San Gabriel River Trail. Caltrans is attempting to reduce the effect of the use, by keeping the trail open during construction. The contractor construction specification will include a requirement to protect the San Gabriel River Bike Trail and its users with a scaffolding/shield over the section of the trail that is under the bridge itself. Direct work will not occur above the scaffolding during bridge demolition and hinge replacement but work will occur above the scaffolding with the demolition of bridge overhang and railing. The work on the bridge overhang and railing will be conducted during nighttime hours to ensure that there are no conflicts between construction activities and the use of the trail under the bridge. The San Gabriel River Trail will be kept open during construction with protective fencing. LA County Parks and Rec's hours of operation for the Trail are from sunrise to sunset. A temporary detour plan will also be in place for trail users that would prefer to not use the bike trail underneath the scaffolding. The proposed undertaking will result in a "Temporary Occupancy" and a *de minimis* finding is appropriate within the context of Section 4(f) as the proposed actions would not significantly affect the activities, features, and attributes of the resources.

There will be no permanent full or partial acquisition but may be displacement of the San Gabriel River Trail, if users elect to follow the detour. A more detailed analysis of Section 4(f) resources in the project study area can be referenced in the **Appendix A** of this environmental document.

California Public Park Preservation Act of 1971

Under this alternative Caltrans will not acquire any part of the San Gabriel River Trail or Bike Trail.

Alternative 3 (Single-Stage Rehabilitation)

Section 4(f) / Code of Federal Regulations, Title 23, Part 774 (23 CFR 774)

The proposed alternative consists of the replacement of the San Gabriel River Bridge hinges and bridge railings in one stage of 134 hours of closure. While all of the previously listed parks and recreational facilities within the project study area qualify as Section 4(f) protected properties, Alternative 3, as currently proposed, does not have the potential to affect every property. Caltrans further screened all Section 4(f) properties in the project study area and found that the proposed undertaking would only have the potential to affect one (1) publicly owned properties/facilities in the project study area. The proposed project consists of replacing the San Gabriel River Bridge hinges, median and bridge railings in five stages over three-day holiday weekends. During the construction phase, the San Gabriel River Bike Trail will have an available detour around the project site, but the trail will be kept open and protected by scaffolding for all users. This may cause delays for users of the trail due to the added length of the detour, if they chose to use the detour. The San Gabriel River Trail will be kept open during construction and fenced off from construction equipment. The proposed undertaking will result in a "Temporary Occupancy" and a *de minimis* finding is appropriate within the context of Section 4(f) as the proposed actions would not significantly affect the activities, features, and attributes of the resources.

There will be no permanent full or partial acquisition but may be displacement of the San Gabriel

River Trail, if users elect to follow the detour. A more detailed analysis of Section 4(f) resources in the project study area can be referenced in the **Appendix A** of this environmental document.

California Public Park Preservation Act of 1971

Under this alternative Caltrans will not acquire any part of the San Gabriel River Trail or Bike Trail.

Avoidance, Minimization, and/or Mitigation Measures

Applicable to Section 4(f) Protected Properties

- **PR-1 Temporary Detour of San Gabriel River Trail and Bike Trail**. A temporary detour plan will be available to the public if they feel unsafe around construction work, which will occur at night near the Trail, but the San Gabriel River Bike Trail will be open with scaffolding at both the southern and northern side of the I-210 San Gabriel River Bridge. The San Gabriel River Trail will be open and fenced away from the construction equipment. There are no Section 4(f) impacts.

2.2.4 Utilities/Emergency Services

Affected Environment

The following information regarding utilities/emergency services were obtained through general research performed by the Caltrans Division of Environmental Planning.

Utility facilities and utility easements occupy approximately 180 acres in Irwindale. Electric energy providers occupy the largest share of this land. The City of Los Angeles Department of Water and Power owns and maintains a transmission line that traverses the City. Southern California Edison (SCE) has both transmission corridors and two distribution substation sites. General Telephone Exchange maintains a large yard facility located on Azusa Canyon Road. **Figure 2.2-e** is a map of all emergency services, schools, healthcare facilities in relation to the project site.

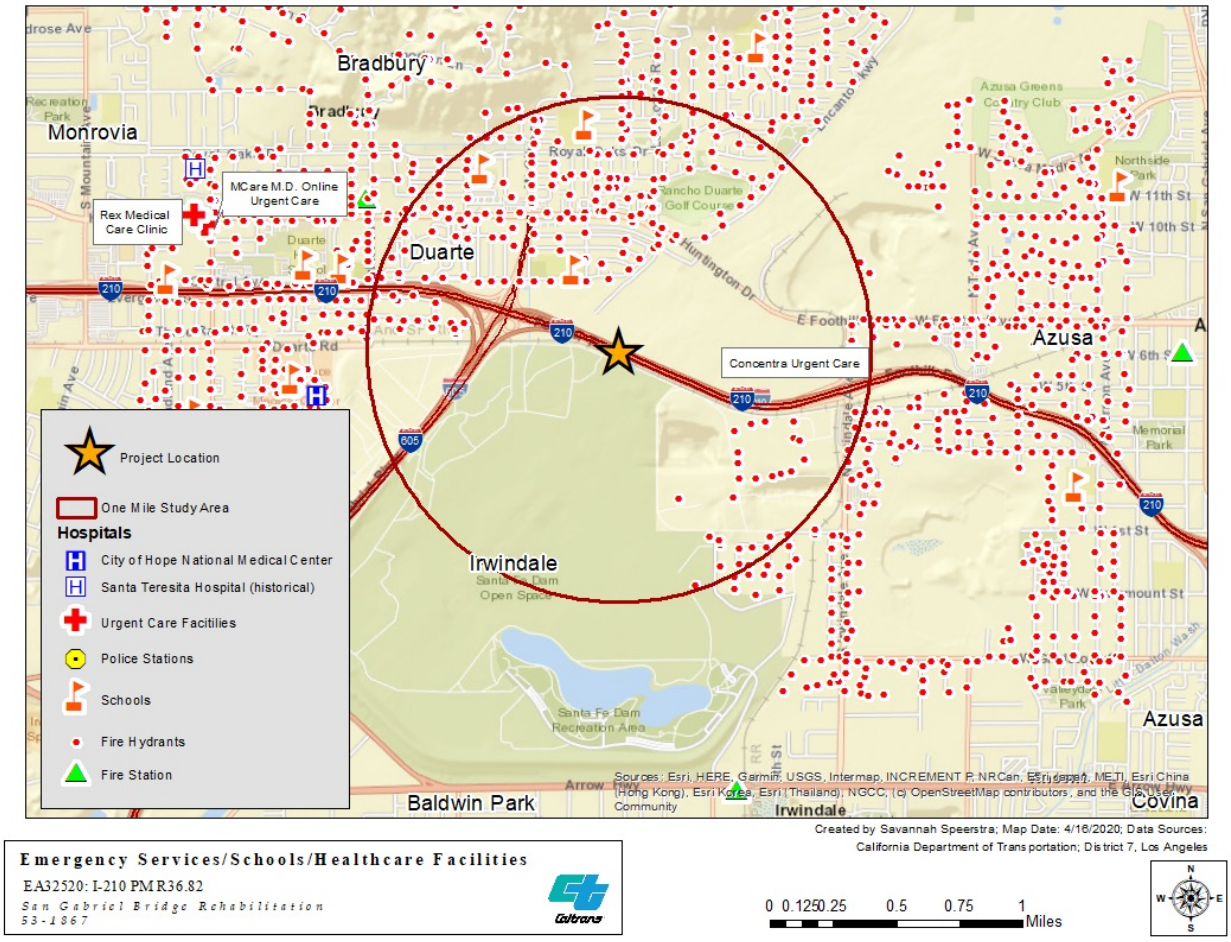


Figure 2.2-e. Map of Emergency Services, Schools, and Healthcare Facilities

Public and Private Utilities

- **Electricity**. SCE provides basic electrical service for all residential and non-residential customers within the City. Power is available to most service areas, with underground lines situated along several of the major streets.
- **Natural Gas**. The Southern California Gas Company (SCG) provides basic residential and business gas services. The SCG maintains lines ranging in size from 2-inch medium pressure lines to 8-inch high pressure lines to serve Irwindale customers.
- **Communications**. Verizon and various other communication companies provide home and business phone service, as well as offering fiber optics capabilities. Video and data lines are also accessible to each residence via an existing network.
- **Water**. Several different water purveyors serve the City. The City of Azusa Water Department provides basic service to the largest portion of Irwindale. The Valley County Water District, the California-American Water Company, the San Gabriel Valley Water Company and the Southern California Water Company serve other parts of Irwindale as well.
- **Wastewater**. The County Sanitation Districts of Los Angeles County provide all of Irwindale's

sewer services. The majority of the City is served by Sanitation District 22; with a small portion of its southwestern area served by District 15. The Los Angeles County Sewer Maintenance District provides maintenance for the City's six miles of sewers on a contract-basis, including emergency services on a 24-hour basis.

Emergency Services

- **Fire Department**. The City of Irwindale is included in the County of Los Angeles Consolidated Fire District, which maintains a single fire station in the City, Station No. 48. This station, located at 15546 Arrow Highway near the Civic Center, consists of 16 full-time fire fighters. The average response time throughout the City is six minutes. Additional emergency resources are available from other California Division of Forestry station (that station is located in the City of Baldwin Park).
- **Police Department**. The Irwindale Police Department was established in 1960 with five motorcycles and one police unit. The department now consists of 28 full time police officers, seven reserve officers, and 11 civilian employees. Response times in most areas of the City are five minutes or less. The Department is responsible for staffing various activities aside from regular patrol duties that encompass calls for service from the business and residential community. A mutual aid contract with the Los Angeles County Sheriff's Department provides for special weapons teams when required, and other specialized equipment or services including Homicide Investigations. Air Support services are provided through a contract with the El Monte Police Department, and jail bookings are accomplished through a contract for services with the Glendora Police Department Jail Facility.
- **Medical Facilities**. The Citrus Valley Health Partners serve the City of Irwindale. Inter-Community Campus and Queen of the Valley campus work together to provide comprehensive health care service to the community's residents. There are also the Trans-Valley Medical Clinic, Foothill Medical Clinic, and Irwindale Industrial Medical Clinic. The City of Hope medical complex and hospital is located in nearby Duarte.

Environmental Consequences

Alternative 1 (No-Build)

If the proposed project were not built, there would be no alterations or improvements to the existing facilities, posing no changes to the existing environment, and no disturbance to utilities and/or emergency services; therefore, it would present no potential for effects to such.

Alternative 2 (Multi-Stage Rehabilitation)

This project alternative proposes to replace the San Gabriel River Bridge hinges, median and bridge railings in five stages over three-day holiday weekends, there may be minimal construction related effects to utilities and/or emergency services. Emergency services may be delayed due to delays in traffic from the reduced number of lanes available to the traveling public. No existing municipal utilities (sewer/gas/water) will be affected by the construction, only a Caltrans fiber optic cable within I-210 on the southside of the bridge railing will be affected by railing reconstruction. A list of usual project features will be included in the Environmental Commitment Record:

- **ES-1 Early and Continuing Coordination with Emergency Services.** Early communication and planning with affected (if any) emergency service providers before and during construction will ensure minimization of any disruption of services and any effects as much as possible.
- **UT-1 Early and Continuing Coordination with Utility Providers**. Early communication and planning with affected (if any) utility providers before and during construction will ensure that all affected infrastructure will be relocated with consideration, and to minimize any disruption of services and any effects as much as possible.
- **TMP-1 Transportation Management Plan**. A Transportation Management Plan shall be implemented to provide detailed access and detour strategies that would minimize any effects on response times for fire, police, and emergency services. Caltrans shall maintain close coordination with local agencies and jurisdictions, including fire protection services, police, schools, and park agencies via a public outreach campaign during the construction phase of the proposed project.
- **TMP-2 Early and Continuing Transportation Management Plan Coordination with the City of Irwindale**. Caltrans shall initiate early coordination with the City of Irwindale to achieve consensus and obtain concurrence on traffic management strategies during construction, and to ensure public access and availability of emergency and public services during the construction period.

Alternative 3 (Single-Stage Rehabilitation)

This project alternative proposes to replace the San Gabriel River Bridge hinges, median and bridge railings in one stage of 134 hours of closure. This would cause an unacceptable disturbance to emergency services such as emergency responders, that utilize this portion of I-210. This would require detours off of I-210; therefore, this would congest the local streets of Irwindale and the surrounding cities for the duration of construction, while causing delays to emergency services and/or utility businesses. Emergency services may be delayed due to delays in traffic from the reduced number of lanes available to the traveling public. No existing municipal utilities (sewer/gas/water) will be affected by the construction, only a Caltrans fiberoptic cable within I-210 on the southside of the bridge railing will be affected by railing reconstruction. The Environmental Commitment Record will include ES-1 Early and Continuing Coordination with Emergency Services, UT-1 Early and Continuing Coordination with Utility Providers, TMP-1 Transportation Management Plan, and TMP-2 Early and Continuing Transportation Management Plan Coordination with the City of Irwindale.

Avoidance, Minimization, and/or Mitigation Measures

There are no avoidance, minimization and/or mitigation measures that are not considered project features.

2.2.5 Cultural Resources

Regulatory Setting

The term “cultural resources,” as used in this document, refers to the “built environment” (e.g.,

structures, bridges, railroads, water conveyance systems, etc.), places of traditional or cultural importance, and archaeological sites (both prehistoric and historic), regardless of significance. Under federal and state laws, cultural resources that meet certain criteria of significance are referred to by various terms including "historic properties," "historic sites," "historical resources," and "tribal cultural resources." Laws and regulations dealing with cultural resources include:

The National Historic Preservation Act (NHPA) of 1966, as amended, sets forth national policy and procedures for historic properties, defined as districts, sites, buildings, structures, and objects included in or eligible for listing in the National Register of Historic Places (NRHP). Section 106 of the NHPA requires federal agencies to take into account the effects of their undertakings on historic properties and to allow the Advisory Council on Historic Preservation (ACHP) the opportunity to comment on those undertakings, following regulations issued by the ACHP (36 Code of Federal Regulations [CFR] 800). On January 1, 2014, the First Amended Section 106 Programmatic Agreement (PA) among the Federal Highway Administration (FHWA), the ACHP, the California State Historic Preservation Officer (SHPO), and the Department went into effect for Department projects, both state and local, with FHWA involvement. The PA implements the ACHP's regulations, 36 CFR 800, streamlining the Section 106 process and delegating certain responsibilities to the Department. The FHWA's responsibilities under the PA have been assigned to the Department as part of the Surface Transportation Project Delivery Program (23 United States Code [USC] 327).

The California Environmental Quality Act (CEQA) requires the consideration of cultural resources that are historical resources and tribal cultural resources, as well as "unique" archaeological resources. California Public Resources Code (PRC) Section 5024.1 established the California Register of Historical Resources (CRHR) and outlined the necessary criteria for a cultural resource to be considered eligible for listing in the CRHR and, therefore, a historical resource. Historical resources are defined in PRC Section 5020.1(j). In 2014, Assembly Bill 52 (AB 52) added the term "tribal cultural resources" to CEQA, and AB 52 is commonly referenced instead of CEQA when discussing the process to identify tribal cultural resources (as well as identifying measures to avoid, preserve, or mitigate effects to them). Defined in PRC Section 21074(a), a tribal cultural resource is a CRHR or local register eligible site, feature, place, cultural landscape, or object which has a cultural value to a California Native American tribe. Tribal cultural resources must also meet the definition of a historical resource. Unique archaeological resources are referenced in PRC Section 21083.2.

PRC Section 5024 requires state agencies to identify and protect state-owned historical resources that meet the NRHP listing criteria. It further requires the Department to inventory state-owned structures in its rights-of-way.

Affected Environment

The following discussion is a summary of the existing conditions (or no-build scenario) at the time at which environmental studies commenced for the proposed undertaking. The ensuing discussion is based on a review of the Screened Undertaking Memo (Section 106 Compliance) as prepared for the proposed project by the Caltrans Division of Environmental Planning, District 7 – Cultural/Archaeological Resources Branch, April 2019.

Study Methods

A Caltrans Professionally Qualified Staff (PQS) Principal Architectural Historian, conducted a review of cultural resources sensitivity for the undertaking as well as District 7 Cultural Resources Database, files, maps, and photographs. An additional Caltrans PQS Co-Principal Investigator Prehistoric Archaeology, also reviewed the archaeological environment sensitivity of the project activities and area.

Based on this review, the undertaking, as currently proposed, has no potential to affect historic properties eligible for or listed in the National Register of Historic Places, and is exempt from further review pursuant to the Section 106 PA Stipulation VII and Attachment 2, and the work conforms to the following classes of screened undertakings listed in the Section 106 PA Attachment 2:

- Class 1 Pavement reconstruction, resurfacing, shoulder backing, or placement of seal coats.
- Class 10 Repair of the highway and its facilities.
- Class 13 Addition or replacement of devices, such as glare screens, median barriers, fencing, guardrails, safety barriers, energy attenuators, guide posts, markers, safety cables, ladders, lighting, hoists, or signs.
- Class 14 Installation, removal or replacement of roadway markings, such as painted stripes, raised pavement markers, thermoplastic tape, or raised bars, or installation of sensors in existing pavements.
- Class 19 Any work on Category 5 bridges, including rehabilitation or reconstruction. Class 28 Joint or multiple use permits with other agencies or encroachment permits.

As a result, this undertaking is exempt from further review, no additional studies are required and the Section 106 compliance process, CEQA cultural resources component, and PRC 5024 compliance are complete.

Environmental Consequences

Alternative 1 (No-Build Alternative)

If the proposed project were not built, none of the proposed improvements would be implemented and continued degradation of the hinge and railings at the San Gabriel River Bridge would compromise structural integrity and require more extensive mitigation and/or measures in the future.

Alternative 2 (Multi-Stage Rehabilitation)

Research and examination of previous technical reports and maps for the project study area show that there will be no activities that affect any cultural materials, and no historic properties affected.

In the event of a discovery of cultural materials or human remains, the following project features will be implemented during construction:

- **CUL-1 Discovery of Cultural Materials**. If cultural materials are discovered during construction, all earth-moving activity within and around the immediate discovery area will be

diverted until a qualified archaeologist can assess the nature and significance of the find.

- **CUL-2 Discovery of Human Remains.** If human remains are discovered, California Health and Safety Code (H&SC) Section 7050.5 states that further disturbances and activities shall stop in any area or nearby area suspected to overlie remains, and the County Coroner contacted. If the remains are thought by the coroner to be Native American, the coroner will notify the Native American Heritage Commission (NAHC), who, pursuant to PRC Section 5097.98, will then notify the Most Likely Descendent (MLD). At this time, the person who discovered the remains will contact Kimberly Harrison, PQS Co-Principal Investigator, Prehistoric Archaeology at Caltrans District 7 Division of Environmental Planning, so that they may work with the MLD on the respectful treatment and disposition of the remains. Further provisions of PRC 5097.98 are to be followed as applicable.

Alternative 3 (Single-Stage Rehabilitation)

Research and examination of previous technical reports and maps for the project study area show that there will be no activities that affect any cultural materials, and no historic properties affected.

In the event of discovery of cultural materials or human remains, the project features described under Alternative 2 will be implemented during construction.

Avoidance, Minimization, and/or Mitigation Measures

There are no avoidance, minimization, or mitigation measures other than the project features described under Alternative 2.

2.3 Physical Environment

2.3.1 Hydrology and Floodplain

Regulatory Setting

Executive Order (EO) 11988 (Floodplain Management) directs all federal agencies to refrain from conducting, supporting, or allowing actions in floodplains unless it is the only practicable alternative. The Federal Highway Administration (FHWA) requirements for compliance are outlined in 23 Code of Federal Regulations (CFR) 650 Subpart A.

To comply, the following must be analyzed:

- The practicability of alternatives to any longitudinal encroachments.
- Risks of the action.
- Impacts on natural and beneficial floodplain values.
- Support of incompatible floodplain development.
- Measures to minimize floodplain impacts and to preserve/restore any beneficial floodplain values affected by the project.

The base floodplain is defined as “the area subject to flooding by the flood or tide having a one percent chance of being exceeded in any given year.” An encroachment is defined as “an action within the limits of the base floodplain.”

Affected Environment

The ensuing discussion is based on a review of the Preliminary Hydraulic Memo for the Hinge Replacement Project on the San Gabriel River Bridge (Bridge No. 53-1867) [April 2020], and the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) for the project area on I-210 at the San Gabriel River (April 2020). All hydraulic information is preliminary and subject to change pending further detailed analyses that will be completed during the next project phase and contained within a Final Hydraulic Report.

In general, Irwindale and the project study area have a warm-summer Mediterranean climate, which is strongly influenced by the Pacific Ocean. Typically, Mediterranean climates are characterized by dry summers where subtropical high-pressures dominate, and mild, rainy winters where the bulk of annual precipitation is incurred. While winter rainfall in the project study area can be scant, the region is subject to periods of intense and sustained precipitation that often results in flooding. Localized flooding tends to occur along the coast, in low-lying areas, and in creeks during peak storm events, which can become hazardous in areas where human activity has encroached onto floodplains, where the landscape has been modified with a customary increase in the amount of impervious surfaces, and/or where structures are built in areas that are meant to convey excess water during these events.

Local Hydrology

The San Gabriel River Watershed upstream of the existing bridge structures drains a large watershed of approximately 625 square miles. The San Gabriel River is one of three major watersheds in the Los Angeles Basin. The San Gabriel River, the smallest river of the three watersheds, flows approximately 60.6 miles from its headwaters to it mouth at Alamitos Bay between the cities of Long Beach and Seal Beach, draining a total of 635 square miles. The river's upstream tributaries merge above Santa Fe Dam (capacity 32,109 acre-feet). The San Gabriel River Watershed is comprised of three distinct hydrologic areas: the rugged southern slopes of the San Gabriel Mountains, the urbanized San Gabriel Valley, and the developed coastal plain of the Los Angeles Basin. **Figure 2.3-a** shows the beginning part of the river flows through a riparian habitat in a heavily urbanized portion of the county near the project study area.

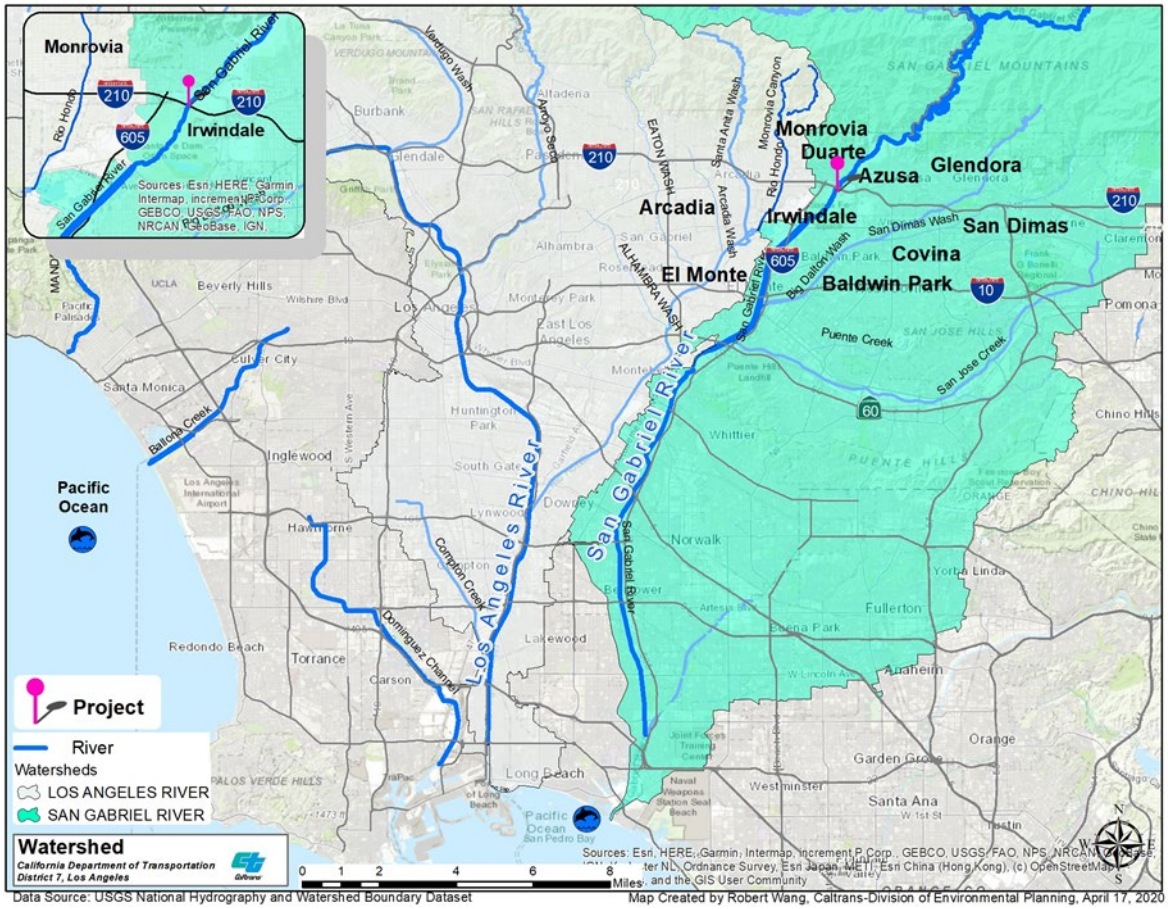


Figure 2.3-a. San Gabriel River Watershed

Designated Flood Zones

FEMA flood hazard areas identified on the FIRM are shown as a Special Flood Hazard Area (SFHA). SFHAs are defined as areas that will be inundated by the flood event having a one percent chance of being equaled or exceeded in any given year. The one percent annual chance flood is also referred to as the base flood or 100-year flood. SFHAs are labeled as Zone A, Zone AO, Zone AH, Zones A1-A30, Zone AE, Zone A99, Zone AR, Zone AR/AE, Zone AR/AO, Zone AR/A1-A30, Zone AR/A, Zone V, Zone VE, and Zones V1-V30. Moderate flood hazard areas, labeled Zone B or Zone X (shaded) are also shown on the FIRM, and are the areas between the limits of the base flood and the 0.2 percent annual-chance (or 500-year) flood. The areas of minimal flood hazard, which are the areas outside the SFHA and higher than the elevation of the 0.2 percent annual-chance flood, are labeled Zone C or Zone X (unshaded). **Figure 2.3-b** illustrates the project study area located within a SFHA designated as “Zone X,” or an area that possesses a minimal chance of flooding.

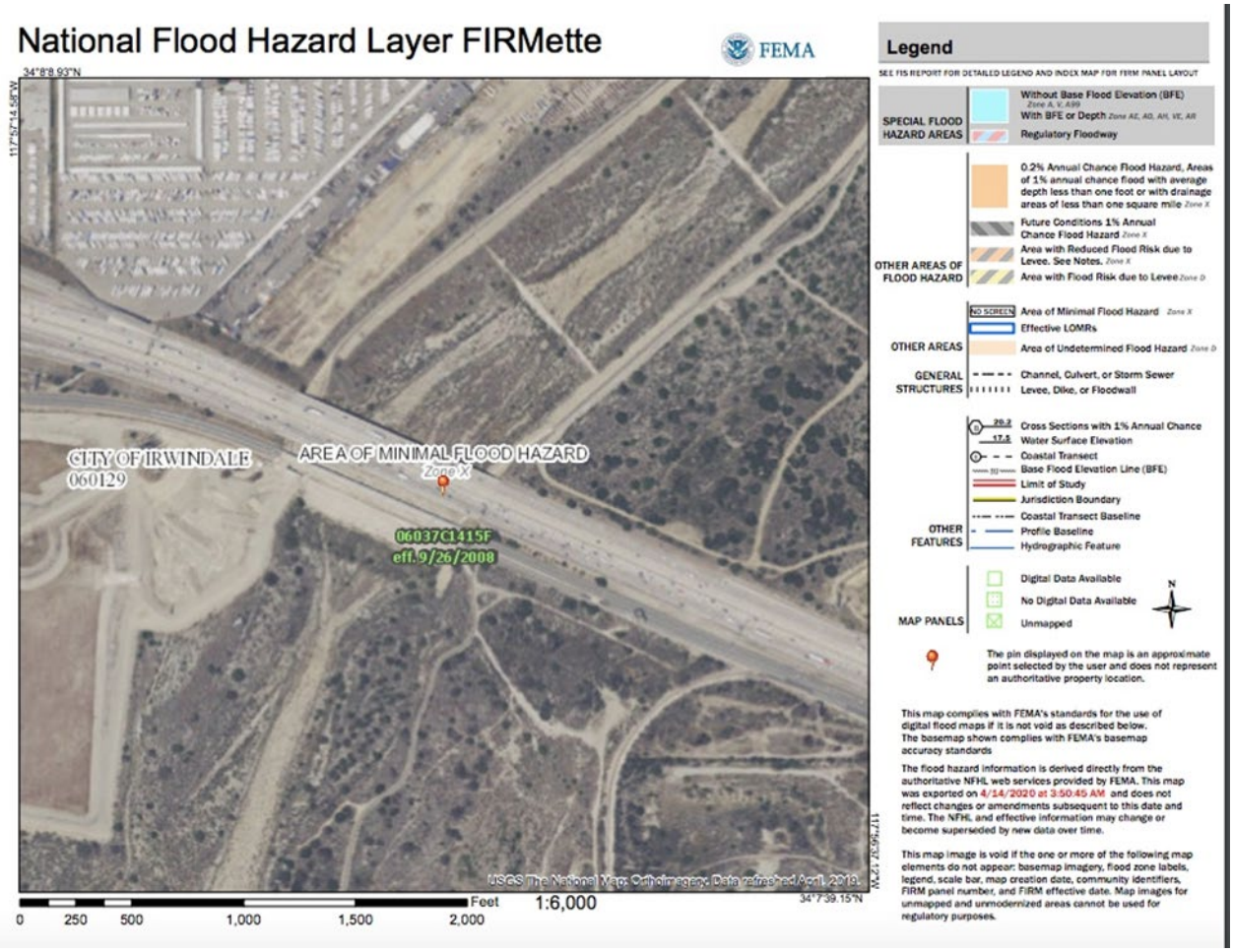


Figure 2.3-b. Project Location within FEMA Designated "Zone X" Area of FIRM

Assessment of the watershed indicates an estimated flood frequency discharge for the 100-year flood event at 32,800 cubic feet per second (cfs). The 100-year design flood discharge is from the LA County Department of Public Works document “San Gabriel River Corridor Master Plan” 2005.

Existing Conditions

The channel flow varies from year to year and throughtout the seasons. River flow can vary from almost no flow to more than 15,000 cfs per day. Flow area varies from 110 ft^2 to 231 ft^2 with average flow area of 176 ft^2. Slope of the channel bed varies and within this section from -0.23 to 0.43. Flow is mostly subcritical with average Froude number of 0.5. Average flow velocity between 200 ft upstream of the bridge to 50 ft downstream of the bridge (referred section hereafter) is 2.53 ft/s. The channel has several deeper sections resulting in divided flow. Flow depth varies from 0.95 ft to 3.57 ft with average flow depth of 2.12 ft. Energy change is 0.0029 ft/ft of the channel.

The existing conditions hydraulic analysis provides a baseline comparison to the proposed conditions analysis for Alternative 2 and 3.

Environmental Consequences

Alternative 1 (No-Build)

If the proposed project were not built, none of the proposed improvements would be implemented and continued deterioration of the bridge hinge would compromise structural integrity and require more extensive mitigation and/or measures in the future. There would be no effect on the hydrology or floodplain because the project would not commence.

Alternative 2 (Multi-Stage Rehabilitation)

For Alternative 2, there will be no longitudinal encroachment into the base floodplain or San Gabriel River's river bed that increases impervious area or increase flood elevation. The Water Diversion plan created for this and Alternative 3, as written below, will be implemented to avoid negative impacts on construction work from any water releases into the San Gabriel River. No permanent impacts to the Base Floodplain Elevation (BFE) will occur as water diversion is considered a temporary construction related impact.

Alternative 3 (Single-Stage Rehabilitation)

For Alternative 3, there will be no longitudinal encroachment into the base floodplain or San Gabriel River's river bed that increases impervious area or increase flood elevation. The Water Diversion plan created for this and Alternative 2, as written below, will be implemented to avoid negative impacts on construction work from any water releases into the San Gabriel River. No permanent impacts to the Base Floodplain Elevation (BFE) will occur as water diversion is considered a temporary construction related impact.

Water Diversion Design for Alternative 2 and 3

The river flow varies from year to year and throughout the water year. River flows can vary from almost no flow to more than 15,000 cfs per day. The proposed construction will be during the summer months between June to August. River flow during this period is less than the annual maxima but can be as high as 465 cfs per day.

To keep the construction zone dry, the proposed contstuction will be during the summer months between June and August and river flow will be diverted by creating a trapezoidal channel. River flow during this period is less than the annual maxima and a river diversion is designed to carry a maximum flow of 426 cfs. To ensure river flowing to the diverted section of the channel, diverted channel will be constructed from 200 ft upstream of the bridge to 53 ft downstream of the bridge resulting a diverted channel length of 437.97 ft. Along the length of the channel the diverted channel will have two slopes – a slope of 0.001 for first 195 ft, next at 0.002 slope for the remaining 242.97 ft. The two slopes reduce the volume of excavation than the volume of excavation from a single slope throughout the diverted channel length.

The channel bottom is 64 feet wide with a side slope of 3H:1V for 195 ft and then later a flatter side slope of 4H:1V is used. The depth of water in the main channel varies from 1.0 to 2.1 ft. A freeboard of 0.5 ft is used which increases the depth of the channel to 1.5 to 2.6 ft. The side of trapezoidal channel varies from 3H:1V for the first 195 ft and later a river bank slope of 0.005 is used to allow concentration of the flow in the diverted channel for the next 60 ft. Then the river banks will be horizontal to allow movement during construction.

The flow in the diverted channel is subcritical flow with average Froude number of 0.49. Flow area varies from 82.72 to 251 ft2 and average flow velocity is 3.1 ft/s. Energy change is 0.0023ft/ft of the channel.**Figure 2.3-c** shows the construction details of the water diversion plan and aerial view of the access roads, plants, and bat roosting sites.

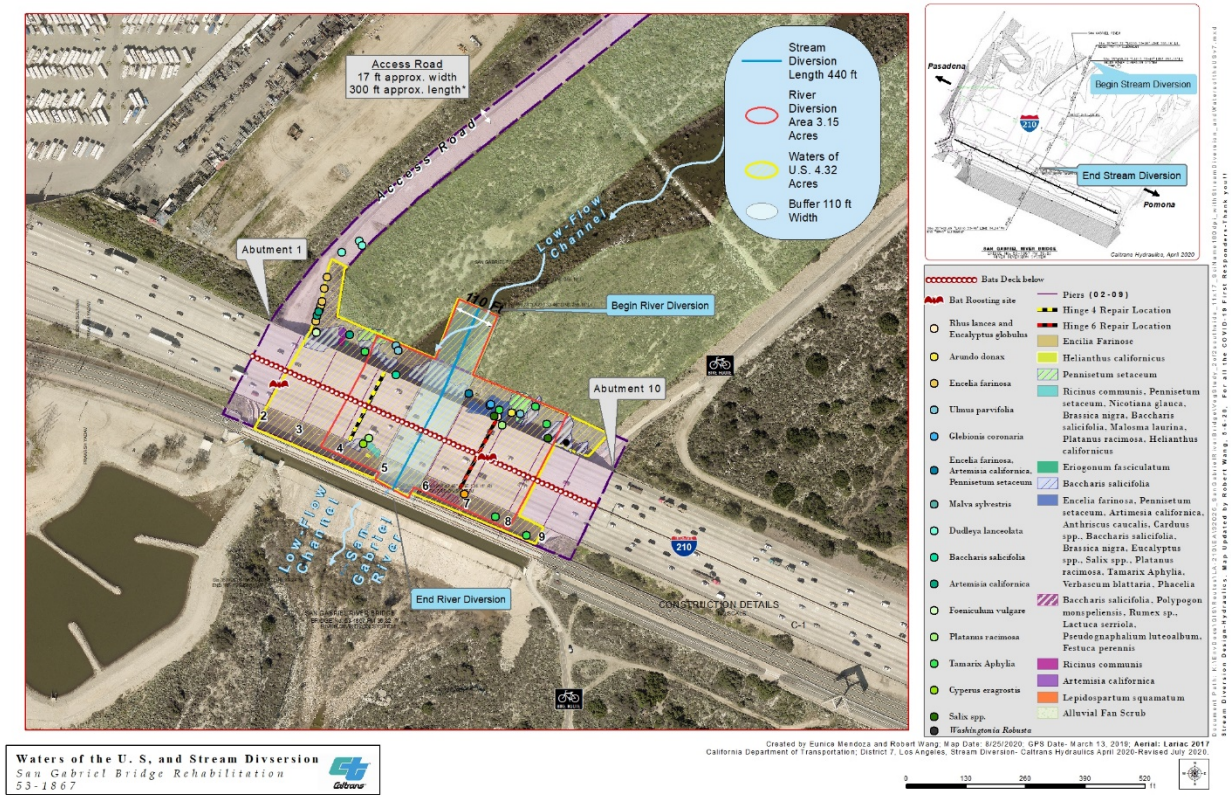


Figure 2.3-c. Aerial View of Water Diversion

Avoidance, Minimization, and/or Mitigation Measures

WDP-01 Water Diversion Plan. A Water Diversion Plan shall be developed and implemented in consultation with the National Oceanic and Atmospheric Administration, California Department of Fish and Wildlife, United States Fish and Wildlife Service, and the Regional Water Quality Control Board to divert water through the project site to reduce turbidity and prevent sediments from entering areas downstream of the project site.

The water diversion plan for Alternatives 2 and 3 will be implemented to protect the project site from flooding during construction. This plan will cut and fill to modify the water flow to bypass the original area of flow between piers 4 and 5 towards the area between piers 5 and 6. After construction activities are complete, the areas that were cut and filled will be left as is, allowing the natural water flow to reposition itself over time, this may bring the stream back to the original location through piers 4 and 5. In consultation and coordination with The Main San Gabriel Basin Watermaster, letter dated April 21, 2020, that Caltrans coordinate with Watermaster and Los Angeles County Public Works in providing significant advance notification. This includes providing planned timing and scheduling to Watermaster and the County of work sequence/activity as it relates to work within the river, and coordinate such during the planning phases of the project.

2.3.2 Water Quality and Stormwater Runoff

Regulatory Setting

Federal Requirements: Clean Water Act

In 1972, Congress amended the Federal Water Pollution Control Act, making the addition of pollutants to the waters of the United States (U.S.) from any point source[1] unlawful unless the discharge is in compliance with a National Pollutant Discharge Elimination System (NPDES) permit. This act and its amendments are known today as the Clean Water Act (CWA). Congress has amended the act several times. In the 1987 amendments, Congress directed dischargers of storm water from municipal and industrial/construction point sources to comply with the NPDES permit scheme. The following are important CWA sections:

- Sections 303 and 304 require states to issue water quality standards, criteria, and guidelines.
- Section 401 requires an applicant for a federal license or permit to conduct any activity that may result in a discharge to waters of the U.S. to obtain certification from the state that the discharge will comply with other provisions of the act. This is most frequently required in tandem with a Section 404 permit request (see below).
- Section 402 establishes the NPDES, a permitting system for the discharges (except for dredge or fill material) of any pollutant into waters of the U.S. Regional Water Quality Control Boards (RWQCBs) administer this permitting program in California. Section 402(p) requires permits for discharges of storm water from industrial/construction and municipal separate storm sewer systems (MS4s).
- Section 404 establishes a permit program for the discharge of dredge or fill material into waters of the U.S. This permit program is administered by the U.S. Army Corps of Engineers (USACE).

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

The USACE issues two types of 404 permits: General and Individual. There are two types of General permits: Regional and Nationwide. Regional permits are issued for a general category of activities when they are similar in nature and cause minimal environmental effect. Nationwide permits are issued to allow a variety of minor project activities with no more than minimal effects.

Ordinarily, projects that do not meet the criteria for a Regional or Nationwide Permit may be permitted under one of the USACE’s Individual permits. There are two types of Individual permits: Standard permits and Letters of Permission. For Individual permits, the USACE decision to approve is based on compliance with U.S. Environmental Protection Agency’s (U.S. EPA) Section 404 (b)(1) Guidelines (40 Code of Federal Regulations [CFR] Part 230), and whether the permit approval is in the public interest. The Section 404(b)(1) Guidelines (Guidelines) were developed by the U.S. EPA in conjunction with the USACE and allow the discharge of dredged or fill material into the aquatic system (waters of the U.S.) only if there is no practicable alternative which would have less adverse effects. The Guidelines state that the USACE may not issue a permit if there

[1] A point source is any discrete conveyance such as a pipe or a man-made ditch.

is a least environmentally damaging practicable alternative (LEDPA) to the proposed discharge that would have lesser effects on waters of the U.S. and not have any other significant adverse environmental consequences. According to the Guidelines, documentation is needed that a sequence of avoidance, minimization, and compensation measures has been followed, in that order. The Guidelines also restrict permitting activities that violate water quality or toxic effluent[2] standards, jeopardize the continued existence of listed species, violate marine sanctuary protections, or cause "significant degradation" to waters of the U.S. In addition, every permit from the USACE, even if not subject to the Section 404(b)(1) Guidelines, must meet general requirements. See 33 CFR 320.4. A discussion of the LEDPA determination, if any, for the document is included in the Wetlands and Other Waters section.

State Requirements: Porter Cologne Water Quality Control Act

California's Porter-Cologne Act, enacted in 1969, provides the legal basis for water quality regulation within California. This act requires a "Report of Waste Discharge" for any discharge of waste (liquid, solid, or gaseous) to land or surface waters that may impair beneficial uses for surface and/or groundwater of the state. It predates the CWA and regulates discharges to waters of the state. Waters of the state include more than just waters of the U.S., like groundwater and surface waters not considered waters of the U.S. Additionally, it prohibits discharges of "waste" as defined, and this definition is broader than the CWA definition of "pollutant." Discharges under the Porter-Cologne Act are permitted by Waste Discharge Requirements (WDRs) and may be required even when the discharge is already permitted or exempt under the CWA.

The State Water Resources Control Board (SWRCB) and RWQCBs are responsible for establishing the water quality standards (objectives and beneficial uses) required by the CWA and regulating discharges to ensure compliance with the water quality standards. Details about water quality standards in a project area are included in the applicable RWQCB Basin Plan. In California, RWQCBs designate beneficial uses for all water body segments in their jurisdictions and then set criteria necessary to protect those uses. As a result, the water quality standards developed for particular water segments are based on the designated use and vary depending on that use. In addition, the SWRCB identifies waters failing to meet standards for specific pollutants. These waters are then state-listed in accordance with CWA Section 303(d). If a state determines that waters are impaired for one or more constituents and the standards cannot be met through point source or non-point source controls (NPDES permits or WDRs), the CWA requires the establishment of Total Maximum Daily Loads (TMDLs). TMDLs specify allowable pollutant loads from all sources (point, non-point, and natural) for a given watershed.

State Water Resources Control Board and Regional Water Quality Control Board

The SWRCB administers water rights, sets water pollution control policy, and issues water board orders on matters of statewide application, and oversees water quality functions throughout the state by approving Basin Plans, TMDLs, and NPDES permits. RWCQBs are responsible for protecting beneficial uses of water resources within their regional jurisdiction using planning, permitting, and enforcement authorities to meet this responsibility.

[2] The U.S. EPA defines "effluent" as "wastewater, treated or untreated, that flows out of a treatment plant, sewer, or industrial outfall."

National Pollutant Discharge Elimination System (NPDES) Program

Municipal Separate Storm Sewer Systems

Section 402(p) of the CWA requires the issuance of NPDES permits for five categories of storm water discharges, including Municipal Separate Storm Sewer Systems (MS4s). An MS4 is defined as "any conveyance or system of conveyances (roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, human-made channels, and storm drains) owned or operated by a state, city, town, county, or other public body having jurisdiction over storm water, that is designed or used for collecting or conveying storm water." The SWRCB has identified the Department as an owner/operator of an MS4 under federal regulations. The Department's MS4 permit covers all Department rights-of-way, properties, facilities, and activities in the state. The SWRCB or the RWQCB issues NPDES permits for five years, and permit requirements remain active until a new permit has been adopted.

The Department's MS4 Permit, Order No. 2012-0011-DWQ (adopted on September 19, 2012 and effective on July 1, 2013), as amended by Order No. 2014-0006-EXEC (effective January 17, 2014), Order No. 2014-0077-DWQ (effective May 20, 2014) and Order No. 2015-0036-EXEC (conformed and effective April 7, 2015) has three basic requirements:

1. The Department must comply with the requirements of the Construction General Permit (see below);
2. The Department must implement a year-round program in all parts of the State to effectively control storm water and non-storm water discharges; and
3. The Department storm water discharges must meet water quality standards through implementation of permanent and temporary (construction) Best Management Practices (BMPs), to the maximum extent practicable, and other measures as the SWRCB determines to be necessary to meet the water quality standards.

To comply with the permit, the Department developed the Statewide Storm Water Management Plan (SWMP) to address storm water pollution controls related to highway planning, design, construction, and maintenance activities throughout California. The SWMP assigns responsibilities within the Department for implementing storm water management procedures and practices as well as training, public education and participation, monitoring and research, program evaluation, and reporting activities. The SWMP describes the minimum procedures and practices the Department uses to reduce pollutants in storm water and non-storm water discharges. It outlines procedures and responsibilities for protecting water quality, including the selection and implementation of BMPs. The proposed project will be programmed to follow the guidelines and procedures outlined in the latest SWMP to address storm water runoff.

Construction General Permit

Construction General Permit, Order No. 2009-0009-DWQ (adopted on September 2, 2009 and effective on July 1, 2010), as amended by Order No. 2010-0014-DWQ (effective February 14, 2011) and Order No. 2012-0006-DWQ (effective on July 17, 2012). The permit regulates storm water discharges from construction sites that result in a Disturbed Soil Area (DSA) of one acre or greater, and/or are smaller sites that are part of a larger common plan of development. By law,

all storm water discharges associated with construction activity where clearing, grading, and excavation result in soil disturbance of at least one acre must comply with the provisions of the General Construction Permit. Construction activity that results in soil disturbances of less than one acre is subject to this Construction General Permit if there is potential for significant water quality impairment resulting from the activity as determined by the RWQCB. Operators of regulated construction sites are required to develop Storm Water Pollution Prevention Plans (SWPPPs); to implement sediment, erosion, and pollution prevention control measures; and to obtain coverage under the Construction General Permit.

The Construction General Permit separates projects into Risk Levels 1, 2, or 3. Risk levels are determined during the planning and design phases and are based on potential erosion and transport to receiving waters. Requirements apply according to the Risk Level determined. For example, a Risk Level 3 (highest risk) project would require compulsory storm water runoff pH and turbidity monitoring, and before construction and after construction aquatic biological assessments during specified seasonal windows. For all projects subject to the permit, applicants are required to develop and implement an effective SWPPP. In accordance with the Department's SWMP and Standard Specifications, a Water Pollution Control Program (WPCP) is necessary for projects with DSA less than one acre.

Section 401 Permitting

Under Section 401 of the CWA, any project requiring a federal license or permit that may result in a discharge to a water of the U.S. must obtain a 401 Certification, which certifies that the project will be in compliance with state water quality standards. The most common federal permits triggering 401 Certification are CWA Section 404 permits issued by the USACE. The 401 permit certifications are obtained from the appropriate RWQCB, dependent on the project location, and are required before the USACE issues a 404 permit.

In some cases, the RWQCB may have specific concerns with discharges associated with a project. As a result, the RWQCB may issue a set of requirements known as WDRs under the State Water Code (Porter-Cologne Act) that define activities, such as the inclusion of specific features, effluent limitations, monitoring, and plan submittals that are to be implemented for protecting or benefiting water quality. WDRs can be issued to address both permanent and temporary discharges of a project.

Affected Environment

The ensuing discussion regarding water quality and storm water runoff has been excerpted from the Preliminary Storm Water Data Report as prepared by the Caltrans office of Design (May 2019).

Regionally, the proposed project lies within the San Gabriel River Watershed, which receives drainage from 689 square miles of eastern Los Angeles County, see **Figure 2.3-a** San Gabriel River Watershed. Its headwaters originate in the San Gabriel Mountains, and the watershed consists of extensive areas of undisturbed riparian and woodland habitats in its upper reaches. Much of the watershed of the West Fork and East Fork of the river is set aside as a wilderness area, and other areas in the upper watershed are subject to heavy recreational use. The upper watershed also contains a series of flood control dams, and further downstream, large spreading

grounds are utilized for groundwater recharge. The watershed is hydraulically connected to the Los Angeles River through the Whittier Narrows Reservoir (normally only during high storm flows).

The project study area for the proposed project lies within the upper portion of the San Gabriel River Watershed, where the river flows through a soft bottom channel. Some adjacent uses to the river include large industrial parks and commercial businesses.

Water quality issues in the upper portion of the San Gabriel River Watershed include pollution from the surrounding area that have impaired water quality and allowed bacteria, metals and selenium into the ground and water.

Environmental Consequences

Alternative 1 (No-Build Alternative)

If the proposed project were not built, none of the proposed improvements would be implemented and continued deterioration of the bridge hinge would compromise structural integrity and require more extensive mitigation and/or measures in the future. There would be no affect to current water quality or stormwater if this project was not built.

Alternative 2 (Multi-Stage Rehabilitation)

Potential 303(d) receiving water bodies are the San Gabriel River Reach 3, Santa Fe Dam Park Lake, Sawpit Creek and Walnut Creek Wash. The Los Angeles Regional Water Quality Control Board (Region 4) has jurisdiction. A TMDL is a calculation of the maximum amount of a pollutant that a waterbody can receive and still meet water quality standards, and an allocation of that amount to the pollutant's sources. Water quality standards are set by the California Regional Water Quality Control Board, who identifies the uses for each waterbody, for example, drinking water supply, contact recreation (swimming), and aquatic life support (fishing), and the scientific data to support that use. A TMDL is the sum of allowable loads of a single pollutant from all contributing point and nonpoint sources. The calculation must include a margin of safety to ensure that the waterbody can be used for the purposes the State has designated. The calculation must also account for seasonal variation in water quality. The CWA, Section 303, establishes the water quality standards and TMDL programs.

Table 2.3-a explains the TMDLs for the San Gabriel River, estuary, tributaries, as well as the Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters.

Table 2.3-a. San Gabriel River Total Maximum Daily Loads

Waterway	Pollutant(s)	Effective Date	LA RWQCB Resolution No.	Categorical Implementation Requirements[1,2]
San Gabriel River and tributaries	Metals (copper, lead, zinc) and Selenium	03/26/2007, revised 10/13/2014	R13-004	Caltrans shall implement control measures and/or treatment best management practices (BMP) to prevent the discharge of sediments which may contain metals and selenium. Possible treatment options include the interception and infiltration of runoff which will allow water to

Waterway	Pollutant(s)	Effective Date	LA RWQCB Resolution No.	Categorical Implementation Requirements[1,2]
				percolate into soil.
San Gabriel River, San Gabriel River Estuary, and tributaries	Indicator bacteria	6/14/2016	R15-005	Dry-weather non-storm water and wet-weather storm water discharges may significantly increase bacteria loading to receiving waters. Caltrans shall implement control measures and/or BMPs to prevent the discharge of bacteria from its right of way. Source control measures include street sweeping, illegal dumping clean-up, public education on littering. BMPs include devices which treat storm water through retention/detention, infiltration and/or diversion
Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters	Toxic pollutants (dichlorodiphenyl-trichloroethane, polycyclic aromatic hydrocarbons, total polychlorinated biphenyls, metals (copper, lead, and zinc))	3/23/2012	R11-008	Targeted pollutants are to be monitored in the water column in the channel and harbors as well as the sediment in the harbors. The Total Maximum Daily Load (TMDL) requires the dischargers of the Los Angeles River and the San Gabriel River to monitor water quality at the mouth of each river. Caltrans shall implement control measures and/or treatment BMPs to prevent the discharge of sediments which may contain toxic pollutants as listed in the TMDL. Possible treatment options include the interception and infiltration of runoff which will allow water to percolate into soil.

[1]Refer to §4 of the PPDG to determine the specific impervious threshold for stormwater Treatment BMP requirements.

[2]General TMDL Requirements can be found in Attachment IV of the NPDES Statewide Storm Water Permit.

Regional Water Quality Control Board special requirements/concerns, including TMDLs and/or effluent limits as they pertain to the proposed project will occur during the next project phase. Caltrans will comply with the pertinent TMDL standards, and project engineers shall consider treatment controls for the proposed project and consult with the Caltrans NPDES Storm Water Coordinator to achieve compliance.

Disturbed Soil Areas (DSA) include all proposed project construction activity that disturbs native soil and fill within project limits of Caltrans Right-of-Way. This does not include routine or preventative maintenance activities to maintain existing highways, structure, and existing functions or any work completed outside of the Right-of-Way. Asphalt concrete, Portland cement concrete, aggregate base, shoulder backing, bridge decks, sidewalks, buildings, road side ditches, gutters, dikes, and culverts are all part of existing highway facilities, and are not

considered in the calculation of DSA. Currently the DSA is 4.3 acres because all disturbed soil area is within LA County Flood Control Right-of-Way.

Alternative 3 (Single-Stage Rehabilitation)

Potential 303(d) receiving water bodies are the San Gabriel River Reach 3, Santa Fe Dam Park Lake, Sawpit Creek and Walnut Creek Wash. The Los Angeles Regional Water Quality Control Board (Region 4) has jurisdiction. A TMDL is a calculation of the maximum amount of a pollutant that a waterbody can receive and still meet water quality standards, and an allocation of that amount to the pollutant's sources. Water quality standards are set by the California Regional Water Quality Control Board, who identifies the uses for each waterbody, for example, drinking water supply, contact recreation (swimming), and aquatic life support (fishing), and the scientific data to support that use. A TMDL is the sum of allowable loads of a single pollutant from all contributing point and nonpoint sources. The calculation must include a margin of safety to ensure that the waterbody can be used for the purposes the State has designated. The calculation must also account for seasonal variation in water quality. The CWA, Section 303, establishes the water quality standards and TMDL programs.

Table 2.3-a explains the TMDLs for the San Gabriel River, estuary, tributaries, as well as the Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters.

DSAs include all proposed project construction activity that disturbs native soil and fill within project limits of Caltrans Right-of-Way. This does not include routine or preventative maintenance activities to maintain existing highways, structure, and existing functions or any work completed outside of the Right-of-Way. Asphalt concrete, Portland cement concrete, aggregate base, shoulder backing, bridge decks, sidewalks, buildings, road side ditches, gutters, dikes, and culverts are all part of existing highway facilities, and are not considered in the calculation of DSA. Currently the DSA is 4.3 acres because all disturbed soil area is within LA County Flood Control Right-of-Way.

Alternative 2 and 3 Measures Relating to Section 404 of the Clean Water Act

The improvements and construction activities associated with the proposed project are subject to Section 404 of the CWA, which was established to regulate the discharge of dredged or fill material into Waters of the United States, including wetlands. The basic premise of the program is that no discharge of dredged or fill material may be permitted if: (1) a practicable alternative exists that is less damaging to the aquatic environment, or (2) the nation's waters would be significantly degraded. A Section 404 Nationwide Permit No. 14 (Linear Transportation Project), and Nationwide Permit No. 33 (Temporary Construction, Access, and Dewatering), will need to be obtained from the USACE in compliance with the CWA for proposed activities in "Waters of the United States." During construction of the proposed project, the following measures will be implemented as they relate to Section 404 of the CWA:

- Water Diversion Plan
- Stormwater Pollution Prevention Plan (SWPPP)

Avoidance, Minimization, and/or Mitigation Measures

WDP-01 Water Diversion Plan. A Water Diversion Plan shall be developed and implemented in

consultation with the National Oceanic and Atmospheric Administration, California Department of Fish and Wildlife, United States Fish and Wildlife Service, and the Regional Water Quality Control Board to divert water through the project site to reduce turbidity and prevent sediments from entering areas downstream of the project site.

SWP-01 Stormwater Pollution Prevention Plan (SWPPP). Generally, construction project with a Disturbed Soil Area of more than one acre require a Stormwater Pollution Prevention Plan (SWPPP), to address water pollution control for the proposed undertaking. The Construction General Permit (CGP) requires that all stormwater discharges associated with construction activity, where said activity results in soil disturbance of one acre or more land area, must be permitted under the CGP and have a fully developed site SWPPP on-site prior to beginning any soil disturbing activities. As previously mentioned, construction of the proposed project will require an estimated soil disturbance of 9.52 acres, in which a SWPPP shall be developed and implemented to improve construction site water quality practices and control the impacts of stormwater pollution through Best Management Practices. Construction activities for the proposed project is estimated to cover approximately one year. The temporary construction best management practice categories suitable for controlling potential pollutants to be considered for the proposed project will be refined during the next project phase, and shall include, but not limited to the following:

- Soil stabilization measures
- Sediment control measures
- Wind erosion control measures
- Tracking control measures
- Non-stormwater management
- Waste management and materials pollution control

DR-01 Bridge Deck Drainage Improvement. With the demolition and reconstruction of the bridge deck overhang and bridge railing, bridge deck drainage will be affected. The reconstruction will allow water to be diverted from discharging directly into main flow of river, as it currently does. It will be channeled to abutment areas to allow water to gradually flow and infiltrate into the riverbed and then the main river channel.

2.3.3 Geology/Soils/Seismic/Topography

Regulatory Setting

For geologic and topographic features, the key federal law is the Historic Sites Act of 1935, which establishes a national registry of natural landmarks and protects “outstanding examples of major geological features.” Topographic and geologic features are also protected under the California Environmental Quality Act (CEQA).

This section also discusses geology, soils, and seismic concerns as they relate to public safety and project design. Earthquakes are prime considerations in the design and retrofit of structures. Structures are designed using the Department’s Seismic Design Criteria (SDC). The SDC provides the minimum seismic requirements for highway bridges designed in California. A bridge’s category and classification will determine its seismic performance level and which methods are used for estimating the seismic demands and structural capabilities. For more information, please

see the Department's Division of Engineering Services, Office of Earthquake Engineering, Seismic Design Criteria.

Affected Environment

The following information was found through independent research by Caltrans Division of Environmental Planning from the City of Irwindale General Plan, June 2008, Resource Management Element and CA Geologic Survey. The San Gabriel Valley consists of a broad piedmont plain that slopes downward at an average of about five feet per mile from the base of the San Gabriel Mountains (at about 900 feet elevation) to the Whittier Narrows. The valley is bounded on the north by steep rock ridges and canyons of the San Gabriel Mountains that rise to a maximum elevation of over 10,000 feet above sea level. The soils generally found in the City consist of a surface layer of very coarse sand, gravel, cobbles, and boulders, derived by erosion from the mountains. These surficial soils are typically over five feet in depth, well drained, and have moderately rapid permeability. They generally exhibit slow runoff, with a slight erosion hazard. Historically, the soils found within the planning area were considered of little use agriculturally, due to its stony nature that made plowing and irrigation difficult. Locally, most of the original surface soil has been disrupted and removed by gravel quarry operations and urbanization. The exceptions include those native soils found within the Santa Fe Dam recreation area and the unchannelized portion of the San Gabriel River. Major soil types in the area are listed as young alluvium, older alluvial fan deposits, and bedrock.

The City of Irwindale is located within a seismically active region located at the junction of the Transverse Ranges and the Peninsular Ranges. These two physiographic provinces experience continual seismic activity associated with the lateral movement of the North American and Pacific tectonic plates. The San Andreas Fault system, located approximately 31 miles north of the City, delineates the boundary where these two plates are joined. Faults that may affect the City in the future include the following, Duarte Fault, Sierra Madre Fault-San Gabriel Fault Zone, San Andreas Fault, Newport-Inglewood Fault, Raymond Hill Fault, Clamshell-Sawpit Fault, Whittier-Elsinore Fault. In addition to the above faults, a substantial number of previously unknown blind-thrust faults are now suspected to traverse the Los Angeles region. These faults are very deep and generally do not exhibit surface displacement common with the other types of faults. The two most recent damaging earthquakes in the Southern California region, the 1987 Whittier earthquake and the 1994 Northridge earthquake, originated from previously unknown blind thrust faults. **Figure 2.3-d** shows seismic hazards surrounding the project site. All of the faults within the area are outside of the proposed construction area.

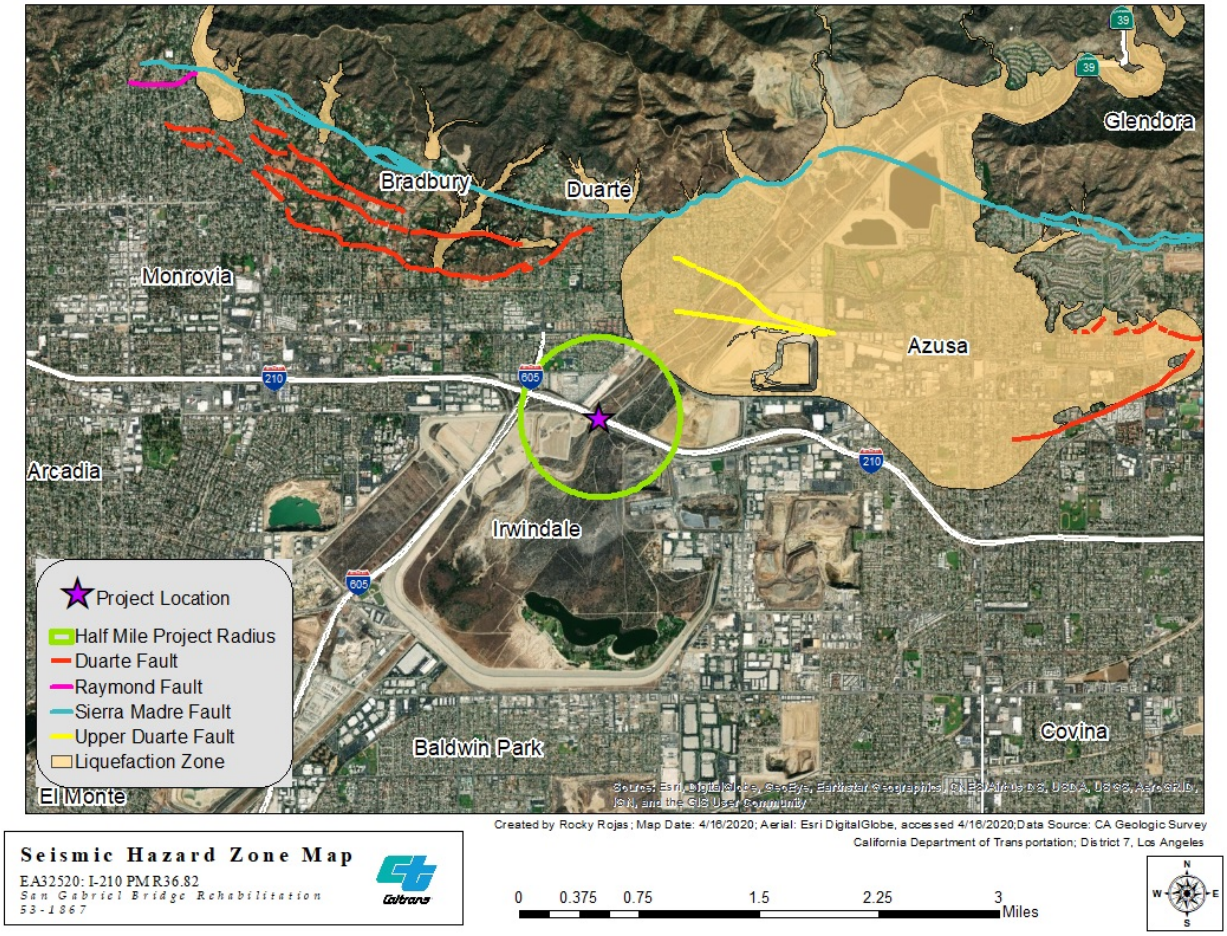


Figure 2.3-d. Seismic Hazard Zone Map

The effects of an earthquake may take many forms depending on a number of factors including distance from the epicenter, the characteristics of the underlying soils, the presence of groundwater, and topography. The primary effects include the following: surface rupture, ground shaking, liquefaction, slope failure, tsunami, and seiche. **Figure 2.3-e** shows the soil types surrounding the project site on the San Gabriel River. Artificial fill (denoted as "Af" in **Figure 2.3-e**) is on both the east and west side of the river.

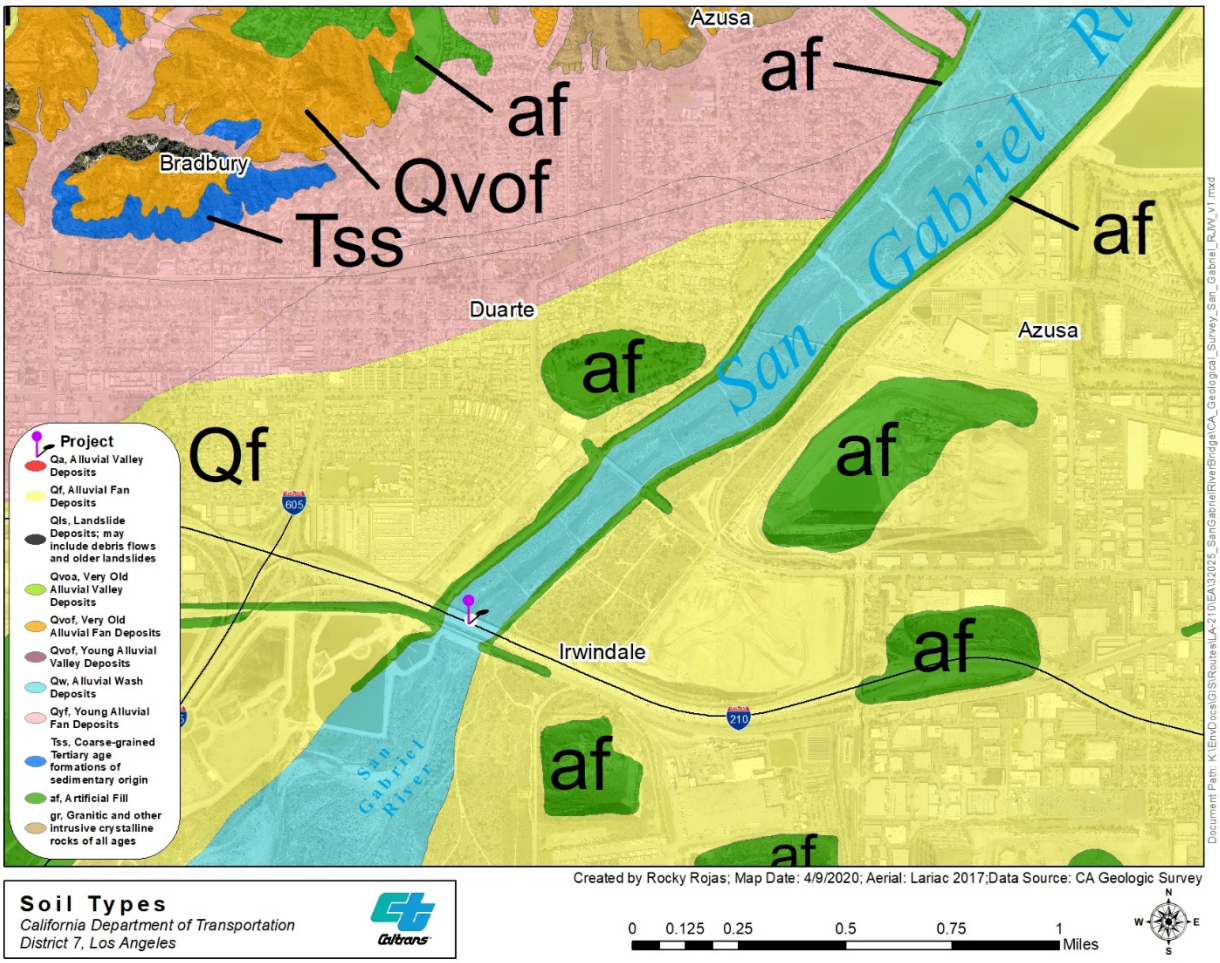


Figure 2.3-e. Soil Types Map

The California Geological Survey, through the Seismic Hazards Mapping Program, has identified areas of the City of Irwindale that may be subject to liquefaction. Liquefaction hazard mapping focuses on areas historically characterized by ground water depth of 40 feet or less. According to studies done for the City's general plan, the southwesterly corner of the City has potential for liquefaction.

Per as-built Log of Test Boring for San Gabriel River Bridge dated 1967, the on- site soils are silty, gravelly, poorly sorted sand with cobbles and boulders. Potential for landslide, lateral spreading, subsidence, liquefaction, or collapse is low.

Environmental Consequences

Alternative 1 (No-Build Alternative)

If the proposed project were not built, none of the proposed improvements would be implemented and continued deterioration of hinges at hinge 4 and 6 at the San Gabriel River Bridge (Bridge No. 53-1867) would compromise structural integrity and require more extensive mitigation and/or measures in the future. There will be no impact to geology if this bridge was not rehabilitated.

Alternative 2 (Multi-Stage Rehabilitation)

Due to limited grading and excavation occurring at the project site, there are limited impacts from construction on the geology, soils, seismology or topography. The grading will affect 4.3 acres at the project site and will move soils around to provide for the water diversion plan.

Alternative 3 (Single-Stage Rehabilitation)

Due to limited grading and excavation occurring at the project site, there are limited impacts from construction on the geology, soils, seismology or topography. The grading will affect 4.3 acres at the project site and will move soils around to provide for the water diversion plan.

Avoidance, Minimization, and/or Mitigation Measures

GS-01 Minimization of the Effects of Groundwater and Soil Excavation During Construction. It is recommended that remedial measures be taken to minimize the effect of groundwater and soil excavation during construction. A water diversion plan may be required during construction and the stability of these excavations is dependent on the total time the excavation is exposed, groundwater conditions, granular nature of the soil, and contractor operations.

2.3.4 Hazardous Waste/Materials

Regulatory Setting

Hazardous materials, including hazardous substances and wastes, are regulated by many state and federal laws. Statutes govern the generation, treatment, storage and disposal of hazardous materials, substances, and waste, and also the investigation and mitigation of waste releases, air and water quality, human health, and land use.

The primary federal laws regulating hazardous wastes/materials are the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980, and the Resource Conservation and Recovery Act (RCRA) of 1976. The purpose of CERCLA, often referred to as "Superfund," is to identify and cleanup abandoned contaminated sites so that public health and welfare are not compromised. The RCRA provides for "cradle to grave" regulation of hazardous waste generated by operating entities. Other federal laws include:

- Community Environmental Response Facilitation Act (CERFA) of 1992
- Clean Water Act
- Clean Air Act
- Safe Drinking Water Act
- Occupational Safety and Health Act (OSHA)
- Atomic Energy Act
- Toxic Substances Control Act (TSCA)
- Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)

In addition to the acts listed above, Executive Order (EO) 12088, *Federal Compliance with Pollution Control Standards*, mandates that necessary actions be taken to prevent and control environmental pollution when federal activities or federal facilities are involved.

California regulates hazardous materials, waste, and substances under the authority of the CA Health and Safety Code and is also authorized by the federal government to implement RCRA in the state. California law also addresses specific handling, storage, transportation, disposal, treatment, reduction, cleanup, and emergency planning of hazardous waste. The Porter-Cologne Water Quality Control Act also restricts disposal of wastes and requires cleanup of wastes that are below hazardous waste concentrations but could impact ground and surface water quality. California regulations that address waste management and prevention and cleanup of contamination include Title 22 Division 4.5 Environmental Health Standards for the Management of Hazardous Waste, Title 23 Waters, and Title 27 Environmental Protection.

Worker and public health and safety are key issues when addressing hazardous materials that may affect human health and the environment. Proper management and disposal of hazardous material is vital if it is found, disturbed, or generated during project construction.

Affected Environment

The ensuing discussion regarding hazardous waste and materials of concern is based on a review of the Preliminary Hazardous Waste Assessment (March 2020) as prepared for the proposed project by the Caltrans Division of Environmental Planning, Office of Environmental Engineering – District Hazardous Waste Branch (North Region).

Currently, there are three alternatives proposed for the project: Alternative 1 (No-Build Alternative), Alternative 2 (Multi-Stage Alternative), and Alternative 3 (Single-Stage Alternative). The Hazardous Waste Assessment (HWA) prepared for the proposed project includes a screening and assessment of the following scope of work as associated with Alternative 2 (Multi-Stage Alternative) and Alternative 3 (Single-Stage Alternative):

- Reconstruct hinge diaphragms at hinge 4 (between piers 4 and 5) and at hinge 6 (between piers 6 and 7)
- Upgrade bridge railing to current standard
- Reconstruct median barrier
- Re-install electroliers, and protect in place existing fiberoptic
- Temporary closure of bike trail adjacent to the San Gabriel River to mobilize construction equipment and materials

Environmental Consequences

Alternative 1 (No-Build Alternative)

If the proposed project were not built, none of the proposed improvements would be implemented and continued deterioration of hinges at hinge 4 and 6 at the San Gabriel River Bridge (Bridge No. 53-1867) would compromise structural integrity and require more extensive mitigation and/or measures in the future.

Alternative 2 (Multi-Stage Rehabilitation) and Potentially Contaminated Properties and Project Related Right-of-Way Requirements

Under federal and state environmental laws, acquisition of contaminated property creates

permanent liability for the new property owner. Caltrans must exercise due diligence to prevent acquisition of contaminated property that may create long-term liability or detrimentally affect project cost, scope, or schedule. The project, as currently proposed, does not require the permanent acquisition of any property, but Temporary Construction Easements (TCEs) will be required on properties adjacent to the project study area(see **Figure 1.1-b** and **Figure 1.1-c** Temporary Construction Easements and Contractor Storage and Staging Area), which will require a SI during the next project phase to determine the extent of potential contamination, and to develop construction remediation estimates. Additional hazardous waste concerns are described after Alternative 3 description.

Alternative 3 (Single-Stage Rehabilitation) and Potentially Contaminated Properties and Project Related Right-of-Way Requirements

Under federal and state environmental laws, acquisition of contaminated property creates permanent liability for the new property owner. Caltrans must exercise due diligence to prevent acquisition of contaminated property that may create long-term liability or detrimentally affect project cost, scope, or schedule. The project, as currently proposed, does not require the permanent acquisition of any property, but TCEs will be required on properties adjacent to the project study area (see **Figure 1.1-b** and **Figure 1.1-c** Temporary Construction Easements and Contractor Storage and Staging Area), which will require a SI during the next project phase to determine the extent of potential contamination, and to develop construction remediation estimates. The following hazardous waste concerns apply to both Alternative 2 and Alternative 3:

Aerially deposited lead (ADL): ADL from the historical use of leaded gasoline, exists along roadways throughout California. There is the likely presence of soils with elevated concentrations of lead as a result of ADL on the state highway system right of way within the limits of the project alternatives. Soil determined to contain lead concentrations exceeding stipulated thresholds must be managed under the July 1, 2016, ADL Agreement between Caltrans, and the California Department of Toxic Substances Control. This ADL Agreement allows such soils to be safely reused within the project limits as long as all requirements of the ADL Agreement are met.

The HWA prepared for the proposed project is limited, in that it is based on a review of preliminary design plans and data, and while the scope of work and construction items have been defined, further assessments and investigations will be required when project design is more advanced and preliminary estimates are available in the next project phase.

Further assessments and investigations in the next project phase shall include:

- Site Investigation (SI) to determine the extent of potential asbestos contamination in the bridge structure, and to develop construction remediation estimates
- Project-specific SI to evaluate the streambed because of streambed alteration and testing of the water that will be diverted

Asbestos Containing Material (ACM): Asbestos containing material may be present in the bridge concrete superstructure, hinges, joint seals, and bridge railing shims. The shims used in bridge railings have been found to contain asbestos in similar projects. ACM has also been encountered in the concrete. Bridge structures are regulated by the US EPA and Local Air District Rules, which state that an asbestos survey is required for any demolition or renovation work.

Bridge joint seals will be checked for ACM as part of the asbestos survey. Upon request during Plans, Specifications, and Estimates phase, Office of Environmental Engineering (OEE) will perform the asbestos survey after which, a determination regarding the ACM related impacts to the project will be determined.

Removal of Traffic Striping and Pavement Markings Containing Lead (Yellow – Hazardous and Non-Yellow – Non-Hazardous): The proposed project may require the removal of existing yellow and white (non-yellow) traffic striping/pavement marking at bridge decks. Residue from the removal of yellow thermoplastic and painted traffic stripe and pavement marking contains heavy metals at concentrations that are hazardous and require testing and disposal at a Class I disposal facility permitted in California. Residue from the removal of existing white (non-yellow) thermoplastic and lead-based painted traffic striping/pavement parking are classified as non-hazardous and do not require disposal at a permitted California Class I hazardous waste disposal facility.

Treated Wood Waste (TWW): Construction area sign wood posts, when removed, will generate TWW which must be managed and disposed of in a hazardous waste landfill or lined landfill permitted in California to accept TWW. The wood posts have been treated with chemical preservatives which contain arsenic, chromium, copper, creosol, and pentachlorophenol to protect it from insect attack and fungal decay. All treated wood waste must be managed and disposed of at an approved treated wood waste facility in accordance with Title 22 California Code of Regulation. Funding should be allocated for the management of treated wood waste and the Board of Equalization fee.

Electrical Waste: The project proposes to remove and replace electroliers. Electroliers that are removed and disposed will generate non-Resource Conservation and Recovery Act hazardous waste such as bulbs, sensors, switches, and timers containing hazardous substances. These materials must be disposed in a California permitted hazardous waste land disposal facility.

Water Diversion: Water will be diverted, and the San Gabriel River streambed may be altered. A SI will be required for the streambed materials that will be disturbed/removed and water that will be diverted to determine the concentration of constituents of concern and for the NPDES Permit application. A NPDES Permit is required for diversion of water and discharge to the San Gabriel River.

Avoidance, Minimization, and/or Mitigation Measures

HW-01 Preparation of a Project Specific Site Investigation for Streambed. A Project-specific SI shall be prepared during the next project phase to evaluate the streambed because of streambed alteration and testing of the water that will be diverted. Water and sediment that do not meet the National Pollutant Discharge Elimination System permit requirements for discharge will be containerized and disposed at an appropriate disposal facility.

HW-02 Survey for Asbestos Containing Materials and Lead Based Paint. In the event that existing bridge railings and medians will be disturbed, removed, and/or replaced during construction, an Asbestos Containing Materials and Lead Based Paint survey shall be prepared in compliance with the South Coast Air Quality Management District Air Quality Management Plan and National Emissions Standards for Hazardous Air Pollutants as regulated by the US EPA and

California Air Resources Board. Asbestos and lead-based paint discovered during the surveys will be removed prior to bridge renovation or measures emplaced to protect the San Gabriel River and surrounding areas beneath the bridge from receiving any debris from the bridge renovation.

HW-03 Removal of Yellow Thermoplastic and Yellow Paint Traffic Stripe and Pavement Marking Containing Hazardous Waste Concentrations of Lead and Chromium. Residue generated from removal of yellow thermoplastic and yellow paint traffic stripe and pavement marking will be collected, containerized, and disposed in a Class I hazardous waste disposal facility permitted in California.

HW-04 Disposal of Treated Wood Waste. Treated Wood Waste is a non-Resource Conservation and Recovery Act hazardous waste that will be disposed in a California permitted hazardous waste landfill or specially lined non-hazardous waste disposal facility.

HW-05 Removal of Electrical Equipment. Removal of electrical equipment will require disposal at an appropriate California permitted disposal facility to avoid waste from being disposed in a municipal landfill.

HW-06 Acquisition of Contaminated Parcels. The Site Investigation will be performed to determine the current condition of the property. If the Site Investigation detects hazardous substances and/or petroleum products on the property, Caltrans will require remediation of the parcels prior to acquisition to avoid future liability for contamination by Caltrans and protection of workers during maintenance and construction, and utility relocation by others.

2.3.5 Noise

Regulatory Setting

The National Environmental Policy Act (NEPA) of 1969 and the California Environmental Quality Act (CEQA) provide the broad basis for analyzing and abating highway traffic noise effects. The intent of these laws is to promote the general welfare and to foster a healthy environment. The requirements for noise analysis and consideration of noise abatement and/or mitigation, however, differ between NEPA and CEQA.

California Environmental Quality Act

CEQA requires a strictly baseline versus build analysis to assess whether a proposed project will have a noise impact. If a proposed project is determined to have a significant noise impact under CEQA, then CEQA dictates that mitigation measures must be incorporated into the project unless those measures are not feasible. The rest of this section will focus on the NEPA/Title 23 Part 772 of the Code of Federal Regulations (23 CFR 772) noise analysis; please see Chapter 3 of this document for further information on noise analysis under CEQA.

National Environmental Policy Act and 23 CFR 772

For highway transportation projects with Federal Highway Administration (FHWA) involvement (and the Department, as assigned), the Federal-Aid Highway Act of 1970 and its implementing regulations (23 CFR 772) govern the analysis and abatement of traffic noise impacts. The regulations require that potential noise impacts in areas of frequent human use be identified during the planning and design of a highway project. The regulations include noise abatement

criteria (NAC) that are used to determine when a noise impact would occur. The NAC differ depending on the type of land use under analysis. For example, the NAC for residences (67 dBA) is lower than the NAC for commercial areas (72 dBA). **Table 2.3-b** lists the noise abatement criteria for use in the NEPA/23 CFR 772 analysis.

Table 2.3-b. Noise Abatement Criteria

Activity Category	NAC, Hourly A-Weighted Noise Level, dBA $L_{eq}(h)$	Description of Activities
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.*

Figure 2.3-f lists the noise levels of common activities to enable readers to compare the actual and predicted highway noise levels discussed in this section with common activities.

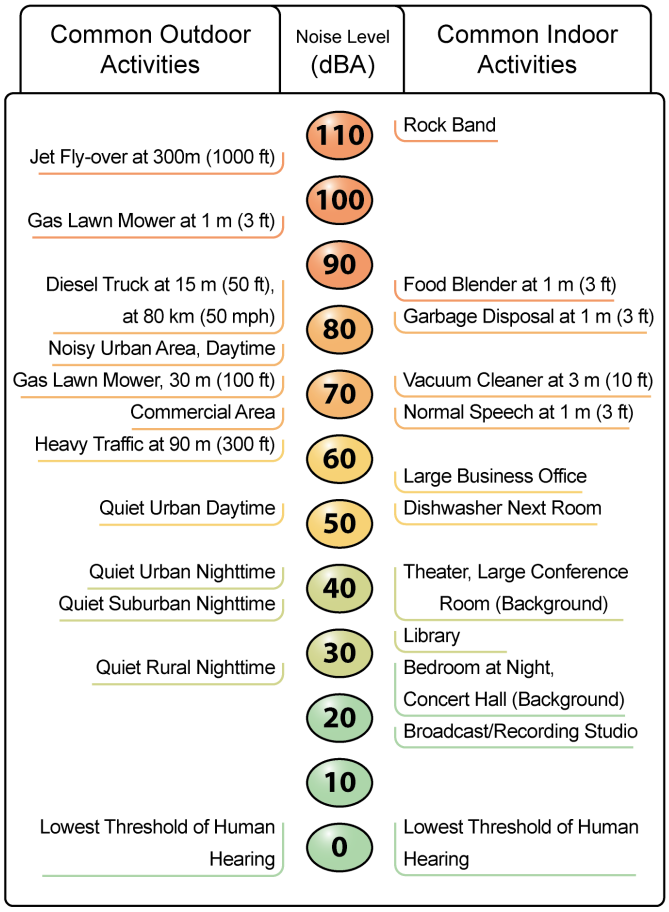


Figure 2.3-f. Noise Levels of Common Activities

According to the Department's Traffic Noise Analysis Protocol for New Highway Construction and Reconstruction 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) or when the future noise level with the project approaches or exceeds the NAC. A noise level is considered to approach the NAC if it is within 1 dBA of the NAC.

If it is determined that the project will have noise impacts, then potential abatement measures must be considered. Noise abatement measures that are determined to be reasonable and feasible at the time of final design are incorporated into the project plans and specifications. This document discusses noise abatement measures that would likely be incorporated in the project.

The Department's *Traffic Noise Analysis Protocol* sets forth the criteria for determining when an abatement measure is reasonable and feasible. Feasibility of noise abatement is basically an engineering concern. Noise abatement must be predicted to reduce noise by at least 5 dB at an impacted receptor to be considered feasible from an acoustical perspective. It must also be possible to design and construct the noise abatement measure for it to be considered feasible. Factors that affect the design and constructability of noise abatement include, but are not limited to, safety, barrier height, topography, drainage, access requirements for driveways, presence of local cross streets, underground utilities, other noise sources in the area, and maintenance of the abatement measure. The overall reasonableness of noise abatement is determined by the

following three factors: 1) the noise reduction design goal of 7 dB at one or more impacted receptors; 2) the cost of noise abatement; and 3) the viewpoints of benefited receptors (including property owners and residents of the benefited receptors).

Affected Environment

The Noise Study Report (NSR) summarized in this document was completed May 2020 by Caltrans District 7 (D7) Noise and Vibration branch staff. The proposed project was not classified as a Type 1 project, because there is no increase in through-traffic lanes on I-210, or other actions that would cause it to be classified as such. The proposed project is to replace components of the San Gabriel River Bridge.

A Type I project is defined in 23 CFR 772 as a proposed Federal or Federal-aid highway project for the construction of a highway on a new location, or the physical alteration of an existing highway which significantly changes either the horizontal or vertical alignment, or increases the number of through-traffic lanes. Caltrans extends this definition to State-funded highway projects and adds the FHWA interpretation of the above definition.

FHWA regulations (23 CFR 772) state that noise abatement will usually be necessary where noise impacts are predicted and only where frequent human use occurs, and where a lowered noise level would be of benefit. There are no impact criteria established for the various wildlife species in the project area. However, the construction activities expected to be necessary for this project will have high-level noise emissions. Therefore, effective construction noise management should be recommended in order to reduce noise as much as possible. Additionally, habitat mitigation for the affected wildlife species can be required as part of this project. Specifics for such mitigation can only be determined by corresponding detailed biological science studies for each of the affected species. **Figure 2.3-g** is a map showing the sensitive receptors surrounding the project location, these are residential, recreational and educational areas, and they are within one mile north and northwest of the project location. Since the project was not classified as a Type I project, traffic noise impacts resulting from the proposed improvements are not expected to occur and state and federal regulations do not require further analysis and noise abatement. Furthermore, the closest residences are located 1350 feet away from the bridge; at these distances noise abatement is not acoustically feasible (5 dBA noise reduction cannot be achieved). However, depending on the type of equipment that will be used in the construction phase and the time of the day that construction activities will take place, sensitive receivers in the residential areas could possibly experience some minor noise increase during construction. Caltrans construction noise regulations would be in place and enforced by Caltrans Division of Construction overseeing the project.

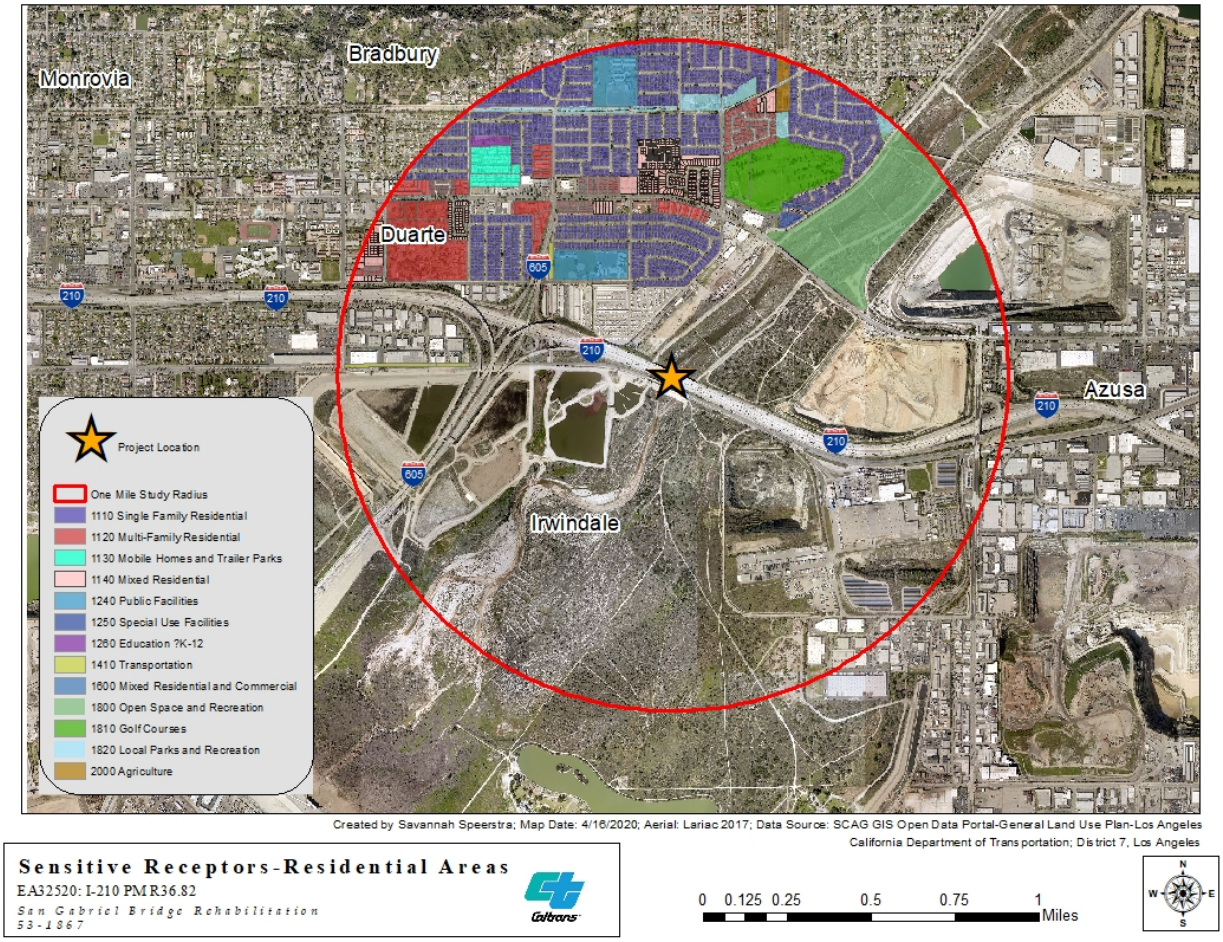


Figure 2.3-g. Sensitive Receptors - Residential Areas and Related Land Uses

The NSR was conducted in response to a request from Caltrans D7 Office of Environmental Planning Biology unit to determine existing noise environment in the vicinity of the project since sensitive wildlife inhabits the project location, specifically birds nesting and bats roosting in the bridge were identified within the vicinity of Hinge 4 and 6. The closest bat roosting site is approximately 40 feet away from Hinge 6, whereas the other roosting site is near Pier 2 approximately 200 feet away from Hinge 4. As stated in the biological environment section of this document, the bat survey and mitigation plan by JACOBS and Rincon in August 2019 suggested that bat houses are placed a minimum of 200 feet away from the construction site. The construction equipment noise can affect or adversely impact sensitive wildlife receptors. The NSR can be used to provide the project biologist with information to help determine if the project will have any adverse effect on wildlife and provide mitigation options/ or recommendations.

Environmental Consequences

Alternative 1 (No-Build)

If the proposed project were not built, there would be no alterations or improvements to the existing facilities, posing no changes to the existing environment, and no construction noise effects; therefore, it would present no potential for effects to such.

Alternative 2 (Multi-Stage Rehabilitation)

The proposed project is not a Type 1 project, and all noise would come from construction equipment. This project does not present the potential to affect sensitive receptors surrounding the project site. All noise from construction equipment will be temporary and can be effectively managed by implementation of construction noise abatement measures and incorporated into the project's construction contract specifications.

Alternative 3 (Single-Stage Rehabilitation)

The proposed project is not a Type 1 project, and all noise would come from construction equipment. This project does not present the potential to affect sensitive receptors surrounding the project site. All noise from construction equipment will be temporary and can be effectively managed by implementing construction noise abatement measures if they are incorporated into the project's construction contract specifications.

The Construction Noise Impact concerns apply to both Alternative 2 and 3:

The construction noise impact analysis results determined that the expected noise levels from the construction activities, particularly those that involve heavy and loud equipment such as those used in concrete breaking and cutting operations will be significantly high at the locations identified as bat roosting sites by Caltrans D7 biologists. Based on the studies, it has been determined that the San Gabriel River area near the I-210 bridge structure will experience high construction noise levels. Construction noise abatement management is therefore recommended for this project. The construction noise abatement measures should be clearly specified in the construction contract. All construction noise requirements should be carefully and effectively implemented through the duration of the construction phase so as to ensure minimal impact to the wildlife populations in the area. If during final design conditions have substantially changed, recommended abatement measures may change or may not be provided. The final decision of the construction noise requirements will be made upon completion of the project design and the appropriate state and federal wildlife agencies involvement process. Error! Reference source not found. shows the different levels of construction equipment and activity noise.

Construction Noise (L_{eq} at 50 Feet)

(Colors indicate relative sound level: red = extreme, orange = very high; yellow = high; green = moderate; blue = low; purple = very low; mauve = background. Asterisks show impact noise sources.)

	Noise (dBA)		
	Low	High	Impact[a]
Explosives	94	162	*
Rock Blast	112	112	*
Pneumatic Tools, Jackhammers & Pile Driver	101	110	*
Track Hoe	91	106	*
Impact Pile Driver	96	106	*
Guardrail Installation and Pile Driving	95	105	*
Truck Horn	104	104	*
Pile Driving	74	103	*
Rock Drill and Diesel Generator	80	99	
Rock Drill	85	98	
Dump Truck	82	98	
Rock Drills and Jackhammers	82	97	*
Pneumatic Wrenches, Rock Drills	86	97	*
Vibratory (Sonic) Pile Driver	95	96	*
Diesel Truck	85	96	
Pneumatic Chipper	91	95	*
Hydromulcher	87	94	
Clam Shovel	93	93	
Slurry Machine	82	91	
Pneumatic Riveter	91	91	*
Circular Saw (hand held)	91	91	
Mounted Impact Hammer Hoe-Ram	85	90	*
Concrete Saw	90	90	
Compressor	80	90	
Scraper	85	89	
Paver	80	89	
Large Truck	84	89	
Jackhammer	74	89	*
Drill Rig	85	88	
Dozer	84	88	
Crane	85	88	
Pumps, Generators, Compressors	81	87	
Front-end Loader	80	87	
Large Diesel Engine	86	86	
Gradall	85	86	
Chain saws	75	86	
Road Grader	83	85	
Pump	77	85	
Impact Wrench	85	85	*
Concrete Truck	81	85	
Concrete Mixer	80	85	
Auger Drill Rig	85	85	
Flat Bed Truck	84	84	
Backhoe	80	84	
Generator	52	84	
Ground Compactor	80	82	
Concrete Pump	82	82	
Cat Skidder	81	81	
Roller	74	80	
Horizontal Boring Hydraulic Jack	80	80	
Concrete Vibrator	76	76	
Welder	73	73	
Pickup Truck	55	71	
Yelling	70	70	
Background Sound Level—Forest Habitats	25	44	
Speech (normal)	41	41	

Source: U.S. Fish and Wildlife Service 2006.
[a] Impact noise = sudden, loud impulsive sound
dBA =A-weighted decibels

Figure 2.3-h. Construction Equipment Noise Emission Levels

Avoidance, Minimization, and/or Abatement Measures

The final decision of the construction noise reduction requirements will be made upon completion of the project design and the appropriate state and federal wildlife agencies involvement process. Since the project does not fall under Type I classification, i.e. it does not increase volume, speed or change the alignment of the roadway. Hence, the noise study focuses only on construction noise emissions. There are no established levels of noise reduction that would be beneficial for wildlife populations. However, construction noise management that can achieve noise level reductions of 10 dBA or more, especially for high-noise activities would be considerable as that is approximately equivalent to a decrease in noise by half.

Implementing the following measures would minimize temporary construction noise impacts:

NM-01 Equipment Noise Control. Equipment noise control should be applied to revising old equipment and designing new equipment to meet specified noise levels. Sound shielding may be able to control construction noise, for example sound blankets or other innovative sound absorbing materials could be used at the project site.

NM-02 In-Use Noise Control. In-Use noise control where existing equipment is not permitted to produce noise levels in excess of specified limits.

NM-03 Site Restrictions. Site restrictions is an attempt to achieve noise reduction through modifying the time, place, or method of operation of a particular source.

NM-04 Personnel Training. Personal training of operators and supervisors is needed to become more aware of the construction site noise problem, and are given instruction on methods that they can implement to improve conditions in the local community.

2.4 Biological Environment

2.4.1 Natural Communities

Regulatory Setting

This section of the document discusses natural communities of concern. The focus of this section is on biological communities, not individual plant, or animal species. This section also includes information on wildlife corridors and habitat fragmentation. Wildlife corridors are areas of habitat used by wildlife for seasonal or daily migration. Habitat fragmentation involves the potential for dividing sensitive habitat and thereby lessening its biological value.

Habitat areas that have been designated as critical habitat under the Federal Endangered Species Act are discussed below in the Threatened and Endangered Species **Section 2.4.5**. Wetlands and other waters are also discussed below in **Section 2.4.2**.

Affected Environment

The Natural Environment Study (NES), completed in May 2020, explains the Habitats and Natural Communities of Special Concern.

The Biological Study Area (BSA) is shown on **Figure 2.4-a** and encompasses portions of San Gabriel River (below, upstream and downstream of the bridge), the access road from Huntington

Drive on the westside of the San Gabriel riverbank and adjacent vegetation nearby abutments 1 and 10.

Five land cover types were documented within the biological study area (BSA), of which two are unvegetated, and three are vegetation communities. Unvegetated land cover types include unvegetated riverbed and paved/concrete. Unvegetated riverbed consists of rocky material, ranging in size from boulders and cobbles to coarse sandy material. This land cover type is situated within the low-flow channel of the San Gabriel River. Paved/Concrete areas are comprised of paved access roads and concrete infrastructure associated with the banks of the San Gabriel River. The three vegetation communities are discussed in detail below.

Coastal Sage Scrub

Dominant vegetation along the banks of the San Gabriel River consist of coastal sage scrub habitat, a low shrubby habitat that is also home to other specialized animals and plants. Coastal sage scrub generally occurs within areas of low moisture content, such as gently rolling to steep xeric slopes, or clay rich soils. The affected area is 8,420 square feet (0.19 acre) of upland vegetation, comprised mainly of alluvial fan scrub, and 450 square feet (0.01 acre) of cattails, sandbar willow and other wetland plants.

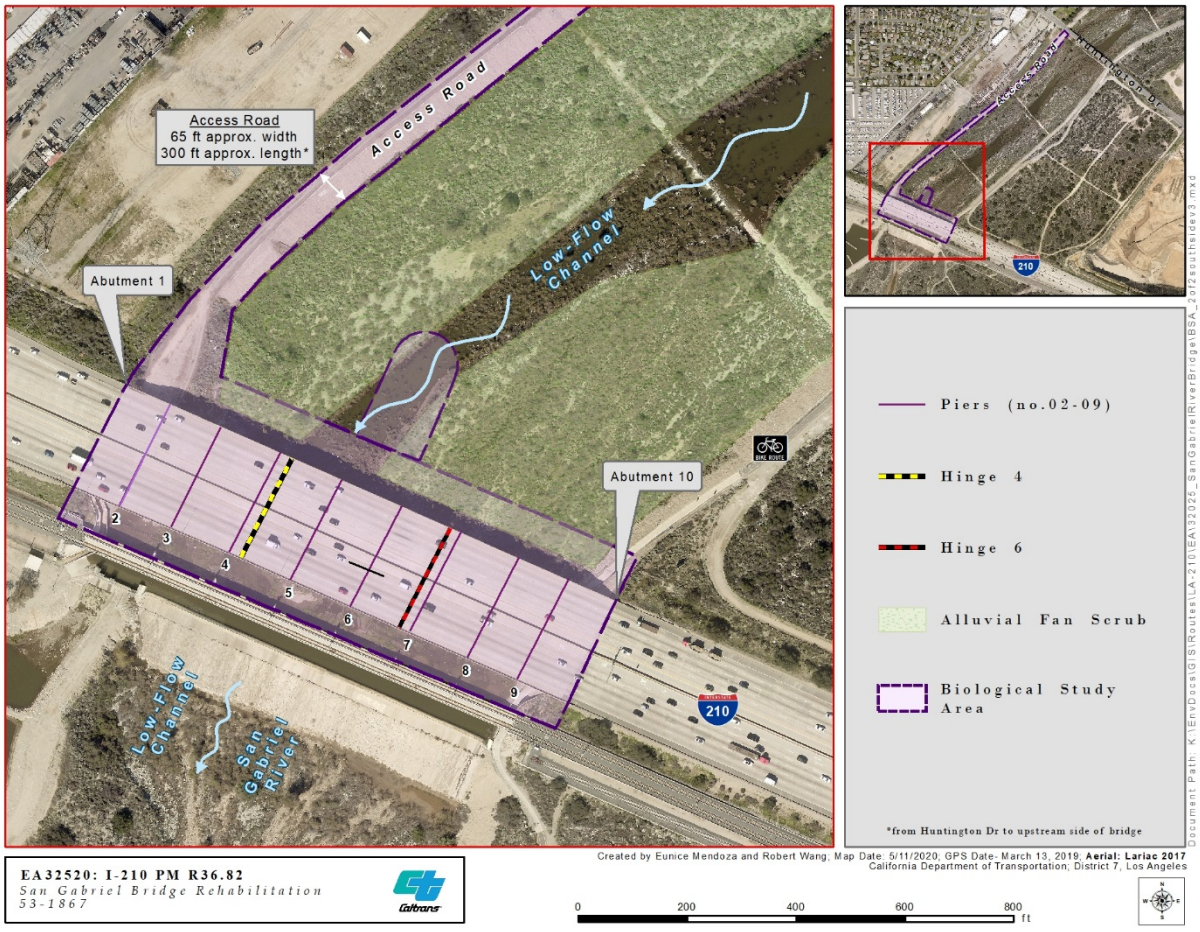


Figure 2.4-a. Biological Study Area (1 of 2)

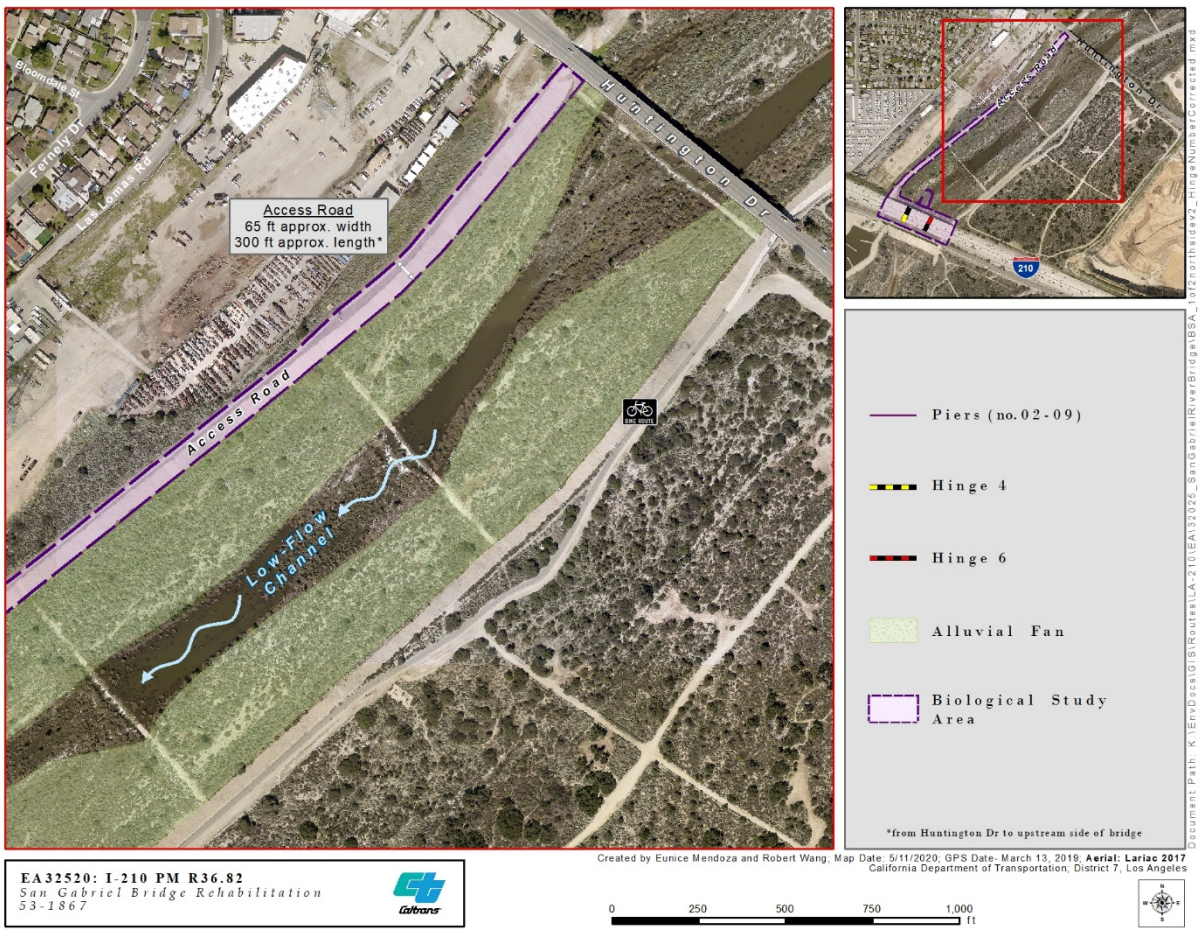


Figure 2.4-a. Biological Study Area (2 of 2)

Riversidean Alluvial Fan Sage Scrub

Riversidean Alluvial Fan Sage Scrub Natural Community was found to be present within the BSA. "Riversidean alluvial fan sage scrub", or simply "alluvial scrub" is a distinctive and rare plant community found mainly on the alluvial fans and floodplains emanating from the Transverse Ranges and in certain portions of the Peninsular ranges (NDDB, 1993). Once present throughout much of the Los Angeles Basin, this community is now restricted to scattered fragments due to urbanization and the resultant alteration of the natural hydrology of Southern California River and stream systems. Riversidean alluvial fan sage scrub is a variant of coastal sage scrub and is dominated by some of the same species as coastal sage scrub.

Alluvial Scrub

Alluvial scrub has been described as variant of coastal sage scrub (Kirkpatrick and Hutchinson, 1977; Smith, 1980) characterized by a rich combination of evergreen shrubs common to chaparral together with drought-deciduous shrubs and subshrubs found in coastal sage scrub. Scale broom (*Lepidospartum squamatum*) is considered an indicator species because it is faithful to alluvial substrates. Other common shrubs include California buckwheat (*Eriogonum fasciculatum*), California sagebrush (*Artemisia californica*), white sage (*Salvia apiana*), deerweed (*Lotus*

scoparius), prickly pear (*Opuntia spp.*), yerba santa (*Eriodictyon spp.*), redberry (*Rhamnus crocea*) and laurel sumac scrub (*Malosma laurina*). The community has a structural complexity "unrivaled among the rest of the coastal sage" (Kirkpatrick and Hutchinson, 1977).

Riparian Woodland

The Riparian woodland is a forested or wooded area of land adjacent to a body of water such as a river, stream, pond, lake, marshland, estuary, canal, sink or reservoir. Within the BSA approximately 450 square feet (0.01 acres) of riparian woodland habitat will be temporarily impacted by the project activities. Approximately 4.8 acres of Waters of the U.S. will be temporarily impacted by the project activities. In **Figure 2.4-b** there are mule fat thickets along the unvegetated riverbed.

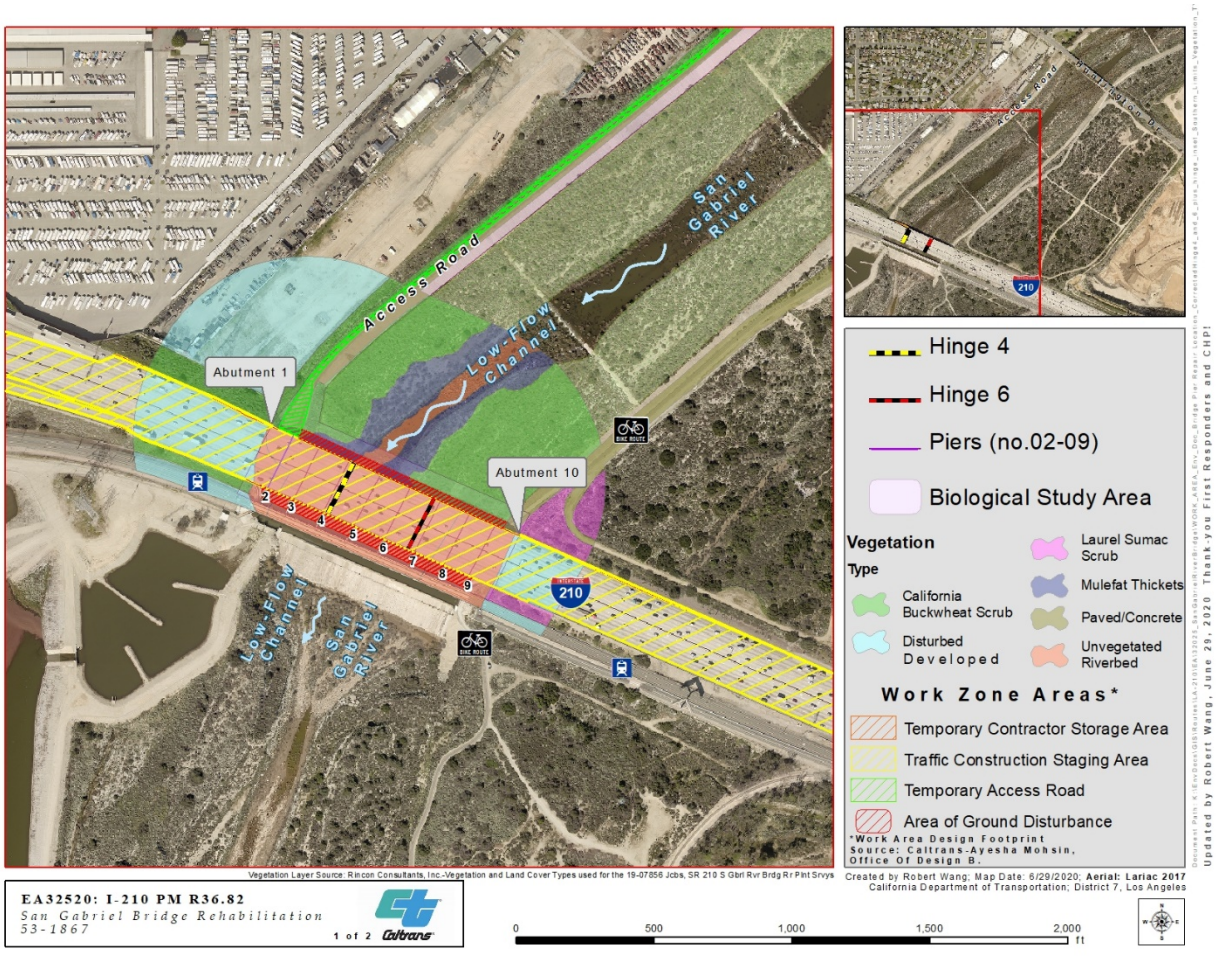


Figure 2.4-b. Vegetation Communities and Land Cover Types at Project Location (1 of 2)

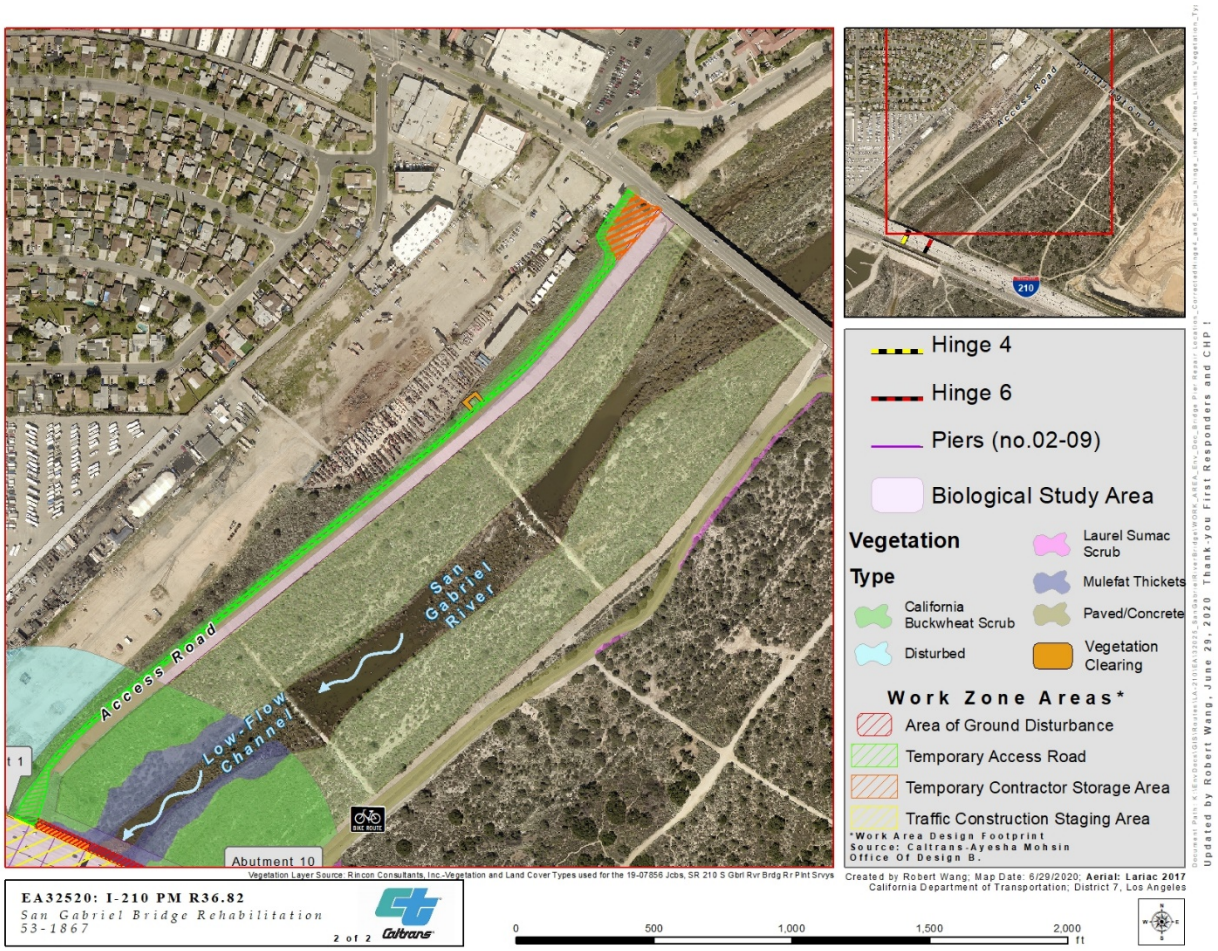


Figure 2.4 b. Vegetation Communities and Land Cover Types at Project Location (2 of 2)

The project site falls within one of the Los Angeles County designated SEA, the San Gabriel Canyon SEA (LA County General Plan 2035). SEAs are places where the County deems it important to facilitate a balance between development and biological resource conservation. The County considers authoritatively defined sensitive local native resources, including species on watch lists, as important resources to identify and conserve. SEAs are not preserves, or conservation areas; rather, SEAs are areas in which planning decisions are made with extra sensitivity toward biological resources and ecosystem functions. **Figure 2.4-c** shows the location of the SEA in relation to the project.

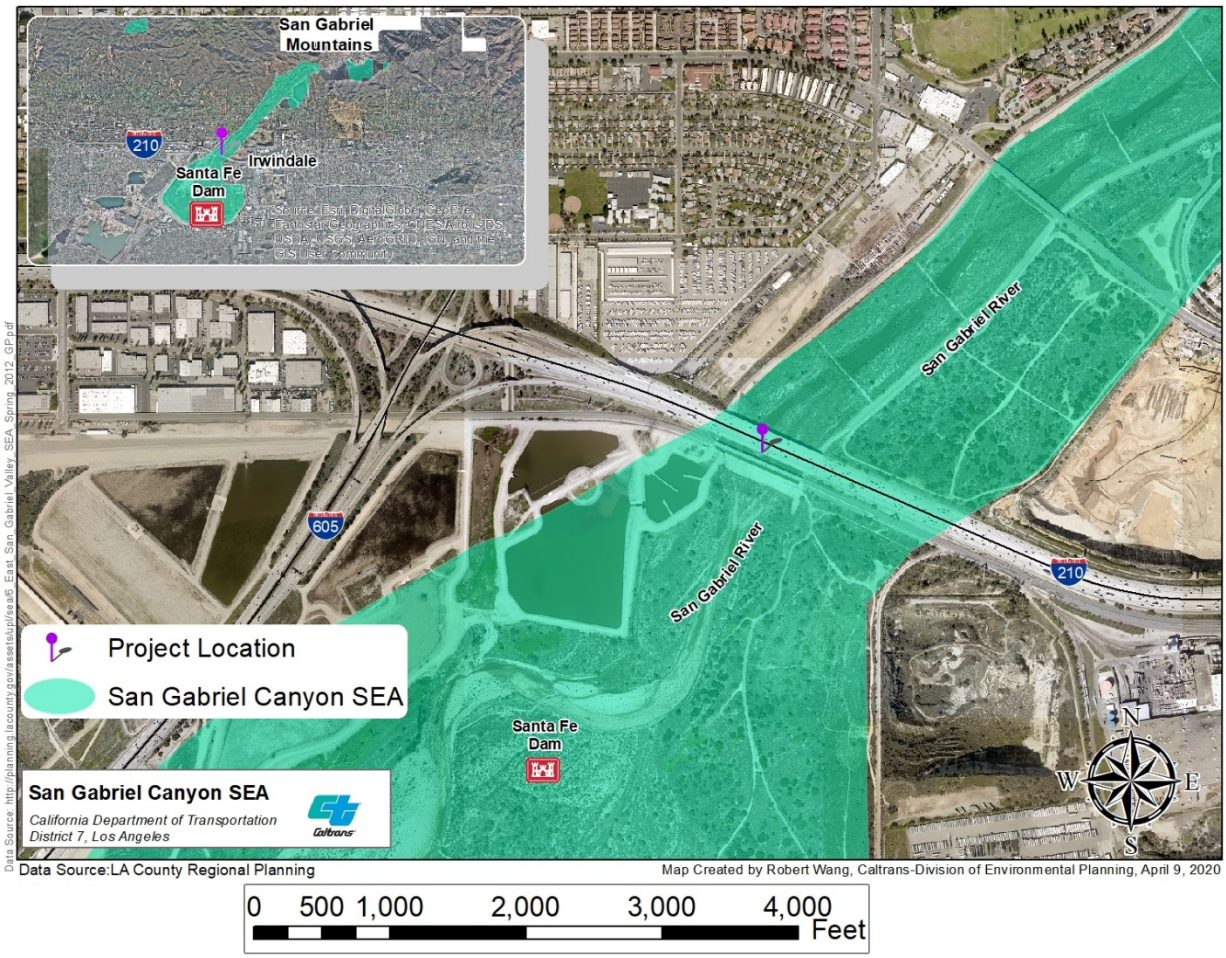


Figure 2.4-c. Los Angeles County San Gabriel Canyon Significant Ecological Area

Wildlife Connectivity

The project impact area falls within a limited connectivity opportunity for wildlife to move throughout the natural environment. The project activities will take place immediately at the rubber dam which is followed by a big drop and prohibit or limit wildlife movement. Since the project will not result on any permanent change to the physical conditions, and since the project footprint is quite small compared to the open space north of it, the project activities will not impact the habitat connectivity. **Figure 2.4-d** shows that there is limited opportunity for connectivity in the project area.

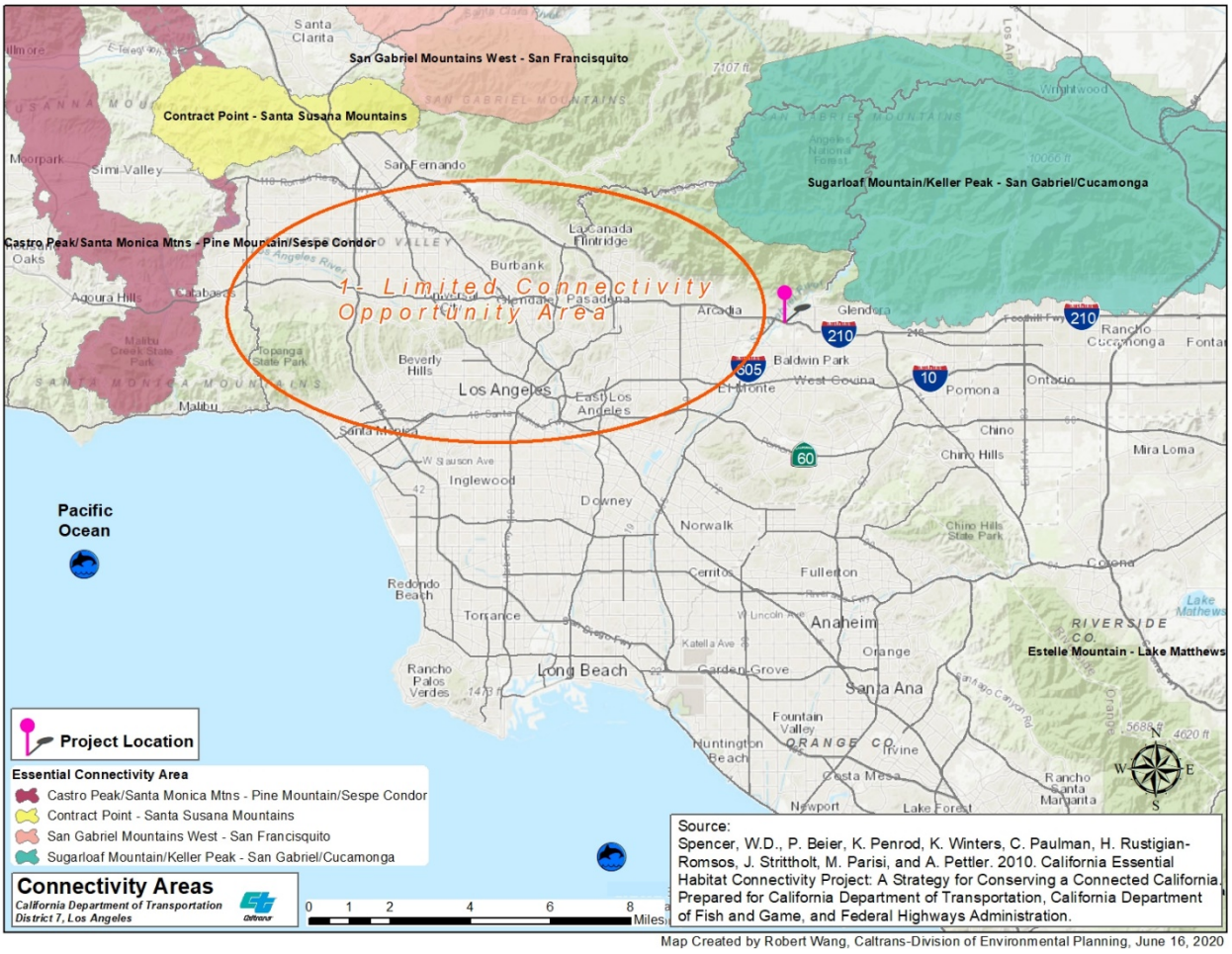


Figure 2.4-d. Habitat Connectivity

Environmental Consequences

Alternative 1 (No-Build)

If the proposed project were not built, there would be no alterations or improvements to the existing facilities, posing no changes to the existing environment, and no effects on natural communities in the biological environment; therefore, it would present no potential for effects to such.

Alternative 2 (Multi-Stage Rehabilitation)

No permanent project impacts are anticipated to the Riversidean alluvial fan sage scrub and coastal sage scrub. The only project activities which will result in temporary impacts to the alluvial fan sage scrub and coastal sage scrub are the pre-construction activities such as the water diversion plan referenced in the Hydrology section of this chapter. Pre-construction activities may result on a temporary impact to prickly pear (*Opuntia littoralis*), and brittlebush (*Encelia farinosa*) from the alluvial fan sage scrub vegetation. An environmentally sensitive area (ESA) fence will be used to prevent any potential impacts to alluvial fan vegetation. Any impact to alluvial fan sage scrub or coastal sage scrub vegetation, within the water diversion area, shall be avoided by using

an ESA fence. If an ESA fence is not feasible for the purpose of the water diversion, the anticipated alluvial fan vegetation to be impacted will be transplanted outside of the water diversion impact area and project impact footprints. Rehabilitation of the San Gabriel Bridge and any related pre-construction activities will have no effect on habitat connectivity in the San Gabriel River.

Alternative 3 (Single-Stage Rehabilitation)

No project permanent impacts are anticipated to the Riversidean alluvial fan sage scrub and coastal sage scrub. The only project activity that will result in temporary impacts to the alluvial fan sage scrub and coastal sage scrub is the pre-construction activities such as the water diversion plan referenced in the Hydrology section of this chapter. Pre-construction activities may result in a temporary impact to prickly pear, and brittlebush from the alluvial fan sage scrub vegetation. An ESA fence will be used to prevent any anticipated impact to any alluvial fan vegetation when the fence is adjacent to the project activities and impact areas. Any impact to alluvial fan sage scrub or coastal sage scrub vegetation within the water diversion area shall be avoided by using an ESA fence. If an ESA fence is not feasible for the purpose of the water diversion, the anticipated alluvial fan vegetation to be impacted will be transplanted outside of the water diversion impact area and project impact footprints. Rehabilitation of the San Gabriel Bridge and any related pre-construction activities will have no effect on habitat connectivity in the San Gabriel River.

Avoidance, Minimization, and/or Mitigation Measures

NAT-01 Minimization of Impacts to Natural Communities. Temporary impacts to natural communities are limited to areas that will be disturbed during the water diversion creation. If during project activities, any alluvial fan sage scrub community is impacted, Caltrans will coordinate with California Department of Fish and Wildlife and Los Angeles County to determine whether any action is needed. Caltrans will have an agreement in place with an approved mitigation bank or an in-lieu fee program.

NAT-02 Temporary Construction Easements. Temporary construction Easements (TCEs) will be obtained to provide contractor with construction access through an existing Los Angeles County flood control access road. The boundaries of the TCE will be fenced, and construction activity will not be allowed to occur beyond these limits.

NAT-03 Heavy Equipment Storage. No heavy equipment will be stored within the San Gabriel River. Heavy equipment will be checked daily for leaks to avoid contamination. Drip pans will be placed under heavy equipment at the end of each day.

NAT-04 Environmentally Sensitive Area Fence. Environmentally Sensitive Area (ESA) fence will be installed around alluvial fan sage scrub or coastal sage scrub vegetation

2.4.2 Wetlands and Other Waters

Regulatory Setting

Wetlands and other waters are protected under a number of laws and regulations. At the federal level, the Federal Water Pollution Control Act, more commonly referred to as the Clean Water Act (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. The lateral limits of jurisdiction over non-tidal water bodies extend to the ordinary high water mark (OHWM), in the absence of adjacent wetlands. When adjacent wetlands are present, CWA jurisdiction extends beyond the OHWM to the limits of the adjacent wetlands. To classify wetlands for the purposes of the CWA, a three-parameter approach is used that includes the presence of hydrophytic (water-loving) vegetation, wetland hydrology, and hydric soils (soils formed during saturation/inundation). All three parameters must be present, under normal circumstances, for an area to be designated as a jurisdictional wetland under the CWA.

Section 404 of the CWA establishes a regulatory program that provides that discharge of dredged or fill material cannot be permitted if a practicable alternative exists that is less damaging to the aquatic environment or if the nation's waters would be significantly degraded. The Section 404 permit program is run by the U.S. Army Corps of Engineers (USACE) with oversight by the U.S. Environmental Protection Agency (U.S. EPA).

The USACE issues two types of 404 permits: General and Individual. There are two types of General permits: Regional and Nationwide. Regional permits are issued for a general category of activities when they are similar in nature and cause minimal environmental effect. Nationwide permits are issued to allow a variety of minor project activities with no more than minimal effects.

Ordinarily, projects that do not meet the criteria for a Regional or Nationwide Permit may be permitted under one of USACE's Individual permits. There are two types of Individual permits: Standard permits and Letters of Permission. For Individual permits, the USACE decision to approve is based on compliance with U.S. EPA's Section 404(b)(1) Guidelines (40 Code of Federal Regulations [CFR] 230), and whether permit approval is in the public interest. The Section 404 (b)(1) Guidelines (Guidelines) were developed by the U.S. EPA in conjunction with the USACE, and allow the discharge of dredged or fill material into the aquatic system (waters of the U.S.) only if there is no practicable alternative which would have less adverse effects. The Guidelines state that the USACE may not issue a permit if there is a "least environmentally damaging practicable alternative" (LEDPA) to the proposed discharge that would have lesser effects on waters of the U.S., and not have any other significant adverse environmental consequences.

The Executive Order for the Protection of Wetlands (EO 11990) also regulates the activities of federal agencies with regard to wetlands. Essentially, EO 11990 states that a federal agency, such as FHWA and/or the Department, as assigned, cannot undertake or provide assistance for new construction located in wetlands unless the head of the agency finds: (1) that there is no practicable alternative to the construction and (2) the proposed project includes all practicable measures to minimize harm. A Wetlands Only Practicable Alternative Finding must be made.

At the state level, wetlands and waters are regulated primarily by the State Water Resources Control Board (SWRCB), the Regional Water Quality Control Boards (RWQCBs) and the California Department of Fish and Wildlife (CDFW). In certain circumstances, the Coastal Commission (or Bay Conservation and Development Commission or the Tahoe Regional Planning Agency) may also be involved. Sections 1600-1607 of the California Fish and Game

Code require any agency that proposes a project that will substantially divert or obstruct the natural flow of or substantially change the bed or bank of a river, stream, or lake to notify CDFW before beginning construction. If CDFW determines that the project may substantially and adversely affect fish or wildlife resources, a Lake or Streambed Alteration Agreement will be required. CDFW jurisdictional limits are usually defined by the tops of the stream or lake banks, or the outer edge of riparian vegetation, whichever is wider. Wetlands under jurisdiction of the USACE may or may not be included in the area covered by a Streambed Alteration Agreement obtained from the CDFW.

The RWQCBs were established under the Porter-Cologne Water Quality Control Act to oversee water quality. Discharges under the Porter-Cologne Act are permitted by Waste Discharge Requirements (WDRs) and may be required even when the discharge is already permitted or exempt under the CWA. In compliance with Section 401 of the CWA, the RWQCBs also issue water quality certifications for activities 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 the Water Quality section for more details.

Affected Environment

Wetlands are areas frequently inundated or saturated by surface water or ground water sufficient to support vegetation adapted for life in saturated soil conditions (USACE 1987). Riparian areas are areas adjacent to the streams and rivers, and have a distinct vegetation community associated with higher ground water level adjacent to the drainages.

Streams and other waters with a defined bed and bank are subject to the jurisdictions of the CDFW regulates activities that would alter the flow, bed, channel or bank of streams, lakes and other drainages by requiring a Streambed Alteration Agreement. In riparian areas, CDFW jurisdictional limits are usually delineated by the top of the stream or lake banks, or the outer edge of riparian vegetation; whichever is wider.

Waters of the U.S. include all navigable waters and their tributaries, all interstate waters and their tributaries, all wetlands adjacent to these waters, an all impoundments of these waters. These waters are regulated by USACE and the RWQCB pursuant to Sections 404 and 401 of the CWA, respectively Wholly uplands waters, such as intermittent tributaries with no flow and no riparian vegetation (i.e.no hydrological or biological connectivity to Waters of the U.S.), are not regulated by the USACE and the RWQCB pursuant to Sections 404 and 401 of the CWA, respectively.

The technical studies used to write this section are the NES and Jurisdiction Delineation (JD). The reach of the San Gabriel River within the BSA is not considered a Traditional Navigable Water (the San Gabriel River is considered navigable to 2.5 feet mean sea level [District 11 memo 16 September 80. USACE letter 6 February 79]), however the San Gabriel River has direct connectivity to the Pacific Ocean, which is a Traditional Navigable Water.

Approximately 4.8 acres of Waters of the U.S. will be temporarily impacted by the project activities. Approximately 450 square feet (0.01 acres) of riparian woodland habitat will be temporarily impacted by the project activities. The watershed is shown in **Figure 2.4-e**.

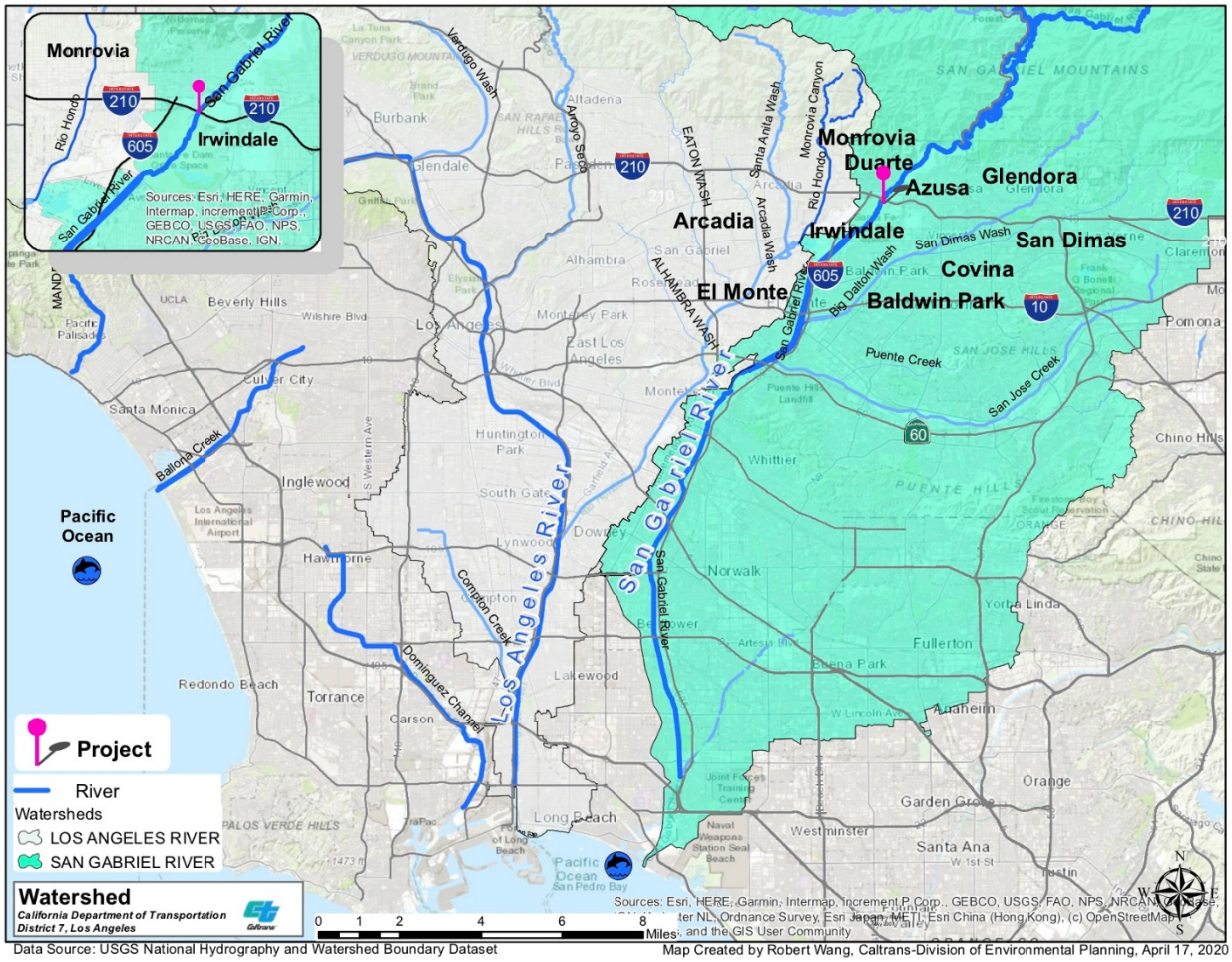


Figure 2.4-e. San Gabriel River Watershed

The BSA is generally a dry riverbed unless water is released from the dam upriver, it is heavily vegetated alongside where the water flows. Prior to submission of permit applications, a jurisdictional delineation should be conducted to document the type, total acreage, precise location, and other attributes of the San Gabriel River within the project site. The delineation was completed in April 2020 in accordance with the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0) (September 2008) as well as the specific mapping standards set forth by the USACE (March 5, 2012). The delineation will be submitted to those agencies with potential jurisdiction (USACE, RWQCB, and CDFW) for their review and comment and in support of permits. Wetland delineation occurred in four soil test pits; **Figure 2.4-f** shows where the soil test pits are in relation to the project location.

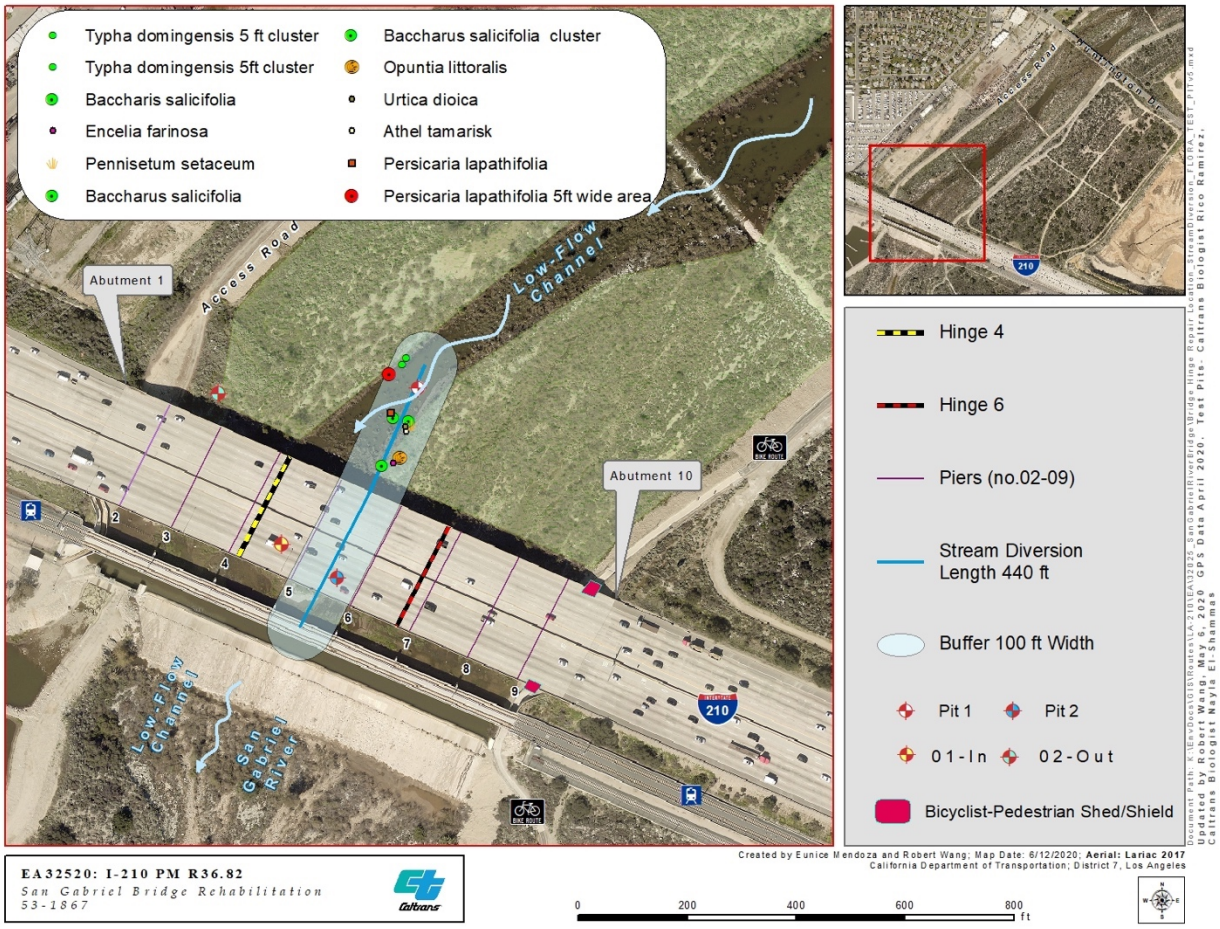


Figure 2.4-f. Wetland Delineation Soil Test Pit Locations

Environmental Consequences

Alternative 1 (No-Build)

If the proposed project were not built, there would be no alterations or improvements to the existing facilities, posing no changes to the existing environment, which would result in no effects to wetlands or other waters in the biological environment; therefore, it would present no potential for effects to such.

Alternative 2 (Multi-Stage Rehabilitation)

Regardless of the traffic staging to allow traffic circulation to remain on the bridge deck during construction, the project footprint within the riverbed remains the same. Approximately 4.8 acres of Waters of the U.S. will be temporarily impacted by the project activities. Caltrans has determined that there is no practicable alternative that can avoid wetlands. Permits will be acquired from USACE, RWQCB, and CDFW for this alternative. The proposed project includes all practicable measures to minimize harm to wetlands.

Alternative 3 (Single-Stage Rehabilitation)

Regardless of the traffic staging to allow traffic circulation to remain on the bridge deck during construction, the project footprint within the riverbed remains the same. Approximately 4.8 acres of Waters of the U.S. will be temporarily impacted by the project activities. Caltrans has determined that there is no practicable alternative that can avoid wetlands. Permits will be acquired from USACE, RWQCB, and CDFW for this alternative. The proposed project includes all practicable measures to minimize harm to wetlands.

These requirements and steps will be included in the Environmental Comittment Record for both Alternative 2 and 3:

WET-01 Construction Work Window Restrictions. All work within San Gabriel River shall be conducted outside of the rainy season (November 1st through April 1st).

WET-02 May 2019 thru July 2021. Commence and complete Formal or Informal Section 7, as well as, 1602, 404, and 401 permitting prior to October 2020 water diversions and vegetation clearing is required by the below steps.

WET-03 May 2019 thru July 2021. Los Angeles County Flood Control Permit and Section 408 Permit from the United States Army Corps of Engineers need to be obtained by Caltrans Design and/or Hydraulics.

WET-04 In late October 2021 to late November 2021. Begin and complete clearing/grubbing of all vegetation within the project impact area prior to the start of the bird nesting season (but also before the brunt of the rainy season to avoid the difficulties of working in flowing water). A water diversion may be necessary. Caltrans' biologist will routinely check on the regrowth of vegetation within the project area. If bird and bat-suitable habitat begins to return, the Caltrans Biologist will determine whether it is necessary to re-trim or remove vegetation prior to the 2022 nesting season.

Avoidance, Minimization, and/or Mitigation Measures

2.4.3 Plant Species

Regulatory Setting

The U.S. Fish and Wildlife Service (USFWS) and California Department of Fish and Wildlife (CDFW) have regulatory responsibility for the protection of special-status plant species. "Special-status" species are selected for protection because they are rare and/or subject to population and habitat declines. Special status is a general term for species that are provided varying levels of regulatory protection. The highest level of protection is given to threatened and endangered species; these are species that are formally listed or proposed for listing as endangered or threatened under the Federal Endangered Species Act (FESA) and/or the California Endangered Species Act (CESA). Please see the Threatened and Endangered Species Section 2.4.5 in this document for detailed information about these species.

This section of the document discusses all other special-status plant species, including CDFW species of special concern, USFWS candidate species, and California Native Plant Society (CNPS) rare and endangered plants.

The regulatory requirements for FESA can be found at 16 United States Code (USC) Section 1531, et seq. See also 50 Code of Federal Regulations (CFR) Part 402. The regulatory requirements for CESA can be found at California Fish and Game Code, Section 2050, et seq. Department projects are also subject to the Native Plant Protection Act, found at California Fish and Game Code, Section 1900-1913, and the California Environmental Quality Act (CEQA), found at California Public Resources Code, Sections 21000-21177.

Affected Environment

The following information was taken from the NES written for this study. The general plant surveys conducted on March 27, 2019, and Caltrans focused survey on May1, 2019 and April 23, 2020 did not reveal the presence of California saw-grass. The habitat features for this species are present within the immediate vicinity, outside of the project impact area on the edges of the bicycle trails along the river banks. CNDDB species record within a 4-mile radius of the project.

Focused rare plant surveys were performed by Rincon Senior Botanist Robin Murray and Caltrans Associate Environmental Planner Nayla El Shammas on May 29 and August 19, 2019. On April 23, 2020 Caltrans biologists conducted the second year spring rare plant survey. Vegetation communities within the majority of the BSA consist of coastal sage scrub and Riversidean alluvial fan sage scrub habitats. Dominant species associated with coastal sage scrub include California sagebrush, California bush sunflower (*Encelia californica*), and brittlebush. Riversidean alluvial fan sage scrub is a variant of coastal sage scrub and is dominated by some of the same species as coastal sage scrub, as well as scale broom, prickly pear, and lemonadeberry (*Rhus integrifolia*). In addition, areas of existing disturbance can also be found within the BSA, notably the Los Angeles County Metropolitan Transportation Authority (Metro) Gold Line light rail line occurs adjacent to and south of I-210. Vegetation associated with the Gold Line light rail consists of native buckwheat, common sunflower *(Helianthus anuus)*, mulefat (*Baccharis salicifolia*) and other annual plants and mainly non-native castor beans (*Ricinus communis), Chinese elm (Ulmus parvifolia),* curly docks (*Rumex crispus* species), Italian rye grass *(Festuca perennis*), Jersey cudweed (*Pseudognaphalium luteoalbum*), prickly lettuce *(Lactuca serriola)*, rabbit's foot grass (*Polypogon monspeliensis),* red brome (*Bromus madritensis*), and tamarix (*Athel tamarisk)*. The rip rap and concrete banks of the river had individual plants such as lanceleaf liveforever (*Dudleya lanceolata*) growing in between (see **Figure 2.4-g**). A full list of plants, that are not listed as endangered or threatened, observed within the BSA is presented in **Table 2.4-a**.

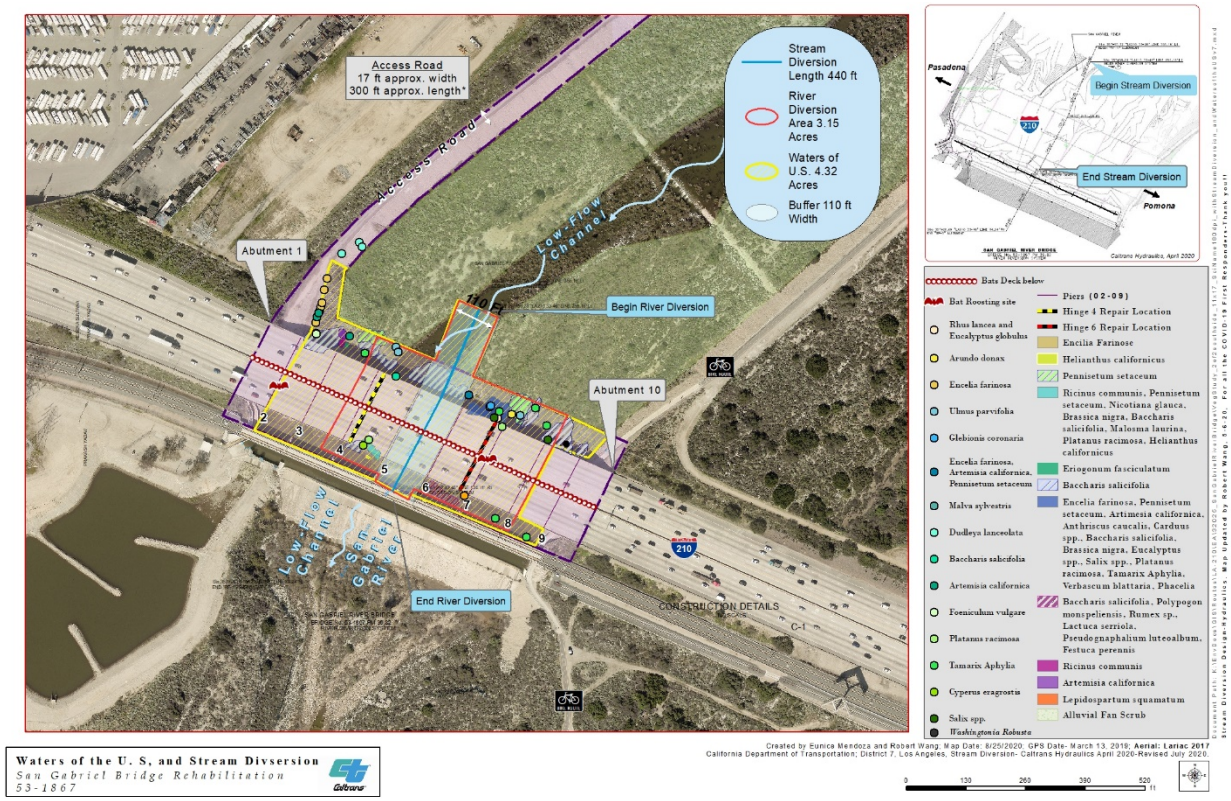


Figure 2.4-g. Plants Observed in the Biological Study Area

Table 2.4-a. Scientific and Common Name of Plants Observed within Biological Study Area

Scientific Name	Common Name	Origin
Acmispon glaber var. brevialatus	Short winged deerweed	Native
Ageratina adenophora	Sticky snakeroot	Invasive, Non-native
Ambrosia acanthicarpa	Annual bur sage	Native
Anthriscus caucalis	Bur chervil	Non-native
Artemisia californica	California sagebrush	Native
Arundo donax	Giant reed	Non-native
Athel tamarisk	Tamarix Aphylia	Invasive-Non-native
Atriplex sp.	Saltbush	Native
Avena barbata	Slender wild oat	Non-native
Baccharis salicifolia	Mulefat	Native
Brassica nigra	Black mustard	Invasive, Non-native
Bromus madritensis	Red brome	Non-native
Bromus tectorum	Cheatgrass	Invasive, Non-native
Bur chervil	Anthriscus caucalis	Non-native
Callistemon citrinus	Crimson bottlebrush	Non-native

Scientific Name	Common Name	Origin
Calystegia sp.	Morning glory	Native
Carduus pycnocephalus	Italian Thistle	Invasive-Non-native
Cascuta californica	California dodder	Native
Castor beans	Ricinus communis	Invasive-Non-native
Centaurea melitensis	Maltese star thistle	Invasive-Non-native
Conium maculatum	Poison hemlock	Invasive-Non-native
Crassula colligate	Toelken	Non-native
Cryptantha intermedia	Common cryptantha	Native
Cryptantha micrantha	Purple root cryptantha	Native
Cyperus eragrostis	Tall cyperus	Native
Datura wrightii	Jimsonweed	Native
Daucus pisillus	American wild carrot	Native
Dudleya lanceolate	Southern California dudleya	Native
Dysphania ambrosioides	Mexican tea	Non-native
Encelia farinosa	Brittlebush	Native
Eriastrum sapphirinum	Sapphire wookllystar	Native
Eriodictyon trichocalyx	Hairy yerba santa	Native
Eriogonum fasciculatum	California buckwheat	Native
Erodium cicutarium	Coastal heron’s bill	Invasive-Non-native
Eucalyptus globulus	Blue gum	Invasive-Non-native
Eucrypta chrysanthemifolia	Spotted eucrypta	Native
Euphorbia terracina	Geraldton carnation weed	Invasive-Non-native
Festuca perennis	Italian rye grass	Invasive-Non-native
Foeniculum vulgare	Sweet fennel	Invasive-Non-native
Galium angustifolium	Narrow leaved bedstraw	Native
Glebionis coronaria	Crown daisy	Invasive-Non-native
Helianthus annuus	Common sunflower	Native
Helianthus californicus	California Sunflower	Native
Herschfeldia incana	Short podded mustard	Invasive, Non-native
Hordeum murinum	Farmer’s foxtail	Invasive-Non-native
Lactuca serriola	Prickly lettuce	Non-native
Lepidium virginicum	Virginia pepperweed	Native
Lepidospartum squamatum	Scale broom	Native
Malosma laurina	Laurel sumac	Native

Scientific Name	Common Name	Origin
Marrubium vulgare	White horehound	Invasive, Non-native
Melica imperfecta	California melic	Native
Mimulus glabratus	Round-leaf Monkey Flower	Native
Morus alba	White mulberry	Non-native
Nerium oleander	Oleander	Invasive-Non-native
Nicotiana glauca	Tree tobacco	Invasive-Non-native
Opuntia xoccidentalis	Western prickly pear	Native
Pectocarya penicillata	Winged pectocarya	Native
Pennisetum setaceum	Fountaingrass	Invasive, Non-native
Persicaria lapathifolia	Common knotweed	Native
Phacelia distans	Common phacelia	Native
Platanus racimosa	California sycamore	Native
Polypogon interruptus	Ditch beard grass	Non-native
Polypogon monspeliensis	Rabbit's foot grass	Non-native
Pseudognaphalium bioletti	Two-color rabbit-tobacco	Native
Pseudognaphalium luteoalbum	Jersey cudweed	Non-native
Rhus integrifolia	lemonade berry	Native
Ricinus communis	Castor bean	Invasive, Non-native
Rumex acetosella	Sheep sorell	Invasive, Non-native
Rumex pulcher	Fiddle dock	Non-native
Salix ssp	Willow sapling	Native
Salsola tragus	Russian thistle	Non-native
Salvia columbariae	Chia sage	Native
Schismus barbatus	Common Mediterranean grass	Invasive, Non-native
Sisymbrium erisimoides	Wallflower tumble mustard	Invasive, Non-native
Sisymbrium irio	London rocket	Invasive, Non-native
Solanum douglasii	Douglas' nightshade	Native
Sonchus asper	Spiny sowthistle	Invasive, Non-native
Tamarix ramosissima	Salt cedar	Invasive, Non-native
Trifolium obtusiflorum	Creek Clover	Native
Ulmus parvifolia	Chinese Elm	Non-native
Urtica dioica	Stinging nettle	Native
Verbascum blattaria	Moth mullein	Non-native
Verbascum virgatum	Wand mullein	Non-native

Scientific Name	Common Name	Origin
Veronica beccabunga	European speedwell	Non-native
Veronica chamaedrys	Germander speedwell	Non-native
Washington robusta	Mexican fan palm	Invasive, non-native
Yucca whiplei.	Chaparral yucca	Native

Environmental Consequences

Alternative 1 (No-Build)

If the proposed project were not built, there would be no alterations or improvements to the existing facilities, posing no changes to the existing environment, and no effects on plant species in the biological environment; therefore, it would present no potential for effects to such.

Alternative 2 (Multi-Stage Rehabilitation)

No rare plant species were observed within the study area. Therefore, no impacts to rare plants due to project construction are anticipated. Caltrans will conduct pre-construction surveys. Surveys will be done by a qualified botanist with experience in locating and identifying rare plants, prior to initiation of work. If any rare plants are located within the project footprint they will be re-located to a safe location as deemed by the botanist and in coordination with CDFW.

Alternative 3 (Single-Stage Rehabilitation)

No rare plant species were observed within the study area. Therefore, no impacts to rare plants due to project construction are anticipated. Caltrans will conduct pre-construction surveys. Surveys will be done by a qualified botanist with experience in locating and identifying rare plants, prior to initiation of work. If any rare plants are located within the project footprint they will be re-located to a safe location as deemed by the botanist and in coordination with CDFW.

This statement from Alternative 2 and 3 will be included in the Environmental Comittment Record:

PLA-1 Caltrans will conduct pre-construction surveys by a qualified botanist with experience in locating and identifying rare plants, prior to the initiation of work.

Avoidance, Minimization, and/or Mitigation Measures

No special-status plant species is known to occur within the project limits. As such, no avoidance, minimization or mitigation measures are proposed at this time. However, an additional focused plant survey shall be conducted on site prior to construction to reassess existing conditions and detect any potential presence of any special-status plants. If any rare plants are located within the project footprint they will be re-located to a safe location as deemed by the botanist and in coordination with CDFW.

2.4.4 Animal Species

Regulatory Setting

Many state and federal laws regulate impacts to wildlife. The U.S. Fish and Wildlife Service (USFWS), the National Oceanic and Atmospheric Administration's National Marine Fisheries

Service (NOAA Fisheries), and the California Department of Fish and Wildlife (CDFW) are responsible for implementing these laws. This section discusses potential impacts and permit requirements associated with animals not listed or proposed for listing under the federal or state Endangered Species Act. Species listed or proposed for listing as threatened or endangered are discussed in the Threatened and Endangered Species Section 2.4.5 below. All other special-status animal species are discussed here, including CDFW fully protected species and species of special concern, and USFWS or NOAA Fisheries candidate species.

Federal laws and regulations relevant to wildlife include the following:

- National Environmental Policy Act
- Migratory Bird Treaty Act
- Fish and Wildlife Coordination Act

State laws and regulations relevant to wildlife include the following:

- California Environmental Quality Act
- Sections 1600 – 1603 of the California Fish and Game Code
- Sections 4150 and 4152 of the California Fish and Game Code

Affected Environment

For the NES prepared for this project in May 2020, field surveys (March 27, 2019 and April 23, 2020) revealed species with an association to bridge structures and water sources. White-throated swifts (*Aeronautes saxatalis*) and northern rough-winged swallows (*Stelgidopteryx serripennis*) were observed in and around the bridge. Most of them are using the weep holes in the I-210 bridge as habitat. Focused bat surveys revealed the presence of bats utilizing the center line hinge joint as a year-round roost, and the presence of other bat species using the areas under the bridge was observed for night foraging.. The results of the in-house bat surveys (March 27, 2019 and April 23, 2020) are in **Table 2.4-b**.

On July 10 and 11, 2019 more focused bat surveys were conducted by Bat Specialists (Leslie Yen (Rincon), Brian Payne (Rincon), David Charlton (JACOBS), assisted by Newton Wong, Michael Erickson, Rico Ramirez, Sean Herron, Josh Miller and Christopher Stevenson (Caltrans staff)) to provide an evaluation of potential project effects on roosting bats to inform project scheduling, and outline mitigation measures to avoid and minimize potential impacts. Along with in house bat surveys, the results of the focused bat surveys are in **Table 2.4-b**.

Table 2.4-b. Focused Bat Survey Results

Bat Species	Detected March 27, 2019	Detected July 10, 11 2019	Detected April 23, 2020	Listing Status	Bat Reproduction Information	Migration	Roosting Habitat	Frequency Call (kHZ)
Tadarida brasiliensis Mexican free-tailed bat	Yes	Yes	Maybe	WBWG: L	**Mate**: February to March **Young**: June to July; early July **Nurse**: July and August **Flight**: 5 Weeks	Early October Local, short migrations	Caves, mine tunnels, crevices or buildings	18 to 33
Myotis yumanensis Yuma Myotis	Yes	Yes	Yes	SSC, WBWG: LM	**Mate**: Fall **Young**: Late May to mid June; early June	Early August Local, short migrations	Buildings, mines, caves and crevices	43 to 58
Myotis californicus California myotis	Maybe	Yes	Yes	WBWG: L	**Mate**: Fall **Young**: Late May to July **Flight**: Mid July	Mid July Nonmigratory	**Day:** Crevices (buildings, under bark, caves and mines) **Night**: Open, human made structures	43 to 56
Lasirurs cinereus Hoary bat	Maybe	Yes	No	SSC, WBWG: M	**Mate**: Autumn **Young**: Mid May to early July **Flight**: after 33 days	Spring: February to May Fall: September to November	Woodlands, forests Dense foliage of medium to large trees	16 to 32

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California Myotis (*Myotis Californicus*)

California myotis *(Myotis californicus*), as shown in **Figure 2.4-h**, is currently identified by the International Union for the Conservation of Nature (IUCN) as a California Species of Least Concern (LC). These species are evaluated as not being a focus of species conservation. They do not qualify as threatened, near threatened, or conservation dependent.

Source: Bat Conservation International

Figure 2.4-h. Image of California Myotis

The California myotis is a common species found throughout California. It is common to abundant below 1,875 meters (6,000 feet). Optimal habitats for this species include all desert, chaparral, woodland, and forest from sea level up through ponderosa pine, mixed conifer, and Jeffrey pine. This bat may be characterized as a crevice-roosting species. Suitable crevices may be found in buildings, under bark, and in caves and mines. Open spots, especially in human-made structures, are used as night roosts. Small maternity colonies are found in crevices in buildings, mines, hollow trees, and other sites. This species has an ability to produce concentrated urine, but it drinks regularly. The California myotis prefers rock-walled canyons with open water, open woodlands and forests, or brushy habitats for foraging. This species is nocturnal, hibernates, and emerges early to begin foraging (Vaughan 1954, Jones 1965, Bell 1980). Activity in southern Nevada peaked 1 to 1.5 hours after sunset (O'Farrell et al. 1967). There may be a second peak before sunrise. This species has been found to be active between 41 and 92 degrees Fahrenheit (°F). Above 59°F it may be active all night, below 59°F the activity period is restricted to 4 to 5 hours (O'Farrell et al. 1967). Activity also is reduced by heavy precipitation or strong winds. The California myotis may be active at any time of year, although activity is greatly reduced in winter. Most individuals hibernate, emerging on warm days to forage (O'Farrell et al. 1967, O'Farrell and Bradley 1970). The California myotis mates in the fall. The young are born from late May to July, with a peak in early June. The young usually are capable of flight by mid-July.

Survey Results

Many acoustic surveys were conducted by Caltrans biologists and bat specialists. Bat surveys were conducted on March 27, 2019, July 2019, April 23, 2020. Some California myotis calls were recorded which lead to the conclusion that California myotis uses the bridge structure for roosting and foraging. Daytime habitat assessments confirmed that bats were utilizing the crevices in the central channel of the San Gabriel River Bridge.

Hoary Bat *(Lasiurus cinereus)*

Hoary bat *(Lasiurus cinereus)* which is identified by the CDFW as a State Species apparently Secure (S4- Uncommon but not rare).

The Hoary bat (*Lasiurus cinereus*), shown in **Figure 2.4-i**, roosts in dense foliage of medium to large trees. It prefers open habitats or habitat mosaics, with access to trees for cover and open areas, or habitat edges for feeding. This bat generally roosts in dense foliage of medium to large trees. Preferred sites are hidden from above, with few branches below, and have ground cover of low reflectivity. Females and young tend to roost at higher sites in trees. Copulation occurs in autumn, in migration or on the wintering grounds. Mating is followed by delayed fertilization. The young are born from mid-May through early July. From one to four young may be born, but most litters have two. The offspring are capable of flight after 33 days.

Source: Bat Conservation International

Figure 2.4-i. Image of Hoary Bat

Survey Results

Many acoustic surveys were conducted by Caltrans biologists and bat specialists. Bat surveys were conducted on March 27, 2019, July 2019, and April 23, 2020. Some Hoary bat calls were recorded which lead to the conclusion that the Hoary bat species forages within the project vicinity.

Mexican Free Tailed Bat (*Tadarida Brasiliensis)*

Mexican free tailed bat (*Tadarida brasiliensis*) is currently identified by IUCN as a California Species of LC. These species are evaluated as not being a focus of species conservation. They do not qualify as threatened, near threatened, or conservation dependent.

The Mexican free-tailed bat, shown in **Figure 2.4-j**, is found throughout California. Uncommon in high Sierra Nevada (from Tehama to Tulare Counties.) and the north coastal region (from Del Norte and Siskiyou Counties to northern Sonoma County). Overall, this species is common in California and may be locally abundant. All habitats up through mixed conifer forests are used, but open habitats such as woodlands, shrublands, and grasslands are preferred. This bat requires caves, mine tunnels, crevices, or buildings for roosting and hibernation. Apparently, this species uses mostly buildings along the coast. It may use a separate night roost, particularly if foraging far from the day roost. It moves within caves to find suitable temperature. Maternity colonies of females and young are found in caves, crevices, and buildings. These bats use caves, crevices,

and buildings for cover, foraging high over surrounding habitats and water sources. This species is nocturnal, emerges shortly after dusk, and returns to day roost before sunrise. It apparently hibernates in coastal and Central Valley populations. These bats sometimes travel 40 miles, or more, from roosting sites to foraging areas. Copulation occurs in February to March, and This bat prefers edges or habitat mosaics that have trees for roosting and open areas for foraging. This species is nocturnal, hibernates, and begins foraging one to two hours after sunset; may forage throughout the night, with a second peak before sunrise. Individuals have been seen at temperatures as low as 44°F, but they generally are active above 68°F. In cold climates, these bats spend the winter in hibernation, with arousals on warm winter days. Mating occurs in August and September. After delayed fertilization there is an 80 to 90 day gestation. Births are from late May through early July. Lactation lasts four to six weeks, and the young are capable of flight between three to six weeks of age.

Source: Bat Conservation International

Figure 2.4-j. Image of Mexican Free Tailed Bat

Survey Results

Many acoustic surveys were conducted by Caltrans biologists and bat specialists. Bat surveys were conducted on March 27, 2019, July 2019 and April 23, 2020. Some Mexican free tailed bat calls were recorded which lead to the conclusion that the Mexican free tailed bat species forages within the project vicinity.

Western Yellow Bat (*Lasiurus xanthinus*)

Western yellow bat (*Lasiurus xanthinus*) is currently identified by IUCN as a California Species of LC. These species are evaluated as not being a focus of species conservation. They do not qualify as threatened, near threatened, or conservation dependent.

Western yellow bats are found in a variety of habitats throughout their range, from dry tropical forest to semi-tropical wet forests (Kurta and Lehr 1995). The first record for California was from Palm Springs in 1945 (Constantine 1946). It has since been found in a number of localities (P. Brown pers. comm., D. Constantine pers. comm., K. Miner pers. comm., D. Simons pers. comm.) and could be expected in appropriate habitat south and east of the San Bernardino Mountains. Individuals usually roost in trees, hanging from the underside of a leaf. They are commonly found in the southwestern U.S. roosting in the skirt of dead fronds in both native and non-native palm

trees. At least some individuals or populations may be migratory, although some individuals appear to be present year-round, even in the northernmost portion of the range. Yellow bats probably do not hibernate; activity has been observed year-round in both the southern and northern portions of the range. In the U.S., pregnant females are observed from late April through June, with lactation occurring during June and July. Yellow bats are associated with dry, thorny vegetation on the Mexican Plateau, and are found in desert regions of the southwestern United States, where they show a particular association with Terrestrial Mammal Species of Special Concern in California, Bolster, B.C., Ed., 1998 51 with palms. They are known to occur in a number of palm oases.

Survey Results

Many acoustic surveys were conducted by Caltrans biologists and bat specialists. Bat surveys were conducted on March 27, 2019, July 2019 and April 23, 2020. Western yellow bat calls were not recorded.

Yuma Myotis (Myotis Yumanensis)

Yuma myotis (*Myotis yumanensis)* is currently identified by IUCN as a California Species of LC. These species are evaluated as not being a focus of species conservation. They do not qualify as threatened, near threatened, or conservation dependent.

The Yuma myotis, shown in **Figure 2.4-k**, is common and widespread in California. It is uncommon in the Mojave and Colorado Desert regions, except for the mountain ranges bordering the Colorado River Valley. Found in a wide variety of habitats ranging from sea level to 11,000 feet, but it is uncommon to rare above 8000 feet. Optimal habitats are open forests and woodlands with sources of water over which to feed. The Yuma myotis roosts in buildings, mines, caves, or crevices. The species also has been seen roosting in abandoned swallow nests and under bridges. Maternity colonies of several thousand females and young may be found in buildings, caves, mines, and under bridges. Warm, dark sites are preferred. Individuals are clustered tightly in the warmest sites when temperatures are low. If temperatures exceed 104°F, bats seek cooler locations, and individuals roost farther apart. Distribution is closely tied to bodies of water, which it uses as foraging sites and sources of drinking water. This species is nocturnal, hibernates, and emerges soon after sunset in many areas (Barbour and Davis 1969), but Jones (1965) reported that peak activity was one to 2.5 hours after sunset. Warm temperatures are preferred, and activity may be extended on warm nights. The Yuma myotis, like other California bats, mates in the fall. Dalquest (1947) reported that the season of births lasted from late May to mid-June with a peak in early June. It is likely that some young are born in July in some areas.

Source: Bat Conservation International

Figure 2.4-k. Image of Yuma Myotis

Survey Results

Many acoustic surveys were conducted by Caltrans biologists and bat specialists. Bat surveys were conducted on March 27, 2019, July 2019, and April 23, 2020 Yuma myotis calls were not recorded. Yuma myotis were visually observed clinging to the bridge. One observation of a young bat clinging to an adult Yuma myotis indicates that the bridge is a maternity roost.

Figure 2.4-l shows where different bat species roosting have been observed. **Figure 2.4-m** provides two views of bat rooting sites under the I-210 bridge. The image on the left shows a view of the center channel of bridge. Note two crevices that run the entire length of the bridge (yellow arrows). The image on the right shows the view between pier 4 and 5, facing southwest. Note the center channel that extends entire length of bridge (blue arrow).

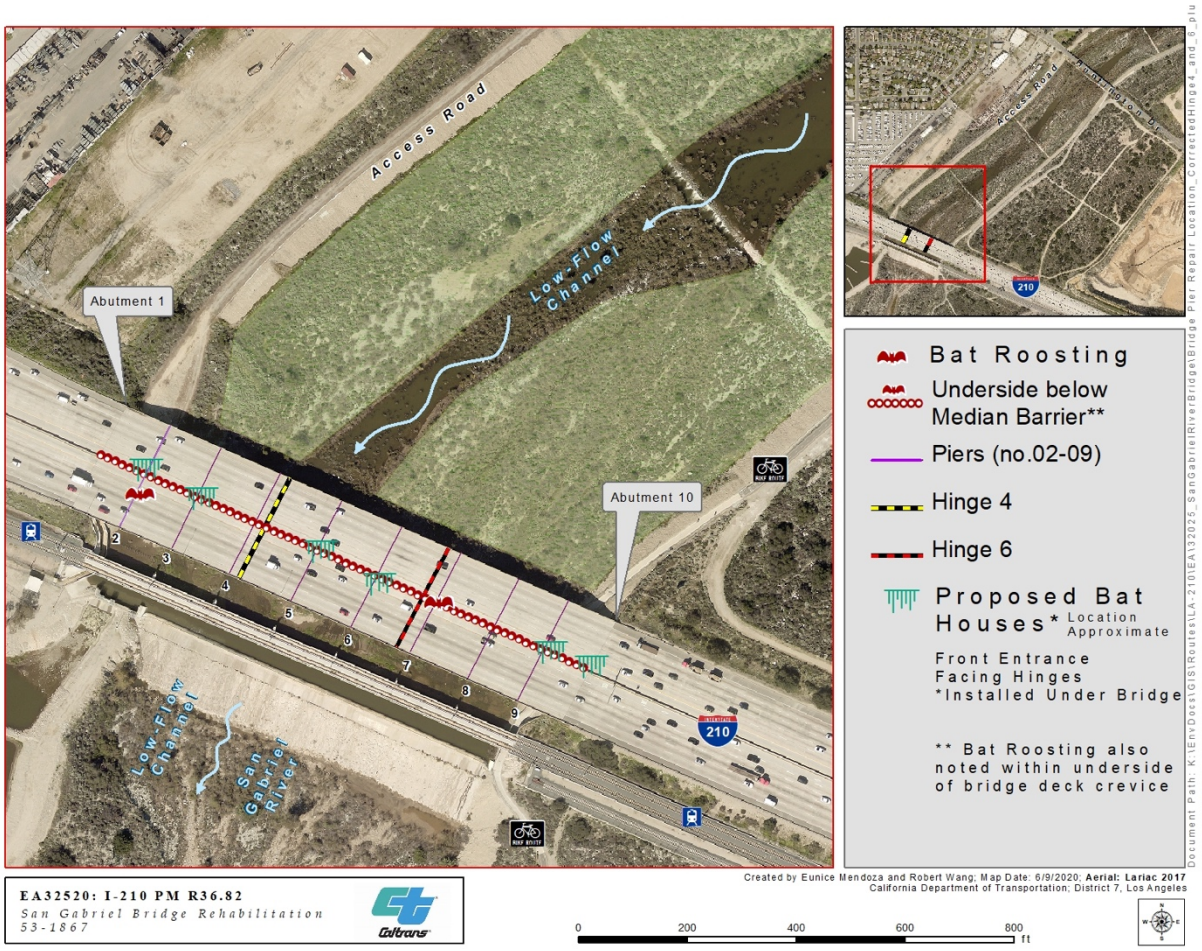


Figure 2.4-l. Bat Roosting Sites and Proposed Future Bat House Sites

Source: Bat Survey and Mitigation Plan, 2019 JACOBS and Rincon Consultants

Figure 2.4-m. Bat Roosting Sites Under I-210

Environmental Consequences

Alternative 1 (No-Build)

If the proposed project were not built, there would be no alterations or improvements to the existing facilities, posing no changes to the existing environment, and no effects on animal species in the biological environment; therefore, it would present no potential for effects to such.

Alternative 2 (Multi-Stage Rehabilitation)

The bridge rehabilitation will temporarily impact the observed animal species (white throated swifts, northern rough winged swallows, mexican free tailed bat, yuma myotis, california myotis, and hoary bat) during pre-construction, such as prepping the construction site and water diversion plan implementation, and construction activities. White-throated swifts and northern rough-winged swallows use the weep holes in the I-210 bridge. These weep holes will be closed up before construction, so the birds are not living within the bridge during construction. Specific bat species utilize the center Line hinge joint as a year-round roost, and the presence of other bat species are using the areas under the bridge for night foraging. Bat houses have been created for bats to use when the bridge is under construction. The bat houses will be located close enough to the bridge so that current bat inhabitants will be able to easily locate a new roost, but far enough away to not be impacted by construction noise and will temporarily roost there until construction is complete.

Alternative 3 (Single-Stage Rehabilitation)

The bridge rehabilitation will temporarily impact the observed animal species (white throated swifts, northern rough winged swallows, mexican free tailed bat, yuma myotis, california myotis, and hoary bat)during pre-construction, such as prepping the construction site and water diversion plan implementation, and construction activities. White-throated swifts and northern rough-winged swallows use the weep holes in the I-210 bridge. These weep holes will be closed up before construction, so the birds are not living within the bridge during construction. Specific bat species utilize the center Line hinge joint as a year-round roost, and the presence of other bat species are using the areas under the bridge for night foraging. Bat houses have been created for bats to use when the bridge is under construction. The bat houses will be located close enough to the bridge so that current bat inhabitants will be able to easily locate a new roost, but far enough away to not be impacted by construction noise and will temporarily roost there until construction is complete.

Avoidance, Minimization, and/or Mitigation Measures

AN-01. Bat Relocation Away from Construction Areas. Alternate roost sites will be installed prior to any evictions and suitable habitat removal to encourage passive relocations. Alternative roost sites are bat houses located within the project site, at least 200 feet away from construction activities to reduce noise impacts from construction work.

AN-02. Swallow Exclusion. Closing weep holes (either with exclusion netting or tubes) within the bridge structure will avoid impact on observed bird species, weep holes will be reopened once construction is complete and birds can return to weep holes.

AN-03. Clearing and Grubbing. Clearing and grubbing shall occur outside the maternity season mid-May to early July one year ahead of the false and support works installation. No trees will be cut down or trimmed without first being surveyed by a qualified biologist for the presence of bats roosting. Should bats be located within trees that are to be removed or trimmed, Caltrans will coordinate with California Department of Fish and Wildlife to determine how best to minimize impacts to these species.

AN-04. Night Lighting. Special night time lighting to deter bats from the construction area are to be used when construction is active.

2.4.5 Threatened or Endangered Species

Regulatory Setting

The primary federal law protecting threatened and endangered species is the Federal Endangered Species Act (FESA): 16 United States Code (USC) Section 1531, et seq. See also 50 Code of Federal Regulations (CFR) Part 402. This act and later amendments provide for the conservation of endangered and threatened species and the ecosystems upon which they depend. Under Section 7 of this act, federal agencies, such as the Federal Highway Administration (FHWA) (and the Department, as assigned), are required to consult with the U.S. Fish and Wildlife Service (USFWS) and the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NOAA Fisheries) to ensure that they are not undertaking, funding, permitting, or authorizing actions likely to jeopardize the continued existence of listed species or destroy or adversely modify designated critical habitat. Critical habitat is defined as geographic locations critical to the existence of a threatened or endangered species. The outcome of consultation under Section 7 may include a Biological Opinion with an Incidental Take statement or a Letter of Concurrence. Section 3 of FESA defines take as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect or any attempt at such conduct."

California has enacted a similar law at the state level, the California Endangered Species Act (CESA), California Fish and Game Code Section 2050, et seq. CESA emphasizes early consultation to avoid potential impacts to rare, endangered, and threatened species and to develop appropriate planning to offset project-caused losses of listed species populations and their essential habitats. The California Department of Fish and Wildlife (CDFW) is the agency responsible for implementing CESA. Section 2080 of the California Fish and Game Code prohibits "take" of any species determined to be an endangered species or a threatened species. Take is defined in Section 86 of the California Fish and Game Code as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." CESA allows for take incidental to otherwise lawful development projects; for these actions an incidental take permit is issued by CDFW. For species listed under both FESA and CESA requiring a Biological Opinion under Section 7 of FESA, the CDFW may also authorize impacts to CESA species by issuing a Consistency Determination under Section 2080.1 of the California Fish and Game Code.

Another federal law, the Magnuson-Stevens Fishery Conservation and Management Act of 1976, was established to conserve and manage fishery resources found off the coast, as well as anadromous species and Continental Shelf fishery resources of the United States, by exercising (A) sovereign rights for the purposes of exploring, exploiting, conserving, and managing all fish

within the exclusive economic zone established by Presidential Proclamation 5030, dated March 10, 1983, and (B) exclusive fishery management authority beyond the exclusive economic zone over such anadromous species, Continental Shelf fishery resources, and fishery resources in special areas.

Affected Environment

The NES prepared for this project in May 2020 covered special status plant species and animal species that may be found within the project area. These are:

1. Braunton's milk-vetch (*Astragalus brauntonii parish*) which is identified by the CNPS Inventory of Rare and Endangered Plants on List 1B.1 (Plants rare, threatened, or endangered in California and elsewhere; seriously threatened in California). The general habitat and the micro habitat of this species are not present within the project impact area. However, the said habitat features are present within the immediate vicinity, outside of the project impact area. This plant was not present.
2. California saw-grass (*Cladium californicum*) which is identified by the CNPS Inventory of Rare and Endangered Plants on List 2B.2 (Plants rare, threatened, or endangered in California, but more common elsewhere; fairly threatened in California). The general habitat and microhabitat of this species are present within the project impact area. Although the site may contain freshwater, no suitable meadow, seep, marsh, and swamp habitat occurs within the project impact area. Cladium californicum was not detected during March 2019 vegetation surveys. This plant was not present.
3. Many-stemmed dudleya (*Dudleya multicaulis*) which is identified by the CNPS Inventory of Rare and Endangered Plants on List 1B.2 (Plants rare or endangered in California and elsewhere, fairly endangered in California). The general habitat and the micro habitat of this species are not present within the project impact area. However, the habitat features are present within the immediate vicinity, outside of the project impact area. This plant was not present within the BSA.
4. Mesa horkelia (*Horkelia cuneate var. puberula*) which is identified by the CNPS Inventory of Rare and Endangered Plants on List 1B.1 (Plants rare, threatened, or endangered in California and elsewhere; seriously threatened in California). The general habitat and the micro habitat of this species are present within the project impact area.
5. Parry's spineflower (*Chorizanthe parryi var. parryi*) which is identified by the CNPS Inventory of Rare and Endangered Plants on List 1B.1 (Plants rare, threatened, or endangered in California and elsewhere; seriously threatened in California). The general habitat and the micro habitat of this species are not present within the project impact area. However, the said habitat features are present within the immediate vicinity, outside of the project impact area. This plant was not present within the BSA.
6. Robinson's pepper-grass (*Lepidium virginicum var. robinsonii*) which is identified by the CNPS Inventory of Rare and Endangered Plants on List 4.3 (Plants of limited distribution; not very threatened in California). The general habitat and the micro habitat of this species are present within the project impact area.

7. San Gabriel River dudleya (*Dudleya cymosa*) which is identified by the CNPS Inventory of Rare and Endangered Plants on List 1B.2 (Plants rare or endangered in California and elsewhere, fairly endangered in California). The general habitat and the micro habitat of this species are not present within the project impact area. However, the said habitat features are present within the immediate vicinity, outside of the project impact area. This plant was not present within the BSA.
8. Slender-horned spineflower (*Dodecahema leptoceras*) which is identified by the CNPS Inventory of Rare and Endangered Plants on List 1B.1 (Plants rare, threatened, or endangered in California and elsewhere; seriously threatened in California). The general habitat and microhabitat of this species are present within the project impact area.
9. White rabbit-tobacco (*Pseudognaphalium leucocephalum*) which is identified by the CNPS Inventory of Rare and Endangered Plants on List 2B.2 (Plants rare, threatened, or endangered in California, but more common elsewhere; fairly threatened in California). The general habitat and microhabitat of this species are present within the project impact area.
10. Southwestern Willow Flycatcher (*Empidonax traillii extimus)* is a migratory bird which is identified by the USFWS as a federally endangered species and is identified by the California Department of Fish and Wildlife as a state species of special concern and is identified by the United States Fish and Wildlife Services as a federally threatened species. This bird is not present within the BSA.
11. Southern Mountain Yellow-Legged Frog *(Rana Muscosa)* Federal listing refers to populations in the San Gabriel, San Jacinto and San Bernardino mountains (southern DPS) Northern DPS was determined to warrant listing as endangered, April 2014, effective June 30, 2014, these species are always encountered within a few feet of water. Tadpoles may require two to four years to complete their aquatic development. The habitat of this species is not present within the impact area which is located in part of the river with controlled water release, California Natural Diversity Database records the species in the San Gabriel Mountains. This species was not present within the BSA.
12. Coast horned lizard (*Phrynosoma blainvillii)* is currently listed as a California Species of Special Concern (SSC) and are a park species of special concern. Blainville's Horned Lizard populations have suffered population declines in most of its range due to habitat destruction from human development and agriculture, and the spread of nonnative ants, such as Argentine Ants which displace the native ant food source. This species was not present within the BSA.
13. Coastal California gnatcatcher *(Polioptila californica Californica)* is a migratory bird which is identified by the California Department of Fish and Wildlife as a federally threatened species and is identified by the California Department of Fish and Wildlife as a state SSC (S2-Imperiled:Imperiled in the state because of rarity due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors making it very vulnerable to extirpation from the state). This species was not present within the BSA.
14. Coastal whiptail *(Aspidoscelis tigris stejnegeri)* is currently listed as a California SSC (S3: Vulnerable in the state due to a restricted range, relatively few populations (often 80 or fewer),

recent and widespread declines, or other factors making it vulnerable to extirpation). This species was not present within the BSA.

15. Pallid bat *(Antrozous pallidus)* which is identified by the California Department of Fish and Wildlife as a state SSC (S3: Vulnerable) and identified by the U.S Forest Service as Sensitive Species. Some calls were recorded so this species is present.
16. Townsend's big-eared bat (*Corynorhinus townsendii*) which is identified by the California Department of Fish and Wildlife as a state SSC (S2 Imperiled: Imperiled in the state because of rarity due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors making it very vulnerable to extirpation from the state). Some calls were recorded so this species is present.
17. Western mastiff bat *(Eumops perotis californicus)* which is identified by the California Department of Fish and Wildlife as a state SSC (S3S4:Vulnerable to Apparently Secure). No calls were recorded so this species is not present.

Plant Species

Braunton's milk-vetch (*Astragalus brauntonii parish*)

Braunton's milk-vetch is a perennial herb blooming between January and August. It occurs in recent burns or disturbed areas; usually on sandstone with carbonate layers. Braunton's milk-vetch requires shallow soils between nine to 2,100 feet in elevation to defeat pocket gophers and open areas, preferably on hilltops, saddles or bowls between hills within chaparral, coastal scrub, valley, and foothill grassland habitats.

Survey results

The general plant surveys conducted on March 27, 2019, and Caltrans focused survey on May 1, 2019 and April 23, 2020 did not reveal the presence of Braunton's milk-vetch. The habitat features for this species are present within the immediate vicinity, outside of the project impact area on the edges of the bicycle trails along the river banks. CNDDB species record within a 4-mile radius of the project.

Focused rare plant surveys were performed by Rincon Senior Botanist Robin Murray and Caltrans Associate Environmental Planner Nayla El Shammas on May 29 and August 19, 2019. On April 23, 2020, Caltrans biologists conducted the second year spring rare plant survey. Surveys were conducted using systematic field techniques by walking meandering transects through the entire study area (project site plus a 500-foot buffer and access roads plus a 25-foot buffer). Special attention was given to areas with a high potential to support rare plant species (e.g., relatively undisturbed vegetation communities). Vegetation communities were described and mapped using the CDFW-CNPS Protocol for the Combined Vegetation Rapid Assessment and Relevé Field Form (CNPS 2019). The focused rare plant surveys did not reveal the presence of this species.

California saw-grass *(Cladium californicum)*

California saw-grass is a perennial rhizomatous herb blooming between June and September. It occurs in freshwater or alkaline moist habitat within meadows and seeps, marshes and swamps (alkaline or freshwater), between 66 to 7,005 feet in elevation.

Survey results

The general plant surveys conducted on March 27, 2019, and Caltrans focused survey on May1, 2019 and April 23, 2020 did not reveal the presence of California saw-grass. The habitat features for this species are present within the immediate vicinity, outside of the project impact area on the edges of the bicycle trails along the river banks. CNDDB species record within a 4-mile radius of the project.

Focused rare plant surveys were performed by Rincon Senior Botanist Robin Murray and Caltrans Associate Environmental Planner Nayla El Shammas on May 29 and August 19, 2019. On April 23, 2020 Caltrans biologists conducted the second year spring rare plant survey. The focused rare plant surveys did not reveal the presence of this species.

Many-stemmed dudleya *(Dudleya multicaulis)*

Many-stemmed dudleya is a perennial herb blooming between April to July. It occurs in chaparral, coastal scrub, valley and foothill grassland, in heavy, often clayey soils or grassy slopes, between three to 2,986 feet of elevation.

Survey results

The general plant surveys conducted on March 27, 2019, and Caltrans focused survey on May1, 2019 and April 23, 2020 did not reveal the presence of Many-stemmed dudleya. The habitat features for this species are present within the immediate vicinity, outside of the project impact area on the edges of the bicycle trails along the river banks. CNDDB species record within a 4-mile radius of the project.

Focused rare plant surveys were performed by Rincon Senior Botanist Robin Murray and Caltrans Associate Environmental Planner Nayla El Shammas on May 29 and August 19, 2019. On April 23, 2020 Caltrans biologists conducted the second year spring rare plant survey. The focused rare plant surveys did not reveal the presence of this species.

Mesa horkelia *(Horkelia cuneate var. puberula)*

Mesa horkelia is a perennial herb blooming between February to September. It occurs in sandy and gravelly soil within chaparral, cismontane woodland and Coastal scrub habitats, between 49 to 5,397 feet of elevation.

Survey results

The general plant surveys conducted on March 27, 2019, and Caltrans focused survey on May1, 2019 and April 23, 2020 did not reveal the presence of Mesa horkelia. The habitat features for this species are present within the immediate vicinity, outside of the project impact area on the edges of the eastern bicycle trails along the river banks. CNDDB species record within a 4-mile radius of the project.

Focused rare plant surveys were performed by Rincon Senior Botanist Robin Murray and Caltrans Associate Environmental Planner Nayla El Shammas on May 29 and August 19, 2019. On April 23, 2020 Caltrans biologists conducted the second year spring rare plant survey. The focused rare plant surveys did not reveal the presence of this species.

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

Parry's spineflower is an annual herb blooming between April and June. It occurs usually in coastal scrub, chaparral, cismontane woodland, and valley and foothill grassland on dry slopes and flats between 295 to 4,003 feet in elevation; sometimes at the interface of two vegetation types, such as chaparral and oak woodland.

Survey results

The general plant surveys conducted on March 27, 2019, and Caltrans focused survey on May 1, 2019 and April 23, 2020 did not reveal the presence of Parry's spineflower. The general habitat and the micro habitat of this species are not present within the project impact area. However, the said habitat features are present within the immediate vicinity, outside of the project impact area on the edges of the bicycle trails along the river banks. CNDDB records between gravel pit and San Gabriel River channel near junction of Foothill Boulevard and Irwindale Avenue, in the City of Irwindale, approximately 0.5 mile southeast of the BSA.

Focused rare plant surveys were performed by Rincon Senior Botanist Robin Murray and Caltrans Associate Environmental Planner Nayla El Shammas on May 29 and August 19, 2019. On April 23, 2020 Caltrans biologists conducted the second year spring rare plant survey. The focused rare plant surveys did not reveal the presence of this species.

Robinson's pepper-grass (*Lepidium virginicum var. robinsonii)*

Robinson's pepper-grass is an annual herb blooming between January and July. It occurs usually in non wetlands and occasionally in wetlands, in dry soils within shrubland, and coastal scrub habitats, between 13 to 4,708 feet in elevation.

Survey results

The general plant surveys conducted on March 27, 2019, and Caltrans focused survey on May 1, 2019 and April 23, 2020 did not reveal the presence of Robinson's pepper-grass. The general habitat and the micro habitat of this species are present within the project impact area. Habitat features are present within the project impact area on the access road.

Focused rare plant surveys were performed by Rincon Senior Botanist Robin Murray and Caltrans Associate Environmental Planner Nayla El Shammas on May 29 and August 19, 2019. On April 23, 2020 Caltrans biologists conducted the second year spring rare plant survey. The focused rare plant surveys did not reveal the presence of this species.

San Gabriel River dudleya *(Dudleya cymosa)*

San Gabriel River dudleya is a perennial herb blooming between April to July. It occurs in chaparral on granite cliffs and outcrops, surrounded by scrub habitats, between 1,198 to 4,101 feet in elevation.

Survey results

The general plant surveys conducted on March 27, 2019, and Caltrans focused survey on May 1, 2019 and April 23, 2020 did not reveal the presence of San Gabriel River dudleya. The general habitat and the micro habitat of this species are not present within the project impact area. However, the said habitat features are present within the immediate vicinity within the BSA,

outside of the project impact area on the grouted rock slope protection along the banks. No granite cliffs or outcrops occur within the project site.

Focused rare plant surveys were performed by Rincon Senior Botanist Robin Murray and Caltrans Associate Environmental Planner Nayla El Shammas on May 29 and August 19, 2019. On April 23, 2020 Caltrans biologists conducted the second year spring rare plant survey. The focused rare plant surveys did not reveal the presence of this species.

Slender-horned spineflower *(Dodecahema leptoceras)*

Slender-horned spineflower is an annual herb blooming between April to June. It occurs in flood deposited terraces and washes, with a general habitat consisting of sandy soils within chaparral, cismontane woodland, and coastal scrub (alluvial fan sage scrub), between 656 to 2,510 feet in elevation.

Survey results

The general plant surveys conducted on March 27, 2019, and Caltrans focused survey on May 1, 2019 and April 23, 2020 did not reveal the presence of Slender-horned spineflower. The general habitat and the micro habitat of this species are not present within the project impact area. However, the said habitat features are present within the immediate vicinity within the BSA, outside of the project impact area. CNDDB records the species within 5-mile radius from the project impact area.

Focused rare plant surveys were performed by Rincon Senior Botanist Robin Murray and Caltrans Associate Environmental Planner Nayla El Shammas on May 29 and August 19, 2019. On April 23, 2020 Caltrans biologists conducted the second year spring rare plant survey. The focused rare plant surveys did not reveal the presence of this species.

White rabbit-tobacco *(Pseudognaphalium leucocephalum)*

White rabbit-tobacco is a perennial herb blooming between July to December. It occurs in sandy, gravelly sites within riparian woodland, cismontane woodland, coastal scrub, and chaparral habitats between 115 to 1,690 feet in elevation.

Survey results

The general plant surveys conducted on March 27, 2019, and Caltrans focused survey on May 1, 2019 and April 23, 2020 did not reveal the presence of White rabbit-tobacco. The general habitat and the micro habitat of this species are not present within the project impact area. However, the said habitat features are present within the immediate vicinity within the BSA, outside of the project impact area. CNDDB records the species within a 1-mile radius from the project impact area.

Focused rare plant surveys were performed by Rincon Senior Botanist Robin Murray and Caltrans Associate Environmental Planner Nayla El Shammas on May 29 and August 19, 2019. On April 23, 2020 Caltrans biologists conducted the second year spring rare plant survey. The focused rare plant surveys did not reveal the presence of this species.

Animal Species

Southwester willow flycatcher(*Empidonax traillii extimus*)

The southwestern willow flycatcher breeds in dense riparian habitats along rivers, streams or other wetlands. The vegetation can be dominated by dense growths of willows, seep willow, or other shrubs and small trees. There may be an overstory of cottonwood, tamarisk, or other large trees. In some areas, the flycatcher will nest in habitats dominated by tamarisk and Russian olive. One of the most important characteristics of the habitat appears to be the presence of dense vegetation and canopy complexity, usually throughout all vegetation layers present.

Survey Results

The project site occurs within southwestern willow flycatcher critical habitat, although the survey buffer does not have all of the Primary Constituent Elements (PCEs) for the species. During the April 11, 2019 field survey, suitable breeding habitat was found to be lacking within the BSA, due to the lack of structural diversity and vertical complexity preferred by the species. The PCEs required for SWFL include dense riparian vegetation not present in the BSA. The southwestern willow flycatcher was not detected during the survey conducted on March 27, 2019 or May 1, 2019.

Coast horned lizard (*Phrynosoma blainvillii)*

The coast horned lizard is uncommon to common in suitable habitat. It occurs in valley foothill hardwood, conifer and riparian habitats, as well as in pine-cypress, juniper and annual grassland habitats. It occurs in the Sierra Nevada foothills from Butte County to Kern County and throughout the central and southern California coast. Its elevational range extends up to 4000 feet in the Sierra Nevada foothills and up to 6000 feet in the mountains of southern California. This species usually inhabits open country, especially sandy areas, washes, flood plains and wind-blown deposits in a wide variety of habitats. They are found chiefly below 2000 feet in the north and 3000 feet in the south.

Coast horned lizards forage on the ground in open areas, usually between shrubs and often near ant nests. Pianka and Parker (1975) noted that this species, like other horned lizards, consumes many ants. Small beetles are taken in large numbers when especially abundant. Stebbins (1954) reported other insects as food items, including wasps, grasshoppers, flies, and caterpillars. Periods of inactivity and winter hibernation are spent burrowed into the soil under surface objects such as logs or rocks, in mammal burrows, or in crevices.

Survey Results

During all conducted biological surveys and field visits during all seasons no presence of coast horned lizard were recorded.

Coastal California gnatcatcher *(Polioptila californica Californica)*

Coastal California gnatcatcher live in coastal sage scrub, a low shrubby habitat that is also home to other specialized animals and plants. Coastal California gnatcatcher is listed as threatened by the USFWS (USFWS 1993). A final determination of critical habitat was made in 2007 (USFWS 2007). The project area is not within designated critical habitat for the coastal California gnatcatcher.

Survey Results

Biological surveys, focused habitat assessment and species-specific surveys conducted for coastal California gnatcatcher (Polioptila californica californica), to determine presence of sensitive, listed, and covered species within the project area. Surveys were completed in accordance with the USFWS survey protocol for California gnatcatcher (USFWS, 1997-GNAT). Surveys were conducted by Teresa Gonzales USFWS permit # TE060175-4.

In accordance with the USFWS, current survey protocol for the gnatcatcher, suitable and marginally suitable habitats were surveyed. The protocol surveys within the study area were conducted at intervals of no less than seven calendar days; all accessible portions of the study area that could potentially support coastal California gnatcatcher habitat were surveyed on foot to allow for direct visual observation of the habitat within the site's property boundaries, including a buffer area of 500 feet from the project footprint.

Habitat Assessment

The habitat assessment followed the survey protocol for California gnatcatcher (USFWS, 1997-GNAT). The habitat assessment was performed to determine the site's suitability to support coastal California gnatcatcher. Several key indicators were used in determining the site's potential to support coastal California gnatcatcher. Key indicators included the presence of coastal sage scrub, chaparral and scrublands. The site exhibited suitable habitat. Coastal California gnatcatchers primarily occupy coastal sage scrub. This vegetation community is made up of low, soft woody shrubs which are mostly drought-deciduous species that can live in Mediterranean conditions. The characteristic species observed in this vegetation community can include California sagebrush, California buckwheat, lemonade berry, and laurel sumac. Depending on the distribution of the habitat, the sub-dominants may include various sage (*Salvia* spp.), toyon (*Heteromeles arbutifolia*), deer weed (*Acmispon glaber*), among others. Coastal sage scrub generally occurs within areas of low moisture content, such as gently rolling to steep xeric slopes, or clay rich soils. At higher elevations sage scrub intergrades with several chaparral species including chamise (*Adenostoma fasciculatum*). The results of the habitat assessment concluded that the site contained suitable coastal California gnatcatcher habitat. As a result, focused coastal California gnatcatcher surveys were warranted.

Focused California Gnatcatcher Survey

Presence/Absence surveys were completed in accordance with the USFWS survey protocol for coastal California gnatcatcher (USFWS, 1997-GNAT). Surveys were conducted by Teresa Gonzales USFWS permit # TE060175-4. The surveys consisted solely of a presence/absence survey; nest assessments were not conducted as part of this survey. The quality of the coastal California gnatcatcher habitat on site was low-medium quality.

Coastal whiptail *(Aspidoscelis tigris stenjnegeri)*

The coastal whiptail is widely distributed but uncommon over much of its range in California, except in desert regions where it is abundant in suitable habitats. The species is found throughout the state except in the humid northwest, along the humid outer Coast Ranges, or mountainous regions above 7500 feet. Also absent from much of the northern part of the Central Valley (Montanucci 1968). The species occurs in a variety of habitats including valley-foothill hardwood,

valley-foothill hardwood-conifer, valley-foothill riparian, mixed conifer, pine-juniper, chamise-redshank chaparral, mixed chaparral, desert scrub, desert wash, alkali scrub, and annual grassland.

Coastal whiptails forage actively on the ground near the base of vegetation taking a wide variety of ground-dwelling invertebrates including grasshoppers, beetles, ants, termites, insect larvae, and spiders (Stebbins 1954). Individuals often probe cracks and crevices and dig in loose soil as they forage. Coastal whiptails are always most common in and around dense vegetation. Coastal whiptails spend little time in open areas but will cross barren spaces in order to reach the cover of dense shrubs in sparsely vegetated areas.

Survey Results

During all conducted biological surveys and field visits during all seasons no presence of coastal whiptail were recorded.

Pallid Bat (*Antrozous pallidus*)

Pallid bat, shown in **Figure 2.4-n**, bat is a locally common species of low elevations in California. It occurs throughout California except for the high Sierra Nevada from Shasta County to Kern County, and the Northwestern corner of the state from Del Norte County and western Siskiyou County to Northern Mendocino County. A wide variety of habitats is occupied, including grasslands, shrub lands, woodlands, and forests from sea level up through mixed conifer forests. The species is most common in open, dry habitats with rocky areas for roosting. A yearlong resident in most of the range. Day roosts are in caves, crevices, mines, and occasionally in hollow trees and buildings. Roost must protect bats from high temperatures. Bats move deeper into cover if temperatures rise. Night roosts may be in more open sites, such as porches and open buildings. Few hibernation sites are known, but probably uses rock crevices. The pallid bat prefers rocky outcrops, cliffs, and crevices with access to open habitats for foraging. Maternity colonies form in early April, and may have a dozen to 100 individuals. Males may roost separately or in the nursery colony. Needs water but has a good urine-concentrating ability (Geluso 1978). Mates from late October to February. Fertilization is delayed, gestation is 53 to 71 days. Young are born from April to July, mostly from May to June. The average litter is two, but females reproducing for the first time usually have one young. Litter size is one to three. The altricial young are weaned in seven weeks and are observed flying in July and August. Females nurse only their own young. Females and juveniles forage together after weaning. Females mate in first autumn, males in second. Maximum recorded longevity is nine years, one month (Cockrum 1973).

Source: Bat Conservation International

Figure 2.4-n. Image of Pallid Bat

Survey Results

Many acoustic surveys were conducted by Caltrans biologists and bat specialists. Bat surveys were conducted on March 27, 2019, July 2019, and April 23, 2020. Some pallid bat calls were recorded which lead to the conclusion that the pallid bat species forages within the project vicinity.

Townsend's Big-Eared Bat (*Corynorhinus townsendii)*

Townsend's big-eared bat, shown in **Figure 2.4-o**, is found throughout California, but the details of its distribution are not well known. This species is found in all but subalpine and alpine habitats and may be found at any season throughout its range. Once considered common, Townsend's big-eared bat now is considered uncommon in California. It is most abundant in mesic habitats. It requires caves, mines, tunnels, buildings, or other human-made structures for roosting. It may use separate sites for night, day, hibernation, or maternity roosts. Hibernation sites are cold, but not below freezing. Individuals may move within the hibernaculum to find suitable temperatures. Maternity roosts are warm. Roosting sites are the most important limiting resource. Maternity roosts are found in caves, tunnels, mines, and buildings. This species is nocturnal and hibernates. Peak activity is late in the evening preceded by flights close to the roost. Bats at hibernacula from October to April. Males are solitary in spring and summer. Females form maternity colonies. Hibernates singly or in small clusters, usually several dozen or fewer. Reproduction: Most mating occurs between November and February, but many females are inseminated before hibernation begins. Sperm is stored until ovulation occurs in spring. Gestation lasts 56 to 100 days, depending on temperature, size of the hibernating cluster, and time in hibernation. Births occur in May and June, peaking in late May. A single litter of one is produced annually. Young are weaned in six weeks and fly in 2.5 to three weeks after birth. Growth rate depends on temperature. The maternity group begins to break up in August. Females mate in their first autumn, males in their first or second autumn. About half of young females return to their birth site after their first hibernation. Subsequent return rates are 70 to 80percent. Maximum recorded age is 16 years.

Source: Bat Conservation International

Figure 2.4-o. Image of Townsend's Big-Eared Bat

Survey Results

Many acoustic surveys were conducted by Caltrans biologists and bat specialists. Bat surveys were conducted on March 27, 2019, July 2019, and April 23, 2020. Some Townsend's big-eared bat calls were recorded which lead to the conclusion that Townsend's big-eared bat uses the bridge structure for roosting and foraging. Daytime habitat assessments confirmed that bats were utilizing the crevices in the central channel of the San Gabriel River Bridge.

Western mastiff bat *(Eumops perotis californicus)*

Western mastiff bat is an uncommon bat that inhabits arid and semiarid lowlands in the lower Sonoran life zone of California. The distribution is not completely known and new sightings in northern California are expanding its previously recorded range. Currently in California, the western mastiff bat ranges from San Francisco across to the Sierra Nevada and South, encompassing the southern half of the state (Hall 1981).

The mastiff bat is apparently a permanent resident throughout its range in the United States (Barbour 1969). They primarily roost in crevices in vertical cliffs, usually granite or consolidated sandstone, and in broken terrain with exposed rock faces; they may also be found occasionally in high buildings, trees and tunnels. Roost sites may change from season to season. Due to its large size, this bat needs vertical faces to drop from in order to take flight. Nursery roosts are found in tight rock crevices with mating taking place in the spring resulting in one young born during the summer.

The western mastiff bat is California's largest native bat. They are swift flyers with very poor maneuverability. They are active year long, limited only when temperatures drop below 41 °F. Foraging may involve flying in excess of 14.9 miles and last up to six or seven hours a night. Due to this behavior, they rarely use night roosts unlike other bats.

Mating by western mastiff bat occurs in the spring when females ovulate in March and April (Best et al. 1996). Time of birth is variable both between and within colonies and may occur from June to as late as September (Best et al. 1996). Most births in California occur by early July (Krutzsch

1955). Females may still be lactating in September, and juveniles may still be found in November (Pierson and Rainey 1998). Within a maternity roost, there may be newborns and juveniles at the same time (Best et al. 1996).

Survey Results

Many acoustic surveys were conducted by Caltrans biologists and bat specialists. Bat surveys were conducted on March 27, 2019, July 2019 and April 23, 2020. Western Mastiff Bat calls were not recorded.

Environmental Consequences

Alternative 1 (No-Build)

If the proposed project were not built, there would be no alterations or improvements to the existing facilities, posing no changes to the existing environment, and no effects on threatened and endangered species in the biological environment; therefore, it would present no potential for effects to such.

Alternative 2 (Multi-Stage Rehabilitation)

If the proposed project was built following Alternative 2, it would have no potential to result in impacts to federal or state listed species because there are no endangered or threatened species within the project area..

Federal Endangered Species Act and California Endangered Species Act Results

This project has no potential to result in impacts to federal or state listed species (see **Table 2.4-c**). Therefore, it will not require consultation under Section 7 of the FESA and/or acquisition of an Incidental Take Permit from CDFW.

Table 2.4-c. Federal Endangered Species Act Effect Findings

Common Name	Scientific Name	Status	Effect Finding	Effect Finding for Critical Habitat
Coastal California gnatcatcher	*Polioptila californica Californica*	Federally Threatened	**No Effect**	Not Applicable
Southwestern willow flycatcher	*Empidonax traillii extimus*	Federally Endangered	**No Effect**	Not Applicable

Alternative 3 (Single-Stage Rehabilitation)

If the proposed project was built following Alternative 3, it would have no potential to result in impacts to federal or state listed species because there are no endangered or threatened species within the project area.

Federal Endangered Species Act and California Endangered Species Act Results

This project has no potential to result in impacts to federal or state listed species (see **Table 2.4-c**). Therefore, it will not require consultation under Section 7 of the FESA and/or acquisition of an Incidental Take Permit from CDFW.

Avoidance, Minimization, and/or Mitigation Measures

No federally listed species or their habitats were detected during recommended focused surveys. This project has no potential to result in impacts to federal or state listed species. Therefore, it will not require consultation under Section 7 of the FESA and/or acquisition of an Incidental Take Permit from CDFW. Caltrans will consult with CDFW regarding the SSC bat species and **AN-1** would be implemented.

2.4.6 Invasive Species

Regulatory Setting

On February 3, 1999, President William J. Clinton signed Executive Order (EO) 13112 requiring federal agencies to combat the introduction or spread of invasive species in the United States. The order defines invasive species as “any species, including its seeds, eggs, spores, or other biological material capable of propagating that species, that is not native to that ecosystem whose introduction does or is likely to cause economic or environmental harm or harm to human health." Federal Highway Administration (FHWA) guidance issued August 10, 1999 directs the use of the State’s invasive species list, maintained by the California Invasive Species Council to define the invasive species that must be considered as part of the National Environmental Policy Act (NEPA) analysis for a proposed project.

Affected Environment

The NES, prepared in May 2020, listed non-native, annual plants and invasive species that exist within the project impact area and confirmed during field surveys: Castor beans (*Ricinus communis*), Sticky snakeroot (*Ageratina adenophora*), Curly docks (*Rumex crispus species*), Italian rye grass (*Festuca perennis*), Jersey cudweed (*pseudognaphalium luteoalbum*), Prickly lettuce (*Lactuca serriola*), rabbit’s foot grass (*Polypogon monspeliensis*), red brome (Bromus *madritensis*), and tamarix (*Athel tamarisk*), giant reed (*Arundo donax*), and 2 Chinese elm (*Ulmus parvifolia*).

Environmental Consequences

Alternative 1 (No-Build)

If the proposed project were not built, there would be no alterations or improvements to the existing facilities, posing no changes to the existing environment, and no effects on invasive species in the biological environment; therefore, it would present no potential for effects to such.

Alternative 2 (Multi-Stage Rehabilitation)

Under EO 13112, federal agencies cannot authorize, fund, or carry out actions that it believes are likely to cause or promote the introduction or spread of invasive species in the United States or elsewhere unless all reasonable measures to minimize risk of harm have been analyzed and considered. The NES addressed the Invasive Species within the BSA. If needed an invasive control plan will be developed, during PS&E. If the proposed project were built as Alternative 2, non-native and invasive species will be removed within the project impact area of 4.3 acres and measures **INV-01** through **INV-06** would be implemented.

Alternative 3 (Single-Stage Rehabilitation)

Under EO 13112, federal agencies cannot authorize, fund, or carry out actions that it believes are likely to cause or promote the introduction or spread of invasive species in the United States or elsewhere unless all reasonable measures to minimize risk of harm have been analyzed and considered. The NES addressed the Invasive Species within the BSA. If needed an invasive control plan will be developed, during the PS&E. If the proposed project were built as Alternative 3, non-native and invasive species will be removed within the project impact area of 4.3 acres and measures **INV-01** through **INV-06** would be implemented.

Avoidance, Minimization, and/or Mitigation Measures

INV-01. Equipment Cleaning. During construction, the construction contractor shall inspect and clean construction equipment at the beginning and end of each day and prior to transporting equipment from one project location to another.

INV-02. Vegetation/Soil Disturbance. During construction, soil and vegetation disturbance will be minimized to the greatest extent feasible.

INV-03. Fugitive Dust Control. During construction, the contractor shall ensure that all active portions of the construction site are watered a minimum of twice daily or more often when needed due to dry or windy conditions to prevent excessive amounts of dust.

INV-04. Stockpile Dust Control. During construction, the contractor shall ensure that all active portions of the construction site are watered a minimum of twice daily or more often when needed due to dry or windy conditions to prevent excessive amounts of dust.

INV-05. Materials Sourcing. During construction, soil/gravel/rock will be obtained from weed-free sources. Only certified weed-free straw, mulch, and/or fiber rolls will be used for erosion control.

INV-06. Eradication Procedures. Eradication procedures (e.g., spraying and/or hand weeding) will be outlined should an infestation occur; the use of herbicides will be prohibited within and adjacent to native vegetation, except as specifically authorized and monitored by the District Biologist and Landscape Architect.

2.5 Cumulative Impacts

2.5.1 Regulatory Setting

Cumulative impacts are those that result from past, present, and reasonably foreseeable future actions, combined with the potential impacts of the proposed project. A cumulative effect assessment looks at the collective impacts posed by individual land use plans and projects. Cumulative impacts can result from individually minor but collectively substantial impacts taking place over a period of time.

Cumulative impacts to resources in the project area may result from residential, commercial, industrial, and highway development, as well as from agricultural development and the conversion to more intensive agricultural cultivation. These land use activities can degrade habitat and species diversity through consequences such as displacement and fragmentation of habitats and populations, alteration of hydrology, contamination, erosion, sedimentation, disruption of migration corridors, changes in water quality, and introduction or promotion of predators. They can also contribute to potential community impacts identified for the project, such as changes in community character, traffic patterns, housing availability, and employment.

The California Environmental Quality Act (CEQA) Guidelines Section 15130 describes when a cumulative impact analysis is necessary and what elements are necessary for an adequate discussion of cumulative impacts. The definition of cumulative impacts under CEQA can be found in Section 15355 of the CEQA Guidelines. A definition of cumulative impacts under the National Environmental Policy Act (NEPA) can be found in 40 Code of Federal Regulations (CFR) Section 1508.7.

2.5.2 Identification of Cumulative Impacts by Resource

Cumulative impacts on given resources are defined by a Resource Study Area (RSA). Each resource has a specific RSA which is delineated to include the project area as well as areas outside of the project where the proposed project's activities, in combination with activities in other projects in the area, could contribute to cumulative impacts on the resource.

Identification and definition of project-specific resources to consider in cumulative impact analyses is based on the degree of impact, ranging from none-to-significant. Resource topics where the proposed project has the potential to cause a potentially significant direct or indirect impact are included in the ensuring discussion. Resource topics where the proposed project has little-to-no potential to cause direct or indirect impacts and will not contribute to a cumulative impact on the resource are not evaluated. Caltrans performed a series of environmental studies to identify any potential for cumulative effects as a result of the proposed undertaking and identified that the potential solely exists within the resource topic of the Biological Environment. Because it was determined that the potential for cumulative impacts does not exist within the Human Environment or Physical Environment resource topics as presented in this IS/EA, there is no further discussion of such within this context.

2.5.3 Cumulative Impacts in Relation to the Biological Environment

Caltrans defined a RSA and considered the potential for cumulative effects on the biological

environment by performing an assessment alongside five past, current, and future Caltrans construction projects on I-210 and within the vicinity. In particular, the assessment studied any potential cumulative effects on coastal sage scrub habitat, riversidean alluvial fan sage scrub habitat, least Bell's vireo habitat, willow flycatcher habitat and southwestern willow flycatcher habitat, and bat species of special concern.

As **Table 2.5-a** details, Caltrans considered the potential cumulative effects to the above-referenced biological resources on five projects within the RSA. The analysis shows that Project 2 (future project which is presently undergoing independent environmental analysis) will have an "Adverse Effect" on coastal sage scrub and riversidean alluvial fan sage scrub habitat with a "No Effect" to the other resources. The analysis also shows that the proposed project will have an "Adverse Effect" on coastal sage scrub habitat and riversidean alluvial fan sage scrub habitat. The proposed project has a "No Effect" on least Bell's vireo habitat, willow flycatcher habitat, and southwestern willow flycatcher habitat because those habitats were not found within the project site. A "Temporary Adverse Effect" on bat species of special concern and riparian woodland habitat will occur in the proposed project. This will only be temporary because the bat species adverse effect will be mitigated through on-site placement of bat houses at locations away from the immediate construction site determined suitable by a Caltrans Biologist. Caltrans will have an agreement in place with an approved mitigation bank or an in-lieu fee program. All previously completed projects did not have an effect on any of the resources. In conclusion, the proposed project will not result in any adverse cumulative effect to any of the aforementioned biological resources.

Table 2.5-a. Cumulative Effect on Biological Resources from Projects within Resource Study Area

Project within Resource Study Area	Coastal Sage Scrub Habitat	Riversidean Alluvial Fan Sage Scrub Habitat	Least Bell's Vireo Critical Habitat	Willow Flycatcher Critical Habitat	Southwestern Willow Flycatcher Critical Habitat	Coastal California Gnatcatcher Critical Habitat	Bat Species of Special Concern	Riparian Woodland Habitat
1. I-210 San Gabriel River Bridge Hinge Replacement [EA 07-32520 /EFIS 0716000082] Construction: Future Date	Adverse Effect (0.10 acres Vegetation Clearing, mostly coastal sage scrub) Mitigated through on-site planting or off-site mitigation	Temporary Adverse Effect Mitigated through on-site transplantings or off-site mitigation	No Effect Due to absence of habitat	No Effect Due to absence of habitat	No Effect Due to absence of habitat	No Effect Due to patchy habitat	Temporary Adverse Effect Mitigated through on-site bat houses at locations at a suitable distance from the construction site	Temporary Adverse Effect (.008 acres) Mitigated through on-site transplantings or off-site mitigation
2. I-210 Stormwater Mitigation [EA 07-32310/ EFIS 0716000061] Construction: Future Date	Adverse Effect location #175/177 contain this habitat, suggestion to use DIPPA or plant more natives	Adverse Effect location #175/177 contain this habitat, suggestion to use DIPPA or plant more natives	No Effect Due to absence of habitat	No Effect Due to absence of habitat	No Effect Due to absence of habitat	No Effect Due to absence of habitat	No Effect Due to absence of habitat	No Effect Due to absence of habitat
3. I-210 Replace Joint Seals, Soffit Openings [EA 07-1W660/ EFIS 0713000010] Construction:	No Effect Due to absence of habitat	No Effect Due to absence of habitat	No Effect Due to absence of habitat	No Effect Due to absence of habitat	No Effect Due to absence of habitat	No Effect Due to absence of habitat	No Effect Any effect was avoided through use of biological monitors and construction work	No Effect Due to absence of habitat

Project within Resource Study Area	Coastal Sage Scrub Habitat	Riversidean Alluvial Fan Sage Scrub Habitat	Least Bell's Vireo Critical Habitat	Willow Flycatcher Critical Habitat	Southwestern Willow Flycatcher Critical Habitat	Coastal California Gnatcatcher Critical Habitat	Bat Species of Special Concern	Riparian Woodland Habitat
Complete 2017							occurred once bats left the bridge	
4. I-210 Rehabilitate Concrete [EA 07-25380/ EFIS 0700001839] Construction: Complete 2014	No Effect Due to absence of habitat	No Effect Due to absence of habitat	No Effect Due to absence of habitat	No Effect Due to absence of habitat	No Effect Due to absence of habitat	No Effect Due to absence of habitat	No Effect Due to absence of habitat	No Effect Due to absence of habitat
5. I-210 Noise Barrier [EA 07-22450/ EFIS n/a] Construction: Complete	No Effect Due to absence of habitat	No Effect Due to absence of habitat	No Effect Due to absence of habitat	No Effect Due to absence of habitat	No Effect Due to absence of habitat	No Effect Due to absence of habitat	No Effect Due to absence of habitat	No Effect Due to absence of habitat
Determination	No Adverse Cumulative Impact due to Mitigation	No Adverse Cumulative Impact due to Mitigation	No Adverse Cumulative Impact	No Adverse Cumulative Impact	No Adverse Cumulative Impact	No Adverse Cumulative Impact	No Adverse Cumulative Impact	No Adverse Cumulative Impact

3.0 California Environmental Quality Act (CEQA) Evaluation

3.1 Determining Significance Under CEQA

The proposed project is a joint project by the California Department of Transportation (Department) and the Federal Highway Administration (FHWA) and is subject to state and federal environmental review requirements. Project documentation, therefore, has been prepared in compliance with both the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA). FHWA's responsibility for environmental review, consultation, and any other actions required by applicable Federal environmental laws for this project are being, or have been, carried out by Caltrans pursuant to 23 United States Code Section 327 (23 USC 327) and the Memorandum of Understanding dated December 23, 2016 and executed by FHWA and Caltrans. Caltrans is the lead agency under CEQA and NEPA.

One of the primary differences between NEPA and CEQA is the way significance is determined. Under NEPA, significance is used to determine whether an EIS, or a lower level of documentation, will be required. NEPA requires that an EIS be prepared when the proposed federal action (project) as a whole has the potential to "significantly affect the quality of the human environment." The determination of significance is based on context and intensity. Some impacts determined to be significant under CEQA may not be of sufficient magnitude to be determined significant under NEPA. Under NEPA, once a decision is made regarding the need for an EIS, it is the magnitude of the impact that is evaluated, and no judgment of its individual significance is deemed important for the text. NEPA does not require that a determination of significant impacts be stated in the environmental documents.

CEQA, on the other hand, does require Caltrans to identify each "significant effect on the environment" resulting from the project and ways to mitigate each significant effect. If the project may have a significant effect on any environmental resource, then an EIR must be prepared. Each and every significant effect on the environment must be disclosed in the EIR and mitigated if feasible. In addition, the CEQA Guidelines list a number of "mandatory findings of significance," which also require the preparation of an EIR. There are no types of actions under NEPA that parallel the findings of mandatory significance of CEQA. This chapter discusses the effects of this project and CEQA significance.

3.2 CEQA Environmental Checklist

This checklist identifies physical, biological, social, and economic factors that might be affected by the proposed project. In many cases, background studies performed in connection with the projects will indicate that there are no impacts to a particular resource. A NO IMPACT answer in the last column reflects this determination. The words "significant" and "significance" used throughout the following checklist are related to CEQA, not NEPA, impacts. The questions in this form are intended to encourage the thoughtful assessment of impacts and do not represent thresholds of significance.

Project features, which can include both design elements of the project, and standardized measures that are applied to all or most Caltrans projects such as Best Management Practices (BMPs) and measures included in the Standard Plans and Specifications or as Standard Special

Provisions, are considered to be an integral part of the project and have been considered prior to any significance determinations documented below; see Chapters 1 and 2 for a detailed discussion of these features. The annotations to this checklist are summaries of information contained in Chapter 2 in order to provide the reader with the rationale for significance determinations; for a more detailed discussion of the nature and extent of impacts, please see Chapter 2. This checklist incorporates by reference the information contained in Chapters 1 and 2.

3.2.1 Aesthetics

Except as provided in Public Resources Code Section 21099, would the project:

Question	CEQA Determination
a) Have a substantial adverse effect on a scenic vista?	No Impact
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	No Impact
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	No Impact
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	No Impact

CEQA Significance Determinations

a and b) No Impact. The proposed project consists primarily of rehabilitation and restoration of existing bridge structure facilities. In consideration of the scope and nature of the proposed work, the associated physical changes do not present any potential to affect scenic vistas in the project study area.

c) No Impact. The proposed project is located in an urbanized area and consists primarily of rehabilitation and restoration of existing bridge structure facilities. In consideration of the scope and nature of the proposed work, the associated physical changes do not present any potential to conflict with applicable zoning and other regulations governing scenic quality in the project study area.

d) No Impact. The proposed project is located in an urbanized area and consists primarily of rehabilitation and restoration of existing bridge structure facilities. In consideration of the scope and nature of the proposed work, the associated physical changes do not present any potential to create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area. Shields to focus lighting at construction site will be used.

3.2.2 Agriculture and Forest Resources

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and the forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:

Question	CEQA Determination
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?	No Impact
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	No Impact
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	No Impact
d) Result in the loss of forest land or conversion of forest land to non-forest use?	No Impact
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?	No Impact

CEQA Significance Determinations

a) No Impact. The proposed project is located in an urbanized area and consists primarily of rehabilitation and restoration of existing bridge structure facilities. No potential exists for direct or indirect irreversible conversion of protected farmlands to non-agricultural uses within the project study area.

b) No Impact. The proposed project is located in an urbanized area and consists primarily of rehabilitation and restoration of existing bridge structure facilities. In consideration of the scope and nature of the proposed work, the associated physical changes do not present any potential to conflict with existing zoning for agricultural use, or a Williamson Act Contract.

c) No Impact. The proposed project is located in an urbanized area and consists primarily of rehabilitation and restoration of existing bridge structure facilities. In consideration of the scope and nature of the proposed work, the associated physical changes do not present any potential to conflict with existing zoning for protected forest land or timberland in the project study area.

d) No Impact. The proposed project is located in an urbanized area and consists primarily of rehabilitation and restoration of existing bridge structure facilities. In consideration of the scope

and nature of the proposed work, the associated physical changes do not present any potential to result in the loss of forest land or conversion of forest land to non-forest use in the project study area.

e) No Impact. The proposed project is located in an urbanized area and consists primarily of rehabilitation and restoration of existing bridge structure facilities. In consideration of the scope and nature of the proposed work, the associated physical changes do not present any potential for other changes in the existing environment that could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use.

3.2.3 Air Quality

Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:

Question	CEQA Determination
a) Conflict with or obstruct implementation of the applicable air quality plan?	No Impact
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non- attainment under an applicable federal or state ambient air quality standard?	No Impact
c) Expose sensitive receptors to substantial pollutant concentrations?	No Impact
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	Less Than Significant Impact

CEQA Significance Determinations

a, b, c) No Impact. The proposed project is located in the South Coast Air Basin (SCAB) and is within the jurisdiction of the South Coast Air Quality Management District (SCAQMD) and the California Air Resources Board. SCAQMD is the primary agency responsible for writing the Air Quality Management Plan (AQMP) in cooperation with Southern California Association of Governments (SCAG), local governments, and the private sector. The AQMP provides the blueprint for meeting state and federal ambient air quality standards. The proposed project consists primarily of rehabilitation and restoration of existing bridge structure facilities and is not capacity-increasing by nature; therefore, the project will have no impact on traffic volumes and would generate less than a significant amount of pollutants during construction. In consideration of the such and the scope of the proposed work, it is exempt from regional and/or project-level air quality conformity and the respective analyses. Therefore, the proposed project will not conflict with the AQMP, violate any air quality standard, result in a net increase of any criteria pollutant, or expose sensitive receptors to substantial pollutant concentrations, and no impacts are anticipated within this context.

d) Less Than Significant Impact. Temporary construction activities have the potential to generate fugitive dust from the operation of construction equipment. The proposed project shall comply with construction standards adopted by SCAQMD as well as Caltrans' standardized procedures for minimizing air pollutants during construction. Impacts will be less than significant,

and no mitigation is required.

3.2.4 Biological Resources

Would the project:

Question	CEQA Determination
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, U.S. Fish and Wildlife Service, or NOAA Fisheries?	Less Than Significant Impact
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?	Less Than Significant Impact
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	Less Than Significant Impact
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?	Less Than Significant Impact
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	No Impact
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?	No Impact

CEQA Significance Determinations

a) Less Than Significant Impact. While there is no suitable habitat for least Bell's vireo, southwestern willow flycatcher, coastal California gnatcatcher, or special-status plant species within the project study area. There are four species of special concern bat species using the bridge structure as suitable habitat. No significant impact is expected with incorporation of avoidanceand minimization measures, AN-01 through AN-04, as outlined in **Section 2.4.4**.

b) Less Than Significant Impact. The proposed undertaking does not present the potential for 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. Any potential impacts are considered temporary in nature and related only to construction within project limits when the water diversion plan is implemented. While construction activities have to potential to impact disturbed and ruderal areas, the impacts are considered less than significant with incorporation of avoidance andminimization measures, NAT-01 through NAT-04, as listed in **Section 2.4.1**.

c) Less Than Significant Impact. The proposed undertaking does not present the potential to have a substantial adverse effect on state or federally protected wetlands (including, but not

limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means. Potential temporary impacts to wetlands are estimated at 4.3 acres in consideration of temporary construction activities i.e. the water diversion plan. All potential impacts are considered less than significant with incorporation of avoidance and minimization, measures, WET-01 through WET-04, as listed in **Section 2.4.2**.

d) Less Than Significant Impact. The proposed project is not expected to 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. There is no suitable habitat for any Federally listed California species within the project study area, no significant impact is expected with incorporation of avoidance and minimization measure, AN-01, as outlined in **Section 2.4.5**.

e) No Impact. The proposed undertaking does not present the potential to conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

f) No Impact. The proposed undertaking does not present the potential to conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

3.2.5 Cultural Resources

Would the project:

Question	CEQA Determination
a) Cause a substantial adverse change in the significance of a historical resource pursuant to in §15064.5?	No Impact
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	No Impact
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	No Impact

CEQA Significance Determinations

a, b and c) No Impact. Based upon the nature of the proposed work within the softbottom of the San Gabriel River, the results of the records search, and consultation with Native American consulting parties, Caltrans Professionally Qualified Staff determined that there is no potential to cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5 of the CEQA Guidelines and that there is no potential to disturb any human remains, including those interred outside of dedicated cemeteries but in the event remains are found, the project will incorporate CUL-1.

3.2.6 Energy

Would the project:

Question	CEQA Determination
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	No Impact
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	No Impact

CEQA Significance Determinations

a) No Impact. The proposed project consists primarily of rehabilitation and restoration of existing bridge structure facilities, and in consideration of proposed project construction and operation methods, no potential exists for significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources.

b) No Impact. The proposed project consists primarily of rehabilitation and restoration of existing bridge structure facilities, and in consideration of proposed project construction and operation methods, no potential exists for conflict with, or obstruction of a state or local plan for renewable energy or energy efficiency.

3.2.7 Geology and Soils

Would the project:

Question	CEQA Determination
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	Less Than Significant Impact
ii) Strong seismic ground shaking?	Less Than Significant Impact
iii) Seismic-related ground failure, including liquefaction?	Less Than Significant Impact
iv) Landslides?	Less Than Significant Impact
b) Result in substantial soil erosion or the loss of topsoil?	Less Than Significant Impact
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?	Less Than Significant Impact
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	Less Than Significant Impact

Question	CEQA Determination
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?	No Impact
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	No Impact

CEQA Significance Determinations

a, i-iv) Less Than Significant Impact. While the proposed project is located in a seismically active region of Southern California, the proposed project consists primarily of rehabilitation and restoration of existing bridge structure facilities. In the next phase of the project, further geotechnical investigations, laboratory testing, and engineering analyses are required to determine subsurface conditions and shall include localized studies of surface and groundwater, rocks/soils, and geologic hazards to include seismic hazards (strong ground shaking, liquefaction, fault rupture, tsunami, seismically-induced landslides, rock fall, settlement, and subsidence) as it applies to the proposed design and the project study area. The results of these investigations will inform final design of the temporary support scaffolding during the next design phase of the proposed project, and minimize any impacts related to geology and soils to a level that is less than significant. In addition, the California Department of Conservation, California Geological Survey Maps does not identify the project location in a liquefaction zone. The nearest liquefaction zone is 0.5 miles from the project and identified as the Azusa liquefaction zone.

b, c, d) Less Than Significant Impact. While the proposed project is located in a seismically active region of Southern California, the proposed project consists primarily of rehabilitation and restoration of existing bridge structure facilities. In the next phase of the project, further geotechnical investigations, laboratory testing, and engineering analyses are required to determine subsurface conditions and shall include localized studies of surface and groundwater, rocks/soils, and geologic hazards to include seismic hazards (strong ground shaking, liquefaction, fault rupture, tsunami, seismically-induced landslides, rock fall, settlement, and subsidence) as it applies to the proposed design and the project study area. The results of these investigations will inform final design of the temporary support scaffolding during the next design phase of the proposed project, and minimize any impacts related to geology and soils to a level that is less than significant. In addition, the California Department of Conservation, California Geological Survey Maps does not identify the project location in a liquefaction zone. The nearest liquefaction zone is 0.5 miles from the project and identified as the Azusa liquefaction zone.

e) No Impact. The proposed project consists primarily of rehabilitation and restoration of existing bridge structure facilities within the San Gabriel River. Therefore, in consideration of the scope and nature of the proposed work, no impacts to septic tanks or alternate waste water disposal systems are anticipated.

f) No Impact. No unique paleontological resources or sites, or unique geological features have been identified within the project study area, and the proposed project consists primarily of rehabilitation and restoration of existing bridge structure facilities within the San Gabriel River. Therefore, in consideration of the scope and nature of the proposed work, no impacts are anticipated within this context.

3.2.8 Greenhouse Gas Emissions

Would the project:

Question	CEQA Determination
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	Less Than Significant Impact
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	Less Than Significant Impact

CEQA Significance Determinations

a, b) Less Than Significant Impact. The proposed project consists primarily of rehabilitation and restoration of existing bridge structure of the San Gabriel River Bridge and is not capacity-increasing in nature. Accordingly, the project is not expected to increase operational greenhouse gas emissions. The proposed project does not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases. With implementation of construction GHG-reduction measures, the impact would be less than significant.

3.2.9 Hazards and Hazardous Materials

Would the project:

Question	CEQA Determination
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	Less Than Significant Impact
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?	Less Than Significant Impact
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	No Impact
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?	No Impact
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	No Impact
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	Less Than Significant Impact
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	No Impact

CEQA Significance Determinations

a, b) Less Than Significant Impact. Construction of the proposed project will require temporary

construction easements for staging and access at properties adjacent to the project site, where potential for disturbance of contaminated soils exists. Additionally, construction activities have to potential to generate excess soils with elevated concentrations of lead as a result of this historical use of leaded gasoline, or aerially deposited lead on the State Highway System right-of-way and within the limits of the project study area. In the next project phase, a parcel-specific Initial Site Assessment, and potentially a Parcel Site Investigation will be required to determine the extent of potential contamination in temporary construction easements, and a project-specific Site Investigation shall be conducted to evaluate existing soil conditions and the extent and degree of contamination regarding aerially deposited lead and heavy metals, and construction remediations strategies and estimates will be developed to minimize any potential contamination to a level that is less than significant.

c) No Impact. There is no potential for emitting hazardous emissions, or the handling of hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of any existing or proposed school as none exist within this distance from the proposed project site.

d) No Impact. The proposed project is not 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, there is no potential to create a significant hazard to the public or the environment within this context.

e) No Impact. The proposed project is not located within an airport land use plan area, nor is it located within two miles of a public airport or public use airport. Therefore, the proposed project would not result in a safety hazard or generate excessive noise for people residing or working in the project area.

f) Less Than Significant Impact. The proposed project would not impair implementation of, or physically interfere with an adopted emergency response plan or emergency evacuation plan. Local emergency responders will be updated if any activities require lane closures. All traffic-related impacts would be less than significant, and no mitigation is required.

g) No Impact. The proposed project is located in a heavily urbanized area and does not present any potential for exposure of people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires.

3.2.10 Hydrology and Water Quality

Would the project:

Question	CEQA Determination
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	Less Than Significant Impact
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such the project may impede sustainable groundwater management of the basin?	Less Than Significant Impact
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: (i) result in substantial erosion or siltation on- or off-site;	Less Than Significant Impact

Question	CEQA Determination
(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	Less Than Significant Impact
(iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	Less Than Significant Impact
(iv) impede or redirect flood flows?	Less Than Significant Impact
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	No Impact
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	No Impact

CEQA Significance Determinations

a) Less Than Significant Impact. All improvements associated with the proposed project are subject to Section 404 of the Clean Water Act, which was established to regulate the discharge of dredged or fill material into waters of the United States, including wetlands. A Section 404 Nationwide Permit will be obtained from the United State Army Corps of Engineers for full compliance with the Clean Water Act for proposed activities in "Waters of the United States," thus reducing and potential for impacts related to violation of any water quality standards or waste discharge requirements to a less than significant level, and no mitigation is required.

b) Less Than Significant Impact. The proposed project consists primarily of rehabilitation and restoration of existing bridge structure facilities, and in consideration of the scope and nature of the proposed work, the potential for a substantial decrease in groundwater supplies or substantial interference with groundwater recharge such that the project would impede sustainable groundwater management of the basin is low. While a potential to encounter groundwater is anticipated, the proposed work is temporary in nature and will not cause any significant change in groundwater levels. Compliance with Regional Water Quality Control Board regulations for the proper discharge/treatment of all groundwater would further reduce and/or eliminate the effects of such. However, additional localized studies of surface, groundwater, and geology shall be performed during the next project phase to develop remedial measures to minimize any effects to a level that is less than significant.

c, i-iv) Less Than Significant Impact. The proposed project consists primarily of rehabilitation and restoration of existing bridge structure facilities, and in consideration of the scope and nature of the proposed work, the potential for impacts within this context are low as the proposed improvements would not alter the course of the river in a manner that would result in substantial erosion or siltation on-or-off-site. However, additional localized hydraulic and geotechnical evaluations shall be performed during the next project phase to develop remedial measures to minimize any effects to a level that is less than significant.

d) No Impact. The proposed project consists primarily of rehabilitation and restoration of existing bridge structure facilities, and in consideration of the scope and nature of the proposed work, the associated physical changes do not present any potential to risk release of pollutants due to project inundation.

e) No Impact. The proposed project consists primarily of rehabilitation and restoration of existing bridge structure facilities, and in consideration of the scope and nature of the proposed work, the associated physical changes do not present any potential to conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

3.2.11 Land Use and Planning

Would the project:

Question	CEQA Determination
a) Physically divide an established community?	No Impact
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	No Impact

CEQA Significance Determinations

a) No Impact. The proposed project consists primarily of rehabilitation and restoration of existing bridge structure facilities, and in consideration of the scope and nature of the proposed work, the associated physical changes do not present any potential to physically divide any established communities in the project study area.

b) No Impact. The proposed project consists primarily of rehabilitation and restoration of existing bridge structure facilities, and in consideration of the scope and nature of the proposed work, the associated physical changes do not present any potential to cause significant environmental impact due to a conflict with any land use plans, policies, or regulations adopted for the purpose of avoiding or mitigating an environmental effect in the project study area.

3.2.12 Mineral Resources

Would the project:

Question	CEQA Determination
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?	No Impact
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?	No Impact

CEQA Significance Determinations

a and b) No Impact. The proposed project consists primarily of rehabilitation and restoration of existing bridge structure facilities. In consideration of the scope and nature of the proposed work, the associated physical changes do not present any potential to 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. The associated physical changes do not present any potential to 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 in the project study area.

3.2.13 Noise

Would the project result in:

Question	CEQA Determination
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	No Impact
b) Generation of excessive groundborne vibration or groundborne noise levels?	No Impact
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	No Impact

CEQA Significance Determinations

a) No Impact. The proposed project consists primarily of rehabilitation and restoration of existing bridge structure facilities, and in consideration of the scope and nature of the proposed work, the associated physical changes do not present any potential for generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the proposed project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

b) No Impact. The proposed project consists primarily of rehabilitation and restoration of existing bridge structure facilities, and in consideration of the scope and nature of the proposed work, the associated physical changes do not present any potential for generation of excessive groundborne vibration or groundborne noise levels in the project study area.

c) No Impact. The proposed project is not located within the vicinity of a private airstrip or an airport land use plan, nor is it located within two miles of a public airport or public use airport. Therefore, the proposed project does not present any potential to expose people residing or working in the project area to excessive noise levels.

3.2.14 Population and Housing

Would the project:

Question	CEQA Determination
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	No Impact
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	No Impact

CEQA Significance Determinations

a) No Impact. The proposed project consists primarily of rehabilitation and restoration of existing

bridge structure facilities. In consideration of the scope and nature of the proposed work, the associated physical changes do not present any potential to induce substantial unplanned population growth in an area, either directly or indirectly, in the project study area.

b) No Impact. The proposed project consists primarily of rehabilitation and restoration of existing bridge structure facilities. In consideration of the scope and nature of the proposed work, the associated physical changes do not present any potential to displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.

3.2.15 Public Services

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:

Question	CEQA Determination
a) Fire protection?	Less Than Significant Impact
b) Police protection?	Less Than Significant Impact
c) Schools?	Less Than Significant Impact
d) Parks?	Less Than Significant Impact
e) Other public facilities?	Less Than Significant Impact

CEQA Significance Determinations

a-e) Less Than Significant Impact. The proposed project does not have the potential to result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, nor the need for new or physically altered governmental facilities. The construction of such is not required, and therefore, would not cause any significant environmental impact in order to maintain acceptable service ratios, response times, or other performance objectives for any public services. Additionally, a Transportation Management Plan (TMP-1) shall be implemented to provide detailed access and detour strategies that would minimize any effects on response times for fire, police, and emergency services. Caltrans shall maintain close coordination with local agencies and jurisdictions, including fire protection services, police, schools, and park agencies via a public outreach campaign during the construction phase of the proposed project. In consideration of the aforementioned, impacts related to public services are considered to be less than significant, and no mitigation is required.

3.2.16 Recreation

Question	CEQA Determination
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

Question	CEQA Determination
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

CEQA Significance Determinations

a) No Impact. The proposed project consists primarily of rehabilitation and restoration of existing bridge structure facilities. In consideration of the scope and nature of the proposed work, the associated physical changes do not present any potential to increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.

b) No Impact. The proposed project consists primarily of rehabilitation and restoration of existing bridge structure facilities and does not include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

3.2.17 Transportation

Would the project:

Question	CEQA Determination
a) Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	Less Than Significant Impact
b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	No Impact
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	No Impact
d) Result in inadequate emergency access?	No Impact

CEQA Significance Determinations

a) Less Than Significant Impact. The proposed project consists primarily of rehabilitation and restoration of existing bridge structure facilities, and any conflicts with programs, plans, ordinances, or policies addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities would be temporary and construction-related only. Caltrans continues to coordinate with local jurisdictions, and a Transportation Management Plan shall be implemented accordingly to provide detailed access and detour strategies that would minimize any effects related to the proposed undertaking. In consideration of the aforementioned, impacts related to such are considered to be less than significant, and no mitigation is required.

b) No Impact. The proposed project consists primarily of rehabilitation and restoration of existing bridge structure facilities, and in consideration of the scope and nature of the proposed work, the associated physical changes do not present any potential to be in conflict with CEQA Guidelines Section 15064.3, Subdivision (b).

c) No Impact. The proposed project consists primarily of rehabilitation and restoration of existing bridge structure facilities. In consideration of the scope and nature of the proposed work, the associated physical changes do not present any potential to substantially increase hazards due to a geometric design feature or incompatible uses.

d) No Impact. The proposed project consists primarily of rehabilitation and restoration of existing bridge structure facilities. In consideration of the scope and nature of the proposed work, the associated physical changes do not present any potential to result in inadequate emergency access in the project study area.

3.2.18 Tribal Cultural Resources

Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

Question	CEQA Determination
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	No Impact
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	No Impact

CEQA Significance Determinations

a, b) No Impact. Based upon the nature of the proposed work within the artificial channel of the San Gabriel River, the results of the records search, and consultation with Native American consulting parties, Caltrans Professionally Qualified Staff determined that there is no potential to 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. This includes 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), and any resource determined by Caltrans, as 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.

3.2.19 Utilities and Service Systems

Would the project:

Question	CEQA Determination
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	No Impact
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	No Impact
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	No Impact
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	No Impact
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	No Impact

CEQA Significance Determinations

a) No Impact. The proposed project consists primarily of rehabilitation and restoration of existing bridge structure facilities. In consideration of the scope and nature of the proposed work, the associated physical changes do not present a scenario that would require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects. In addition, the only known utility line crossing under the bridge structure is a Caltrans fiber optic cable that is located under the south side (eastbound) Interstate 210 (I-210) San Gabriel Bridge railing.

b) No Impact. The proposed project consists primarily of rehabilitation and restoration of existing bridge structure facilities. In consideration of the scope and nature of the proposed work, the associated physical changes do not present the potential to impact water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years.

c) No Impact. The proposed project consists primarily of rehabilitation and restoration of existing bridge structure facilities. In consideration of the scope and nature of the proposed work, the associated physical changes do not present the potential to result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.

d) No Impact. The proposed project consists primarily of rehabilitation and restoration of existing bridge structure facilities. In consideration of the scope and nature of the proposed work, the

associated physical changes do not present the potential to generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals.

e) No Impact. The proposed project shall comply with all Federal, State, and local statutes and regulations related to solid waste; thus, no impacts are anticipated within this context.

3.2.20 Wildfire

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:

Question	CEQA Determination
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	Less Than Significant Impact
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	No Impact
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	No Impact
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	No Impact

CEQA Significance Determinations

a) Less Than Significant Impact. This project will not substantially impair an adopted emergency response plan or emergency evacuation plan because a traffic management plan will be prepared to minimize the impacts to a less than significant level.

b-d) No Impact. The proposed project is not located in or near state responsibility areas or land classified as very high fire hazards severity zones; thus, no impacts are anticipated within this context.

3.2.21 Mandatory Findings of Significance

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

Question	CEQA Determination
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
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	Less Than Significant Impact

CEQA Significance Determinations

a) Less Than Significant with Mitigation Incorporated. The proposed project consists primarily of rehabilitation and restoration of existing bridge structure facilities, and while minor effects on biological habitats are anticipated during constructionand are temporary in duration and construction-related by nature. Any temporary impacts are mitigated in **AN-1**, which will reduce the impacts to less than significant. Collectively, the proposed project does not have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant, nor will it eliminate important examples of the major periods of California history or prehistory.

b) Less Than Significant Impact. The proposed project consists primarily of rehabilitation and restoration of existing bridge structure facilities. In consideration of the scope and nature of the proposed work, the associated physical changes do not have the potential to present impacts that are individually limited, but cumulatively considerable.majority of work will be done on the bridge deck, with minimal work in the river bed, primary and secondary containment, project design features, minimizes impacts to the physical environment falsework in riverbed

c) Less Than Significant Impact. The closest community is the City of Irwindale and the sensitive receptors that could be affected in regards to temporary construction noise is outside of the project area. Any temporary construction-related traffic impacts would be less than significant because of the traffic management plan implemented with local agencies input, see measures TMP-1 and TMP-2. These construction-related impacts, in regard to noise and traffic, are temporary and considered to be less than significant.

3.3 Wildfire

3.3.1 Regulatory Setting

Senate Bill 1241 required the Office of Planning and Research, the Natural Resources Agency, and the California Department of Forestry and Fire Protection to develop amendments to the “CEQA Checklist” for the inclusion of questions related to fire hazard impacts for projects located on lands classified as very high fire hazard severity zones. The 2018 updates to the CEQA Guidelines expanded this to include projects “near” these very high fire hazard severity zones.

3.3.2 Affected Environment

The project is located within a very high fire hazard severity zone as recommended by Cal Fire (see **Figure 3.3-a**).

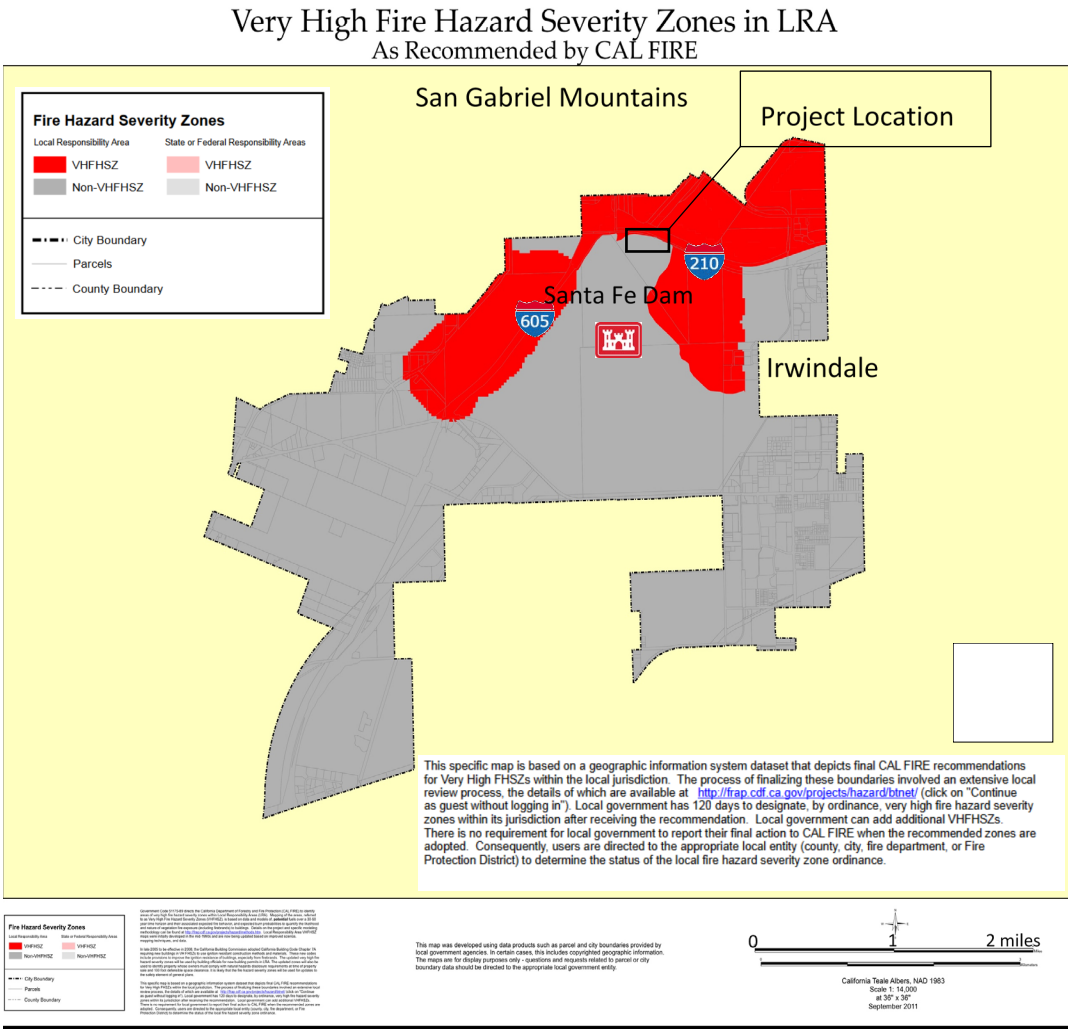


Figure 3.3-a. Fire Hazard Severity Zone for Project Location and Surrounding Area

3.3.3 Environmental Consequences

There will be a project-specific traffic management plan created which will ensure that this project will not impair an emergency response plan or emergency evacuation plan. There may only be delays in emergency response due to the closures of lanes on the freeway during construction, however, coordination with local enforcement agencies would ensure that adequate detours and advance noticed would be provided prior to the lane closures anticipated during construction. The project does not have the potential to exacerbate wildfire risk because it is not a capacity increasing project and the footprint of I-210 freeway is not being extended into the very high fire hazard severity zone. Additionally, the project would not require the installation of new infrastructure which could exacerbate wildfire risks. There is no new construction being added

onto the I-210 bridge; therefore, there will be no chance that the wildfire risk will change after completion of project construction. The project would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. This project is not on a new alignment and will not that create a large area of new cut slope.

3.3.4 Avoidance, Minimization, and/or Mitigation Measures

WF-1 Fire Protection. Fire protection is required during this project because it is located in a Very High Fire Hazard Severity Zone Location. Caltrans Standard Specification 7-1.02M(2) Fire Protection would be adhered to by the Caltrans Contractor.

3.4 Climate Change

Climate change refers to long-term changes in temperature, precipitation, wind patterns, and other elements of the earth's climate system. An ever-increasing body of scientific research attributes these climatological changes to greenhouse gas (GHG) emissions, particularly those generated from the production and use of fossil fuels.

While climate change has been a concern for several decades, the establishment of the Intergovernmental Panel on Climate Change (IPCC) by the United Nations and World Meteorological Organization in 1988 led to increased efforts devoted to GHG emissions reduction and climate change research and policy. These efforts are primarily concerned with the emissions of GHGs generated by human activity, including carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), tetrafluoromethane, hexafluoroethane, sulfur hexafluoride (SF_6), and various hydrofluorocarbons (HFCs). CO_2 is the most abundant GHG; while it is a naturally occurring component of Earth’s atmosphere, fossil-fuel combustion is the main source of additional, human-generated CO_2.

Two terms are typically used when discussing how we address the impacts of climate change: “greenhouse gas mitigation” and “adaptation.” Greenhouse gas mitigation covers the activities and policies aimed at reducing GHG emissions to limit or “mitigate” the impacts of climate change. Adaptation, on the other hand, is concerned with planning for and responding to impacts resulting from climate change (such as adjusting transportation design standards to withstand more intense storms and higher sea levels). This analysis will include a discussion of both.

3.4.1 Regulatory Setting

This section outlines federal and state efforts to comprehensively reduce GHG emissions from transportation sources.

Federal

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.

The National Environmental Policy Act (NEPA) (42 United States Code [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.

The Federal Highway Administration (FHWA) recognizes the threats that extreme weather, sea-level change, and other changes in environmental conditions pose to valuable transportation infrastructure and those who depend on it. FHWA therefore supports a sustainability approach that assesses vulnerability to climate risks and incorporates resilience into planning, asset management, project development and design, and operations and maintenance practices (Federal Highway Administration, 2019). This approach encourages planning for sustainable highways by addressing climate risks while balancing environmental, economic, and social values—"the triple bottom line of sustainability" (Federal Highway Administration, n.d.). Program and project elements that foster sustainability and resilience also support economic vitality and global efficiency, increase safety and mobility, enhance the environment, promote energy conservation, and improve the quality of life.

Various efforts have been promulgated at the federal level to improve fuel economy and energy efficiency to address climate change and its associated effects. The most important of these was the Energy Policy and Conservation Act of 1975 (42 USC Section 6201) and Corporate Average Fuel Economy (CAFE) Standards. This act establishes fuel economy standards for on-road motor vehicles sold in the United States. Compliance with federal fuel economy standards is determined through the CAFE program based on each manufacturer's average fuel economy for the portion of its vehicles produced for sale in the United States.

Energy Policy Act of 2005, 109th Congress H.R.6 (2005–2006): This act sets forth an energy research and development program covering: (1) energy efficiency; (2) renewable energy; (3) oil and gas; (4) coal; (5) the establishment of the Office of Indian Energy Policy and Programs within the Department of Energy; (6) nuclear matters and security; (7) vehicles and motor fuels, including ethanol; (8) hydrogen; (9) electricity; (10) energy tax incentives; (11) hydropower and geothermal energy; and (12) climate change technology.

The U.S. EPA in conjunction with the National Highway Traffic Safety Administration (NHTSA) is responsible for setting GHG emission standards for new cars and light-duty vehicles to significantly increase the fuel economy of all new passenger cars and light trucks sold in the United States. Fuel efficiency standards directly influence GHG emissions.

State

California has been innovative and proactive in addressing GHG emissions and climate change by passing multiple Senate and Assembly bills and executive orders (EOs) including, but not limited to, the following:

EO S-3-05 (June 1, 2005): The goal of this EO is to reduce California's GHG emissions to: (1) year 2000 levels by 2010, (2) year 1990 levels by 2020, and (3) 80 percent below year 1990 levels by 2050. This goal was further reinforced with the passage of Assembly Bill (AB) 32 in 2006 and Senate Bill (SB) 32 in 2016.

Assembly Bill (AB) 32, Chapter 488, 2006, Núñez and Pavley, The Global Warming Solutions Act of 2006: AB 32 codified the 2020 GHG emissions reduction goals outlined in EO S-3-05, while further mandating that the California Air Resources Board (ARB) create a scoping plan and implement rules to achieve "real, quantifiable, cost-effective reductions of greenhouse gases."

The Legislature also intended that the statewide GHG emissions limit continue in existence and be used to maintain and continue reductions in emissions of GHGs beyond 2020 (Health and Safety Code [H&SC] Section 38551(b)). The law requires ARB to adopt rules and regulations in an open public process to achieve the maximum technologically feasible and cost-effective GHG reductions.

EO S-01-07 (January 18, 2007): This order sets forth the low carbon fuel standard (LCFS) for California. Under this EO, the carbon intensity of California's transportation fuels is to be reduced by at least 10 percent by the year 2020. ARB re-adopted the LCFS regulation in September 2015, and the changes went into effect on January 1, 2016. The program establishes a strong framework to promote the low-carbon fuel adoption necessary to achieve the Governor's 2030 and 2050 GHG reduction goals.

Senate Bill (SB) 375, Chapter 728, 2008, Sustainable Communities and Climate Protection: This bill requires ARB to set regional emissions reduction targets for passenger vehicles. The Metropolitan Planning Organization (MPO) for each region must then develop a "Sustainable Communities Strategy" (SCS) that integrates transportation, land-use, and housing policies to plan how it will achieve the emissions target for its region.

SB 391, Chapter 585, 2009, California Transportation Plan: This bill requires the State's long-range transportation plan to identify strategies to address California's climate change goals under AB 32.

EO B-16-12 (March 2012) orders State entities under the direction of the Governor, including ARB, the California Energy Commission, and the Public Utilities Commission, to support the rapid commercialization of zero-emission vehicles. It directs these entities to achieve various benchmarks related to zero-emission vehicles.

EO B-30-15 (April 2015) establishes an interim statewide GHG emission reduction target of 40 percent below 1990 levels by 2030 to ensure California meets its target of reducing GHG emissions to 80 percent below 1990 levels by 2050. It further orders all state agencies with jurisdiction over sources of GHG emissions to implement measures, pursuant to statutory authority, to achieve reductions of GHG emissions to meet the 2030 and 2050 GHG emissions reductions targets. It also directs ARB to update the Climate Change Scoping Plan to express the 2030 target in terms of million metric tons of carbon dioxide equivalent ($MMTCO_2e$).[3] Finally, it requires the Natural Resources Agency to update the state's climate adaptation strategy, *Safeguarding California*, every 3 years, and to ensure that its provisions are fully implemented.

SB 32, Chapter 249, 2016, codifies the GHG reduction targets established in EO B-30-15 to achieve a mid-range goal of 40 percent below 1990 levels by 2030.

SB 1386, Chapter 545, 2016, declared "it to be the policy of the state that the protection and management of natural and working lands … is an important strategy in meeting the state's greenhouse gas reduction goals, and would require all state agencies, departments, boards, and

[3] GHGs differ in how much heat each trap in the atmosphere (global warming potential, or GWP). CO_2 is the most important GHG, so amounts of other gases are expressed relative to CO_2, using a metric called "carbon dioxide equivalent" (CO_2e). The global warming potential of CO_2 is assigned a value of 1, and the GWP of other gases is assessed as multiples of CO_2.

commissions to consider this policy when revising, adopting, or establishing policies, regulations, expenditures, or grant criteria relating to the protection and management of natural and working lands."

AB 134, Chapter 254, 2017, allocates Greenhouse Gas Reduction Funds and other sources to various clean vehicle programs, demonstration/pilot projects, clean vehicle rebates and projects, and other emissions-reduction programs statewide.

SB 743**,** Chapter 386 (September 2013): This bill changes the metric of consideration for transportation impacts pursuant to CEQA from a focus on automobile delay to alternative methods focused on vehicle miles travelled, to promote the state's goals of reducing greenhouse gas emissions and traffic related air pollution and promoting multimodal transportation while balancing the needs of congestion management and safety.

SB 150**,** Chapter 150, 2017, Regional Transportation Plans: This bill requires ARB to prepare a report that assesses progress made by each metropolitan planning organization in meeting their established regional greenhouse gas emission reduction targets.

EO B-55-18 (September 2018) sets a new statewide goal to achieve and maintain carbon neutrality no later than 2045. This goal is in addition to existing statewide targets of reducing GHG emissions.

EO N-19-19 (September 2019) advances California's climate goals in part by directing the California State Transportation Agency to leverage annual transportation spending to reverse the trend of increased fuel consumption and reduce GHG emissions from the transportation sector. It orders a focus on transportation investments near housing, managing congestion, and encouraging alternatives to driving. This EO also directs ARB to encourage automakers to produce more clean vehicles, formulate ways to help Californians purchase them, and propose strategies to increase demand for zero-emission vehicles.

3.4.2 Environmental Setting

The proposed project is in an urban area of Los Angeles County, in the City of Irwindale with an existing well-developed road and street network. The project area is mainly industrial and commercial, with some residential sections outside of the project footprint. Traffic congestion during peak hours is not uncommon in the project area. A Regional Transportation Plan/Sustainable Community Strategy (RTP/SCS) by Southern California Association of Governments (SCAG) guides transportation and housing development in the project area. The Los Angeles County General Plan Sustainability Element addresses GHGs in the project area.

The proposed project is within the South Coast Air Basin (SCAB).

A GHG emissions inventory estimates the amount of GHGs discharged into the atmosphere by specific sources over a period of time, such as a calendar year. Tracking annual GHG emissions allows countries, states, and smaller jurisdictions to understand how emissions are changing and what actions may be needed to attain emission reduction goals. U.S. EPA is responsible for documenting GHG emissions nationwide, and the ARB does so for the state, as required by H&SC Section 39607.4.

National GHG Inventory

The U.S. EPA prepares a national GHG inventory every year and submits it to the United Nations in accordance with the Framework Convention on Climate Change. The inventory provides a comprehensive accounting of all human-produced sources of GHGs in the United States, reporting emissions of CO_2, CH_4, N_2O, HFCs, perfluorocarbons, SF_6, and nitrogen trifluoride. It also accounts for emissions of CO_2 that are removed from the atmosphere by "sinks" such as forests, vegetation, and soils that uptake and store CO_2 (carbon sequestration). The 1990–2016 inventory found that of 6,511 $MMTCO_2e$ GHG emissions in 2016, 81% consist of CO_2, 10% are CH_4, and 6% are N_2O; the balance consists of fluorinated gases (U.S. Environmental Protection Agency, 2018a). In 2016, GHG emissions from the transportation sector accounted for nearly 28.5% of U.S. GHG emissions.

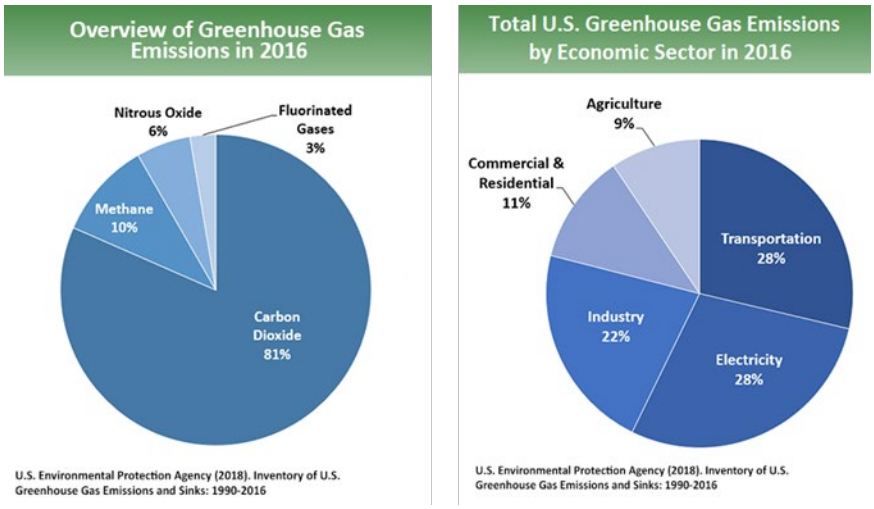


Figure 3.4-a. U.S. 2016 Greenhouse Gas Emissions

State GHG Inventory

ARB collects GHG emissions data for transportation, electricity, commercial/residential, industrial, agricultural, and waste management sectors each year. It then summarizes and highlights major annual changes and trends to demonstrate the state's progress in meeting its GHG reduction goals. The 2018 edition of the GHG emissions inventory found total California emissions of 429 $MMTCO_2e$ for 2016, with the transportation sector responsible for 41% of total GHGs. It also found that GHG emissions have declined from 2000 to 2016 despite growth in population and state economic output (California Air Resources Board, 2019a).

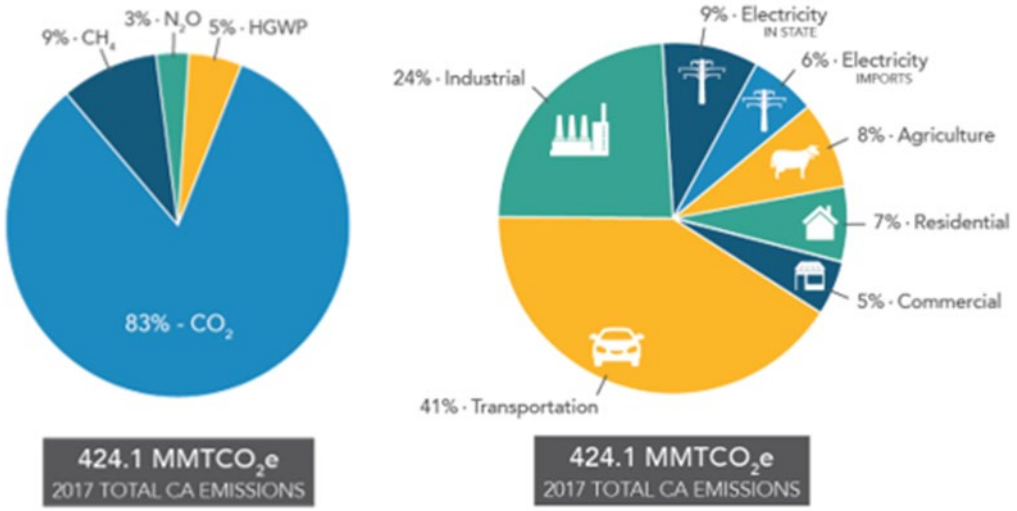
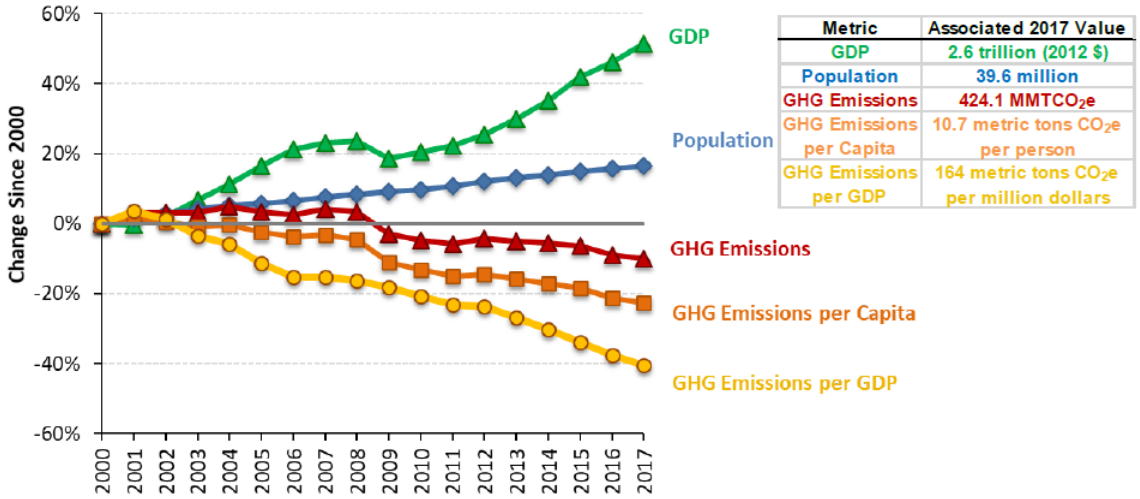


Figure 3.4-b. California 2017 Greenhouse Gas Emissions



Source: (California Air Resources Board, 2019b)

Figure 3.4-c. Change in California GDP, Population, and GHG Emissions Since 2000

AB 32 required ARB to develop a Scoping Plan that describes the approach California will take to achieve the goal of reducing GHG emissions to 1990 levels by 2020, and to update it every 5 years. ARB adopted the first scoping plan in 2008. The second updated plan, *California's 2017 Climate Change Scoping Plan*, adopted on December 14, 2017, reflects the 2030 target established in EO B-30-15 and SB 32. The AB 32 Scoping Plan and the subsequent updates contain the main strategies California will use to reduce GHG emissions.

Regional Plans

ARB sets regional targets for California's 18 MPOs to use in their Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) to plan future projects that will cumulatively achieve GHG reduction goals. Targets are set at a percent reduction of passenger vehicle GHG emissions per person from 2005 levels. The proposed project is included in the RTP/SCS for

SCAG. The regional reduction target for SCAG is 8 percent for 2020 and 19 percent for 2035 (California Air Resources Board, 2019c).

The proposed project is within the jurisdiction of the SCAG Regional Transportation Planning Agency (RTPA). The 2016 RTP identifies the region's changes and challenges. There are a few major themes in the RTP which include: integrating strategies for land use and transportation, striving for sustainability, protecting and preserving our existing transportation infrastructure, increasing capacity through improved systems management, providing people with more transportation choices, leveraging technology, responding to demographic and housing market changes, supporting commerce, economic growth and opportunity, promoting the links among public health, and building a plan based on the principles of social equity and environmental justice.

3.4.3 Project Analysis

GHG emissions from transportation projects can be divided into those produced during operation of the SHS and those produced during construction. The primary GHGs produced by the transportation sector are CO_2, CH_4, N_2O, and HFCs. CO_2 emissions are a product of the combustion of petroleum-based products, like gasoline, in internal combustion engines. Relatively small amounts of CH_4 and N_2O are emitted during fuel combustion. In addition, a small amount of HFC emissions are included in the transportation sector.

The CEQA Guidelines generally address greenhouse gas emissions as a cumulative impact due to the global nature of climate change (Pub. Resources Code, § 21083(b)(2)). As the California Supreme Court explained, "because of the global scale of climate change, any one project's contribution is unlikely to be significant by itself." (Cleveland National Forest Foundation *v.* San Diego Assn. of Governments (2017) 3 Cal.5th 497, 512.) In assessing cumulative impacts, it must be determined if a project's incremental effect is "cumulatively considerable" (CEQA Guidelines Sections 15064(h)(1) and 15130).

To make this determination, the incremental impacts of the project must be compared with the effects of past, current, and probable future projects. Although climate change is ultimately a cumulative impact, not every individual project that emits greenhouse gases must necessarily be found to contribute to a significant cumulative impact on the environment.

Operational Emissions

The purpose of the proposed project is to replace the failing bridge hinges and bridge railings and will not increase the vehicle capacity of the roadway. Because the project would not increase the number of travel lanes on I-210, no increase in vehicle miles traveled (VMT) would occur as result of project implementation. The proposed project is not anticipated to result in any meaningful changes to traffic volumes, vehicle mix, location of the existing facility, or any other factors which would cause an increase in mobile source greenhouse gas emissions relative to existing conditions or the No-Build Alternative. While some increase in GHG emissions during the construction period would be unavoidable, no increase in operational GHG emissions is expected.

Construction Emissions

Construction GHG emissions would result from material processing, on-site construction

equipment, and traffic delays due to construction. These emissions will be produced at different levels throughout the construction phase; their frequency and occurrence can be reduced through innovations in plans and specifications and by implementing better traffic management during construction phases.

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.

Per Governor's Executive Order B-30-15, Caltrans requires that construction GHG emissions be quantified. The Air Quality Board (Caltrans Staff) has obtained construction activities data from the Project Engineer and completed an estimate of construction emissions(see **Table 3.4-a**).

Table 3.4-a. Estimate of Construction Emissions

	CO_2
Daily Average (lbs/day)	2,198
Annual Average (tons/year)	147

CO_2 = carbon dioxide

The emissions from temporary construction activities have been estimated using the Caltrans Emissions Tool 2018 (CAL-CET2018) v1.2. Construction CO_2 emissions from temporary construction activities were estimated to be 147 tons for Alternative 2 and Alternative 3.

All construction contracts include Caltrans Standard Specifications Section 7-1.02A and 7 1.02C, Emissions Reduction, which require contractors to comply with all laws applicable to the project and to certify they are aware of and will comply with all ARB emission reduction regulations; and Section 14-9.02, Air Pollution Control, which requires contractors to comply with all air pollution control rules, regulations, ordinances, and statutes. Certain common Caltrans regulations, such as equipment idling restrictions, that reduce construction vehicle emissions also help reduce GHG emissions.

3.4.4 CEQA Conclusions

While the proposed project will result in GHG emissions during construction, it is anticipated that the project will not result in any increase in operational GHG emissions. The proposed project does not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases. With implementation of construction GHG-reduction measures, the impact would be less than significant.

Caltrans is firmly committed to implementing measures to help reduce GHG emissions. These measures are outlined in the following section.

3.4.5 Greenhouse Gas Reduction Strategies

Statewide Efforts

Major sectors of the California economy, including transportation, will need to reduce emissions to meet the 2030 and 2050 GHG emissions targets. Former Governor Edmund G. Brown promoted GHG reduction goals that involved (1) reducing today's petroleum use in cars and

trucks by up to 50 percent; (2) increasing from one-third to 50 percent our electricity derived from renewable sources; (3) doubling the energy efficiency savings achieved at existing buildings and making heating fuels cleaner; (4) reducing the release of methane, black carbon, and other short-lived climate pollutants; (5) managing farms and rangelands, forests, and wetlands so they can store carbon; and (6) periodically updating the state's climate adaptation strategy, *Safeguarding California*.

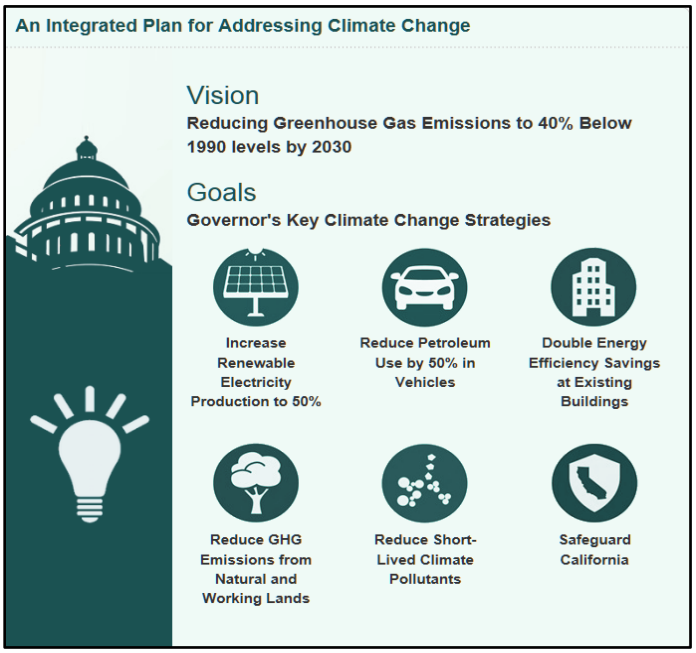


Figure 3.4-d. California Climate Strategy

The transportation sector is integral to the people and economy of California. To achieve GHG emission reduction goals, it is vital that the state build on past successes in reducing criteria and toxic air pollutants from transportation and goods movement. GHG emission reductions will come from cleaner vehicle technologies, lower-carbon fuels, and reduction of vehicle miles traveled (VMT). A key state goal for reducing greenhouse gas emissions is to reduce today's petroleum use in cars and trucks by up to 50 percent by 2030 (State of California, 2019).

In addition, SB 1386 (Wolk 2016) established as state policy the protection and management of natural and working lands and requires state agencies to consider that policy in their own decision making. Trees and vegetation on forests, rangelands, farms, and wetlands remove carbon dioxide from the atmosphere through biological processes and sequester the carbon in above- and below-ground matter.

Caltrans Activities

Caltrans continues to be involved on the Governor’s Climate Action Team as the ARB works to implement EOs S-3-05 and S-01-07 and help achieve the targets set forth in AB 32. EO B-30-15, issued in April 2015, and SB 32 (2016), set an interim target to cut GHG emissions to 40 percent below 1990 levels by 2030. The following major initiatives are underway at Caltrans to help meet these targets.

California Transportation Plan (CTP 2040)

The California Transportation Plan (CTP) is a statewide, long-range transportation plan to meet our future mobility needs and reduce GHG emissions. In 2016, Caltrans completed the *California Transportation Plan 2040*, which establishes a new model for developing ground transportation systems, consistent with CO_2 reduction goals. It serves as an umbrella document for all the other statewide transportation planning documents. Over the next 25 years, California will be working to improve transit and reduce long-run repair and maintenance costs of roadways and developing a comprehensive assessment of climate-related transportation demand management and new technologies rather than continuing to expand capacity on existing roadways.

SB 391 (Liu 2009) requires the CTP to meet California's climate change goals under AB 32. Accordingly, the CTP 2040 identifies the statewide transportation system needed to achieve maximum feasible GHG emission reductions while meeting the state's transportation needs. While MPOs have primary responsibility for identifying land use patterns to help reduce GHG emissions, CTP 2040 identifies additional strategies in Pricing, Transportation Alternatives, Mode Shift, and Operational Efficiency.

Caltrans Strategic Management Plan

The Strategic Management Plan, released in 2015, creates a performance-based framework to preserve the environment and reduce GHG emissions, among other goals. Specific performance targets in the plan that will help to reduce GHG emissions include:

- Increasing percentage of non-auto mode share
- Reducing VMT
- Reducing Caltrans' internal operational (buildings, facilities, and fuel) GHG emissions

Funding and Technical Assistance Programs

In addition to developing plans and performance targets to reduce GHG emissions, Caltrans also administers several sustainable transportation planning grants. These grants encourage local and regional multimodal transportation, housing, and land use planning that furthers the region's RTP/SCS; contribute to the State's GHG reduction targets and advance transportation-related GHG emission reduction project types/strategies; and support other climate adaptation goals (e.g., *Safeguarding California*).

Caltrans Policy Directives and Other Initiatives

Caltrans Director's Policy 30 (DP-30) Climate Change (June 22, 2012) is intended to establish a Department policy that will ensure coordinated efforts to incorporate climate change into Departmental decisions and activities. *Caltrans Activities to Address Climate Change* (April 2013) provides a comprehensive overview of Caltrans' statewide activities to reduce GHG emissions resulting from agency operations.

Project-Level GHG Reduction Strategies

The following measures will also be implemented in the project to reduce GHG emissions and potential climate change impacts from the project.

The proposed project is located in the lower desert portion of Los Angeles County. It is within the

boundary of the SCAB and within the jurisdiction of the SCAQMD, and is required to comply with SCAQMD emissions reductions measures.

CC-1 Project-Level Measures to Reduce GHG emissions Related to Construction Activities

- Alternative fuels such as renewable diesel should be used for construction equipment.
- Idling is limited to five minutes for delivery and dump trucks and other diesel-powered equipment (with some exceptions).
- Reduce construction water consumption of potable water. Encourage recycled water for construction.
- Encourage Improved fuel efficiency from construction equipment (examples provided below):
    - Maintain equipment in proper working condition
    - Right size equipment for the job
    - Use equipment with new technologies
- Construction Environmental Training. Provide construction personnel with the knowledge to identify environmental issues and best practice methods to minimize impacts to the human and natural environment. Supplement existing training with information regarding methods to reduce GHG emissions related to construction. The following link may be useful when creating construction environmental training: https://www.sustainablehighways.org/122/project-development.html
- On-site recycling of existing project features is encouraged

3.4.6 Adaptation

Reducing GHG emissions is only one part of an approach to addressing climate change. Caltrans must plan for the effects of climate change on the state's transportation infrastructure and strengthen or protect the facilities from damage. Climate change is expected to produce increased variability in precipitation, rising temperatures, rising sea levels, variability in storm surges and their intensity, and in the frequency and intensity of wildfires. Flooding and erosion can damage or wash out roads; longer periods of intense heat can buckle pavement and railroad tracks; storm surges combined with a rising sea level can inundate highways. Wildfire can directly burn facilities and indirectly cause damage when rain falls on denuded slopes that landslide after a fire. Effects will vary by location and may, in the most extreme cases, require that a facility be relocated or redesigned. Accordingly, Caltrans must consider these types of climate stressors in how highways are planned, designed, built, operated, and maintained.

Federal Efforts

Under NEPA assignment, Caltrans is obligated to comply with all applicable federal environmental laws and FHWA NEPA regulations, policies, and guidance.

The U.S. Global Change Research Program (USGRCP) delivers a report to Congress and the president every 4 years, in accordance with the Global Change Research Act of 1990 (15 U.S.C. ch. 56A § 2921 et seq). The *Fourth National Climate Assessment*, published in 2018, presents the foundational science and the "human welfare, societal, and environmental elements of climate

change and variability for 10 regions and 18 national topics, with particular attention paid to observed and projected risks, impacts, consideration of risk reduction, and implications under different mitigation pathways." Chapter 12, "Transportation," presents a key discussion of vulnerability assessments. It notes that "asset owners and operators have increasingly conducted more focused studies of particular assets that consider multiple climate hazards and scenarios in the context of asset-specific information, such as design lifetime" (U.S. Global Change Research Program, 2018).

The U.S. DOT Policy Statement on Climate Adaptation in June 2011 committed the federal Department of Transportation to "integrate consideration of climate change impacts and adaptation into the planning, operations, policies, and programs of DOT in order to ensure that taxpayer resources are invested wisely, and that transportation infrastructure, services and operations remain effective in current and future climate conditions" (U.S. Department of Transportation, 2011).

FHWA order 5520 (*Transportation System Preparedness and Resilience to Climate Change and Extreme Weather Events,* December 15, 2014) established FHWA policy to strive to identify the risks of climate change and extreme weather events to current and planned transportation systems. FHWA has developed guidance and tools for transportation planning that foster resilience to climate effects and sustainability at the federal, state, and local levels (Federal Highway Administration, 2019).

State Efforts

Climate change adaptation for transportation infrastructure involves long-term planning and risk management to address vulnerabilities in the transportation system. *California's Fourth Climate Change Assessment* (2018) is the state's latest effort to "translate the state of climate science into useful information for action" in a variety of sectors at both statewide and local scales. It adopts the following key terms used widely in climate change analysis and policy documents:

- *Adaptation* to climate change refers to adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates harm or exploits beneficial opportunities.
- *Adaptive capacity* is the "combination of the strengths, attributes, and resources available to an individual, community, society, or organization that can be used to prepare for and undertake actions to reduce adverse impacts, moderate harm, or exploit beneficial opportunities."
- *Exposure* is the presence of people, infrastructure, natural systems, and economic, cultural, and social resources in areas that are subject to harm.
- Resilience is the "capacity of any entity – an individual, a community, an organization, or a natural system – to prepare for disruptions, to recover from shocks and stresses, and to adapt and grow from a disruptive experience". Adaptation actions contribute to increasing resilience, which is a desired outcome or state of being.
- *Sensitivity* is the level to which a species, natural system, or community, government, etc., would be affected by changing climate conditions.

- *Vulnerability* is the "susceptibility to harm from exposure to stresses associated with environmental and social change and from the absence of capacity to adapt." Vulnerability can increase because of physical (built and environmental), social, political, and/or economic factor(s). These factors include, but are not limited to ethnicity, class, sexual orientation and identification, national origin, and income inequality.2 Vulnerability is often defined as the combination of sensitivity and adaptive capacity as affected by the level of exposure to changing climate.

Several key state policies have guided climate change adaptation efforts to date. Recent state publications produced in response to these policies draw on these definitions.

EO S-13-08, issued by then-governor Arnold Schwarzenegger in November 2008, focused on sea-level rise, and resulted in the *California Climate Adaptation Strategy* (2009), updated in 2014 as *Safeguarding California: Reducing Climate Risk* (Safeguarding California Plan). The Safeguarding California Plan offers policy principles and recommendations and continues to be revised and augmented with sector-specific adaptation strategies, ongoing actions, and next steps for agencies.

EO S-13-08 also led to the publication of a series of sea-level rise assessment reports and associated guidance and policies. These reports formed the foundation of an interim *State of California Sea-Level Rise Interim Guidance Document* (SLR Guidance) in 2010, with instructions for how state agencies could incorporate "sea-level rise (SLR) projections into planning and decision making for projects in California" in a consistent way across agencies. The guidance was revised and augmented in 2013. *Rising Seas in California – An Update on Sea-Level Rise Science* was published in 2017 and its updated projections of sea-level rise and new understanding of processes and potential impacts in California were incorporated into the *State of California Sea-Level Rise Guidance Update* in 2018.

EO B-30-15, signed in April 2015, requires state agencies to factor climate change into all planning and investment decisions. This EO recognizes that effects of climate change other than sea-level rise also threaten California's infrastructure. At the direction of EO B-30-15, the Office of Planning and Research published *Planning and Investing for a Resilient California: A Guidebook for State Agencies* in 2017, to encourage a uniform and systematic approach. Representatives of Caltrans participated in the multi-agency, multidisciplinary technical advisory group that developed this guidance on how to integrate climate change into planning and investment.

AB 2800 (Quirk 2016) created the multidisciplinary Climate-Safe Infrastructure Working Group, which in 2018 released its report, *Paying it Forward: The Path Toward Climate-Safe Infrastructure in California*. The report provides guidance to agencies on how to address the challenges of assessing risk in the face of inherent uncertainties still posed by the best available science on climate change. It also examines how state agencies can use infrastructure planning, design, and implementation processes to address the observed and anticipated climate change impacts.

Caltrans Adaptation Efforts

Caltrans Vulnerability Assessments

Caltrans is conducting climate change vulnerability assessments to identify segments of the State

Highway System vulnerable to climate change effects including precipitation, temperature, wildfire, storm surge, and sea-level rise. The approach to the vulnerability assessments was tailored to the practices of a transportation agency, and involves the following concepts and actions:

- *Exposure* – Identify Caltrans assets exposed to damage or reduced service life from expected future conditions.
- *Consequence* – Determine what might occur to system assets in terms of loss of use or costs of repair.
- *Prioritization* – Develop a method for making capital programming decisions to address identified risks, including considerations of system use and/or timing of expected exposure.

The climate change data in the assessments were developed in coordination with climate change scientists and experts at federal, state, and regional organizations at the forefront of climate science. The findings of the vulnerability assessments will guide analysis of at-risk assets and development of adaptation plans to reduce the likelihood of damage to the State Highway System, allowing Caltrans to both reduce the costs of storm damage and to provide and maintain transportation that meets the needs of all Californians.

Project Adaptation Analysis

Caltrans District 7 completed a climate change vulnerability assessment in September 2019. This vulnerability assessment contains information regarding several climate stressors.

The climate change vulnerability assessment was based on the best data and science available from state and regional agencies, as well as universities and laboratories. Based on criteria in the assessment, it is determined that the San Gabriel River Bridge Hinge Replacement project will not exacerbate effects of climate change, and will not be at high risk of damage under future climate change conditions. Climate-change risk analysis involves uncertainties as to the timing and intensity of potential risks; uncertainties may be documented in the project risk register.

Sea-Level Rise

The proposed project is outside the coastal zone and not in an area subject to sea-level rise because it is about 38 miles inland near the San Gabriel Mountain foothills. Accordingly, direct impacts to transportation facilities due to projected sea-level rise are not expected.

Floodplains

The project crosses the San Gabriel River within the City of Irwindale. The project study area is located within a FEMA Special Flood Hazard Area designated as “Zone X,” or an area that possesses a minimal chance of flooding. The San Gabriel River is controlled by the Los Angeles County Department of Public Work’s water master, where it is released and shut off at different times throughout the year. The river flow varies from year to year and throughout the water year, from almost no flow to more than 15,000 cfs per day. Winter rainfall in the project study area can be scant, but the region is subject to periods of intense and sustained precipitation that often results in flooding.

The Caltrans District 7 Climate Change Vulnerability Assessment mapping tool indicates a

change of about 5% in 100-year storm precipitation depth in the project area through 2085 (a metric used in design of transportation facilties).

The proposed project would not change the height of the bridge. In the event of a flood, the bridge is expected to remain above the flow of the river. The proposed project would not encroach on the floodplain or increase flood elevation, nor add impervious surface that would increase stormwater runoff. Furthermore, the project would construct drainage improvements that would channel runoff to abutment areas to allow water to gradually flow and infiltrate into the riverbed and then the main river channel. While climate-change risk analysis involves uncertainties as to the timing and intensity of potential risks, this repair project is likely to withstand climate change effects related to precipitation and flooding through the project's design life.

Wildfire

The project footprint along I-210 is within a Very High Fire Hazard Severity Zone (see Figure 3.3-a). District 7's vulnerability assessment analyzes wildfire concerns regarding the State Highway System. According to the vulnerability assessment mapping tool, I-210 within the project limits is considered exposed roadway at a moderate level of concern through 2085. The hinge will be replaced to extend the life of the bridge structure, and the railings will be replaced with current standards railings to protect the traveling public. These improvements will leave the whole bridge in its current state relative to fire risk. The project's impacts to wildfire are discussed above in **Section 3.3**. The proposed project will not introduce new structures or uses to the project area that would be vulnerable to fire. Construction contracts will include Caltrans 2018 revised Standard Specification 7-1.02M(2), which mandates fire prevention procedures, including a fire prevention plan, to avoid or address inadvertent fire starts.

3.4.7 References

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4.0 Comments and Coordination

4.1 Introduction

Early and continuing coordination with the general public and public agencies is an essential part of the environmental process. It helps planners determine the necessary scope of environmental documentation and the level of analysis required, and to identify potential impacts and avoidance, minimization, and/or mitigation measures and related environmental requirements. Interagency coordination and public participation for this project have been accomplished through a variety of formal and informal methods, including agency coordination meetings, public meetings, public notices, and Project Development Team meetings. This chapter summarizes the results of Caltrans' efforts to fully identify, address, and resolve project-related issues through early and ongoing coordination. **Figure 4.1-a** explains Caltrans' environmental process and how the public can be involved at any point.

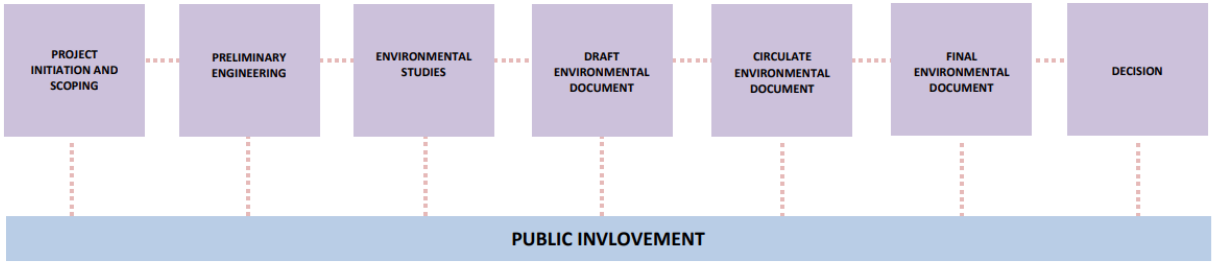

Figure 4.1-a. Environmental Process for Caltrans Projects

4.2 Transportation Planning, Project Initiation and Preliminary Design and Environmental Studies

To initiate the project, many steps occurred before the environmental document was written. The Structure Replacement and Improvement Needs report from 2012 and a bridge inspection report from 2016 identified this bridge (Bridge No. 53-1867) for hinge and railing upgrades.

The bridge inspection condition assessment is based on the American Association of State Highway and Transportation Officials Bridge Element inspection manual 2013, as defined in Moving Ahead for Progress in the 21st Century federal law. The inspections were performed in 2012 and 2016 and recommend replacement of hinges 4 and 6 and bridge rail upgrades.

In March of 2017, the Caltrans District 7 Division of Environmental Planning completed a Preliminary Environmental Analysis Report (PEAR) based on a request from District 7 Division of Design. This PEAR suggested further technical studies if work was to be completed within the riverbed.

4.3 Continued Development of Design and Environmental Studies

In November 2019, the Caltrans Division of Environmental Planning initiated environmental

studies to assess any potential environmental impacts as a result of the proposed project. An internal project development team was developed consisting of technical specialists from the following disciplines: urban and environmental planning, hydraulics and water quality, geology, hazardous waste and materials, biology, and right-of-way/acquisitions. The results of these technical studies are presented in this Initial Study/Environmental Assessment.

4.4 Summary of Scoping Activities

Scoping is a process designed to examine a proposed project early in the environmental impact analysis and review process. Scoping is intended to identify the range of issues raised by the proposed project and resolve the concerns of other agencies and the general public. Gathering public input is essential for conducting scoping.

A Notice of Preparation of studies was distributed to elected officials and officials with jurisdiction in or around the project area via direct mailing (April 3, 2020). Notices were available for public review and published in local newspapers that circulate where the project site is located. The notice was posted in four newspapers: the San Gabriel Valley Tribune (March 28, 2020), Chinese Daily News (March 28, 2020), La Opinion (March 30, 2020) and the San Gabriel Valley Examiner (April 2, 2020). Responses to the Notice of Preparation were received from: the City of Claremont, South Coast Air Quality Management District, Main San Gabriel Basin Water Master, and the Los Angeles County Fire Department, these letters can be viewed in Appendix F.

4.5 Summary of Tribal Consultation

Assembly Bill 52 amended the California Environmental Quality Act (CEQA) to address California Native American tribal concerns regarding how cultural resources of importance to the tribes are treated under CEQA. CEQA now specifies that a project may cause a substantial adverse change in the significance of a tribal cultural resource (as defined in PRC 2107[a]) is a project that may have a significant effect on the environment. Caltrans, as the CEQA lead agency, must consult with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project; if the tribe requested to the lead agency, in writing, to be informed by the lead agency of proposed projects in that geographic area; and the tribe requests consultation. According to the Screened Undertaking Memo completed by Caltrans cultural resources staff, this project is compliant with Section 106 without outreaching to Native American tribes due to the depth of ground disturbance that is too shallow to likely uncover tribal cultural resources.

4.6 Summary of Biological Agency Coordination

Early coordination through phone conferences have occurred between Caltrans and resource agencies such as United States Army Corps of Engineers (USACE), U.S. National Marine Fisheries Service, and California Department of Fish and Wildlife (CDFW). The purpose of this coordination was to provide agency personnel with the latest project design information, proposed surveys, and protocol.

On August 7, 2019 Caltrans, USACE and Los Angeles County Department of Public Works personnel were introduced to each other and reviewed the existing project site conditions.

On March 11, 2020 USACE and Caltrans had a teleconference regarding Section 408 and Section 404 Permits. The meeting included representatives from Caltrans (Wing Lee, Rebeka Sultana, Ayesha Mohsin, Elizabeth Florence, and Robert Wang) and from USACE (Veronica Li, Stephanie Hall, and Rafiqul.I.Talukder).

In March 2020, CDFW environmental Scientist Baron Barrera and Caltrans Project Biologist Nayla El-Shammas had a phone conference regarding the project. It was agreed that Caltrans will provide the biological study to CDFW accompanied by the consultant reports.

Caltrans is coordinating with Main San Gabriel Basin Watermaster to regulate the water flow through the project site during the construction phase. On April 21, 2020 Robert Wang (Senior Environmental Planner, Caltrans) received a letter from Anthony C. Zampiello (Executive Officer, Main San Gabriel Basin Watermaster).

Coordination with CDFW, USACE and the Main San Gabriel Basin Watermaster will continue throughout the life of the project. Consultation for permit requirements will be ongoing with USACE and CDFW.

4.7 Section 4(f) Consultation/Coordination

Caltrans considered the proposed project alternatives within the context of Section 4(f), and because it was found that there is no potential for effects on waterfowl and wildlife refuges, analyses were focused on (1) publicly owned parks and recreation areas within the project study area, and (2) historic sites considered to have national, state, or local significance. In December 2019, Caltrans screened all Section 4(f) properties in the project study area and found that the proposed undertaking would only have the potential to affect one (1) publicly owned properties/facilities in the project study area. Analyses showed that the proposed undertaking will result in a "Temporary Occupancy" of the San Gabriel River Trail, and a *de minimis* finding is appropriate within the context of Section 4(f) as the proposed actions would not significantly affect the activities, features, and attributes of the resources. See **Appendix A** of this environmental document for more details on these Section 4(f) resources and findings.

In March 2020, Caltrans established contact with Mateusz Suska, Bikeway Coordinator with the Los Angeles County Department of Public Works, which is the agency with jurisdiction over the San Gabriel River Bike Trail within the project study area. Mr. Suska provided contact information for Jose Suarez in the Land Development Division of the Los Angeles County Department of Public Works. Mr. Suarez will be responsible for review and comment on this IS/EA, prepared for the proposed project, and all matters pertaining to Section 4(f), including any impacts and mitigation related to the temporary detour of the San Gabriel River Bike Trail. Caltrans committed to future coordination regarding these matters and added all new contacts to the project distribution list and database.

In May 2020, Caltrans established contact with Natasha Krakowiak, Trail Planner for Los Angeles County Department of Parks and Recreation, which is the agency with jurisdiction over the San Gabriel River Trail within the project study area. Ms. Krakowiak will be responsible for review and comment on this IS/EA, prepared for the proposed project, and all matters pertaining to Section 4(f), including any impacts and mitigation related to the plans for the San Gabriel River Trail temporary use. Caltrans committed to future coordination rergarding these matters.

5.0 List of Preparers

5.1 Caltrans District 7

5.1.1 Division of Environmental Planning

Initial Study/Environmental Assessment

Ron Kosinski, Deputy District Director, BA Geography, CSU, Long Beach; Master's in urban planning, CalPoly Pomona; 44 years on environmental planning experience. Contribution Management including analysis, editing & approval.

Kelly Ewing-Toledo, Environmental Office Chief-A, M.A, California State University Fullerton, Years of experience: 20, Contribution to the Environmental Document: Oversight/Peer Review.

Robert John Wang, Senior Environmental Planner/Environmental Drone Services/Environmental GIS Data Steward. B.A. Geography/Environmental Studies, University of California, Los Angeles; M.A. Geography/Urban Planning, California State University, Los Angeles; 20 years of experience in environmental planning, environmental document preparation, obtaining, organizing, and mapping GIS data, prepare field staff/biologists with field maps and mobile data collection (including submeter-accurate GPS units) Contribution: Environmental project management, preparation and review of environmental document, and GIS map exhibits.

Liz Florence, Environmental Planner, B.A. Environmental Studies, Rollins College; M.S. in Urban and Regional Planning, Cal Poly Pomona; 2 years of experience in Environmental Planning with Caltrans, 3 years of City Planning experience in Florida and California. Contribution: research, writing and preparation of the environmental document

Vanessa Velasco, Associate Environmental Planner, B.S. Environmental Biology, California State University Northridge and M.S. Environmental Science, Loyola Marymount University, Years of experience: 4.5, Contribution to the Environmental Document: NEPA QC Reviewer

Anthony R. Baquiran, Associate Environmental Planner, Bachelor of Arts in Community, Environment & Planning (CEP), Bachelor of Arts in Urban Studies, University of Washington, Years of experience: 13 years with Caltrans DEP, Contribution to the Environmental Document: Peer review

Gabrielle Dashiell, Associate Environmental Planner, Bachelor of Arts in Environmental Studies, University of California Santa Barbara, 2 years of experience, contribution to the Environmental Document: technical and quality review.

Project Development Team/Technical Specialists

Eduardo Aguilar, Senior Environmental Planner, Bachelor of Science – Biology, Loyola Marymount University, Years of experience: 20, Contribution to the Environmental Document: Biological Analysis, Supervision

Claudia Harbert, Senior Environmental Planner, BA, Temple University, Philadelphia, PA, Years of experience: 21, Contribution to the Environmental Document: Cultural Resources review

Francesca Smith, PQS Principal Architectural Historian Associate Environmental Planner

(Architectural History), BA, The College of Charleston (SC), MS Columbia University, Years of experience: 34, Contribution to the Environmental Document: Cultural Resources review

Sarah Mattiussi Gutierrez, Associate Environmental Planner – Prehistoric Archaeology, BA in Archaeology, Escuela Nacional de Antropologia e Historia, Years of experience: 20 years, Contribution to the Environmental Document: Cultural Technical Studies

Nayla El-Shammas, Environmental Planner-Natural Sciences, MS -Biology, Lebanese University of Science, Years of experience: 15, Contribution to the Environmental Document: Biologist

Newton Wong , Associate Environmental Planner (Natural Sciences). MS, Environmental Science, California State University at Los Angeles. 15 years experience with the Department conducting wildlife biology and botany studies and surveys. Contribution: bat surveys, botanical plant survey, bird survey, Natural Environment Study, Biological Assessment, and Wetland Delineation.

Eunice Mendoza, BA in Geography, California State University Long Beach, Years of Experience: 1.5, Contribution to the Environmental Document: GIS maps.

5.1.2 Office of Environmental Engineering

Project Development Team/Technical Specialists

Penny Nakashima, Senior Engineering Geologist (Hazardous Waste Branch- North Region, District 7), B.S. Geology, California State University, Los Angeles, 29 years of experience in hazardous waste site investigations and remediation (Caltrans- 14 years, Department of Toxic Substances Control - 15 years) and 10 years of experience in air pollution control at California Air Resources Board. Contribution: Hazardous Waste

Christopher Harris, Senior Engineering Geologist, BS Geology, University of California Davis, Years of experience: 30 years with Caltrans, Contribution to the Environmental Document: Site Geology

Quyen Tran, Transportation Engineer, Civil, Bachelor of Science, Civil Engineering, California State University, Long Beach, Years of experience: 3 years, Contribution to the Environmental Document: Hazardous Waste

Henry Jones, Engineering Geologist, B.S. Geology, University of California Riverside, Years of experience: 10+ years, Contribution to the Environmental Document: Preliminary geologic review

Andrew Yoon, P.E., Senior Transportation Engineer. B.S. Civil and Environmental Engineering, University of California, Los Angeles; 22 years of experience in civil and environmental engineering for infrastructure and development projects. Contribution: air quality and greenhouse impact assessment.

Roland Cerna, Transportation/Civil Engineer. Caltrans D7 Noise and Vibration Branch. B.S. Civil Engineering, University of California Los Angeles. 20 years of experience working in environmental noise and vibration (Caltrans D7). Contribution: Traffic and construction noise impact assessment and bioacoustics noise study report.

Jin Lee, Branch Chief, Caltrans D7 Noise and Vibration Branch. Contribution: review of traffic and construction noise impact assessment and bioacoustics noise study report.

5.1.3 Division of Graphics

Lalé Moradpour, Graphic Designer III, Bachelor of Arts, Tehran University of Art and Design, Years of experience: 20, Contribution to the Environmental Document: Design document's cover - Design concrete barrier image

5.1.4 Division of Design

Rene Yin, Senior Transportation Engineer, M. E. in Civil Engineering, Lamar University, Texas. M.S. in Civil Engineering, Hohai University, P. R. C. Worked for about four years in the Nanjing research institute of hydrology and water resources, ministry of water conservancy, P. R. C., working in hydraulic power plant computer modeling, and water wave calculation, etc. and 29 year experience with Caltrans in transportation design, designed various highway projects. Contribution: Design Senior, Project Engineer

Ayesha Mohsin, Transportation Engineer, Bachelors of Science in Civil Engineering, California State Polytechnic University, Pomona, Years of experience: 3, Contribution to the Environmental Document: Provided project design information for Environmental Document regarding overall project construction, staging, methods, engineering plans, exhibits, etc.

5.1.5 Office of Stormwater and Landscape Architecture (Hydraulics)

Prakash Yadav, Senior Transportation Engineer, Caltrans, MS (Civil Engineering), Gujarat University of India, Out of 14 Years of experience in Caltrans ,1 year as Constructions Engineer and 13 years as Hydraulics Engineer, More than 15 years in India as Civil and Water Resources Engineer. Contribution: Hydraulic review

Rebeka Sultana, Transportation Engineer (Hydraulics). Ph.D. Civil and Environmental Engineering, University of California at Irvine. 7 years of work experience in the water resources sector and have published and presented number of journal papers in peer reviewed journal of water resources. 2 years with the Department as Transportation Engineer. Contribution: Hydraulic modeling of River Diversion.

5.1.6 Division of Project Management

Jiwanjit Palaha, Project Manager, Caltrans, Master Certification in Project Management from George Washington University, B.S. Civil Engineering, India, Registered Professional Engineer in CA. 29 years' experience with Caltrans, 23 years as project management and 6 years as design, operations and construction.

Vincent Opinion, Associate Governmental Program Analyst (Assistant Project Manager) B.S. Business Management California State University Northridge. 2 years of experience working in Program and Project Management. Contribution: Assist in delivering project within scope, cost, and schedule.

5.2 Caltrans Headquarters Design

Quynh Nguyen PE, Senior Bridge Engineer, B.S. Civil Engineering, California Polytechnic University Pomona, Years of experience: 30, Contribution to the Environmental Document: Constructability, construction related Scope and impacts.

Mike Pope, Senior Bridge Engineer, BS in Civil Engineering and Business Administration, California State University at Sacramento, Years of experience: 29, Contribution to the Environmental Document: Structures related items.

Ulysses N. Smpardos, P.E., Senior Bridge Engineer, B.S. Civil Engineering, M.S. Civil Engineering, California Polytechnic State University San Luis Obispo, University of California Berkeley, Years of experience: 22, Contribution to the Environmental Document: Resolution of issues related to structural design

Kunjian Li, Bridge Architecture associate, Master of Architecture, University of New Mexico, Years of experience:25, Contribution to the Environmental Document: photo simulations

5.3 GPA Consulting

Maria Levario, Senior Associate Environmental Planner. B.S. Urban and Regional Planning, California State Polytechnic University, Pomona, CA. Years of experience: 21 years. Contribution to the Environmental Document: Environmental QA/QC.

Laura Comstock, Senior Environmental Planner. B.A. Urban Studies and Planning, University of California, San Diego, Master of Urban and Regional Planning, University of Hawaii at Manoa. Years of experience: 8 years. Contribution to the Environmental Document: technical editor.

Anastasia Shippey, Environmental Planner. B.S. Marine Biology, California State University, Long Beach; M.S. Biology, California State University, Long Beach. Years of experience: 6 years. Contribution to the Environmental Document: technical editor.

6.0 Distribution List

6.1 Locations Where Environmental Document Can Be Viewed

Caltrans District 7 100 S. Main St. Los Angeles, CA 90012	City of Irwindale Department of Public Works 5050 N. Irwindale Ave. Irwindale, CA 91706	Irwindale Public Library 5050 N. Irwindale Ave. Irwindale, CA 91706

6.2 Elected Officials and Staff

The Honorable Kamala Harris 11845 West Olympic Boulevard, Suite 1250W Los Angeles, CA 90064	The Honorable Dianne Feinstein 11111 Santa Monica Boulevard, Suite 915 Los Angeles, CA 90025	
Blanca E Rubio State Assembly District 48 100 N Barranca St Suite 895 West Covina, CA 91791	Susan Rubio State Senate District 22 100 S Vincent Ave, Ste 401 West Covina, CA 91790	Grace F. Napolitano Congressional District 32 4401 Santa Anita Ave Suite 201 El Monte, CA 91731
Hilda L. Solis County Supervisor District 1 856 Kenneth Hahn Hall of Administration 500 W Temple Street	Jason Greenspan Manager of Sustainability SCAG 902 Wilshire Blvd. Ste 1700 Los Angeles, CA 90017	Governor's Office of Planning and Research CA State Clearinghouse PO Box 3044 Sacramento, CA 95812
Mayor April Verlato City of Arcadia 240 West Huntington Dr. P.O. Box 60021 Arcadia, CA 91066	Mayor Pro Tempore Roger Chandler City of Arcadia 241 West Huntington Dr. P.O. Box 60021 Arcadia, CA 91066	Council Member Peter Amundson City of Arcadia 242 West Huntington Dr. P.O. Box 60021
Council Member Tom Beck City of Arcadia 243 West Huntington Dr. P.O. Box 60021 Arcadia, CA 91066	Council Member Sho Tay City of Arcadia 244 West Huntington Dr. P.O. Box 60021 Arcadia, CA 91066	Mayor Joseph Romero Rocha City of Azusa 213 E. Foothill Blvd. Azusa, CA 91702
Mayor Pro Tempore Edward J. Alvarez City of Azusa 214 E. Foothill Blvd. Azusa, CA 91702	Council Member Robert Gonzales City of Azusa 215 E. Foothill Blvd. Azusa, CA 91702	Council Member Angel A. Carillo City of Azusa 216 E. Foothill Blvd. Azusa, CA 91702

Council Member Uriel E. Macias City of Azusa 217 E. Foothill Blvd. Azusa, CA 91702	Mayor Larry Schroeder City of Claremont 207 Harvard Ave. Claremont, CA 91711	Mayor Pro Tempore Jennifer Stark City of Claremont 208 Harvard Ave. Claremont, CA 91711
Council Member Corey Calaycay City of Claremont 209 Harvard Ave. Claremont, CA 91711	Council Member Jed Leano City of Claremont 210 Harvard Ave. Claremont, CA 91711	Council Member Ed Reece City of Claremont 211 Harvard Ave. Claremont, CA 91711
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Council Member Toney Lewis City of Duarte 1606 Huntington Drive Duarte, CA 91010	Mayor Judy Nelson City of Glendora 116 E. Foothill Blvd. Glendora, CA 91741	Mayor Pro Tempore Michael Allawos City of Glendora 117 E. Foothill Blvd. Glendora, CA 91741
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Council Member Victor Gordo City of Pasadena 102 North Garfield Ave. Pasadena, CA 91101	Council Member John J. Kennedy City of Pasadena 103 North Garfield Ave. Pasadena, CA 91101	Council Member Steve Madison City of Pasadena 104 North Garfield Ave. Pasadena, CA 91101
Council Member Gene Masuda City of Pasadena 105 North Garfield Ave. Pasadena, CA 91101	Council Member Margaret McAustin City of Pasadena 106 North Garfield Ave. Pasadena, CA 91101	Council Member Andy Wilson City of Pasadena 107 North Garfield Ave. Pasadena, CA 91101
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Council Member William Man City of Temple City 9704 Las Tunas Dr. Temple City, CA 91780	Council Member Nanette Fish City of Temple City 9705 Las Tunas Dr. Temple City, CA 91780	Mayor Richard T. Hale City of Bradbury 600 Winston Avenue Bradbury, CA 91008
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Council Member Elizabeth Bruny City of Bradbury 604 Winston Avenue Bradbury, CA 91008		

6.3 Federal and State Agency Officials

Tashia Clemons Federal Highway Administration 650 Capital Mall, Ste 4-100 Sacramento, CA 95814	Alessandro Amaglio Federal Emergency Management Agency, Region IX 1111 Broadway, Ste 1200 Oakland, CA 94607	Morgan Capilla U.S. Environmental Protection Agency, Region 9 75 Hawthorne St. San Francisco, CA 94105
Dawn Afman US Department of Agriculture, Natural Resources Conservation Service 3550 S. Harbor Blvd., Ste 2-202 Oxnard, CA 93035	Carol Braegelmann U.S. Department of the Interior, Office of Environmental Policy & Compliance 1849 C St. NW Washington, DC 20240	Leslie Rodgers Federal Transit Administration 201 Mission St., Ste 1650 San Francisco, CA 94105
Janet Whitlock U.S. Department of the Interior 333 Bush St., Ste 515 San Francisco, CA 94104	Michaela E. Noble Office of Environmental Policy and Compliance, San Francisco Region 333 Bush Street San Francisco, CA 94104	San Gabriel Mountains Conservancy P.O. Box 963 Glendora, CA 91740
South Coast Air Quality Management District 21865 Copley Drive, Diamond Bar, CA 91765	Kelly Gardner Main San Gabriel Basin Watermaster 725 North Azusa Ave. Azusa, CA 91702	County of Los Angeles Fire Department 1320 North Eastern Ave Los Angeles, CA 90063
Rafiqul.I.Talukder US Army Corps of Engineers 915 Wilshire Blvd, Los Angeles, CA 90017	Ed Pert California Dept of Fish and Wildlife South Coast Region 3883 Ruffin Road, San Diego, CA 92123	Travis Wylde Los Angeles County Department of Public Works 900 S. Fremont Ave., Alhambra, CA 91803
Michael Picker California Public Utilities Commission 320 W 4th Street, Suite 500 Los Angeles, CA 90013	Carlos Montez Los Angeles County Metropolitan Transportation Agency One Gateway Plaza, Mail Stop: 99-18-2 Los Angeles, CA 90012	County of Los Angeles Department of Parks and Recreation-Planning and Development 1000 S Fremont Ave Alhambra, CA 91803
LA County Flood Control District 10179 Glenoaks Blvd Sun Valley, CA 91352	Metropolitan Water District 700 Alameda St. Los Angeles, CA 90012	LA County Regional Planning 320 W Temple St Los Angeles, CA 90012

County Sanitation Districts of Los Angeles County Facilities Planning Section P.O. Box 4998 Whittier, CA 90607	California State Fire Marshal 602 Huntington Dr A Monrovia, CA 91016	Los Angeles Regional Water Quality Control Board 320 W 4th St #200 Los Angeles, CA 90013
California State Water Resources Control Board P.O. Box 100 Sacramento, CA 95812	CA Department of Toxic Substances Control 6119 East Washington Boulevard Commerce, CA 90040	California Highway Patrol - Baldwin Park 14039 Francisquito Ave Baldwin Park, CA 91706
California Office of Historic Preservation: State Historic Preservation Officer 1725 23rd Street, Suite 100 Sacramento, CA 95816		

7.0 References

Studies for this document available upon request via email in PDF format. See title page with contact information.

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Appendix A. Section 4(f) Memorandum

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M E M O R A N D U M

07-LA-210	LA PM R36.82	07-25200716000082
Dist.-Co.-Rte.	**P.M. / P.M.**	**E.A. / Project No.**

Interstate 210 at San Gabriel River Bridge Hinge Replacement Project (Bridges No. 53-1867)

Project Title

24 June 2020

To: File

From: Liz Florence – Division of Environmental Planning 213.332.0635/ elizabeth.florence@dot.ca.gov

SUBJECT: PROPOSED SECTION 4(F) DE MINIMIS MEMORANDUM FOR THE INTERSTATE 210 AT SAN GABRIEL RIVER BRIDGE HINGE REPLACEMENT PROJECT

A1 Introduction

The following proposed Section 4(f) *De Minimis* Memorandum (Memo) has been prepared to address the Section 4(f) properties within the vicinity of Interstate 210 (I-210) at San Gabriel River Bridge Hinge Replacement Project. The United States Department of Transportation Act (USDOT Act) of 1966 included a special provision, Section 4(f), which stipulated that the Federal Highway Administration (FHWA) and other Department of Transportation agencies cannot approve the use of land from publicly owned parks, recreational areas, wildlife, and waterfowl refuges, or public and private historical sites unless the following conditions apply:

- There is no feasible and prudent alternative to the use of land; and the action includes all possible planning to minimize harm to the property resulting from such use; or
- The FHWA determines that the use of the property will have a *de minimis* impact.

A2 Proposed Section 4(f) De Minimis Determination

Section 6009(a) of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) amended Section 4(f) legislation at 23 United States Code (USC) 138 and 49 USC 303 to simplify the processing and approval of projects that have only *de minimis* impacts on lands protected by Section 4(f). This revision provides that once the USDOT determines that a transportation use of a Section 4(f) property, after consideration of any impact avoidance, minimization, and mitigation or enhancement measures, results in a *de minimis* impact on that property, an analysis of avoidance alternatives is not required, and the Section 4(f) evaluation process is complete. The FHWA's final rule on Section 4(f) *de minimis* findings is codified in 23 Code of Federal Regulations (CFR) 774.3 and CFR 774.17.

Responsibility for compliance with Section 4(f) has been assigned to Caltrans pursuant to 23 USC 326 and 327, including determinations and approval of Section 4(f) evaluations, as well as coordination with those agencies that have jurisdiction over a Section 4(f) resource that may be affected by a project action.

A3 Project Description, Purpose and Need

Proposed Undertaking. Caltrans proposes a rehabilitation project to replace hinges of the San Gabriel River Bridge on I-210 in the City of Irwindale, within the County of Los Angeles. The San Gabriel River Bridge (Bridge No. 53-1867) exists within the jurisdiction of Caltrans District 7, Los Angeles, at post mile R36.82. This environmental document studies the effects of bridge rehabilitation to assess the cumulative impact of the proposed undertaking. The scope of work for the San Gabriel River Bridge includes:

- Demolition of hinge diaphragms at hinge 4 (between piers 4 and 5) and hinge 6 (between piers 6 and 7) and reconstruction using rapid setting concrete
- Upgrading the existing bridge median barrier
- Upgrades to the bridge railings in order to conform to current standards (Type 736)
- Removal and re-installation of light posts

Work in between piers within the San Gabriel River will be accomplished through water diversion and the installation of a braced plywood debris container. Temporary Construction Easements (TCEs) will be required to accommodate contractor access and equipment storage. Temporary and intermittent closure of the San Gabriel River Bike Trail in the project study area will be required to mobilize construction equipment and materials, and to ensure the safety of facility users.

Project Purpose. The purpose of the proposed project is to achieve the following objectives:

- To preserve the structural integrity of the bridge and to prevent bridge deck failure due to settlement and nonexistence of elastomeric bearing pads in the hinges.
- To bring the bridge into compliance with current safety standards by upgrading the bridge railing.

Project Need. The need for the proposed project is based on the recommendations included in the 2012 Structure Replacement and Improvement Needs report produced by the Caltrans Office of Structure Maintenance and Investigations (OSMI). OSMI is responsible for managing highway structures. This includes performing bridge inspections and making structure work repair recommendations. The OSMI maintains several reports containing information on the condition and rehabilitation of bridges. The STRAIN report contains recommended improvements to structures.

The Structure Replacement and Improvement Needs report from 2012 and a bridge inspection report from 2016 identified this bridge for hinge and railing upgrades.

The bridge inspection condition assessment used for this inspection is based on the American Association of State Highway and Transportation Officials Bridge Element inspection manual 2013 as defined in Moving Ahead for Progress in the 21st Century (MAP-21) federal law. The inspections were performed in 2012 and 2016 and recommends replacement of hinges 4 and 6 and bridge rail upgrades

The bridge is currently fitted with older hinges and rails that no longer meet current standards.

Bridge hinges are used to support long spans of the bridge and allows it to expand and contract during earthquakes, temperature variations and other strong movements. Bridge railings are designed to safely redirect vehicles to minimize injury and damage in the case of accidents. Replacing the bridge hinges and railings to current standards would improve highway safety for the motoring public.

This finding is proposed for all alternatives being considered for this project.

A4 Section 4(f) Resources

The following is a discussion of the Section 4(f) properties within the project study area.

San Gabriel River Trail (Los Angeles County Department of Parks and Recreation). The San Gabriel River Trail is a multi-use trail that runs north to south, stretching from Azusa to Seal Beach. Though the trail travels through an urban environment, adjacent parks and natural features help diversify the landscape. The San Gabriel Mountains in the distance provide a scenic background for the northern portion of the trail, whereas the ocean serves as a destination point to the south.The trail is directly to the West of the project location, and will be kept open with fencing (4 feet) as the majority of the trail (17 feet) will be used for construction access road and construction equipment storage. . **Figure A-1** shows the proposed detour plan available for trail users who may be uncomfortable with riding underneath the scaffolding.

A-1. Temporary Pedestrian Access on San Gabriel River Trail

San Gabriel River Bike Trail (Los Angeles County Department of Public Works). The San Gabriel River Bike Trail is a multi-use trail that runs north to south and stretches from the City of

Azusa in the foothills of the San Gabriel Mountains on the northern end, to the City of Seal Beach and the Pacific Ocean at its southern terminus. Though the trail travels through a primarily urban environment, adjacent parks and natural features help diversify the landscape. The San Gabriel Mountains provide a scenic backdrop to the northern portions of the trail, while the Pacific Ocean service as a destination point in the south. Within the project study area, the San Gabriel River Trail is directly underneath the bridge where construction activities will take place and traverses the eastern side/bank of the river. The San Gabriel River Trail is owned and operated by the Los Angeles County Department of Public Works.

The proposed Caltrans undertaking includes a hinge replacement of the bridge that crosses the San Gabriel River. While all work will be performed within the San Gabriel River, staging and access will be required from areas adjacent to, and north and south of the project site. Caltrans Design is proposing scaffolding/shield over the portion of the San Gabriel River Trail that is under the bridge itself. Direct work will not occur above the scaffolding during bridge demolition and hinge replacement, but work will occur above the scaffolding during the demolition of bridge overhang and railing. The work on the bridge overhang and railing will be conducted during nighttime hours, allowing users to feel safe while traversing under the scaffolding as the hours of operations for the San Gabriel River Trail under LA County Parks and Recreation are from sunrise to sunset. A temporary detour plan will be in place for a San Gabriel River Trail user who does not feel comfortable traveling on the trail underneath the scaffolding during construction.

In general, construction will span a course of one year, but will not require closure of the aforementioned facilities for all four seasons. As a safety precaution, work can only be performed in the river during the “dry season,” which is approximately six months a year. The estimated construction schedule that would affect the San Gabriel River Trail would be July 2022.

Caltrans Design proposes avoidance through use of scaffolding immediately over the San Gabriel River Trail under the I-210 bridge. **Figure A-2** identifies the proposed scaffolding of the San Gabriel River Trail in the project study area. **Figure A-3** shows the proposed detour plan available for trail users who may be uncomfortable with riding underneath the scaffolding.

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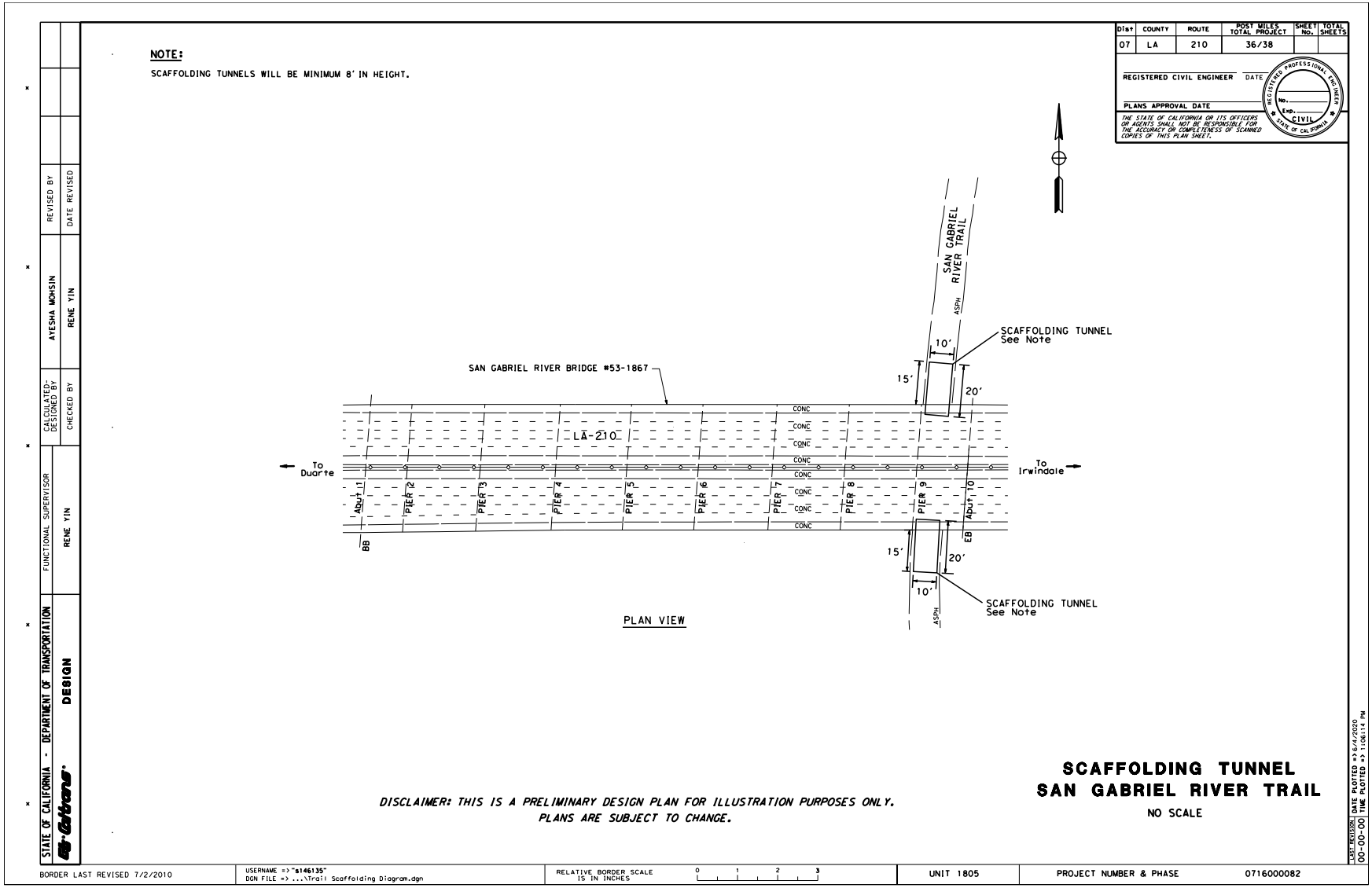

Figure A-2. Scaffolding Tunnel for San Gabriel River Trail

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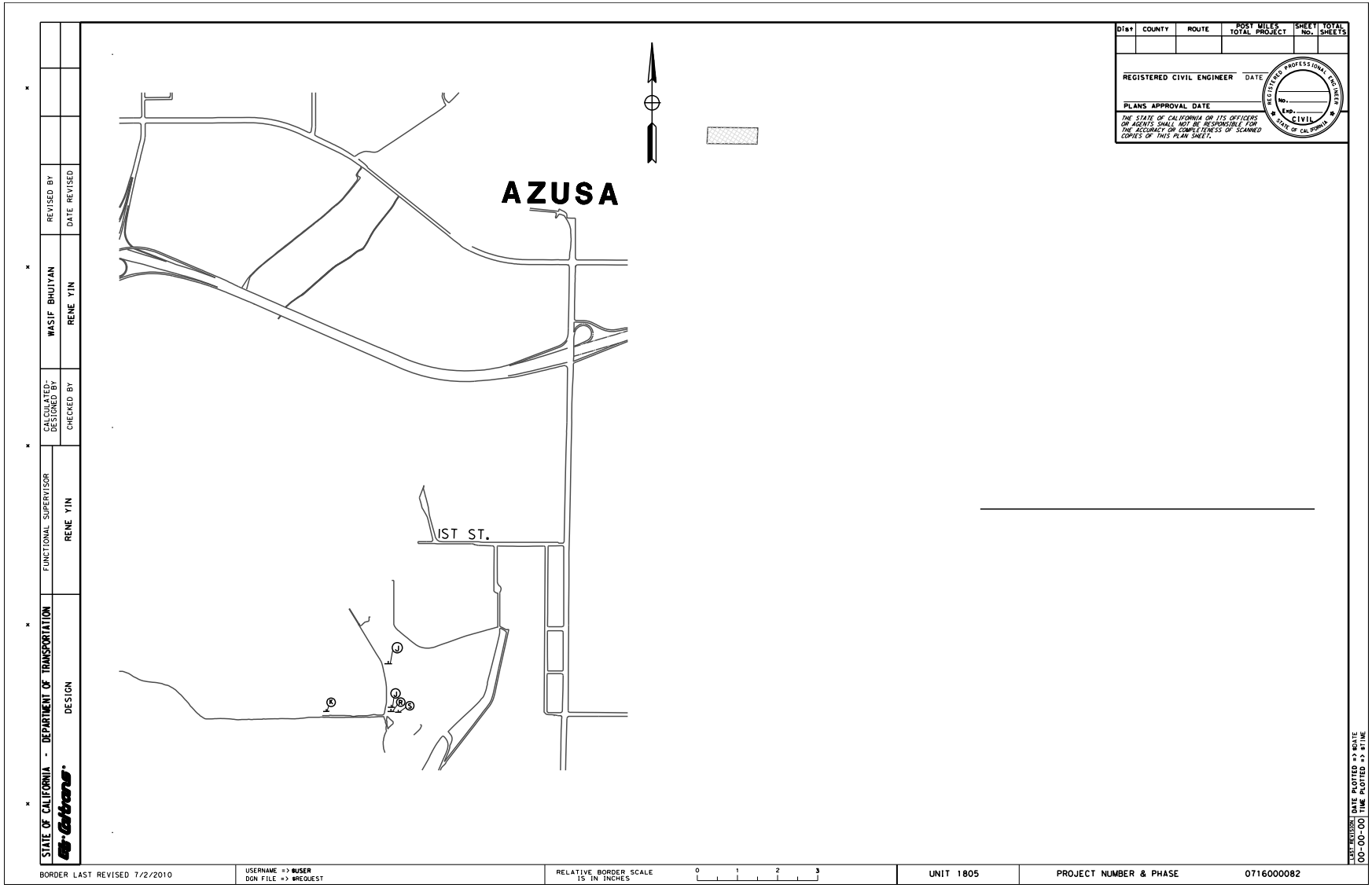

Figure A-3. Bike Detour Plan

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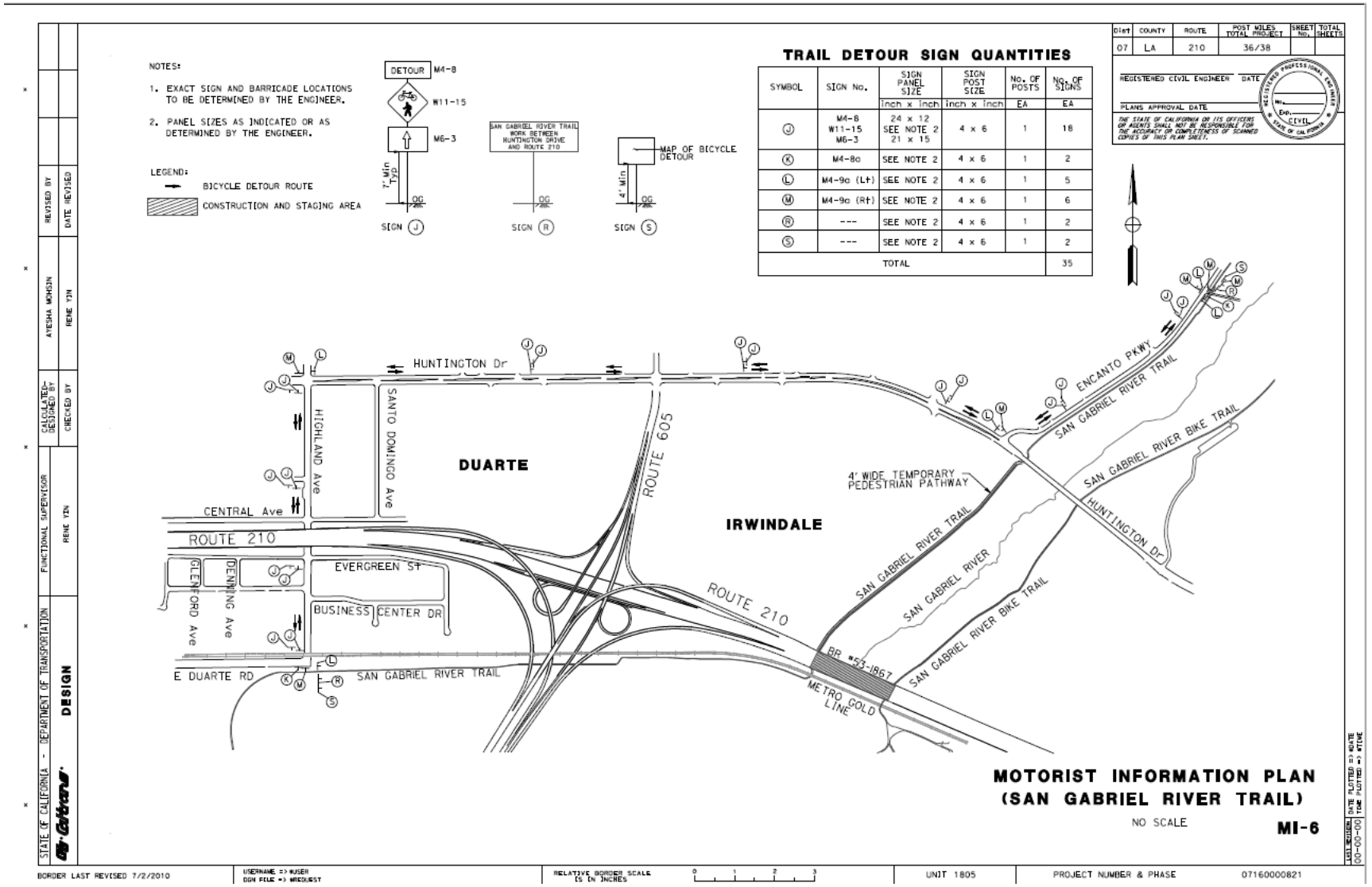

Figure A-4. Trail Detour Plan

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A5 Proposed De Minimis Impact Finding

A determination of *de minimis* impact on parks, recreation areas, and wildlife and waterfowl refuges, may be made when all three of the following criteria are satisfied:

18. The transportation use of the Section 4(f) resource, together with any impact avoidance, minimization, and mitigation or enhancement measures incorporated into the project, does not adversely affect the activities, features, and attributes that qualify the resource for protection under Section 4(f);
19. The public has been afforded an opportunity to review and comment on the effects of the project on the protected activities, features, and attributes of the Section 4(f) resource; and
20. The official(s) with jurisdiction over the property are informed of USDOT's intent to make the *de minimis* impact determination based on their written concurrence that the project will not adversely affect the activities, features, and attributes that qualify the property for protection under Section 4(f).

San Gabriel River Bike Trail and Trail (Los Angeles County Department of Public Works and Parks and Recreation). The proposed undertaking constitutes a potential Temporary Occupancy of this Section 4(f) protected property. The impact of temporarily and intermittently closing the San Gabriel River Bike Trail, and leaving the San Gabriel River Trail open in the project study area would not restrict recreational activities during construction with implementation of detours to surface streets within the vicinity of the project site. Access to the trail would be restored at the end of each construction period or trail users are able to continue to use the trail due to scaffolding built underneath the bridge. Therefore, the proposed action would not significantly affect the activities, features, and attributes of the resource. **Figure A-5** shows parks within the vicinity of the project location.

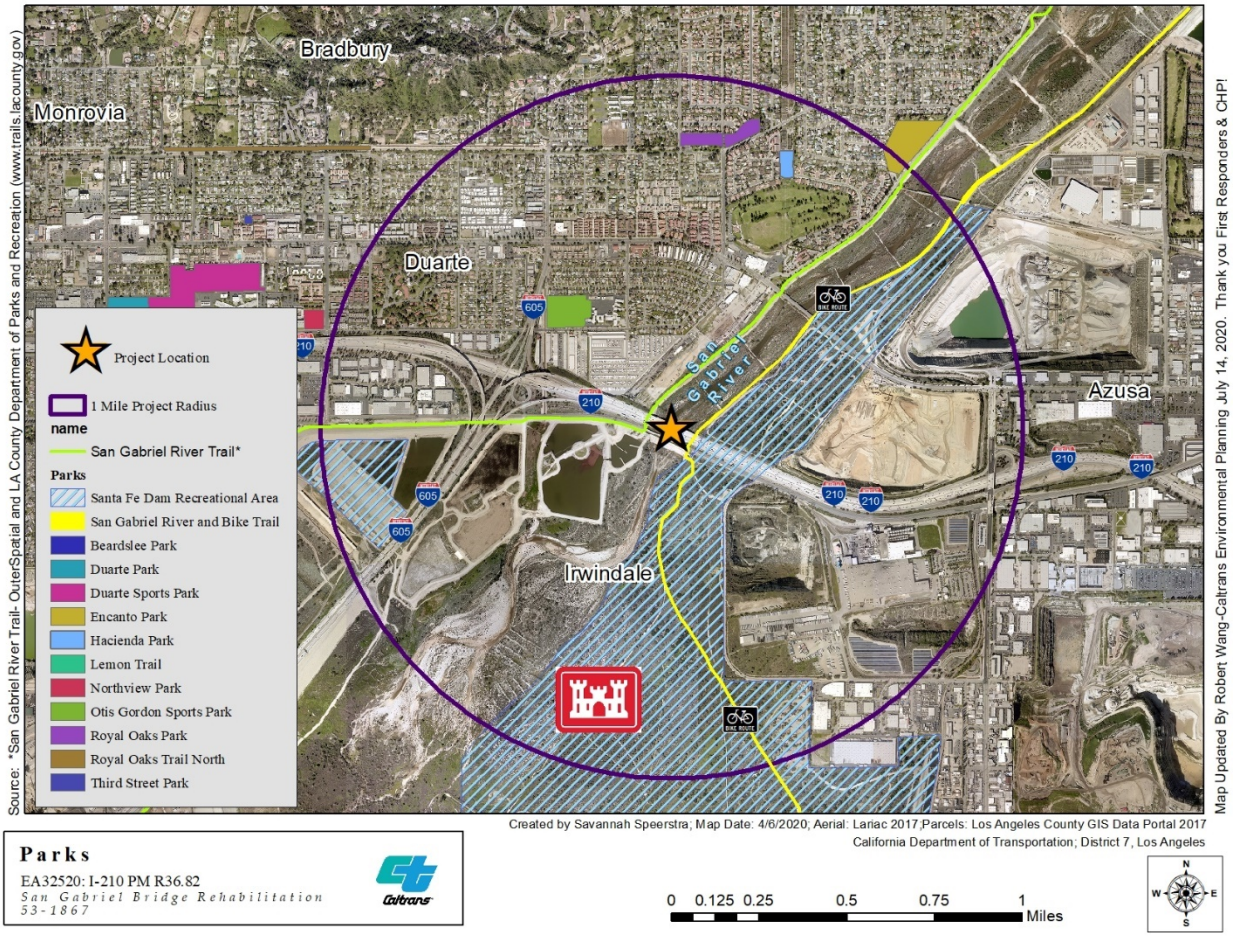

Figure A-5. Parks Map

In addition to the Standards, Caltrans will ensure that all proposed project work will be performed as per the Operation, Maintenance, Repair, Replacement, and Rehabilitation Manual for the Los Angeles County Drainage Area, California (Los Angeles District Corps of Engineers, December 1999). This will also ensure that the project plans are consistent with the Standards to maintain the essential form and integrity of the channel segment is unimpaired. After construction is completed, the trail will be returned to its original state and all scaffolding and any other construction materials will be removed, therefore there will be no permanent trail impacts.

A6 Records of Public Involvement

Impacts to Section 4(f) protected resources are governed by a federal process and compliance with National Environmental Policy Act (NEPA) requirements. The appropriate NEPA approval for the proposed undertaking is an Environmental Assessment (EA), which requires public circulation (30-day period) to solicit comments/feedback. The proposed undertaking also requires compliance with the California Environmental Quality Act (CEQA), in which an Initial Study (IS) is appropriate for approval. Caltrans has prepared a joint CEQA/NEPA environmental document (IS/EA) to present the results of all studies, including this Section 4(f) *de minimis* determination. A Notice of Availability for the IS/EA and Opportunity for Public Hearing will be posted in the San

Gabriel Valley Tribune, Chinese Daily News, La Opinion and the San Gabriel Valley Examiner newspapers. The Draft IS/EA will be available for public review online, and at the Irwindale Public Library (5050 N. Irwindale Ave. Irwindale, CA 91706). A separate Section 4(f) commenting period will occur between July 7 and July 28 through mailings and postings along the San Gabriel River Trail. Following public circulation of the Draft IS/EA and *de minimis* determination, the Los Angeles County Department of Public Works and Parks and Recreation will be contacted for a written concurrence of the proposed temporary occupancies on the San Gabriel River Trail. Comments received regarding this Section 4(f) resource during the draft document circulation will be considered and incorporated, and revisions will be made as appropriate.

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Appendix B. Title VI Policy Statement

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STATE OF CALIFORNIA—CALIFORNIA STATE TRANSPORTATION AGENCY Gavin Newsom, Governor

DEPARTMENT OF TRANSPORTATION
OFFICE OF THE DIRECTOR
P.O. BOX 942873, MS-49
SACRAMENTO, CA 94273-0001
PHONE (916) 654-6130
FAX (916) 653-5776
TTY 711
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Making Conservation a California Way of Life.

November 2019

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The California Department of Transportation, under Title VI of the Civil Rights Act of 1964, ensures *"No person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance."*

Related federal statutes, remedies, and state law further those protections to include sex, disability, religion, sexual orientation, and age.

For information or guidance on how to file a complaint, or obtain more information regarding Title VI, please contact the Title VI Branch Manager at (916) 324-8379 or visit the following web page: https://dot.ca.gov/programs/business-and-economic-opportunity/title-vi.

To obtain this information in an alternate format such as Braille or in a language other than English, please contact the California Department of Transportation, Office of Business and Economic Opportunity, at 1823 14th Street, MS-79, Sacramento, CA 95811; (916) 324-8379 (TTY 711); or at Title.VI@dot.ca.gov.

Toks Omishakin
Director

"Provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability"

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Appendix C. Avoidance, Minimization, and/or Mitigation Summary

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PR-1 Temporary Detour of San Gabriel River Trail Trail and Bike Trail. A temporary detour plan will be available to the public if they feel unsafe around construction work, which will occur at night near the Trail, but the San Gabriel River Bike Trail will be open with scaffolding at both the southern and northern side of the I-210 San Gabriel River Bridge. The San Gabriel River Trail will be open and fenced away from the construction equipment. There are no Section 4(f) impacts.

UT-1 Early and Continuing Coordination with Utility Providers. Early communication and planning with affected (if any) utility providers before and during construction will ensure that all affected infrastructure will be relocated with consideration, and to minimize any disruption of services and any effects as much as possible.

ES-1 Early and Continuing Coordination with Emergency Services. Early communication and planning with affected (if any) emergency service providers before and during construction will ensure minimization of any disruption of services and any effects as much as possible.

TMP-1 Transportation Management Plan. A Transportation Management Plan shall be implemented to provide detailed access and detour strategies that would minimize any effects on response times for fire, police, and emergency services. Caltrans shall maintain close coordination with local agencies and jurisdictions, including fire protection services, police, schools, and park agencies via a public outreach campaign during the construction phase of the proposed project.

CUL-1 Discovery of Cultural Materials. If cultural materials are discovered during construction, all earth-moving activity within and around the immediate discovery area will be diverted until a qualified archaeologist can assess the nature and significance of the find.

CUL-2 Discovery of Human Remains. If human remains are discovered, California Health and Safety Code (H&SC) Section 7050.5 states that further disturbances and activities shall stop in any area or nearby area suspected to overlie remains, and the County Coroner contacted. If the remains are thought by the coroner to be Native American, the coroner will notify the Native American Heritage Commission (NAHC), who, pursuant to PRC Section 5097.98, will then notify the Most Likely Descendent (MLD). At this time, the person who discovered the remains will contact Kimberly Harrison, PQS Co-Principal Investigator, Prehistoric Archaeology at Caltrans District 7 Division of Environmental Planning, so that they may work with the MLD on the respectful treatment and disposition of the remains. Further provisions of PRC 5097.98 are to be followed as applicable.

TMP-2 Early and Continuing Transportation Management Plan Coordination with the City of Irwindale. Caltrans shall initiate early coordination with the City of Irwindale to achieve consensus and obtain concurrence on traffic management strategies during construction, and to ensure public access and availability of emergency and public services during the construction period.

WDP-01 Water Diversion Plan. A Water Diversion Plan shall be developed and implemented in consultation with the National Oceanic and Atmospheric Administration, California Department of Fish and Wildlife, United States Fish and Wildlife Service, and the Regional Water Quality Control Board to divert water through the project site to reduce turbidity and prevent sediments from entering areas downstream of the project site.

SWP-01 Stormwater Pollution Prevention Plan (SWPPP). Generally, construction project with a Disturbed Soil Area of more than one (1) acre require a Stormwater Pollution Prevention Plan, to address water pollution control for the proposed undertaking. The Construction General Permit (CGP) requires that all stormwater discharges associated with construction activity, where said activity results in soil disturbance of one acre or more land area, must be permitted under the CGP and have a fully developed site SWPPP on-site prior to beginning any soil disturbing activities. As previously mentioned, construction of the proposed project will require an estimated soil disturbance of 9.52 acres, in which a SWPPP shall be developed and implemented to improve construction site water quality practices and control the impacts of stormwater pollution through Best Management Practices. Construction activities for the proposed project is estimated to cover approximately 1 year. The temporary construction BMP categories suitable for controlling potential pollutants to be considered for the proposed project will be refined during the next project phase, and shall include, but not limited to the following:

- Soil stabilization measures
- Sediment control measures
- Wind erosion control measures
- Tracking control measures
- Non-stormwater management
- Waste management and materials pollution control

DR-01 Bridge Deck Drainage Improvement. With the demolition and reconstruction of the bridge deck overhang and bridge railing, bridge deck drainage will be affected. The reconstruction will allow water to be diverted from discharging directly into main flow of river, as it currently does. It will be channeled to abutment areas to allow water to gradually flow and infiltrate into the riverbed and then the main river channel.

GS-01 Minimization of the Effects of Groundwater and Soil Excavation During Construction. It is recommended that remedial measures be taken to minimize the effect of groundwater and soil excavation during construction. A water diversion plan may be required during construction and the stability of these excavations is dependent on the total time the excavation is exposed, groundwater conditions, granular nature of the soil, and contractor operations.

HW-01 Preparation of a Project Specific Site Investigation for Streambed. A Project-specific Site Investigation shall be prepared during the next project phase to evaluate the streambed because of streambed alteration and testing of the water that will be diverted. Water and sediment that do not meet the National Pollutant Discharge Elimination System permit requirements for discharge will be containerized and disposed at an appropriate disposal facility.

HW-02 Survey for Asbestos Containing Materials and Lead Based Paint. In the event that existing bridge railings and medians will be disturbed, removed, and/or replaced during construction, an Asbestos Containing Materials and Lead Based Paint survey shall be prepared in compliance with the South Coast Air Quality Management District Air Quality Management Plan and National Emissions Standards for Hazardous Air Pollutants as regulated by the US EPA and California Air Resources Board. Asbestos and lead-based paint discovered during the surveys will be removed prior to bridge renovation or measures emplaced to protect the San Gabriel River

and surrounding areas beneath the bridge from receiving any debris from the bridge renovation.

HW-03 Removal of Yellow Thermoplastic and Yellow Paint Traffic Stripe and Pavement Marking Containing Hazardous Waste Concentrations of Lead and Chromium. Residue generated from removal of yellow thermoplastic and yellow paint traffic stripe and pavement marking will be collected, containerized, and disposed in a Class I hazardous waste disposal facility permitted in California.

HW-04 Disposal of Treated Wood Waste. Treated Wood Waste is a non-Resource Conservation and Recovery Act hazardous waste that will be disposed in a California permitted hazardous waste landfill or specially lined non-hazardous waste disposal facility.

HW-05 Removal of Electrical Equipment. Removal of electrical equipment will require disposal at an appropriate California permitted disposal facility to avoid waste from being disposed in a municipal landfill.

HW-06 Acquisition of Contaminated Parcels. The Site Investigation will be performed to determine the current condition of the property. If the Site Investigation detects hazardous substances and/or petroleum products on the property, Caltrans will require remediation of the parcels prior to acquisition to avoid future liability for contamination by Caltrans and protection of workers during maintenance and construction, and utility relocation by others.

NM-01 Equipment Noise Control. Equipment noise control should be applied to revising old equipment and designing new equipment to meet specified noise levels. Sound shielding may be able to control construction noise, for example sound blankets or other innovative sound absorbing materials could be used at the project site.

NM-02 In-Use Noise Control. In-Use noise control where existing equipment is not permitted to produce noise levels in excess of specified limits.

NM-03 Site Restrictions. Site restrictions is an attempt to achieve noise reduction through modifying the time, place, or method of operation of a particular source.

NM-04 Personnel Training. Personal training of operators and supervisors is needed to become more aware of the construction site noise problem, and are given instruction on methods that they can implement to improve conditions in the local community.

NAT-01 Minimization of Impacts to Natural Communities. Temporary impacts to natural communities are limited to areas that will be disturbed during the water diversion creation. If during project activities, any alluvial fan sage scrub community is impacted, Caltrans will coordinate with CDFW and the County to determine whether any action is needed. Caltrans will have an agreement in place with an approved mitigation bank or an in-lieu fee program.

NAT-02 Temporary Construction Easements. Temporary construction easements (TCEs) will be obtained to provide contractor with construction access thorough an existing LA County flood control access road. The boundaries of the TCE will be fenced, and construction activity will not be allowed to occur beyond these limits.

NAT-03 Heavy Equipment Storage. No heavy equipment will be stored within the San Gabriel River. Heavy equipment will be checked daily for leaks to avoid contamination. Drip pans will be placed under heavy equipment at the end of each day.

NAT-04 Environmentally Sensitive Area Fence. Environmentally Sensitive Area (ESA) Fence will be installed around alluvial fan sage scrub or coastal sage scrub vegetation

WET-01 Construction Work Window Restrictions. All work within San Gabriel River shall be conducted outside of the rainy season (November 1st- April 1st).

WET-02 May 2019 thru July 2021. Commence and complete Formal or Informal Section 7, as well as, 1602, 404, and 401 permitting prior to October 2020 water diversions and vegetation clearing is required by the below steps.

WET-03 May 2019 thru July 2021. LA County Flood Control Permit and Section 408 Permit from the USACE need to be obtained by Caltrans Design and/or Hydraulics.

WET-04 In late October 2021 to late November 2021. Begin and complete clearing/grubbing of all vegetation within the project impact area prior to the start of the bird nesting season (but also before the brunt of the rainy season to avoid the difficulties of working in flowing water). A water diversion may be necessary. Caltrans' biologist will routinely check on the regrowth of vegetation within the project area. If bird and bat-suitable habitat begins to return, the Caltrans Biologist will determine whether it is necessary to re-trim or remove vegetation prior to the 2022 nesting season.

AN-01 Bat Relocation Away from Construction Areas. Alternate roost sites will be installed prior to any evictions and suitable habitat removal to encourage passive relocations. Alternative roost sites are Bat Houses located within the project site, at least 200 ft away from construction activities to reduce noise impacts from construction work.

AN-02 Swallow Exclusion. Closing weep holes (either with exclusion netting or tubes) within the bridge structure will avoid impact on observed bird species, weep holes will be reopened once construction is complete and birds can return to weep holes.

AN-03 Clearing and Grubbing. Clearing and grubbing shall occur outside the maternity season Mid-May to Early July one year ahead of the false and support works installation. No trees will be cut down or trimmed without first being surveyed by a qualified biologist for the presence of bats roosting. Should bats be located within trees that are to be removed or trimmed, Caltrans will coordinate with CDFW to determine how best to minimize impacts to these species.

AN-04 Night Lighting. Special night time lighting to deter bats from the construction area are to be used when construction is active.

INV-01 Equipment Cleaning. During construction, the construction contractor shall inspect and clean construction equipment at the beginning and end of each day and prior to transporting equipment from one project location to another.

INV-02 Vegetation/Soil Disturbance. During construction, soil and vegetation disturbance will be minimized to the greatest extent feasible.

INV-03 Fugitive Dust Control. During construction, the contractor shall ensure that all active portions of the construction site are watered a minimum of twice daily or more often when needed due to dry or windy conditions to prevent excessive amounts of dust.

INV-04 Stockpile Dust Control. During construction, the contractor shall ensure that all active

portions of the construction site are watered a minimum of twice daily or more often when needed due to dry or windy conditions to prevent excessive amounts of dust.

INV-05 Materials Sourcing. During construction, soil/gravel/rock will be obtained from weed-free sources. Only certified weed-free straw, mulch, and/or fiber rolls will be used for erosion control.

INV-06 Eradication Procedures. Eradication procedures (e.g., spraying and/or hand weeding) will be outlined should an infestation occur; the use of herbicides will be prohibited within and adjacent to native vegetation, except as specifically authorized and monitored by the District Biologist and Landscape Architect.

WF-1 Fire Protection. Fire protection is required during this project because it is located in a Very High Fire Hazard Severity Zone Location. Caltrans Standard Specification 7-1.02M(2) Fire Protection would be adhered to by the Caltrans Contractor.

CC-1 Project-Level Measures to Reduce GHG emissions Related to Construction Activities

- Alternative fuels such as renewable diesel should be used for construction equipment.
- Idling is limited to five minutes for delivery and dump trucks and other diesel-powered equipment (with some exceptions).
- Reduce construction water consumption of potable water. Encourage recycled water for construction.
- Encourage Improved fuel efficiency from construction equipment (examples provided below):
    - Maintain equipment in proper working condition
    - Right size equipment for the job
    - Use equipment with new technologies
- Construction Environmental Training. Provide construction personnel with the knowledge to identify environmental issues and best practice methods to minimize impacts to the human and natural environment. Supplement existing training with information regarding methods to reduce GHG emissions related to construction. The following link may be useful when creating construction environmental training: https://www.sustainablehighways.org/122/project-development.html
- On-site recycling of existing project features is encouraged

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Appendix D. List of Acronyms and Abbreviations

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AB	Assembly Bill
ACHP	Advisory Council on Historic Preservation
ADA	Americans with Disabilities Act
ADL	aerially deposited lead
APE	Area of Potential Effects
AQMD	Air Quality Management District
ARB	Air Resources Board
BMP	Best Management Practice
CAA	Clean Air Act
Cal/EPA	California Environmental Protection Agency
Cal/OSHA	California Division of Occupational Safety and Health Administration
CalRecycle	California Department of Resources Recycling and Recovery
CCAA	California Clean Air Act
CDFW	California Department of Fish and Wildlife
CEQ	Council on Environmental Quality
CEQA	California Environmental Quality Act
CERES	California Environmental Resources Evaluation System
CERLA	Comprehensive Environmental Response, Compensation, and Liability Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
CGS	California Geological Survey
CHP	California Highway Patrol
CHRIS	California Historical Resources Information System
CIA	Community Impact Assessment
CL	center line
CMP	Conceptual Mitigation Plan
CNDDB	California Natural Diversity Database
CNEL	community noise equivalent level
CNPS	California Native Plant Society
CO	carbon monoxide
CO2	carbon dioxide
COG	Council of Governments
COZEEP	Construction Zone Enhanced Enforcement Program
CPRA	California Public Records Act
CRHR	California Register of Historical Resources
CRM	Cultural Resources Management
CSO	Cultural Studies Office
CT	California Department of Transportation

CTC	California Transportation Commission
CTP	California Transportation Plan
CUPA	Certified Unified Program Agencies
CWA	Clean Water Act
dBA	A-weighted decibel
dBA Leq	A-weighted noise level
DBH	Diameter at breast height
DEA	Division of Environmental Analysis
DED	draft environmental document
DES-OE	Division of Engineering Services-Office Engineer
DNAC	District Native American Coordinator
DOC	California Department of Conservation
DOD	Department of Defense [U.S.]
DOI	Department of the Interior [U.S.]
DOT	Department of Transportation [general]
DPR	Draft Project Report
DPR	California Department of Parks and Recreation
DSA	Disturbed Soil Area
DSI	Detailed Site Investigation
DTSC	California Department of Toxic Substances Control
DWR	California Department of Water Resources
EA	Environmental Assessment [NEPA}
EA	Expenditure Authorization
EBC	Environmental Branch Chief
ECL	Environmental Construction Liaison/Coordinator
ECR	Environmental Commitments Record
ED	environmental document
EFH	Essential Fish Habitat
EH	Environmental Handbook
EIR	Environmental Impact Report [CEQA]
EIS	Environmental Impact Statement [NEPA]
EJ	Environmental Justice
ELAP	Environmental Laboratory Accreditation Program
EMO	Environmental Management Office
EO	Executive Order
EOC	Environmental Office Chief
EP	Environmental Planner
EPNS	Environmental Planner (Natural Science)

ESA	Environmentally Sensitive Area
ESA	Endangered Species Act
ESR	Environmental Study Request
ESU	Environmentally Significant Unit (relates to salmonids)
FAE	Finding of Adverse Effect
FBFM	Flood Boundary and Floodway Map
FED	final environmental document
FEMA	Federal Emergency Management Agency
FESA	Federal Endangered Species Act
FHWA	Federal Highway Administration
FIFRA	Federal Insecticide, Fungicide, and Rodenticide Act
FIRM	Flood Insurance Rate Map
FIS	Flood Insurance Study
FLPMA	Federal Land Policy and Management Act of 1976
FNAE	Finding of No Adverse Effect
FOE	Finding of Effect
FOIA	Freedom of Information Act
FONSI	Finding of No Significant Impact [NEPA]
FPPA	Farmland Protection Policy Act
FR	Federal Register
FRA	Federal Railroad Administration
FRID	Final Relocation Impact Document
FRIS	Final Relocation Impact Statement
FTA	Federal Transit Authority
FSTIP	Federal State Transportation Improvement Program
FTIP	Federal Transportation Improvement Program
FY	Fiscal Year
GHG	greenhouse gas
GIS	Geographic Information Systems
GPR	Ground Penetrating Radar
GPS	Global Positioning System
HA	Highway Agency
HABS	Historic American Building Survey
HAER	Historic American Engineering Record
HASR	Historic Architectural Survey Report
HCM	Highway Capacity Manual
HCP	Habitat Conservation Plan
HDM	Highway Design Manual

HGM	Hydrogeomorphic Method
HMDD-A	Hazardous Materials Disclosure Document-Acquisition
HMDD-D	Hazardous Materials Disclosure Document-Disposal
HOT	High-Occupancy Toll
HOV	High-Occupancy Vehicle
HPSR	Historic Property Survey Report
HRC	Heritage Resources Coordinator
HRCR	Historical Resources Compliance Report
HRER	Historical Resources Evaluation Report
HSWA	Hazardous and Solid Waste Amendments
IGR	Intergovernmental Review
IIP	Interregional Improvement Program
IP	Individual Permit
IPCC	Intergovernmental Panel on Climate Change
IS	Initial Study [CEQA]
ISA	Initial Site Assessment
ISTEA	Intermodal Surface Transportation Efficiency Act of 1991
ITE	Institute of Transportation Engineers
ITIP	Interregional Transportation Improvement Program
ITP	Incidental Take Permit
ITSP	Interregional Transportation Strategic Plan
ITTE	Institute of Transportation and Traffic Engineering
JD	Jurisdictional Determination
KP	kilometer post
LAPM	Local Assistance Procedures Manual
LCP	Local Coastal Plan
LEDPA	Least Environmentally Damaging Practicable Alternative
LESA	Land Evaluation and Site Assessment
LOP	Letter of Permission
LOS	Level of Service
LUPIN	Land Use Planning Information Network
LUST	leaking underground storage tank
LWCFA	Land and Water Conservation Fund Act of 1965
MAP-21	Moving Ahead for Progress in the 21st Century Act
MBTA	Migratory Bird Treaty Act
MCCE	Mitigation and Compliance Cost Estimate
MCE	Maximum Credible Earthquake
MEP	Maximum Extent Practicable

MIS	Major Investment Study
MLD	Most Likely Descendant
MMPA	Marine Mammal Protection Act
MMRR	Mitigation Monitoring and Reporting Record
MND	Mitigated Negative Declaration [CEQA]
MOA	Memorandum of Agreement
MOU	Memorandum of Understanding
MPO	Metropolitan Planning Organization
MPRSA	Marine Protection, Research, and Sanctuaries Act
MS4	Municipal Separate Storm Sewer System
MSAT	Mobile Source Air Toxics
MSFCMA	Magnuson-Stevens Fishery Conservation and Management Act
MSL	Mean Sea Level
MTBE	methyl tertiary butyl ether
MTP	Metropolitan Transportation Plan
MTIP	Metropolitan Transportation Improvement Program
NAAQS	National Ambient Air Quality Standards
NAC	Noise Abatement Criteria
NADR	Noise Abatement Decision Report
NAE	No Adverse Effect
NAGPRA	Native American Graves Protection and Repatriation Act of 1990
NAHC	Native American Heritage Commission
NCCP	Natural Community Conservation Planning
NCHRP	National Cooperative Highway Research Program
NCSE	National Council for Science Education
NCSE	National Council for Science and the Environment
ND	Negative Declaration [CEQA]
NEPA	National Environmental Policy Act
NES	Natural Environment Study
NES-MI	Natural Environmental Study (Minimal Impact)
NESHAP	National Emissions Standards for Hazardous Air Pollutants
NFIP	National Flood Insurance Program
NFSAM	National Flood Security Act Manual
NH3	ammonia
NHL	National Historic Landmark
NHPA	National Historic Preservation Act
NHS	National Highway System
NNL	National Natural Landmark

NOA	naturally occurring asbestos
NOA	Notice of Availability
NOAA	National Oceanic and Atmospheric Administration
NOAA-Fisheries	National Marine Fisheries Service
NOC	Notice of Completion
NOD	Notice of Determination
NOE	Notice of Exemption
NOI	Notice of Intent
NOP	Notice of Preparation
NPDES	National Pollutant Discharge Elimination System
NPL	National Priorities List
NPPA	[California] Native Plant Protection Act
NPRM	Notice of Proposed Rule Making
NPS	National Park Service
NR	National Register [of Historic Places]
NRCS	National Resources Conservation Service
NRHP	National Register of Historic Places
NSSP	Nonstandard Special Provision
NWP	Nationwide Permit
O.C.	Overcrossing
OCRM	National Oceanic and Atmospheric Administration-Office of Ocean and Coastal Resource Management
OHP	[California] Office of Historic Preservation
OHWM	Ordinary High Water Mark
OPR	[California] Office of Planning and Research
OSHA	Occupational Safety Hazard Administration
PA	Programmatic Agreement
PA&ED	Project Approval and Environmental Document
PAM	Permits, Agreements, and Mitigation
Pb	lead
PDPM	[Caltrans] Project Development Procedures Manual
PDT	Project Development Team
PE	Project Engineer
PEAR	Preliminary Environmental Assessment Report
PEER	Permit Engineering Evaluation Report
PER	Paleontological Evaluation Report
PG	Professional Geologist
PID	Project Initiation Document

PIR	Paleontological Identification Report
PLAC	Permits, Licenses, Agreements, and Certifications
PM	particulate matter
PM	post mile
PM	Project Manager
PM_{10}	particulate matter less than 10 microns in diameter
$PM_{2.5}$	particulate matter less than 2.5 microns in diameter
PMP	Paleontological Mitigation Plan
PMR	Paleontological Mitigation Report
POAQC	Project of Air Quality Concern
ppb	parts per billion
ppm	parts per million
PR	Project Report
PRC	[California] Public Resources Code
PS&E	Plans, Specifications, and Estimates
PSI	Preliminary Site Investigation
PSI	pounds per square inch
PSR	Project Study Report
PSR-PDS	Project Study Report-Project Development Support
PSS	Paleontological Stewardship Summary
PSSR	Project Scope Summary Report
PUC	Public Utilities Commission [California]
RAP	Relocation Assistance Program
RAW	Remedial Action Workplan
RCR	Route Concept Report
RCRA	Resource Conservation and Recovery Act of 1976
RE	Resident Engineer
RGL	Regulatory Guidance Letter
RIP	Regional Improvement Program
ROD	Record of Decision [NEPA]
ROW	right-of-way
RP	Responsible Party
RTIP	Regional Transportation Improvement Program
RTP	Regional Transportation Plan
RTPA	Regional Transportation Planning Agency
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SCAG	Southern California Association of Governments

SCH	[California] State Clearinghouse
SDWA	Safe Drinking Water Act
SFHA	Special Flood Hazard Area
SHPO	State Historic Preservation Officer
SHS	State Highway System
SIP	State Implementation Plan
SLC	[California] State Lands Commission
SR	State Route
STIP	Statewide Transportation Improvement Program
SWMP	Storm Water Management Plan
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAC	Technical Advisory Committee
TASAS	Traffic Accident Surveillance and Analysis System
TCM	Transportation Control Measure
TDM	Transportation Demand Management
TEA-21	Transportation Equity Act for the 21st Century
TIP	Transportation Improvement Program
TMDL	Total Maximum Daily Load
TMP	Transportation Management Plan
TSM	Transportation Systems Management
U.S.	United States
U.S. EPA	United States Environmental Protection Agency
USACE	United States Army Corps of Engineers
USC	United States Code
USDOT	United States Department of Transportation
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
VOC	volatile organic compounds

Appendix E. Glossary of Technical Terms

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ACTION (1): Any highway construction, reconstruction, rehabilitation, repair, or improvement undertaken with Federal-aid highway funds or FHWA approval.

ACTION (2): A highway or transit project proposed for FHWA or FTA funding. It also includes activities such as joint and multiple use permits, changes in access control, etc., which may or may not involve a commitment of federal funds (23 CFR 771.107(b)).

ACTIVE FAULT: A fault that has moved within late Quaternary time (the last 750,000 years). Note that this definition is broader than that used by the California Department of Conservation, California Geological Survey (CGS), which defines an active fault as one that has moved within Holocene time (the last 11,000 years).

ADAPTIVE MANAGEMENT: A long-term repeated process of gradually modifying management techniques based on the results of modeling and research.

ALLUVIAL FAN: A fan-shaped area of soil deposited where a mountain stream first enters a valley or plain.

ALLUVIAL SOILS: Soil developing from recent alluvium (see below); typical of floodplains.

ALLUVIUM: Material developed by running water.

AMBIENT: Refers to surrounding, external, or unconfined conditions.

AMBIENT NOISE: Exterior sound (the surrounding sound from all sources near and far).

AREA OF POTENTIAL EFFECT: A term used in Section 106 of the National Historic Preservation Act to describe the area in which historic resources may be affected by a federal undertaking.

ARID: Dry.

ARTERIAL: A highway or local road that primarily serves through traffic

AS-BUILTS: The final plans of a project after the project is constructed. These plans show the original design, as well as changes that occurred during construction.

ATTAINMENT AREA: A geographic area in which levels of a criteria air pollutant meet the health-based primary standard (national ambient air quality standard, or NAAQS) for the pollutant. An area may have an acceptable level for one criteria air pollutant, but may have unacceptable levels for others. Thus an area could be both attainment and nonattainment at the same time. Attainment areas are defined using federal pollutant limits set by the U.S. EPA.

BASE FLOOD: The flood having a one percent (1%) chance of being equaled or exceeded in any given year (100-year flood).

BASE FLOOD ELEVATION: The water surface elevation of the base flood.

BASE FLOOD PLAIN: The area subject to flooding by the base flood.

BENEFICIAL USE: A use of a natural water resource that enhances the social, economic, and environmental well-being of the user. Twenty-one beneficial uses are defined for the waters of California, ranging from municipal and domestic supply to fisheries and wildlife habitat.

BEST MANAGEMENT PRACTICE: Any program, technology, process, operating method, measure, or device that controls, prevents, removes or reduces pollution.

BORROW: Soil brought in from another area.

CALIFORNIA ENVIRONMENTAL QUALITY ACT: State legislation enacted in 1970 and subsequently amended. It requires public agencies to regulate activities which may affect the quality of the environment so that major consideration is given to preventing damage to the environment.

CALIFORNIA TRANSPORTATION COMMISSION: A State Commission, established by State Assembly Bill 402 (AB 402) with nine appointed members and two ex-officio members, responsible for the programming and allocating of funds for the construction of highway, passenger rail, and transit improvements throughout California. The CTC also provides guidance and recommendations on transportation policies.

CAPACITY: The maximum amount of traffic that can be accommodated by a uniform segment of freeway under prevailing conditions.

CHANNELIZATION: The use of traffic markings or islands to direct traffic into certain paths, for instance, a “channelized” intersection directs portions of traffic into a left-turn lane through the use of roadway islands or striping that separates the turn lane from traffic going straight.

COOPERATING AGENCY: “Cooperating Agency,” under NEPA, means any agency other than the lead agency which has jurisdiction by law or special expertise with respect to any environmental impact involved in a proposal for any action significantly affecting the human environment.

CORRIDOR: A strip of land between two termini within which traffic, topography, environment, and other characteristics are evaluated for transportation purposes.

CUMULATIVE IMPACT (CEQA): The CEQA definition of cumulative impact comes from the Office of Planning and Research (OPR). Section 15355 of OPR’s CEQA Guidelines provides the following context:

Cumulative impacts refer to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.

- The individual effects may be changes resulting from a single project or a number of

separate projects.

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

CUMULATIVE IMPACT (NEPA): The NEPA definition of a cumulative impact comes from the Council on Environmental Quality (CEQ), which defines a cumulative impact as:

- …the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time. (40 CFR §1508.7.)

dba: A-weighted decibels are adjusted to approximate the way the average person hears sound.

DECIBEL: With respect to sound, decibels measure a scale from the threshold of human hearing, zero decibels, upwards towards the threshold of pain, about 120 to 140 decibels. Because decibels are such a small measure, they are computed logarithmically and cannot be added arithmetically. An increase of 10 decibels is perceived by the human ear as a doubling of noise.

DECIDUOUS: (of leaves), shed during a certain season (winter in temperate regions, dry seasons in the tropics); (of trees), having deciduous parts.

DEMOGRAPHY, DEMOGRAPHIC: The study of populations with reference to birth and death rates, size and density, distribution, migration, and other vital statistics.

DESIGNATED FLOODWAY: A floodway designated by a state or local agency. California State Reclamation Board (Board) definition: A designated floodway means either: (1) the channel of the stream and that portion of the adjoining floodplain reasonably required to provide passage of a base flood or (2) the floodway between existing levees as adopted by the Board or the Legislature.

DIAMETER AT BREAST HEIGHT: Diameter of tree measured four feet, six inches (1.4 meters) from ground level.

DIRECT EFFECTS: Effects that are caused by and action and occur at the same time and place as the action.

ECOSYSTEM: The biotic community and its abiotic environment functioning on a system.

ENCROACHMENT (FEMA DEFINITION): Construction, placement of fill, or similar alteration of topography in the floodplain that reduces the area available to convey floodwaters. FHWA

definition: An action within the limits of the base floodplain.

ENCROACHMENT (FHWA): An action within the limits of the base floodplain.

ENDANGERED: Plant or animal species that are in danger of extinction throughout all or a significant portion of its range.

ENDEMIC, ENDEMISM: Restricted to a given region (e.g., endemic to California).

ENVIRONMENTAL DOCUMENT: "Environmental Document" means draft or final Environmental Impact Statement (EIS) or Environmental Impact Report (EIR), Finding of No Significant Impact (FONSI), Environmental Assessment (EA) or Negative Declaration (ND)/Mitigated Negative Declaration (MND). A categorical exemption or exclusion is not considered an environmental document; it is rather the determination that the project is exempt/excluded from the requirement to prepare an environmental document.

ENVIRONMENTAL PROTECTION AGENCY [UNITED STATES]: An agency of the executive branch of the federal government charged with establishing and enforcing environmental regulations.

EPHEMERAL: Lasting for only a short time; transitory; short-lived.

EROSION: The wearing away of the land surface by running water, wind, ice, or other geological agents.

EXPANSIVE SOILS: Soil deposits that have the capacity or a tendency to expand during weather or seismic events.

EXTANT: Still in existence.

FALSEWORK: A temporary frame to support a structure during construction.

FEDERAL HIGHWAY ADMINISTRATION: The Federal agency within the U.S. Department of Transportation responsible for administering the Federal-aid Highway Program and the Motor Carrier Safety Program.

FEDERAL REGISTER: The *Federal Register* is the official daily publication for agency rules, proposed rules, and notices of federal agencies and organizations, as well as for Executive Orders and other presidential documents.

FEDERAL TRANSIT ADMINISTRATION: An agency within the U.S. Department of Transportation responsible for administering federal funds for public transportation planning, programming, and projects.

FEDERAL STATE TRANSPORTATION IMPROVEMENT PROGRAM: A multiyear statewide, financially constrained, intermodal program of projects that is consistent with the statewide

transportation plan (CTP) and regional transportation plans (RTPs). The FSTIP is developed by the California Department of Transportation and incorporates all of the MPOs *and* RTPAs FTIPs by reference. Caltrans then submits the FSTIP to FHWA.

FEDERAL TRANSPORTATION IMPROVEMENT PROGRAM: A constrained 4-year prioritized list of all transportation projects that are proposed for federal and local funding. The FTIP is developed and adopted by the MPO/RTPA and is updated every two years. It is consistent with the RTP and it is required as a prerequisite for federal funding.

FINDING OF NO SIGNIFICANT IMPACT: A document by a federal agency briefly presenting the reasons why an action, not otherwise categorically excluded, will not have a significant effect on the human environment and therefore does not require the preparation of an EIS.

FLOOD BOUNDARY AND FLOODWAY MAP: The floodplain management map issued by FEMA that depicts, on the basis of detailed analyses, the boundaries of the 100- and 500-year floodplain and the regulatory floodway.

FLOOD FREQUENCY: The statistical number of years that takes place before the recurrence of a flood of the same magnitude. (10-year flood, 50-year flood, 100-year flood, etc.)

FLOOD INSURANCE RATE MAP (FIRM): The insurance and floodplain management map issued by FEMA that identifies, on the basis of detailed or approximate analyses, the areas of 100-year flood hazard in a community.

FLOOD INSURANCE STUDY: It is a report that describes and delineates the Special Flood Hazard Areas and the elevations of the community.

FLOODPLAIN: Any land area subject to inundation by floodwaters from any source.

FLOODPLAIN VALUES: Fish, wildlife, plants, open space, natural beauty, scientific study, outdoor recreation, agriculture, aqua culture, forestry, natural moderation of floods, water quality maintenance, groundwater discharge, etc.

FLOODPROOF: To design and construct a project to keep floodwaters out or to reduce the effects of floodwaters.

FLOODWAY: The channel of a river or other watercourse, plus any adjacent floodplain areas, which is designated a floodway by a public agency, that must be kept free of encroachment so that the 100-year flood discharge can be conveyed without cumulatively increasing the water-surface elevation more than one foot above the BFE. (Since the one foot is already accounted for, no increase of any amount in the BFE is allowed in the floodway.)

FLOODWAY FRINGE: The portion of the 100-year floodplain that is not within the floodway and in which development and other forms of encroachment may be permitted under certain circumstances.

FRAGMENTATION: Reduction of a large habitat area into small, scattered remnants; reduction of leaves and other organic matter into smaller particles.

FRIABLE: Easily crumbled (as in friable soil).

FREEWAY: A divided arterial highway with full control of access and with grade separations at intersections.

GEOMETRIC DESIGN: The design of the physical features of a road, such as alignment, grades, sight distances, widths, slopes, etc., many of which are dictated by the design speed.

GOODS MOVEMENT: The transportation of commodities by any or all of the following commercial means; aircraft, railroad, ship, or truck.

HABITAT: Place where a plant or animal lives.

HABITAT PROTECTION: Ensuring appropriate uses of land to maintain and optimize species habitat values.

HOLOCENE: The second epoch of the Quaternary Period characterized by man and modern animals.

HYDRIC SOIL: Soil subject to saturation or inundation.

IGNEOUS ROCKS: Formed when magma (liquid rock material) cools below the earth's surface or when lava cools above ground.

INDIRECT EFFECTS: Effects that are caused by an action and occur later in time, or at another location, yet are reasonably foreseeable.

INITIAL STUDY: Under CEQA, the Initial Study is prepared to determine whether there may be significant environmental effects resulting from a project. The Initial Study is attached to the Negative Declaration or Mitigated Negative Declaration. It can become the basis of an EIR if it concludes that the project may cause significant environmental effects that cannot be mitigated below the level of significance.

ldn: Average noise over one day and night.

LEAD AGENCY (CEQA): "Lead Agency" means the public agency which has primary responsibility for carrying out or approving a project which may have a significant effect on the environment and preparing the environmental document.

LEAD AGENCY (NEPA): The agency or agencies preparing or having taken primary responsibility for preparing the environmental impact statement.

leq: A measure of the average noise level during a specified period of time.

leq(h): Equivalent or average noise level for the noisiest hour.

LIQUEFACTION: The loss in the shearing resistance of a cohesionless soil, caused by an earthquake wave. The soil is turned into a fluid mass.

LITHIC: Consisting of or relating to stone or rock.

LONGITUDINAL ENCROACHMENT: An encroachment that is parallel to the direction of flow. Example: A highway that runs along the edge of a river is, usually considered a longitudinal encroachment.

MAGNITUDE: A measure of the strength of an earthquake or the strain energy released by it.

MAINTENANCE AREA: A federal term to describe any geographic region of the United States designated non-attainment pursuant to the Clean Air Act Amendments of 1990 (CAAA) and subsequently re-designated to attainment subject to the requirement to develop a maintenance plan under Section 175A of the CAAA.

MAJOR FEDERAL ACTION: Section 1508.18 of the CEQ Regulations states that "Major Federal action" includes actions with effects that may be major and which are potentially subject to Federal control and responsibility. Major reinforces but does not have a meaning independent of significantly (Sec. 1508.27).” An EIS must be prepared for any major federal action significantly affecting the quality of the human environment.

MAXIMUM CREDIBLE EARTHQUAKE: The maximum intensity earthquake that is assumed to occur closest to the site. This earthquake is also described as the maximum magnitude earthquake, or maximum earthquake.

MEDIAN: The portion of a divided highway separating the traveled ways in opposite directions.

METROPOLITAN PLANNING ORGANIZATION: A federal designation for the forum for cooperative transportation decision-making for an urbanized area with population of more than 50,000.

MIGRATION: Intentional, directional, and usually seasonal movement of animals between two regions or habitats; involves departure and return of the same individual.

MITIGATED NEGATIVE DECLARATION: The CEQA document that is used when the Initial Study concludes that a project's potential significant effect on the environment can be reduced below the level of significance with the incorporation of mitigation measures.

MITIGATION BANK: Large blocks of land preserved, restored, and enhanced for the purpose of consolidating mitigation and/or mitigating in advance for projects that take listed species.

MONITORING WELL: A well drilled at a hazardous waste management site or Superfund site to collect groundwater samples for the purpose of physical, chemical, or biological analysis to

determine the amounts, types, and distribution of contaminants in the groundwater beneath the site.

MOVING AHEAD FOR PROGRESS IN THE 21st CENTURY ACT: MAP-21 was signed into law by President Barack Obama on July 6, 2012. Funding surface transportation programs at over $105 billion for fiscal years (FY) 2013 and 2014, MAP-21 is the first long-term highway authorization enacted since 2005.

NATIONAL ENVIRONMENTAL POLICY ACT: Enacted in 1969, NEPA requires all federal agencies to consider environmental factors through a systematic interdisciplinary approach before committing to a course of action. The NEPA process is an overall framework for the environmental evaluation of federal actions.

NATIONAL HIGHWAY SYSTEM: Consists of 155,000 miles (plus or minus 15 percent) of the major roads in the U.S. Included will be all interstate routes, a large percentage of urban and rural principal arterials, the defense strategic highway network, and strategic highway connectors.

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT: "…is required for facilities and activities that discharge waste into surface waters from a confined pipe or channel."

NEGATIVE DECLARATION (ND): The CEQA document that is used when the Initial Study concludes that a project will have no significant impact on the environment.

NONATTAINMENT AREA: "Nonattainment Area" means any geographic region of the United States that the U.S. Environmental Protection Agency (U.S. EPA) has designated as a nonattainment area for a transportation related pollutant(s) for which a National Ambient Air Quality Standard (NAAQS) exists.

NONPOINT SOURCE: A "nonpoint source" is a dispersed source of pollution that is not identifiable as to specific location, but may be identified as contributing to water quality degradation from a tributary drainage area, e.g., pesticide residues distributed over an agricultural area.

NOTICE OF AVAILABILITY: "Notice of Availability" means a formal public notice under NEPA announcing the availability of a completed EA, DEIS, or FEIS. For eiss, publication of such notice in the Federal Register is required.

NOTICE OF COMPLETION: The CEQA notice submitted to the State Clearinghouse when an EIR, MND, or ND is completed.

NOTICE OF DETERMINATION: A "Notice of Determination" is a formal written notice under CEQA filed by a lead state agency when approving any project subject to the preparation of an EIR, MND, or ND.

NOTICE OF INTENT: Under NEPA, the “Notice of Intent” is a notice that an Environmental Impact Statement will be prepared and considered. The Notice of Intent is published in the Federal Register by the lead federal agency. Under CEQA, a lead agency must also provide a “Notice of Intent to Adopt” an ND or MND to the public, responsible agencies, trustee agencies, and the county clerk of each county in which the proposed project is located.

NOTICE OF PREPARATION: "Notice of Preparation" is the CEQA notice that an EIR will be prepared for a project.

PARTICIPATING AGENCY: Under 23 USC 139, a participating agency is any federal or non-federal agency (state, tribal, regional, or local government agency) that may have an interest in the project. Nongovernmental organizations and private entities cannot serve as participating agencies

PLEISTOCENE: The first epoch of the Quaternary Period characterized by the first indications of social life in man.

PLIOCENE: The first epoch of the Tertiary Period characterized by the transition from hominids to early humans

POINT SOURCE: Distinct location from which wastes are discharged (e.g., pipes and sewers).

PRACTICABLE: The term *practicable* means available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes.

PROJECT (CEQA): California Public Resources Code §21065 defines a “project” as an activity which may cause either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment, and which is any of the following:

- An activity directly undertaken by any public agency.
- An activity undertaken by a person which is supported, in whole or in part, throughout contracts, grants, subsidies, loans, or other forms of assistance from one or more public agencies.
- An activity that involves the issuance to a person of a lease, permit, license, certificate, or other entitlement for use by one or more public agencies.

PROJECT (FHWA): 23 Code of Federal Regulations §1.2 defines a project as an undertaking by a State highway department for highway construction, including preliminary engineering, acquisition of rights-of-way and actual construction, or for highway planning and research, or for any other work or activity to carry out the provisions of the Federal laws for the administration of Federal-aid for highways.

QUATERNARY PERIOD: A geologic period, which includes both the Pleistocene and Holocene Periods, comprising the second portion of the Cenozoic era; characterized by the rise of man

and modern animals.

RECEPTORS: Term used in air quality and noise studies that refers to houses or businesses that could be affected by a project.

RECORD OF DECISION: The “Record of Decision” is a formal written statement, required under NEPA, wherein a federal lead agency must present the basis for its decision to approve a selected project alternative, summarize mitigation measures incorporated into the project, and document any required Section 4(f) approval.

REGULATORY AGENCY: An agency that has jurisdiction by law.

REGIONAL IMPROVEMENT PROGRAM: One of two component funding source programs that ultimately make up the STIP. The RIP receives 75% of the funds from the State Highway account. This 75% is then distributed to the mpos and rtpas by a formula. The RIP is the source of funding for the FTIP.

REGIONAL TRANSPORTATION IMPROVEMENT PLAN: RTIP is a synonym for the FTIP and it refers to the programming done by the MPO/RTPA as part of the development of the RTP. Also called a METROPOLITAN TRANSPORTATION IMPROVEMENT PLAN (MTIP).

REGIONAL TRANSPORTATION PLAN: A federal and state mandated planning document prepared by mpos and rtpas. The plan describes existing and projected transportation needs, conditions, and financing affecting all modes within a 20-year horizon. Also called a METROPOLITAN TRANSPORTATION PLAN.

REGIONAL TRANSPORTATION PLANNING AGENCY: A state designated single or multi-county agency responsible for regional transportation planning. RTPAs are also known as Local Transportation Commissions or Councils of Governments and are usually located in rural or exurban areas.

REGULATORY EARTHQUAKE FAULT ZONES: Areas along faults defined as active by the California Geological Survey, typically one-quarter mile or less in width, where special studies are required to determine if there is a surface rupture hazard. Caltrans’ broader definition of active faults results in other areas that also need to be addressed for surface rupture. A site near a fault defined as active by Caltrans criterion also requires a review of surface rupture potential.

REGULATORY FLOODWAY: A floodplain area that is reserved in an open manner by federal, state, or local requirements, i.e., unconfined or unobstructed either horizontally or vertically, to provide for the discharge of the base flood so that the cumulative increase in water surface elevation is no more than a one-foot increase. (Since the one foot is already accounted for, no increase more than 0.00 feet is allowed)

RESPONSIBLE AGENCY: A “public agency, other than the lead agency which has responsibility for carrying out or approving a project” (PRC 21069). The CEQA Guidelines

further explains the statutory definition by stating that a “responsible agency” includes “all public agencies other than the Lead Agency which have discretionary approval power over the project” (14 CCR 15381). State and local public agencies that have discretionary authority to issue permits, for example, fall into this category.

REVEGETATION: Planting of indigenous plants to replace natural vegetation that is damaged or removed as a result of highway construction projects or permit requirements.

RIGHT-OF-WAY: A general term denoting land, property, or interest therein, usually in a strip acquired for or devoted to transportation purposes.

RIPARIAN: Along banks of rivers and streams; riverbank forests are often called gallery forests.

RIPRAP: Randomly placed rock or concrete used to strengthen an embankment or protect it from erosion.

RISK ASSESSMENT: An economic and/or non-economic assessment of the impacts associated with the floodplain encroachment(s). It is meant to be more general in detail than a risk analysis. The format and content of the Summary Floodplain Encroachment Report form is the minimum required for a risk assessment.

RUDERAL: Disturbed area with a prevalence of introduced weedy species. Ruderal habitats are associated with unpaved highway shoulders and weedy areas around and between dwellings and other structures.

THE SAFE, ACCOUNTABLE, FLEXIBLE, EFFICIENT TRANSPORTATION EQUITY ACT: A LEGACY FOR USERS: SAFETEA-LU authorized the Federal surface transportation programs for highways, highway safety, and transit for the 5-year period 2005 to 2009.

SCOPING: NEPA defines scoping as an early and open process for determining the scope of issues to be addressed and for identifying the significant issues related to a proposed action (40 CFR §1501.7). Under CEQA, scoping is designed to examine a proposed project early in the EIR environmental analysis/review process, and is intended to identify the range of issues pertinent to the proposed project and feasible alternatives or mitigation measures to avoid potentially significant environmental effects.

SCOUR: Erosion caused by moving water.

SEICHE: A wave oscillation of the surface of water in an enclosed basin initiated by an earthquake.

SENATE BILL 45: California State Senate Bill 45, passed in 1997, revised transportation funding priorities at the State level, allocating 75 percent of capital outlay dollars to regional agencies, and 25 percent to the State.

SETBACKS: The minimum horizontal distance slopes shall be set back from site boundaries

according to Chapter 70 of the Uniform Building Code. Also applies to the minimum horizontal distance required from faults to structures (see California Geological Survey Special Publication 42, pp. 27 and 29).

SETTLEMENT: The gradual downward movement of an engineered structure due to compression of the soil below the structure foundation.

SIGNIFICANCE (CEQA): CEQA defines a "significant effect on the environment" as “a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance. An economic or social change by itself shall not be considered a significant effect on the environment. A social or economic change related to a physical change may be considered in determining whether the physical change is significant” (15382). CEQA requires that the lead agency identify each “significant effect on the environment” resulting from the project and avoid or mitigate it. The CEQA Guidelines include mandatory findings of significance for certain effects, thus requiring the preparation of an EIR.

SIGNIFICANCE (NEPA): Under NEPA, an EIS is required when the proposed federal action has the potential to “significantly affect the quality of the human environment.” To determine that potential, one must consider both the context in which the action takes place and the intensity of its effect. Section 1508.27 of the CEQ regulations defines the term “significantly” as:

Significantly as used in NEPA requires considerations of both context and intensity:

A. Context. This means that the significance of an action must be analyzed in several contexts such as society as a whole (human, national), the affected region, the affected interests, and the locality. Significance varies with the setting of the proposed action. For instance, in the case of a site-specific action, significance would usually depend upon the effects in the locale rather than in the world as a whole. Both short- and long-term effects are relevant.

B. Intensity. This refers to the severity of impact. Responsible officials must bear in mind that more than one agency may make decisions about partial aspects of a major action. The following should be considered in evaluating intensity:

    1. Impacts that may be both beneficial and adverse. A significant effect may exist even if the Federal agency believes that on balance the effect will be beneficial.
    2. The degree to which the proposed action affects public health or safety.
    3. Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas.
    4. The degree to which the effects on the quality of the human environment are likely to be highly controversial
    5. The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks

6. The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration
7. Whether the action is related to other actions with individually insignificant but cumulatively significant impacts. Significance exists if it is reasonable to anticipate a cumulatively significant impact on the environment. Significance cannot be avoided by terming an action temporary or by breaking it down into small component parts.
8. The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources.
9. The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973.
10. Whether the action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment. [43 FR 56003, Nov. 29, 1978; 44 FR 874, Jan. 3, 1979].

SIGNIFICANT ENCROACHMENT: A highway encroachment and any direct support of likely base floodplain development that would involve one or more of the following construction or flood related impacts:

1. A significant potential for interruption or termination of a transportation facility, which is needed for emergency vehicles or provides a community's only evacuation route.
2. A significant risk *(to life or property)*, or
3. A significant adverse impact on natural and beneficial floodplain values.

SOLE SOURCE AQUIFER: An aquifer upon which a community depends exclusively for its fresh water supply.

SPECIAL FLOOD HAZARD AREAS: The areas delineated on an NFIP map as being subject to inundation by the base (100-year) flood.

SPECIAL-STATUS SPECIES: Plant or animal species that are either (1) federally listed, proposed for or a candidate for listing as threatened or endangered; (2) bird species protected under the federal Migratory Bird Treaty Act; (3) protected under state endangered species laws and regulations, plant protection laws and regulations, Fish and Game codes, or species of special concern listings and policies; or (4) recognized by national, state, or local environmental organizations (e.g., California Native Plant Society).

STATE HIGHWAY OPERATIONS AND PROTECTION PROGRAM: A legislatively created program to maintain the integrity of the State Highway System. It is tapped for safety and rehabilitation projects. SHOPP is a multi-year program of projects approved by the Legislature and Governor. It is separate from the STIP.

STATE IMPLEMENTATION PLAN: The state's plan for attaining the National Ambient Air Quality Standards. Per federal law, transportation plans and programs in air quality non-attainment areas must conform to the SIP.

STATE TRANSPORTATION IMPROVEMENT PROGRAM: A statewide or bundled prioritized list of transportation projects covering a period of four years that is consistent with the long-range statewide transportation plan, mtps, and ftips, and required for projects to be eligible for funding under Title 23 USC and title 49 USC. Chapter 53.

STATE WATER RESOURCES CONTROL BOARD: The principal authority of California for regulation of the quantity and quality of waters of the State, established by act of the legislature in 1967. It assumed responsibility for administration of the Porter-Cologne Water Quality Control Act of 1969.

STATEMENT OF OVERRIDING CONSIDERATION: Pursuant to CEQA, a written explanation prepared by a public agency that explains why it approved a project, despite the presence of significant, unavoidable environmental impacts.

STATEWIDE TRANSPORTATION PLAN: The official statewide, intermodal transportation plan that is developed through the statewide transportation planning process.

STORM WATER POLLUTION PREVENTION PLAN: A SWPPP is prepared to evaluate sources of discharges and activities that may affect storm water runoff, and implement measures or practices to reduce or prevent such discharges.

STRATUM: A layer of sedimentary rock; plural is strata.

STRATIGRAPHY: The study of rock layers, especially their formation, distribution, composition, and age.

SUBSIDENCE: A localized mass movement that involves the gradual downward settling or sinking of the earth's surface.

SUMMARY FLOODPLAIN ENCROACHMENT REPORT (SAME AS FIGURE 804.7B FLOODPLAIN EVALUATION REPORT SUMMARY LOCATED IN CHAPTER 804 OF THE HIGHWAY DESIGN MANUAL): A floodplain assessment report which addresses the six key items identified in 23 CFR 650.111(b)(c)(d) verified by results of the Location Hydraulic Study. If it is determined that a project does not have a significant encroachment, this form can be used as a minimum backup for a categorical exclusion (CE) determination. For federally-funded projects on the State Highway System (SHS), the Caltrans project engineer will sign the Summary Floodplain Encroachment Report. For local assistance projects, this report must be filled out and signed by the local agency project engineer, with concurrence signature by the District Local Assistance Engineer (DLAE).

SWALE: A wide shallow depression in the ground to form a channel for storm water drainage.

Bio-swales or biofiltration swales are densely vegetated to filter runoff.

THREATENED: A species that is likely to become endangered in the foreseeable future in the absence of special protection.

TIERING: The process of preparing multiple levels of an environmental review, typically including general matter in broad environmental documents with subsequent narrower environmental documents.

TOTAL DISSOLVED SOLIDS: Concentration of all substances dissolved in water (solids remaining after evaporation of a water sample).

TRACT: A standard geographical unit of measurement defined by the U.S. Census Bureau.

TRANSPORTATION CONTROL MEASURE: "... Is any measure that is specifically identified and committed to in the applicable implementation plan that is either one of the types listed in §108 of the Clean Air Act or any other measure for the purpose of reducing emissions or concentrations of air pollutants from transportation sources by reducing vehicle use or changing traffic flow or congestion conditions. Notwithstanding the above, vehicle technology-based, fuel-base, and maintenance-based measures which control the emissions from vehicles under fixed traffic conditions are not tcms for the purposes of project-level conformity.

TRANSPORTATION DEMAND MANAGEMENT: "Demand-based" techniques for reducing traffic congestion, such as ridesharing programs and flexible work schedules enabling employees to commute to and from work outside of the peak hours.

TRANSPORTATION EQUITY ACT FOR THE 21ST CENTURY: Federal legislation signed into law in 1998, authorizing highway, highway safety, transit and other surface transportation programs for the following six years. TEA 21 built on the initiatives established in the 1991 ISTEA.

TRANSPORTATION IMPROVEMENT PLAN: A staged, multiyear, intermodal program of transportation projects which is consistent with the metropolitan transportation plan. It is a federal term.

TRANSPORTATION SYSTEM MANAGEMENT: TSM is 1) a process oriented approach to solving transportation problems considering both long and short range implications; and 2) a services and operations process oriented in which low capital, environmentally-responsive, efficiency-maximizing improvements are implemented on existing facilities.

TRUSTEE AGENCY: "…a state agency having jurisdiction by law over natural resources affected by project which are held in trust for the people of the State of California. Trustee agencies include: a) the California Department of Fish and Game [Wildlife] with regard to the fish and wildlife of the state, to designated rare or endangered native plants, and to game refuges, ecological preserves, and other areas administered by the department; b) the State Lands Commission with regard to state owned "sovereign" lands such as the beds of navigable

waters and state school lands; c) the State Department of Parks and Recreation with regard to units of the State Park System; and d) the University of California with regard to sites within the Natural Land and Water Reserves System" (14 CCR 15386).

TURBIDITY: Cloudiness (or a measure of the cloudiness in water due to the presence of suspended particulates).

TYPE I PROJECTS: A proposed federal or federal-aid highway project for the construction of a highway on new location or the physical alteration of an existing highway which significantly changes either the horizontal or vertical alignment or increases the number of through-traffic lanes. Other specific activities that qualify as a Type I project are defined in 23 CFR 772.

TYPE II PROJECTS: Usually called a retrofit project, a proposed federal or federal-aid highway project for noise abatement on an existing highway.

TYPE III PROJECTS: A federal or Federal-aid highway project that does not meet the classifications of a Type I or Type II project. Type III projects do not require a noise analysis.

UNUSAL CIRCUMSTANCES (NEPA): For any action which would normally be classified as a CE but could involve unusual circumstances, Caltrans is required to conduct appropriate environmental studies to determine whether a categorical exclusion is proper (23 CFR 771.117(b)). Unusual circumstances include actions that involve:

1. Significant environmental impacts;
2. Substantial controversy on environmental grounds;
3. Significant impact to properties protected under 4(f) of the USDOT Act or Section 106 of the National Historic Preservation Act ;
4. Inconsistencies with any federal, state or local law relating to environmental impacts.

WATERSHED: The area of land that drains into a specific waterbody.

WATERS OF THE UNITED STATES: As defined by the United States Army Corps of Engineers (USACE) in 33 CFR 328.3(a):

1. All waters that are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters that are subject to the ebb and flow of the tide;
2. All interstate waters including interstate wetlands;
3. All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce, including any such waters:
   i. Which are or could be used by interstate or foreign travelers for recreational or other purposes; or

ii. From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or

iii. Which are used or could be used for industrial purposes by industries in interstate commerce;

4. All impoundment of waters otherwise defined as waters of the United States under this definition;

5. Tributaries of waters identified in paragraphs 1-4;

6. The territorial seas;

7. Wetlands adjacent to waters (waters that are not wetlands themselves) identified in paragraphs 1-6.

WEIR: A dam in a stream to raise the water level or divert its flow.

WETLAND: Those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

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Appendix F. California Department of Fish and Wildlife California Natural Diversity Database Species List

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Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Azusa (3411728) OR Baldwin Park (3411718))

Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
Accipiter cooperii Cooper's hawk	G5 S4	None None	CDFW_WL-Watch List IUCN_LC-Least Concern	440 440	118 S:1	0	0	0	0	0	1	0	1	1	0	0
Antrozous pallidus pallid bat	G5 S3	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFS_S-Sensitive WBWG_H-High Priority	560 780	420 S:2	0	0	0	0	0	2	2	0	2	0	0
Aspidoscelis tigris stejnegeri coastal whiptail	G5T5 S3	None None	CDFW_SSC-Species of Special Concern	440 628	148 S:2	0	1	0	0	0	1	0	2	2	0	0
Astragalus brauntonii Braunton's milk-vetch	G2 S2	Endangered None	Rare Plant Rank - 1B.1 SB_RSABG-Rancho Santa Ana Botanic Garden SB_SBBG-Santa Barbara Botanic Garden	1,000 1,000	44 S:1	0	0	0	0	1	0	1	0	0	0	1
Bombus crotchii Crotch bumble bee	G3G4 S1S2	None Candidate Endangered		500 500	276 S:1	0	0	0	0	0	1	1	0	1	0	0
California Walnut Woodland California Walnut Woodland	G2 S2.1	None None		900 940	76 S:2	0	0	0	0	0	2	2	0	2	0	0
Calochortus clavatus var. gracilis slender mariposa-lily	G4T2T3 S2S3	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive SB_RSABG-Rancho Santa Ana Botanic Garden USFS_S-Sensitive	835 3,075	143 S:8	0	2	3	2	0	1	0	8	8	0	0
Calochortus plummerae Plummer's mariposa-lily	G4 S4	None None	Rare Plant Rank - 4.2 SB_RSABG-Rancho Santa Ana Botanic Garden	1,000 4,160	230 S:8	0	2	0	0	0	6	0	8	8	0	0

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Report Printed on Friday, May 08, 2020

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Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database

Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
Calochortus weedii var. intermedius intermediate mariposa-lily	G3G4T2 S2	None None	Rare Plant Rank - 1B.2 SB_RSABG-Rancho Santa Ana Botanic Garden USFS_S-Sensitive	1,680 1,680	140 S:1	0	0	0	0	0	1	0	1	1	0	0
Canyon Live Oak Ravine Forest Canyon Live Oak Ravine Forest	G3 S3.3	None None		1,540 2,920	50 S:7	0	4	1	0	0	2	7	0	7	0	0
Catostomus santaanae Santa Ana sucker	G1 S1	Threatened None	AFS_TH-Threatened IUCN_VU-Vulnerable	800 1,600	28 S:2	0	1	0	0	1	0	1	1	1	1	0
Centromadia parryi ssp. australis southern tarplant	G3T2 S2	None None	Rare Plant Rank - 1B.1 SB_RSABG-Rancho Santa Ana Botanic Garden		94 S:1	0	0	0	0	0	1	1	0	1	0	0
Chorizanthe parryi var. parryi Parry's spineflower	G3T2 S2	None None	Rare Plant Rank - 1B.1 BLM_S-Sensitive SB_RSABG-Rancho Santa Ana Botanic Garden USFS_S-Sensitive	550 550	150 S:1	0	0	0	0	0	1	1	0	1	0	0
Cladium californicum California saw-grass	G4 S2	None None	Rare Plant Rank - 2B.2 SB_RSABG-Rancho Santa Ana Botanic Garden USFS_S-Sensitive	1,000 1,000	13 S:1	0	0	0	0	1	0	1	0	0	0	1
Coccyzus americanus occidentalis western yellow-billed cuckoo	G5T2T3 S1	Threatened Endangered	BLM_S-Sensitive NABCI_RWL-Red Watch List USFS_S-Sensitive USFWS_BCC-Birds of Conservation Concern	275 275	164 S:1	0	0	0	0	1	0	1	0	0	1	0
Dodecahema leptoceras slender-horned spineflower	G1 S1	Endangered Endangered	Rare Plant Rank - 1B.1 SB_RSABG-Rancho Santa Ana Botanic Garden	2,100 2,100	41 S:1	0	0	0	0	0	1	1	0	1	0	0
Dudleya cymosa ssp. crebrifolia San Gabriel River dudleya	G5T2 S2	None None	Rare Plant Rank - 1B.2 SB_RSABG-Rancho Santa Ana Botanic Garden USFS_S-Sensitive	1,200 4,100	6 S:5	2	0	0	0	0	3	0	5	5	0	0

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						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
Dudleya densiflora San Gabriel Mountains dudleya	G2 S2	None None	Rare Plant Rank - 1B.1 SB_RSABG-Rancho Santa Ana Botanic Garden USFS_S-Sensitive	900 3,600	9 S:7	1	3	1	0	0	2	5	2	7	0	0
Dudleya multicaulis many-stemmed dudleya	G2 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive SB_RSABG-Rancho Santa Ana Botanic Garden USFS_S-Sensitive		154 S:2	0	0	0	0	0	2	2	0	2	0	0
Emys marmorata western pond turtle	G3G4 S3	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable USFS_S-Sensitive	1,800 2,385	1385 S:2	0	0	0	0	0	2	1	1	2	0	0
Eumops perotis californicus western mastiff bat	G5T4 S3S4	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern WBWG_H-High Priority	555 600	296 S:2	0	0	0	0	0	2	2	0	2	0	0
Galium grande San Gabriel bedstraw	G1 S1	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive SB_RSABG-Rancho Santa Ana Botanic Garden USFS_S-Sensitive	1,400 4,760	9 S:6	0	1	3	0	0	2	1	5	6	0	0
Gila orcuttii arroyo chub	G2 S2	None None	AFS_VU-Vulnerable CDFW_SSC-Species of Special Concern USFS_S-Sensitive	845 2,380	49 S:4	0	3	0	0	0	1	0	4	4	0	0
Horkelia cuneata var. puberula mesa horkelia	G4T1 S1	None None	Rare Plant Rank - 1B.1 USFS_S-Sensitive	500 1,800	103 S:3	0	0	0	0	1	2	3	0	2	0	1
Icteria virens yellow-breasted chat	G5 S3	None None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern	440 440	100 S:1	0	0	0	0	0	1	0	1	1	0	0

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						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
Imperata brevifolia California satintail	G4 S3	None None	Rare Plant Rank - 2B.1 SB_RSABG-Rancho Santa Ana Botanic Garden SB_SBBG-Santa Barbara Botanic Garden USFS_S-Sensitive		32 S:1	0	0	0	0	0	1	1	0	1	0	0
Lasiurus cinereus hoary bat	G5 S4	None None	IUCN_LC-Least Concern WBWG_M-Medium Priority		238 S:1	0	0	0	0	0	1	1	0	1	0	0
Lasiurus xanthinus western yellow bat	G5 S3	None None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern WBWG_H-High Priority	550 550	58 S:1	0	0	0	0	0	1	1	0	1	0	0
Lepidium virginicum var. robinsonii Robinson's pepper-grass	G5T3 S3	None None	Rare Plant Rank - 4.3	500 500	142 S:2	0	0	0	0	0	2	2	0	2	0	0
Lepus californicus bennettii San Diego black-tailed jackrabbit	G5T3T4 S3S4	None None	CDFW_SSC-Species of Special Concern	440 440	103 S:1	0	0	0	0	0	1	0	1	1	0	0
Nyctinomops femorosaccus pocketed free-tailed bat	G4 S3	None None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern WBWG_M-Medium Priority		90 S:1	0	0	0	0	0	1	1	0	1	0	0
Nyctinomops macrotis big free-tailed bat	G5 S3	None None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern WBWG_MH-Medium-High Priority	550 550	32 S:1	0	0	0	0	0	1	1	0	1	0	0
Orobanche valida ssp. valida Rock Creek broomrape	G4T2 S2	None None	Rare Plant Rank - 1B.2 USFS_S-Sensitive	4,200 4,200	12 S:1	0	0	0	0	0	1	0	1	1	0	0
Ovis canadensis nelsoni desert bighorn sheep	G4T4 S3	None None	BLM_S-Sensitive CDFW_FP-Fully Protected USFS_S-Sensitive		46 S:1	0	0	0	0	0	1	1	0	1	0	0

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						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
Phacelia stellaris Brand's star phacelia	G1 S1	None None	Rare Plant Rank - 1B.1 SB_RSABG-Rancho Santa Ana Botanic Garden	300 300	15 S:1	0	0	0	0	1	0	1	0	0	1	0
Phrynosoma blainvillii coast horned lizard	G3G4 S3S4	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern	320 480	784 S:3	0	0	0	0	2	1	2	1	1	2	0
Polioptila californica californica coastal California gnatcatcher	G4G5T2Q S2	Threatened None	CDFW_SSC-Species of Special Concern NABCI_YWL-Yellow Watch List	500 1,000	846 S:5	0	0	0	2	1	2	1	4	4	1	0
Pseudognaphalium leucocephalum white rabbit-tobacco	G4 S2	None None	Rare Plant Rank - 2B.2	550 550	62 S:1	0	0	0	0	1	0	1	0	0	0	1
Rana boylii foothill yellow-legged frog	G3 S3	None Candidate Threatened	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_NT-Near Threatened USFS_S-Sensitive	1,666 1,666	2468 S:1	0	0	0	0	1	0	1	0	0	0	1
Rana muscosa southern mountain yellow-legged frog	G1 S1	Endangered Endangered	CDFW_WL-Watch List IUCN_EN-Endangered USFS_S-Sensitive	1,900 2,000	186 S:3	0	0	0	0	3	0	3	0	0	3	0
Rhinichthys osculus ssp. 3 Santa Ana speckled dace	G5T1 S1	None None	AFS_TH-Threatened CDFW_SSC-Species of Special Concern USFS_S-Sensitive	866 1,600	13 S:2	0	1	0	1	0	0	0	2	2	0	0
Riparia riparia bank swallow	G5 S2	None Threatened	BLM_S-Sensitive IUCN_LC-Least Concern		298 S:1	0	0	0	0	1	0	1	0	0	0	1
Riversidian Alluvial Fan Sage Scrub Riversidian Alluvial Fan Sage Scrub	G1 S1.1	None None		500 800	30 S:2	0	1	0	0	1	0	2	0	1	0	1
Southern California Arroyo Chub/Santa Ana Sucker Stream Southern California Arroyo Chub/Santa Ana Sucker Stream	GNR SNR	None None		1,600 1,600	4 S:1	0	1	0	0	0	0	1	0	1	0	0
Southern Coast Live Oak Riparian Forest Southern Coast Live Oak Riparian Forest	G4 S4	None None		800 1,240	246 S:3	0	0	0	0	1	2	3	0	2	0	1

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Southern Sycamore Alder Riparian Woodland Southern Sycamore Alder Riparian Woodland	G4 S4	None None		1,400 3,480	230 S:8	0	1	0	0	0	7	8	0	8	0	0
Spea hammondii western spadefoot	G3 S3	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_NT-Near Threatened	513 513	1359 S:1	0	0	0	0	1	0	1	0	0	1	0
Symphyotrichum defoliatum San Bernardino aster	G2 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive USFS_S-Sensitive	328 328	102 S:1	0	0	0	0	1	0	1	0	0	0	1
Symphyotrichum greatae Greata's aster	G2 S2	None None	Rare Plant Rank - 1B.3 BLM_S-Sensitive	1,100 1,850	56 S:5	0	0	1	0	0	4	2	3	5	0	0
Taricha torosa Coast Range newt	G4 S4	None None	CDFW_SSC-Species of Special Concern	830 2,220	88 S:4	2	0	0	0	0	2	2	2	4	0	0
Taxidea taxus American badger	G5 S3	None None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern	560 560	592 S:1	0	0	0	0	0	1	1	0	1	0	0
Thamnophis hammondii two-striped gartersnake	G4 S3S4	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFS_S-Sensitive	830 2,300	184 S:4	1	2	0	0	0	1	0	4	4	0	0
Thelypteris puberula var. sonorensis Sonoran maiden fern	G5T3 S2	None None	Rare Plant Rank - 2B.2 USFS_S-Sensitive	1,000 1,700	27 S:5	0	1	0	0	0	4	4	1	5	0	0
Vireo bellii pusillus least Bell's vireo	G5T2 S2	Endangered Endangered	IUCN_NT-Near Threatened NABCI_YWL-Yellow Watch List	440 760	503 S:5	0	1	0	0	1	3	3	2	4	0	1
Walnut Forest Walnut Forest	G1 S1.1	None None		1,000 1,000	6 S:1	0	0	0	0	0	1	1	0	1	0	0

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Appendix G. Public Notice of Environmental Scoping

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San Gabriel Valley Tribune
Affiliated with SGV Newspaper Group
605 E. Huntington Dr., Suite 100
Monrovia, CA 91016
626-962-8811 ext. 40891

(Space below for use of County Clerk Only)

5234896

Legal No. **0011376090**

GPA CONSULTING
231 CALIFORNIA STREET
EL SEGUNDO, CA 90245

FILE NO. Interstate 210

PROOF OF PUBLICATION
(2015.5 C.C.P.)

STATE OF CALIFORNIA
County of Los Angeles

I am a citizen of the United States, and a resident of the county aforesaid. I am over the age of eighteen years and not a party to or interested in the above-entitled matter. I am the principal clerk of the printer of SAN GABRIEL VALLEY TRIBUNE, a newspaper of general circulation for the City of West Covina, by the Superior Court of the County of Los Angeles, State of California, on the date of September 10, 1957, Case Number 684891. The notice, of which the annexed is a true printed copy, has been published in each regular and entire issue of said newspaper and not in any supplement thereof on the following dates, to wit:

03/28/2020

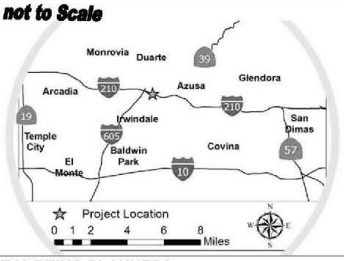
I declare under the penalty of perjury that the foregoing is true and correct.

Executed at Monrovia, LA Co. California
On this 31th day of March, 2020.

Evangelina Almeida
Signature

PUBLIC NOTICE
ENVIRONMENTAL SCOPING NOTICE
Interstate 210
Caltrans is seeking public comment on a proposal to rehabilitate Interstate 210 in Los Angeles County

Map not to Scale



WHAT IS BEING PLANNED?
The California Department of Transportation is formally initiating studies for a Bridge Hinge Replacement Project on Interstate 210 (Foothill Freeway) within the City of Irwindale. The San Gabriel River Bridge Hinge Replacement project is within District 7 at postmile 36.8, this work will include demolishing hinge diaphragms at hinge 4 (between piers 4 and 5) and hinge 6 (between piers 6 and 7) as well upgrading the bridge railing to current standards. Alternatives of construction schedules are being considered and could lead to reducing the number of travel lanes for both east and west bound travelers.

WHY THIS NOTICE?
Caltrans is formally initiating studies for this project. Preliminary environmental resource studies and agency coordination have indicated that the resulting environmental document will be an Initial Study/Environmental Assessment that is expected to lead to a Focused Mitigated Negative Declaration/Finding of No Significant Impact (MND/FONSI). The document will focus on the biological resources that are present in the project area and mitigating potential impacts.

WHAT IS SCOPING?
A public scoping notice is to solicit comments from public agencies, private entities, and interested individuals regarding potential social, economic, and environmental issues related to the project, The scoping notice also ensures that these parties are involved early in the environmental planning process.

WHERE DO YOU COME IN?

You may send your comments by April 24, 2020,

Mr. Ronald Kosinski, Deputy District Director
California Department of Transportation
Division of Environmental Planning-Project #32520
100 South Main Street - Mail Stop 16A
Los Angeles, CA 90012

Published: March 28, 2020 SGVT Ad#11376090

r:LP15-05/17/17

1

San Gabriel Valley Examiner
1160 Englewild Dr.
Glendora, CA 91741
626-852-3374

PROOF OF PUBLICATION
(201 5.5 C.C.P.)

STATE OF CALIFORNIA
County of Los Angeles

I am a resident of the county aforesaid. I am over the age of eighteen years, I am not a party to the above-entitled matter. I am the principal clerk of the Publisher of the San Gabriel Valley Examiner, an adjudicated newspaper of general circulation printed and published weekly in the City of Glendora, County of Los Angeles. The San Gabriel Valley Examiner has been adjudged a newspaper of general circulation by the Superior Court of the County of Los Angeles, State of California, under the date of July 19, 1999, case Number KS 005341. The notice, of which the annexed is a true printed copy, has been published in each regular and entitled issue of said newspaper and not any supplement thereof on the following dates to wit:

April 2, 2020

I declare under penalty of perjury that the foregoing is true and correct.

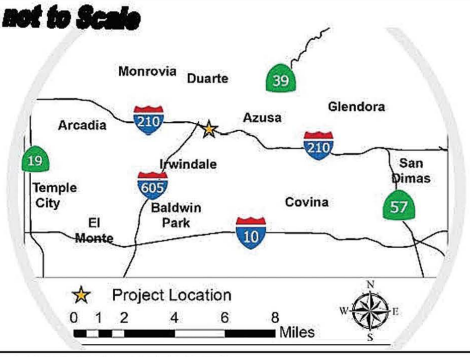
Executed in the City of Glendora, Los Angeles County, California
On this **2nd** day of **April** 2020.

Signature

PUBLIC NOTICE
ENVIRONMENTAL SCOPING NOTICE
Interstate 210

Caltrans is seeking public comment on a proposal to rehabilitate Interstate 210 in Los Angeles County

Map not to Scale



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Mr. Ronald Kosinski, Deputy District Director
California Department of Transportation
Division of Environmental Planning-Project #32520
100 South Main Street - Mail Stop 16A
Los Angeles, CA 90012

Problemas económicos y laborales
Seis de cada 10 encuestados no tenían ahorros reservados para enfrentar la crisis, mientras tienen problemas en el lugar de trabajo debido a COVID-19.

Los latinos son el grupo más grande del estado de California. /AURELIA VENTURA

La vulnerabilidad de la los latinos ante el virus

El 59% de los trabajadores informaron haber visto reducido sus horas de trabajo y 18% reportaron despidos

Agencia EFE

La mitad de inmigrantes latinos en California se consideran en gran riesgo de contraer el coronavirus, encontró un sondeo revelado hace unos días por la Coalición por los Derechos Humanos de los Inmigrantes (CHIRLA), que remarca que el brote ha afectado de sobremanera la economía de los inmigrantes.

El sondeo realizado por CHIRLA a 1.222 residentes entre el 12 y el 14 de marzo reveló que la pandemia del coronavirus ha causado un fuerte impacto entre la comunidad inmigrante, especialmente en cuanto al riesgo que representa la enfermedad para su salud y su economía.

La mitad de los entrevistados aseguraron que ellos o alguien en su hogar podrían estar en riesgo de contraer el virus porque pertenecen a una población vulnerable, como adultos mayores o personas con una condición crónica como diabetes, problemas cardíacos o respiratorios.

A este riesgo se suman las preocupaciones financieras que ha traído el brote a la vida de los latinos.

A 39 % de los latinos consultados les preocupa lidiar con los despidos, y 26% están intranquilos por asegurar el cuidado infantil de sus hijos.

Los investigadores hicieron una encuesta cualitativa entre el 17 y el 23 de marzo en la que ahondaron sus preguntas sobre temas laborales.

En este sondeo encontraron que 61% de los encuestados dijeron haber experimentado problemas en el lugar de trabajo debido al coronavirus. Mientras, 59% informaron haber reducido sus horas de trabajo y 18% reportaron despidos.

> "Las familias inmigrantes, como la columna vertebral y el motor de nuestro crecimiento económico, están cargando con la peor parte de la crisis de salud por el COVID-19".
>
> **Joseph Villela, director de Políticas de CHIRLA.**

Seis de cada 10 encuestados no tenían ahorros reservados para enfrentar la crisis mientras tienen problemas en el lugar de trabajo debido a COVID-19.

Cuatro de cada cinco hispanos indicaron que temen no poder pagar la renta u otras facturas importantes.

La crisis desatada por la enfermedad y las preocupaciones financieras están afectando el estado anímico de los encuestados, y cerca de 40 % dijeron experimentar un estrés alto o extremadamente alto en este momento.

El 30% dijo que ellos o un miembro de la familia que vivía en su hogar no tenían seguro médico.

"Las familias inmigrantes, como la columna vertebral y el motor de nuestro crecimiento económico, están cargando con la peor parte de la crisis de salud por el COVID-19", señaló en un comunicado Joseph Villela, director de Políticas de CHIRLA.

文明祭祀 河北磁縣也禁冥幣

不准產也不准賣 商戶抱怨但照賣 「你得去遠一點兒的地方燒」

中國新聞組／北京28日電

清明節即將到來，河北邯鄲磁縣市場監管局日前通告取消一切形式的生產銷售紙幣、冥幣等祭祀用品的經營行為，公告一出引起爭議，不過，當地已加大執法力度。當地售賣殯葬用品的商戶抱怨但照賣，只求買家去遠一點兒的地方燒。

據新京報報導，磁縣為倡導清明文明祭祀，市場監管局結合公安機關，依法全面排查取締冥紙所有生產、銷售相關產品的經營行為。市場監管局一名工作人員表示，若商家不守規定，查到之後，商家會被罰款，冥幣也不准賣。

監管局已展開執法行動，挨戶檢查生產銷售祭祀用品的店鋪，「我們這邊已經沒收很多家了。」一名工作人員說。

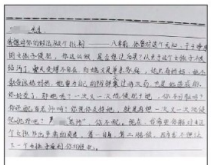
報導指出，對於磁縣這項禁令，有人認為這種做法限制，減損了大家對祭祀的需求。對此，磁縣市場監督管理局的工作人員回應稱，「通告既然出了，就有它存在的道理，就需要去執行。」

實際上，河北磁縣並非首個限制、叫停生產銷售冥幣的地區。2017年3月，哈爾濱曾發布通告，禁止任何單位和個人生產、經營冥幣和紙人、紙馬等迷信殯葬用品。隨後，瀋陽市、秦皇島、玉田縣也出台相關禁令。

報導指出，有商家抱怨，四、五天前社區開會，說不讓賣了，如果發現斷水斷電，「我現在只賣花圈。」

另有商家則說，「不讓賣了，但清明節快到了，還是有人買，我可以賣，但你得去遠一點兒的地方燒。」

除了禁冥紙、冥幣外，磁縣文明辦也禁燃放煙花爆竹，杜絕明火祭祀。



小學獸師性侵10年後揭真相

中國新聞組／北京28日電

中國廣西一位小學老師近期遭爆出十年前曾猥褻性侵一名女童長達4年之久，這位女童是該老師的學生。從一年級開始到四年級持續被老師侵犯，直到本月月家屬發現被害人寫下的一封自白信（見圖，取材自澎湃新聞），才揭穿老師的惡行，公安部已受理偵辦。

澎湃新聞報導，被害人趙某就讀小學時，父母已經離異，因此都是在外婆家生活，而姊姊趙佳（化名）則是在姨母家生活，周末才回到外婆家，當時趙佳並不知道妹妹遭侵犯的事，直到本月16日開學發現了妹妹寫的自白信，上面記載了妹妹遭老師侵犯的氣憤心情，而趙佳妹妹事後追求一切，表示2010年鄧姓老師開始侵犯她，在課堂上對她做出不當行為，並示意她不要對同學說這件事，甚至送她一台舊手機和10塊錢，要她不要向人透露。

趙佳表示這位鄧姓老師現已66歲，趙佳說「應該退休一年左右，他當年也就是55歲，他有配偶，他的孫子比我妹妹小2歲，在我們村裡是老教師了，只要說到他，村裡的人都知道，」而當趙佳試圖聯絡鄧姓老師時，對方卻不道歉，後來再撥電話就不接了。

殘害幼苗！芽苗色情網會員800萬

中國新聞組／北京28日電

一名認證信息為半次元人氣寫手、知名電視劇博主的微博大V，專報多家兒童色情網站後引發關注。該名博主表示，他接到許多粉絲私信，稱芽苗論壇、蘿莉網、動漫圈、次元公館、蘿莉天國等色情網站長期散布兒童色情內容，只要花幾個幾十元成為會員，就可以觀看下載大量的兒童色情圖片、視頻。而更驚人的是，其中有的會員數多達800多萬人，每三、四分鐘就有多人繳費成為新會員。

重案組37號報導，新京報記者27日凌晨假訪該博主所說的網站，發現首頁均充斥著未成年人裸露身體的圖片，每張圖片下面還配有「四歲幼女」、「大眼漂亮蘿莉」、「初高中生」等字眼。點擊這些圖片和文字則會提示，需要填寫用戶名、密碼、郵箱進行註冊並充值成為會員後才能觀看和下載。

網站的會員分為包周、包年、終身等級別，每位用戶將含有色情信息的網站地址加上相關配文分享給25個人後，即可獲得永久會員。享受不限次數觀看網站內容的權限。除了網站引誘用戶註冊充值後觀看兒童色情內容外，還通過增加積分獲得更多權限的方式鼓勵用戶上傳相關視頻。

色情網站芽苗論壇的會員數已達860餘萬。（網站截圖）

新京報記者表示，網站實時在線觀看人數多保持在1000人左右。其中，芽苗論壇首頁顯示其網站註冊總用戶數逾860萬。另外，次元公館首頁顯示其網站註冊總用戶數逾到256萬人次，每三、四分鐘就有多名用戶繳費成為新會員。

一名長期關注兒童權利保護的網友黃先生表示，「一些孩子才上小學，就這樣被騙著拍這些內容，太痛心了。」「孩子那麼小，心理怎麼能承受得住？」

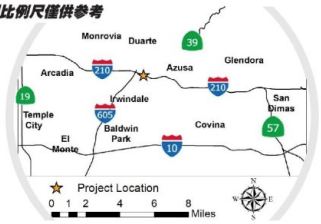
了解內情人士指出，這些網站的伺服器設在境外，而且不斷更換網址，造成查緝非常困難。

公 告

210 號州際公路環境範圍公告

加州運輸部正徵求公衆對洛杉磯縣210號州際公路修復提案意見

地圖比例尺僅供參考



計畫內容是什麼？

加州交通運輸部正式啓動了對Irwindale市210號州際公路（Foothill高速路）鉸鏈更換項目的研究。San Gabriel河大橋鉸鏈更換項目位於5區後36.8英里處，該工程將包括拆除鉸鏈4（墩4和5之間）和鉸鏈6（墩6和7之間）的鉸鏈膜片，以及將橋欄杆升級到當前標準。目前正在研究施工計劃的替代方案，可能會導致東向和西向行車道數量較少。

爲何發布此公告？

加州運輸部正式啓動了對該項目的研究。初步的環境資源研究和機構協調表明，其產生的環境文件將是將是一項初步評估/環境研究，預期將導致集中緩解負面聲明/未發現重大影響（MND/FONSI）。該文件將側重於項目區域現有的生物資源和減輕潛在影響。

範圍是什麼？

公共環境範圍公告旨在徵求公共機構，私人實體和感興趣的個人對與項目相關的潛在社會，經濟和環境問題的意見。該範圍界定通知還確保各方面在環境規劃的過程中儘早介入。

您如何與我們取得聯絡？

您可以在2020年4月24日之前提出您的意見。

Mr. Ronald Kosinski, Deputy District Director
California Department of Transportation
Division of Environmental Planning-Project #32520
100 South Main Street - Mail Stop 16A
Los Angeles, CA 90012

STATE OF CALIFORNIA—CALIFORNIA STATE TRANSPORTATION AGENCY GAVIN NEWSOM, Governor

DEPARTMENT OF TRANSPORTATION
DISTRICT 7
100 S. MAIN STREET, SUITE 100
LOS ANGELES, CA 90012
PHONE (213) 897-0362
FAX (213) 897-0360
TTY 711

Making Conservation a California Way of Life.

March 23, 2020
Agencies, Organizations and Individuals Interested in the San Gabriel River Hinge Replacement Project

File No. 07-32520
San Gabriel River Bridge Hinge and Railing Replacement Project

Notice of Scoping/Initiation of Studies

This notice is to inform you that the California Department of Transportation (Caltrans) is formally initiating environmental studies for the San Gabriel River Bridge Hinge and Railing Replacement Project.

The Project is located on Interstate 210 from Postmile 36.0 to 38.0 within the City of Irwindale and Los Angeles County. The purpose of this Project is to preserve the structural integrity of the bridge, to prevent bridge deck failure due to failing hinges, and to upgrade bridge railings to current design standards.

Preliminary environmental studies indicated that an Initial Study/Environmental Assessment will be adequate to evaluate the anticipated environmental effects pursuant to the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA).

Caltrans will work closely with the public and local agencies to assure that all pertinent factors and viable alternatives are considered. We welcome any comments or suggestions you may have concerning possible alternatives or potential social, economic, and environmental impacts resulting from the proposed Project.

Please provide your written comments by **Friday, April 24th, 2020** to:

Robert Wang, Senior Environmental Planner
Caltrans, District 7 – Division of Environmental Planning – Project number 32520
100 South Main Street, MS-16A
Los Angeles, CA 90012

All comments received will become part of the Project record and will provide valuable input to our environmental and design personnel. If you like to request further information, please contact Robert Wang, Senior Environmental Planner, at (213) 897-5912. Thank you for your interest in this Project.

To obtain services or copies in an alternate format or language, please contact Robert Wang at (213) 897-5912, or visit the website https://dot.ca.gov/caltrans-near-me/district-7
Chinese（中文）:如需獲取服務或是一種替代格式或語言的副本，請致電 (213) 897-5912聯絡Robert Wang，或是瀏覽 https://dot.ca.gov/caltrans-near-me/district-7

"Provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability"

March 23, 2020
Page 2

Spanish (Español): Para recibir servicios o copias en otro formato o idioma, contacte a Robert Wang al (213) 897-5912 o visite el sitio web https://dot.ca.gov/caltrans-near-me/district-7

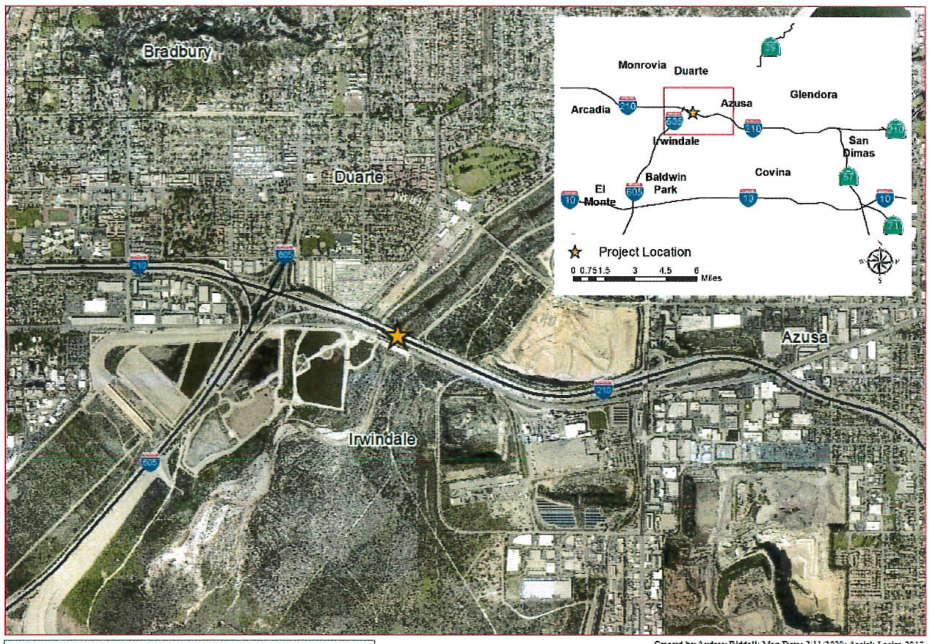
Sincerely,

Ronald Kosinski, Deputy District Director
Division of Environmental Planning
Department of Transportation, District 7

Enclosure: Project Area Map

"Provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability"

March 23, 2020
Page 3



Project Location and Vicinity
EA 32520: I-210 PM R36.82
San Gabriel Bridge Rehabilitation
53-1867

"Provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability"

STATE OF CALIFORNIA—CALIFORNIA STATE TRANSPORTATION AGENCY GAVIN NEWSOM, Governor

DEPARTMENT OF TRANSPORTATION
DISTRICT 7
100 S. MAIN STREET, SUITE 100
LOS ANGELES, CA 90012
PHONE (213) 897-0362
FAX (213) 897-0360
TTY 711
www.dot.ca.gov

Making Conservation a California Way of Life.

March 25, 2020

Mr./Ms./The Honorable FirstName Last Name
Title if not in line above
Organization
Address
City, ST ZIP

Dear Mr./Ms./Senator/Assembly Member Last Name:

This notice is to inform you that the California Department of Transportation (Caltrans) is formally initiating environmental studies for the San Gabriel River Bridge Hinge and Railing Replacement Project on Interstate 210 from Postmile 36.0 to 38.0 within the City of Irwindale in Los Angeles County.

The purpose of this Project is to preserve the structural integrity of the bridge, to prevent bridge deck failure due to failing hinges, and to upgrade bridge railings to current design standards.

Preliminary environmental studies indicated that an Initial Study/Environmental Assessment will be adequate to evaluate the anticipated environmental effects pursuant to the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA).

Caltrans will work closely with the public and local agencies to assure that all pertinent factors and viable alternatives are considered. We welcome any comments or suggestions concerning possible alternatives or potential social, economic, and environmental impacts resulting from the proposed Project.

Please provide written comments by **Friday, April 24, 2020** to:

Ron Kosinski, Deputy District Director
Caltrans, District 7
100 South Main Street, MS-16A
Los Angeles, CA 90012

"Provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability"

March 25, 2020
Page 2

All comments received will become part of the Project record and will provide valuable input to our environmental and design personnel. Thank you for your interest in this Project. If you like to request further information, please contact Ron Kosinski, Deputy District Director of Environmental Planning Division, at (213) 897-0703.

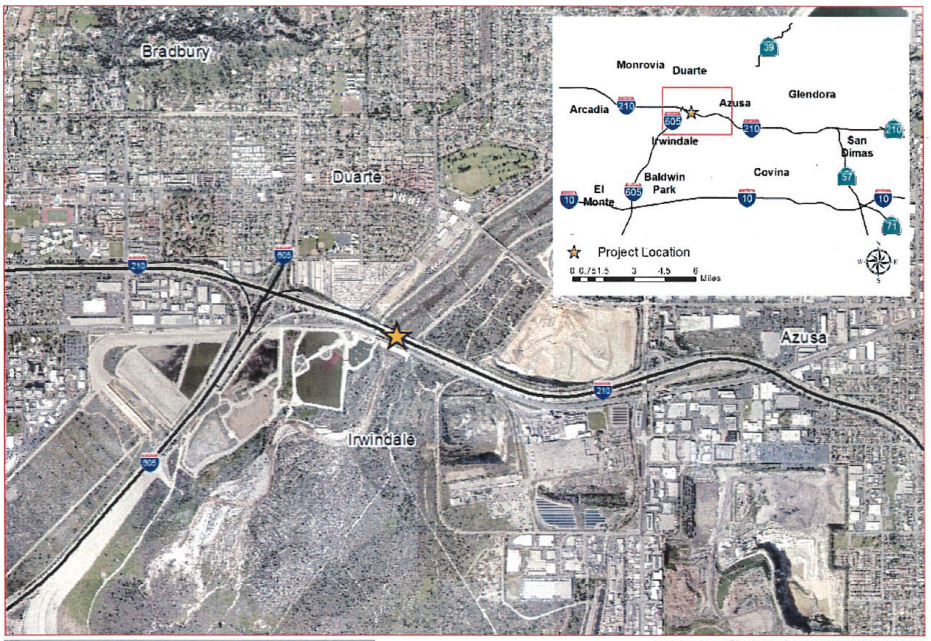
Sincerely,

FOR **JOHN C. BULINSKI**
District Director

Enclosure: Project Area Map

"Provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability"

March 25, 2020
Page 3



Project Location and Vicinity
EA 32520: I-210 PM R36.82
San Gabriel Bridge Rehabilitation
53-1867

Caltrans

Created by Audrey Riddell; Map Date: 2/11/2020; Aerial: Latitude 2017
California Department of Transportation; District 7, Los Angeles

"Provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability"

Appendix H. Letters Received During Scoping

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CITY OF CLAREMONT

Community Development Department

City Hall
207 Harvard Avenue
P.O. Box 880
Claremont, CA 91711-0880
FAX(909)399-5327
www.ci.Claremont.ca.us

Building• (909) 399-5471
Planning• (909) 399-5470
Engineering • (909) 399-5465
Community Improvement • (909) 399-5467
Administration • (909) 399-5321

April 23, 2020

Mr. Robert Wang
Senior Environmental Planner
Caltrans District 7 - Division of Environmental Planning – Project No. 32520
100 South Main Street, MS-16A
Los Angeles, CA 90012
VIA EMAIL

Notice of Scoping/Initiation of Studies, Project No. 32520

Dear Mr. Wang,

The City of Claremont received the Notice of Scoping/Initiation of Studies letter dated March 23. Engineering Staff has looked over the letter and project description regarding the future San Gabriel Bridge Maintenance project. At this time, the City of Claremont does not have any comments. However, please keep the City of Claremont apprised of any new, or updated information that becomes available for this project.

If you have any questions, please do not hesitate to contact me.

Sincerely

Vincent Ramos
Associate Engineer

c: Maria Tipping, City Engineer

COUNTY OF LOS ANGELES
FIRE DEPARTMENT

1320 NORTH EASTERN AVENUE
LOS ANGELES, CALIFORNIA 90063-3294
(323) 881-2426
www.fire.lacounty.gov

"Proud Protectors of Life, Property, and the Environment"

DARYL L. OSBY
FIRE CHIEF
FORESTER & FIRE WARDEN

BOARD OF SUPERVISORS

HILDA L. SOLIS
FIRST DISTRICT

MARK RIDLEY-THOMAS
SECOND DISTRICT

SHEILA KUEHL
THIRD DISTRICT

JANICE HAHN
FOURTH DISTRICT

KATHRYN BARGER
FIFTH DISTRICT

May 7, 2020

Robert Wang, Senior Environmental Planner
Caltrans-District 7
Environmental Planning
100 South Main Street
Los Angeles, CA 90012

Dear Mr. Wang:

INITIAL STUDY/ENVIRONMENTAL ASSESSMENT, "SAN GABRIEL RIVER BRIDGE," IS TO PRESERVE THE STRUCTURAL INTEGRITY OF THE BRIDGE, TO PREVENT BRIDGE DECK FAILURE DUE TO FAILING HINGES, AND TO UPGRADE BRIDGE RAILINGS TO CURRENT DESIGN STANDARDS, IRWINDALE, FFER 2020002208

The Initial Study/Environmental Assessment has been reviewed by the Planning Division, Land Development Unit, Forestry Division, and Health Hazardous Materials Division of the County of Los Angeles Fire Department.

The following are their comments:

PLANNING DIVISION:

We have no comments.

For any questions regarding this response, please contact Loretta Bagwell, Planning Analyst, at (323) 881-2404 or Loretta.Bagwell@fire.lacounty.gov.

LAND DEVELOPMENT UNIT:

Firefighting Water Supply:

1. Disruptions to water service shall be coordinated with the County of Los Angeles Fire Department and alternate water sources shall be provided for fire protection during

such disruptions. (Presumably sent to the Battalion Headquarters where there will be the bridge-roadway works).

2. Changes to the existing water supply for firefighting purposes shall be submitted for review and approval to the County of Los Angeles Fire Department's Fire Prevention Land Development Unit prior to construction.

3. Closure Notification: Notify the County of Los Angeles Fire Department's Battalion Headquarters where there will be the bridge/roadway works at least 3 days in advance of any street closures that may affect fire/paramedic responses in the area.

For any questions regarding the report, please contact FPEA Claudia Soiza at (323) 890-4243 or Claudia.soiza@fire.lacounty.gov.

FORESTRY DIVISION – OTHER ENVIRONMENTAL CONCERNS:

The statutory responsibilities of the County of Los Angeles Fire Department's Forestry Division include erosion control, watershed management, rare and endangered species, vegetation, fuel modification for Very High Fire Hazard Severity Zones, archeological and cultural resources, and the County Oak Tree Ordinance.

The County of Los Angeles Fire Department's Forestry Division has no further comments regarding this project.

For any questions regarding this response, please contact Forestry Assistant, Joseph Brunet at (818) 890-5719.

HEALTH HAZARDOUS MATERIALS DIVISION:

The Health Hazardous Materials Division of the Los Angeles County Fire Department has no comments or requirements for the project at this time.

Please contact HHMD senior typist-clerk, Perla Garcia at (323) 890-4035 or Perla.garcia@fire.lacounty.gov if you have any questions.

If you have any additional questions, please contact this office at (323) 890-4330.

Very truly yours,

RONALD M. DURBIN, CHIEF, FORESTRY DIVISION
PREVENTION SERVICES BUREAU

RMD:ac

MainSanGabrielBasin WATERMASTER

SENT VIA E-MAIL

April 21, 2020

Mr. Robert Wang
Senior Environmental Planner
Caltrans, District 7 – Division of Environmental Planning – Project number 32520
100 South Main Street, MS-16A
Los Angeles, California 90012
robert.wang@dot.ca.gov

Re: Notice of Scoping/Initiation of Studies

Dear Mr. Wang:

The Main San Gabriel Basin Watermaster (Watermaster) is in receipt of the Notice of Scoping/Initiation of Studies, dated March 23, 2020, regarding the subject "San Gabriel River Bridge Hinge and Railing Replacement Project." Watermaster appreciates this opportunity to provide comments to Caltrans.

The Bridge Project is located on Interstate 210 from Postmile 36.0 to 38.0 within the City of Irwindale and Los Angeles County. Watermaster understands the purpose of this Project is to preserve the structural integrity of the bridge, to prevent bridge deck failure due to failing hinges, and to upgrade bridge railings to current design standards.

The Watermaster is a Court-appointed agency which manages both the water supply and water quality of the groundwater underlying the Main San Gabriel Basin (Basin). The Watermaster has managed the water supply (local and imported water) of the Basin, and its Relevant Watershed, since the Main San Gabriel Basin Judgment (Main Basin Judgment) was entered in 1973. Watermaster manages all of the spreading of local and untreated imported water into the Basin, and the scheduling and procedures for water stored in the Basin (per Section 34(n) of the amended Main Basin Judgment). Watermaster coordinates the delivery of Supplemental Water, which is defined in Section 10(ff) of the amended Main Basin Judgment as "…non-tributary water imported through a Responsible Agency…", with the Los Angeles County of Public Works (County), Metropolitan Water District of Southern California (MWD), Upper San Gabriel Valley Municipal Water District (Upper District), San Gabriel Valley Municipal Water District (San Gabriel District) and Three Valleys Municipal Water District (Three Valleys District). Watermaster also coordinates the releases of local rainfall runoff water that is stored in San Gabriel Canyon with the County. All of this water is managed to flow down the San Gabriel River (under the subject bridge), and is conveyed to various "spreading grounds" for groundwater replenishment. These water supplies and conveyance are vital to the drinking water supply for the entire San Gabriel

725 North Azusa Avenue ● Azusa, California 91702 ● Telephone (626) 815-1300 ● Fax (626) 815-1303
http://www.watermaster.org

Valley. Watermaster understands Caltrans is willing to work closely with local agencies (Watermaster) to assure all pertinent factors and viable alternatives are considered. We offer the following comments.

General Comments

1. The State of California, and especially southern California, has experienced unprecedented drought conditions for the last eight years. These drought years have had especially significant impacts on the San Gabriel River watershed, the San Gabriel Valley, and Main San Gabriel Basin groundwater supply. The local water supply and the importation of water from the State Water Project and the Colorado River are essential to meet San Gabriel Valley water demands. It is imperative that Watermaster coordinates the replenishment of local and Supplemental Water into the Basin whenever water supply is available.

2. Local water and imported water are regularly delivered north of the Bridge Project, into the San Gabriel River. Flows from releases and water deliveries can be as high as 5,000 cubic feet per second (cfs). If Caltrans plans to do work on the Bridge that requires access to the San Gabriel River riverbed, and it may impair or restrict local and imported water deliveries to the river, the Watermaster requests Caltrans to coordinate with Watermaster and the County in providing significant advance notification. This includes providing planned timing and scheduling to Watermaster and the County in well advance of the work, and coordinate such during the planning phases of your project.

Watermaster appreciates the opportunity to comment on the Notice of Scoping/Initiation of Studies to Caltrans. If you have any questions or concerns, please call Ms. Kelly Gardner at (626) 815-1300.

Sincerely,

MAIN SAN GABRIEL BASIN WATERMASTER

Anthony C. Zampiello
Executive Officer

cc: Stetson Engineers Inc.

South Coast
Air Quality Management District
21865 Copley Drive, Diamond Bar, CA 91765-4178
(909) 396-2000 • www.aqmd.gov

SENT VIA E-MAIL:
Robert.Wang@dot.ca.gov
Robert Wang, Senior Environmental Planner
California Department of Transportation, District 7
Division of Environmental Planning
100 South Main Street, MS-16A
Los Angeles, CA 90012

April 14, 2020

Initial Study/Environmental Assessment for the Proposed
San Gabriel River Bridge Hinge and Railing Replacement Project
(Project Number 32520)

South Coast Air Quality Management District (South Coast AQMD) staff appreciates the opportunity to comment on the above-mentioned document. South Coast AQMD staff's comments are recommendations regarding the analysis of potential air quality impacts from the Proposed Project that should be included in the Initial Study/Environmental Assessment (IS/EA). Please send South Coast AQMD a copy of the EIR upon its completion. Note that copies of the IS/EA that are submitted to the State Clearinghouse are not forwarded to South Coast AQMD. Please forward a copy of the IS/EA directly to South Coast AQMD at the address shown in the letterhead. **In addition, please send with the IS/EA all appendices or technical documents related to the air quality, health risk, and greenhouse gas analyses and electronic versions of all air quality modeling and health risk assessment files[1]. These include emission calculation spreadsheets and modeling input and output files (not PDF files). Without all files and supporting documentation, South Coast AQMD staff will be unable to complete our review of the air quality analyses in a timely manner. Any delays in providing all supporting documentation will require additional time for review beyond the end of the comment period.**

Air Quality Analysis

South Coast AQMD adopted its California Environmental Quality Act (CEQA) Air Quality Handbook in 1993 to assist other public agencies with the preparation of air quality analyses. South Coast AQMD recommends that the Lead Agency use this Handbook as guidance when preparing its air quality analysis. Copies of the Handbook are available from South Coast AQMD's Subscription Services Department by calling (909) 396-3720. More guidance developed since this Handbook is also available on South Coast AQMD's website at: http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/ceqa-air-quality-handbook-(1993). South Coast AQMD staff also recommends that the Lead Agency use the CalEEMod land use emissions software. This software has recently been updated to incorporate up-to-date state and locally approved emission factors and methodologies for estimating pollutant emissions from typical land use development. CalEEMod is the only software model maintained by the California Air Pollution Control Officers Association (CAPCOA) and replaces the now outdated URBEMIS. This model is available free of charge at: www.caleemod.com.

[1] Pursuant to the CEQA Guidelines Section 15174, the information contained in an EIR shall include summarized technical data, maps, plot plans, diagrams, and similar relevant information sufficient to permit full assessment of significant environmental impacts by reviewing agencies and members of the public. Placement of highly technical and specialized analysis and data in the body of an EIR should be avoided through inclusion of supporting information and analyses as appendices to the main body of the EIR. Appendices to the EIR may be prepared in volumes separate from the basic EIR document, but shall be readily available for public examination and shall be submitted to all clearinghouses which assist in public review.

South Coast AQMD has also developed both regional and localized significance thresholds. South Coast AQMD staff requests that the Lead Agency quantify criteria pollutant emissions and compare the results to South Coast AQMD's CEQA regional pollutant emissions significance thresholds to determine air quality impacts. South Coast AQMD's CEQA regional pollutant emissions significance thresholds can be found here at: http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf. In addition to analyzing regional air quality impacts, South Coast AQMD staff recommends calculating localized air quality impacts and comparing the results to localized significance thresholds (LSTs). LSTs can be used in addition to the recommended regional significance thresholds as a second indication of air quality impacts when preparing a CEQA document. Therefore, when preparing the air quality analysis for the Proposed Project, it is recommended that the Lead Agency perform a localized analysis by either using the LSTs developed by South Coast AQMD staff or performing dispersion modeling as necessary. Guidance for performing a localized air quality analysis can be found at: http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/localized-significance-thresholds.

The Lead Agency should identify any potential adverse air quality impacts that could occur from all phases of the Proposed Project and all air pollutant sources related to the Proposed Project. Air quality impacts from both construction (including demolition, if any) and operations should be calculated. Construction-related air quality impacts typically include, but are not limited to, emissions from the use of heavy-duty equipment from grading, earth-loading/unloading, paving, architectural coatings, off-road mobile sources (e.g., heavy-duty construction equipment) and on-road mobile sources (e.g., construction worker vehicle trips, material transport trips). Operation-related air quality impacts may include, but are not limited to, emissions from stationary sources (e.g., boilers), area sources (e.g., solvents and coatings), and vehicular trips (e.g., on- and off-road tailpipe emissions and entrained dust). Air quality impacts from indirect sources, such as sources that generate or attract vehicular trips, should be included in the analysis.

In the event that the Proposed Project generates or attracts vehicular trips, especially heavy-duty diesel-fueled vehicles, it is recommended that the Lead Agency perform a mobile source health risk assessment. Guidance for performing a mobile source health risk assessment ("*Health Risk Assessment Guidance for Analyzing Cancer Risk from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis*") can be found at: http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/mobile-source-toxics-analysis. An analysis of all toxic air contaminant impacts due to the use of equipment potentially generating such air pollutants should also be included.

In addition, guidance on siting incompatible land uses can be found in the California Air Resources Board's *Air Quality and Land Use Handbook: A Community Health Perspective*, which can be found at: http://www.arb.ca.gov/ch/handbook.pdf. CARB's Land Use Handbook is a general reference guide for evaluating and reducing air pollution impacts associated with new projects that go through the land use decision-making process. Guidance[2] on strategies to reduce air pollution exposure near high-volume roadways can be found at: https://www.arb.ca.gov/ch/rd_technical_advisory_final.PDF.

Mitigation Measures

In the event that the Proposed Project generates significant adverse air quality impacts, CEQA requires that all feasible mitigation measures that go beyond what is required by law be utilized during project construction and operation to minimize these impacts. Pursuant to CEQA Guidelines Section 15126.4 (a)(1)(D), any impacts resulting from mitigation measures must also be discussed. Several resources are

[2] In April 2017, CARB published a technical advisory, *Strategies to Reduce Air Pollution Exposure Near High-Volume Roadways: Technical Advisory*, to supplement CARB's Air Quality and Land Use Handbook: A Community Health Perspective. This technical advisory is intended to provide information on strategies to reduce exposures to traffic emissions near high-volume roadways to assist land use planning and decision-making in order to protect public health and promote equity and environmental justice. The technical advisory is available at: https://www.arb.ca.gov/ch/landuse.htm.

available to assist the Lead Agency with identifying potential mitigation measures for the Proposed Project, including:

- Chapter 11 "Mitigating the Impact of a Project" of South Coast AQMD'S *CEQA Air Quality Handbook* South Coast AQMD's CEQA web pages available here: http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/mitigation-measures-and-control-efficiencies
- South Coast AQMD's Rule 403 – Fugitive Dust, and the Implementation Handbook for controlling construction-related emissions and Rule 1403 – Asbestos Emissions from Demolition/Renovation Activities
- South Coast AQMD's Mitigation Monitoring and Reporting Plan (MMRP) for the 2016 Air Quality Management Plan (2016 AQMP) available here (starting on page 86): http://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2017/2017-mar3-035.pdf
- CAPCOA's *Quantifying Greenhouse Gas Mitigation Measures* available here: http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf

Alternatives

In the event that the Proposed Project generates significant adverse air quality impacts, CEQA requires the consideration and discussion of alternatives to the project or its location which are capable of avoiding or substantially lessening any of the significant effects of the project. The discussion of a reasonable range of potentially feasible alternatives, including a "no project" alternative, is intended to foster informed decision-making and public participation. Pursuant to CEQA Guidelines Section 15126.6(d), the IS/EA shall include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the Proposed Project.

Permits

If implementation of the Proposed Project requires a permit from South Coast AQMD, South Coast AQMD should be identified as a Responsible Agency for the Proposed Project in the IS/EA. For more information on permits, please visit South Coast AQMD's webpage at: http://www.aqmd.gov/home/permits. Questions on permits can be directed to South Coast AQMD's Engineering and Permitting staff at (909) 396-3385.

Data Sources

South Coast AQMD rules and relevant air quality reports and data are available by calling South Coast AQMD's Public Information Center at (909) 396-2001. Much of the information available through the Public Information Center is also available at South Coast AQMD's webpage at: http://www.aqmd.gov.

South Coast AQMD staff is available to work with the Lead Agency to ensure that project's air quality and health risk impacts are accurately evaluated and mitigated where feasible. If you have any questions regarding this letter, please contact me at lsun@aqmd.gov.

Sincerely,

Lijin Sun

Lijin Sun, J.D.
Program Supervisor, CEQA IGR
Planning, Rule Development & Area Sources

LS
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