LOS ANGELES COUNTY

FINAL INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

Slauson Avenue Bridge over San Gabriel River Seismic Retrofit Project

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LIST OF ACRONYMS

°F	degrees Fahrenheit
µg/m^3	micrograms per cubic meter
AB	Assembly Bill
AT & SF	Atchison, Topeka, & Santa Fe
ARD	Aquatic Resources Delineation
BERD	Built Environment Resource Directory
BMP	Best Management Practice
BNSF	Burlington Northern and Santa Fe
CAAQS	California Ambient Air Quality Standards
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CDFW	California Department of Fish and Wildlife
CDOC	California Department of Conservation
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CH_4	methane
CHRIS	California Historical Resources Information System
CNDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society
CNPSEI	California Native Plant Society Electronic Inventory
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent
CRHR	California Register of Historical Resources
CWA	Clean Water Act
dB	decibel
dBA	A-weighted decibel
DPM	Diesel Particulate Matter
EDR	Environmental Data Resources, Inc.

EIR	Environmental Impact Report
EPA	United States Environmental Protection Agency
ESA	Environmentally Sensitive Area
FEMA	Federal Emergency Management Agency
GHG	Greenhouse Gas
GWP	Global Warming Potential
HCP	Habitat Conservation Plan
HFC	hydrofluorocarbons
I-5	Interstate 5
I-605	Interstate 605
IPCC	Intergovernmental Panel on Climate Change
IS	Initial Study
LACSD	Los Angeles County Sanitation Districts
lbs/day	pounds per day
L_{eq}	Equivalent Continuous Sound Level
LOS	Level of Service
LST	Localized Significance Threshold
LUST	Leaking Underground Storage Tank
MBTA	Migratory Bird Treaty Act
Metro	Los Angeles County Metropolitan Transportation Authority
MM	Mitigation Measure
MND	Mitigated Negative Declaration
$MTCO_2e$	million metric tons of carbon dioxide equivalent
N_2O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NCCP	Natural Community Conservation Plan
ND	Negative Declaration
NEPA	National Environmental Policy Act
NF_3	nitrogen trifluoride
NHPA	National Historic Preservation Act
NMFS	National Marine Fisheries Service
NO_2	nitrogen dioxide

NOD	Notice of Determination
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
NSLU	Noise Sensitive Land Use
O_3	ozone
OPR	Office of Planning and Research
Pb	lead
PCB	polychlorinated biphenyl
PDF	Project Design Features
PFC	perfluorocarbons
PM_{10}	coarse particulate matter
$PM_{2.5}$	fine particulate matter
ppm	parts per million
PPV	Peak Particle Velocity
Public Works	Los Angeles County Public Works
RTP/SCS	Regional Transportation Plan/Sustainable Communities Strategy
SB	Senate Bill
SC	Standard Condition
SCAB	South Coast Air Basin
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCCIC	South Central Coastal Information Center
SCE	Southern California Edison
SCRRA	Southern California Regional Rail Authority
SEA	Significant Ecological Area
SF_6	sulfur hexafluoride
SLF	Sacred Lands File
SO_2	sulfur dioxide
SoCalGas	Southern California Gas Company
SO_X	sulfur oxides
SRA	Source Receptor Area
SSC	Species of Special Concern
SWPPP	Stormwater Pollution Prevention Plan

SWRCB	State Water Resources Control Board
TAC	Toxic Air Contaminant
TCP	Traffic Control Plan
TCR	Tribal Cultural Resources
UPRR	Union Pacific Railroad
USACE	United States Army Corps of Engineers
USDA	United States Department of Agriculture
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
VMT	Vehicle Miles Traveled
VOC	Volatile Organic Compound
WEAP	Worker Environmental Awareness Program

1.0 INTRODUCTION

1.1 Purpose of an Initial Study

The California Environmental Quality Act (CEQA) was enacted to inform decision makers and the public about the environmental effects of proposed projects, as well as develop avoidance, minimization, and mitigation measures for any identified significant adverse impacts. The Los Angeles County Public Works (Public Works) is proposing the Slauson Avenue Bridge over San Gabriel River Seismic Retrofit Project (project) to improve the structural integrity of the bridge and meet current seismic standard requirements.

CEQA applies to proposed projects initiated by, funded by, or requiring discretionary approvals from state or local government agencies. The proposed project constitutes a project as defined by CEQA (California Public Resources Code, Section 21065). Public Works would implement and operate the proposed project; therefore, it will act as the CEQA lead agency.

An Initial Study (IS) has been prepared by Public Works as the lead agency in accordance with the CEQA Guidelines to evaluate potential environmental effects and to determine whether an Environmental Impact Report (EIR), a Negative Declaration (ND), or a Mitigated Negative Declaration (MND) should be prepared for the proposed project. The IS has also been prepared to satisfy CEQA requirements of other agencies that may provide approvals, permits, and/or funding for the proposed project. An MND is prepared for a project when an IS has identified potentially significant effects on the environment, but (1) revisions in the project plans or proposals made by, or agreed to by, the applicant before the proposed ND and IS are released for public review would avoid the effects or mitigate the effects to a point where clearly no significant effect on the environment would occur; and (2) there is no substantial evidence in light of the whole record before the public agency that the project, as revised, may have a significant effect on the environment.

The IS determined that implementation of the proposed project could cause some potentially significant impacts on the environment but, as shown in the environmental analysis contained in Section 3 of this document, all of the project's potentially significant impacts would be reduced to less than significant levels through the implementation of mitigation measures. Consequently, the analysis contained herein concludes that an MND is the appropriate document for the proposed project.

In addition to local funding, Public Works intends to seek federal funding to support project construction; thus, the project is subject to the National Environmental Policy Act (NEPA) requirements before any federal funding for the project is granted/approved. In addition, the project is required to obtain permits from the United States Army Corps of Engineers (USACE), which is a federal agency. A NEPA review process will be carried out in compliance with the requirements of respective federal agencies having jurisdiction over this project.

1.2 Document Format

This document is organized into five sections and appendices, as follows:

Section 1.0, Introduction: Provides an overview of the project and the CEQA environmental documentation process. This section also describes the organization of the document and the conventions used to depict edits in the Final IS/MND. All revisions made following the public

review period are shown in *track changes*, with deleted text displayed in **strikethrough** and added text displayed in **underline**.

Revisions included in this Final IS/MND consist primarily of clarifications, minor edits, and responses to comments received during the public review period. These revisions do not constitute significant new information that would require recirculation of the document pursuant to CEQA Guidelines Section 15073.5, because they do not identify new significant environmental impacts, substantially increase the severity of previously identified impacts, or introduce new mitigation measures or project alternatives that would avoid or substantially reduce significant impacts.

Section 2.0, Project Description: Describes the background, location, setting, objectives, and components of the proposed project.

Section 3.0, Environmental Impact Analysis and IS Checklist: Provides a detailed discussion of the environmental issues and resources that would be potentially affected by the project. Standard conditions (SCs), project design features (PDFs), and mitigation measures that would be implemented to ensure that potential adverse impacts of the project would be reduced to a less than significant level are also identified in this section.

Section 4.0, Preparation and Consultation: Provides a list of key personnel involved in preparation of the IS and the agencies and persons consulted.

Section 5.0, References: Provides a list of reference materials used during preparation of the IS.

Appendices: Provide the Slauson Avenue Bridge retrofit plans, and the following technical studies prepared in support of this IS:

- Emissions Calculation Worksheet
- Biological Technical Report (including Bat Survey Report and Aquatic Resources Delineation Report)
- Cultural Resources Assessment Report
- Hazardous Materials and Wastes Screening Investigation Technical Memorandum

In addition, the following materials have been added following the public review period:

- Responses to Comments Received During the Public Review Period
- Mitigation Monitoring and Reporting Program (MMRP)

1.3 CEQA Process

Upon determination that the project is subject to CEQA, Public Works initiated the CEQA environmental review process through preparation of this IS and supporting technical studies/ memos. In addition to the research conducted for the technical studies/memos, Native American tribes that are traditionally and culturally affiliated with the project area were informed about the project and were provided an opportunity to consult, in compliance with Assembly Bill (AB) 52.

Based on the results of environmental impact analyses, Public Works determined that implementation of the project could cause some potentially significant adverse impacts to the environment; however, as described in Section 3.0, the potentially significant adverse impacts can be avoided or reduced to less than significant levels through the implementation of mitigation measures. ~~Thus, Public Works intends to adopt an MND for the proposed project.~~ Therefore, Public Works prepared a Mitigated Negative Declaration (MND) for the project.

~~Prior to adoption of the MND, a public comment period will be open for 30 days.~~ **~~This 30-day public review and comment period will end on November 20, 2025.~~** ~~This comment period will provide responsible and trustee agencies, other public agencies, stakeholders, interested individuals, and the general public an opportunity to review the IS and comment on the adequacy of the analysis and the findings of Public Works regarding the potential environmental impacts of the proposed project.~~

A 30-day public review and comment period for the Draft IS/MND was conducted from October 20, 2025, to November 20, 2025. The public review period provided responsible and trustee agencies, other public agencies, stakeholders, interested individuals, and the general public an opportunity to review the Draft IS/MND and comment on the adequacy of the analysis and the findings of Public Works. During the public review period, Public Works received two comment letters—one from the California Department of Transportation (Caltrans) and one from the Los Angeles County Department of Parks and Recreation. Responses to all comments received during the public review period have been prepared, and minor clarifications have been incorporated into the Final IS/MND where appropriate.

~~After the close of the public review period, the County of Los Angeles Board of Supervisors will consider the IS/MND, together with any comments received during the public review process, and make a decision whether to adopt the MND and approve the project.~~

Following completion of the Final IS/MND, the County of Los Angeles Board of Supervisors will consider the IS/MND, together with the Responses to Comments and Mitigation Monitoring and Reporting Program (MMRP), and determine whether to adopt the MND and approve the project.

If the project is approved, Public Works will file a Notice of Determination (NOD) with the County Clerk and the State Clearinghouse within ~~5~~ five days of the Board action. Filing the NOD begins the 30-day statute of limitations on legal challenges under CEQA. The ability to challenge the CEQA process may be limited to those persons who raised objections during the CEQA process and to issues that were presented to Public Works, either orally or in writing, during the public comment period.

2.0 PROJECT DESCRIPTION

2.1 Project Location and Setting

2.1.1 Location

Slauson Avenue is a four-lane major east–west arterial roadway located in the San Gabriel Valley region of Los Angeles County. The Slauson Avenue Bridge spans the San Gabriel River approximately 0.3 miles west of Interstate 605 (I-605) and approximately 1.75 miles north of the I-605/Interstate 5 (I-5) interchange. At this location, the San Gabriel River is confined within a flood control channel. Most of the bridge structure lies within the city of Pico Rivera, whose eastern jurisdictional boundary generally follows the eastern bank of the channel. The easternmost end of the bridge is within the unincorporated community of West Whittier and the city of Santa Fe Springs, where Rivera Road forms the boundary between these two jurisdictions near the bridge.

In addition, the bridge is located on the United States Geological Survey (USGS) 7.5-Minute Topographic Map for the Whittier Quadrangle, within Township 2 South, Range 12 West, and Section 256 (San Bernardino Base Meridian). (*See Figure 2.1: Project Location Map.*)

2.1.2 Setting

The Slauson Avenue Bridge was originally constructed in 1958 by Public Works and underwent modifications in 1964. The bridge is approximately 655 feet long and 63 feet, 8 inches wide. The bridge deck contains undivided 12-foot-wide travel lanes, 4-foot, 10-inch-wide sidewalks on both sides, and steel railings along the edges. The deck, which is 7 inches thick, consists of seven spans supported by 5-foot-deep steel plate girders. These spans rest on abutments at each end (Abutments 1 and 8) and on six intermediate piers (Piers 2 through 7). Additionally, the spans are connected by two expansion and five deflection hinges. (*See Figure 2-2: Existing Slauson Bridge Configuration).*

The abutments are located outside of the flood control channel, while three of the piers (Piers 3, 4, and 5) have foundations located within the channel bottom. Pier 2 is supported by a foundation on the channel's western levee wall. Piers 2 through 5 each consist of elongated concrete footings and caps that span the width of the bridge deck and are supported by double concrete columns.

Adjacent to and beneath the Slauson Avenue Bridge, two freight rail lines operate in close proximity. The Union Pacific Railroad (UPRR) owns and operates a single-track, north–south rail line located along the eastern side of the channel. The Burlington Northern and Santa Fe Railway (BNSF) owns and operates a rail line with three tracks that cross the San Gabriel River via a bridge that runs roughly parallel—though skewed—to the Slauson Avenue Bridge. The BNSF bridge, which is lower in elevation, crosses underneath the Slauson Avenue Bridge at an angle immediately east of the channel, between Pier 6's straddle-type foundations (i.e., two sets of columns and foundations). At this crossing, both the BNSF and UPRR rail lines are at-grade. BNSF leases track usage rights to Metrolink, operated by the Southern California Regional Rail Authority (SCRRA). *(Refer to Figure 2-2: Existing Bridge Configuration and Figure 2-3: Aerial View of the Project Area.)*

Figure 2-1: Project Location

Figure 2-2: Existing Slauson Bridge Configuration

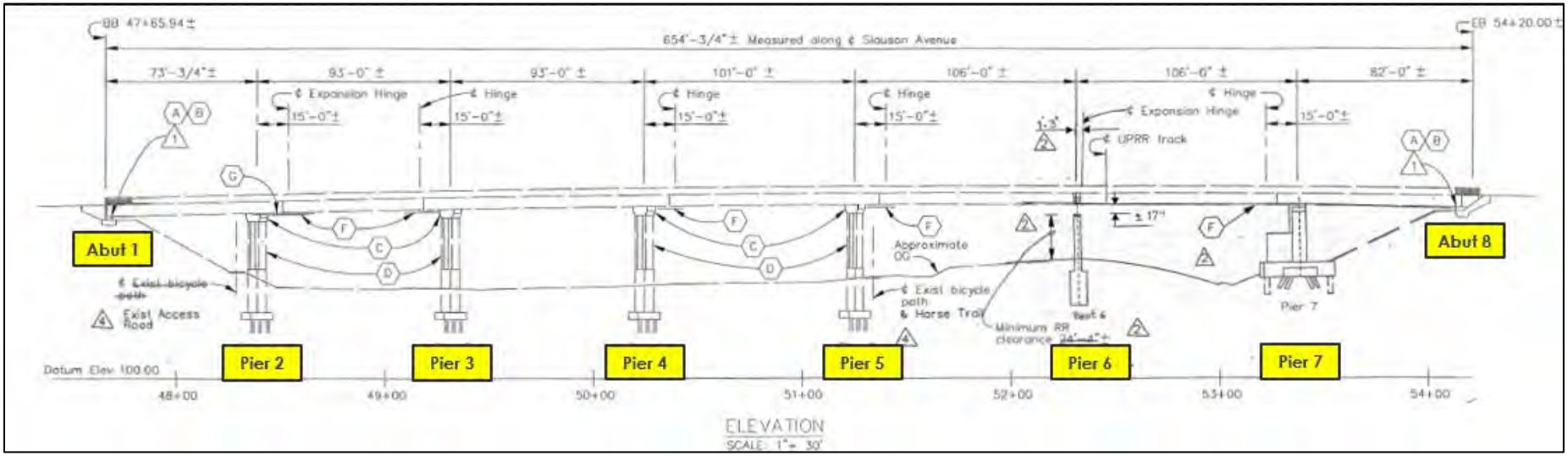


Figure 2-3: Aerial View of the Project Area

The San Gabriel River at this location flows through a flood control channel constructed by the U.S. Army Corps of Engineers. Upstream, the channel extends approximately 12.5 miles to the Santa Fe Flood Control Basin. Near the bridge, the channel is about 320 feet wide and features a soft earthen bottom with vegetation, contained by trapezoidal levees lined with riprap or grouted stone. Stormwater outfalls are located at various points along the levees. The river bottom lies approximately 38 feet below the bridge deck at an elevation of 144 feet above mean sea level.

The San Gabriel River Trail, a paved recreational bicycle and pedestrian path, runs along the eastern side of the channel between the river and the UPRR tracks. A restricted-access maintenance road runs along the western levee. Downstream of the bridge, the channel continues approximately 12 miles to its confluence with the Coyote Creek flood control channel, ultimately discharging into the Pacific Ocean in Long Beach.

2.1.3 Surrounding Land Uses

In addition to the flood control channel, railroad facilities, and the San Gabriel River Trail, the area surrounding the Slauson Avenue Bridge includes primarily vacant parcels located to the northeast, southwest, and southeast of the bridge. Beyond these vacant areas, single-family residential subdivisions are located farther northeast and southwest. On the southeastern side, a self-storage facility occupies the area beyond the adjacent vacant parcel. To the northwest of the bridge, land uses include additional single-family residences and another self-storage facility located between Slauson Avenue and the BNSF rail corridor. *(See Figure 2-3: Aerial View of the Project Area.)*

2.2 Project Objectives

In 1995, the County Public Works inspected the Slauson Avenue Bridge and found no visible signs of structural distress. At that time, the bridge was considered to be in good condition. However, the inspection concluded that during a major earthquake, the bridge could sustain severe damage, including partial collapse, due to many of its components not conforming to current seismic design standards. A retrofit strategy was developed and proposed by Public Works following that evaluation.

A subsequent inspection was conducted in 2022. This inspection documented the accumulation of debris around the pier columns and bent areas, as well as evidence of past fires near the abutments. The report also assessed the condition of various bridge elements and included recommendations for repair. The purpose of the current project is to seismically retrofit the Slauson Avenue Bridge to meet the California Department of Transportation (Caltrans) Bridge Design Specifications and Seismic Design Criteria.

2.3 Project Description

The proposed seismic retrofit includes the following components:

- Strengthening the abutment backwalls;
- Strengthening Piers 2 through 5 by infilling the space between the double columns with concrete, thereby converting each pair of columns into a single elongated column;

- Installing shear keys between the girders and the caps of Piers 2 through 5 and on top of the abutment walls;

- Installing hinge seat extenders between all deck spans, except at Pier 6; and

- Installing cable restrainers between Spans 1 and 2 near Pier 2.

No modifications are proposed for Piers 6 and 7, as retrofit work on these piers was completed in 2017. The project would not alter the bridge deck or the configuration of the San Gabriel River flood control channel. Additionally, the pier foundations, including those located within the channel, would not be modified. Existing adjacent railroads and utilities, including overhead electrical transmission lines along the eastern side of the channel, would remain in place and be protected during construction. A portion of the San Gabriel River Trail would be temporarily closed during construction, with detours provided to maintain trail connectivity. (*See Appendix A1 for the Project Design Plans.)*

2.4 Project Construction

2.4.1 Construction Work Area

The construction work area includes the bridge working area, existing paved access roads along both sides of the river, and nearby vacant parcels that would accommodate temporary field offices, equipment staging, and materials storage. (*See Figure 2-4: Construction Work Area*.)

2.4.2 Construction Method

Construction of the seismic retrofit would be carried out with minimal disturbance to the San Gabriel River and flood control channel, as no pier foundation work is proposed. Handheld equipment would be used to break existing concrete, followed by drilling and anchoring through existing concrete and steel to install rebar. Concrete infill walls and seat extenders would be framed using wood or metal forms and placed with a concrete pump and boom truck, operating from the bridge deck, trail, or staging area. Forms would remain in place for curing, typically up to seven days.

All work would comply with applicable stormwater regulations, including:

- MS4 Permit Compliance: Order No. R4-2021-0105 (or subsequent orders) for discharges within the Coastal Watersheds of Los Angeles and Ventura Counties.

- Construction General Permit: If applicable, the project would enroll under Order No. 2022-0057-DWQ (Permit No. CAS000002), with development and implementation of a project-specific Storm Water Pollution Prevention Plan (SWPPP).

Figure 2-4: Construction Work Area

Construction debris would be contained in accordance with a Debris Containment Plan to be prepared by the contractor and approved by Public Works. No debris would be allowed to fall into the streambed.

The concrete footprint would not increase. All new concrete would be delivered by mixer trucks and temporarily staged on the bridge deck prior to its use. Retrofit work at the piers would occur above ground, while limited abutment work would take place at ground level, more than 15 feet above the river bottom. Vegetation removal is not anticipated.

2.4.3 Staging Areas

Three vacant parcels adjacent to the bridge, all located outside of the river channel and currently non-vegetated, may be used for equipment and materials staging during construction. (*Refer again to Figure 2-4: Construction Work Area.)*

2.4.4 Access and Scaffolding Platform

The San Gabriel River at the project location has a natural earthen bottom. To install and remove scaffolding platforms, construction workers and rubber-tired equipment (e.g., telescopic manlifts and forklifts) would access the channel using existing paved roads along both riverbanks. Equipment may be brought to the channel floor using the natural slopes on either side of the river

or lowered directly from the bridge deck using a crane. No placement of gravel or other materials on the existing riprap would be required. (*See Figure 2-5: Existing Paved Access Roads on Each Side of the Bridge*).

Only rubber-tired vehicles and construction workers would be permitted in the channel. No equipment would be parked overnight within the streambed; all equipment must be removed from the channel at the end of each workday.

Figure 2-5: Existing Paved Access Roads on Each Side of the Bridge

(East Side)

(West Side)

Scaffolding platforms would be suspended above the riverbed, supported by the existing bridge piers. Workers would use rubber-tired basket trucks to reach the riverbed and construct the scaffolding, and to elevate themselves to the platform to perform retrofit work. Once installed, the platforms would allow all remaining work to occur above the waterline.

Construction equipment and materials would be lowered from the bridge deck using a crane. While they may be temporarily placed on the channel bottom before use, no overnight storage in the channel would be allowed.

Use of suspended scaffolding platforms during the dry season eliminates the need for in-channel water diversion. While construction work on the suspended platforms may proceed above the waterline, no personnel or equipment would be permitted to enter the channel or be placed on the channel bottom when water is present.

2.4.5 Vehicle, Equipment, and Materials

Construction would involve various vehicles and equipment, including hydraulic cranes, telescopic boom forklifts, core drilling machines, jackhammers, air compressors, manlifts, welding machines, and concrete boom pumps. Rebar and materials for column infills would be delivered via tractor-trailers. Concrete would be delivered by mixer trucks, which may be temporarily staged on the bridge deck. Dump trucks would be used to haul waste and debris from the site.

2.4.6 Traffic Control

Although the retrofit work would occur beneath the bridge deck, traffic control would be necessary to remove live loads during construction on the girders. Concrete pump trucks may be temporarily stationed on the bridge deck, and materials may be lowered from the deck, both requiring temporary traffic control measures. In addition, the adjacent San Gabriel River Trail would require a detour during construction hours, with access restored during non-working hours.

A Traffic Control Plan (TCP) has been prepared and includes signage, flaggers, signal boards, and speed reduction measures. Pedestrian access across the bridge would be maintained, with temporary detours to one side of the bridge when necessary. A portion of the San Gabriel River Trail beneath the bridge would be closed for at least part of the construction period. Trail users would be redirected to parallel streets east of the river, with detour connections at Washington Boulevard to the north and Telegraph Road to the south. (*See Attachment A2 for TCP.)*

2.4.7 Schedule

Construction is expected to take approximately six months. In-channel activities would be limited to a single dry-season window, from April through October. Work would be conducted during regular daytime weekday hours, in accordance with applicable local regulations. No nighttime or weekend work is anticipated.

Although the environmental analysis in this document assumes construction would be completed by the year 2027, a construction delay of one to two years would not be expected to substantially change the level or type of environmental impacts identified.

2.5 Project Operations

Upon project completion, the Slauson Avenue Bridge would meet Caltrans seismic design criteria. Because the project does not propose to change the bridge deck configuration, the bridge would continue to operate as a four-lane arterial roadway with sidewalks; therefore, traffic level of service (LOS) would remain the same or would be affected by other future factors or conditions. Public Works would continue to periodically inspect the bridge and perform maintenance as needed.

2.6 Related Projects

Based on a review of current infrastructure and public works projects in the cities of Pico Rivera and Santa Fe Springs, no planned or ongoing projects are near the Slauson Avenue Bridge. In addition, Public Works is not planning or proposing any other infrastructure projects near the Slauson Avenue Bridge. Finally, USACE is not planning to improve or modify the San Gabriel River Channel near the Slauson Avenue Bridge. USACE is planning to remove excess sediment and vegetation at the confluence of the San Gabriel River and San Jose Creek, which is approximately 8 miles upstream and northeast of the Slauson Avenue Bridge, to prevent further erosion occurring at this location.

2.7 Approvals Required for the Proposed Project

The following permits would be needed for the project:

- Clean Water Act (CWA) Section 404 permit from USACE
- CWA Section 401 Water Quality Certification from Los Angeles Regional Water Quality Control Board
- Section 1602 of the Fish and Game Code – Streambed Alteration Agreement from the California Department of Fish and Wildlife (CDFW)
- Encroachment Permits from the cities of Pico Rivera and Santa Fe Springs
- Encroachment Permit from the California Department of Transportation (Caltrans), if construction activities occur within or affect State highway right-of-way

2.8 Standard Conditions, Project Design Features, and Mitigation Measures

When it is determined that a project subject to CEQA requirements would generate potentially significant impacts, mitigation measures are recommended that would reduce the level of those potential impacts; however, CEQA Guidelines, Section 15126.4(A), states “[the] discussion of mitigation measures shall distinguish between the measures which are proposed by project proponents to be included in the project and other measures proposed which are not included but the lead agency determines could reasonably be expected to reduce adverse impacts if required as conditions of approving the project.” These other measures are known as standard conditions or project design features, which are defined below:

- Standard Conditions are existing requirements based on applicable federal, state, regional, and city/county regulations, and generally consist of regulatory compliance

measures and standard construction conditions and procedures. The standard conditions in this document are identified in each of the IS Checklist topics provided in Chapter 3 if they are necessary for the particular topic. They would be incorporated into the project's Mitigation Monitoring Program and implemented as part of the project to ensure compliance and that potential impacts would remain less than significant. Because standard conditions are required by existing regulations, they are not considered to be mitigation measures.

- Project Design Features are specific design and/or operational measures proposed by, or agreed to by, the project applicant (i.e., Public Works) and are incorporated into the project to avoid impacts or reduce the impacts to less than significant levels. Like the standard conditions, the project design features, if they are necessary, are identified in each of the IS Checklist topics provided in Chapter 3. The project design features would be incorporated into the project's Mitigation Monitoring Program and implemented as a part of the project to ensure compliance and that potential impacts would remain less than significant. They are not considered to be mitigation measures.

3.0 INITIAL STUDY CHECKLIST

1. Project Title:

Slauson Avenue Bridge over San Gabriel River Seismic Retrofit Project

2. Lead Agency Name and Address:

Los Angeles County Public Works
900 South Fremont Avenue
Alhambra, California 91803-1331

3. Contact Person and Phone Number:

Dinh (Michael) Mai, PE, Associate Civil Engineer
Los Angeles County Public Works
626.458.3948

4. Project Location:

Slauson Avenue Bridge over the San Gabriel River in the cities of Pico Rivera and Santa Fe Springs and unincorporated community of West Whittier in Los Angeles County

5. Project Sponsor's Name and Address:

Los Angeles County Public Works
900 South Fremont Avenue
Alhambra, California 91803-1331

6. General Plan Designation:

Slauson Avenue is classified by the City of Pico Rivera as a "Major" roadway, which generally consist of roads with four to six lanes with connections to regional facilities and accommodates intra-city and sub-regional level travel. The City of Santa Fe Springs classifies Slauson Avenue as a Major Arterial, and the County of Los Angeles classifies it as a Major Highway.

The area in the city of Pico Rivera east of the bridge is designated as Low Density Residential and Light Industrial.

The area in the city of Santa Fe Springs southeast of the bridge is designated as Light Industrial.

The County of Los Angeles has general plan authority in the area northeast of the bridge, which is designated as Public and Semi Public and Residential 9.

7. Zoning:

In the city of Pico Rivera, the San Gabriel River and the BNSF railroad are zoned as Public Facilities. The other areas are zoned S-F (Single Family Residential) and I-L (Limited Industrial).

The area in the city of Santa Fe Springs to the southeast of the bridge is zoned M-1 (Light Manufacturing).

The area northeast of the bridge, under the zoning authority of the County of Los Angeles, is zoned A-1-1 (Light Agricultural) and R-A (Residential Agricultural).

8. Description of Project:

The proposed seismic retrofit of the Slauson Avenue Bridge would involve:

- Strengthening the abutment backwalls;
- Strengthening Piers 2 to 5 by infilling the space in between their double columns with concrete;
- Installing shear keys between the girders on top of the abutment walls and the caps of Piers 2 to 5;
- Installing hinge seat extenders between all the deck spans except at Pier 6; and
- Installing cable restrainers between Spans 1 and 2 near Pier 2.

9. Surrounding Land Uses and Setting:

The Slauson Avenue Bridge crosses the San Gabriel River, which is confined within its flood control channel. In the vicinity of the bridge, the channel is approximately 320 feet wide with a soft earthen bottom with vegetation confined by trapezoidal levees made of riprap/grouted stones with stormwater outfalls at various locations. The bridge also crosses over a UPRR railroad and the San Gabriel River Trail, which run along the eastern side of the channel. A BNSF railroad crosses the river and channel via its own bridge immediately upstream from the Slauson Avenue Bridge, but at a skewed angle that crosses under the bridge at Pier 6. A paved access road runs along the western side of the river under the bridge.

The areas immediately surrounding the Slauson Avenue Bridge consist mostly of vacant properties to the northeast, southwest, and southeast of the bridge. Single-family residential subdivisions lie farther northeast and southwest between the vacant properties. On the southeastern side, a self-storage business occupies the area beyond the vacant property. Land uses northwest of the bridge consist of single-family residences and another self-storage business.

10. Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement):

- Caltrans
- USACE
- CDFW
- Los Angeles Regional Water Quality Control Board
- City of Pico Rivera
- City of Santa Fe Springs

11. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code Section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?

Yes. Public Works initiated Native American tribal consultation in accordance with AB 52. Initially, the Gabrielino Band of Mission Indians – Kizh Nation requested consultation for the project but later communicated no concerns. The Gabrieliño Tongva Indians of California communicated having concerns if the project requires excavation. See Section 3.18, Tribal Cultural Resources, for further details.

Note: Conducting consultation early in the CEQA process allows tribal governments, lead agencies, and project proponents to discuss the level of environmental review, identify and address potential adverse impacts to tribal cultural resources, and reduce the potential for delay and conflict in the environmental review process. (See Public Resources Code [PRC] section 21080.3.2.) Information may also be available from the California Native American Heritage Commission (NAHC)'s Sacred Lands File per PRC section 5097.96 and the California Historical Resources Information System (CHRIS) administered by the California Office of Historic Preservation. Please also note that PRC section 21082.3(c) contains provisions specific to confidentiality.

Environmental Factors Potentially Affected:

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

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

Determination: (to be completed by the Lead Agency)

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☑ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including

revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature	Date
Dinh Anh Mai	Los Angeles County Public Works
Printed Name	For

Evaluation of Environmental Impacts

1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4) "Negative Declaration: Less than Significant with Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from "Earlier Analyses," as described in (5) below, may be cross-referenced).

5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or ND. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
   a) Earlier Analysis Used. Identify and state where they are available for review.
   b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
   c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.

9) The explanation of each issue should identify:
   a) the significance criteria or threshold, if any, used to evaluate each question; and
   b) the mitigation measure identified, if any, to reduce the impact to less than significance

3.1 Aesthetics

	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant	No Impact
Except as provided in Public Resources Code Section 21099, would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☒	☐
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☐	☒
d) Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?	☐	☐	☐	☒

3.1.1 Existing Environment

The project site is located at the Slauson Avenue Bridge over the San Gabriel River in a developed, urbanized area of unincorporated Los Angeles County and the city of Pico Rivera. The surrounding land uses include industrial and commercial facilities, vacant parcels, single-family residences, and major transportation corridors, including the Union Pacific and BNSF railroads, as well as I-605 approximately 0.3 miles east of the project site.

The San Gabriel River flows through a flood control channel with a natural earthen bottom and vegetated channel floor. Although heavily engineered, the river corridor forms a distinctive visual feature within the surrounding built environment. In particular, the river channel, riprap-lined levees, and open space create a visual break from the adjacent industrial and residential uses. The San Gabriel River Trail, a paved multi-use path, runs adjacent to the channel on the east side and provides an elevated view of the river corridor.

There are no designated scenic vistas—such as panoramic public views of natural landscapes, coastal areas, or mountain ranges—located at or near the project site. According to the Los Angeles County General Plan, the nearest identified scenic resources or view corridors are in the San Gabriel Mountains, several miles to the north and northeast. The project site is not within a

scenic highway corridor, and the segment of Slauson Avenue at the bridge is not designated as scenic by either the County or the City of Pico Rivera.

3.1.2 Impact Analysis

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

No Impact.

A scenic vista provides focal views of objects, settings, or features of visual interest; or panoramic views of large geographic areas of scenic quality, primarily from a given vantage point. A significant impact may occur if the project either introduced incompatible visual elements within a public field of view containing a scenic vista or substantially altered a view of a scenic vista.

Construction Impact
Construction would involve the use of rubber-tired equipment, suspended scaffolding platforms, cranes, and other construction tools primarily located on the bridge deck or within the staging areas immediately adjacent to the bridge. Temporary activity may be visible from the San Gabriel River Trail, but the work would not block or degrade any designated scenic vista. No grading or vegetation removal would occur, and in-channel work would be limited to temporary access and platform construction. Importantly, no water diversion would occur, and construction activity would be confined to the dry season and during daytime hours. No night work is planned, and no lighting would be installed. The project area is not located within or near any designated scenic vista. Therefore, the project would not result in any impact to scenic vistas.

Operational Impact:
After construction, no physical changes to the bridge's profile, deck, or setting would be visible. All retrofit improvements (e.g., shear keys, seat extenders, column infills) would be located below the bridge deck or within the existing work area. No new permanent structures or design features would be introduced. The project area is not located within or near any designated scenic vista. Therefore, the project would not result in any impact to scenic vistas.

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

Less than Significant Impact.

A significant impact may occur where scenic resources within a State Scenic Highway would be damaged by or removed for the project. For purposes of this analysis, scenic resources include trees, rock outcrops, and historic buildings.

Construction Impact:
The project site is not located along or within view of a state-designated scenic highway, as identified in the California Scenic Highway Mapping System. No scenic trees, rock outcroppings, or historically significant buildings would be removed or modified. Vegetation removal is not anticipated, and the earthen-bottom San Gabriel River channel would remain unaltered.

Although the San Gabriel River has been determined eligible for listing in the National Register of Historic Places (NRHP) due to its historical significance, the project would not affect the integrity of the channel's contributing features. Construction activities are limited to retrofitting the bridge and would not introduce permanent visual intrusions or alterations to character-defining elements

of the river channel. As such, the project would not diminish the river's historic eligibility or result in damage to scenic resources. Therefore, impacts would be less than significant.

Operational Impact:
There would be no permanent visual change to the setting. All improvements would remain out of public view. The project would not result in any damage or alteration to scenic resources during operation. Therefore, impacts would be less than significant.

c) In non-urbanized areas, would the project substantially degrade the existing visual character or quality of public views of the site and its surroundings? If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

Less Than Significant Impact.

A significant impact may occur if the project introduces incompatible visual elements to the project site or visual elements that would be incompatible with the character of the area surrounding the project site or conflict with applicable zoning and other regulations governing scenic quality.

Construction Impact:
Construction activity would temporarily alter the visual character of the site, with equipment, scaffolding, and materials staged near or under the bridge. These effects would be short-term and limited to the construction period, which is expected to last about six months. The work would be consistent with standard infrastructure improvements and would not introduce visually incompatible or intrusive features. Therefore, impacts would be less than significant.

Operational Impact:
The retrofit work would not alter the bridge’s appearance or surrounding land uses. As the site is in a fully urbanized area and zoned for transportation/public infrastructure, the project would be consistent with existing zoning and would not conflict with applicable regulations governing scenic quality. Therefore, operational impacts would be less than significant.

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

No Impact.

A significant impact would occur if the project caused a substantial increase in ambient illumination levels beyond the property line or caused new lighting to spill over onto light-sensitive land uses such as residential, some commercial, and institutional uses that require minimum illumination for proper function, and natural areas.

Construction Impact:
All construction would occur during daylight hours. No night work is proposed, and no nighttime lighting would be installed. Temporary equipment would not create substantial glare or reflective surfaces, and any light-colored materials (e.g., concrete) would not be visibly distinguishable from the bridge deck. Therefore, no light or glare impacts would occur during construction.

Operational Impact:
The project does not include any new lighting or materials that would increase glare. No changes would be visible from the trail or nearby public roads. Therefore, no light or glare impacts would occur during operation.

3.1.3 Standard Conditions, Project Design Features, and Mitigation Measures

No standard conditions, project design features, or mitigation measures are required to reduce aesthetic impacts.

3.2 Agriculture and Forestry Resources

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation (CDOC) 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.

	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant	No Impact
Would the project				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

3.2.1 Existing Environment

The project site is located within an urbanized area of Los Angeles County. Outside of the San Gabriel River flood control channel, the surrounding land uses include single-family residential subdivisions, commercial businesses, and some unoccupied open space. Neither the project site nor any adjacent parcels are used for agricultural production or forestry.

3.2.2 Impact Analysis

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

No Impact.

There is no Prime Farmland, Unique Farmland, or Farmland of Statewide Importance at or near the project site. The area is designated as Urban and Built-Up Land by the California Farmland Mapping and Monitoring Program and is not used for agricultural purposes. Therefore, there is no potential for impacts.

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

No Impact.

The project site is not zoned for agricultural use, and there are no known parcels under a Williamson Act contract in or near the project area. Therefore, there is no potential for impacts.

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

No Impact.

The project site and surrounding areas are not zoned for forest land, timberland, or Timberland Production. The proposed seismic retrofit would not involve any land use or zoning changes. Therefore, there is no potential for impacts.

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

No Impact.

There is no forest land at or near the project site. Therefore, there is no potential for impacts.

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

No Impact.

The project involves retrofitting an existing bridge and would not result in any land use changes or environmental alterations that could lead to the conversion of farmland or forest land. Therefore, there is no potential for impacts.

3.2.3 Standard Conditions, Project Design Features, and Mitigation Measures

No standard conditions, project design features, or mitigation measures are required to reduce impacts to agriculture and forestry resources.

3.3 Air Quality

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

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

3.3.1 Environmental Setting

The Slauson Avenue Bridge is located within the South Coast Air Basin (SCAB), which is known to have high concentrations of air pollution. Air quality within the SCAB is characterized by concentrations of air pollutants measured at 37 monitoring stations located throughout the Southern California Air Quality Management District's (SCAQMD) jurisdiction. The SCAB is divided geographically into 38 source receptors areas (SRAs), each of which contains an air quality monitoring station, excluding SRA 7. The SRA boundaries were drawn based on proximity to the nearest air monitoring station, the local emission inventories, and surrounding topography. Table 3.3-1 presents the air quality trends of the SCAB from 2020 to 2023. Concentrations of ozone (O_3), coarse particulate matter (PM_{10}), and fine particulate matter ($PM_{2.5}$) in the SCAB have exceeded both the National and California Ambient Air Quality Standards (NAAQS and CAAQS).

Although over the past 30 years substantial progress has been made in reducing air pollution levels in southern California, the SCAB still fails to meet the NAAQS and CAAQS for O_3, PM_{10}, and $PM_{2.5}$. In addition, Los Angeles County does not meet the NAAQS for lead (Pb). The Los Angeles County portion of the SCAB is designated as an attainment or maintenance area for carbon monoxide (CO), nitrogen dioxide (NO_2), and sulfur dioxide (SO_2). Lead emissions from typical construction activities are not anticipated; however, potential exposure from legacy Lead-Based Paint (LBP) is addressed under construction standard conditions.

Table 3.3-1: South Coast Air Basin Air Quality Trends

Pollutant		2020	2021	2022	2023
Ozone (O_3)	Maximum 1-hour Concentration (ppm)	0.185	0.148	0.155	0.155
	Maximum 8-hour Concentration (ppm)	0.139	0.120	0.122	0.118
Particulate Matter (PM_{10})	Maximum 24-hour Concentration\. (µg/m^3)	173	179	177	186
	Annual Average Concentration (µg/m^3)	52.2	49.6	45.4	42.7
Particulate Matter ($PM_{2.5}$)	Maximum 24-hour Concentration (µg/m^3)	53.1	102.1	53.8	58.3
	Annual Average Concentration (µg/m^3)	14.36	14.48	13.92	12.04
Nitrogen Dioxide (NO_2)	Maximum 1-hour Concentration (ppm)	0.101	0.092	0.095	0.088
	98th Percentile 1-hour Concentration (ppm)	0.086	0.076	0.076	0.069
	Annual Average Concentration (ppm)	0.029	0.030	0.029	0.027
Sulfur Dioxide (SO_2)	Maximum 1-hour Concentration (ppm)	0.006	0.007	0.007	0.023
	99th Percentile 1-hour Concentration (ppm)	0.003	0.004	0.004	0.007
Carbon Monoxide (CO)	Maximum 1-hour Concentration (ppm)	4.5	4.3	3.4	3.2
	Maximum 8-hour Concentration (ppm)	3.1	3.7	3.0	2.6
Lead	Maximum Monthly Average Concentration (µg/m^3)	0.016	0.013	0.010	0.012
	Maximum 3-Month Rolling Average Concentration (µg/m^3)	0.011	0.012	0.008	0.008

Notes: ppm = parts per million; µg/m^3 = micrograms per cubic meter

Source: South Coast Air Quality Management District (SCAQMD)

Significance Thresholds

The SCAQMD published a *CEQA Air Quality Handbook* to guide air quality assessments for projects within its jurisdiction, which has been revised and updated through several iterations since the original publication in 1993 (SCAQMD, 2024a). SCAQMD methodologies recommend that air pollutant emissions be analyzed in both regional and local contexts. The *CEQA Air Quality Handbook* establishes regional-scale screening thresholds for criteria air pollutants and O_3 precursor emissions based on maximum allowable mass daily emissions from construction and operation of proposed projects that were derived from previously adopted quarterly and annual United States Environmental Protection Agency (EPA) thresholds. Regional emissions refer to all sources of emissions that would be associated with construction and operation of a project—those located on the project site, as well as remote or mobile sources of emissions—while localized emissions refer to emissions that would only be produced by sources located on the project site. In addition to the regional thresholds, the SCAQMD subsequently promulgated its guidance on using localized significance thresholds (LSTs) for screening onsite emissions in 2003 and updated the guidance in 2008.

Table 3.3-2 shows the regional mass daily thresholds for emissions of volatile organic compounds (VOCs), oxides of nitrogen (NO_X), CO, sulfur oxides (SO_X), PM_{10}, and $PM_{2.5}$ generated by projects subject to CEQA within the SCAB. The SCAQMD considers any project that would not produce daily emissions in excess of any regional threshold to be less than significant at both the project level and for cumulative impacts. Conversely, if construction or operation of a project would generate daily mass emissions exceeding the regional threshold values presented in Table 3.3-2, those emissions would be considered significant. The LST values presented in Table 3.3-2 are specific to SRA 11 (South San Gabriel Valley) for a construction site up to 1 acre with sensitive receptors within 100 feet and were obtained from the SCAQMD LST guidance document.

Table 3.3-2: SCAQMD Air Quality Significance Thresholds – Mass Daily Emissions

Pollutant	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
CONSTRUCTION						
Regional Threshold (lbs/day)	75	100	550	150	150	55
Localized Threshold (lbs/day)	--	83	673	--	1	1
OPERATIONS						
Regional Threshold (lbs/day)	55	55	550	150	150	55

Notes: VOC = volatile organic compound; NO_X = oxides of nitrogen; CO = carbon monoxide; SO_X = sulfur oxides; PM_{10} = coarse particulate matter; $PM_{2.5}$ = fine particulate matter; lbs/day = pounds per day

Source: SCAQMD Handbook

3.3.2 Impact Analysis

The air quality impact assessment was undertaken to determine whether construction or operation of the project would have the potential to result in significant environmental impacts related to air quality in the context of the Appendix G Environmental Checklist criteria of the CEQA Guidelines. The air quality impact analysis focused on potential changes in the air quality environment due to implementation of the project following guidance from the SCAQMD CEQA Air Quality Handbook. The assessment of potential impacts to regional and local air quality as a result of project implementation addresses temporary emissions associated with construction activities, as well as long-term operational emissions. Emissions are generally quantified daily and expressed in terms of pounds per day (lbs/day) for comparison to the SCAQMD mass daily thresholds and LST screening values. Detailed air pollutant emissions estimates are provided in Appendix B.

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

Less than Significant Impact.

A project may result in a significant impact if it would conflict with or obstruct implementation of an applicable air quality plan, such as the SCAQMD Air Quality Management Plan (AQMP). The AQMP outlines strategies to achieve federal and state air quality standards in the SCAB, primarily by controlling or reducing emissions from known sources and coordinating with projected regional growth. Projects that do not exceed the SCAQMD's regional significance thresholds are considered consistent with the AQMP because their emissions are within the limits accounted for in the regional emissions inventory used to develop the plan.

Construction Impact:
Construction of the bridge retrofit project is anticipated to occur over a six-month period beginning in April 2028. Construction activities would include scaffolding installation, structural retrofit work, and minor use of the river channel for equipment access. Emissions would result from operation of off-road construction equipment, material hauling, and worker commutes.

Maximum daily emissions were estimated using emission factors from the California Air Resources Board (CARB)'s OFFROAD and EMFAC models, consistent with guidance from SCAQMD and CalEEMod (CARB 2021; CARB 2023a; SCAQMD 2024b; CAPCOA 2023). Emissions were calculated based on the County's equipment usage plan and trip assumptions, including an average of 15 workers commuting 30 miles round trip daily and 50 material hauling truck trips spaced evenly throughout the construction period. Table 3.3-3 summarizes the daily equipment use, and Table 3.3-4 presents the estimated maximum daily emissions, including both on-site construction equipment and off-site mobile sources. Although the emission calculation assumes construction would be completed by the year 2027, a construction delay of one to two years would not be expected to substantially change the level of emissions estimated.

Table 3.3-3: Estimated Daily Maximum Equipment Use for Construction

Construction Equipment	Number	Daily Usage (hours/day)
Bobcat Loader	2	5
Air Compressor	2	8
Concrete Boom Pump	5	4
Core Drilling Machine	2	4
Hydraulic Crane	1	4
Jack Hammer	2	2
Manlift	1	2
Telescopic Manlift	1	2
Welding Machine	2	4

Source: Equipment List Provided by County Public Works

Table 3.3-4: Estimated Maximum Daily Construction Emissions in Year 2027

Pollutant	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
On-Site Equipment Emissions (lbs/day)	0.36	9.55	5.90	0.03	0.48	0.43
Worker Commute + Truck Hauling (lbs/day)	0.26	0.50	2.01	0.0	.03	.03
Total Daily Emissions (lbs/day)	**0.62**	**10.05**	**7.91**	**0.03**	**0.51**	**0.46**
Regional Significance Threshold (lbs/day)	75	100	550	150	150	55
Exceed Regional Threshold?	No	No	No	No	No	No

Notes: VOC = volatile organic compound; NO_X = oxides of nitrogen; CO = carbon monoxide; SO_X = sulfur oxides; PM_{10} = coarse particulate matter; $PM_{2.5}$ = fine particulate matter

Source: Emission factors obtained from CARB's OFFROAD and EMFAC models

As shown in Table 3.3-4, total daily emissions of all criteria air pollutants would remain well below the SCAQMD's regional significance thresholds. Because project-generated emissions would not

constitute a substantial new source and fall within the assumptions of the AQMP's regional emissions inventory, the project would not conflict with or obstruct implementation of the plan. Therefore, air quality impacts during construction would be less than significant. No mitigation measures are required.

Operational Impact:
Upon completion, the bridge would continue to function as a four-lane arterial roadway with no change in alignment, capacity, or vehicle traffic patterns. As a result, the project would not generate long-term operational emissions or induce population growth that could conflict with the AQMP. No impact would occur.

b) Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard?

Less than Significant Impact.

A project may result in a cumulatively considerable impact if it contributes significantly to an existing regional air quality problem, particularly for pollutants for which the region is in nonattainment. The SCAB is currently designated as nonattainment for O_3, PM_{10}, and $PM_{2.5}$ under the CAAQS, and for O_3 and $PM_{2.5}$ under the NAAQS. The primary pollutants of concern for cumulative air quality impacts in the SCAB are therefore O_3 precursors— VOCs and oxides of nitrogen (NO_x)—as well as PM_{10} and $PM_{2.5}$.

Construction Impact:
The SCAQMD has established daily regional significance thresholds for these pollutants based on emissions levels that could contribute to violations of air quality standards. If a project's emissions fall below these thresholds, it is generally not considered to have a cumulatively considerable contribution to regional air quality impacts.

As shown in Table 3.3-4, the combined emissions from on-site construction equipment, material hauling, and worker commute would remain well below all applicable regional thresholds, including for VOCs, NO_x, PM_{10}, and $PM_{2.5}$. The project would not induce operational emissions or traffic volumes that would alter long-term pollutant levels in the area (see Section 3.3.2[a]).

Therefore, the project's emissions would not result in a cumulatively considerable contribution to existing regional air quality violations. Construction and operation of the project would result in a less than significant cumulative impact. No mitigation measures are required.

Operational Impact:
Upon completion, the bridge would continue to function as a four-lane arterial roadway with no change in alignment, capacity, or vehicle traffic patterns. As a result, the project would not generate long-term operational emissions. No impact would occur.

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

Less than Significant Impact.

A significant impact would occur if the project exposed nearby sensitive receptors—such as residences, schools, or healthcare facilities—to substantial levels of air pollutants during construction or operation. The nearest sensitive receptors to the Slauson Avenue Bridge are single-family residences located approximately 100 feet east of the bridge.

Construction Impact:
Criteria Air Pollutants

To evaluate localized air quality impacts, the SCAQMD developed LSTs, which are used to screen for potential "hot spots" of criteria air pollutants near sensitive receptors, as shown in Table 3.3-2 above. Table 3.3-5 compares the project's estimated maximum daily onsite emissions of NO_x, CO, PM_{10}, and $PM_{2.5}$ to the corresponding LSTs. Emissions include those from construction equipment operated at the site.

Table 3.3-5: Construction Localized Significance Thresholds Analysis for Year 2027

Pollutant	NO_X	CO	PM_{10}	$PM_{2.5}$
Maximum Localized Daily Emissions (lbs/day)	9.55	5.90	0.48	0.43
Localized Significance Threshold (lbs/day)	83	673	1	1
Exceed Localized Threshold?	No	No	No	No

Source: SCAQMD Mass Rate LST Look-up Table (2009), based on 0.5-acre site at 100 feet in SRA 11.

As shown, all onsite emissions are well below the applicable LSTs, and the project would not expose nearby sensitive receptors to substantial concentrations of criteria air pollutants during construction. Therefore, impacts would be less than significant.

CO Hot Spots

The project would not significantly increase vehicle trips or contribute to congestion at intersections that could create CO "hot spots." Construction-related traffic would be temporary and limited to a small number of haul trucks (approximately 50 total over six months) and about 15 daily worker commutes. As such, the project would not generate localized CO concentrations exceeding ambient air quality standards. Therefore, impacts would be less than significant.

Toxic Air Contaminants (TAC)

Diesel-powered construction equipment would emit diesel particulate matter (DPM), a TAC. However, the duration of construction is limited to approximately six months, and equipment would operate intermittently throughout the day. According to SCAQMD guidance, exposure to DPM over such a short timeframe would not result in substantial health risks. Risks associated with TACs, including carcinogenic impacts, are typically assessed over long exposure periods (e.g., 30 years), and the short-term construction emissions would not result in significant health risks to nearby receptors. Therefore, impacts would be less than significant.

Operational Impact:
Once construction is complete, the bridge would resume operation as a four-lane arterial roadway with no increase in traffic capacity or change in land use. Therefore, no long-term emissions or localized impacts to sensitive receptors would occur during operation. Therefore, impacts would be less than significant.

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

Less than Significant Impact.

A significant odor impact may occur if a project creates objectionable or nuisance odors affecting a substantial number of people during construction or operation. Typical sources of odor during construction include diesel exhaust from equipment, asphalt, paints, adhesives, and other chemical-based materials.

Construction Impacts:
The proposed project would involve limited demolition, concrete work, welding, and other construction activities using diesel-powered equipment. These activities may generate temporary odors—such as exhaust from construction machinery or fumes from coatings or sealants—but such emissions would be typical for a bridge retrofit project and would be confined to the immediate vicinity of the bridge. Additionally, these odors would dissipate quickly and would not result in chronic exposure due to the short-term nature of construction.

The nearest residences are located approximately 100 feet east of the bridge. Given this separation, as well as the open-air conditions and the transient nature of odors during construction, it is unlikely that odor emissions would affect a substantial number of people. Furthermore, the construction contractor would be required to comply with applicable SCAQMD Rules, including Rule 401 (Visible Emissions), Rule 402 (Nuisance), and Rule 403 (Fugitive Dust). These rules prohibit emissions that would cause visible dust plumes or nuisance conditions beyond the property line, ensuring odors do not rise to the level of a significant impact.

In conclusion, construction odors would be temporary, infrequent, and typical of a bridge retrofit project. Compliance with SCAQMD rules would ensure these emissions are minimized. Therefore, impacts would be less than significant.

Operational Impacts:
After construction is complete, the bridge would resume its existing use as a public roadway. The project would not include any new uses that could generate odor emissions. Therefore, there would be no operational odor impacts.

3.3.3 Standard Conditions, Project Design Features, and Mitigation Measures

Construction of the bridge retrofit project would result in short-term emissions from diesel-powered equipment, material hauling, and worker commutes. These emissions would be minimized through implementation of applicable regulatory requirements and standard construction practices, including the following:

SC-AQ-1: All construction equipment and vehicles shall be properly maintained and tuned to operate in accordance with manufacturers' specifications. Low-sulfur diesel fuel shall be used as required by the California Code of Regulations, Title 17, Section 93114.

SC-AQ-2: The construction contractor shall comply with SCAQMD rules applicable to construction activities, including Rule 401 (Visible Emissions), Rule 402

(Nuisance), and Rule 403 (Fugitive Dust) which would prohibit visible emissions and odors that may cause a public nuisance.

SC-AQ-3: Idling of diesel-powered equipment and trucks shall be limited in accordance with CARB requirements:

- Title 13, CCR, Section 2449(d)(3) for off-road construction equipment.
- Title 13, CCR, Section 2485 for on-road heavy-duty vehicles.

SC-AQ-4: Lead-based paint (LBP) or lead-containing paint (LCP) may be present on the existing bridge structure. The construction contractor shall comply with all applicable health and safety regulations for lead abatement during construction, including the requirements set forth in California Code of Regulations, Title 8, Section 1532.1 (“Lead”) to protect worker safety and prevent airborne lead exposure.

No additional mitigation measures are required. Compliance with these standard conditions would ensure that temporary construction emissions and handling of lead-containing materials do not result in significant air quality impacts. Impacts would remain less than significant.

3.4 Biological Resources

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

The information presented in this section is summarized from the Biological Resources Technical Report prepared for the project by ECORP Consulting, Inc. (ECORP, 2025a) The full report is included as Appendix C of this IS/MND. In addition, information from the Bat Survey Report and

an Aquatic Resources Delineation Report prepared by Watearth (2024a and 2024b), which are included in Appendix C, are components of the Biological Resources Technical Report.

3.4.1 Existing Environment

The project site is located within the highly developed areas of Pico Rivera, Santa Fe Springs, and the unincorporated community of West Whittier in Los Angeles County. Surrounding land uses primarily consist of I-605 and a Los Angeles County trail to the east, high-density single-family residential and commercial developments in all directions, and horse ranches to the southeast. Additionally, a railroad traverses the project area, running east-west parallel to Slauson Avenue, while the San Gabriel River flows north-south beneath the Slauson Avenue Bridge. The elevation in the project area ranges from approximately 127 to 150 feet above mean sea level.

As part of the biological resources study, a biologist conducted a literature review, including a search of CDFW's California Natural Diversity Database (CNDDB) and the California Native Plant Society's (CNPS) Electronic Inventory (CNPSEI) to identify special-status plant and wildlife species documented within the project site and a 500-foot buffer area (collectively referred to as the "Survey Area").

Following this review, a biological reconnaissance survey of the Survey Area was conducted on July 3, 2024, and two bat surveys were conducted at the Slauson Avenue Bridge on July 1 and July 2, 2024. Additionally, an aquatic resources delineation took place at the project site in September 2024. Summaries of each task's results are provided below.

Literature Review

Before conducting the biological reconnaissance survey, ECORP biologists reviewed the CNDDB and CNPSEI records within the Survey Area boundaries. This search focused on occurrences of federally and/or state-listed endangered, threatened, proposed endangered or threatened species, California Species of Special Concern (SSC), and other special-status species or habitat that may occur within or near the Survey Area. Additionally, the biologists reviewed local regulations protecting biological resources.

Special-Status Plants and Wildlife

The database searches identified 36 special-status wildlife species and 32 special-status plant species that have been previously documented near the Survey Area. Of the wildlife species, one was determined to have a moderate potential to occur in the Survey Area, six had a low potential, and the rest were presumed to be absent. Among the plant species, three were assessed as having low potential for occurrence and the rest were presumed to be absent.

Significant Ecological Areas

In 1980, the Los Angeles County Board of Supervisors established the Significant Ecological Areas (SEAs) as a part of the broader General Plan. SEAs are designated based on their ability to 'help conserve the genetic and physical diversity within Los Angeles County by designating biological resources areas capable of sustaining themselves into the future'. The final boundaries and categories for the current SEAs were established in 2015 with the County Board of Supervisors approval of the General Plan 2035.

The literature review confirmed that the Survey Area is not located within an adopted or proposed SEA.

Oak Tree Ordinance

The Survey Area is located within Los Angeles County; therefore, it is required to comply with the Los Angeles County Oak Tree Ordinance, which was established to (a) recognize oak trees as significant historical, aesthetic, and ecological resources and (b) create a favorable methodology for the preservation and propagation for native oak species throughout Los Angeles County. This ordinance prohibits the destruction of any native oak that meets the standards detailed in Section 22.56.2060, Part 16.

Note it does not appear that the City of Santa Fe Springs or Pico Rivera have any oak tree ordinances or policies.

Habitat Conservation Plan and Natural Community Conservation Plan

The literature review confirmed the Survey Area is not located within the established Habitat Conservation Plan (HCP) and Natural Community Conservation Plan (NCCP).

Biological Reconnaissance Survey

The reconnaissance survey was conducted to identify the vegetation communities, land cover types, wildlife habitats, and the potential for special-status species to occur within the Survey Area.

Vegetation Communities

Due to the highly developed surrounding environment, no native vegetation communities falling into the classifications of Sawyer *et al.* (2009) were identified in the Survey Area. Instead, the following land cover types were documented (see Figure 3.4-1: Vegetation communities within the survey area):

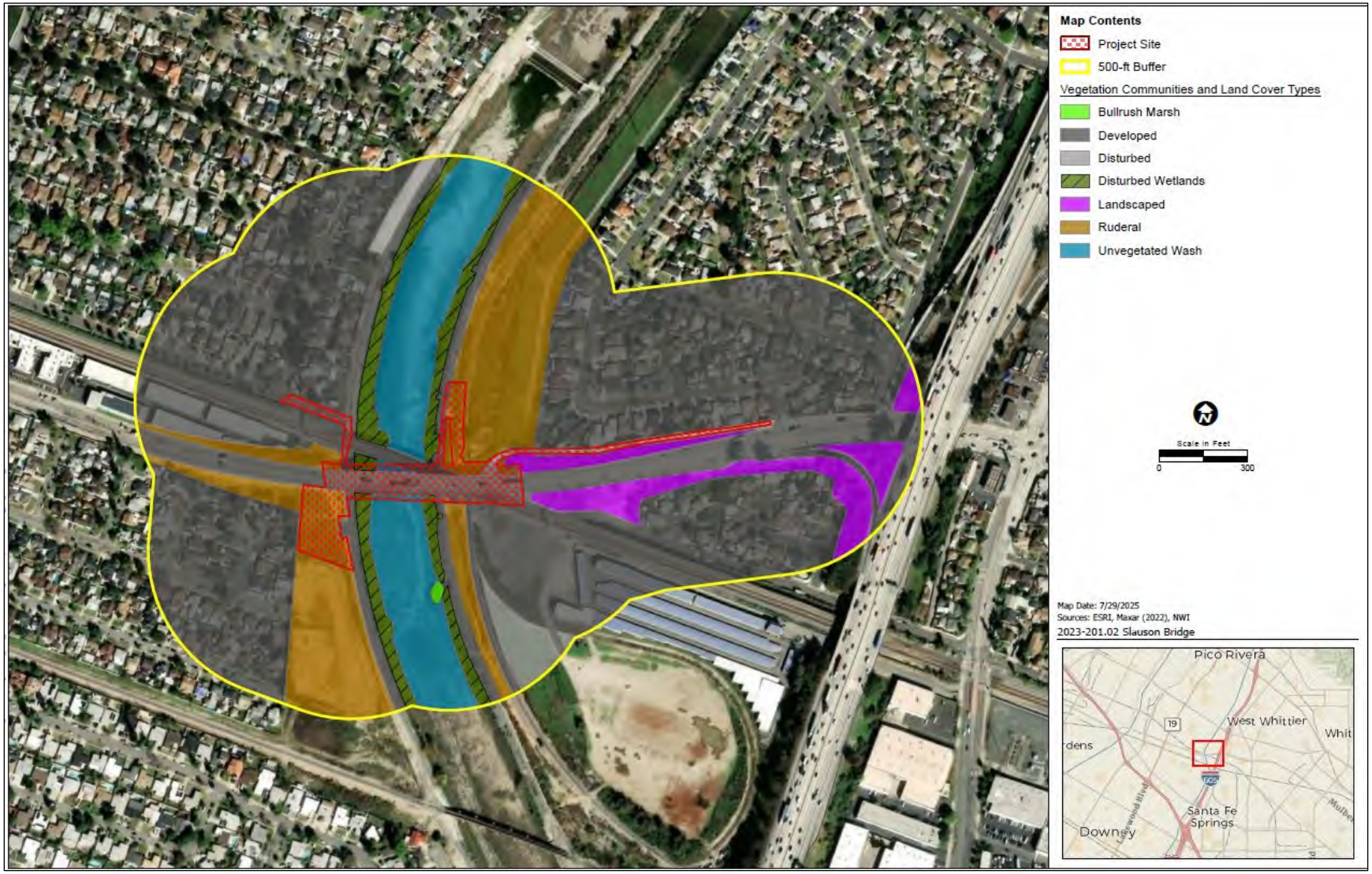
Unvegetated Wash

This area consists of primarily vegetation-free zones significantly influenced by hydrologic flows from the San Gabriel River. These areas were observed to be highly dynamic, with soil deposits from flowing water sporadically occurring throughout the unvegetated channel. A total of 0.12 acres of unvegetated wash was mapped.

Disturbed Wetlands-Riparian

This category exhibits moderate to high levels of anthropogenic disturbance and is dominated by nonnative plants. Plant distribution is heavily influenced by the adjacent channel and includes species typical of wetland communities, such as common knotweed (*Persicaria lapathifolia*), castor bean (*Ricinus communis*), tall flatsedge (*Cyperus eragrostis*), curly dock (*Rumex crispus*), perennial pepperweed (*Lepidium latifolium*), Italian thistle (*Carduus pycnocephalus*), and giant reed (*Arundo donax*). Scattered shrubs and trees, including mulefat (*Baccharis salicifolia*) and Goodding's willow (*Salix gooddingii*), were also present. A small patch of California bulrush (*Schoenoplectus californicus*) was identified south of the railroad tracks. A total of 0.07 acres of disturbed wetland-riparian areas was mapped.

Figure 3.4-1: Vegetation Communities and Land Cover Types



Source: Biological Resources Technical Report, ECORP, 2025a

Ruderal

This area is characterized by high levels of anthropogenic disturbance and nonnative plants, primarily dominated by invasive species such as castor bean, black mustard (*Brassica nigra*), tocalote (*Centaurea melitensis*), Canada horseweed (*Erigeron canadensis*), telegraph weed (*Heterotheca grandiflora*), and cheatgrass (*Bromus tectorum*), along with other nonnative grasses and forbs. Sparse shrubs, mainly tree tobacco (*Nicotiana glauca*) and mulefat, as well as a few sparse trees such as Shamel ash (*Fraxinus uhdei*), were also noted. A total of 1.33 acres of ruderal area was mapped.

Disturbed

This area is characterized by nonnative vegetation and compacted or disturbed soils with signs of previous discing and ground disturbance. Evidence of trash and unauthorized dumping was also observed. A total of 0.36 acre of disturbed area was mapped.

Developed

This category includes roadways, railways, bike paths, residential housing, commercial buildings, infrastructure associated with the railway, and associated landscaping. A total of 1.81 acres of developed area was mapped.

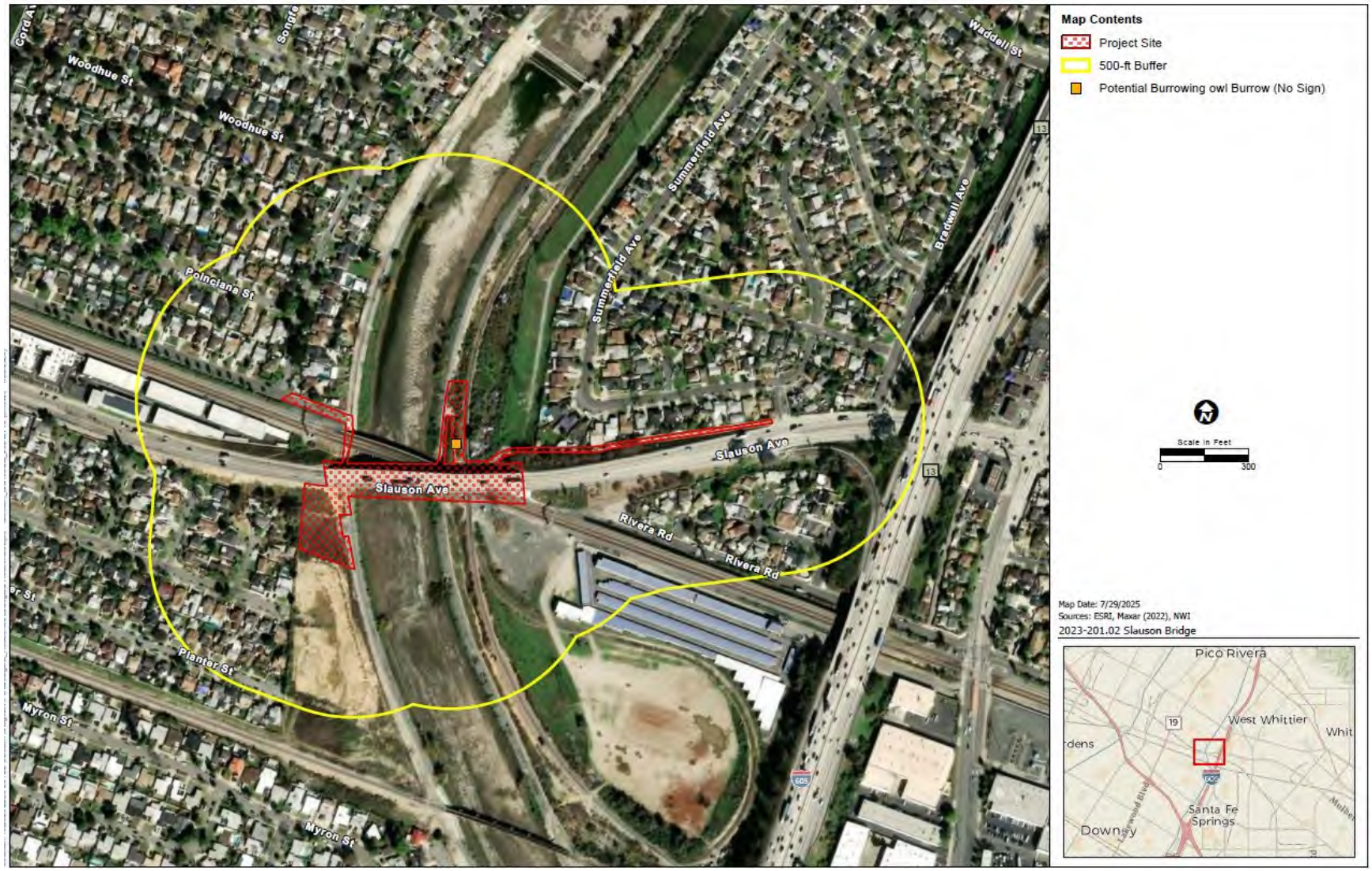
Plant

Plant species observed in the Survey Area were generally characteristic of areas disturbed by anthropogenic factors. Dominant plant species observed within the Survey Area included nonnative species such as castor bean, tree tobacco, Russian thistle (*Salsola tragus*), black mustard, perennial pepperweed, wild radish (*Raphanus sativus*) and wild oat (*Avena fatua*). Two stands of Goodding's willow and a few scattered individuals were present along the San Gabriel River banks. Chinese elm (*Ulmus parvifolia*), shamel ash, olive (*Olea* sp.), Mexican fan palm (*Washingtonia robusta*), and fruit trees including pomegranate (*Punica granatum*) and orange (*Citrus* sp.) were present in the landscaping. A full list of plant species observed on and immediately adjacent to the Survey Area is included in Appendix D of the Biological Technical Report (ECORP 2025a).

Wildlife

Despite the disturbed nature of the Survey Area, numerous wildlife species were documented during the survey. Wildlife observed during the biological reconnaissance survey included species such as western side-blotched lizard (*Uta stansburiana elegans*), and California ground squirrel (*Otospermophilus beecheyi*). Due to presence of open water, numerous coastal and aquatic species were documented within the Survey Area including double-crested cormorant (*Nannopterum auritum*), least sandpiper (*Calidris minutilla*), western gull (*Larus occidentalis*), great egret (*Ardea alba*), great blue heron (*Ardea herodias*), and snowy egret (*Egretta thula*). Small mammal burrows suitable for use by burrowing owls were observed within the Survey Area; however, no burrowing owls or burrowing owl sign (e.g., suitable burrows, whitewash, pellets, feathers) were observed during the reconnaissance-level surveys (See Figure 3.4-2: Potential Burrowing Owl Burrow within the Biological Survey Area). A full list of wildlife species observed on and immediately adjacent to the Survey Area is included in Appendix E of the Biological Technical Report (ECORP 2025a).

Figure 3.4-2: Potential Burrowing Owl Burrow within the Biological Survey Area



Source: Biological Resources Technical Report, ECORP, 2025a

Potential for Special-Status Plant and Wildlife Species to Occur in the Survey Area

Observed plant and wildlife species were recorded, and all areas were assessed for the potential to provide habitat for special-status plant and wildlife species. The biologists determined that suitable habitat was present for the following special status species:

Special-Status Wildlife Species with a Moderate Potential to Occur:

- Burrowing owl (*Athene cunicularia*)

Special-Status Wildlife Species with a Low Potential to Occur:

- Crotch's bumble bee (*Bombus crotchii*)
- Western spadefoot toad (*Spea hammondii*)
- Coastal whiptail (*Aspidoscelis tigris stejnegeri*)
- Coast horned lizard (*Phrynosoma blainvilli*)
- Pallid bat (*Antrozous pallidus*)
- Western yellow bat (*Lasiurus xanthinus*)

Special-Status Plant Species with a Low Potential to Occur

- Lucky morning-glory (*Calystegia felix*)
- Prostrate navarretia (*Navarretia prostrata*)
- San Bernardino Aster (*Symphyotrichum defoliatum*)

Critical Habitat

The Survey Area is not located within or near any National Marine Fisheries Service (NMFS)- or United States Fish and Wildlife Service (USFWS)-designated critical habitat.

Wildlife Corridors and Nursery Sites

Although the San Gabriel River is a channel, its functionality as a wildlife movement corridor is limited. The presence of debris basins, dams, channelization with riprap, and concrete banks all impede wildlife migration and travel. Additionally, the Survey Area is completely surrounded by urban development, isolated from larger, contiguous blocks of native habitat. Major freeways, including I-605 to the east and I-5 to the southwest, further restrict wildlife movement. Lastly, the lack of consistent vegetation cover within the Survey Area likely deters wildlife from utilizing the area for significant movement opportunities.

Locally Protected Trees

No native oak trees were identified during the biological reconnaissance survey.

Bat Survey

In 2015 and 2016, bat surveys were conducted by UltraSystems and Rahn Conservation Consulting LLC, as part of the initial environmental review process for the proposed project (Ultra Systems 2015 and Rahn 2016). During a bat habitat assessment and focused bat survey by UltraSystems in August 2015, 52 bats were observed exiting the bridge, confirmed acoustically as Mexican free-tailed bats (*Tadarida brasiliensis*) and Yuma myotis (*Myotis yumanensis*). Based on these observations, it was concluded that the bats represented the remnants of a maternity colony that had previously occupied the site and was beginning to disband.

In March 2016, Rahn conducted another bat survey, observing 35 to 40 bats day-roosting in the bridge. These bats were confirmed acoustically to be canyon bats (*Parastrellus hesperus*) and

Mexican free-tailed bats, while big brown bats (*Eptesicus fuscus*) were observed in the vicinity but not roosting in the bridge.

Suitable bat roosting habitat and bat sign (guano) were observed at the bridge by Watearth in 2024 (Watearth, 2024a).

Detailed results of each survey effort are provided in the respective survey reports appended to the Biological Resources Technical Report (ECORP, 2025a).

Aquatic Resources

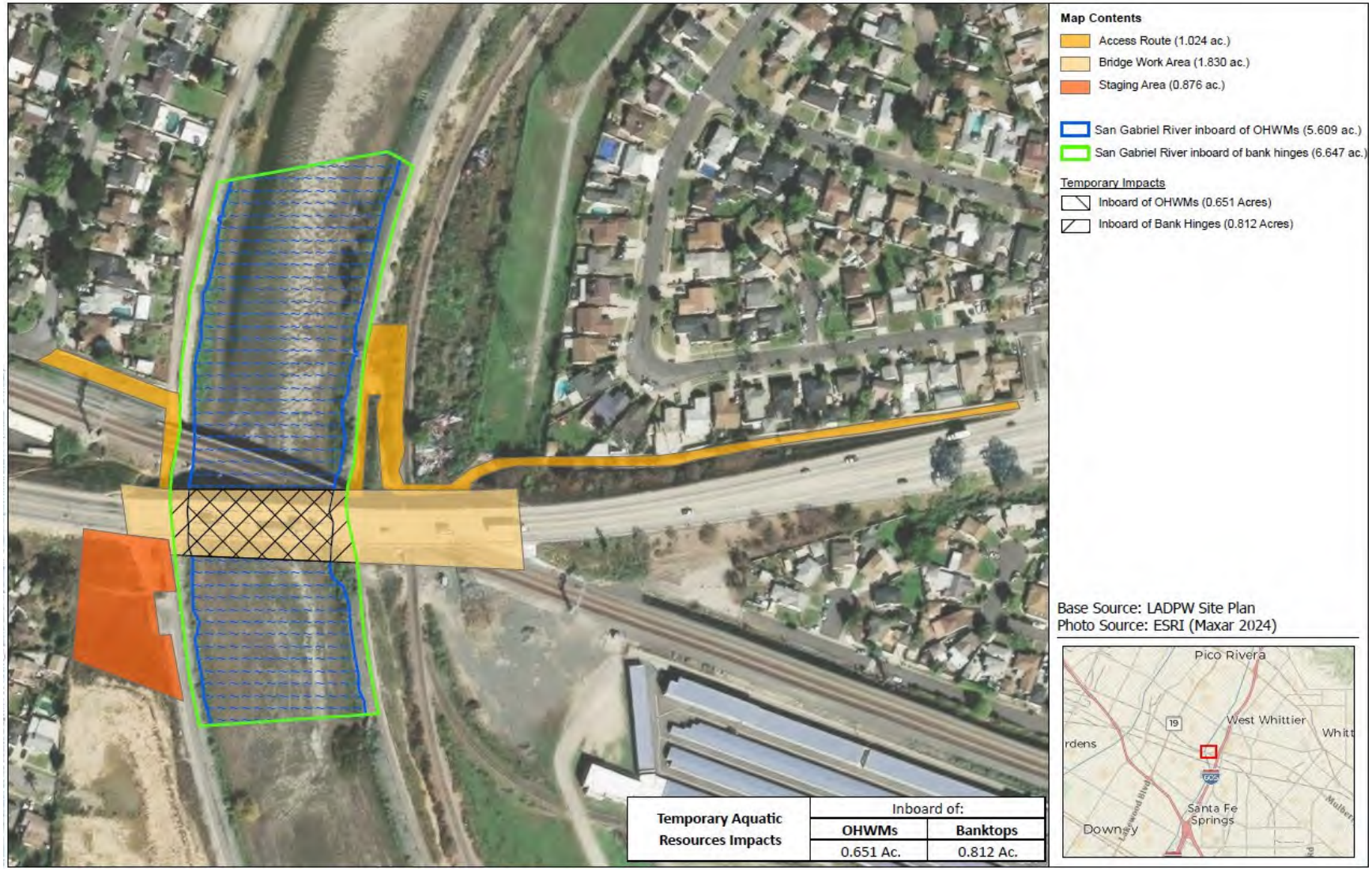
~~An aquatic resources delineation conducted by Watearth biologists in September 2024 identified potential state- and federally regulated waters within the San Gabriel River beneath the Slauson Avenue Bridge. The delineation mapped approximately 5.62 acres of riverine waters potentially under the jurisdiction of the California State Water Resources Control Board (SWRCB) and USACE, as well as approximately 6.65 acres of channel bed and bank potentially regulated by CDFW. Figure 3.4-3 illustrates the extents of potentially jurisdictional aquatic features within the Survey Area and the project work area.~~

An Aquatic Resources Delineation (ARD) was conducted in September 2024 to identify all aquatic features within and near the proposed project area. The project is located within Reach 2 of the San Gabriel River, which at this location is confined within a flood control channel characterized by trapezoidal levees and an unlined, earthen channel bottom that supports sparse, intermittently vegetated features. No wetlands were identified within the project area during field surveys. Based on observed site conditions, the aquatic resource present beneath the Slauson Avenue Bridge was characterized as a riverine system, and the delineation focused exclusively on identification of riverine waters using Ordinary High Water Marks indicators. The results of the ARD, including the locations of the Ordinary High Water Marks and mapped aquatic resources, are shown on Figure 3.4-3, Aquatic Resources Delineation Map.

The ARD identified the San Gabriel River channel as a jurisdictional aquatic resource and documented areas of unvegetated wash and disturbed wetland-riparian land cover within the active channel/floodplain.

The San Gabriel River channel within the project area is managed by Los Angeles County Public Works under an existing routine maintenance permit issued by the RWQCB. Aquatic resources in the project vicinity are characterized by modified hydrology, limited vegetative structure, and frequent disturbance from storm flows and maintenance activities. No intact riparian woodland, freshwater marsh, or other sensitive natural aquatic communities are present within the project work area.

Figure 3.4-3: Aquatic Resources Delineation Map



Source: Aquatic Resources Delineation prepared by Watearth

3.4.2 Impact Analysis

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

Less than Significant Impact with Mitigation.

A project may have a significant impact on biological resources if it would result in the loss of individuals, habitat degradation, or other adverse effects on species listed as endangered, threatened, rare, or otherwise sensitive under federal, state, or local regulations. These impacts can occur directly (e.g., injury or mortality) or indirectly (e.g., through habitat modification or increased disturbance).

Construction Impact:
The Survey Area encompasses portions of the San Gabriel River channel and adjacent developed land, which are heavily disturbed by urban development, non-native vegetation, and river maintenance activities. A literature and database review identified 32 special-status plant species and 36 special-status wildlife species previously documented within or near the Survey Area. Of these, 3 plant species and 7 wildlife species were determined to have a moderate or low potential to occur within the Survey Area. These species are discussed below.

Special-Status Plant Species (Low Potential to Occur)
Three special-status plant species were determined to have low potential to occur within the Survey Area due to marginally suitable habitat. If present, these species could be impacted by construction through ground disturbance, vegetation removal, and dust deposition. However, due to the low probability of occurrence, disturbed site conditions, and limited extent of habitat loss, impacts to these species would not result in significant effects on regional populations and would therefore be less than significant under CEQA.

Crotch's Bumble Bee (Low Potential to Occur)
Crotch's bumble bee may be present due to the availability of friable soils and potential burrows. If individuals or colonies are present during construction, impacts could include mortality, disruption of nesting, or habitat loss. Because this species selects nesting and overwintering sites annually, and suitable foraging habitat is limited, impacts to these species would not result in significant effects on regional populations and would therefore be less than significant under CEQA. Impacts would be minimized through Mitigation Measures BIO-1, BIO-2, and BIO-3 (see Section 3.4.3), and would be less than significant.

Western Spadefoot Toad (Low Potential to Occur)
Although this species favors temporary aquatic habitats, the floodplain of the San Gabriel River offers marginally suitable habitat. If present, individuals could be harmed by vehicle strikes or buried in burrows during grading. Given the disturbed condition of the soil and low habitat quality, impacts to these species would not result in significant effects on regional populations and would therefore be less than significant under CEQA. With Mitigation Measures BIO-1 and BIO-2 in place, the potential impact would be less than significant.

Coastal Whiptail and Coast Horned Lizard (Low Potential to Occur)
Both species require sandy or loose soil and insect prey, which are limited in the Survey Area. If present, they may be directly impacted by equipment or indirectly by disturbance. Due to their

likely low densities and poor site conditions, impacts would not be expected to substantially contribute to a population-level decline and would therefore be less than significant.

Burrowing Owl (Moderate Potential to Occur)
Burrowing owl has a moderate potential to occur based on observed mammal burrows and debris piles. Although not observed during the survey, individuals could occupy the site prior to construction. Potential impacts include nest destruction, mortality, or disturbance. Impacts to these species would not result in significant effects on regional populations and would therefore be less than significant under CEQA. Mitigation Measures BIO-1, BIO-2, and BIO-4 would ensure pre-construction surveys and exclusion protocols are implemented, reducing impacts to less than significant.

Western Yellow Bat (Low Potential to Occur) and Pallid Bat (Low Potential to Occur)
Western yellow bat may roost in nearby palm trees, and pallid bat could use the bridge or surrounding structures. Project construction could lead to direct disturbance of roosts or loss of foraging habitat. Both species may also be affected by construction-related noise and vibration, but would not result in significant effects on regional populations and would therefore be less than significant under CEQA. With Mitigation Measures BIO-1, BIO-2, and BIO-5 (see Section 3.4.3), the impact would be less than significant.

Nesting Birds (e.g., House Finch, Cliff Swallow, Mourning Dove)
The bridge, nearby trees, and other structures may provide nesting habitat for migratory birds protected under the MBTA and California Fish and Game Code. Project-related activities during the nesting season could result in nest destruction or disturbance. With implementation of Mitigation Measures BIO-1, BIO-2, and BIO-6 (see Section 3.4.3), including nesting bird surveys and avoidance buffers, impacts would be less than significant.

Operational Impact:
After construction, the bridge would return to normal operation with no long-term changes in land use or disturbance patterns. No permanent removal of habitat or ongoing biological impacts would occur. Therefore, the project would not result in operational impacts to any special-status species.

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

No Impact.

A significant impact could occur if a project were to result in the loss or degradation of riparian habitat or other sensitive natural communities recognized by federal, state, or local agencies. Sensitive natural communities are generally considered those that are rare or declining within the region and often support special-status species or provide key ecological functions.

Construction Impact:
A biological reconnaissance survey was conducted in July 2024 to identify vegetation communities and land cover types within the Survey Area. The vegetation and land cover types mapped within the Survey Area include unvegetated wash, disturbed wetland-riparian, ruderal, disturbed, and developed. While some areas—such as the disturbed wetland-riparian land cover—contain wetland-associated vegetation and are subject to anthropogenic influence, no plant communities identified during the field survey meet the criteria for sensitive natural communities as defined by the CDFW or listed in the CDFW Natural Communities List. No riparian

woodland or scrub vegetation communities are present within the project impact area. ~~No areas were found to support intact riparian woodland or scrub vegetation.~~

Therefore, implementation of the project would not result in the loss or degradation of riparian habitat or sensitive natural communities. No impacts would occur.

Operational Impact:
Following construction, the project would not introduce new long-term disturbances or operations that would alter vegetation communities within the Survey Area. The site would remain in its existing transportation and urban use. No impact to riparian habitat or sensitive communities would occur after the construction is completed.

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

Less than Significant Impact.

For CEQA purposes, a significant impact would occur if a project results in the direct removal, filling, or permanent alteration of wetlands or other jurisdictional waters regulated under Section 404 of the Clean Water Act, especially if such actions are not authorized through appropriate permitting or mitigation measures.

Construction Impact:
The project involves retrofit work on the existing Slauson Avenue Bridge and associated access using temporary scaffolding platforms. No water diversion or dewatering activities are proposed. No in-channel excavation, grading, or placement of permanent structures would occur.

Based on the September 2024 aquatic resources delineation, approximately 5.62 acres of potential waters of the United States occur beneath the bridge. However, the anticipated disturbance to these areas would be minimal, temporary, and limited to equipment travel and staging of scaffolding components. The channel bed would be restored to pre-construction conditions upon project completion, and seasonal flows are expected to redistribute any displaced sediment naturally. As such, no permanent alteration or loss of aquatic resources is expected.

The Aquatic Resources Delineation Report does not identify any federally protected wetlands, as defined by Section 404 of the Clean Water Act, in the project area; therefore, no wetland would be impacted.

Project-related activities within this area would be limited to temporary surface disturbance associated with rubber-tired vehicle access during dry-season conditions. No discharge of dredged or fill material, hydrologic interruption, or permanent modification of the channel bed or banks would occur. The affected area is located within a flood control channel that is subject to routine maintenance activities authorized under Los Angeles County Public Works' existing RWQCB maintenance permit. Upon completion of construction, any minor surface disturbance would be restored to pre-project conditions through passive measures.

Based on agency input, the project will not require regulatory authorization ~~under Section 404 of the Clean Water Act~~ from the U.S. Army Corps of Engineers (USACE), ~~and a Section 401 Water Quality Certification from~~ but will require Waste Discharge Requirements issued by the Los Angeles Regional Water Quality Control Board. However, because no in-channel work or fill is proposed beyond temporary access, and because channel contours and functions would be

restored, impacts would be temporary and less than significant. Based on agency input, a Section 408 permission from the USACE is not required.

Operational Impact:
Following construction, the bridge would return to its pre-project use and appearance, with no long-term changes to hydrology, drainage, or aquatic resource conditions. No impact would occur under operation.

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

Less than Significant Impact with Mitigation.

CEQA considers impacts to wildlife movement corridors and native wildlife nursery sites potentially significant when project activities would substantially restrict species movement or disrupt sensitive reproductive habitats. Wildlife corridors facilitate dispersal, foraging, and genetic exchange and are particularly important in fragmented landscapes.

Construction Impact:
Wildlife Movement and Corridors

The Survey Area is located in a densely urbanized setting surrounded by major highways, railways, and developed land uses. Although the San Gabriel River channel may provide limited, localized movement opportunities—particularly for urban-adapted species such as coyotes during low-flow periods—it does not connect large, contiguous blocks of native habitat. Vegetative cover is sparse, and the surrounding landscape is fragmented by urban development. As a result, no established regional wildlife corridors or critical linkages traverse the Survey Area.

Project construction would not permanently alter or obstruct the channel, and no diversion of water or permanent barriers to movement are proposed. Because all access would occur on existing disturbed surfaces and the bridge will be retrofitted in place, impacts to movement along the San Gabriel River are expected to be minimal and temporary. Therefore, the project would not interfere substantially with wildlife movement or a recognized migration corridor.

Native Wildlife Nursery Sites – Bats

The Slauson Avenue Bridge contains suitable roosting habitat for several bat species, including special-status species such as the western yellow bat and pallid bat. Surveys conducted between 2015 and 2024 have documented guano and direct observations of bats roosting in the bridge, including during the maternity season. As such, it is likely that the bridge supports a bat maternity colony during the reproductive season.

Disturbance to an active roost—particularly during the maternity season (May through July)—could result in roost abandonment or mortality of flightless young, constituting a significant impact under CEQA and a potential violation of California Fish and Game Code Section 4150. Even outside the breeding season, unplanned disturbance could displace bats or expose them to increased predation or stress.

To mitigate potential impacts to roosting and maternity bats, the project will implement Mitigation Measures BIO-1, BIO-2, and BIO-5 (see Section 3.4.3). These measures include general best practices, pre-construction surveys, and preparation of a Bat Management Plan. The plan will incorporate and update recommendations from the 2015 focused bat survey and the 2017 Bat

Exclusion and Monitoring Plan (Rahn 2017) to reflect current site conditions and industry-standard bat exclusion protocols. With these measures in place, impacts to native wildlife nursery sites would be reduced to less than significant.

Operational Impact:
The project would not introduce permanent barriers to wildlife movement or alter the existing bridge structure in a way that impedes bat roosting or wildlife passage. No long-term operational impacts to wildlife movement or nursery sites are anticipated.

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

No Impact.

A project may result in a significant impact if it conflicts with adopted policies or ordinances designed to protect biological resources, such as municipal tree protection ordinances or designated SEAs.

The Survey Area is not located within or adjacent to a designated or proposed SEA. As confirmed in the biological technical report, no native oak trees or other species protected under the Los Angeles County Oak Tree Ordinance—or by the municipal codes of the cities of Pico Rivera or Santa Fe Springs—were observed within the Survey Area. Additionally, no trees protected under any local preservation policies or ordinances were identified during the biological reconnaissance survey. Therefore, the project would not conflict with any local policies or ordinances protecting biological resources, and no impact would occur.

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

No Impact.

A significant impact may occur if a project would conflict with an adopted HCP, NCCP, or similar regional planning effort for biological resources.

The literature review confirmed that the Survey Area is not located within the boundaries of any adopted HCP, NCCP, or other approved conservation plan. As such, the project would not conflict with any such plan, and no impact would occur.

3.4.3 Standard Conditions, Project Design Features, and Mitigation Measures

MM-BIO-1: **Worker Environmental Awareness Program**. Before construction begins, a Worker Environmental Awareness Program (WEAP) shall be developed. A qualified biologist experienced with the region's special-status biological resources shall present the WEAP to all personnel working in the Survey Area, whether temporarily or permanently, prior to the start of project activities. The WEAP shall cover topics including, but not limited to, the sensitive and special-status biological resources associated with the project (such as nesting birds and bats), project-specific measures to avoid or minimize impacts to these resources, consequences of noncompliance with project permits and agreements, and contact information

for the lead biologist. Records of personnel who have completed the training shall be maintained.

MM-BIO-2: **Biological Monitoring.** Although the potential for special-status species to occur on the project site is low, there remains a possibility that such species could be present on or adjacent to the site before project activities begin. To address this, a qualified biologist experienced in monitoring and identifying special-status biological resources known to occur in the area shall be present daily during fence removal and installation activities and vegetation removal activities including site clearing and grubbing. If no fence removal or installation, vegetation removal, or site clearing and grubbing occurs, no monitoring will be required.

The biological monitor's responsibilities shall include:

- Conducting worker education training to inform project personnel about special-status species and associated compliance measures.
- Verifying compliance with project permits.
- Ensuring that project activities remain confined to designated work areas.

The biological monitor shall maintain a daily log documenting general project activities, compliance with permit conditions, and any observed non-compliances. Non-compliance incidents will be recorded in the daily log, along with corrective measures taken. Representative photographs of daily activities will also be included in the documentation.

Additionally, the biological monitor shall perform daily biological clearance surveys (“sweeps”) at the start of each workday during fence installation and vegetation removal. These surveys will confirm the absence of special-status species in the work areas before activities commence. If no special-status species are observed during these sweeps, work activities may proceed.

If a special-status species is identified in the work area during a daily sweep or during monitoring duties, the biological monitor shall have the authority to halt project activities in the affected area to prevent injury or mortality to the species. Work may only resume once the risk to the individual has been mitigated and it is confirmed that the area is safe for project activities to continue.

MM-BIO-3: **Preconstruction Surveys for Crotch’s Bumble Bee.** Due to the presence of suitable nesting habitat within disturbed areas and minimal foraging resources, a single preconstruction survey for Crotch’s bumble bee shall be conducted prior to initial vegetation removal, fence removal and installation, and clearing and grubbing activities scheduled during the species’ flight season (February-October). This survey is only required if Crotch’s bumble bee remains a candidate species or becomes listed by the time of project implementation. The preconstruction survey shall follow CDFW survey recommendations (CDFW 2023) or the most recent CDFW-approved survey protocol, including the avoidance and minimization measures outlined below:

- Preconstruction Crotch's Bumble Bee Survey during Flight Season. Prior to ground disturbances during the Crotch's bumble bee flight season (February – October) that would impact potentially suitable nectaring and nesting habitat for Crotch's bumble bee, a flight/forage and nest search survey shall be conducted no more than 48 hours prior to initial vegetation removal and/or initial ground-disturbing activities by the Crotch's bumble bee-qualified lead biologist and survey team. The 48-hour preconstruction surveys shall be repeated as necessary if the Project does not begin with 48 hours of completion of the preconstruction survey.

- Protection of Occupied Crotch's Bumble Bee Habitat. Occupied Crotch's bumble bee habitat shall be defined as an active Crotch's bumble bee nest and its 50-foot buffer including any obvious foraging/flight corridors that provide connectivity to other onsite foraging patches or connectivity to offsite foraging areas that are necessary to support the nest colony. The outer limits of the occupied habitat shall be visibly flagged by the Crotch's bumble bee qualified biologist upon discovery and protected in place as an Environmentally Sensitive Area (ESA). The qualified Crotch's bumble bee biologist shall provide a notification with a map of the ESA to be protected in place to the Applicant/Contractor and CDFW within 24 hours of nest detection. The ESA shall be protected in place until the Crotch's bumble bee nest colony is no longer active.

- Biological Monitoring. A biological monitor shall be present during initial vegetation removal and fence installation activities that are scheduled to occur during the Crotch's bumble bee flight season (February – October) as stipulated in MM BIO-2. The biological monitor shall have the authority to temporarily stop work if impacts to a Crotch's bumble bee individual or Crotch's bumble bee active nest are likely to occur.

- CDFW Reporting and Coordination. If a CBB individual (alive or dead) is detected during preconstruction surveys or monitoring and the species is still legally protected under the California Endangered Species Act (CESA), CDFW shall be notified within 24 hours of detection as further coordination may be required to avoid or mitigate certain impacts and an Incidental Take Permit may be required.

MM-BIO-4: **Preconstruction Surveys for Burrowing Owl.** Preconstruction surveys for burrowing owls shall be conducted before initiating any ground-disturbing activities (e.g., vegetation removal, fence installation). Surveys shall follow the protocols outlined in the *Staff Report on Burrowing Owl Mitigation* (California Department of Fish and Game, 2012). Two surveys are required: the first survey must occur 14 to 30 days prior to ground disturbance, and the second survey must be conducted within 24 hours of the start of ground disturbance.

If no burrowing owls or signs of active burrow occupancy (e.g., whitewash, pellets, feathers, prey remains) are detected, project activities may proceed without restriction. However, if burrowing owls or active burrows are identified within the project work zone, a qualified burrowing owl biologist shall prepare a Burrowing Owl Management Plan in accordance with CDFW guidelines. This plan would specify additional protection measures, which may include:

- Coordination with CDFW if Candidate or listed species under the California Endangered Species Act are present;
- Additional surveys and monitoring of burrows within the project area using methods such as remote cameras;
- Establishment of non-disturbance buffers; and
- Biological monitoring during construction activities.

These measures aim to ensure compliance with applicable regulations and the protection of burrowing owls and their habitat.

MM-BIO-5: **Bat Mitigation.** The Project is scheduled to begin during the bat maternity season, which typically runs from April through August. The peak of the bat maternity season, when bat maternity colonies are most detectable during emergence surveys, occurs between May and July. Day-roosting bats (observed during the bat maternity season) and suitable bat roosting habitat are present on the Project site (Ultrasystems 2015; Rahn 2016, 2017; Watearth 2024a). Implementation of the following measures would minimize potential impacts to special-status bat species and bat maternity colonies:

- A focused bat emergence survey shall be conducted by a qualified bat biologist at the bridge structure during the peak of the bat maternity season in southern California (May through July). The focused bat emergence survey shall be conducted during the peak of the bat maternity season (May through July) during the year prior to the start of construction activities. The purpose of the focused bat emergence survey is to assess the current site conditions to adequately prepare a Bat Management Plan that includes a Bat Exclusion and Monitoring Plan. At a minimum, the focused bat emergence survey will assess the presence and type of bat roosting, size of the colony (colonies), species present, and the features of the bridge used for bat roosting. The focused bat emergence survey shall adhere to industry-standard protocols and survey methods for bat emergence surveys.
- A qualified bat biologist shall prepare a Bat Management Plan that includes a Bat Exclusion and Monitoring Plan. The Bat Management Plan shall be prepared after the focused bat emergence survey is complete and finalized before the start of Project activities. To reduce impacts to maternity colonies and special-status bat species, the Bat Management Plan shall include project-specific avoidance and minimization measures, including, but not limited to, a summary of previous surveys, current site conditions, bat emergence and pre-construction surveys (including acoustic monitoring), cliff swallow nest removal protocols, tree removal protocols, non-disturbance buffers, and timing and methodology for humane bat exclusion (including appropriate timing and details ensuring safety for bats and other wildlife). Additionally, if permanent impacts to maternity roosting habitat are expected, then species-specific replacement roosting habitat may be recommended in the Bat Management Plan to ensure no net loss of bat roosting habitat. If temporary impacts to maternity roosting habitat are expected, then temporary exclusion measures, a phased approach to bat exclusion and the establishment of non-disturbance

buffers and biological monitoring may be appropriate. If impacts are determined to be temporary, additional buffer zones for specific construction activities may be warranted and implemented, as recommended by the qualified bat biologist depending on the species documented during the focused bat emergence survey(s). The Caltrans Bat Mitigation Guide (Johnston et al. 2019) details additional buffer zones that can be used as guidelines during project activities. The Bat Management Plan and Bat Exclusion and Monitoring Plan shall be submitted to CDFW for review prior to the start of any bat exclusion activities. The Bat Management Plan will also include guidance from *Bat Mitigation: A Guide to Developing Feasible and Effective Solutions* (Johnston et al. 2019), established by Caltrans in 2019, as appropriate.

- Cliff swallow nest removal for bats: Bats are known to roost inside inactive cliff swallow mud nests. Therefore, if cliff swallow nest removal will be performed as part of the Project, nest removal shall be conducted outside of the bat maternity season but before the onset of seasonal torpor; this timeframe is typically September to October or when evening temperatures are not below 45 degrees Fahrenheit (°F) and rain is not over 0.5 inch in 24 hours, or between mid-February and March with the same parameters. Cliff swallow nest removal shall be performed under the direct supervision of a biologist with a Specific Use Permit from CDFW to handle bats and in such a way that the nest is kept intact and not dropped to the ground until it can be inspected by the biologist. Swallow nest removal shall follow the guidance provided by the California Bat Working Group Bats in Swallow Nests resource (CBWG 2022).

- If trees are scheduled to be removed or modified (i.e., trimming) they shall be evaluated for their suitability as bat-roosting habitat by a qualified bat biologist. Trees that were determined to be suitable for bat roosting shall only be trimmed during seasonal periods of bat activity (September to October) or when evening temperatures are not below 45 °F and rain is not over 0.5 inch in 24 hours; or between mid-February and March with the same parameters. Additional details of the two-step tree removal process shall be outlined in the Bat Management Plan.

- If bat exclusion from the bridge is necessary, then, following CDFW's review of the Bat Management Plan and Bat Exclusion and Monitoring Plan, a qualified bat biologist will directly oversee the contractor's implementation of the bat exclusion process from the bridge. Exclusion can be overseen by a qualified bat biologist; however, a permitted bat biologist should be retained in the event that handling of bats is required during the exclusion effort. Ideally exclusion will occur in the fall the year prior to the anticipated start of construction. The precise methods and materials for exclusion will be outlined in the Bat Exclusion and Monitoring Plan, but exclusion will generally involve the installation of one-way doors and the sealing of roosting habitat that has been determined to be unoccupied by the qualified bat biologist in order to humanely exclude bats from the bridge prior to construction. To reduce impacts to roosting bats and avoid direct mortality of bats, bat exclusion shall not occur during the bat maternity season (April-August) or during the bat inactive/hibernation season (typically between November–February; however, bat inactive/hibernation season is contingent upon weather conditions during

this time period (when forecast nighttime temperatures reach 45°F or lower and rain is not over 0.5 inch in 24 hours).

- Immediately prior to exclusion, a qualified bat biologist will conduct a pre-construction emergence survey with acoustic monitoring, following industry-standard protocols and survey methods. The emergence survey will determine if there are any changes in bat usage at the bridge prior to the start of exclusion activities.

- Following the implementation of all avoidance, minimization, and exclusionary measures in the project-specific Bat Management Plan and Bat Exclusion and Monitoring Plan, a qualified bat biologist shall conduct a final inspection of the bridge. This inspection will confirm that bats have been successfully excluded in accordance with the timing and methods outlined in the plans. Project activities may commence only after the biologist confirms the exclusion process has successfully been completed. A qualified biologist will conduct regular inspection of bat exclusion materials to ensure they are intact, particularly following storm events.

- If permanent impacts to maternity roosting habitat are expected, then species-specific replacement roosting habitat or alternate roosting habitat may be recommended in the Bat Management Plan. Impacts to bat roosting sites are considered temporary when it is less than one year before ambient or baseline conditions (available roosting space) are restored following project completion. In this case, replacement roosting habitat may not be necessary. A loss of bat roosting habitat for a period of one year or greater is generally considered a permanent impact to a bat roost (Johnston et al. 2019).

- If permanent impacts to maternity roosting habitat are expected, installation of species-specific replacement roosting habitat would be required to ensure no net loss of bat roosting habitat occurs as a result of the project. Replacement or alternative roosting habitat will be installed as far in advance of the bat maternity season as possible, but no less than 90 days prior to the implementation of exclusion activities. If found necessary, replacement roosting habitat shall be installed before impacts to maternity roosting habitat on the bridge would occur so the excluded bats have an alternate roosting location to utilize. In the event that replacement roosting habitat is installed, the replacement roosting habitat shall be monitored for success and reports submitted annually to CDFW for a period of performance standards established in the Bat Management Plan.

MM-BIO-6: **Nesting Bird Management Plan.** The Project is scheduled to begin during the bird and raptor nesting season, which typically runs from February 1 through August 31. Additionally, cliff swallow mud nests were identified on the underside of the bridge structure, and because of their strong site fidelity, cliff swallows will return year after year to nest in existing mud nests they built during previous nesting seasons. Because the Project is scheduled to begin during the bird and raptor nesting season, nest exclusion methods and devices may need to be implemented during the non-nesting season for the Project to comply with the

federal MBTA and California Fish and Game Code (Sections 3503, 3503.5, 3800, and 3513) and to prevent Project schedule delays due to nesting activity, Therefore, a Nesting Bird Management Plan shall be prepared by a qualified biologist no more than 1 year before the start of construction activities. The Nesting Bird Management Plan shall include, but not be limited to:

- Recommendations and guidance on implementing nest exclusion methods or devices to discourage or prevent nesting activity on the bridge prior to the start of project activities. Exclusion methods or devices shall be implemented during the non-nesting season (September 1 through January 31). Exclusion methods and devices shall be identified based on current site conditions as well as on industry standards for bird and raptor safety at the time the Nesting Bird Management Plan is developed. Detailed protocols for cliff swallow nest removal shall be included as part of the nest exclusion section of the Nesting Bird Management Plan.

- The timing and methods of preconstruction nesting bird and raptor surveys, A preconstruction nesting bird and raptor survey would need to be conducted within the Project work areas and adjacent areas containing suitable nesting habitat no more than three days prior to the start of initial Project activities conducted during the nesting bird season (typically February 1 through August 31). The preconstruction nesting bird and raptor survey would need to be repeated if work ceases in an area for more than two weeks or before moving into a new portion of the Project area that has not yet been disturbed by Project activities.

- Nest monitoring methods and timing. Should an active bird or raptor nest be identified within or adjacent to the Project area during preconstruction surveys, the Nesting Bird Management Plan would outline the frequency that nest monitoring would need to be performed in order determine nest status and success or failure. Minimum qualifications of the monitoring biologist shall be included in the Nesting Bird Management Plan. The section discussing nest monitoring methods and timing in the Bird Management Plan shall also include discussion on methods and timing for removal of any nondisturbance buffers based on nest monitoring results.

- Project-specific recommendations to minimize impacts to nesting birds and raptors, should any active nests be identified during preconstruction surveys, such as the implementation of appropriate nondisturbance buffers. Nondisturbance buffer size would be determined by the Project biologist based on nest location, proposed work activities, and species' tolerance of anthropogenic influences.

A reporting schedule, including an outline that establishes the appropriate situations and requirements for coordination with relevant wildlife agencies.

3.5 Cultural Resources

	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant	No Impact
Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to California Code of Regulations, Title 14, Section 15064.5?	☐	☐	☐	☒
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to California Code of Regulations, Title 14, Section 15064.5?	☐	☐	☐	☒
c) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☐	☒

The information presented in this section is summarized from the Cultural Resources Assessment Report (ECORP, 2025b). The full report is included as Appendix D of this IS/MND. In addition, as described in Section 3.18, Tribal Cultural Resources, Public Works conducted consultation with culturally affiliated Native American tribes as part of environmental review under CEQA, which was used to support this section.

3.5.1 Existing Environment

Cultural Resources Study Area

The cultural resources study area includes the areas where historic properties may be directly or indirectly affected by project-related activities. The cultural resources study area for this project was drawn to cover the area of approximately 10.11 acres where all project work and staging activities would occur. *(See Figure 3.5-1: Project's Area of Potential Effects)*. The study area also encompasses the approximately 1000-foot-long extent of the San Gabriel River Channel (constructed circa the 1940s), which lies under the Slauson Avenue Bridge.

Historic Resources Identification

ECORP Archaeologist Robert Cunningham conducted a records search for the project at the CHRIS South Central Coastal Information Center (SCCIC) at California State University, Fullerton. The records search included a review of all previously recorded cultural resources and previous cultural resources studies within a 0.5-miles radius of the cultural resources study area. The records search results indicate that no cultural resources have been previously recorded within the 0.5-miles records search radius. This portion of the San Gabriel River Channel has not been subjected to previous surveys or evaluations.

Figure 3.5-1 Cultural Resources Study Area

The California NAHC maintains a confidential Sacred Lands File (SLF), which contains sites of traditional, cultural, or religious value to the Native American community. ECORP contacted the NAHC on July 10, 2024, to request a search of the SLF. The NAHC responded to the request in a letter dated July 23, 2024. The results of the SLF search of the cultural resources study area were negative.

California AB 52 consultation was conducted by Public Works as part of environmental review under CEQA. This consultation constitutes coordination with culturally affiliated Native American tribes as part of the identification effort. More detailed information on the Native American consultation is presented in Section 3.17,Tribal Cultural Resources, of this IS/MND.

ECORP examined historic topographic maps and aerial photographs to provide historic land use information about the cultural resources study area and vicinity. This review indicated a realignment of the San Gabriel River in the late-19th or early-20th centuries. The cultural resources study area was otherwise unchanged through the first half of the 20th century, but it changed significantly due to urban road, flood control, and residential development after the 1950s.

ECORP conducted an intensive pedestrian survey on August 29, 2024. No archaeological resources were encountered during the survey of the cultural resources study area. A feature of the San Gabriel River Channel, a historic-era survey benchmark, was recorded during the survey effort.

Three previously documented historic-period built resources (Slauson Avenue Bridge, the Atchison, Topeka, & Santa Fe [AT & SF]/BNSF Railroad, and the Southern Pacific/UPRR) and one newly documented historic-period built resource (San Gabriel River Channel) were encountered in the cultural resources study area. The Slauson Avenue Bridge has already been evaluated as ineligible for the NRHP. Although segments of the two railroads are located within the cultural resources study area, none of the proposed project activities would have direct or indirect impacts to the resources, and they will be protected in place; therefore, no additional evaluation effort is required.

The San Gabriel River Channel was previously evaluated in 2019 as part of the cultural resources study for the I-605 Corridor Improvement Project by Caltrans and Los Angeles County Metropolitan Transportation Authority (Metro) assumed the entirety of the San Gabriel River Channel to be eligible for the NRHP under Criterion A as a contributing element to the larger potential Los Angeles Flood Control District. The 2019 report did not evaluate the San Gabriel River Channel for individual eligibility, and an official Los Angeles Flood Control District has not been created. Because the San Gabriel River Channel is present within the cultural resources study area, ECORP evaluated the channel individually using NRHP criteria. The channel was not listed in the California Office of Historic Preservation’s Built Environment Resource Directory (BERD) for Los Angeles County and was not identified in the SCCIC Record Search as having been previously recorded or evaluated.

ECORP used the results of the pedestrian survey and focused archival research to inform the NRHP eligibility evaluation of the San Gabriel River Channel. ECORP evaluated the San Gabriel River Channel and found it eligible for the NRHP under Criterion A as a critical component of the greater Los Angeles County Flood Control system; therefore, the San Gabriel River Channel is considered a Historic Property for purposes of Section 106 of the National Historic Preservation Act (NHPA) and the California Register of Historical Resources (CRHR). The San Gabriel River

Channel was not found eligible as part of a local district because no known Historic District currently exists.

3.5.2 Impact Analysis

a) Would the project cause a substantial adverse change in the significance of a historical resource pursuant to California Code of Regulations Section 15064.5?

No Impact.

A significant impact would result if the project caused a substantial adverse change to the significance of a historical resource, as defined in PRC Section 15064.5. For historical resources, thresholds for a significant impact include the following:

- Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register; or
- Demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources pursuant to Section 5020.1(k) of the PRC or its identification in an historical resources survey meeting the requirements of Section 5024.1(g) of the PRC, unless the public agency reviewing the effects of the project establishes by a preponderance of the evidence that the resource is not historically or culturally significant; or
- Demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for inclusion in the California Register as determined by a lead agency for purposes of CEQA.

Construction Impact
As described in Section 3.5.1, three previously documented historic-period built resources are present within the cultural resources study area: the Slauson Avenue Bridge, the AT&SF/BNSF Railroad, and the Southern Pacific/UPRR. The bridge has previously been evaluated and determined ineligible for the NRHP. No direct or indirect impacts to the railroads would occur as part of the proposed project; they would remain in place and be protected during construction.

The San Gabriel River Channel has been evaluated and determined eligible for the NRHP under Criterion A as a contributing element of the Los Angeles County Flood Control system. Therefore, it is considered a historical resource under CEQA. However, the proposed retrofit activities would occur entirely above the river channel, using suspended scaffolding platforms supported by the bridge piers. No in-channel grading, excavation, or work on the levees or riverbed would occur. Access would be limited to rubber-tired equipment during the dry season, and no water diversion is proposed.

The project has been designed to avoid physical alteration of the river channel and would not affect its character-defining features. Construction materials may be temporarily staged in adjacent parcels or on the bridge deck and lowered with a crane, but not stored within the channel. All equipment would be removed daily, and no overnight parking would occur in the riverbed.

Because the river channel would be protected in place, and no visual or structural changes would occur to its contributing features, the project would not cause a substantial adverse change in the significance of this historic resource under CEQA. Therefore, no impacts to historic resources would occur.

Operational Impact
The completed retrofit would not result in any permanent modifications to the San Gabriel River Channel or other historical resources within the cultural resources study area. All structural improvements would occur on the bridge itself and would not alter the setting, materials, design, or character-defining features of the San Gabriel River Channel. No long-term land use changes, visual intrusions, or access restrictions would occur. Therefore, there would be no impacts to historical resource.

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

No Impact.

A significant impact would occur if the project caused a substantial adverse change in the significance of an archaeological resource, as defined in CEQA Guidelines Section 15064.5. A substantial adverse change includes the disturbance, damage, or degradation of an archaeological resource or its setting.

Construction Impact:
A records search conducted through the SCCIC, along with a SLF search by the NAHC, yielded no known archaeological resources within the cultural resources study area or the surrounding 0.5-miles radius. ECORP conducted a pedestrian field survey in August 2024, which also did not identify any surface-level archaeological resources. The project area is heavily disturbed due to past construction of the flood control channel and surrounding development. Soils within the cultural resources study area have already been modified, and the current project does not involve any subsurface excavation or grading. Work will occur above ground or on previously disturbed surfaces. Since the project does not involve ground-disturbing activities such as grading or excavation, no impact to archaeological resources would occur.

Operational Impact:
The completed project would involve no long-term ground disturbance or changes to land use that could affect archaeological resources. Since the project does not result in any subsurface work or future activities with archaeological implications, there would be no operational impact to archaeological resources.

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

No Impact.

A significant impact would occur if grading or excavation activities associated with the proposed project disturbed interred human remains.

Construction Impact:
No known human remains or cemeteries have been identified within the cultural resources study area. The CHRIS records search, SLF search by the NAHC, and the pedestrian field survey conducted by ECORP in August 2024 did not identify any prehistoric or historic burials in or near the project area. Additionally, the project does not involve ground-disturbing activities such as grading or excavation. Construction access would be limited to existing paved roads and the earthen channel bottom, and work would occur above ground using suspended scaffolding supported by bridge piers. As a result, there would be no likelihood of encountering human remains.

In the event that human remains are inadvertently encountered during construction activities, such resources would be treated in accordance with state and local regulations that provide requirements with regard to the accidental discovery of human remains, including California Health and Safety Code Section 7050.5, California Public Resources Code Section 5097.98, and CEQA Guidelines Section 15064.5(e). In accordance with these regulations, if human remains are found, the County Coroner must be immediately notified of the discovery. No further excavation or disturbance of the project site or any nearby area reasonably suspected to overlie adjacent remains can occur until the County Coroner has determined, within two working days of notification of the discovery, the appropriate treatment and disposition of the human remains.

If the County Coroner determines that the remains are, or are believed to be, Native American, he or she is required to notify the NAHC within 24 hours. The NAHC must immediately notify those persons it believes to be the most likely descendant (MLD) from the deceased Native American. The MLD must then complete their inspection within 48 hours of being granted access to the site. The MLD would then determine, in consultation with the property owner, the appropriate disposition of the human remains.

Compliance with these regulations would ensure that there would be no impacts to human remains resulting from the proposed project.

Operational Impact:
The completed project would not involve any future ground disturbance that could affect buried resources. Therefore, there would be no potential for operational impacts related to human remains.

3.5.3 Standard Conditions, Project Design Features, and Mitigation Measures

No standard conditions, project design features, or mitigation measures are required. Potential impacts to historical and archaeological resources would be avoided through the project's construction methods, which do not involve subsurface disturbance. In the unlikely event that human remains are discovered during construction, the project would comply with applicable state and local regulations governing the treatment and disposition of human remains.

3.6 Energy

	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant	No Impact
Would the project:				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☒	☐
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☐	☒

3.6.1 Environmental Setting

Southern California Edison (SCE) is the electric utility provider for the area surrounding the Slauson Avenue Bridge. SCE serves approximately 15 million customers across a 50,000-square-mile area in central, coastal, and southern California. According to the California Energy Commission (CEC), SCE customers consumed approximately 85.9 billion kilowatt-hours of electricity in 2022. SCE generates electricity using a mix of sources, including natural gas, hydropower, nuclear, solar, and fossil fuels, and has committed to achieving net-zero greenhouse gas emissions by 2045 (CEC 2024a).

Southern California Gas Company (SoCalGas) distributes natural gas in the project area. The 2024 California Gas Report notes that SoCalGas delivered natural gas through more than 3,166 miles of transmission pipelines, interconnected storage fields, and distribution infrastructure in 2023 (CEC 2024b).

3.6.2 Impact Analysis

a) Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Less than Significant Impact.
A significant impact would occur if the project resulted in the wasteful, inefficient, or unnecessary consumption of energy resources, including electricity, natural gas, or petroleum-based fuels, during construction or long-term operation.

Construction Impact:
During construction, temporary electricity may be supplied by SCE for as-needed lighting, hand tools, and other minor electronic equipment. The project does not require substantial electric loads or off-grid power sources, and energy use would be limited to typical construction demands. Retrofitting the bridge would not require natural gas. Construction vehicles and non-electric

equipment would operate on diesel or gasoline. In addition, material hauling and construction traffic would generate temporary fossil fuel use through worker commutes and equipment operation.

Based on the labor and equipment plan estimated by Public Works, approximately 50 truck trips would be required to deliver materials such as concrete and steel. An average of 15 workers would travel to the site daily from approximately 30 miles away. These levels of activity are typical for a small-scale public works project and would not represent inefficient or unnecessary fuel consumption. Construction access would be limited to existing paved roads and the earthen channel bottom using rubber-tired equipment. No equipment would be left idling or stored overnight in the channel.

Operational Impact:
Once the retrofit is complete, the bridge would continue to operate and be maintained as it currently does. Periodic inspections or maintenance may involve fossil-fuel-powered vehicles, but no permanent energy demand would be introduced. The project would not increase vehicle use, change traffic flow, or introduce lighting or electrically powered infrastructure. Operational energy use would remain negligible.

In summary, the project would not result in wasteful, inefficient, or unnecessary consumption of electricity, natural gas, or fuel during either construction or operation. Impacts would be less than significant.

b) Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

No Impact.

The project would not conflict with or obstruct any state or local plans for renewable energy or energy efficiency, including the goals of the California Energy Efficiency Strategic Plan or Southern California Association of Governments (SCAG's) 2024 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). The project involves seismic safety upgrades to an existing bridge and would not generate long-term energy demand, affect renewable energy production, or interfere with energy-related planning goals. No impact would occur.

3.6.3 Standard Conditions, Project Design Features, and Mitigation Measures

No standard conditions, project design features, or mitigation measures are required.

3.7 Geology and Soils

	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant	No Impact
Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☒
ii) Strong seismic ground shaking?	☐	☐	☐	☒
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☐	☒
iv) Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☐	☒
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☐	☒
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	☒

3.7.1 Existing Environment

The geologic conditions within the San Gabriel River flood control channel at the project site consist primarily of Xeropsamments complex soils, which have slopes ranging from 0 to 2 percent. According to the United States Department of Agriculture (USDA), Xeropsamments are typically composed of weatherable minerals, primarily sandy feldspars—rock-forming minerals rich in potassium, sodium, and calcium (USDA 2024). Soils in the channel include fine sand, medium to coarse sand, silty sand, and sandy gravel, all of which are well-drained, have high infiltration rates, and exhibit low runoff potential (UC Davis,2024).

Surrounding the flood control channel, the USDA classifies the area as Urban Land–Hueneme, Drained–San Emigdio complex, also with slopes of 0 to 2 percent.

The Slauson Avenue Bridge is located approximately 3.5 miles east of the Whittier–Elsinore Fault, which is capable of producing a magnitude 7.5 earthquake. The project site is situated within the Whittier Liquefaction Zone, although the risk of liquefaction at the site is considered low due to the sandy composition of the soils and low groundwater elevation. However, if groundwater levels rise in the future, the potential for liquefaction could increase during a seismic event.

3.7.2 Impact Analysis

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

i) Rupture of a known earthquake fault, as delineated on the most recent Alquist- Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?

No Impact.

A significant impact would occur if the project were located within an Alquist-Priolo Earthquake Fault Zone or directly over a known active fault, where surface rupture could occur. The project site is located in a seismically active region, which is typical of Southern California; however, it is not situated within or adjacent to an Alquist-Priolo Earthquake Fault Zone, and no known active faults traverse the project area. The purpose of the project is to seismically retrofit an existing bridge, thereby improving its performance and public safety in the event of a major earthquake. No impact related to surface rupture from the proposed project is anticipated.

ii) Strong seismic ground shaking?

No Impact.

A significant impact would occur if the project increased the risk of injury or damage due to strong seismic ground shaking. The project area is susceptible to regional seismic activity. However, the proposed seismic retrofit would strengthen the Slauson Avenue Bridge in accordance with current Caltrans Bridge Design Specifications and Seismic Design Criteria, reducing the structure's vulnerability to earthquake-induced shaking.

Construction Impact:
Temporary construction activity would not increase the risk of damage or injury related to seismic shaking. Therefore, no impact related to seismic ground shaking would occur.

Operational Impact:
Once completed, the retrofitted bridge would be more resilient during seismic events. Therefore, no impact related to seismic ground shaking would occur.

iii) Seismic-related ground failure, including liquefaction?

No Impact.

A significant impact would occur if the project increased the potential for liquefaction or related ground failure. Although the site is located within the Whittier Liquefaction Zone, the sandy soils and low groundwater table make the risk of liquefaction relatively low under existing conditions.

Construction Impact:
The project would not involve ground disturbance or subgrade construction, and no water diversion is proposed. Work would occur above the riverbed or on the bridge deck, with rubber-tired access only. Therefore, there would be no impact related to seismic-related ground failure, including liquefaction.

Operational Impact:
The retrofit would improve seismic safety by reinforcing key bridge components. As such, the project would not increase the risk of seismic-related ground failure. Therefore, there would be no impact related to seismic-related ground failure, including liquefaction.

iv) Landslides?

No Impact.

A significant impact would occur if the project were located in or near steep terrain or unstable slopes prone to landslides. The project site is within a flat, urbanized area and does not contain or abut any steep hillsides or unstable slopes.

Construction and Operational Impact:
The project does not involve grading, cutting, or slope modification and would not introduce geologic instability. Therefore, there would be no impact related to landslides.

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

Less than Significant Impact.

A significant impact would occur if project activities such as grading, excavation, or vegetation removal resulted in substantial erosion or the permanent loss of topsoil.

Construction Impact:
The proposed bridge retrofit would not involve excavation, grading, or any other soil-disturbing activity that could result in substantial erosion. The project will use a suspended scaffolding system supported by the existing bridge structure to complete retrofit work beneath the bridge. No water diversion or dewatering is proposed. Construction equipment may access the channel bottom during dry conditions, but only rubber-tired vehicles would be used, and no vegetation would be removed.

All construction access within the channel would be temporary and limited to compacted or already disturbed surfaces. Construction materials will be staged outside the channel and

removed daily. The project does not include any foundation work, pier modification, or soil displacement in or around the riverbed.

Although ground disturbance is minimal, the construction contractor may be required to prepare a Stormwater Pollution Prevention Plan (SWPPP) and implement Best Management Practices (BMPs) consistent with the Public Works BMP Manual. These practices will ensure that any potential for erosion or sedimentation is properly controlled.

Operational Impact:
The completed project will not introduce new surfaces, land uses, or drainage changes that could lead to erosion. The bridge will continue to function as it does currently, with no additional runoff or soil exposure generated by the retrofit.

Therefore, with BMPs and erosion controls in place during construction, and no changes to land use or drainage post-construction, impacts related to soil erosion or topsoil loss would be less than significant.

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?

No Impact.

A significant impact would occur if the project were located on, or triggered the instability of, a geologic unit or soil type prone to failure—such as through landslides, lateral spreading, subsidence, liquefaction, or collapse.

Construction Impact:
The project site is located in a relatively flat area underlain by Xeropsamments complex soils, which are well-drained, sandy, and not prone to shrink-swell or collapse. Although the site lies within a designated liquefaction zone, the risk of liquefaction is low due to the site's soil type and low groundwater levels. The proposed construction would not involve excavation, soil removal, or changes in load-bearing conditions that could induce instability. All activities would take place either on the bridge deck or via suspended scaffolding and rubber-tired vehicle access within the dry riverbed, without driving piles, altering slopes, or disturbing subgrade materials. Therefore, there would be no impact related to soil instability.

Operational Impact:
The project involves seismic retrofitting of an existing bridge to current design standards. Once complete, the structure would be more resilient to seismic ground shaking and associated effects such as liquefaction, lateral spreading, and subsidence. The project would not result in any long-term soil or geologic instability.

Therefore, the project would not be located on or create conditions that would cause unstable soils or geologic hazards. Therefore, there would be no impact related to soil instability.

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

No Impact.

A significant impact would occur if the project were located on expansive soils that could undergo significant volume change (shrink or swell) due to moisture fluctuations, thereby posing structural risks.

The project site is underlain by Xeropsamments complex soils, which are primarily sandy and well-drained, with a low clay content. These soils are not considered expansive and do not exhibit shrink-swell behavior typically associated with structural instability. The project does not involve excavation, grading, or foundation work that would interact with subgrade conditions in a way that could trigger or exacerbate expansive soil behavior.

Once complete, the bridge would continue to function as it does today. No new foundations or structures would be constructed, and no future ground disturbance is anticipated. Therefore, the project would not create direct or indirect risks related to expansive soils during operation.

As the project would not be located on or affected by expansive soils, and no grading or structural foundations are proposed, there would be no impact.

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

No Impact.

A significant impact would occur if the project required the installation of septic systems or other wastewater treatment systems in areas where soils are unsuitable to support such systems.

The proposed project does not include any use or installation of septic tanks, leach fields, or alternative wastewater disposal systems. No habitable structures or restrooms are proposed as part of the bridge retrofit. Therefore, the project would not rely on soil suitability for wastewater disposal, and no impact would occur.

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

No Impact.

A significant impact would occur if the project involved subsurface excavation or grading that could disturb paleontological resources or geologic features of scientific interest.

The project would not involve any excavation, grading, or earth-moving activities. All work would occur on the bridge deck, suspended scaffolding, or via surface-level access by rubber-tired equipment during dry conditions. As such, there is no potential to encounter or disturb subsurface paleontological resources or unique geologic features.

3.7.3 Standard Conditions, Project Design Features, and Mitigation Measures

The construction contractor will be required to prepare a SWPPP, if necessary, and implement BMPs in accordance with the Public Works BMP Manual to control erosion and prevent sediment

discharge during construction. No additional standard conditions, project design features, or mitigation measures are required.

3.8 Greenhouse Gas Emissions

	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant	No Impact
Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b) Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☐	☒

3.8.1 Environmental Setting

Greenhouse Gas (GHG) emissions refer to a group of gases that are generally believed to affect global climate conditions. The greenhouse effect characterizes the Earth and its atmosphere to a greenhouse with glass panes. The glass panes in a greenhouse let heat from sunlight in and reduce the amount of heat that escapes. GHGs, such as carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O), keep the average surface temperature of the Earth close to 60°F. Without the natural greenhouse effect, the Earth's surface would be approximately 61°F cooler.

In addition to CO_2, CH_4, and N_2O, GHGs include hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF_6), black carbon (black carbon is the most strongly light-absorbing component of particulate matter emitted from burning fuels such as coal, diesel, and biomass), and water vapor. CO_2 is the most abundant pollutant that contributes to climate change through fossil fuel combustion. The other GHGs are less abundant but have higher global warming potential than CO_2. To account for this higher potential, emissions of other GHGs are frequently expressed in the equivalent of CO_2, denoted as carbon dioxide equivalent (CO_2e). CO_2e is a measurement used to account for the fact that different GHGs have different potential to retain infrared radiation in the atmosphere and contribute to the greenhouse effect. This potential, known as the global warming potential (GWP) of a GHG, is dependent on the lifetime, or persistence, of the gas molecule in the atmosphere. The GWPs for gases were used to compare the global warming impacts of different GHGs. The GWP indicates how much energy emissions of one ton of a GHG will absorb over a given period, relative to emissions of one ton of CO_2. A 100-year period is usually used in estimating the GWP. Table 3.8-1 provides the 100-year GWPs of the primary GHGs as provided in the Intergovernmental Panel on Climate Change Sixth Assessment Report (IPCC 2023).

Table 3.8-1: Global Warming Potential (GWP) Relative to CO_2

Chemical Name	Formula	100-year Global Warming Potential (GWP)			
		Second Assessment Report (SAR)	Fourth Assessment Report (AR4)	Fifth Assessment Report (AR5)	Sixth Assessment Report (AR6)
Carbon Dioxide	CO_2	1	1	1	1
Methane	CH_4	21	25	28	27
Nitrous Oxide	N_2O	310	298	265	273

Source: Intergovernmental Panel on Climate Change (IPCC)

GHGs are the result of both natural and human-influenced activities. GHG emissions are produced both by natural processes (e.g., volcanic activity, decomposition, wildfires) and by anthropogenic sources (e.g., transportation, energy production, industrial activity, agriculture, and landfills). Without human activity, the Earth would maintain an approximate but varied balance between the emission of GHGs into the atmosphere and the storage of GHG in oceans and terrestrial ecosystems. Increased combustion of fossil fuels, including coal, has contributed to a rapid increase in atmospheric levels of GHGs over the last 150 years.

Table 3.8-2 shows California's annual statewide GHG emissions inventory from 2010 to 2021 tracked by CARB in its *2023 Edition of the California GHG Emissions Inventory for 2000–2021* (CARB 2023b). The GHG emissions inventory provides GHG emissions estimates of CO_2, CH_4, N_2O, HFCs, PFCs, SF_6, and nitrogen trifluoride (NF_3) for anthropogenic sources.

The transportation sector represents California's largest source of GHG emissions and contributed 38 percent of total annual emissions in 2021. Since 2013, emissions from the transportation sector have increased, but the long-term trend of transportation-related GHG emissions is generally declining with an 11 percent drop over the past decade. Of note is that between October 23, 2015, and February 18, 2016, an exceptional natural gas leak event occurred at the Aliso Canyon natural gas storage facility that resulted in unexpected GHG emissions of considerable magnitude. This exceptional incident released approximately 109,000 metric tons of CH_4, which equated to approximately 1.96 million metric tons of CO_2 equivalents ($MTCO_2e$) of unanticipated emissions in 2015 and an additional 0.52 million $MTCO_2e$ in 2016. According to CARB, these emissions will be mitigated in the future through projects funded by SoCalGas based on a legal settlement and are presented alongside, but tracked separately, from routine inventory emissions.

Table 3.8-2: California Greenhouse Gas Emissions Inventory

Sector	Annual CO_2e Emissions (Million Metric Tons)											
	2010	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**
Transportation	162.9	159.5	156.9	157.0	157.7	161.5	165.2	166.6	165.3	162.4	135.8	145.6
Industrial	87.8	85.8	80.7	83.0	85.2	83.2	81.6	81.7	81.9	80.4	73.3	73.9
Electric Power	90.3	89.2	98.9	93.4	89.8	86.0	70.4	64.2	65.0	60.2	59.5	62.4
Commercial and Residential	46.0	46.0	39.2	39.1	35.6	36.3	37.2	37.6	37.4	40.5	38.7	38.8
Agriculture	33.6	34.2	35.2	33.9	33.9	32.6	32.2	31.7	32.2	31.4	31.6	30.9
High GWP Emissions	13.5	14.5	15.5	16.8	17.7	18.6	19.4	20.1	20.5	20.7	21.3	21.3
Recycling and Waste	8.1	8.2	8.2	8.3	8.3	8.4	8.5	8.6	8.7	8.8	8.9	8.4
Total	**442.3**	**437.6**	**434.7**	**431.5**	**428.2**	**426.6**	**414.4**	**410.6**	**411.0**	**404.5**	**369.2**	**381.3**

Source: CARB 2000 – 2021 GHG Emissions Trends Report Data (2023 Edition)

The CEQA Guidelines require lead agencies to adopt GHG thresholds of significance. When adopting these thresholds, the amended guideline allows lead agencies to consider thresholds of significance adopted or recommended by other public agencies, or recommended by experts, provided that the thresholds are supported by substantial evidence, and/or to develop their own significance threshold. The SCAQMD has not officially adopted a quantitative threshold value for determining the significance of GHG emissions that will be generated by projects under CEQA. The SCAQMD published the Draft Guidance Document – Interim CEQA Greenhouse Gas Significance Threshold in October 2008.

The SCAQMD convened a GHG CEQA Significance Threshold Stakeholder Working Group beginning in April 2008 to examine alternatives for establishing quantitative GHG thresholds. The Working Group proposed a 10,000 $MTCO_2e$ per year threshold for industrial source projects and a 3,000 $MTCO_2e$ annual threshold for commercial or residential source projects, including mixed-use. Although SCAQMD's 3,000 $MTCO_2e$/year threshold remains draft guidance, many local jurisdictions and consultants treat it as a screening threshold for plan-level consistency under CEQA. Per SCAQMD, projects below these significance criteria have a minimal contribution to cumulative global emissions and are considered to have less-than significant impacts.

3.8.2 Impact Analysis

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

Less than Significant Impact.

A significant impact would occur if the proposed project generates GHG emissions that exceed the applicable regional threshold or otherwise conflict with efforts to reduce statewide emissions. The CARB identifies CO_2, CH_4, and N_2O as the primary GHGs contributing to global climate change. To assess significance, SCAQMD recommends a screening threshold of 3,000 metric tons of CO_2 equivalent ($MTCO_2e$) per year for construction and land use projects.

Construction Impact:
GHG emissions from the proposed bridge retrofit project would be generated by diesel- and gasoline-powered off-road construction equipment, material hauling trucks, and worker commute vehicles. Based on a construction period of approximately 126 working days (6 months × 4.2 weeks/month × 5 days/week), total construction-related GHG emissions are estimated at 550 $MTCO_2e$, which is well below SCAQMD's 3,000 $MTCO_2e$ threshold (see detailed calculations in Appendix B). Therefore, the impact would be less than significant. No mitigation measures are required.

Operational Impact:
Upon completion, the bridge would resume normal operations as a four-lane arterial road with no increase in capacity, no induced vehicle trips, and no change to regional development patterns. Therefore, the project would not generate new operational GHG emissions. No long-term impact would occur.

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

No Impact.

A significant impact would occur if a project conflicted with a state, regional, or local plan adopted to reduce GHG emissions.

- Several plans and policies at the state and regional levels guide GHG reduction efforts in California:
- AB 32 (Global Warming Solutions Act of 2006) requires the state to reduce GHG emissions to 1990 levels by 2020.
- Senate Bill (SB) 32 builds on AB 32 and sets a more aggressive target of reducing GHG emissions 40 percent below 1990 levels by 2030.
- The CARB Scoping Plan outlines the regulatory and market-based strategies for achieving these targets.
- At the regional level, the SCAG adopted the 2024 RTP/SCS, which promotes compact development, multimodal transportation, and infrastructure resiliency as ways to reduce GHG emissions and vehicle miles traveled (VMT).

The proposed project involves the seismic retrofit of an existing transportation structure and does not introduce new vehicle capacity, induce traffic, or result in changes to land use. As such, it does not conflict with any applicable GHG-reduction plan or policy. Instead, by reinforcing critical infrastructure for seismic safety, the project supports long-term climate resilience and infrastructure durability—objectives shared by the Scoping Plan and RTP/SCS.

Therefore, the project would not conflict with any applicable plan, policy, or regulation adopted to reduce GHG emissions, and no impact would occur.

3.8.3 Standard Conditions, Project Design Features, and Mitigation Measures

No standard conditions, project design features, or mitigation measures are required.

3.9 Hazards and Hazardous Materials

	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant	No Impact
Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☒
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☐	☒

3.9.1 Existing Environment

The handling, storage, transport, and disposal of hazardous materials are regulated by several federal, state, and local agencies under a range of environmental and safety laws. The following are among the key regulatory frameworks relevant to this project:

- The Resource Conservation and Recovery Act (RCRA) governs the generation, transportation, treatment, storage, and disposal of hazardous waste at the federal level.
- The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) enables cleanup of contaminated sites and holds responsible parties liable.
- In California, the Department of Toxic Substances Control (DTSC) administers the state's hazardous waste management program, including oversight of cleanup and enforcement actions.
- The SWRCB's GeoTracker and the DTSC's EnviroStor systems track leaking underground storage tanks, cleanup sites, and hazardous material releases.
- The California Government Code Section 65962.5, also known as the "Cortese List," requires DTSC and other agencies to compile and maintain a list of hazardous materials sites that pose a potential threat to public health or the environment.
- Regionally, the SCAQMD regulates airborne releases of toxic materials.
- Locally, Los Angeles County Department of Public Works enforces hazardous materials handling protocols through its construction BMP standards and oversight of solid waste and stormwater compliance.

The hazardous materials and waste screening investigation prepared for this project is included in Appendix E (Parsons 2025).

An environmental database search was conducted by Environmental Data Resources, Inc. (EDR) on June 27, 2024, to identify hazardous materials sites and waste generators within a 1-mile radius of the project work area. The search included federal, state, tribal, and proprietary databases and was performed in accordance with ASTM Standard Practice for Environmental Site Assessments.

In addition, a GeoTracker search was conducted to identify leaking underground storage tanks (LUSTs) and cleanup sites, and a review of EnviroStor was conducted to identify sites under investigation, enforcement, or remediation. These reviews confirmed two active open cases within the search area, but none are located within the project work area or are expected to pose a risk given the nature of the project (i.e., no excavation or dewatering):

- Circle K gas station, South Pioneer Boulevard (~1,700 feet east): open LUST case.
- Former Burke Street Landfill, south of the bridge near potential staging area: Open Cleanup Program site.
- Other open record sites noted in EnviroStor include:

- Pico Rivera Plating, Inc., ~0.5 miles west-northwest, with elevated copper, lead, zinc, and petroleum hydrocarbons.
- BNSF Railroad (AT&SF) near Rosemead Boulevard, ~1 mile west-northwest, with potential lead contamination.
- None of these sites are expected to impact construction due to their distance from the project area and the absence of subsurface work.

Additional reviews included:

- California Geologic Energy Management Division's Well Finder (no oil or gas wells identified),
- National Pipeline Mapping System (no transmission pipelines present),
- Historical aerial photos, topographic maps, and city directories (no hazardous concerns identified).

A reconnaissance survey was conducted on July 12, 2024, to assess visible indicators of contamination and to inventory potential sources of hazardous materials near or within the project work area. Observations included:

- Wooden utility poles (possible creosote coating) and overhead transformers (potential for polychlorinated biphenyl [PCBs]).
- Transmission lines and towers along the eastern channel margin.
- Minor oil staining on the bridge deck.
- Concrete debris and trash piles east of the channel.
- Existing aboveground and underground utilities (e.g., traffic signals, storm drains, utility boxes) that may contain small quantities of hazardous components such as fluorescent tubes, PCB ballasts, mercury switches, or sensors.
- Rail lines and wooden railroad ties near and under the bridge that may be associated with creosote and heavy metal residues.

No major staining or contamination indicators were observed within the project work area, and the project does not involve any excavation that would disturb underlying materials.

3.9.2 Impact Analysis

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

Less than Significant Impact.

A significant impact would occur if the project involved the routine transport, use, or disposal of hazardous materials in a manner that poses a substantial risk to human health or the environment.

Construction Impact:
The proposed bridge retrofit would involve transporting and using typical construction materials such as steel rebar, concrete, scaffolding components, formwork, and minor amounts of adhesives, lubricants, or fuel. These materials may include small quantities of hazardous substances but would be used in accordance with standard industry practices. The project does not involve excavation, soil removal, or water diversion that could mobilize contaminated materials.

All hazardous materials and waste generated or encountered during construction would be handled, stored, transported, and disposed of in accordance with applicable federal, state, and local regulations, including but not limited to the California Code of Regulations Title 22, the Code of Federal Regulations Title 40, SCAQMD rules, and applicable provisions of the Greenbook (Standard Specifications for Public Works Construction).

Any potentially contaminated material (e.g., soil, concrete, ballast, or debris) that must be removed from the site would be evaluated and classified by a qualified environmental professional. If determined to be hazardous, a hazardous waste manifest would be prepared, and the material would be transported by a licensed hazardous waste hauler to a permitted disposal or treatment facility. All documentation would be retained for agency review.

These procedures ensure that hazardous materials would be properly managed and would not pose a significant risk to workers, the public, or the environment.

Operational Impact:
Following construction, the project would not involve the routine use or disposal of hazardous materials. The bridge would operate as it does under existing conditions, and no new sources of hazardous waste would be introduced.

Therefore, with standard regulatory compliance, the project would not result in significant hazards related to hazardous materials. Impacts would be less than significant.

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

Less than Significant Impact.

A significant impact would occur if the project involved activities that could result in the accidental release of hazardous materials, particularly under conditions that would pose a risk to nearby sensitive receptors, water resources, or construction workers.

Construction Impact:
The project would not involve excavation, grading, or demolition that could disturb the subsurface soils. Retrofit activities would occur on the bridge deck and substructure using suspended scaffolding, with temporary access by rubber-tired equipment in the dry river channel. No work would occur near the foundations or adjacent railroad rights-of-way. Although a few open contamination sites exist in the broader vicinity (e.g., a former landfill, a gas station, and plating facility), none are located within or adjacent to the project work area.

Minor quantities of hazardous materials, such as fuel, lubricants, or adhesives, may be present on-site during construction and could pose a risk in the event of accidental spills. However, these materials would be managed in compliance with federal, state, and local regulations, including

RCRA, California Code of Regulations Title 22, and SCAQMD Rule 1166 (if soil disturbance were ever required). In the event that any stained or potentially contaminated material is unexpectedly encountered, it would be classified by a qualified professional, and any hazardous waste would be managed in accordance with applicable regulatory standards. This includes preparing a hazardous waste manifest and using a licensed transporter to dispose of the material at an authorized facility.

Given the absence of excavation and the limited scale and duration of construction, the likelihood of accidental hazardous material release is low. Standard regulatory compliance would ensure that any accidental spills or releases are promptly contained and properly addressed.

Operational Impact:
The completed bridge would not introduce any hazardous uses or increase hazardous material transport. No additional operational risk would be created.

Therefore, the potential for reasonably foreseeable upset and accident conditions involving hazardous materials would be less than significant.

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

No Impact.

A significant impact would occur if the project involved the use, transport, or disposal of hazardous or acutely hazardous substances in proximity to a school, where potential emissions or exposure could pose a risk to students or staff.

Construction Impact:
The project would not emit hazardous air pollutants or handle acutely hazardous substances. While minor quantities of fuels, lubricants, or concrete-related materials may be present on site during construction, these materials would be used in accordance with applicable regulations and industry standards. Additionally, there are no existing or proposed schools within one-quarter mile of the project work area. As such, there would be no risk of exposing nearby school populations to hazardous emissions or materials during construction.

Operational Impact:
Once completed, the project would not alter the bridge's operational function or introduce any new uses involving hazardous materials. The bridge would continue to accommodate vehicular traffic as it does under existing conditions, with no increase in emissions or materials that could affect sensitive receptors such as schools.

Therefore, the project would not emit or handle hazardous substances near a school during either construction or operation, and no impact would occur.

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

No Impact.

A significant impact would occur if a project were located on a site included on the list of hazardous materials sites compiled pursuant to California Government Code Section 65962.5 (commonly

referred to as the Cortese List), which could pose a risk to human health or the environment due to known or suspected contamination.

To assess this potential, a hazardous materials database search was conducted for the project (Appendix E). The review included:

- An EDR search of federal, state, and local environmental databases within a 1-mile radius of the project work area,
- A review of the SWRCB's GeoTracker database for LUSTs and cleanup program sites, and
- A review of the Department of Toxic Substances Control's EnviroStor database for contaminated properties, enforcement actions, and hazardous waste tracking.

Although several hazardous materials sites were identified within the broader search radius, including a gas station with an open LUST case and a former landfill, none of the sites are located within or directly adjacent to the project work area, and none are listed on the Cortese List at the project site.

Additionally, because the project does not involve excavation, grading, or dewatering, there is no potential for the project to mobilize or expose subsurface contamination associated with any nearby listings.

As such, the project would not be located on or near a Cortese-listed site and would not create a significant hazard to the public or the environment. No impact would occur.

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.

A significant impact would occur if a project were located within the boundaries of an airport land use plan or within 2 miles of a public or public-use airport in a manner that would result in excessive noise exposure or create hazards for people living or working in the area.

The Slauson Avenue Bridge is not located within the boundaries of an airport land use plan and is not within 2 miles of a public or public-use airport. The nearest airports, such as Long Beach Airport and Los Angeles International Airport, are located well beyond the two-mile threshold.

The project involves seismic retrofit of an existing transportation structure and would not result in any building height increases, changes in airspace use, or other conditions that could affect airport operations or public safety.

Therefore, the project would not result in airport-related safety hazards or excessive noise, and no impact would occur.

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

Less than Significant Impact.

A significant impact would occur if the project caused substantial and uncoordinated disruptions to designated emergency response or evacuation routes, either temporarily or permanently.

Construction Impact:
During construction, temporary partial lane closures may occur on the Slauson Avenue Bridge to allow staging, equipment access, and retrofit work. However, full closures are not anticipated, and at least one lane of traffic in each direction would be maintained at all times. Public Works would provide advance notification, typically 30 days, to emergency service providers, including the Fire Department and local law enforcement agencies, to ensure that emergency access is not impeded and response routes remain clear and coordinated.

Construction would not physically interfere with designated evacuation routes or emergency access corridors, and the bridge would remain accessible throughout the construction period.

Operational Impact:
Once construction is complete, the bridge would retain its existing four-lane configuration and continue serving as a key east–west transportation corridor. The seismic retrofit would enhance the structure's long-term safety and reliability, supporting regional emergency response and evacuation capabilities during and after seismic events.

As a result, the project would not impair or interfere with any adopted emergency response or evacuation plans. Impacts would be less than significant.

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

No Impact.

A significant impact would occur if a project were located in or adjacent to a high fire hazard severity zone, particularly in areas where urban development interfaces with wildlands.

Construction Impact:
Construction activities would be limited to retrofitting the Slauson Avenue Bridge using suspended scaffolding and rubber-tired equipment in a fully urbanized environment. All work would take place on or immediately adjacent to paved surfaces and the bridge deck—without any ground disturbance in vegetated or wildland areas. The site is not located within a Very High Fire Hazard Severity Zone, as mapped by Cal Fire and reflected in Los Angeles County's Fire Hazard Severity Zone Policy Map for local responsibility areas (Los Angeles County Department of Regional Planning, 2021).

Operational Impact:
Following project completion, the bridge will resume operating under the same conditions as before. No new structures, equipment, or land use changes will be introduced, and no wildfire hazards will be created or exacerbated.

Given these facts, the project would not expose people or structures to wildland fire risk, and no impacts would occur.

3.9.3 Standard Conditions, Project Design Features, and Mitigation Measures

The project would not result in significant impacts related to hazards or hazardous materials. All construction activities would comply with applicable federal, state, and local regulations governing the handling, transport, and disposal of hazardous materials, including but not limited to the California Code of Regulations, the Resource Conservation and Recovery Act (RCRA), and SCAQMD requirements.

No additional standard conditions, project design features, or mitigation measures are required.

3.10 Hydrology and Water Quality

	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant	No Impact
Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	☐	☐	☒	☐
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☐	☒
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or through the addition of impervious surfaces, in a manner which would:				
i) Result in substantial erosion or siltation on- or off-site?	☐	☐	☒	☐
ii) Substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?	☐	☐	☐	☒
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?	☐	☐	☒	☐
iv) Impede or redirect flood flows?	☐	☐	☒	☐
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☒	☐
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☐	☒

3.10.1 Existing Environment

Watershed and Site Location

The project site is located within the San Gabriel River Watershed, which covers approximately 689 square miles of eastern Los Angeles County. The San Gabriel River originates in the San Gabriel Mountains and flows approximately 58 miles to the Pacific Ocean, discharging near the boundary between Los Angeles and Orange counties in the City of Long Beach. The watershed includes the East, West, and North Forks and supports a mix of wilderness, recreational, urban, and industrial land uses.

The project is located within Reach 2 of the Lower San Gabriel River, part of the Lower San Gabriel River HUC-10 watershed, which spans about 78.5 square miles and comprises roughly 11.4 percent of the total San Gabriel River drainage area. This reach lies within the larger San Gabriel HUC-08 subbasin and includes approximately 150 miles of channelized streams. In the project area, the river is confined by trapezoidal levees constructed of riprap and grouted stone and is approximately 320 feet wide. The channel bottom is unlined, natural earthen, and supports some riparian vegetation. The site is located in a highly urbanized area, surrounded by impervious surfaces such as roadways, commercial buildings, self-storage facilities, and residential neighborhoods.

Hydrology and Flow Regime

The San Gabriel River receives 11 to 13 inches of precipitation annually. In dry weather, surface flows in the Lower San Gabriel River are largely sustained by treated effluent discharges from Los Angeles County Sanitation Districts (LASCD), urban runoff, industrial discharges, and groundwater inflow. During storm events, the river conveys stormwater from a network of outfalls, including three gravity-fed storm drains that discharge into the channel near the Slauson Avenue Bridge—from the northeast, southeast, and northwest corners of the site.

Water Quality

Several reaches of the Lower San Gabriel River are listed on the CWA Section 303(d) list of impaired water bodies, due to elevated concentrations of metals, such as copper, lead, selenium, and zinc. These pollutants may impair beneficial uses including aquatic habitat, water supply, and groundwater recharge.

The San Gabriel River Metals and Selenium Total Maximum Daily Load (TMDL) identified municipal stormwater discharges as a significant source of metals loading—particularly during dry weather, when flow volumes are lower but pollutant concentrations are higher. During wet weather, metals tend to be transported in particulate form associated with sediment-laden stormwater. Therefore, proper erosion control and pollutant management are critical to protecting downstream water quality.

Floodplains

The San Gabriel River Channel within the project limits lies in the Federal Emergency Management Agency (FEMA) Flood Zone A, indicating a 1 percent annual chance of flooding. FEMA base flood elevations are not established in this segment. Adjacent areas fall within Flood Zone X, signifying low flood risk (<0.2 percent annual chance) (FEMA, 2024). The project area is not located within a tsunami or mudflow hazard zone. *(See Figure 3.10-1: Floodplains in the Vicinity of the Slauson Avenue Bridge*).

Figure 3.10-1: Floodplains in the Vicinity of the Slauson Avenue Bridge

Groundwater

The project lies above the Coastal Plain of the Los Angeles Groundwater Basin, commonly referred to as the Central Basin, which is critical to regional water supply. Groundwater recharge in the area occurs via natural infiltration from precipitation and stream flows. The San Gabriel River contributes both surface inflow and subsurface underflow to the basin. However, the project will not involve excavation, dewatering, or groundwater extraction.

Drainage System Network

The area surrounding the Slauson Avenue Bridge is served by a municipal storm drain system that collects runoff from adjacent roadways and developed parcels. In this segment of the San Gabriel River Channel, stormwater is conveyed through three standard gravity-fed mainlines, which discharge directly into the channel through outfalls located near the northeast, southeast, and northwest corners of the bridge. These outfalls are built into the channel levees and serve as key components of the local drainage infrastructure. (*See Figure 3.10-2: Drainage Network near the Slauson Avenue Bridge*).

3.10.2 Impact Analysis

a) Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?

Less than Significant Impact.

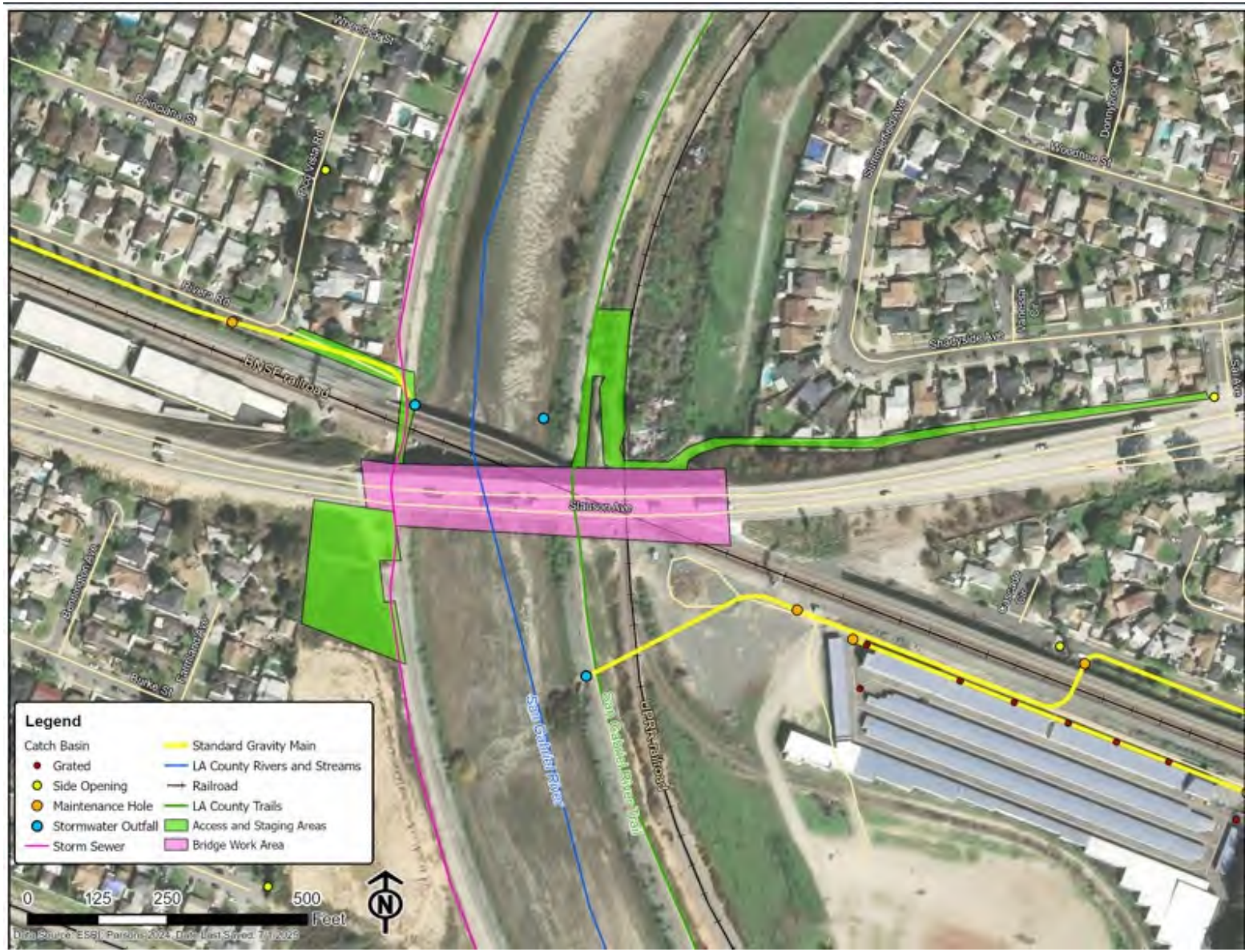
A significant impact would occur if the project caused measurable degradation of surface or groundwater quality, violated applicable water quality control plans, or led to exceedance of stormwater discharge thresholds during construction or operation.

Construction Impact:
The project involves seismic retrofit of an existing bridge using scaffolding and equipment supported from the bridge deck and, to a limited extent, on the earthen river bottom. No water diversion, pier foundation work, or excavation would occur. Construction debris would be contained in accordance with a Debris Containment Plan to be prepared by the contractor and approved by Public Works. No debris would be allowed to fall into the streambed. Construction access to the channel would be limited to rubber-tired equipment during the dry season, minimizing contact with surface flows and reducing water quality risks.

The project would comply with Order No. R4-2021-0105, the Municipal Separate Storm Sewer System (MS4) Permit for the Coastal Watersheds of Los Angeles and Ventura Counties. If required based on total disturbed area, the project would enroll under the Statewide Construction General Permit (Order No. 2022-0057-DWQ, Permit No. CAS000002) and prepare a project-specific SWPPP.

The SWPPP would identify and implement appropriate BMPs to control sediment, prevent erosion, contain construction materials, and manage potential discharges to the San Gabriel River. Construction would occur during the dry season, further reducing the risk of water quality degradation.

Figure 3.10-2: Drainage Network near the Slauson Avenue Bridge



Construction would also comply with the California Anti-Degradation Policy (Resolution 68-16), which prohibits degradation of high-quality waters unless it is consistent with the maximum benefit to the people of the state and will not unreasonably affect beneficial uses. By conducting work during the dry season, avoiding in-channel grading or diversion, and implementing BMPs through the SWPPP, the project would maintain baseline water quality and be consistent with this policy.

Operational Impact:
After construction, the bridge would return to existing conditions with no new impervious surfaces or stormwater discharge sources. No new permanent outfalls or water-altering infrastructure would be introduced. Long-term surface and groundwater quality would remain unaffected.

Given these controls and regulatory compliance, the project would not violate water quality standards or degrade surface or groundwater quality. Impacts would be less than significant, and no mitigation is required.

b) Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

No impact.

A significant impact would occur if the project involved substantial withdrawal of groundwater, altered the infiltration capacity of the site, or otherwise interfered with the ability to sustainably manage groundwater in the region.

Construction Impact:
The project would not involve groundwater pumping, excavation, or dewatering, and would not disturb any natural recharge features. Construction access would be limited to paved areas and the existing earthen river bottom. No grading, compaction, or impervious surfaces would be introduced that could impede natural infiltration. Therefore, the project would not interfere with groundwater recharge or affect groundwater supply.

Operational Impact:
Once constructed, the bridge would function exactly as it does under existing conditions. The project would not increase impervious surface area, alter surface runoff patterns, or introduce new water demands. The surrounding area would continue to support natural percolation and infiltration at pre-project rates.

Because no direct or indirect interference with groundwater resources is anticipated during either construction or operation, the project would have no impact on groundwater recharge or sustainable management of the Central Basin.

c) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or through the addition of impervious surfaces, in a manner which would:

i) Result in substantial erosion or siltation on- or off-site?

Less than Significant Impact.

A significant impact would occur if the project resulted in measurable or sustained soil erosion, sedimentation, or loss of topsoil that could affect nearby surface waters or degrade natural or built drainage systems.

Construction Impact:
The project would not alter the course of the San Gabriel River or modify its existing drainage pattern. Work would be confined to the bridge deck and substructure areas beneath the bridge. No grading or excavation is proposed. Temporary access to the river bottom would be limited to rubber-tired equipment operating during the dry season.

The contractor would prepare and implement a project-specific SWPPP in compliance with the Construction General Permit (Order No. 2022-0057-DWQ) and MS4 Permit (Order No. R4-2021-0105). BMPs included in the SWPPP would control sediment and erosion and prevent runoff from entering the channel untreated.

Operational Impact:
No changes would be made to the bridge's surface, surrounding topography, or existing drainage facilities. As such, the project would not contribute to erosion or siltation during operation.

With proper implementation of standard BMPs and erosion controls, impacts would be less than significant.

ii) Substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?

No Impact.

A significant impact would occur if the project caused a measurable increase in surface runoff rates or volumes that exceeds the capacity of existing drainage infrastructure, resulting in localized or downstream flooding during or after construction.

Construction Impact:
The project would not introduce new impervious surfaces or modify existing drainage features. Stormwater flows would remain within existing drainage patterns, and construction would occur during the dry season.

Operational Impact:
Post-construction, the site would return to its existing configuration with no increase in impervious area or change in stormwater runoff characteristics. The bridge would continue to operate as it does today.

Therefore, the project would not result in an increase in runoff or flooding potential, and no impact would occur.

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?

Less than Significant Impact.

A significant impact would occur if the project increased stormwater runoff volumes beyond the design capacity of local storm drains or introduced pollutants in quantities that could degrade surface water quality or violate regulatory thresholds.

Construction Impact:
While construction activities may involve pollutants such as sediment, oil, or concrete residue, these would be managed through BMPs identified in the SWPPP, developed under the Construction General Permit (Order No. 2022-0057-DWQ). No new connections or expansions to the storm drain system would occur, and drainage volumes would remain consistent with pre-construction conditions.

Operational Impact:
No new pollutant sources or stormwater runoff would be introduced after construction. The bridge would remain a passive transportation facility with no stormwater-generating features or pollutant-generating uses.

As a result, runoff during and after construction would not exceed system capacity or degrade water quality, and impacts would be less than significant.

iv) Impede or redirect flood flows?

Less than Significant Impact.

A significant impact would occur if a project introduced physical obstructions or alterations that substantially interfered with natural or engineered flood flow paths, thereby increasing flood risk or water surface elevation in the area.

Construction Impact:
The project is located within FEMA Flood Zone A, but work would occur during the dry season, when the San Gabriel River typically has minimal base flow. No water diversion structures or in-channel grading would be used. Temporary scaffolding platforms installed beneath the bridge would preserve hydraulic openings and be removed upon completion of work.

Operational Impact:
No permanent structures would be placed in the floodplain or river channel. The bridge's structural plan and profile would remain unchanged, and it would continue to span the flood control channel as under existing conditions.

Therefore, the project would not impede, redirect, or otherwise alter flood flows, and impacts would be less than significant.

d) In flood hazard, tsunami, or seiche zones, would the project risk release of pollutants due to project inundation?

Less than Significant Impact.

A significant impact would occur if project construction or operation in a known flood, tsunami, or seiche hazard zone increased the potential for pollutants (e.g., fuels, construction materials, debris) to be released during an inundation event.

The project site is located within FEMA-designated Flood Zone A, which represents a 1% annual chance of flooding. However, the San Gabriel River at this location is a flood control channel with engineered levees. The site is not within a tsunami or seiche hazard zone as mapped by Cal OES or local agencies.

Construction Impact:
All work would occur during the dry season, when flow in the San Gabriel River is minimal and base flow is often limited to groundwater contributions or treated effluent. No in-channel grading or diversion would occur. Construction materials and equipment would be staged away from flow paths, and the contractor would implement BMPs under the SWPPP to contain and protect materials from stormwater exposure.

Operational Impact:
No new structures would be placed in the floodplain, and no pollutant-generating activities would occur post-construction. The bridge would return to existing operational conditions.

Given the dry-season work schedule, containment measures, and the absence of long-term pollutant sources, the project would not result in the release of pollutants due to inundation, and impacts would be less than significant.

e) Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

No Impact.

A significant impact would occur if the project interfered with the goals, policies, or implementation of a water quality control plan, such as the Los Angeles Region Basin Plan, or a sustainable groundwater management plan adopted under the Sustainable Groundwater Management Act (SGMA).

The Los Angeles Region Basin Plan, adopted by the Regional Water Quality Control Board, establishes beneficial uses, water quality objectives, and implementation programs for waters within the San Gabriel River watershed.

The SGMA requires local Groundwater Sustainability Agencies (GSAs) to develop and implement Groundwater Sustainability Plans (GSPs) for medium- and high-priority groundwater basins, including the Central Basin, where the project is located.

Construction and Operational Impacts:
The project would comply with applicable water quality regulations, including the MS4 Permit (Order No. R4-2021-0105) for the Los Angeles Region and the Construction General Permit (Order No. 2022-0057-DWQ), which require development and implementation of a project-specific SWPPP. These permits and associated BMPs are consistent with the Water Quality Control Plan for the Los Angeles Region (Basin Plan), which sets beneficial uses and water quality objectives for the San Gabriel River.

The project is located within the Central Subbasin of the Coastal Plain of Los Angeles Groundwater Basin, a designated high-priority groundwater basin managed by the Water Replenishment District of Southern California under the SGMA. The project would not require groundwater pumping, dewatering, or alteration of aquifer recharge areas. Because it would not involve groundwater extraction or introduce impervious surfaces that reduce infiltration, the project would not conflict with regional groundwater sustainability plans adopted under SGMA.

In conclusion, the project is consistent with applicable regulatory requirements and regional planning objectives for both water quality and groundwater management. It would comply with the Los Angeles Region Basin Plan, including the California Anti-Degradation Policy (Resolution 68-16), by maintaining baseline water quality through the use of BMPs, a SWPPP, and dry-season construction. It would also not interfere with any groundwater sustainability objectives under SGMA. Therefore, the project would not conflict with or obstruct implementation of any water quality control plan or sustainable groundwater management plan, and no impact would occur

3.10.3 Standard Conditions, Project Design Features, and Mitigation Measures

The following standard conditions and regulatory compliance measures would be implemented to ensure that construction activities do not adversely affect water quality or hydrology:

SC-HYD-1: The following standard conditions will be adhered to throughout the construction period.

1. Construction General Permit Compliance: If applicable, the project will enroll under the Construction General Permit issued by the SWRCB (Order No. 2022-0057-DWQ; National Pollutant Discharge Elimination System (NPDES) No. CAS000002). A project-specific SWPPP will be prepared and implemented by a Qualified SWPPP Developer (QSD). The SWPPP will identify and incorporate appropriate BMPs to reduce erosion, control sediment, manage stormwater runoff, and prevent discharge of pollutants into the San Gabriel River.

2. Municipal Separate Storm Sewer System (MS4) Permit Compliance: All construction activities will comply with Order No. R4-2021-0105, the MS4 Permit for the Coastal Watersheds of Los Angeles and Ventura Counties, administered by the Los Angeles RWQCB. The MS4 Permit requires implementation of BMPs and site management controls that are protective of water quality.

No mitigation measures beyond these regulatory compliance conditions are required.

3.11 Land Use and Planning

	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant	No Impact
Would the project:				
a) Physically divide an established community?	☐	☐	☐	☒
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒

3.11.1 Existing Environment

Slauson Avenue is a four-lane major east-west arterial road in the San Gabriel Valley region of Los Angeles County. The bridge over the San Gabriel River is located approximately 0.3 miles west of I-605 and about 1.75 miles north of the I-5/I-605 interchange. The majority of the bridge structure lies within the city of Pico Rivera, with the eastern end extending into unincorporated Los Angeles County and the city of Santa Fe Springs. Rivera Road generally marks the jurisdictional boundary at the eastern approach of the bridge *(see Figure 2-1 in Section 2.1.1).*

Surrounding land uses include vacant parcels to the northeast, southeast, and southwest of the bridge. Farther northeast and southwest are established single-family residential neighborhoods. To the southeast, a self-storage facility occupies a site beyond the vacant parcel, while to the northwest, single-family homes and another self-storage facility are located between Slauson Avenue and the BNSF railroad tracks. In addition, the San Gabriel River Trail and two active railroad corridors traverse the project area. These land uses are consistent with a heavily urbanized flood control corridor *(See Figure 2-2 in Section 2.1.3 for aerial context).*

3.11.2 Impact Analysis

a) Would the project physically divide an established community?

No Impact.

A significant impact would occur if a project introduced permanent physical barriers that disrupt access or connectivity between parts of an existing community, such as a new highway, rail line, or wall separating neighborhoods.

Construction Impact:
Construction activities would be limited to the existing Slauson Avenue Bridge and adjacent staging areas. Temporary lane closures may occur, but full bridge closure is not anticipated. Construction would not disrupt access between neighborhoods or introduce any new physical separation. No impact would occur.

Operational Impact:
The bridge would continue to serve the same function after retrofit, with no change to its alignment or use. No permanent barriers would be introduced. Therefore, operation of the project would not divide an established community. No impact would occur.

b) Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

No Impact.

A significant impact would occur if a project conflicted with an adopted land use plan, policy, or regulation intended to protect the environment, such as plans related to habitat preservation, water quality, flood protection, or open space.

The San Gabriel River Corridor Master Plan, developed by the County of Los Angeles, serves as the guiding document for enhancing the river corridor as a multi-benefit resource. It promotes compatible development along the river that supports flood control, habitat protection, recreation, water quality, and economic development. The Master Plan defines conceptual improvement opportunities but does not impose regulatory restrictions.

Construction Impact:
The project involves retrofitting the existing Slauson Avenue Bridge to meet current seismic safety standards. Temporary access to the river channel would be required to install scaffolding and complete structural work, but no water diversion or in-channel grading would occur. Construction would take place during the dry season and be limited to previously disturbed areas within the channel. Upon completion, the work areas would be restored to pre-construction conditions, and any disturbed bare areas would be allowed to revegetate naturally. These activities are consistent with the Master Plan's principles of preserving hydrology, maintaining access, and minimizing habitat disturbance.

Operational Impact:
Once construction is complete, the bridge would continue to operate as it does today. No new permanent structures or land use changes would occur, and the project would not interfere with long-term planning efforts under the Master Plan. Public access, flood conveyance, and habitat values would be preserved. Therefore, the project would not conflict with any applicable land use plan, policy, or regulation, and no impact would occur.

3.11.3 Standard Conditions, Project Design Features, and Mitigation Measures

No standard conditions, project design features, or mitigation measures would be required to address land use and planning.

3.12 Mineral Resources

	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant	No Impact
Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

3.12.1 Existing Environment

The project site is located within a fully urbanized area of Los Angeles County and does not contain any known active or inactive mineral resource extraction sites. According to the California Geological Survey (CGS) Mineral Land Classification for the Los Angeles County – Puente Hills Quadrangle, the project work area is mapped as Mineral Resource Zone 1 (MRZ-1). This designation indicates an area where adequate information demonstrates that significant mineral deposits are not present, or where it is judged that there is little likelihood for their presence (CGS web access on July 11, 2025).

The nearest area designated as MRZ-2—which identifies lands where significant mineral resources are known or likely to exist—is located approximately 2.7 miles east of the project site, along the San Gabriel River corridor south of the I-605/I-5 interchange. This MRZ-2 area has historically supported sand and gravel mining, which are important to the region's construction and infrastructure sectors. However, the Slauson Avenue Bridge project area lies outside this designated mineral resource zone and is not identified in any general plan, specific plan, or land use plan for mineral resource recovery.

3.12.2 Impact Analysis

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

No Impact.

A significant impact would occur if the project directly or indirectly resulted in the permanent loss or inaccessibility of mineral resources identified as regionally or statewide significant.

Construction Impact:
The project would involve retrofitting the existing Slauson Avenue Bridge with temporary access and scaffolding set up during the dry season. No grading, excavation, or deep soil disturbance

would occur. The work would take place entirely within an area already developed for transportation and flood control and would not encroach into any MRZ-2 zone or active mining site. Therefore, the project would not affect the availability of any known mineral resource.

Operational Impact:
The bridge would remain in its current use and configuration following construction, with no interference in mineral resource access or management. No new land use restrictions or barriers would be introduced.

Overall, the project would not result in the loss of availability of any known mineral resource of value to the region or the state. No impact would occur.

b) Would the project result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

No Impact.

The project site is not designated in any local or regional planning documents as a mineral resource recovery site. No sand, gravel, oil, or other mineral resources have been identified within the project work area or surrounding areas. Therefore, the project would not affect the availability of any locally-important mineral resource, and no impact would occur.

3.12.3 Standard Conditions, Project Design Features, and Mitigation Measures

No standard conditions, project design features, or mitigation measures would be required to address mineral resources.

3.13 Noise

	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant	No Impact
Would the project result in:				
a) Generation of substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐
b) Generation of excessive ground-borne vibration or ground-borne noise levels?	☐	☐	☒	☐
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

3.13.1 Existing Environment

Characteristics of Noise

Noise is unwanted sound. Although extremely loud noises can cause temporary or permanent damage, the primary environmental impact of noise is annoyance. The objectionable characteristic of noise often stem from its loudness. Loudness represents the intensity of the sound wave, or the amplitude of the sound wave height measured in decibels (dB). Decibels are calculated on a logarithmic scale, which means a 10 dB increase represents a 10-fold increase in acoustic energy or intensity, and a 20 dB increase represents a 100-fold increase in intensity. Decibels are the preferred measurement of environmental sound because of the direct relationship between a sound's intensity and the subjective "noisiness" of it. An A-weighted decibel (dBA) is a convenient sound measurement technique that weights selected frequencies based on how well humans can perceive them.

The range of human hearing spans from the minimal threshold of hearing (approximately 0 dBA) to a level past the threshold of pain (approximately 120 dBA). In general, humans cannot perceive a difference of less than 3 dBA in a normal setting (i.e., outdoors or in a building), but a change of 5 dBA would be clearly noticeable. Noise levels are generally considered low when they are below 45 dBA, moderate in the 45 dBA to 60 dBA range, and high above 60 dBA. Noise levels greater than 85 dBA can cause temporary or permanent hearing loss if exposure is sustained.

Ambient environmental noise levels can be characterized by several different descriptors. Equivalent noise level or Energy equivalent or energy average level (L_{eq}) describes the average or mean noise level over a specified period of time. L_{eq} provides a useful measure of the impact of fluctuating noise levels on sensitive receptors over a period of time. Other descriptors of noise incorporate a weighting system that accounts for human's susceptibility to noise irritations at night. Community Noise Equivalent Level (CNEL) is a measure of cumulative noise exposure over a 24-hour period, with a 5-dBA penalty added to evening hours (7:00 p.m. to 10:00 p.m.) and a 10-dBA penalty added to late night hours (10:00 p.m. to 7:00 a.m.). Because CNEL is a 24-hour average noise level, an area could have sporadic loud noise levels above 65 dBA, but the average could be lower over the 24-hour period.

In general, land uses that are sensitive to noise include places where people sleep, such as residences and hotels, and where quiet conditions are integral to the function of the use, such as schools, hospitals, churches, and certain kinds of parks. The nearest noise-sensitive land uses to the project site are single-family residences described in Sections 2.1.3 and 3.11.

Regulatory Conditions Related to Construction

As described in Section 2.3, the project would only involve retrofitting the Slauson Avenue Bridge so that it meets current seismic standards. The project does not propose to increase the number of lanes on the bridge; therefore, any noise generated from traffic operations or normal maintenance would be the same as before construction. The only potential noise impacts of the project would come from its construction. This section briefly describes the noise regulations that relate to construction.

Federal

Federal noise regulations would not be applicable to project construction.

State

Pursuant to the Caltrans Traffic Noise Analysis Protocol for New Highway Construction, Reconstruction, and Retrofit Barrier Projects (Caltrans, 2020), construction noise is regulated by Caltrans Standard Specifications Section 14-8, Sound Control Requirements, which states that noise levels generated during construction shall comply with applicable local, state, and federal regulations, and that all equipment shall be fitted with adequate mufflers according to the manufacturers' specifications.

If adverse construction noise impacts are anticipated, project plans and specifications must identify abatement measures that would minimize or eliminate adverse construction noise impacts to the community. Caltrans would consider the benefits achieved by the abatement measures against the overall adverse social, economic, and environmental effects and costs of the measures.

Local

Noise from stationary sources and construction activities are regulated at the local level to minimize nuisance or annoyance to neighboring land uses and protect public health and welfare. The Slauson Avenue Bridge, as well as the nearest noise-sensitive land uses, are located in Los Angeles County. The Los Angeles County Noise Control Ordinance, Title 12 of the County Code, was adopted by the Los Angeles County Board of Supervisors in 1977 "to control unnecessary, excessive, and annoying noise and vibration." This ordinance states that the purpose of the county policy is to "maintain quiet in those areas which exhibit low noise levels and to implement

programs aimed at reducing noise in those areas within the county where noise levels are above acceptable values. The Cities of Pico Rivera and Whittier do not have ordinances with noise limits on construction noise. Therefore the Los Angeles County Noise Control Ordinance has been used.

The County amended Title 12 of the code to prohibit loud, unnecessary, and unusual noise that disturbs the peace and/or quiet of any neighborhood, or that causes discomfort or annoyance to any reasonable person of normal sensitivity residing in the area (County of Los Angeles Department of Regional Planning. 2019). Required modifications may include sound barriers, mitigation measures to reduce excessive noise, or changes to the placement and orientation of buildings. The ordinance also specifies the compatibility of different uses with varying noise levels, as shown in Table 3.13-1. Noise levels are measured at the property boundary of the receiving parcel. The zoning at the property boundaries surrounding the noise source dictates the level of noise allowed at that property boundary.

Table 3.13-1. Los Angeles County Municipal Code Noise Standards

Noise Zone	Designated Noise Zone Land Use (Receptor property)	Time Interval	Exterior Noise Level (dBA)
I	Noise-Sensitive Area	Anytime	45
II	Residential Properties	10:00 p.m. to 7:00 a.m. (nighttime)	45
		7:00 a.m. to 10:00 p.m. (daytime)	50
III	Commercial Properties	10:00 p.m. to 7:00 a.m. (nighttime)	55
		7:00 a.m. to 10:00 p.m. (daytime)	60
IV	Industrial Properties	Anytime	70

Source: Table reproduced from Section 12.08.390 of the Los Angeles County Code (a portion of the Noise Control Ordinance).

Section 12.08.440 of the County Code governs construction noise. The code prohibits operating or causing the operation of any tools or equipment used in construction, drilling, repair, alteration, or demolition work between weekday hours of 7:00 p.m. and 7:00 a.m., or at any time on Sundays or holidays, such that the sound creates a noise disturbance across a residential or commercial real-property line, except for emergency work of public service utilities or by variance issued by the health officer. In addition, construction contractors are required to ensure that the maximum noise levels from stationary equipment (repetitively scheduled or relatively long-term operational period of 10 days or more) do not exceed the levels listed in Table 3.13-2 for various types of residences. The ordinance for mobile equipment does not apply because the construction activity is expected to last longer than 10 days.

Table 3.13-2: Los Angeles County Municipal Code Construction Noise Standards for Stationary Equipment

Day/Time	Single-Family Residential Land Uses	Multi-Family Residential Land Uses	Semi- Residential Commercial Land Uses
Daily, except Sundays and legal holidays, 7:00 a.m. to 8:00 p.m.	60 dBA	65 dBA	70 dBA
Daily, 8:00 p.m. to 7:00 a.m. and all day Sunday and legal holidays	50 dBA	55 dBA	60 dBA

Section 12.08.570(H) of the County Code states that public health and safety activities are exempt from the provisions of the County's Noise Control Ordinance. Specifically, all transportation, flood control, and utility company maintenance and construction operations occurring at any time within the public right-of-way (and those situations that may occur on private real property) deemed necessary to serve the best interest of the public and to protect the public's health and wellbeing are exempt. Exempt activities include, but are not limited to, street sweeping, debris and limb removal, removal of downed wires, restoring electrical service, repairing traffic signals, unplugging sewers, vacuuming catch basins, removal of damaged poles and vehicles, and repair of water hydrants and mains, gas lines, oil lines, and sewers. Following construction, Public Works would continue to conduct periodic maintenance of the bridge structure, which may involve the use of noise-emitting equipment or vehicles. The bridge retrofit construction would be considered exempt from the construction noise provisions of the County's Noise Control Ordinance.

Ambient Conditions

As previously discussed, the land uses surrounding the Slauson Avenue Bridge are primarily single-family residences with some commercial businesses. In September 2024, noise measurements in accordance with the current American National Standards Institute standards were taken at three locations (R1/ST1 to R3/ST3) to characterize the existing ambient noise conditions of the single-family residences surrounding the bridge (see Figure 3.13-1). Daytime, short-term (15-minute) sound-level measurements at these locations are summarized in Table 3.13-3.

As the measurements indicate, the single-family residences are exposed to traffic noise from the street network, including Slauson Avenue, and from nearby railroads, especially the BNSF railroad, which crosses the San Gabriel River Channel. The measured noise levels at ST1 increased by 2 to 3 dBA L_{eq} when a train is crossing the channel. As shown in Table 3.13-3, the existing daytime ambient noise levels at the three receptors ranged from 57 dBA L_{eq} to 62 dBA L_{eq} when no passing trains are present.

Figure 3.13-1: Project Site Vicinity and Noise Measurement and Receptor Locations

Table 3.13-3: Measured Noise Levels at Single-Family Residences

Receptor Site No.	Nearest Address	Distance to SFR (in feet)	Time	Noise Level (dBA L_{eq})	
				Without a Train Passing	With a Train Passing
R1/ST1	7646 Pico Vista Road	240	8:00 a.m.	62	65
R1/ST1	7646 Pico Vista Road	240	11:25 a.m.	61	63
R2/ST2	8491 Shadyside Avenue	130	10:50 a.m.	57	-
R3/ST3	7804 Farmland Avenue	150	10:15 a.m.	59	-

Notes: All measurements taken on September 12, 2024
SFR = Single Family Residence; dBA = A-weighted decibel; L_{eq} = Equivalent Continuous Sound Level

3.13.2 Impact Analysis

a) Would the project result in the generation of 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?

Less than Significant Impact.

Construction Impact:
Temporary noise impacts from the project would occur only during construction, which is expected to last approximately six months. After construction, noise levels would return to pre-project levels because the bridge's traffic lanes would remain unchanged, generating no additional operational noise. Although the bridge retrofit construction would be considered exempt from the construction noise provisions of the County's Noise Control Ordinance, noise impact assessment is performed for informational and minimization purposes.

Construction noise levels would vary depending on factors such as equipment type, condition, operational cycles, and distance from sensitive receptors. Table 3.13-4 outlines the expected equipment representing the worst-case noise scenario for project activities. Construction equipment typically operates in cycles, alternating between high and low power, which results in average noise levels that are generally lower than peak values. Table 3.14-4 shows the estimated maximum noise levels from equipment, calculated at distances of 50 feet (85 dBA), 100 feet (79 dBA), and 200 feet (73 dBA).

Table 3.13-4. Estimated Construction Equipment Noise Levels

Equipment Anticipated to Generate Maximum Noise During Construction	Number of Equipment*	Typical Noise Level at 50 feet, dBA	Daily Operation (Hours)	Usage Factor	Effective Usage Factor (1)	Correction Factor	Noise Level at Various Distances from Project Site L_{eq}, dBA		
							50 feet	100 feet	200 feet
Crane	1	83	4	0.5	0.15	-8.2	75	69	63
Concrete Pump	5	82	4	0.5	0.75	-1.2	81	75	69
Compressor	2	80	8	1.0	0.60	-2.2	78	72	66
Jackhammer	2	88	2	0.25	0.15	-8.2	80	74	68
Overall Noise Level		**85**					**85**	**79**	**73**

Notes:
* Maximum number of equipment items operating simultaneously at a given construction site.
(1) Assuming the equipment are operating at or near maximum sound levels 30 percent of the time during operation.
Source: Federal Transit Administration.,2018; Calculation made by Parsons

Nearby noise-sensitive receptors may experience increased noise during construction. As shown in Table 3.13-5, noise levels are estimated to reach 67 to 77 dBA L_{eq} at nearby single-family residences, leading to occasional noise exposure levels that would exceed the County's daytime construction noise standards if they were applicable to this public works project.

Table 3.13-5: Predicted Construction Noise Levels (dBA L_{eq}) at Single-Family Residences

Receptor Site Number	Distance to NSLU (feet)	Existing Daytime Ambient Noise Level	Loudest Construction Noise Level at NSLU	Compliant with CEQA Threshold (Construction L_{eq} Not Exceeding 60 dBA)
R1/ST1	240	61	71	No
R2/ST2	130	57	77	No
R3/ST3	150	59	75	No
R4	400	57	67	No

Notes: NSLU: noise sensitive land use

Noise from construction activities would be short-term and intermittent. Per the Los Angeles County noise regulations, construction noise would occur no earlier than 7:00 a.m. and no later than 7:00 p.m. on weekdays, and no work would be done on Sundays or federal holidays.

To minimize construction noise impacts, Public Works would require the construction contractor to implement standard noise control BMPs, as detailed in Section 3.13.3 under SC-NOI-1. The effectiveness of these noise reduction measures varies depending on factors such as equipment type, condition, and the locations of the noise source and receiver. For example, equipment silencers can reduce noise by several decibels, with some achieving reductions of more than 10 dB. Additionally, limiting equipment idling can further reduce overall noise levels. Combined, these BMPs are expected to substantially reduce construction noise impacts on nearby residences.

In addition to the standard noise control BMPs, implementation of a project design feature PDF-NOI-1 (see Section 3.13.3) would ensure that nearby residents receive advance notice of construction activities. While this measure does not directly lower noise levels, it allows affected individuals to anticipate potential disturbances and plan accordingly.

Implementation of SC-NOI-1 and communication procedures outlined in PDF-NOI-1 would reduce potential noise impacts. With these measures, impacts would be less than significant.

Operational Impact:
Upon completion of construction, all equipment would be removed, and the project area would return to pre-existing noise conditions; therefore, no long-term noise impacts are anticipated.

b) Would the project result in generation of excessive ground-borne vibration or ground-borne noise levels?

Less than Significant Impact.

Construction Impact:
Construction activities sometimes expose people and structures to ground-borne vibration or noise. Caltrans has collected and published data on ground-borne vibration related to construction activities in the Transportation and Construction Vibration Guidance Manual (Caltrans, 2013). According to Caltrans, transient vibrations, such as those from construction with a peak particle velocity (PPV) of approximately 0.035 inch per second, is considered barely perceptible, while PPV at 0.24 inch per second is distinctly perceptible. Heavier construction equipment, such as bulldozers, typically generate PPVs of approximately 0.089 inch per second at a distance of 25 feet (FTA, 2018), with ground-borne vibration levels attenuating quickly over short distances.

Given the distance to the nearest noise/vibration-sensitive land uses (approximately 130 feet) and the type of construction equipment expected to be used, the estimated PPV during construction would be approximately 0.0022 inch per second. This is well below the "barely perceptible" threshold of 0.035 inch per second; therefore, impacts related to ground-borne vibration or noise would be less than significant.

Operational Impact:
Upon completion of construction, all equipment would be removed, and the project area would return to pre-existing noise conditions; therefore, no long-term vibration impacts are anticipated.

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.

The project site is not within an airport land use plan area, nor is it within 2 miles of a public airport. Additionally, it is not near any private airstrips. The closest airports are Long Beach Airport, located at 4100 Donald Douglas Drive in Long Beach, and Torrance Municipal Airport (also known as Zamperini Field), located at 3301 Airport Drive in Torrance. Both airports are approximately 5 miles from the project site. The nearest private airstrip, Whittier Airstrip, is also approximately 5 miles south of the project area. Furthermore, the project does not include any occupied structures that would expose people to airport-related noise; therefore, the project would have no impact concerning exposure to excessive noise from nearby airports.

3.13.3 Standard Conditions, Project Design Features, and Mitigation Measures

SC-NOI-1: The construction contractor shall prepare and implement standard noise control BMPs, which would include the following:

1. Restricted Hours: Construction activities would not occur between 7:00 p.m. and 7:00 a.m., Monday through Saturday, and no construction would take place on Sundays or federal holidays.

2. Distance from Sensitive Uses: Construction, including the staging of equipment, would occur as far as practicable from noise-sensitive land uses.

3. Mufflers and Noise Control: All noise-producing equipment and vehicles with internal combustion engines would be equipped with mufflers, air-inlet silencers where appropriate, and other noise-reducing features in good operating condition, meeting or exceeding original factory specifications. Fixed or mobile "package" equipment (e.g., arc-welders, air compressors) would be equipped with available noise control features.

4. Compliance with Regulations: All mobile or fixed noise-producing equipment regulated for noise output by local, state, or federal agencies would comply with applicable noise regulations.

5. Limit Equipment Idling: Idling of equipment would be minimized, and such equipment would be kept as far as practicable from noise-sensitive land uses.

6. Staging Areas: Mobile equipment staging, parking, and maintenance areas would be located as far as practicable from noise-sensitive receptors.

7. Use of Audible Signals: Audible signals such as horns, whistles, alarms, and bells would only be used for safety warning purposes.

PDF-NOI-1: Public Works shall maintain effective communication with local residents prior to and throughout construction activities by providing advance notice of the construction schedule, anticipated duration, and key milestones. Contact information for a designated project representative shall be provided to nearby noise-sensitive receptors, including the first row of residences adjacent to the project site, to respond to any noise- or vibration-related inquiries or concerns.

3.14 Population and Housing

	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant	No Impact
Would the project:				
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☒	☐

3.14.1 Existing Environment

The Slauson Avenue Bridge serves as an east-west arterial route connecting the city of Pico Rivera, the unincorporated community of West Whittier, and the city of Santa Fe Springs. The surrounding land uses include vacant parcels, self-storage facilities, single-family residential neighborhoods, and transportation corridors (including adjacent railroads and the San Gabriel River Trail). The project site itself is located in a fully urbanized area within Los Angeles County.

Housing growth and population planning within the area are guided by the applicable general plans of the surrounding jurisdictions. While no housing exists directly adjacent to or under the bridge, field reconnaissance identified the presence of unsheltered individuals who occasionally encamp beneath the Slauson Avenue Bridge along the San Gabriel River Channel.

3.14.2 Impact Analysis

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

No Impact.

A significant impact would occur if the project directly or indirectly induced substantial population growth by introducing new housing, businesses, or expanding roadway or utility infrastructure that facilitates such growth.

The project involves retrofitting an existing bridge to meet current seismic safety standards. It would not add capacity to the transportation system or extend any infrastructure into previously undeveloped areas. No new access roads, housing, or utilities would be introduced. Accordingly, the project would not influence population growth patterns or private development decisions. There would be no impact related to unplanned population growth.

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

Less than Significant Impact.

A significant impact would occur if the project removed housing or displaced a substantial number of people, resulting in the need to construct new replacement housing elsewhere.

The project would not remove any homes, apartments, or other existing permanent housing. No permanent residents would be displaced. Informal encampments of unsheltered individuals have been observed beneath the Slauson Avenue Bridge; encampments usually result in trash and human waste within or adjacent to the river. Maintenance along San Gabriel River includes encampment cleanup on a regular basis. Construction of the project may include removal of the encampment from the construction areas in coordination with local authorities consistent with existing encampment removal practices.

Therefore, while temporary clearing of public spaces may occur during construction, the project would not displace a substantial number of existing people or housing. Impacts would be less than significant.

3.14.3 Standard Conditions, Project Design Features, and Mitigation Measures

No mitigation measures are required because the project would not result in any physical displacement of housing or substantial numbers of people under CEQA.

3.15 Public Services

	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant	No Impact
Would the project:				
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
i) Fire protection?	☐	☐	☒	☐
ii) Police protection?	☐	☐	☒	☐
iii) Schools?	☐	☐	☐	☒
iv) Parks?	☐	☐	☐	☒
v) Other public facilities?	☐	☐	☒	☐

3.15.1 Existing Environment

Fire Protection Services

The Slauson Avenue Bridge is not located along a designated disaster route per the Los Angeles County Disaster Route Map (LACDPW 2008), but it is a major east-west arterial roadway used by emergency vehicles. The closest fire station is Los Angeles County Fire Department Station 25, approximately 0.6 miles west of the bridge. Santa Fe Springs Fire Department Station 2 is also located approximately 1.5 miles east.

Police Protection Services

Police protection is provided by the Pico Rivera Sheriff's Station (about 1 mile northwest) and the Santa Fe Springs Police Service Center (about 1.3 miles southeast).

School and other Public Services

The nearest schools—Pioneer High School, Los Nietos Middle School, and Ada S. Nelson Elementary School—are located over 1 mile away, to the east-northeast of the project site. The area surrounding the project is mostly commercial, industrial, and vacant, with no educational institutions within or adjacent to the project work area.

Parks and Other Public Facilities

Rivera Park and Los Nietos Park are located approximately 0.5 to 0.7 miles away and are not within the construction zone. The San Gabriel River Trail, which runs along the eastern edge of the channel, passes underneath the Slauson Avenue Bridge and is the only recreational facility located adjacent to the project. No other public facility is located within close proximity to the project site.

3.15.2 Impact Analysis

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

i) Fire Protection?

Less than Significant Impact.

A significant impact would occur if the project resulted in population growth or physical conditions that required construction of new or expanded fire protection facilities, or materially interfered with response times or service objectives.

Construction Impact:
Construction of the bridge retrofit would not introduce population growth, new development, or increased fire risk. However, temporary lane closures on the Slauson Avenue Bridge could marginally affect emergency response time if not properly coordinated. These impacts would be temporary, localized, and minor, and no full closure of the bridge is anticipated.

To minimize this temporary effect, Public Works has developed a TCP (refer to PDF-PUB-1 in Section 3.15.3) to be implemented during the project construction. Implementation of PDF-PUB-1 will ensure that emergency access is maintained throughout the duration of construction. Impacts would be less than significant, and no mitigation is required.

Operational Impact:
The project would not alter the existing use of the bridge or increase long-term demand for fire protection services. No new facilities would be needed. Therefore, no operational impacts to fire protection would occur.

ii) Police Protection?

Less than Significant Impact.

A significant impact would occur if the project resulted in the need for new or physically altered police facilities, or if it substantially delayed police response times or interfered with service objectives.

Construction Impact:
Temporary lane closures may occur on the Slauson Avenue Bridge during retrofit activities, but no full closures are planned. These partial closures could slightly affect police vehicle response times in the immediate area if not coordinated. However, such delays would be temporary and

minor in nature. With the implementation of PDF-PUB-1, construction-related impacts would be less than significant.

Operational Impact:
The project would not change traffic patterns, introduce new development, or affect the operational demand for police protection services. No impacts to police facilities would occur.

iii) Schools?

No Impact.

A significant impact would occur if the project physically disrupted school operations or generated population growth requiring new or expanded school facilities.

Construction Impact:
No construction would occur near school property. The nearest public schools—Pioneer High School, Los Nietos Middle School, and Ada S. Nelson Elementary—are located approximately 1 mile east-northeast of the bridge, well outside the project work area. Temporary lane closures would not affect access to these schools, which are located on the opposite side of the San Gabriel River. Therefore no impact to school operations would occur.

Operational Impact:
The project does not include residential development or other uses that would generate new student populations or increase demand for educational services. No impact to school facilities would occur.

iv) Parks?

No Impact.

A significant impact would occur if the project physically disrupted park facilities or generated population growth requiring new or expanded recreational infrastructure.

Construction Impact:
No park facilities would be directly affected by construction. The nearest parks—Rivera Park and Los Nietos Park—are located approximately 0.5 and 0.7 miles from the project site. These parks are outside the limits of staging, access, and work areas. Therefore, no impact to parks would occur during construction.

Operational Impact:
The project does not involve new development or increased capacity and would not induce population growth. Therefore, it would not increase demand for recreational services, and no impact to parks would occur during operation.

v) Other public facilities?

Less than Significant Impact.

A significant impact would occur if the project physically disrupted other public facilities (e.g., libraries, trails) or created long-term demand for new or expanded services.

Construction Impact:
The San Gabriel River Trail, which runs along the east bank of the river beneath the bridge, may experience temporary access restrictions during construction for safety reasons. While portions of the trail may be closed intermittently, detours and signage would be provided to guide users and minimize inconvenience. These temporary disruptions would be minor, short-term, and limited in extent. Therefore, construction-related impacts to public facilities would be less than significant.

Operational Impact:
Upon completion of the bridge retrofit, full access to the San Gabriel River Trail and other nearby public facilities would be restored. The project would not introduce population growth or expanded infrastructure requiring additional public services. No long-term operational impacts would occur.

3.15.3 Standard Conditions, Project Design Features, and Mitigation Measures

PDF-PUB-1 Public Works has developed the TCP to be implemented during project construction to ensure public and worker safety and that emergency access to all nearby streets and parcels is maintained. The TCP will be provided to local emergency service providers, including the County Fire Department and local law enforcement agencies, for coordination prior to construction.

No mitigation measures are required.

3.16 Recreation

	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☒	☐
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	☐	☐	☐	☒

3.16.1 Existing Environment

As described in Section 3.15.1, the nearest public parks to the Slauson Avenue Bridge are Rivera Park, located approximately 0.5 miles southwest of the bridge, and Los Nietos Park, approximately 0.7 miles southeast. Both parks are neighborhood-serving facilities.

Additionally, the San Gabriel River Trail, a regional Class I bike and pedestrian path, runs along the east side of the San Gabriel River channel, positioned between the channel and the UPRR railroad. The trail provides important recreational and commuting access through the area, connecting various communities in southeastern Los Angeles County.

3.16.2 Impact Analysis

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?

Less than Significant Impact.

A significant impact would occur if the project caused or contributed to population growth or usage patterns that would increase wear on parks or recreational facilities to the extent that physical deterioration would occur or be accelerated.

Construction Impact:
The project does not involve residential or commercial development that would generate population growth or additional recreational demand. However, construction activities would temporarily affect recreational access to the San Gabriel River Trail. Specifically, the segment of the trail between Telegraph Road and Washington Boulevard would need to be closed temporarily to accommodate construction access and ensure public safety.

To minimize inconvenience, a temporary detour plan has been developed in coordination with the Los Angeles County Department of Parks and Recreation (refer to PDF-REC-1 in Section 3.16.3).

Trail users would be redirected to parallel surface streets during construction. The detour would be clearly signed, and access would be restored once construction is complete.

With the detour in place, construction impacts to recreational facilities would be temporary, limited in duration and scope, and therefore less than significant.

Operational Impact:
After construction, the Slauson Avenue Bridge would continue to serve as an east-west arterial roadway with no changes to recreational access or demand. The project would not alter any park or trail facilities, nor would it induce population growth that could increase demand for recreational services. Therefore, no operational impact would occur.

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?

No Impact.

A significant impact would occur if the project required new or expanded recreational facilities that could lead to physical changes in the environment.

The project does not propose the development or expansion of recreational amenities, nor does it create conditions (e.g., population growth, increased traffic) that would necessitate such facilities. Therefore, no impact would occur.

3.16.3 Standard Conditions, Project Design Features, and Mitigation Measures

PDF-REC-1: In coordination with the Los Angeles County Department of Parks and Recreation, Public Works has developed a detour plan to redirect San Gabriel River Trail users to surface streets running east of and parallel to the river channel between Telegraph Road and Washington Boulevard during construction. The detour would be clearly marked and access to the trail would be restored once construction is complete.

In addition, Public Works and the Contractor shall implement a clear communication protocol to announce phased construction closures in advance. Notification methods shall include onsite signage, project website postings, and direct coordination with LA County Parks. Advance notice shall be provided at least two weeks before any hard closure or substantial access restriction affecting trail or equestrian users.

3.17 Transportation

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

3.17.1 Existing Environment

As described in Section 2.1.1, Slauson Avenue is an east–west arterial passing through Pico Rivera, Santa Fe Springs, and West Whittier–Los Nietos in Los Angeles County. The traffic-carrying capacity of the six-lane Slauson Avenue is restricted by its four-lane bridges over the Rio Hondo and the San Gabriel River channels. Slauson Avenue includes an interchange with I-605 located approximately 0.3 miles east of the San Gabriel River. I-605 has an interchange with I-5 approximately 1.75 miles south of Slauson Avenue.

As described in Section 2.1.2, the Slauson Avenue Bridge is 655 feet long and 63 feet, 8 inches wide. On the bridge deck, the 12-foot-wide lanes are undivided with 4-foot, 10-inch-wide sidewalks lining both sides and steel railings along the edges of the bridge.

Existing Traffic Conditions

According to the traffic operational analysis report prepared for the proposed I-605 Corridor Improvement Project (Caltrans District 7 and Los Angeles County Metropolitan Transportation Authority, 2019), the average daily traffic volume on Slauson Avenue west of the San Gabriel River was 40,560 from Tuesday to Thursday with a weekly average of 35,970.

Existing Transit Services

Two Metro bus lines operate near the Slauson Avenue Bridge. Metro Local Line 108 operates along parts of Slauson Avenue, running from West Los Angeles near Marina del Rey through South Los Angeles, continuing eastward into Huntington Park and Bell. The route does not include

the Slauson Avenue Bridge. Metro Local Line 358 is an express bus service that also operates along Slauson Avenue, offering faster travel times for longer distances across the city, particularly between West Los Angeles and parts of South Los Angeles and Southeast Los Angeles.

Existing Bicycle Facilities

Slauson Avenue at its bridge over the San Gabriel River Channel does not include dedicated bicycle lanes; however, as described in Section 2.1.2, the San Gabriel River Trail is aligned along the eastern side of the channel next to the bridge (also see Section 3.15, Public Services).

Parking

Slauson Avenue at its bridge over the San Gabriel River Channel does not permit parking.

3.17.2 Impact Analysis

a) Would the project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit roadway, bicycle and pedestrian facilities?

No Impact.

A significant impact would occur if the project conflicted with an adopted transportation plan or ordinance intended to preserve the function and safety of the circulation system, including plans for transit, roadways, bicycle lanes, or pedestrian access.

Construction Impact:
Construction activity would be limited to a 6-month period during which temporary lane closures may occur on the Slauson Avenue Bridge. These closures would be short-term and coordinated through a TCP to maintain safe vehicle, pedestrian, and emergency access during construction. The San Gabriel River Trail, which runs beneath the bridge, may be temporarily closed for public safety. However, a detour plan has been prepared (see PDF-REC-1 in Section 3.16.3) to ensure continued pedestrian and bicycle circulation. No long-term conflict with the circulation system would occur.

Operational Impact:
The retrofit would not change the configuration, capacity, or alignment of the Slauson Avenue Bridge or Slauson Avenue. After construction, the roadway would continue to operate as a four-lane arterial with sidewalks. No new permanent impacts to transit, bicycle, or pedestrian systems would result. Therefore, the project would not conflict with any transportation-related plan or policy.

Public Works has coordinated with the SCRRA, which uses the BNSF railroad adjacent to the bridge, and with UPRR, which owns the rail line east of the channel. Both railroads have reviewed the retrofit design, and elements of the retrofit have been coordinated with SCRRA's third track installation project. This coordination ensures that the project does not interfere with existing or planned rail operations.

b) Would the project conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?

Less than Significant Impact.

A significant impact would occur if the project generated new or increased VMT in a manner that conflicted with applicable thresholds or screening criteria under CEQA Guidelines Section 15064.3(b), which emphasizes VMT rather than LOS as the metric for transportation impacts.

Construction Impact:
The bridge retrofit would result in temporary increases in vehicle trips related to worker commutes and material deliveries. Based on the labor and equipment plan, an average of approximately 15 workers would commute daily to the site, and approximately 50 total truck trips would be needed over the 6-month construction period to transport concrete, steel, gravel, and other materials. This equates to fewer than 10 truck trips per day.

Adding the daily worker commutes (15 trips) and truck trips (fewer than 10), the total would remain well under the 110-trip screening threshold established by the California Office of Planning and Research (OPR) and adopted by Public Works (Los Angeles County Public Works, 2020) for determining whether VMT analysis is required. As such, the project qualifies for screening under CEQA Guidelines Section 15064.3(b), and no detailed VMT analysis is required.

Operational Impact:
The project would not add travel lanes, change roadway connectivity, or result in new development that generates long-term trips. After completion of the retrofit, the bridge would function as it did prior to construction, with no change to traffic patterns or roadway use. As such, the project would not result in an increase in VMT or conflict with Section 15064.3(b).

Impacts would be less than significant, and no mitigation measures are required.

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

No Impact.

A significant impact would occur if a project introduced new design features that substantially increased safety risks, such as sharp curves, limited sight distances, unusual turning movements, or incompatible vehicle types that create roadway conflicts.

Construction Impact:
The project involves retrofitting the existing Slauson Avenue Bridge to meet current seismic standards. Construction activities would be confined to the existing roadway and adjacent staging/access areas. No new travel lanes, intersections, or permanent changes to the roadway alignment would be introduced. Temporary traffic control would be implemented during construction to guide motorists and protect workers, minimizing safety hazards. Construction vehicles would consist of standard equipment compatible with the urban setting.

Operational Impact:
Upon completion, the bridge would operate in the same configuration as it currently does: four lanes with sidewalks and no changes to traffic flow, access points, or alignment. The project does not introduce any geometric design features or uses that would increase safety hazards. No impact would occur.

d) Would the project result in inadequate emergency access?

Less than Significant Impact.

A significant impact would occur if the project blocked or restricted emergency vehicle access, delayed response times, or interfered with emergency evacuation routes during construction or long-term operation.

Construction Impact:
During construction, partial lane closures on the Slauson Avenue Bridge would be necessary for deck and girder work and concrete placement via boom pump trucks. While these closures could temporarily affect traffic flow, full bridge closures are not anticipated. A TCP has been developed to maintain access and ensure public and worker safety. Emergency service providers—including fire and police departments—would be notified in advance of construction and kept informed throughout the duration of the work.

With these measures in place, emergency access would be maintained at all times, and the project would not result in inadequate emergency access during construction. Impacts would be less than significant.

Operational Impact:
Following construction, the bridge would return to its original four-lane configuration, with no changes to traffic circulation or access. The project would not alter roadway design in a way that restricts emergency access. Therefore, no inadequate emergency access would result from project operation, and impacts would occur.

3.17.3 Standard Conditions, Project Design Features, and Mitigation Measures

No mitigation measures are required. Construction-related traffic impacts would be addressed through project design feature PDF-PUB-1, described in Section 3.15.3. Implementation of PDF-PUB-1 would ensure public and worker safety and maintain emergency access to all nearby streets and parcels.

3.18 Tribal Cultural Resources

	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant	No Impact
Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined Public Resources Code section 5020.1(k), or	☐	☐	☐	☒
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☐	☐	☒

AB 52 defines Tribal Cultural Resources (TCRs) and requires lead agencies to provide notice to tribes that are traditionally and culturally affiliated with the geographic area of a project if they have requested to be notified of projects subject to AB 52. Consultation, as defined under AB 52 includes, but is not limited to, discussing the type of environmental review necessary, the significance of TCRs, the significance of project impacts on the TCRs, and alternatives and mitigation measures recommended by the tribe. Parties must consult in good faith, and consultation is deemed concluded when (1) the parties agree to the measures to avoid or reduce a significant impact on a TCR (if such a significant impact exists) or (2) when a party concludes that mutual agreement cannot be reached. Furthermore, under AB 52, mitigation measures agreed upon during consultation must be included in the environmental document and, if no formal agreement on the appropriate mitigation has been established, mitigation measures that avoid or substantially lessen potential significant impacts should be implemented.

3.18.1 Existing Environment

As outlined in Section 3.5, the NAHC maintains the confidential SLF, which includes sites of traditional, cultural, or religious value to the Native American communities. The results of the SLF search conducted by the NAHC for this project returned negative results, indicating that no TCRs are known to exist within or near the cultural resources study area.

In accordance with Assembly Bill (AB) 52, Los Angeles County Public Works initiated consultation with tribes traditionally affiliated with the project area. On July 8, 2024, Public Works sent consultation letters via certified mail and email to three tribes listed in the County's tribal contact list, inviting them to participate in the consultation process pursuant to AB 52. A summary of the consultation and coordination is provided below:

- Gabrieliño Band of Mission Indians – Kizh Nation (Chairperson Andrew Salas): Responded on July 15, 2024, requesting consultation and a meeting. However, on August 22, 2024, prior to the scheduled meeting, the Tribe notified Public Works that, upon further review, they no longer had concerns regarding the proposed project and canceled the meeting request. Based on this correspondence, Public Works considers consultation with the Gabrieliño Band of Mission Indians – Kizh Nation complete, and no further consultation is required.

- San Gabriel Band of Mission Indians (Chief Anthony Morales): Did not respond to the initial outreach. On June 30, 2025, Public Works sent a follow-up email informing the Tribe that the AB 52 consultation process had concluded.

- Gabrieliño Tongva Indians of California (Chairman Robert Dorame and Tribal Cultural Resource Administrator Christina Conley): Responded on July 8, 2024, stating that they had no concerns provided the project did not involve ground disturbance. On July 15, 2024, the Tribe followed up to request notification if ground disturbance was later proposed. On July 31, 2025, Public Works sent an email confirming that the consultation process had concluded, based on the project's scope.

3.18.2 Impact Analysis

a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined Public Resources Code section 5020.1(k)?

No Impact.

A significant impact would occur if the project were to cause a substantial adverse change in a tribal cultural resource (TCR) that is formally recognized under CEQA, including those listed or eligible for listing in the CRHR or a local historic resource register. A substantial adverse change may involve physical damage, destruction, or loss of integrity to the resource's characteristics that convey its cultural significance.

Construction Impact:
As described in Section 3.5 and 3.18.1, a records search conducted through the CHRIS and a SLF search conducted by the NAHC did not identify any TCRs within or near the cultural resources study area. Additionally, no tribes identified any resources of concern during the AB 52 consultation process. One tribe initially requested consultation but withdrew its request after confirming that the project would not involve subsurface soil disturbance. As the project involves no grading or excavation, the potential for adverse effects on TCRs is absent. No construction-related impacts to listed or eligible TCRs would occur.

Operational Impact:
The project consists of seismic retrofitting of an existing bridge and would not introduce any operational activities that could impact cultural resources. No new ground disturbance, facility expansion, or changes in land use would occur following construction. As such, operation of the bridge would not result in impacts to TCRs.

b) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?

No Impact.

A significant impact under this criterion would occur if the lead agency, after consultation with California Native American tribes, identifies a site, feature, or cultural landscape as a TCR that meets CEQA's criteria for significance under Public Resources Code Section 5024.1(c), and the project would materially impair the resource's significance.

Construction Impact:
Public Works initiated formal AB 52 consultation by sending letters to three tribes on July 8, 2024. Two tribes responded. One requested a meeting and later withdrew its request after confirming the absence of ground disturbance. The other tribe did not have concerns, provided that no subsurface work would be conducted. Based on these communications, no tribes identified any specific TCRs within the cultural resources study area that would meet the criteria in Section 5024.1(c). Given the absence of subsurface work and no known or suspected resources, the project would not affect a resource considered significant by a tribe.

Operational Impact:
As with the previous response, the operational phase would not result in ground disturbance or any other activity that could impact TCRs. No new development, lighting, or access would be introduced that could indirectly affect culturally sensitive areas.

3.18.3 Standard Conditions, Project Design Features, and Mitigation Measures

No standard conditions, project design features, or mitigation measures are required to address tribal cultural resources. As described above, the project would not involve ground disturbance or

excavation, and no tribal cultural resources were identified through records searches or AB 52 consultation. Therefore, no impacts to TCRs are anticipated.

In the unlikely event that human remains are discovered during construction, those remains would be treated in accordance with California Health and Safety Code Section 7050.5, Public Resources Code Section 5097.98, and CEQA Guidelines Section 15064.5(e). As discussed in Section 3.5.2(c), these procedures include notifying the County Coroner and, if the remains are determined to be Native American, coordinating with the NAHC and the Most Likely Descendant to determine appropriate treatment. Compliance with these procedures would ensure that impacts to any inadvertently discovered TCRs are avoided or minimized in accordance with applicable law.

3.19 Utilities and Service Systems

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

3.19.1 Existing Environment

Water Supply and Service

Water supplies and services within the project area are provided by three different water supply agencies: Pico Rivera City Water Department, San Gabriel Valley Water Company, and Santa Fe Springs City Water Department. No water mains are located along the Slauson Avenue Bridge.

Sewers and Wastewater Treatment

The LACSD manage sewage treatment and regional trunk sewer lines within Los Angeles County (LACSD 2024). Individual cities and unincorporated areas within each district are responsible for the local sewers and laterals that connect to LACSD's trunk sewer system. An active underground

sewer line runs north-south along the San Gabriel River Channel's western levee and service road.

Stormwater

The drainage network around the Slauson Avenue Bridge collects stormwater runoff primarily through a system of sewers that discharge at outfalls positioned along the levees of the San Gabriel River Channel. In the vicinity of the Slauson Avenue Bridge, three standard gravity mainlines direct stormwater into the channel through outfalls situated to the northeast, southeast, and northwest of the bridge (see Figure 3.10-2).

Solid Waste Disposal

No solid waste disposal facilities are located in the general vicinity of the Slauson Avenue Bridge.

Other Utility Systems

Within the project vicinity, 220-kilovolt electrical transmission lines and their towers are aligned along the eastern side of the San Gabriel River Channel. North of Slauson Avenue, the transmission line right-of-way lies between the UPRR tracks and a residential subdivision. The transmission lines cross over the bridge near its eastern abutment, with a tower located less than 100 feet to the south of the bridge. The transmission line easement immediately south of Slauson Avenue occupies a largely vacant lot.

3.19.2 Impact Analysis

a) Would the project 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.

A significant impact would occur if the project required the installation or relocation of major utility infrastructure, such as water, wastewater, storm drains, electric power lines, or telecommunications systems, that could lead to substantial construction-related environmental effects.

Construction Impact:

The bridge retrofit project would be limited to structural improvements to the existing Slauson Avenue Bridge and would not involve new development or expansion of infrastructure. No water, sewer, electrical, or telecommunication utilities are located on or within the bridge that would require relocation. Construction access would be temporary and confined to existing paved areas and the earthen bottom of the San Gabriel River. As such, the project would not require the construction or relocation of any major utility systems. No impact to existing utilities would occur.

Operational Impact:

Once construction is complete, the bridge would continue to operate as it currently does, with no changes to its configuration or utility service needs. No operational utility modifications would be introduced. Therefore, there would be no impact.

b) Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

No Impact.

A significant impact would occur if a project placed new or increased demands on regional water supply systems such that the provider could not ensure adequate service under normal, dry, or multiple dry-year conditions.

Construction Impact:
Water use during construction would be negligible. The bridge retrofit does not involve excavation, grading, or other activities that typically require dust suppression or substantial water use. No utility connections or permanent water infrastructure would be added. Therefore, the project would not place any meaningful demand on local water supplies during construction.

Operational Impact:
The completed bridge would continue to function as part of the regional transportation network without generating any long-term water demand. The project would not induce population growth or change existing land uses. Accordingly, no impact to water supply availability would occur during operation.

c) Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

No Impact.

A significant impact would occur if a project generated wastewater that exceeded the capacity of the existing collection or treatment system, or if new wastewater infrastructure were required.

Construction Impact:
The bridge retrofit project would not require any connections to the sanitary sewer system. Construction activities would not generate process wastewater or require sewer service. Portable restrooms would be provided on site, and any wastewater generated by construction workers would be collected and removed by a licensed hauler. Therefore, the project would not affect existing wastewater treatment infrastructure or capacity.

Operational Impact:
The completed project would not include new land uses, population increases, or facilities that generate wastewater. The function of the Slauson Avenue Bridge would remain unchanged, and no wastewater demand would result from ongoing operation. As a result, there would be no impact to wastewater treatment services.

d) Would the project 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?

Less than Significant Impact.

A significant impact would occur if a project generated solid waste in volumes that exceeded the capacity of local landfills or interfered with local or state solid waste diversion goals.

Construction Impact:
The proposed seismic retrofit of the Slauson Avenue Bridge would generate limited construction-related waste, including concrete debris, temporary scaffolding materials, and other incidental waste. Based on County estimates, the total volume of solid waste generated during construction would be approximately four truckloads, or roughly 40 cubic yards. This waste would be transported by the contractor to a permitted recycling or disposal facility in accordance with County and State regulations, including applicable CalGreen waste diversion requirements. Given the small volume of waste and the availability of landfill and recycling capacity in Los Angeles County, construction-related solid waste would not exceed the capacity of local infrastructure or interfere with solid waste reduction goals. Impacts would be less than significant.

Operational Impact:
The project does not involve new development or changes in land use and would not generate ongoing solid waste once construction is complete. Therefore, no impact related to long-term solid waste generation would occur.

e) Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Less than Significant Impact.

A significant impact would occur if a project failed to comply with applicable solid waste regulations, resulting in improper disposal or management of construction or operational waste.

Construction Impact:
The project would comply with all applicable solid waste laws, including the California Integrated Waste Management Act, California Green Building Standards Code (CalGreen), and relevant Los Angeles County Public Works requirements. Construction related waste, including concrete debris, packaging, and miscellaneous materials, would be managed and disposed of by a licensed contractor at appropriate facilities, in accordance with state and local regulations. The contractor would also be expected to implement best practices to minimize waste and maximize recycling of eligible materials. Because the project would comply with applicable regulations and would not result in improper waste management, impacts would be less than significant.

Operational Impact:
The completed retrofit would not result in any new or ongoing waste generation. The project does not involve any changes in land use, development, or operations that would conflict with existing solid waste laws. Therefore, no impact related to long-term compliance with solid waste regulations would occur.

3.19.3 Standard Conditions, Project Design Features, and Mitigation Measures

No mitigation measures are required. During construction, the project will comply with applicable water and solid waste reduction requirements under the California Green Building Standards Code (CalGreen) and Public Works guidelines. In addition the project will implement best practices to minimize water and energy use, manage construction waste responsibly, and prioritize recycling or reuse of materials to the fullest extent feasible.

These measures ensure utility-related impacts remain minimal and consistent with regulatory standards.

3.20 Wildfire

	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant	No Impact
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☒	☐
c) Require the installation or maintenance of associated infrastructure (such as roads, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☐	☒
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☐	☒

3.20.1 Existing Environment

The Slauson Avenue Bridge is located in a highly urbanized area with minimal vegetation. This area is not within or near any designated Moderate, High, or Very High Fire Hazard Severity Zone in Los Angeles County. The closest recent wildfire was the Sycamore Fire in 2022, which burned approximately 3.75 acres. Historic wildfires have occurred near the Sycamore Fire site in an open, vegetated area with steep topography, parks, and recreational trails located approximately 3 miles northeast of the bridge.

3.20.2 Impact Analysis

a) Would the project substantially impair an adopted emergency response plan or emergency evacuation plan?

Less than Significant Impact.

A significant impact would occur if a project obstructed designated emergency routes or otherwise limited access for emergency responders.

Construction Impact:
Temporary lane closures may occur during construction on the Slauson Avenue Bridge, which could delay traffic flow. However, the bridge would remain open to at least one lane in each direction, and emergency access would be maintained in accordance with a TCP developed by Public Works. Emergency responders would be notified in advance of the construction schedule. These standard procedures would ensure that emergency access is preserved. Therefore, construction-related impacts would be less than significant.

Operational Impact:
The bridge retrofit would not change traffic patterns or introduce new barriers to emergency response. No impact would occur.

b) Due to slope, prevailing winds, and other factors, would the project exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

Less than Significant Impact.

A significant impact would occur if the project introduced combustible materials or activities into a fire-prone environment in a way that increased ignition or fire spread risk.

Construction Impact:
The project site is located in a fully urbanized, flat area with minimal vegetation and is not located within or near a Moderate, High, or Very High Fire Hazard Severity Zone, as mapped by Cal Fire. Construction activity would be confined to the bridge deck and designated staging areas, which are paved or otherwise cleared of dense vegetation. No blasting, hot work, or other high-risk ignition activities are planned.

To minimize any residual fire risk during construction, the contractor would be required to comply with applicable fire prevention provisions of the California Fire Code, including proper handling of flammable materials and on-site availability of portable fire extinguishers. These standard practices are routinely included in Public Works contracts and would ensure safe construction activity even in the unlikely event of a nearby fire. Therefore, wildfire-related risks during construction would be less than significant.

Operational Impact:
No new infrastructure or land uses would be introduced that could elevate wildfire risk. No impact would occur.

c) Would the project require the installation or maintenance of associated infrastructure (such as roads, 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.

The bridge retrofit does not involve installation of new roads, power lines, or emergency infrastructure. No impact would occur.

d) Would the project 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.

The project is located in a flat, urbanized setting with no proximity to burn scars, slopes, or unstable terrain. There are no changes to drainage or hydrology that would elevate post-fire risks. No impact would occur.

3.20.3 Standard Conditions, Project Design Features, and Mitigation Measures

No special standard conditions, project design features, or mitigation measures are required to address wildfire risks. The project is located in a fully urbanized area and is not within or near a designated fire hazard severity zone. Standard construction fire prevention measures, such as the proper storage and handling of flammable materials, maintenance of fire extinguishers on-site, and adherence to applicable provisions of the California Fire Code, would be implemented by the contractor in accordance with Public Works' standard specifications. These routine practices are sufficient to ensure fire safety during construction and avoid any potential impact related to wildfire risk.

3.21 Mandatory Findings of Significance

	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant	No Impact
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	☐	☒
c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

3.21.1 Impact Analysis

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 Impact with Mitigation.

A significant impact would occur if a project results in permanent degradation or fragmentation of sensitive habitat, adversely affects a special-status species, or substantially alters cultural or historical resources.

Construction Impact:
Biological Resources

The proposed retrofit of the Slauson Avenue Bridge would avoid in-channel work and water diversion. Therefore, no disturbance of jurisdictional habitat types, such as the unvegetated channel or disturbed riparian wetlands, would occur. Construction access would be limited to existing paved roads, the bridge deck, and adjacent upland slopes. Construction workers and rubber-tired vehicles and equipment would access the channel using the existing paved roads along both sides of the river, and equipment may be brought to the channel floor using natural slopes on either side of the river or lowered from the bridge deck using a crane, consistent with the construction approach described in Section 2.4.4. No locally protected tree species are present within the project work area.

Although direct habitat disturbance would be avoided, the project area supports or potentially supports several special-status species, including Crotch's bumble bee, burrowing owl, western yellow bat, pallid bat, and other bat species (e.g., Mexican free-tailed bat, Yuma myotis, canyon bat) that may use the bridge structure for roosting and potentially as maternity colonies. Construction-related noise, vibration, and human activity could disturb these species if not properly managed.

To reduce potential impacts to less-than-significant levels, the project will implement Mitigation Measures MM-BIO-1 through MM-BIO-6, which include pre-construction surveys, seasonal work restrictions, exclusion methods, biological monitoring, and coordination with applicable wildlife agencies. With implementation of these measures, impacts to biological resources would be less than significant.

Cultural Resources

The cultural resources study area includes three historic resources: the San Gabriel River Channel, the Union Pacific Railroad (UPRR) tracks, and the BNSF Railway tracks. The project would not alter or remove any character-defining features of these historic resources, and no impacts to historic resources would occur.

Tribal Cultural Resources

No tribal cultural resources were identified within the project area through the Sacred Lands File search or AB 52 consultation process. Additionally, the project does not involve excavation or subsurface disturbance that could affect buried archaeological resources. No impacts to tribal cultural resources would occur.

In the unlikely event that archaeological materials or human remains are encountered during construction, work would be halted in the immediate area and procedures outlined under California Health and Safety Code Section 7050.5 and Public Resources Code Section 5097.98 would be followed, including notification of the County Coroner and the Native American Heritage Commission, if applicable. Compliance with these procedures ensures that any unanticipated discoveries would not result in a significant impact.

Conclusion

With implementation of mitigation measures for biological resources and adherence to standard procedures for inadvertent discoveries, the project would not substantially degrade the quality of

the environment or adversely affect sensitive biological or cultural resources. Therefore, impacts would be less than significant with mitigation.

Operational Impact:
Once construction is complete, the bridge would continue to operate as it does today. No long-term environmental degradation, biological habitat conversion, or cultural resource alteration would occur. No operational impact is anticipated.

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)?

No Impact.

As discussed in Section 2.6, no other planned or ongoing construction projects are located near the Slauson Avenue Bridge that would overlap with the proposed retrofit project in timing or geographic area. While the U.S. Army Corps of Engineers is planning sediment removal activities at the San Gabriel River–San Jose Creek confluence (approximately 8 miles upstream), the distance, scale, and timing differences between the two projects eliminate the potential for cumulative impacts. Therefore, the incremental impacts from this project are not cumulatively considerable.

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

Less than Significant Impact.

A significant impact would occur if the project caused exposure of people to toxic substances, displacement without accommodations, or unsafe conditions.

Construction Impact:
The project would not result in any impacts that are significant and unavoidable or cumulatively considerable. The implementation of mitigation measures set forth herein would reduce all potential impacts to less than significant levels. Therefore, the project would not result in environmental impacts that would cause substantial adverse effects on human beings.

Operational Impact:
The bridge would resume normal operation post-retrofit. No new or ongoing adverse environmental effects on human beings are anticipated during operation.

3.21.2 Standard Conditions, Project Design Features, and Mitigation Measures

Mitigation Measures BIO-1 through BIO-6, as outlined in Section 3.14.3, would be implemented to avoid or minimize potential impacts to sensitive habitat and special-status species, including roosting bats, nesting birds, and burrowing owls.

Additionally, compliance with standard construction practices and applicable regulations would avoid or minimize impacts to cultural and historical resources and ensure public and worker safety throughout the construction period. No additional mitigation measures or standard conditions are required.

4.0 PREPARATION AND CONSULTATION

4.1 Preparers

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Thanh Luc, Noise Specialist
Phillip Samples, Environmental Planner
Ricardo Salcedo, Environmental Planner
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ECORP Consulting, Inc.

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Watearth, Inc.

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Lee Vella, Environmental Planner/Bat Survey/Aquatic Resources Specialist

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Southern California Regional Rail Authority

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Gabrieleno Band of Mission Indians – Kizh Nation

Andrew Salas, Chairperson

San Gabriel Band of Mission Indians

Anthony Morales, Chief

The Gabrieliño Tongva Indians of California

Robert Dorame, Chairman
Christina Conley, Tribal Cultural Resource Administrator

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Appendix A
Bridge Retrofit Plans

Appendix A1
Project Design Plan

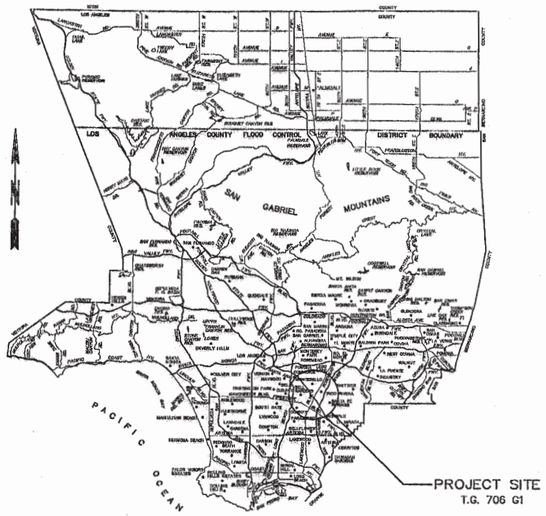
BRLSZD 5953(402)

COUNTY OF LOS ANGELES
DEPARTMENT OF PUBLIC WORKS

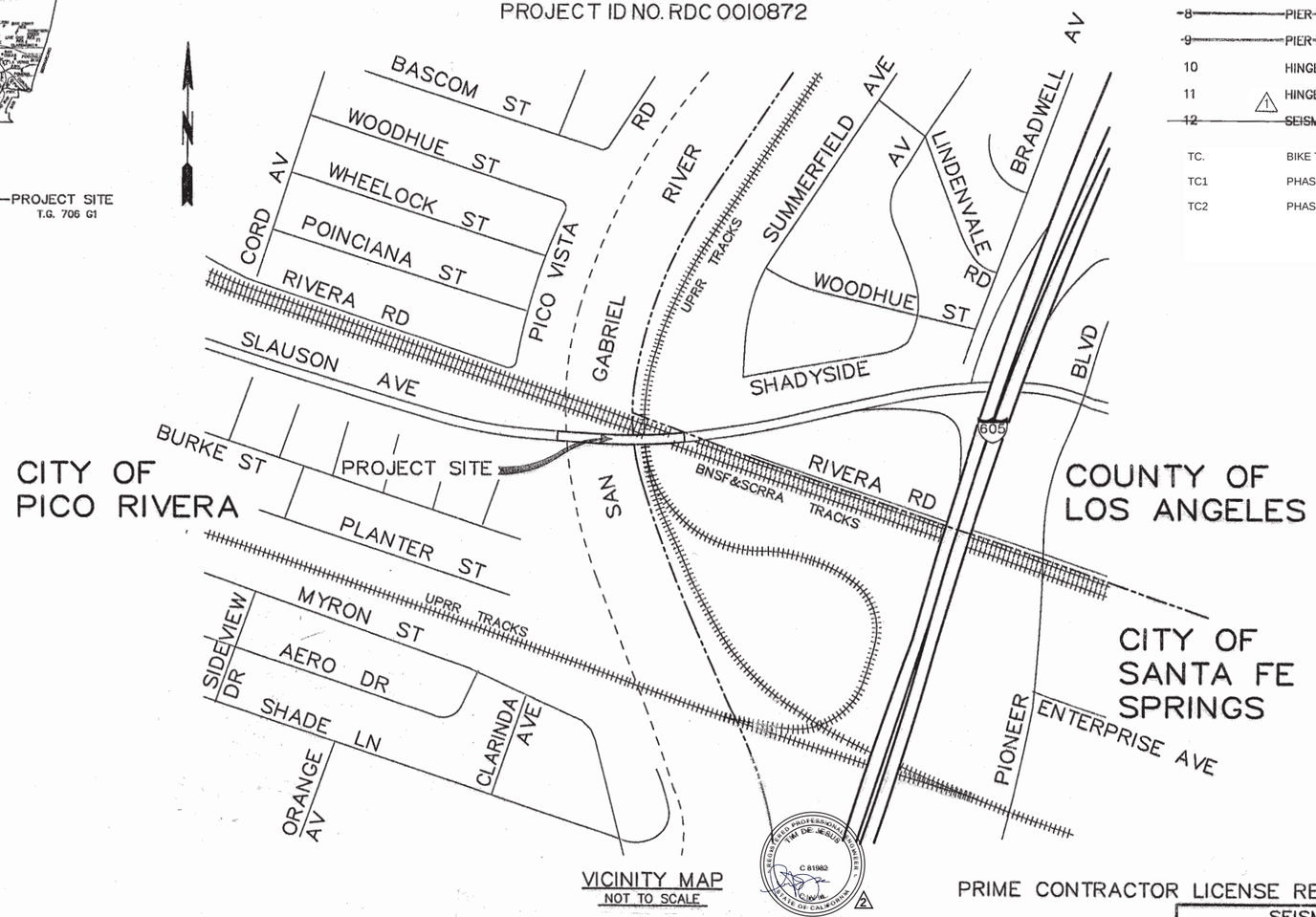
PLANS FOR THE SEISMIC RETROFIT OF BRIDGE
ON

SLAUSON AVENUE

OVER
SAN GABRIEL RIVER
PROJECT ID NO. RDC 0010872



LOCATION MAP



VICINITY MAP
NOT TO SCALE

INDEX TO PROJECT DRAWINGS

SHEET	TITLE
1	TITLE SHEET
2	GENERAL PLAN
3	NOTES AND REFERENCES
4	ABUTMENT 1 RETROFIT DETAILS
5	ABUTMENT 8 RETROFIT DETAILS
6	⚠1 PIERS 2,3,4,5, ~~& 7~~ RETROFIT DETAILS NO. 1
7	PIERS 2,3,4,5, ~~& 7~~ RETROFIT DETAILS NO. 2
~~8~~	~~PIER 6 RETROFIT DETAILS NO. 1~~ ⚠1
~~9~~	~~PIER 6 RETROFIT DETAILS NO. 2~~
10	HINGE RETROFIT DETAILS NO. 1
11	⚠1 HINGE RETROFIT DETAILS NO. 2
~~12~~	~~SEISMIC ISOLATION BEARING DESIGN CRITERIA~~
TC.	BIKE TRAIL DETOUR
TC1	PHASE 1
TC2	PHASE 2

PRIME CONTRACTOR LICENSE REQUIRED: CLASS A

DRAFTER	DESIGNER	CHECKER	CADD PART NUMBER	REVIEWED	DATE
R. Donley	J. England	J. Wu		BY D. Pedersen	11/05/97

MARTIN & KANE
1212 S. Flower, 3rd Flr.
Los Angeles CA 90015
Phone: (213) 744-9992
Fax: (213) 744-9993

CITY OF PICO RIVERA
BY Enrique Acevedo 2-17-98 DATE

CITY OF SANTA FE SPRINGS
BY John Cruz 2/24/98 DATE

TWO DAYS BEFORE YOU DIG
CALL USA TOLL FREE
1-800-227-2600

APPROVED DEAN EFSTATHIOU ACTING DIRECTOR OF PUBLIC WORKS
BY Patrick Wellehan 7-17-2008
DEPUTY DIRECTOR DATE

RECOMMENDED
BY [signature] 7-17-08
ASSISTANT DEPUTY DIRECTOR DATE

SUBMITTED
BY Kassandra Gherini 7-17-08 DATE

DATE	MK	DESCRIPTION
8/18/22	⚠2	VERIFIED ⚠1
	⚠1	BNSF RETROFITTED PIERS 6&7
		SEE PLAN PB640912-PB640937

REVISIONS

REGISTERED PROFESSIONAL ENGINEER
Raymond M. Farag
No. C 049040
Exp. 09/30/00
CIVIL
STATE OF CALIFORNIA

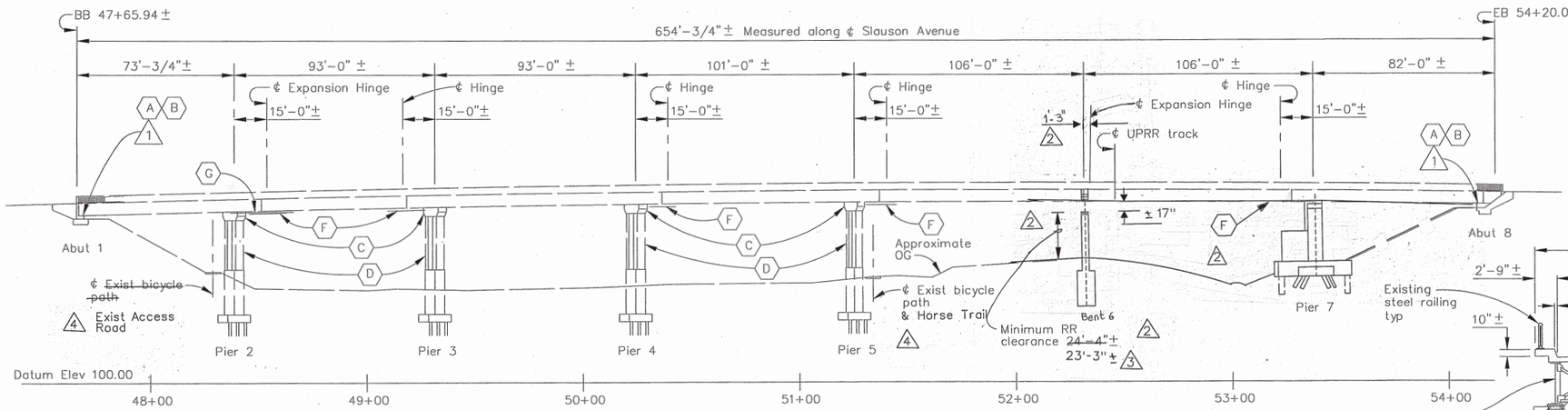
PROJECT ENGINEER 12/5/97 DATE

SEISMIC RETROFIT PROJECT
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS
SLAUSON AVENUE
OVER
SAN GABRIEL RIVER

TITLE SHEET

BR 1140 | JOB X2110359 | DWG PB640645 | SHEET 1 OF 12
STATE BR. NO. 53C0084

PB640645



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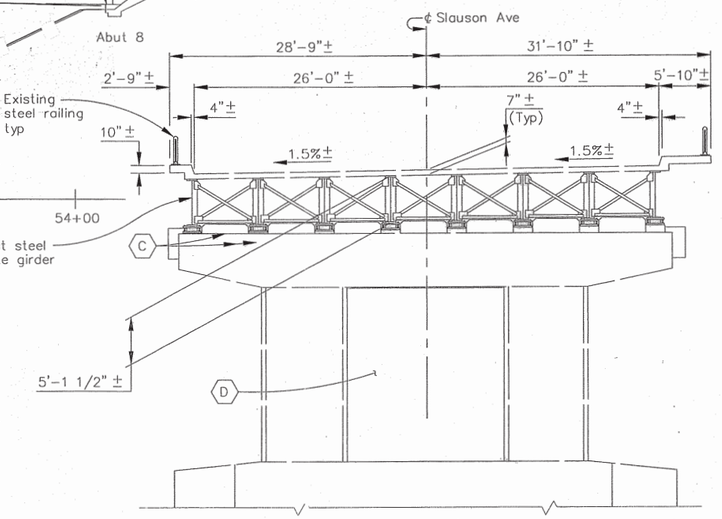

TYPICAL SECTION
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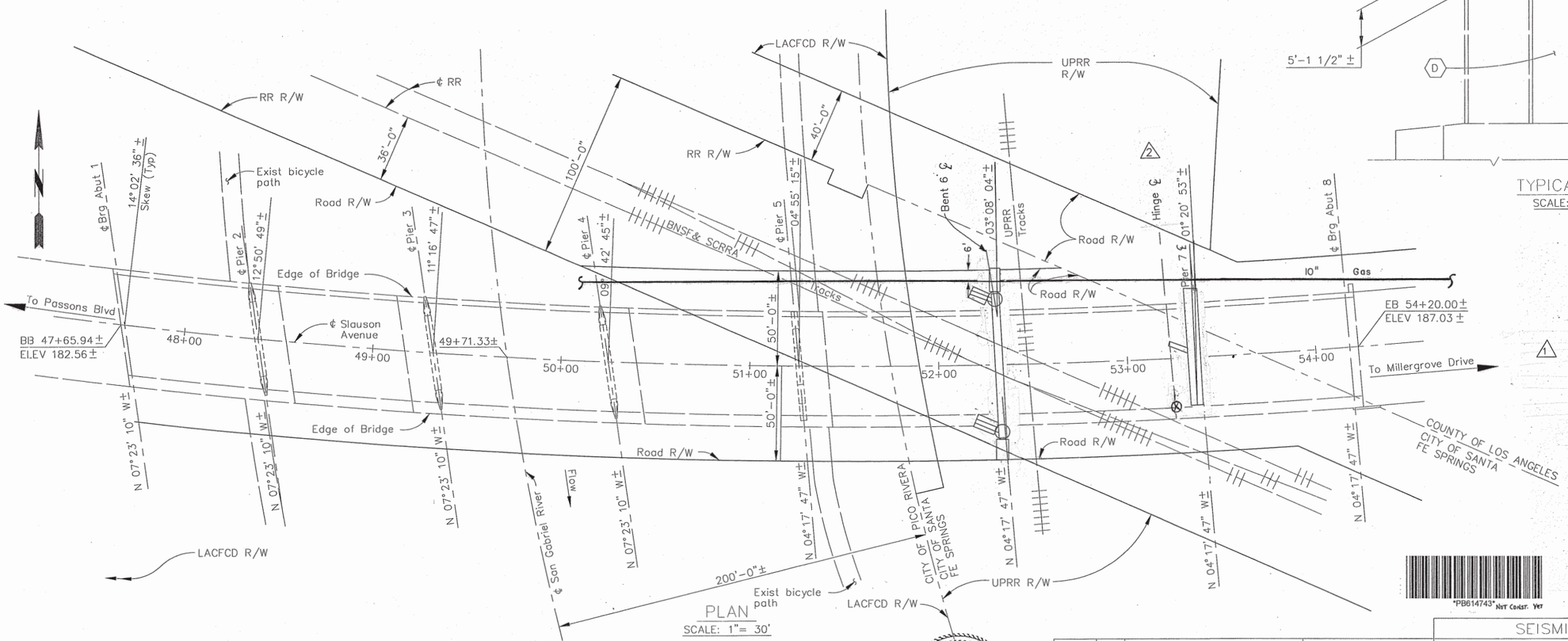

PLAN
SCALE: 1"= 30'

LEGEND

- R/W LINE
- INDICATES CITY BOUNDARIES
- INDICTEAEXISTING STRUCTURE
- (1) (A) END DIAPHGRAM RETROFIT
- (B) ABUTMENT SHEAR KEYS
- (C) PIER SHEAR KEYS
- (D) PIER INFILL WALLS
- ~~(E) SEISMIC ISOLATION BEARING PADS~~
- (F) HINGE SEAT EXTENDER
- (G) RESTRAINER CABLES
- (2) (⊗) MIN OFFSET VERT. CLR. @ HINGE ADJACENT TO PIER 7- ~~23'-1"~~ 24'-7" ± (3)

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"PB614743" NOT CONST. YET

NOTE: See "NOTES AND REFERENCES" sheet for general notes.

MARTIN, RIVETT & OLSON, INC.
CONSULTING ENGINEERS
2200 B Douglas Boulevard, Suite 150
Roseville, California 95661-3878
(916) 783-3838 Fax (916) 783-5003
A Martin Associates Group Company • Formerly Martin & Kane, Inc.

REGISTERED PROFESSIONAL ENGINEER — IVAN DE JESUS — C 81982 — STATE OF CALIFORNIA — 5

REGISTERED PROFESSIONAL ENGINEER — MICHAEL D. LEWIS — No. 49337 — Exp. 9-30-2023 — CIVIL — STATE OF CALIFORNIA — REVISION 4

DATE		DESCRIPTION
8/18/22	5	VERIFIED 1 THRU 4
6/2/11	4	EXIST ACCESS ROAD & HORSE TRAIL
1/21/10	3	REVISED CLEARANCE
10/25/09	2	BNSF RR RETROFITTED PIERS 6 & 7
5/26/00	MDL	ADDED END DIAPHRAGM RETROFIT 1

REVISIONS

REGISTERED PROFESSIONAL ENGINEER — Raymond M. Kans — No. C 049040 — EXP. 09/30/00 — CIVIL — STATE OF CALIFORNIA

PROJECT ENGINEER — DATE

SEISMIC RETROFIT PROJECT
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

SLAUSON AVENUE
OVER
SAN GABRIEL RIVER
GENERAL PLAN
PROJECT ID NO. RDC0010872

BR 1140	JOB X2110359	DWG PB614743	SHEET 2 OF 12

STATE BR. NO. 53C0084

DRAFTER R. Danley | DESIGNER J. England | CHECKER J. Wu | CADD PART NUMBER | REVIEWED By D. Pedersen 11/05/97 | DATE

C:\PROJECTS\SLAUSON\S-GP.DWG MAY 21, 1998

FORM 210.BRGENPLAN 5/95

REFERENCES

1. AS-BUILT DRAWINGS NOS. #603869-898, #620927-931, #606481-482, #621380-385, #691037

GENERAL CONSTRUCTION NOTES

1. THE CONTRACTOR SHALL VERIFY ALL LIMITING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.
2. ALL EXPOSED EDGES OF CONCRETE MEMBERS SHALL BE ROUNDED OR BEVELED.
3. THE CONTRACTOR SHALL PROTECT THE EXISTING UTILITIES IN PLACE AND NOTIFY ALL AFFECTED UTILITY AGENCIES PRIOR TO CONSTRUCTION.
4. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IF EXISTING DRAIN LINES, PLUMBING, ELECTRICAL CONDUITS, JUNCTION BOXES, OR OTHER OBSTRUCTIONS INTERFERE WITH THE REQUIRED RETROFIT WORK.
5. IF REINFORCEMENT IS ENCOUNTERED DURING DRILLING, BEFORE THE SPECIFIED DEPTH IS ATTAINED, A NEW HOLE SHALL BE DRILLED ADJACENT TO THE REJECTED HOLE TO THE SPECIFIED DEPTH. THE REJECTED HOLE SHALL BE FILLED WITH EPOXY MORTAR.
6. MISCELLANEOUS STEEL PARTS TO BE GALVANIZED, SHALL BE GALVANIZED AFTER FABRICATION.
7. THE REMOVAL AND REPLACEMENT OF EXISTING COMPONENTS OF STEEL BRIDGES SHALL BE LIMITED TO ONE BAY BETWEEN GIRDERS OR ONE PANEL BETWEEN INTERMEDIATE CROSS FRAMES AT EACH QUADRANT AT A TIME. UNLESS GIVEN WRITTEN APPROVAL FROM THE ENGINEER, THE CONTRACTOR SHALL NOT START THE ADJACENT PANEL CONSTRUCTION UNTIL THE PREVIOUS REPLACEMENT HAS BEEN COMPLETED.
8. EXISTING RIVETS SHALL BE REMOVED BY GRINDING OFF THE RIVET HEAD AND NOT BY OPEN GAS FLAME CUT. RIVETS SHALL BE REMOVED AND REPLACED (WHERE CALLED FOR) ONE AT A TIME UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
9. EXISTING CONCRETE SURFACES OF PIERS, BENTS, AND ABUTMENTS MAY BE BATTERED OR SLOPED. THE CONTRACTOR SHALL VERIFY THESE SLOPES BEFORE FABRICATING ANY MATERIAL.
10. SHOTCRETE SHALL NOT BE USED IN THIS PROJECT.
11. STATIONING AND ELEVATIONS FOR THE EXISTING STRUCTURE WERE OBTAINED FROM AS-BUILT PLANS.
12. PROTECT UTILITY WITHIN THE USACE RIGHT-OF-WAY. (2)
13. PROVISIONS SHALL BE MADE TO PREVENT DEBRIS FROM FALLING INTO THE CHANNEL DURING CONSTRUCTION.
14. COMPACTION EQUIPMENT USED TO PLACE BACKFILL BEHIND CHANNEL WALL MUST NOT EXCEED 35,000 POUNDS INCLUDING DYNAMIC FORCED FROM VIBRATOR COMPACTOR.
15. NO EQUIPMENT IN EXCESS OF H-10 HIGHWAY LOADING (AASHTO), AND NO STOCKPILING OF MATERIAL WILL BE PERMITTED ALONG THE CHANNEL WITHIN A DISTANCE OF ONE WALL HEIGHT.
16. NO EQUIPMENT IN EXCESS OF H-20 HIGHWAY LOADING WILL BE PERMITTED TO OPERATE ON THE INVERT OF THE CHANNEL. ONLY RUBBER-TIRED, LEGALLY LOADED EQUIPMENT SHALL BE OPERATED ON THE EXPOSED CHANNEL INVERT. IF STEEL CRAWLER TYPE EQUIPMENT IS USED, WOODEN MATTING SHALL BE PROVIDED OVER THE INVERT IN THE OPERATING AREA. LOADS FROM TRACK VEHICLES SHALL NOT EXCEED 300 PSF ON A SURFACE AT THE BOTTOM OF THE INVERT SLAB.
17. ALL WORK WITHIN 25' OF TRACK CENTERLINE AND/OR OVER TRACK SHALL BE COORDINATED WITH THE RAILROAD FLAGGER.
18. NO EQUIPMENT, PERSONNEL OR MATERIALS MAY ENCROACH INTO THE CONSTRUCTION RAILROAD CLEARANCE ENVELOPE (EXCEPT AS COORDINATED WITH THE RAILROAD IN DESIGNATED WORK WINDOWS).
19. NO EQUIPMENT SHALL BE SUPPORTED ON THE TRACK OR BALLAST UNDER LOAD AT ANY TIME.
20. ALL TRACK CROSSINGS BY VEHICLES OR EQUIPMENT MUST BE AT EXISTING GRADE CROSSINGS ONLY.
21. THE RIP RAP LINED CHANNEL SLOPES SHALL BE PROTECTED DURING CONSTRUCTION. ANY DAMAGE TO THE RIP RAP LINED CHANNEL SLOPES SHALL BE RESTORED IN KIND.
22. ACCESS ROADS SHALL BE PROTECTED DURING CONSTRUCTION. ANY DAMAGE TO THE ACCESS ROADS SHALL BE RESTORED IN KIND.

STRUCTURAL NOTES

1. DIMENSIONS TO REINFORCING BARS ARE TO THE CENTER OF THE BAR WITH THE EXCEPTION OF CONCRETE COVER FOR REINFORCING BARS WHICH IS TO BE SHOWN AS A CLEAR DISTANCE. SEE NOTE 2.
2. CONCRETE COVER FOR STEEL REINFORCING BARS SHALL BE 2" UNLESS SHOWN OTHERWISE.
3. THE CONTRACTOR SHALL OBTAIN THE ACCEPTANCE OF THE ENGINEER BEFORE CUTTING ANY EXISTING REINFORCING BAR BY DRILLING, CORING, OR OTHER MEANS UNLESS SPECIFIED OTHERWISE.
4. WHERE NEW CONCRETE IS PLACED AGAINST EXISTING CONCRETE, ROUGHEN THE EXISTING CONCRETE SURFACE TO AN AMPLITUDE OF 1/4" BY BUSH HAMMERING.
5. STIRRUPS AND TIES SHALL BE FABRICATED OR BENT TO MATCH ACTUAL FIELD CONDITIONS AFTER DOWELS ARE INSTALLED.
6. UNLESS OTHERWISE SHOWN ON THE PLANS OR APPROVED BY THE ENGINEER, SPLICES IN ADJACENT REINFORCING BARS AT ANY PARTICULAR SECTION SHALL BE STAGGERED.
7. WHERE THE PLANS INDICATE DRILL AND BOND DOWELS, THE HOLES SHALL BE 1/2" LARGER IN DIAMETER THAN THE BAR SIZE INDICATED ON THE PLANS. WHERE DRILL AND GROUT BAR IS INDICATED, THE HOLES SHALL BE 1/4" LARGER IN DIAMETER THAN THE BAR SIZE INDICATED. WHERE THE PLANS INDICATE EPOXY CARTRIDGE OR A SPECIFIED PRODUCT, THE DIAMETER AND DEPTH OF HOLE SHALL BE PER THE MANUFACTURER'S RECOMMENDATIONS OR AS INDICATED ON THE PLANS OR SPECIFICATIONS.
8. WELDING AND OPEN GAS FLAME CUTTING ON EXISTING GIRDERS WILL NOT BE PERMITED.

INDEX TO STANDARD PLANS

CALTRANS STD. PLANS, ~~MAY 2006~~ ~~JULY 2002~~ MAY 2018 (3)

PLAN	TITLE
B0-13	BRIDGE DETAILS

STANDARD PLAN SHEET NO.

DETAIL NO.

DESIGN AND CONSTRUCTION CRITERIA

(3)

DESIGN: AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 2012 (6TH EDITION) WITH CALIFORNIA AMENDMENTS (AASHTO-CA BDS-6)
CALTRANS' MEMOS TO DESIGNERS (MTD) WITH INTERIMS AND ADDENDUMS THROUGH MTD 20-4

~~DESIGN: CALTRANS' BRIDGE DESIGN SPECIFICATIONS MANUAL, 1983 EDITION, WITH INTERIMS AND ADDENDUMS THROUGH SEPT, 1996. CALTRANS' MEMOS TO DESIGNERS WITH INTERIMS AND ADDENDUMS THROUGH SEPT, 1996.~~ (3)

CONSTRUCTION: (MATERIALS & METHODS) ~~MAY 2006 EDITION~~ 2018 EDITION, WITH INTERIMS AND ADDENDUMS THROUGH APRIL 2021
CALTRANS' STANDARD SPECIFICATIONS, ~~JULY 2002 EDITION.~~

SEISMIC LOADING: PEAK ROCK ACCELERATION = 0.6 g (4)
THE SOIL IS NOT POTENTIALLY LIQUEFIABLE.
DEPTH TO BEDROCK = 10 to 80 FT

REINFORCED CONCRETE:	NEW	EXISTING (ORIGINAL SPEC.)	EXISTING (ASSUMED FOR RETROFIT)
	fy = 60,000 psi	fs = 20,000 psi	fy = 44,000 psi
	fc = 3,250 psi	fc = 1,000 psi	fc = 4,000 psi

STEEL REINFORCEMENT: ASTM A706 (GRADE 60)

NEW STRUCTURAL STEEL SECTIONS: ASTM A709 fy = 36,000 psi

THREADED RODS: ASTM A449

STEEL BOLTS:	NEW	EXISTING
	ASTM A325 TYPE N fy = 92,000 psi	ASTM A307

NEW STEEL CABLES: fy = 176,000 psi, E = 14,000 ksi (MINIMUM BEFORE YIELDING)
MINIMUM ULTIMATE TENSILE BREAKING STRENGTH 46 KIPS (3/4" Ø)

PILES:	EXISTING (ORIGINAL SPEC.)	EXISTING (ASSUMED FOR RETROFIT)
	40 tons/pile	40 tons/pile

WELDING: PER AWS D1.5
ELECTRODES – Fu = 70 ksi MINIMUM UNLESS OTHERWISE NOTED
MATCHING WELD METAL PER TABLES 4.1 & 4.2 IS REQUIRED.

"PB814744" Not Const. Yet

DESIGNER	DRAFTER	CHECKED	CADD PART NUMBER	REVIEWED BY	DATE
J. England	R. Danley	J. Wu		D. Pedersen	11/05/97

MARTIN & KANE
1212 S. Flower, 3rd Flr.
Los Angeles CA 90015
Phone: (213) 744-9992
Fax: (213) 744-9993

REGISTERED PROFESSIONAL ENGINEER — TIM DE JESUS — C 81982 — CIVIL — STATE OF CALIFORNIA

REVISIONS (3) (3)

DATE	BY	DESCRIPTION
7-21-22	(3)	UPDATED REFERENCE
11-8-17	(2)	NOTES ADDED
~~1-8-08~~	(1)	~~UPDATED REFERENCE~~

REVISIONS

Raymond M. Fong — No. C 049040 — exp. 08/30/00 — CIVIL — STATE OF CALIFORNIA

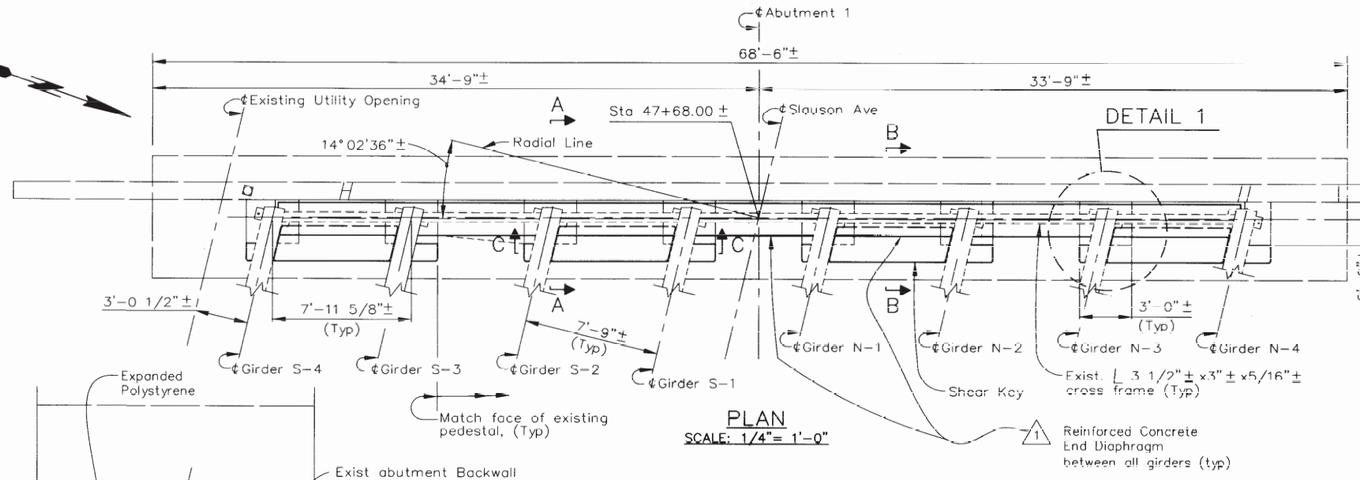
Raymond M. Fong 6/15/98
PROJECT ENGINEER DATE

SEISMIC RETROFIT PROJECT
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS
SLAUSON AVENUE
OVER
SAN GABRIEL RIVER
NOTES AND REFERENCES
PROJECT ID NO. RDC0010872

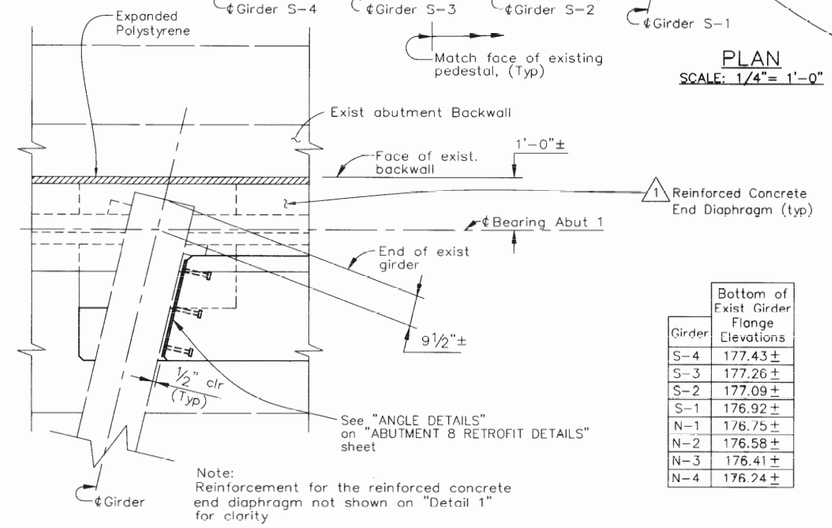
BR 1140	JOB# X2120359	DWG PB814744	SHEET 3 OF 12

STATE BR. NO. 53C0064

C:\PROJECTS\SLAUSON\S-N&R.DWG MAY 21, 1998

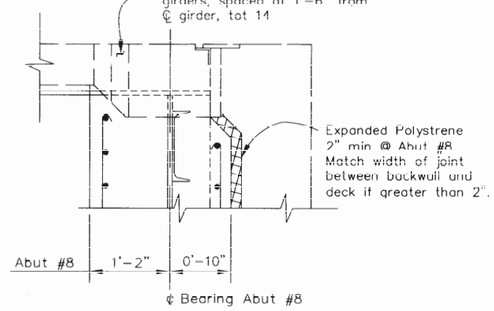


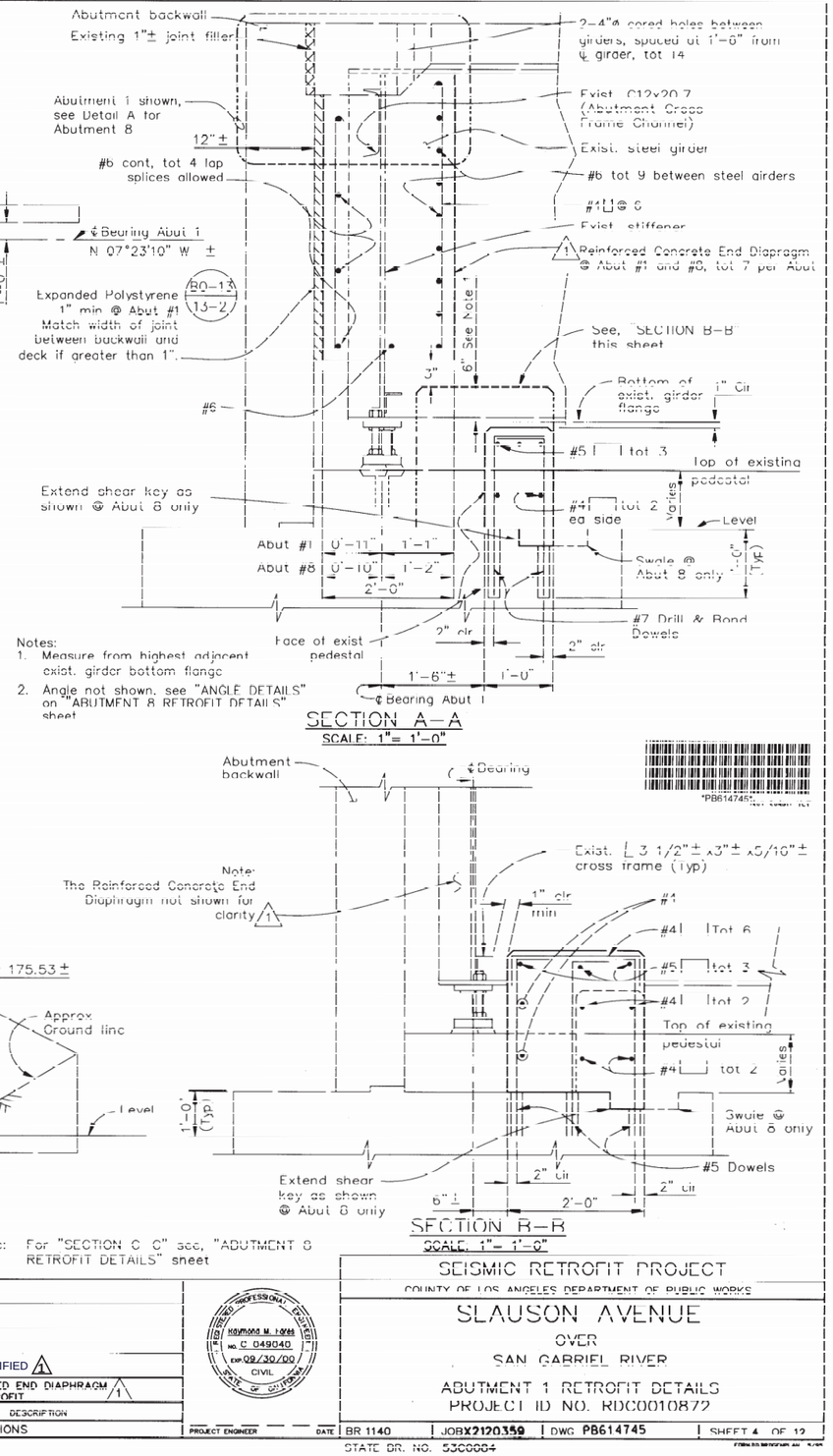
PLAN
SCALE: 1/4"= 1'-0"



Note:
Reinforcement for the reinforced concrete end diaphragm not shown on "Detail 1" for clarity

Girder	Bottom of Exist Girder Flange Elevations
S-4	177.43±
S-3	177.26±
S-2	177.09±
S-1	176.92±
N-1	176.75±
N-2	176.58±
N-3	176.41±
N-4	176.24±

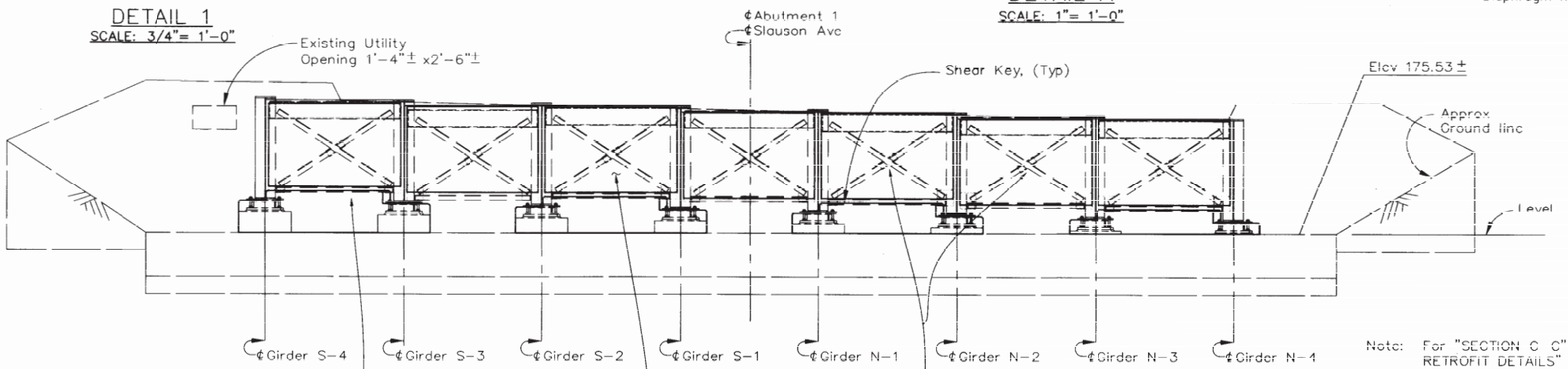




Notes:
1. Measure from highest adjacent exist. girder bottom flange
2. Angle not shown, see "ANGLE DETAILS" on "ABUTMENT 8 RETROFIT DETAILS" sheet

SECTION A-A
SCALE: 1"= 1'-0"

DETAIL 1
SCALE: 3/4"= 1'-0"



ELEVATION
SCALE: 1/4"= 1'-0"

1 Reinforced Concrete End Diaphragm (typ)

Existing Abutment Cross Frames (typ)

DETAIL A
SCALE: 1"= 1'-0"

SECTION B-B
SCALE: 1"= 1'-0"

Note: For "SECTION C-C" see, "ABUTMENT 8 RETROFIT DETAILS" sheet

MARTIN, RIVETT & OLSON, INC.
CONSULTING ENGINEERS
2200 B Douglas Boulevard, Suite 150
Roseville, California 95661-3878
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A Martin Associates Group Company • Formerly Martin & Kane, Inc.

REGISTERED PROFESSIONAL ENGINEER — TIM DE JESUS — C 81982 — CIVIL — STATE OF CALIFORNIA

REGISTERED PROFESSIONAL ENGINEER — Ronald L Rivett — No. 31,269 — Exp. 12/31/04 — CIVIL — STATE OF CALIFORNIA

REGISTERED PROFESSIONAL ENGINEER — Raymond M. Hayes — No. C 049040 — Exp 09/30/00 — CIVIL — STATE OF CALIFORNIA

DATE	BY	REVISIONS
8/18/22	2	VERIFIED 1
5-26-00	MDL	ADDED END DIAPHRAGM RETROFIT 1

PROJECT ENGINEER — DATE

SEISMIC RETROFIT PROJECT
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

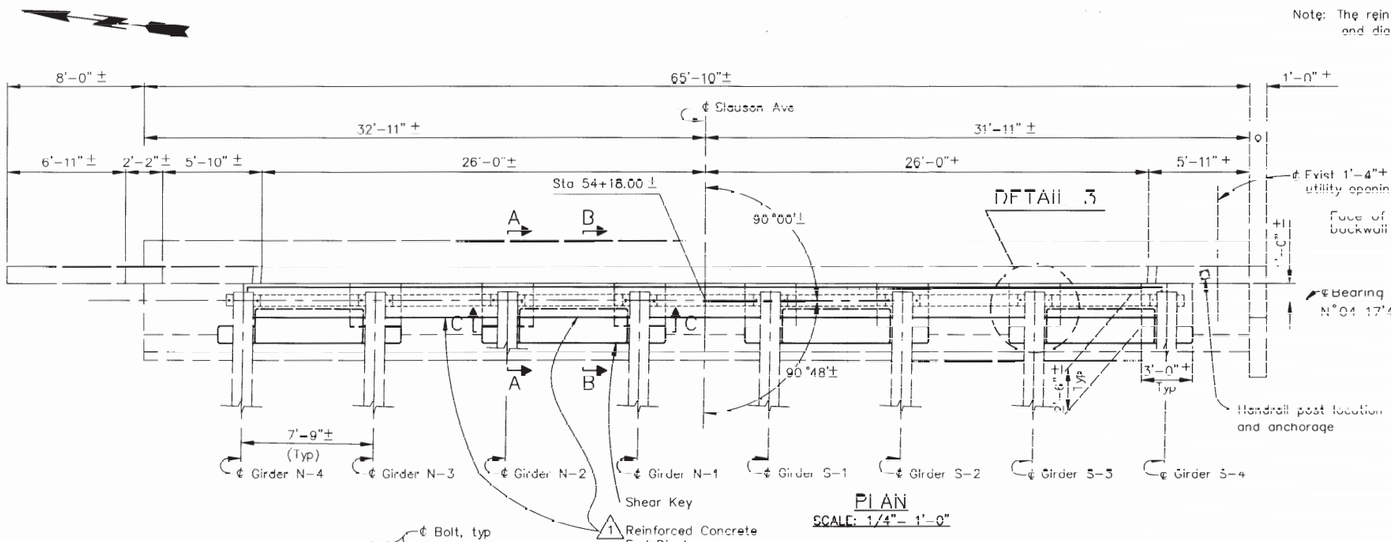
SLAUSON AVENUE
OVER
SAN GABRIEL RIVER

ABUTMENT 1 RETROFIT DETAILS
PROJECT ID NO. RDC0010872

DRAFTER R. Danley | DESIGNER J. England | CHECKER J. Wu | CADD PART NUMBER | REVIEWED BY D. Pedersen 11/05/97 | DATE

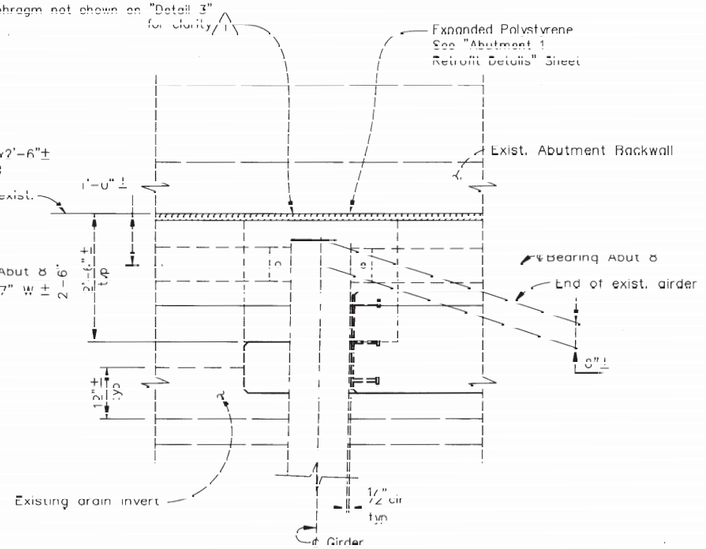
BR 1140 | JOB X2120359 | DWG PB614745 | SHEET 4 OF 12

STATE BR. NO. 53C0004

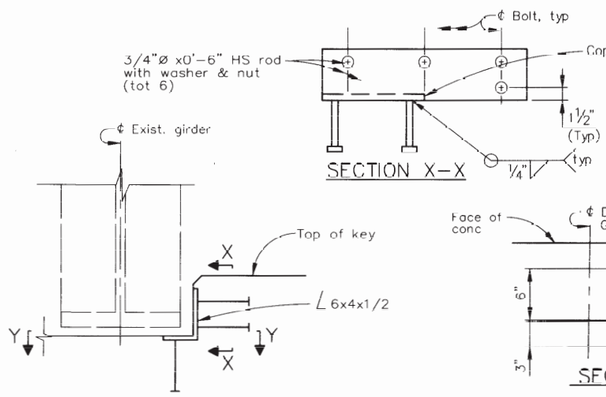


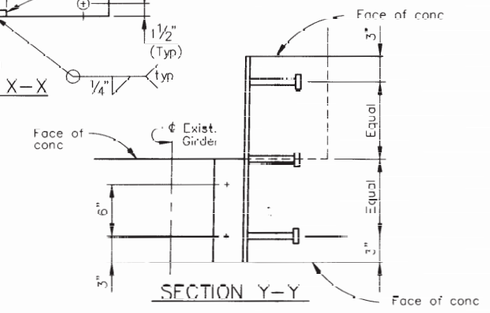
PLAN
SCALE: 1/4"= 1'-0"

Note: The reinforcement for the reinf concrete end diaphragm not shown on "Detail 3" for clarity



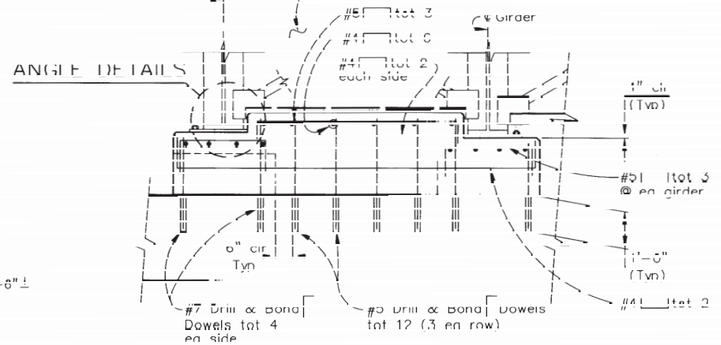
DETAIL 3
SCALE: 3/4"= 1'-0"





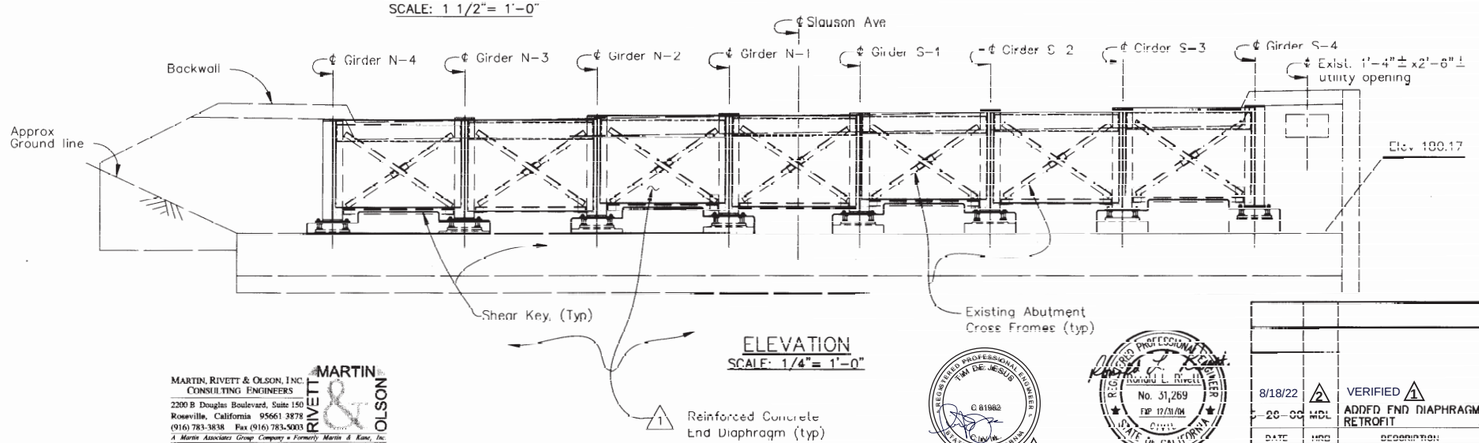
Girder	Bottom of Exist Girder Flange Elevations
N-4	180.88 ±
N-3	181.00 ±
N-2	181.12 ±
N-1	181.23 ±
S-1	181.15 ±
S-2	181.46 ±
S-3	181.59 ±
S-4	181.70 ±

ANGLE DETAILS



Note: 1. Abut 1 shown, Abut 8 similar.
2. Angles not shown.

ANCLE DETAILS
SCALE: 1 1/2"= 1'-0"



ELEVATION
SCALE: 1/4"= 1'-0"

SECTION C-C
SCALE: 1/2"= 1'-0"

Note: For Sections "A-A" & "B-B", see "ABUTMENT 1 RETROFIT DETAILS" sheet

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Roseville, California 95661 3878
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A Martin Associates Group Company • Formerly Martin & Kane, Inc.

DATE	BY	DESCRIPTION
8/18/22	HDL	2 VERIFIED 1 ADDED END DIAPHRAGM RETROFIT /1
2-26-08	HDL	

REVISIONS

PROJECT ENGINEER DATE

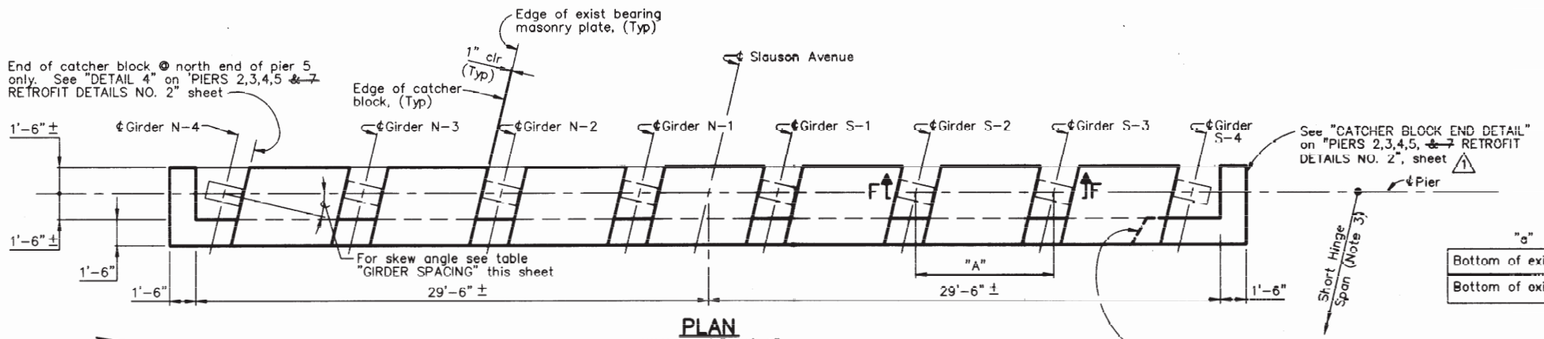
SEISMIC RETROFIT PROJECT
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

SLAUSON AVENUE
OVER
SAN GABRIEL RIVER

ABUTMENT 8 RETROFIT DETAILS
PROJECT ID NO. RDC0010672

BR 1140 | JOBX2120359 | DWG PB614745 | SHEET 5 OF 12
STATE RD. NO. 5300084

DESIGNER J. England
DRAFTER R. Donley
CHECKER J. Wu
CADD PART NUMBER
REVIEWED BY D. Pedersen
DATE 11/05/97



PLAN
SCALE: 1/4"= 1'-0"

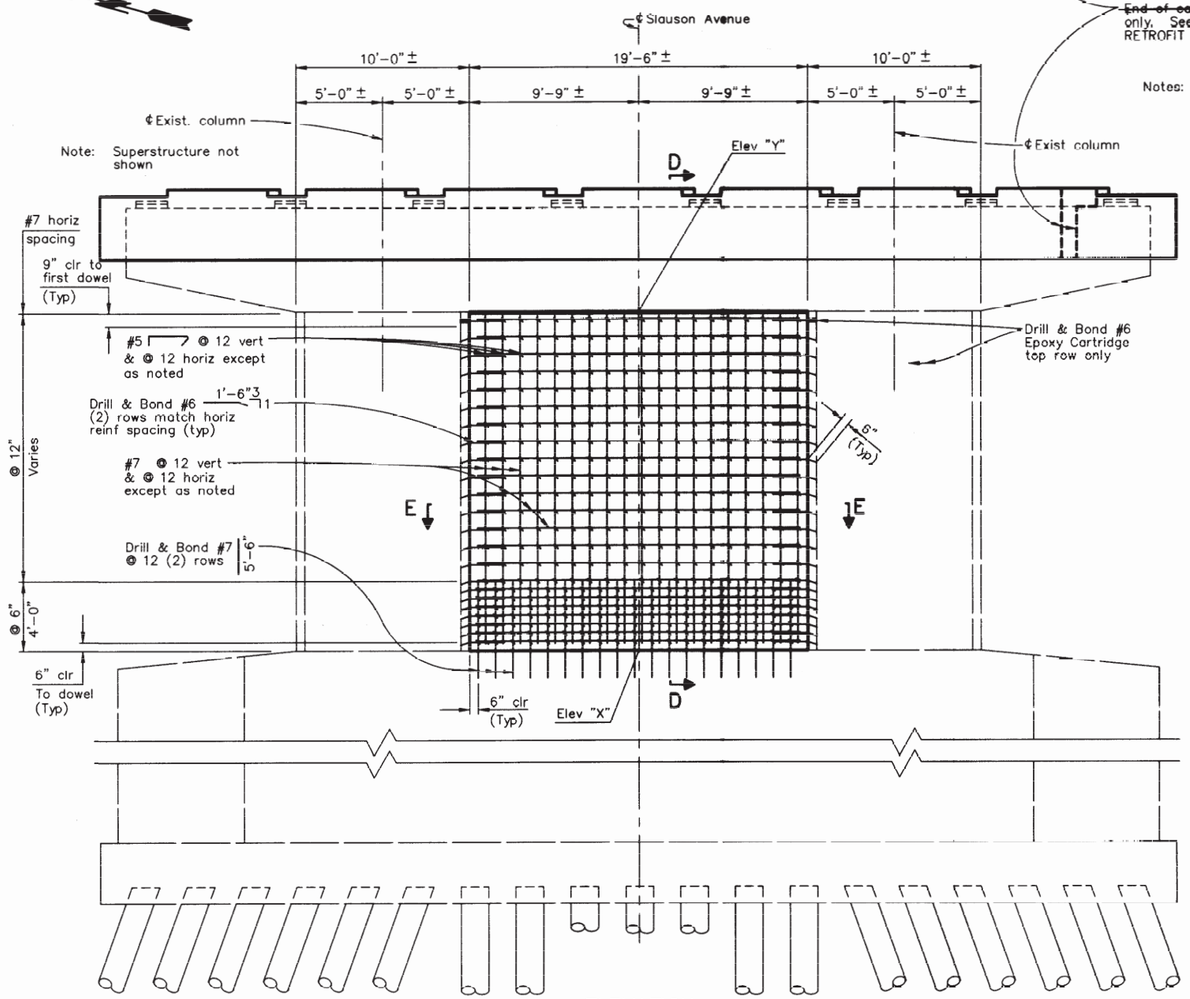
"a" TABLE	"a"
Bottom of exist. girder flange	1/2"
Bottom of oxist. cross frame	1"

Notes:
1. Pier 3 shown (except as indicated), Piers 2,4,5 & 7 similar
2. For "A" Dimension, see "GIRDER SPACING" table this sheet
3. Short hinge span direction is shown for hinges adjacent to piers 3, & 7. For hinges adjacent to piers 2,4, & 5, short hinge span and seat extension is in the opposite direction
4. Seat extension to be placed along short hinge span side of the pier

GIRDER SPACING		
PIER NO.	"A"	SKEW
2	7'-11 5/8" ±	13° 19'08" ±
3	7'-10 5/8" ±	10°29'46" ±
4	7'-10 5/8" ±	10°29'46" ±
5 (*)	7'-9 5/8" +	5°31'00" +
~~7~~	~~7'-9" ±~~	~~8°48'01" ±~~ 1

(*) Average measurement shown. Girder spacing & skew angle vary

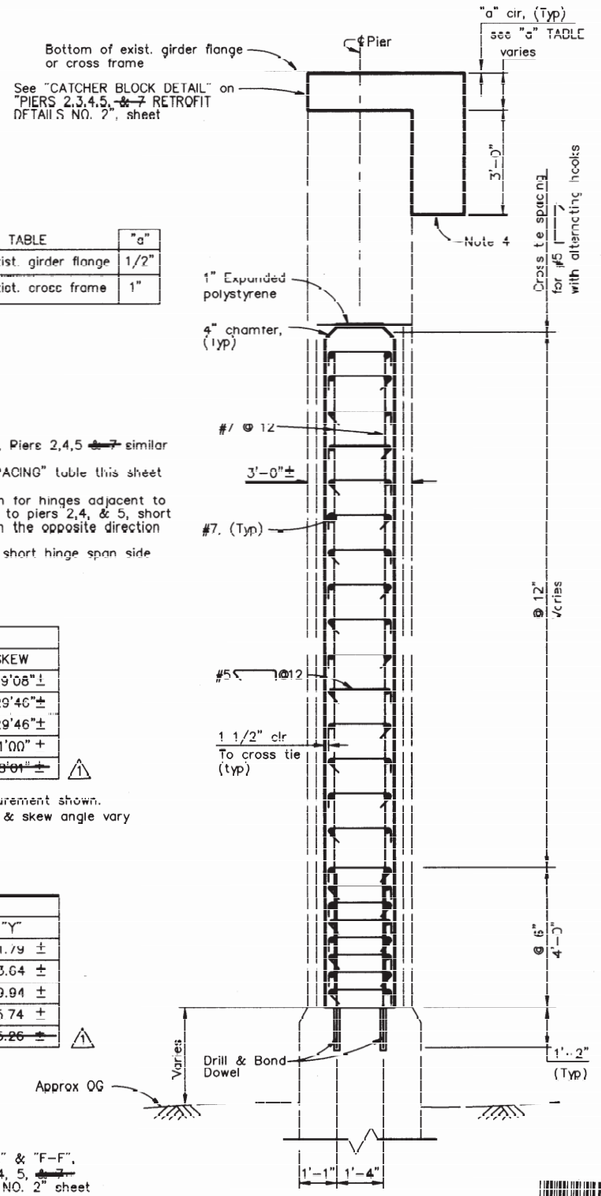
ELEVATIONS		
PIER NO.	"X"	"Y"
2	152.00 ±	171.79 ±
3	152.00 ±	173.64 ±
4	152.00 ±	169.94 ±
5	152.00 ±	175.74 ±
~~7~~	~~158.50 ±~~	~~175.26 ±~~ 1



ELEVATION
SCALE: 1/4"= 1'-0"

Note: Pier 3 shown, Piers 2, 4, 5, ~~6 7~~ similar

Note: For Sections "E-E" & "F-F", see "PIERS 2, 3, 4, 5, ~~6 7~~ RETROFIT DETAILS NO. 2" sheet



SECTION D-D
SCALE: 1/2"= 1'-0"

MARTIN & TANI
1212 S. Flower, 3rd Flr.
Los Angeles CA 90015
Phone: (213) 744-9992
Fax: (213) 744-9993

DRAFTER	DESIGNER	CHECKED	CADD PART NUMBER	REVIEWED	DATE
R. Danley	J. England	J. Wu		BY D. Pedersen	11/05/97

DATE	BK	DESCRIPTION
8/18/22	2	VERIFIED 1
7/10/08	1	BNSF RETROFITTED PIERS 6&7
		SEE PLAN PB640912-PB640937

REVISIONS

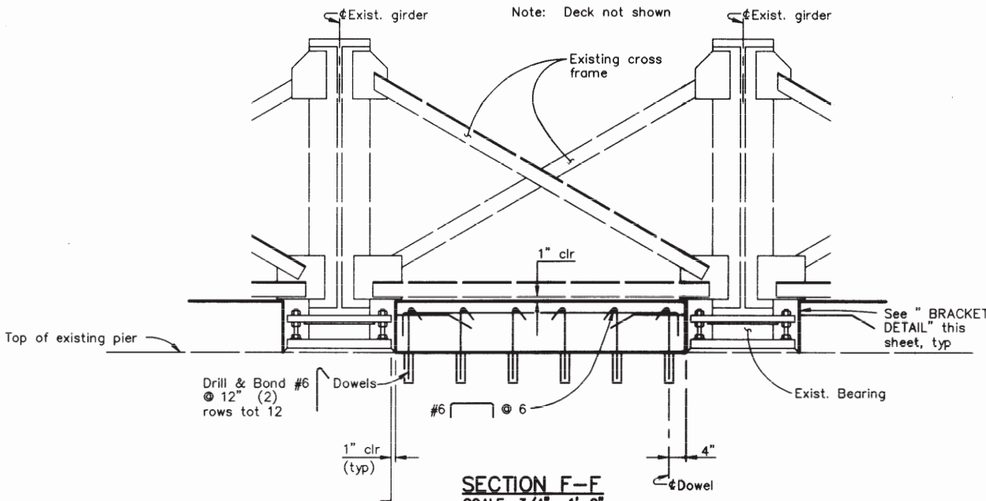
SEISMIC RETROFIT PROJECT
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

SLAUSON AVENUE
OVER
SAN GABRIEL RIVER
PIERS 2,3,4,5, ~~6 7~~ RETROFIT DETAILS NO. 1
PROJECT ID NO. RDC0010672

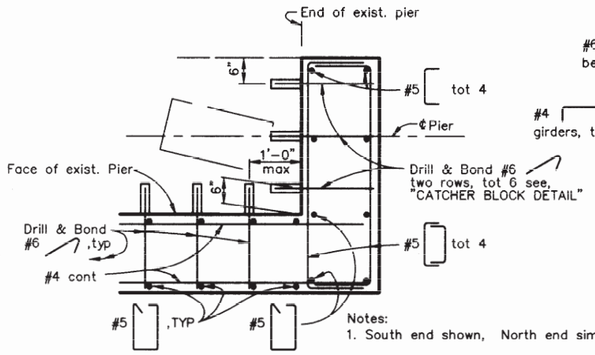
BR 1140	JOB X2120359	DWG PB614747	SHEET 8 OF 12

STATE BR. NO. 53C0084

C:\PROJECTS\SLAUSON\S-PIERS-NO1.DWG JUNE 25, 1998

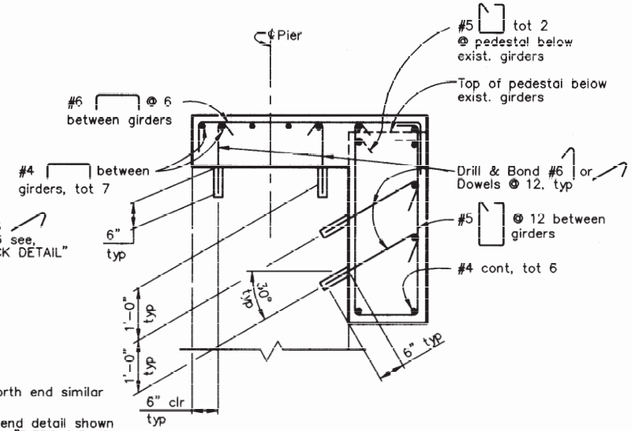


SECTION F–F
SCALE: 3/4"= 1'-0"

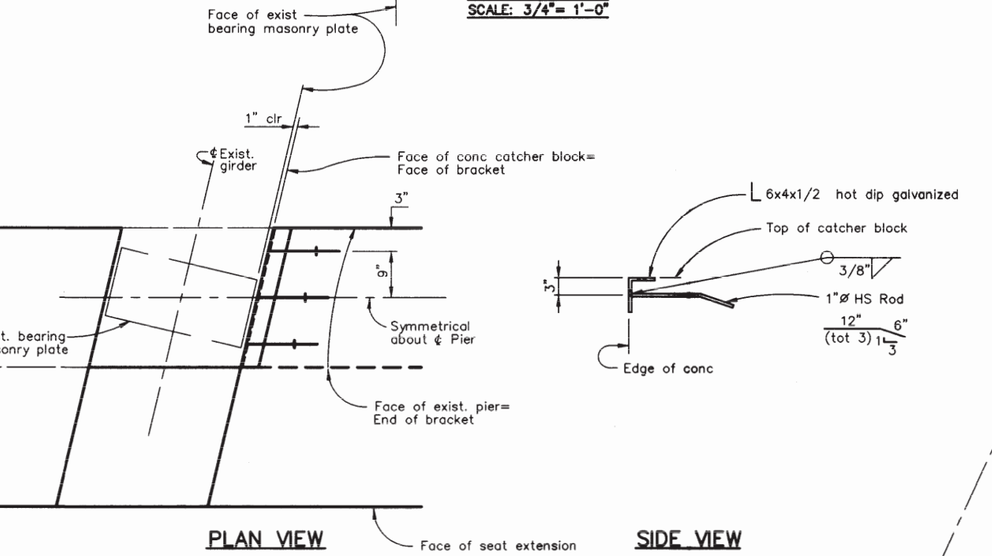


Notes:
1. South end shown, North end similar
2. Typical catcher block end detail shown except as indicated on "PIERS 2,3,4,5 & 7 RETROFIT DETAILS NO. 1" sheet

CATCHER BLOCK END DETAIL
SCALE: 3/4"= 1'-0"



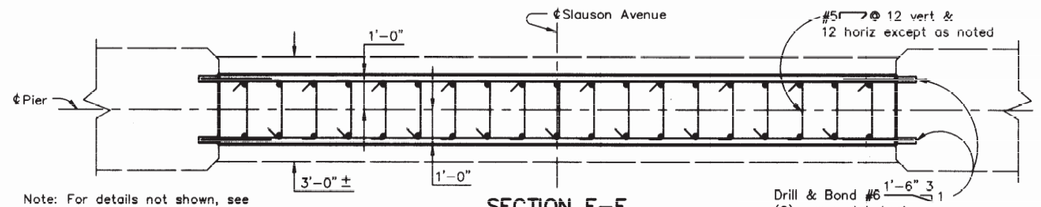
CATCHER BLOCK DETAIL
SCALE: 3/4"= 1'-0"



PLAN VIEW

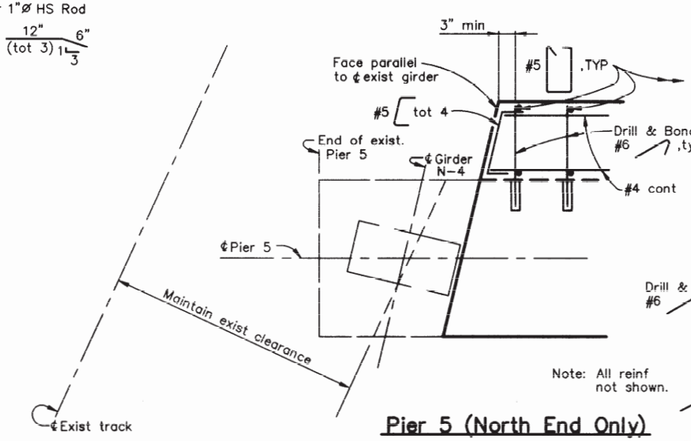
SIDE VIEW

BRACKET DETAIL
SCALE: 1"= 1'-0"

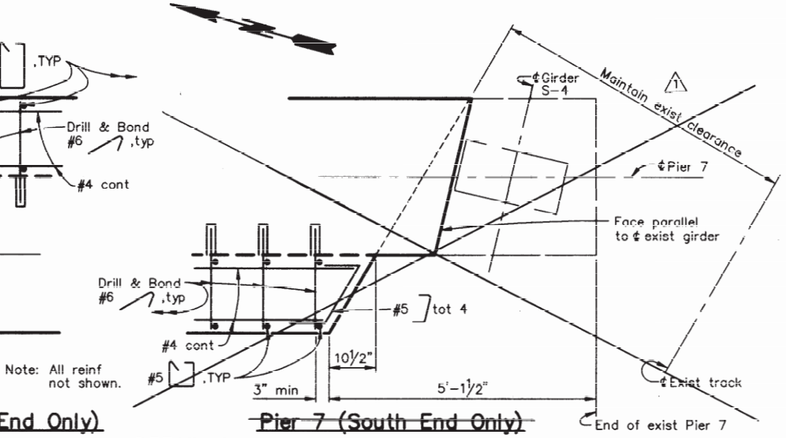


Note: For details not shown, see "SECTION D–D" on "PIERS 2, 3, 4, 5, & 7 RETROFIT DETAILS NO. 1" sheet

SECTION E–E
SCALE: 1/2"= 1'-0"



Pier 5 (North End Only)



Note: All reinf not shown.

Pier 7 (South End Only)

DETAIL 4
SCALE: 3/4"= 1'-0"

MARTIN & KANE
1212 S. Flower, 3rd Flr.
Los Angeles CA 90015
Phone: (213) 744-9992
Fax: (213) 744-9993

"PB614748" NOT CONST. REC

DATE	NK	DESCRIPTION
8/18/22	2	VERIFIED 1
7/10/08	1	BNSF RETROFITTED PIERS 6&7
		SEE PLAN PB640912-PB640937

REVISIONS

Raymond M. Ferre No. C 048040 exp.08/30/00 CIVIL STATE OF CALIFORNIA
PROJECT ENGINEER — DATE 6/25/98

DRAFTER R. Danley | DESIGNED J. England | CHECKED J. Wu | CADD PART NUMBER | REVISED BY D. Pedersen 11/05/97 | DATE

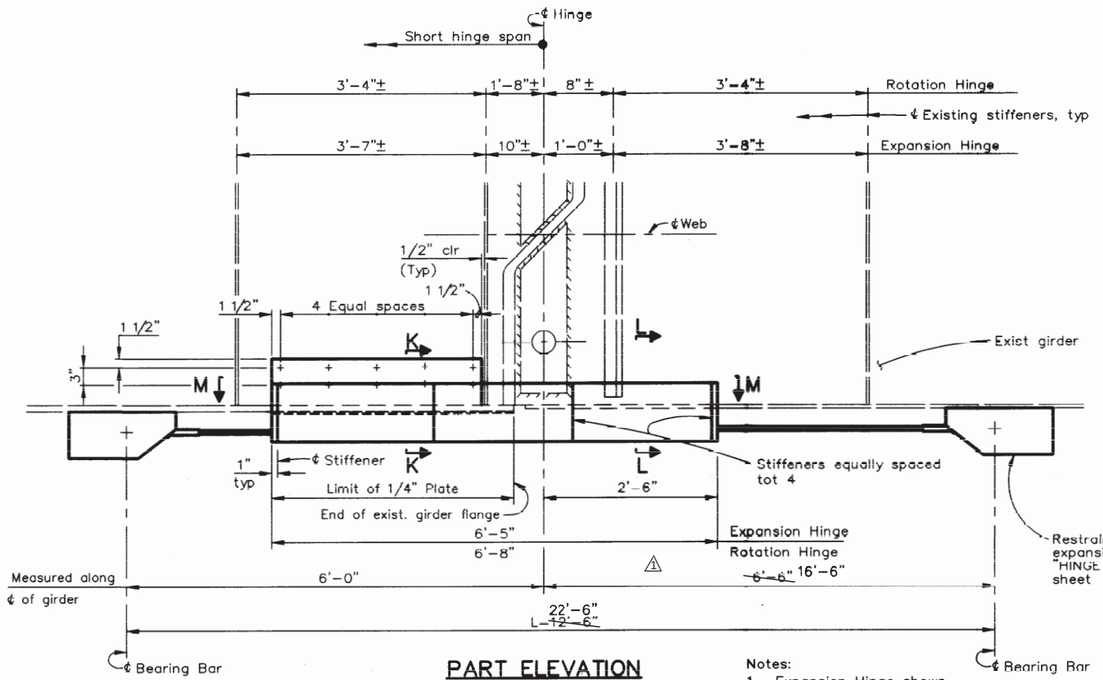
C:\PROJECTS\SLAUSON\S-PIERS-NO2.DWG JUNE 25, 1998

SEISMIC RETROFIT PROJECT
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

SLAUSON AVENUE
OVER
SAN GABRIEL RIVER
PIERS 2,3,4,5, & 7 RETROFIT DETAILS NO. 2
PROJECT ID NO. RDC0010872

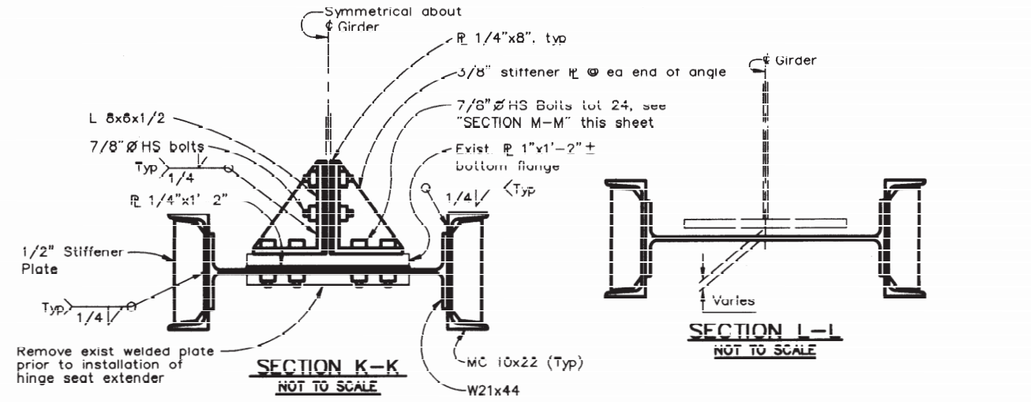
BR 1140	JOB 2120359	DWG PB614748	SHEET 7 OF 12

STATE BR. NO. 53C0084



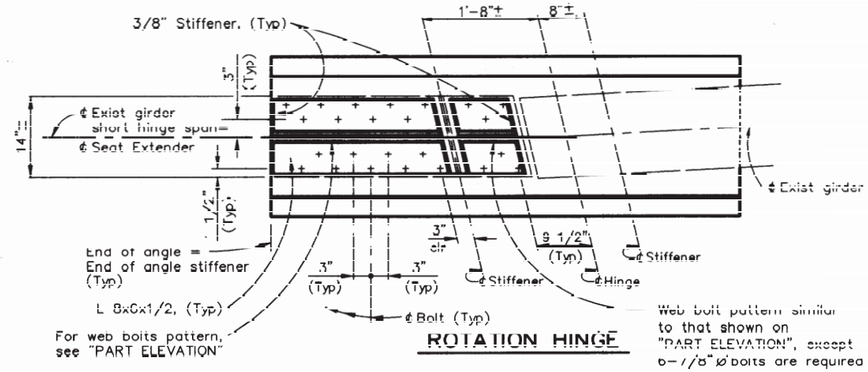
PART ELEVATION
Nts

Notes:
1. Expansion Hinge shown. Rotation Hinges similar.
2. Hinge seat extenders shall be painted.
3. Exist W12x27 hinge diaphragm not shown.
4. Dimensions relevant to seat extender are measured along ℄ seat extender. Other dimensions are measured along ℄ exist. girders.
5. Seat extenders required at each exist. girder.
6. Cable restrainers required at each exist. girder at west expansion hinge.
7. Remove exist plate on bottom flange of girders at expansion hinge near pier 2.

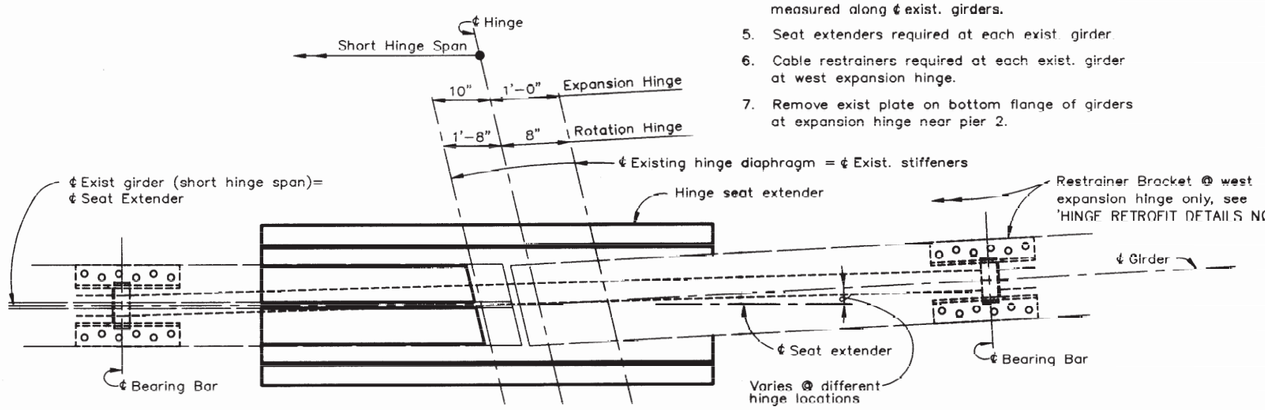


SECTION K-K
NOT TO SCALE

SECTION L-L
NOT TO SCALE

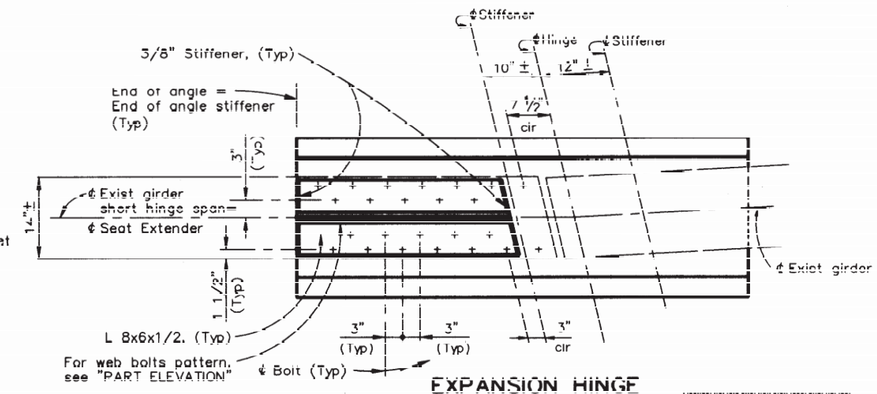


ROTATION HINGE



PART PLAN

HINGE SEAT EXTENDER
SCALE: 1"= 1'-0"



EXPANSION HINGE

SECTION M-M
SCALE: 1"= 1'-0"

MARTIN & KANE
1212 S. Flower, 3rd Flr.
Los Angeles CA 90015
Phone: (213) 744-9992
Fax: (213) 744-9993

DATE	NK	DESCRIPTION
5-2-18	1	EDIT CABLE RESTRAINER LENGTH

REVISIONS

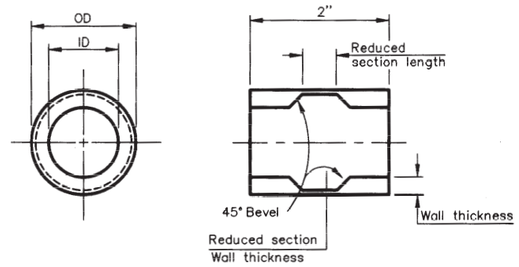
SEISMIC RETROFIT PROJECT
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

SLAUSON AVENUE
OVER
SAN GABRIEL RIVER
HINGE RETROFIT DETAILS NO. 1
PROJECT ID NO. RDC0010872

BR 1140 | JOB 7100160 | DWG BR814781 | SHEET 10 OF 12
STATE BR. NO. 53C0064

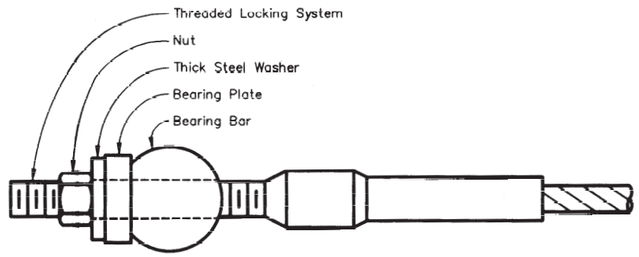
DRAFTER R. Danley
DESIGNER J. England
CHECKER J. Wu
CADD PART NUMBER
REVIEWED BY D. Pedersen 11/05/97
DATE

C:\PROJECTS\SLAUSON\S-EXHINGRD.DWG MAY 21, 1998

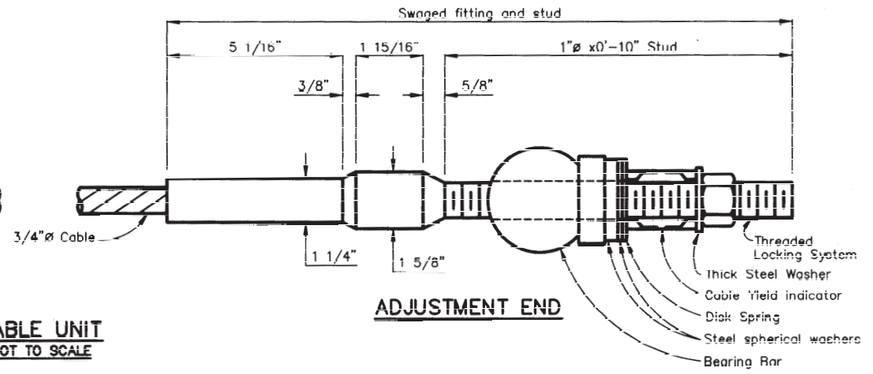


END VIEW SIDEVIEW

CABLE YIELD INDICATOR
NOT TO SCALE



FIXED END



ADJUSTMENT END

CABLE UNIT
NOT TO SCALE

DIMENSIONS: ±0.005"

OD	WALL	ID (After Galv.)
1.500"	0.250"	1.000"

REDUCED SECTION:

Length	Wall Thickness
0.500" ±0.001"	0.073" ±0.0005"

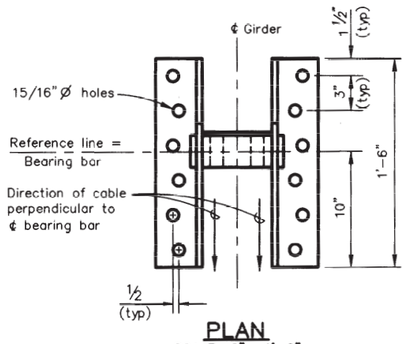
"All dimensions are before galvanizing except as noted"

CABLE YIELD INDICATOR DIMENSIONS

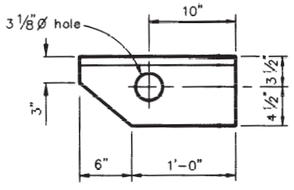
DISC SPRINGS AND WASHERS
"All dimensions in inches, except as noted"

	DISC SPRING					STEEL SPHERICAL WASHER			THICK WASHER		
L *	ID	OD	t	H	COLOR CODE	ID	OD	Nom thick.	ID	OD	t **
10.0 – 25.0	1.000	2.000	0.065	0.130	WHITE	1.1875	2.250	0.500	1.030	2.000	0.250
25.1 – 31.9	1.000	2.000	0.084	0.136	RED	1.1875	2.250	0.500	1.030	2.000	0.250
32.0 – 37.9	1.000	2.000	0.097	0.145	BLUE	1.1875	2.250	0.500	1.030	2.000	0.250
38.0 – 45.0	1.250	2.500	0.120	0.180	YELLOW	1.3120	2.500	0.500	1.156	2.250	0.250

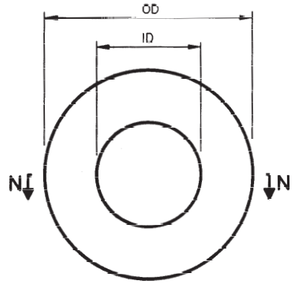
* For length L (ft), see " Hinge Retrofit Details No. 1 " sheet
** Minimum value



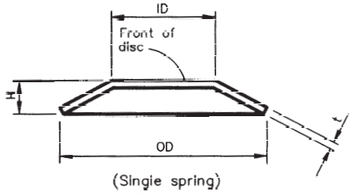
PLAN
SCALE: 2"= 1'-0"



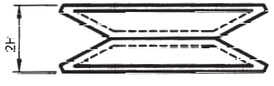
SIDE
SCALE: 1 1/2"= 1'-0"



PLAN



(Single spring)
SECTION N-N



AS INSTALLED ON STUD

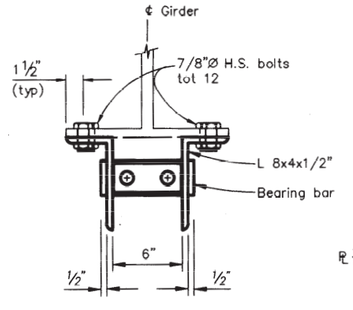
DISC SPRING
NOT TO SCALE

Note: For dimensions not shown, see table

RESTRAINER UNIT INSTALLATION PROCEDURE

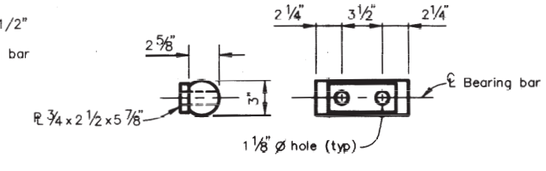
1. Place thread locking system on fixed end side stud prior to tightening the cable.
2. Install disc springs on adjustment end of cable system using steel spherical washers to align discs to stud. Discs shall be installed front to front as shown in "Disc Spring" detail. Install Cable Yield Indicator and Steel Spherical Washers on the adjustment end of restrainers as shown in "Cable Unit" detail. Use 12" stud for cable yield indicator end.
3. Tighten the cable from adjustment end of restrainer until the disc springs collapse and there is no gap remaining between the discs. The cable should be approximately straight with no sag.
4. Place thread locking system on adjustment end stud after tightening the cable, but before backing off the nut. Back off the nut at adjustment end a distance equal to 1 1/2".

NOTE: If the cable needs to be secured from turning while tightening, use double nut locking technique on the stud to protect the threads.



FRONT
SCALE: 2"= 1'-0"

RESTRAINER BRACKET



BEARING BAR
SCALE: 2"= 1'-0"

Note: Restrainer cables, and all hardware shall be hot dip galvanized. End anchorage brackets shall be painted.

MARTIN & PENG
1212 S. Flower, 3rd Flr.
Los Angeles CA 90015
Phone: (213) 744-9992
Fax: (213) 744-9993

DRAFTER: R. Danley
DESIGNER: J. England
CHECKER: J. Wu
CADD PART NUMBER:
REVIEWED BY: D. Pedersen 11/05/97
DATE

DATE	NO.	DESCRIPTION
		REVISIONS

SEISMIC RETROFIT PROJECT
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS
SLAUSON AVENUE
OVER
SAN GABRIEL RIVER
HINGE RETROFIT DETAILS NO. 2
PROJECT ID NO. RDC0010872

BR 1140 | JOB X2120359 | DWG PB614752 | SHEET 11 OF 12
STATE BR. NO. 5300084

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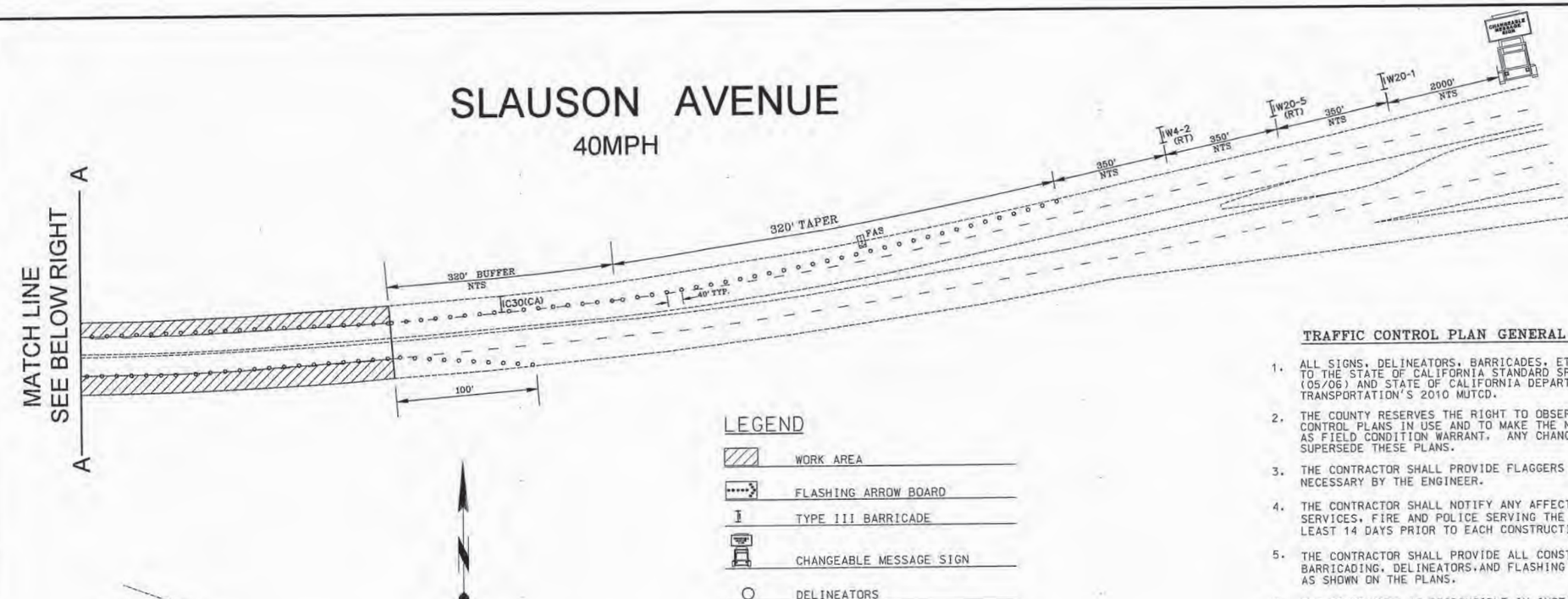
Appendix A2
Traffic Control Plan

SLAUSON AVE, RDC0010872

SLAUSON AVENUE
40MPH



LEGEND

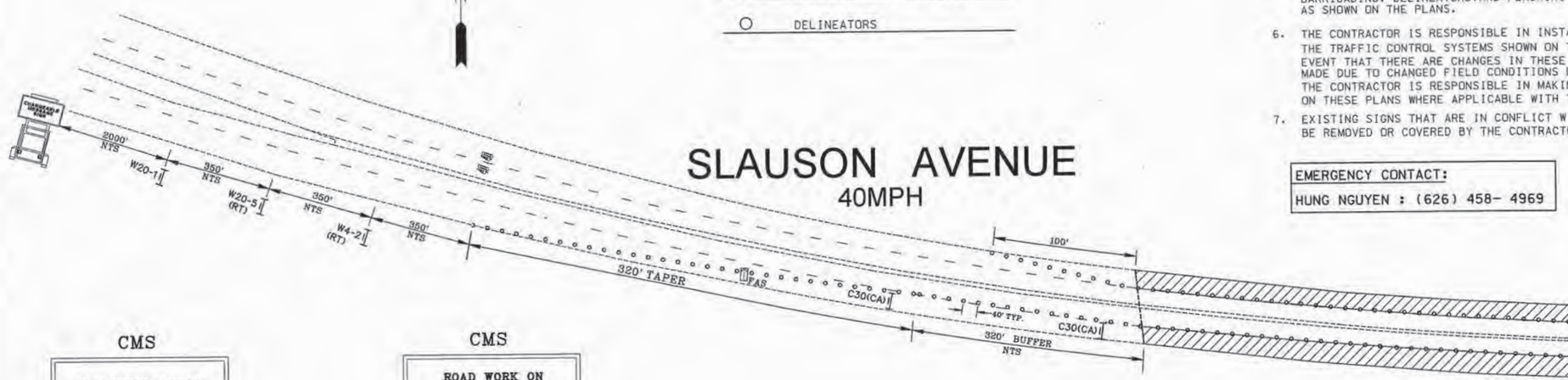
- WORK AREA
- FLASHING ARROW BOARD
- TYPE III BARRICADE
- CHANGEABLE MESSAGE SIGN
- DELINEATORS

TRAFFIC CONTROL PLAN GENERAL NOTES

1. ALL SIGNS, DELINEATORS, BARRICADES, ETC. SHALL CONFORM TO THE STATE OF CALIFORNIA STANDARD SPECIFICATIONS (05/06) AND STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION'S 2010 MUTCD.
2. THE COUNTY RESERVES THE RIGHT TO OBSERVE THESE TRAFFIC CONTROL PLANS IN USE AND TO MAKE THE NECESSARY CHANGES AS FIELD CONDITION WARRANT. ANY CHANGES SHALL SUPERSEDE THESE PLANS.
3. THE CONTRACTOR SHALL PROVIDE FLAGGERS AS DEEMED NECESSARY BY THE ENGINEER.
4. THE CONTRACTOR SHALL NOTIFY ANY AFFECTED TRANSIT SERVICES, FIRE AND POLICE SERVING THE CITY/CITIES AT LEAST 14 DAYS PRIOR TO EACH CONSTRUCTION PHASE.
5. THE CONTRACTOR SHALL PROVIDE ALL CONSTRUCTION SIGNING, BARRICADING, DELINEATORS, AND FLASHING ARROW SIGNS AS SHOWN ON THE PLANS.
6. THE CONTRACTOR IS RESPONSIBLE IN INSTALLING AND MAINTAINING THE TRAFFIC CONTROL SYSTEMS SHOWN ON THESE PLANS. IN THE EVENT THAT THERE ARE CHANGES IN THESE PLANS THAT NEED TO BE MADE DUE TO CHANGED FIELD CONDITIONS DURING CONSTRUCTION, THE CONTRACTOR IS RESPONSIBLE IN MAKING THE NECESSARY CHANGES ON THESE PLANS WHERE APPLICABLE WITH THE APPROVAL OF TH E ENGINEER.
7. EXISTING SIGNS THAT ARE IN CONFLICT WITH THESE PLANS SHALL BE REMOVED OR COVERED BY THE CONTRACTOR.

EMERGENCY CONTACT:
HUNG NGUYEN : (626) 458- 4969

SLAUSON AVENUE
40MPH



PHASE I

CMS

ROAD WORK AHEAD
EXPECT DELAYS

RECOMMENDED CMS DURING CONSTRUCTION

CMS

ROAD WORK ON
SLAUSON AVE. BRIDGE
FROM:____ TO____

RECOMMENDED CMS TO BE INSTALLED TWO WEEKS PRIOR TO CONSTRUCTION

SIGNING LEGEND

ROAD WORK AHEAD W20-1	RIGHT LANE CLOSED AHEAD W20-5(RT)	W4-2(RT)	LANE CLOSED C30(CA)

RECOMMENDED: BY CITY OF PICO RIVERA	7-6-11 DATE	APPROVED: BY CITY OF SANTA FE SPRINGS	7/6/11 DATE
APPROVED: BY CITY OF PICO RIVERA	7-6-11 DATE	SUBMITTED: BY ENGINEER	NO. C63125 6/24/11 DATE
		APPROVED: BY ENGINEER	7-12-11 DATE

REGISTERED PROFESSIONAL ENGINEER
YGGY RUIZ
No. C63125
Exp. 06-30-12
CIVIL
STATE OF CALIFORNIA

DATE		DESCRIPTION

REVISIONS

LOS ANGELES COUNTY
DEPARTMENT OF PUBLIC WORKS
TRAFFIC AND LIGHTING DIVISION

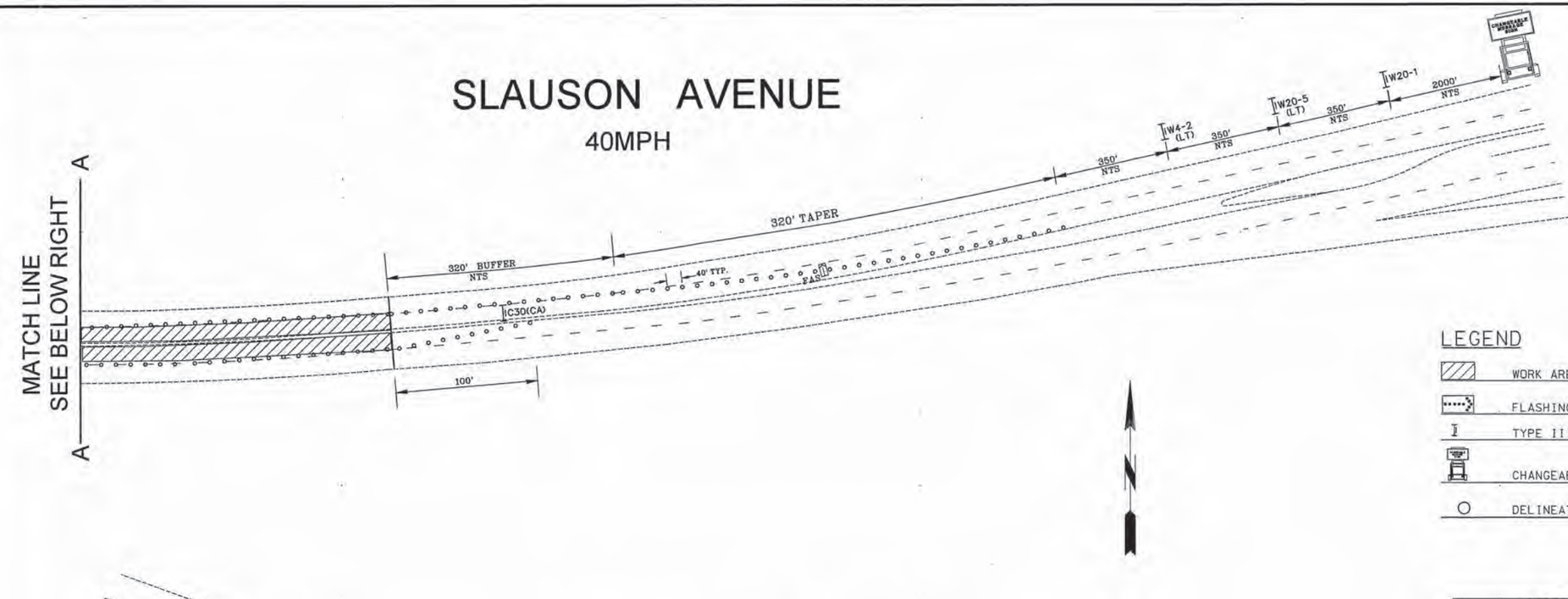
TRAFFIC CONTROL PLAN
SLAUSON AVENUE
OVER SAN GABRIEL RIVER

PCA: X2110359 | SCALE: 1"=40' | SHEET: 1 OF 2

DRAWN BY: ABDUL HASAN | TG. 706, G-1

SLAUSON AVENUE

40MPH



LEGEND

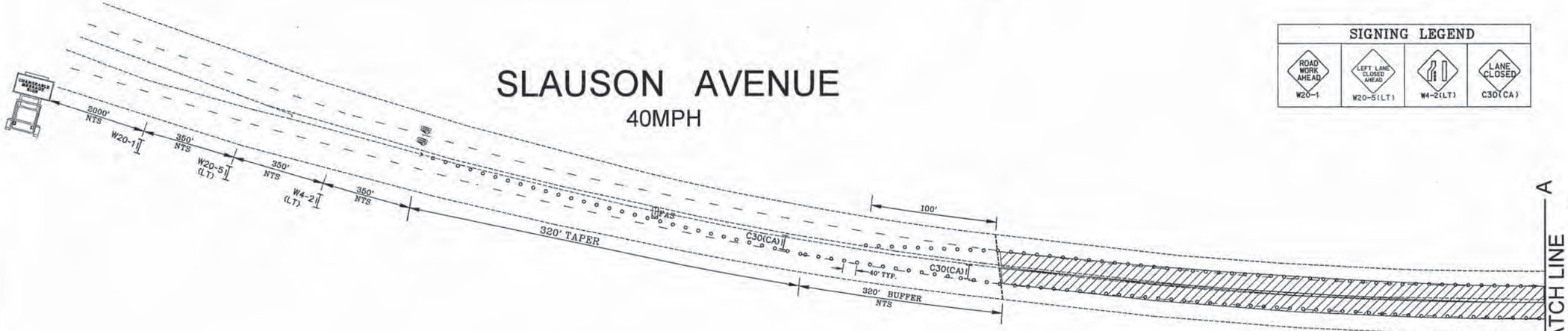
- WORK AREA
- FLASHING ARROW BOARD
- TYPE III BARRICADE
- CHANGEABLE MESSAGE SIGN
- DELINEATORS

SIGNING LEGEND

ROAD WORK AHEAD	LEFT LANE CLOSED AHEAD		LANE CLOSED
W20-1	W20-5(LT)	W4-2(LT)	C30(CA)

SLAUSON AVENUE

40MPH



PHASE II

SLAUSON AVE, RDC0010872

DRAWN BY: ABDUL HASAN | TG. 706, G-1

EMERGENCY CONTACT:
HUNG NGUYEN : (626) 458- 4969

RECOMMENDED:
BY CITY OF PICO RIVERA — DATE 7-6-11

APPROVED:
BY CITY OF PICO RIVERA — DATE 7-6-11

APPROVED:
BY CITY OF SANTA FE SPRINGS — DATE 7/11/11

SUBMITTED:
BY ENGINEER — NO. C63125 — DATE 6/29/11

APPROVED:
BY ENGINEER — DATE 7-12-11

REGISTERED PROFESSIONAL ENGINEER
YGGY RUIZ
No. C63125
Exp. 06-30-12
CIVIL
STATE OF CALIFORNIA

DATE		DESCRIPTION

REVISIONS

LOS ANGELES COUNTY
DEPARTMENT OF PUBLIC WORKS
TRAFFIC AND LIGHTING DIVISION

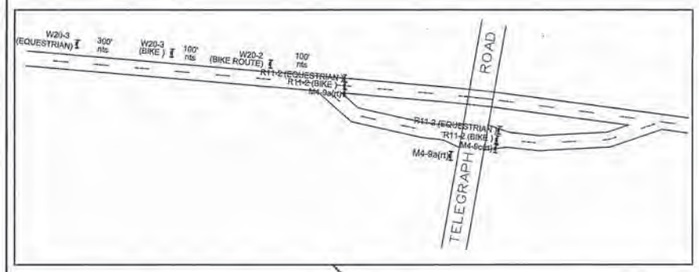
TRAFFIC CONTROL PLAN
SLAUSON AVENUE
OVER SAN GABRIEL RIVER

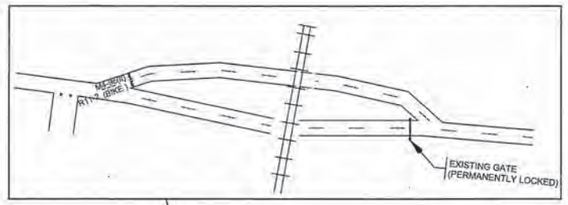
PCA: X2110359 | SCALE: 1"=40' | SHEET: 2 OF 2

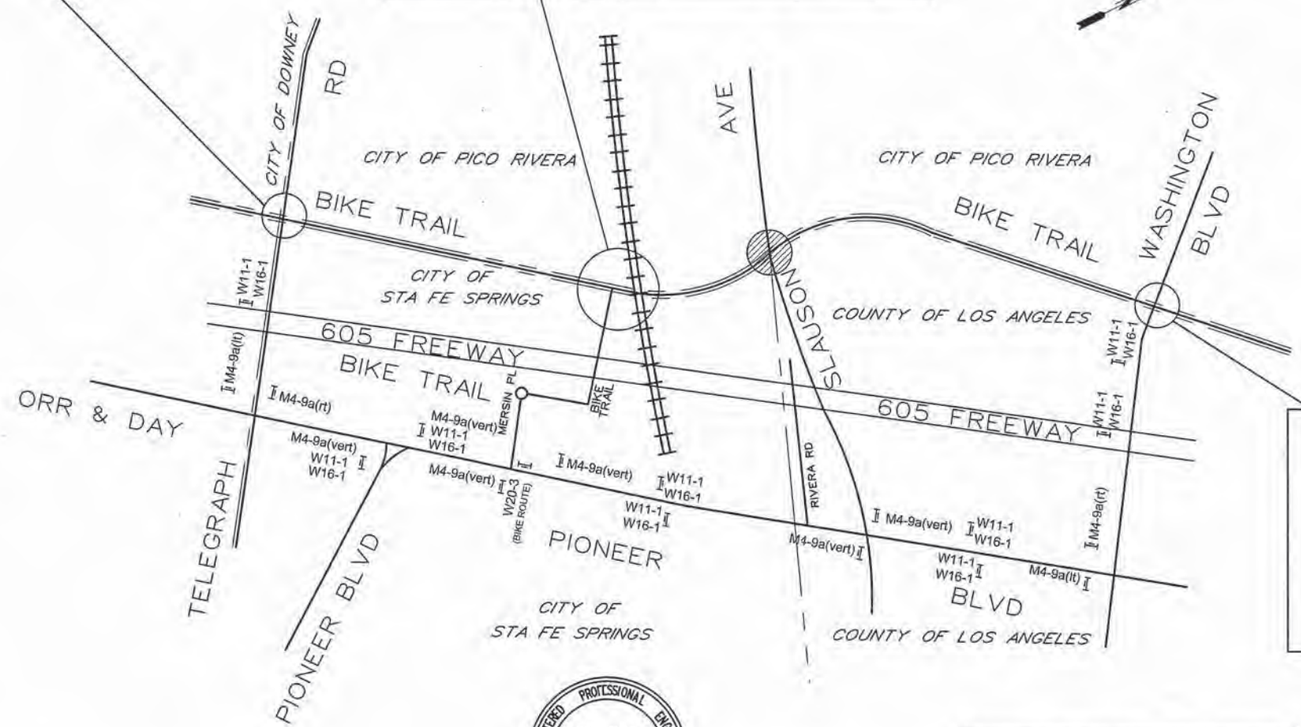
LOS ANGELES COUNTY
DEPARTMENT OF PUBLIC WORKS

SLAUSON AVENUE
PROJECT ID NO. RDC0010872

SLAUSON AVE, RDC0010872







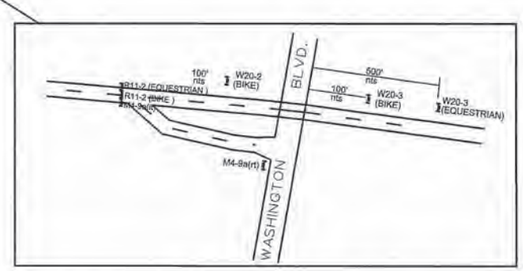
TRAFFIC CONTROL PLAN GENERAL NOTES

1. ALL SIGNS, DELINEATORS, BARRICADES, ETC. SHALL CONFORM TO THE STATE OF CALIFORNIA STANDARD SPECIFICATIONS (05/06), STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION'S 2010 MUTCD.
2. THE AGENCY RESERVES THE RIGHT TO OBSERVE THESE TRAFFIC CONTROL PLANS IN USE AND TO MAKE THE NECESSARY CHANGES AS FIELD CONDITIONS WARRANT. ANY CHANGES SHALL SUPERSEDE THESE PLANS.
3. THE CONTRACTOR SHALL PROVIDE FLAGGERS AS DEEMED NECESSARY BY THE ENGINEER.
4. THE CONTRACTOR SHALL NOTIFY THE DETOUR ENGINEER AT (626) 300- 4855 AT LEASE 3 WEEKS IN ADVANCE OF ESTABLISHING ANY TRAFFIC CONTROL.
5. THE CONTRACTOR IS RESPONSIBLE IN INSTALLING AND MAINTAINING THE TRAFFIC CONTROL DEVICES SHOWN ON THESE PLANS. IN THE EVENT THAT THERE ARE CHANGES IN THESE PLANS THAT NEED TO BE MADE DUE TO CHANGED FIELD CONDITIONS DURING CONTRUCTION, THE CONTRACTOR IS RESPONSIBLE IN MAKING THE NECESSARY CHANGES ON THESE PLANS WHERE APPLICABLE.
6. EXISTING SIGNS THAT ARE IN CONFLICT WITH THESE PLANS SHALL BE REMOVED OR COVERED BY THE CONTRACTOR.

THIS BIKE/ EQUESTRIAN TRAIL DETOUR IS ONLY APPLICABLE DURING CONSTRUCTION HOURS ONLY. MAINTAIN ACCESS AT ALL OTHER TIMES.

SIGNING LEGEND

W20-2 (BIKE ROUTE) = BIKE ROUTE DETOUR AHEAD	W11-1 = / W16-1 = SHARE THE ROAD
W20-3 (BIKE ROUTE) = BIKE ROUTE CLOSED AHEAD	M4-9a (BIKE) = DETOUR
W20-3 (EQUESTRIAN TRAIL) = EQUESTRIAN TRAIL CLOSED AHEAD	R11-2 (BIKE) = BIKE ROUTE CLOSED; R11-2 (EQUESTRIAN) = EQUESTRIAN ROUTE CLOSED



DATE	MK	DESCRIPTION
		REVISIONS

DRAWN BY: HSL

REGISTERED PROFESSIONAL ENGINEER
YGGY RUIZ
No. C63125
Exp. 06-30-12
CIVIL
STATE OF CALIFORNIA

APPROVED: CITY OF SANTA FE SPRINGS BY _____ DATE 7/8/11	RECOMMENDED: CITY OF PICO RIVERA BY _____ DATE 7-6-11	SUBMITTED: CIVIL ENGINEER NO C63125 BY _____ DATE 6/29/11
	APPROVED: CITY OF PICO RIVERA BY _____ DATE 7-6-11	APPROVED BY _____ DATE 7-12-11

LOS ANGELES COUNTY
DEPARTMENT OF PUBLIC WORKS
TRAFFIC AND LIGHTING DIVISION

TRAFFIC CONTROL PLAN
SLAUSON AVENUE
OVER SAN GABRIEL RIVER
BIKE TRAIL DETOUR

PCA: X2110359 | NO SCALE | SHT. 1 OF 1

Appendix B
Air Pollutant Emission Calculations

APPENDIX B

Air Pollutant Emissions Estimate

1. Emissions from Equipment Usage Calculations

Assumption:

- Construction period = 6 months or about 126 days
- Equipment usage:

Construction Equipment	Number	Daily Usage (hours/day)	Maximum Daily Usage (hours/day)
Bobcat Loader	2	5	10
Air Compressor	2	8	16
Concrete Boom Pump	5	4	20
Core Drilling Machine	2	4	6
Hydraulic Crane	1	4	4
Jack Hammer	2	2	4
Manlift	1	2	3
Telescopic Manlift	1	2	2
Welding Machine	2	4	8

Source: Equipment List Provided by County Public Works

Emissions from Equipment and Off-Road Machinery Usage

		Emission Factors (g/hr)						Calculated Emissions (g/d)					
Equipment	**Max Usage (Hr/d)**	**VOC**	**Nox**	**CO**	**SOx**	**PM10**	**PM2.5**	**VOC**	**Nox**	**CO**	**SOx**	**PM10**	**PM2.5**
Bobcat Loader	10	1.8	44.2	30	0.2	2.3	2.1	18	442	300	2	23	21
Air Compressor	16	1.4	33.2	23	0.1	1.7	1.6	22.4	531.2	368	1.6	27.2	25.6
Concrete Boom Pump	20	3.6	102	60	0.3	5	4.5	72	2040	1200	6	100	90
Core Drilling Machine	8	1.9	51	31	0.2	2.5	2.3	15.2	408	248	1.6	20	18.4
Hydraulic Crane	4	4.8	136	75	0.4	6.7	6	19.2	544	300	1.6	26.8	24
Jack Hammer	4	0.9	17	12	0.1	1	0.9	3.6	68	48	0.4	4	3.6
Manlift	2	1.8	44.2	30	0.2	2.3	2.1	3.6	88.4	60	0.4	4.6	4.2
Telescopic Boom Lift	2	2.2	54.4	37	0.2	2.8	2.5	4.4	108.8	74	0.4	5.6	5
Welding Machine	8	0.8	14	10	0.1	0.9	0.8	6.4	112	80	0.8	7.2	6.4
Total Emissions in g/d								164.8	4342.4	2678	14.8	218.4	198.2
Total Emissions in lb/d								0.36	9.55	5.89	0.03	0.48	0.44

2. Emissions from Worker Commute and Material Hauling Trucks

Assumptions:

- Worker Commute
  - 15 workers per day at 30 miles round-trip per worker per day
  - Total VMT = **450 miles/day**

- Material Hauling
  - 50 round trips over 6 months at 30 miles round trip per truck
  - Assumed 132 working days = ~0.38 trucks/day
  - Total VMT = **11.4 miles/day**

Emission Calculations

		Emission Factors (g/hr)						Calculated Emissions (g/d)					
Type	**Daily VMT (mi/d)**	**VOC**	**Nox**	**CO**	**SOx**	**PM10**	**PM2.5**	**VOC**	**Nox**	**CO**	**SOx**	**PM10**	**PM2.5**
Worker Commute	450	0.25	0.31	2	0	0.02	0.02	112.50	139.50	900.00	0.00	9.00	9.00
Material Hauling	11.4	0.3	7.6	1.2		0.13	0.13	3.42	86.64	13.68	0.00	1.48	1.48
Total Emissions in g/d								115.92	226.14	913.68	0.00	10.48	10.48
Total Emissions in lb/d								0.26	0.50	2.01	0.00	0.02	0.02

3. Greenhouse Gas Emission Calculations in CO_2e

Emissions from Equipment Usage

			Emission Factors (g/hr/hp)			Calculated Emissions (g/d)			
Equipment	Horsepower	Daily Hours	CO2	CH4	N2O	CO2 (g/day)	CH4 (CO2e)	NO2 (CO2e)	Total CO2e
Bobcat Loader	65	10	640	0.03	0.02	416000	487.5	3874	420361.5
Air Compressor	49	16	640	0.03	0.02	501760	588	4672.64	507020.64
Concrete Boom Pump	150	20	640	0.03	0.02	1920000	2250	17880	1940130
Core Drilling Machine	75	8	640	0.03	0.02	384000	450	3576	388026
Hydraulic Crane	200	4	640	0.03	0.02	512000	600	4768	517368
Jack Hammer	25	4	640	0.03	0.02	64000	75	596	64671
Manlift	65	2	640	0.03	0.02	83200	97.5	774.8	84072.3
Telescopic Boom Lift	80	2	640	0.03	0.02	102400	120	953.6	103473.6
Welding Machine	30	8	640	0.03	0.02	153600	180	1430.4	155210.4
								Total CO2e (g/day)	4180333.44
								Total CO2e (lb/day)	9208.76
								Total CO2e (MT over 126 days)	526.31

Emissions from Worker Commute and Material Hauling Trucks

Type	Daily VMT (mi/d)	Fuel Type	Emission Factor (g CO_2e/mile)	Calculated Emissions (g/d)
Worker Commute	450	Gasoline	404	181800.00
Material Hauling	11.4	Diesel	1623	18502.20
			Total CO2e (g/day)	200302.20
			Total CO2e (lb/day)	441.24
			Total CO2e (MT over 126 days)	25.22

References:

Source of Emission Factors: CARB, OFFROAD2017 Emissions Inventory Model; CalEEMod 2020.4.0; and IPCC 2006 Guidelines for National Greenhouse Gas Inventories (Tier 1 emission factors for CH_4 and N_2O from diesel combustion)

Appendix C
Biological Technical Report

Biological Technical Report
for the
Slauson Avenue Bridge over San Gabriel River
Seismic Retrofit Project

Los Angeles County, California

Prepared For:

Los Angeles County Public Works
900 S Freemont Avenue
Alhambra, California 91803

Prepared By:

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS
111 Academy Way, Suite 210
Irvine, California 92617

September 2025

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LIST OF ACRONYMS AND ABBREVIATIONS

Term	Definition
°F	degrees Fahrenheit
BNSF	Burlington Northern Santa Fe Railway
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CNPSEI	California Native Plan Society's Electronic Inventory
CRPR	California Rare Plant Rank
CWA	Clean Water Act
ECORP	ECORP Consulting, Inc.
ESA	Endangered Species Act
FR	Federal Register
GPS	Global Positioning System
HCP	Habitat Conservation Plan
I-5	Interstate 5
I-605	Interstate 605
MBTA	Migratory Bird Treaty Act
MCV	*A Manual of California Vegetation*, 2nd Edition
mph	miles per hour
NCCP	Natural Community Conservation Plan
NPPA	Native Plant Protection Act
NWI	National Wetlands Inventory
OHWM	ordinary high-water mark
Project	Slauson Avenue Bridge over San Gabriel River Seismic Retrofit Project
Public Works	Los Angeles County Public Works
Rahn	Rahn Conservation Consulting, LLC
RWQCB	Regional Water Quality Control Board
SAA	Streambed Alteration Agreement
SCRRA	Southern California Regional Rail Authority
SB	Senate Bill

Term	Definition
SEA	Significant Ecological Areas
SSC	California Species of Special Concern
Survey Area	The Project Site and a 500-Foot Buffer
SWPPP	Storm Water Pollution Prevention Plan
TCP	Traffic Control Plan
Ultrasystems	Ultrasystems Environmental, Inc.
UPRR	Union Pacific Railroad
USACE	U.S. Army Corps of Engineers
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
WBWG	Western Bat Working Group
WEAP	Worker Environmental Awareness Program
WOTUS	Waters of the United States

1.0 INTRODUCTION

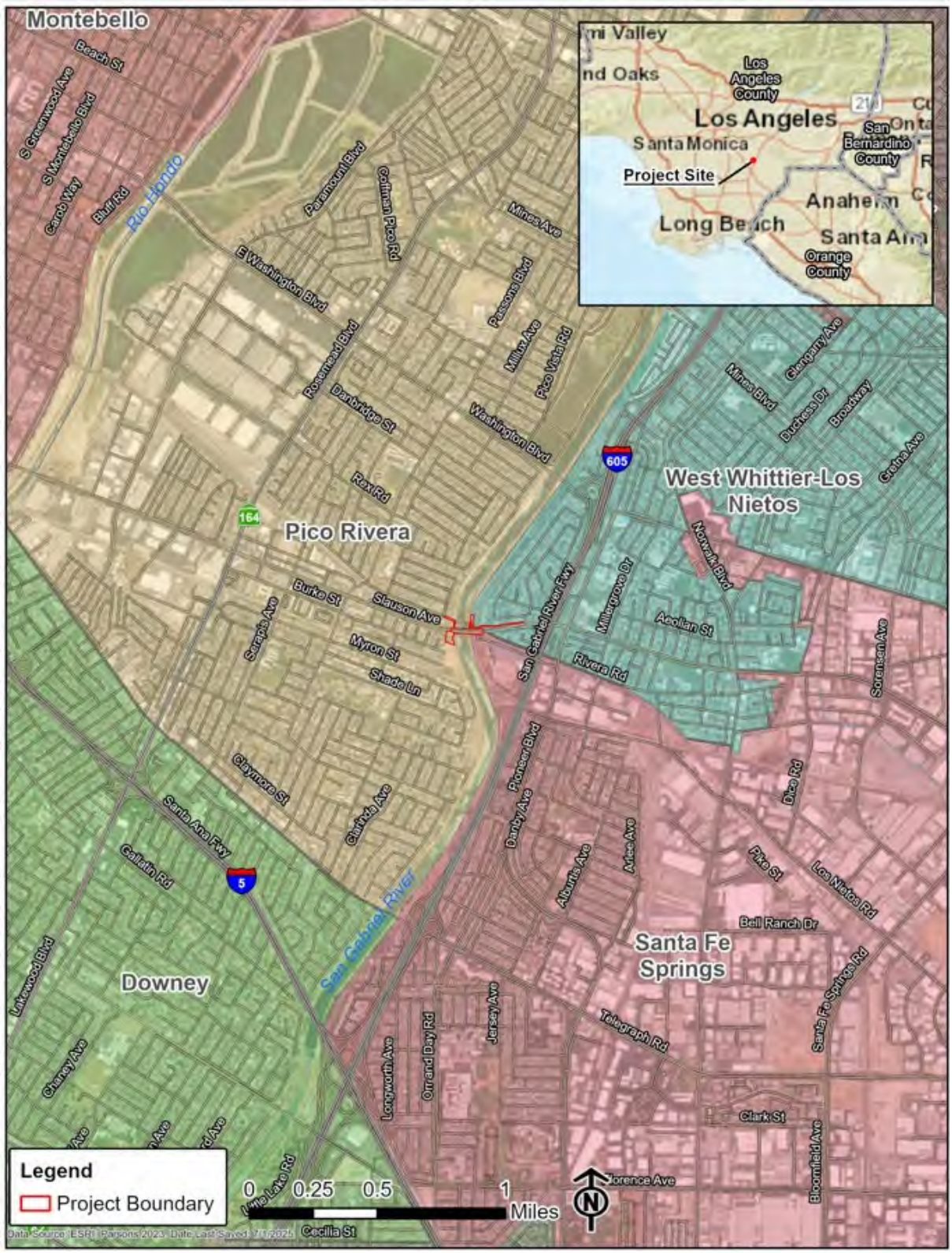
ECORP Consulting, Inc. (ECORP) conducted a biological reconnaissance survey at the Slauson Avenue Bridge over San Gabriel River Seismic Retrofit Project (Proposed Project) site in the cities of Pico Rivera and Santa Fe Springs and unincorporated Los Angeles County territory, Los Angeles County, California. The survey was conducted to identify any potential biological resources that could be affected by the Proposed Project pursuant to the terms of the California Environmental Quality Act (CEQA), and for the purposes of identifying any biological constraints that would affect the Proposed Project. The Project will be subject to county, state, and federal regulations regarding compliance with the federal Endangered Species Act (ESA), California ESA, Migratory Bird Treaty Act (MBTA), Clean Water Act (CWA) regulations, and California Fish and Game Code.

1.1 Project Description and Location

1.1.1 Project Location

Slauson Avenue is a four-lane major east–west arterial roadway located in the San Gabriel Valley region of Los Angeles County. The Slauson Avenue Bridge spans the San Gabriel River approximately 0.3 mile west of Interstate 605 (I-605) and approximately 1.75 miles north of the I-605/Interstate 5 (I-5) interchange. At this location, the San Gabriel River is confined within a flood control channel. Most of the bridge structure lies within the city of Pico Rivera, whose eastern jurisdictional boundary generally follows the eastern bank of the channel. The easternmost end of the bridge is within the unincorporated community of West Whittier and the city of Santa Fe Springs, where Rivera Road forms the boundary between these two jurisdictions near the bridge (Figure 1).

Figure 1. Project Location



1.1.1.1 Setting

The Slauson Avenue Bridge was originally constructed in 1958 by the Los Angeles County Department of Public Works (Public Works) and underwent modifications in 1964. The bridge is approximately 655 feet long and 63 feet, 8 inches wide. The bridge deck contains undivided 12-foot-wide travel lanes, 4-foot, 10-inch-wide sidewalks on both sides, and steel railings along the edges. The deck, which is 7 inches thick, consists of seven spans supported by 5-foot-deep steel plate girders. These spans rest on abutments at each end (Abutments 1 and 8) and on six intermediate piers (Piers 2 through 7). Additionally, the spans are connected by two expansion and five deflection hinges (Figure 2).

The abutments are located outside of the flood control channel, while three of the piers (Piers 3, 4, and 5) have foundations located within the channel bottom. Pier 2 is supported by a foundation on the channel's western levee wall. Piers 2 through 5 each consist of elongated concrete footings and caps that span the width of the bridge deck and are supported by double concrete columns.

Adjacent to and beneath the Slauson Avenue Bridge, two freight rail lines operate in close proximity. The Union Pacific Railroad (UPRR) owns and operates a single-track, north–south rail line located along the eastern side of the channel. The Burlington Northern Santa Fe Railway (BNSF) owns and operates a rail line with three tracks that cross the San Gabriel River via a bridge that runs roughly parallel—though skewed—to the Slauson Avenue Bridge. The BNSF bridge, which is lower in elevation, crosses underneath the Slauson Avenue Bridge at an angle immediately east of the channel, between Pier 6's straddle-type foundations (i.e., two sets of columns and foundations). At this crossing, both the BNSF and UPRR rail lines are at-grade. BNSF leases track usage rights to Metrolink, operated by the Southern California Regional Rail Authority (SCRRA) (Figure 2, Figure 3).

Figure 1. Existing Slauson Bridge Configuration

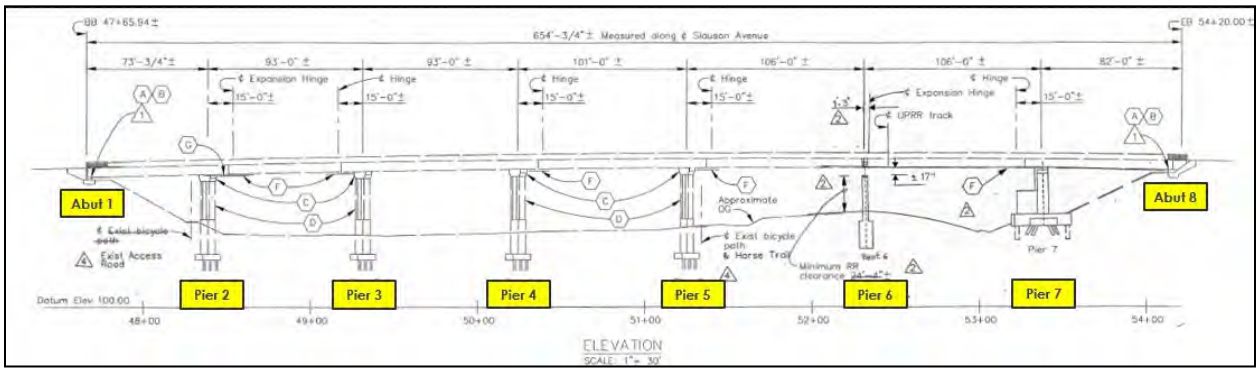


Figure 3. Aerial View of the Project Area

The San Gabriel River at this location flows through a flood control channel constructed by the U.S. Army Corps of Engineers. Upstream, the channel extends approximately 12.5 miles to the Santa Fe Flood Control Basin. Near the bridge, the channel is about 320 feet wide and features a soft earthen bottom with vegetation, contained by trapezoidal levees lined with riprap or grouted stone. Stormwater outfalls are located at various points along the levees. The river bottom lies approximately 38 feet below the bridge deck at an elevation of 144 feet above mean sea level.

The San Gabriel River Trail, a paved recreational bicycle and pedestrian path, runs along the eastern side of the channel between the river and the UPRR tracks. A restricted-access maintenance road runs along the western levee. Downstream of the bridge, the channel continues approximately 12 miles to its confluence with the Coyote Creek flood control channel, ultimately discharging into the Pacific Ocean in Long Beach.

1.1.1.2 Surrounding Land Uses

In addition to the flood control channel, railroad facilities, and the San Gabriel River Trail, the area surrounding the Slauson Avenue Bridge includes primarily vacant parcels located to the northeast, southwest, and southeast of the bridge. Beyond these vacant areas, single-family residential subdivisions are located farther northeast and southwest. On the southeastern side, a self-storage facility occupies the area beyond the adjacent vacant parcel. To the northwest of the bridge, land uses include additional single-family residences and another self-storage facility located between Slauson Avenue and the BNSF rail corridor (Figure 3).

1.1.2 Project Description

In 1995, the County Public Works inspected the Slauson Avenue Bridge and found no visible signs of structural distress. At that time, the bridge was considered to be in good condition. However, the inspection concluded that during a major earthquake, the bridge could sustain severe damage, including partial collapse, due to many of its components not conforming to current seismic design standards. A retrofit strategy was developed and proposed by Public Works following that evaluation.

A subsequent inspection was conducted in 2022. This inspection documented the accumulation of debris around the pier columns and bent areas, as well as evidence of past fires near the abutments. The report also assessed the condition of various bridge elements and included recommendations for repair. The purpose of the current project is to seismically retrofit the Slauson Avenue Bridge to meet Caltrans Bridge Design Specifications and Seismic Design Criteria.

The proposed seismic retrofit includes the following components:

- Strengthening the abutment backwalls;
- Strengthening Piers 2 through 5 by infilling the space between the double columns with concrete, thereby converting each pair of columns into a single elongated column;
- Installing shear keys between the girders and the caps of Piers 2 through 5 and on top of the abutment walls;

- Installing hinge seat extenders between all deck spans, except at Pier 6; and
- Installing cable restrainers between Spans 1 and 2 near Pier 2.

No modifications are proposed for Piers 6 and 7, as retrofit work on these piers was completed in 2017. The project would not alter the bridge deck or the configuration of the San Gabriel River flood control channel. Additionally, the pier foundations, including those located within the channel, would not be modified. Existing adjacent railroads and utilities, including overhead electrical transmission lines along the eastern side of the channel, would remain in place and be protected during construction. A portion of the San Gabriel River Trail would be temporarily closed during construction, with detours provided to maintain trail connectivity.

1.1.2.1 Construction Footprint

The construction footprint includes the bridge working area, existing paved access roads along both sides of the river, and nearby vacant parcels that would accommodate temporary field offices, equipment staging, and materials storage (Figure 4).

1.1.2.2 Construction Method

Construction of the seismic retrofit would be carried out with minimal disturbance to the San Gabriel River and flood control channel, as no pier foundation work is proposed. Handheld equipment would be used to break existing concrete, followed by drilling and anchoring through existing concrete and steel to install rebar. Concrete infill walls and seat extenders would be framed using wood or metal forms and placed with a concrete pump and boom truck, operating from the bridge deck, trail, or staging area. Forms would remain in place for curing, typically up to seven days.

All work would comply with applicable stormwater regulations, including:

- MS4 Permit Compliance: Order No. R4-2021-0105 (or subsequent orders) for discharges within the Coastal Watersheds of Los Angeles and Ventura Counties.
- Construction General Permit: If applicable, the project would enroll under Order No. 2022-0057-DWQ (Permit No. CAS000002), with development and implementation of a project-specific Storm Water Pollution Prevention Plan (SWPPP).

Figure 4. Construction Footprint

Construction debris would be contained in accordance with a Debris Containment Plan to be prepared by the contractor and approved by Public Works. No debris would be allowed to fall into the streambed.

The concrete footprint would not increase. All new concrete would be delivered by mixer trucks and temporarily staged on the bridge deck prior to its use. Retrofit work at the piers would occur above ground, while limited abutment work would take place at ground level, more than 15 feet above the river bottom. Vegetation removal is not anticipated.

1.1.2.3 Staging Areas

Three vacant parcels adjacent to the bridge, all located outside of the river channel and currently non-vegetated, may be used for equipment and materials staging during construction (Figure 4).

1.1.2.4 Access and Scaffolding Platform

The San Gabriel River at the project location has a natural earthen bottom. To install and remove scaffolding platforms, construction workers and rubber-tired equipment (e.g., telescopic manlifts and forklifts) would access the channel using existing paved roads along both riverbanks. Equipment may be

brought to the channel floor using the natural slopes on either side of the river or lowered directly from the bridge deck using a crane. No placement of gravel or other materials on the existing riprap would be required. (Figure 5).

Only rubber-tired vehicles and construction workers would be permitted in the channel. No equipment would be parked overnight within the streambed; all equipment must be removed from the channel at the end of each workday.

Figure 5. Existing Paved Access Roads on Each Side of the Bridge

(East Side)

(West Side)

Scaffolding platforms would be suspended above the riverbed, supported by the existing bridge piers. Workers would use rubber-tired basket trucks to reach the riverbed and construct the scaffolding, and to elevate themselves to the platform to perform retrofit work. Once installed, the platforms would allow all remaining work to occur above the waterline.

Construction equipment and materials would be lowered from the bridge deck using a crane. While they may be temporarily placed on the channel bottom before use, no overnight storage in the channel would be allowed.

Use of suspended scaffolding platforms during the dry season eliminates the need for in-channel water diversion. No work would be scheduled during rainy conditions, forecasted precipitation, or when water is present in the channel.

1.1.2.5 Vehicle, Equipment, and Materials

Construction would involve various vehicles and equipment, including hydraulic cranes, telescopic boom forklifts, core drilling machines, jackhammers, air compressors, manlifts, welding machines, and concrete boom pumps. Rebar and materials for column infills would be delivered via tractor-trailers. Concrete would be delivered by mixer trucks, which may be temporarily staged on the bridge deck. Dump trucks would be used to haul waste and debris from the site.

1.1.2.6 Traffic Control

Although the retrofit work would occur beneath the bridge deck, traffic control would be necessary to remove live loads during construction on the girders. Concrete pump trucks may be temporarily stationed on the bridge deck, and materials may be lowered from the deck, both requiring temporary traffic control measures. In addition, the adjacent San Gabriel River Trail would require a detour during construction hours, with access restored during non-working hours.

A Traffic Control Plan (TCP) has been prepared and includes signage, flaggers, signal boards, and speed reduction measures. Pedestrian access across the bridge would be maintained, with temporary detours to one side of the bridge when necessary. A portion of the San Gabriel River Trail beneath the bridge would be closed for at least part of the construction period. Trail users would be redirected to parallel streets east of the river, with detour connections at Washington Boulevard to the north and Telegraph Road to the south.

1.1.2.7 Schedule

Construction is expected to take approximately six months. In-channel activities would be limited to a single dry-season window, from April through October. Work would be conducted during regular daytime weekday hours, in accordance with applicable local regulations. No nighttime or weekend work is anticipated.

2.0 FEDERAL, STATE, AND LOCAL REGULATIONS

This biological technical report was prepared to identify potential biological resource constraints on the Project and ensure compliance with federal, state, and local regulations regarding listed, protected, and special-status species and resources. This report includes an analysis of impacts pursuant to the National Environmental Policy Act (NEPA) and California Environmental Quality Act (CEQA). The regulations are detailed below.

2.1 Federal Regulations

2.1.1 The Federal Endangered Species Act

The federal ESA protects plants and animals that are listed as endangered or threatened by the U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service. Section 9 of the ESA prohibits the taking of endangered wildlife, where taking is defined as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in such conduct" (50 Code of Federal Regulations [CFR] 17.3). For plants, this statute governs removing, possessing, maliciously damaging, or destroying any endangered plant on federal land and removing, cutting, digging up, damaging, or destroying any endangered plant on non-federal land in knowing violation of state law (16 U.S. Code 1538).

Under Section 7 of the ESA, federal agencies are required to consult with the USFWS if their actions, including permit approvals or funding, could adversely affect a listed (or proposed) species (including plants) or its critical habitat. Through consultation and the issuance of a biological opinion, the USFWS may issue an incidental take statement allowing take of the species that is incidental to an otherwise authorized activity provided the activity will not jeopardize the continued existence of the species. Section 10 of the ESA provides for issuance of incidental take permits where no other federal actions are necessary provided a habitat conservation plan is developed.

2.1.2 Migratory Bird Treaty Act

The MBTA implements international treaties between the U.S. and other nations devised to protect migratory birds, any of their parts, eggs, and nests from activities including hunting, pursuing, capturing, killing, selling, and shipping, unless expressly authorized in the regulations or by permit. As authorized by the MBTA, the USFWS issues permits to qualified applicants for the following types of activities: falconry, raptor propagation, scientific collecting, special purposes (rehabilitation, education, migratory game bird propagation, and salvage), take of depredating birds, taxidermy, and waterfowl sale and disposal. The regulations governing migratory bird permits can be found in 50 CFR Part 13 General Permit Procedures and 50 CFR Part 21 Migratory Bird Permits.

2.1.3 Federal Clean Water Act

Under Section 404 of the federal CWA, potential Waters of the United States (WOTUS), including wetlands, may be regulated by the U.S. Army Corps of Engineers (USACE). The limit of USACE jurisdiction for non-tidal watercourses (without adjacent wetlands) is defined in 33 CFR 328.4(c)(1) as the "ordinary high-water mark" (OHWM).

The OHWM is defined as the line on the shore established by the fluctuations of water and indicated by physical characteristics such as clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas. The upstream limits of other waters are defined as the point where the OHWM is no longer perceptible.

Jurisdictional WOTUS are delineated in accordance with the "Revised Definition of Waters of the United States'" rule, published in the Federal Register (FR) in 2022 and which became final on January 18, 2023. This rule, set forth by the U.S. Environmental Protection Agency (USEPA) and USACE, was consistent with the pre-2015 regulatory definition as all waters that are currently used, or were used in the past, or may be susceptible to use in interstate commerce, including all waters subject to the ebb and flow of the tide. This definition also includes all interstate waters, including interstate wetlands, interstate lakes, rivers, streams (including all intermittent and ephemeral streams), mudflats, sand flats, sloughs, and prairie potholes, wet meadows, playa lakes, or natural ponds where the use, degradation, or destruction of which could affect interstate or foreign commerce. Under this rule, WOTUS do not include prior converted cropland.

The definition of WOTUS in accordance with this rule (40 CFR 230.3[s]), is summarized as:

1. all waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which 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 purpose by industries in interstate commerce;
4. all impoundments of waters otherwise defined as waters of the U.S. under the definition;
5. tributaries of waters identified in paragraphs (s)(1)-(4) of this section;
6. the territorial sea; and
7. wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (s)(1) through (6) of this section; waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of CWA (other than cooling ponds as defined in 40 CFR 423.11(m) which also meet the criteria of this definition) are not WOTUS.

On May 25, 2023, the U.S. Supreme Court adopted a narrower definition of WOTUS in the case *Sackett v. Environmental Protection Agency*. Under the majority opinion, WOTUS refers to "geographical features that are described in ordinary parlance as 'streams, oceans, rivers, and lakes' and to adjacent wetlands that are 'indistinguishable' from those bodies of water due to a continuous surface connection." On August 29, 2023, the agencies issued a final rule to amend the final "Revised Definition of Waters of the

United States'" rule to conform the definition of "waters of the United States" to the U.S. Supreme Court's May 25, 2023, decision in the case of *Sackett v. Environmental Protection Agency*.

Parts of the January 2023 Rule are invalid under the U.S. Supreme Court's interpretation of the CWA in the *Sackett* decision. Therefore, the agencies have amended key aspects of the regulatory text to conform to the Court's decision. Key changes under the amendment include:

- definition of "adjacent" is now "having a continuous surface connection;
- only tributaries that are relatively permanent, standing, or continuously flowing bodies of water (or tributaries with a continuous surface connection to those) are considered jurisdictional;
- interstate wetlands are no longer jurisdictional just by virtue of being interstate; and
- significant nexus test is eliminated.

Where areas jurisdictional to the USACE are present, and will be impacted by a project, the project proponent must usually apply for permitting with the agency, which generally consists of submittal of a Pre-Construction Notification under Section 404 of the CWA. As of the writing of this report, we do not know the details of how the individual USACE offices will implement the conforming rule for permitting purposes.

2.1.4 National Environmental Policy Act

The stated purposes of the National Environmental Policy Act (NEPA) are: to declare a national policy which will encourage productive and enjoyable harmony between man and his environment; to promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man; to enrich the understanding of the ecological systems and natural resources important to the Nation; and to establish a Council on Environmental Quality. NEPA is implemented by regulations of the Council on Environmental Quality (40 Code of Federal Regulations [CFR] 1500-1508).

NEPA requires Federal agencies to assess and consider the environmental effects of proposed major Federal actions prior to making decisions. The definition of *effects* in the NEPA regulations includes direct, indirect, and cumulative effects on natural resources and on the components, structures, and functioning of affected ecosystems (40 CFR 1508.1(i)(4)). When determining the level of NEPA review, Federal agencies must analyze if potential effects that could result from the proposed action and each alternative would be significant (40 CFR 1501.3(d)). In considering whether an alternative may "significantly affect the quality of the human environment," a federal agency must consider, among other things:

- Whether the effect is "adverse at some points in time and beneficial in others (for example, in assessing the significance of a habitat restoration action's effect on a species, an agency may consider both any short-term harm to the species during implementation of the action and any benefit to the same species once the action is complete). However, agencies shall not offset an action's adverse effects with other beneficial effects to determine significance (for example, an agency may not offset an action's adverse effect on one species with its beneficial effect on another species)" (40 CFR 1501.3(d)).

- Whether the action is in a geographic area with unique characteristics, such as proximity to unique or sensitive resources, wetlands, or ecologically critical areas (40 CFR1501.3(d)(1) and 40 CFR 1501.3(2)(ii)), and

Whether the action may adversely affect an endangered or threatened species or its habitat, including habitat that has been determined to be critical under the Endangered Species Act of 1973 (40 CFR1501.3(2)(vi)).

2.2 State and Local Regulations

2.2.1 California Endangered Species Act

The California ESA generally parallels the main provisions of the ESA but, unlike its federal counterpart, the California ESA applies the take prohibitions to species proposed for listing (called "candidates" by the state). Section 2080 of the California Fish and Game Code prohibits the taking, possession, purchase, sale, and import or export of endangered, threatened, or candidate species, unless otherwise authorized by permit or in the regulations. 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." The California ESA allows for take incidental to otherwise lawful development projects. State lead agencies are required to consult with California Department of Fish and Wildlife (CDFW) to ensure that any action they undertake is not likely to jeopardize the continued existence of any endangered or threatened species or result in destruction or adverse modification of essential habitat.

2.2.2 Fully Protected Species

The State of California first began to designate species as *fully protected* prior to the creation of the federal and California ESAs. Lists of fully protected species were initially developed to provide protection to those animals that were rare or faced possible extinction, and included fish, amphibians, reptiles, birds, and mammals. Most fully protected species have since been listed as threatened or endangered under the federal and/or California ESA. Previously, the regulations that implement the Fully Protected Species Statute (California Fish and Game Code § 4700) provide that fully protected species may not be taken or possessed at any time. However, as of July 10, 2023, Senate Bill (SB) 147 was signed into law, authorizing CDFW to issue take permits under the California ESA for fully protected species for qualifying projects through 2033. As stated in section 2081.15 of SB 147, qualifying projects include:

- a maintenance, repair, or improvement project to the State Water Project, including existing infrastructure, undertaken by the Department of Water Resources;
- a maintenance, repair, or improvement project to critical regional or local water agency infrastructure;
- a transportation project, including any associated habitat connectivity and wildlife crossing project, undertaken by a state, regional, or local agency, which does not increase highway or street capacity for automobile or truck travel;

- a wind project and any appurtenant infrastructure improvement, and any associated electric transmission project carrying electric power from a facility that is located in the state to a point of junction with any California based balancing authority; and
- a solar photovoltaic project and any appurtenant infrastructure improvement, and any associated electric transmission project carrying electric power from a facility that is located in the state to a point of junction with any California-based balancing authority.

2.2.3 California Fish and Game Code

2.2.3.1 Native Plant Protection Act

The Native Plant Protection Act (NPPA) of 1977 (California Fish and Game Code §§ 1900-1913) was created with the intent to *preserve, protect and enhance rare and endangered plants in this State*. The NPPA is administered by CDFW. The California Fish and Game Commission has the authority to designate native plants as "endangered" or "rare" and to protect endangered and rare plants from take. The California ESA of 1984 (California Fish and Game Code § 2050-2116) provided further protection for rare and endangered plant species, but the NPPA remains part of the California Fish and Game Code.

2.2.3.2 Streambed Alteration Agreement

Pursuant to Section 1602 of the California Fish and Game Code, a Streambed Alteration Agreement (SAA) application must be submitted for "any activity that may substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake" (CDFW 2021). In Title 14 of the California Code of Regulations (CCR), Section 1.72, the CDFW defines a *stream* (including creeks and rivers) as "a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life. This includes watercourses having a surface or subsurface flow that supports or has supported riparian vegetation."

In Chapter 9, Section 2785 of the Fish and Game Code, *riparian habitat* is defined as "lands which contain habitat which grows close to, and which depends upon, soil moisture from a nearby freshwater source."

The CDFW's jurisdiction includes drainages with a definable bed, bank, or channel and areas associated with a drainage channel that support intermittent, perennial, or subsurface flows; supports fish or other aquatic life; or supports riparian or hydrophytic vegetation. It also includes areas that have a hydrologic source.

The CDFW will determine if the proposed actions will result in diversion, obstruction, or change of the natural flow, bed, channel, or bank of any river, stream, or lake that supports fish or wildlife. If warranted, the CDFW will issue an SAA that includes measures to protect affected fish and wildlife resources; this SAA is the final proposal agreed upon by the CDFW and the applicant.

2.2.3.3 Migratory Birds

The CDFW enforces the protection of nongame native birds in §§ 3503, 3503.5, and 3800 of the California Fish and Game Code. Section 3513 of the California Fish and Game Code prohibits the possession or take of birds listed under the MBTA. These sections mandate the protection of California nongame native birds' nests and also make it unlawful to take these birds. All raptor species are also protected from "take" pursuant to California Fish and Game Code § 3503.5 and are also protected at the federal level by the MBTA of 1918 (USFWS 1918).

2.2.3.4 Bats and Bat Roosts

Bats in California are currently protected directly and indirectly by the California Fish and Game Code, Sections 86, 1600, 2000, 2014, 3007, and 4150; California Public Resources Code, Division 14, Section 21000 et seq.; and CCR, Title 14 including, but not limited to Section 251.1, CEQA regulations (Section 15000 et seq.), and Section 15382 – Significant Effect on the Environment.

Regulations of particular relevance to the protection of bats and bat roosts include Title 14, Section 251.1 of the CCR, which prohibits harassment (defined in that section as an intentional act that disrupts an animal's normal behavior patterns, including breeding, feeding, or sheltering) of nongame mammals (e.g., bats), and California Fish and Game Code Section 4150, which prohibits *take* or possession of all nongame mammals or parts thereof. Any activities resulting in bat mortality (e.g., the destruction of an occupied bat roost that results in the death of bats), disturbance that causes the loss of a maternity colony of bats (resulting in the death of young), or various modes of nonlethal pursuit or capture may be considered *take* as defined in Section 86 of the California Fish and Game Code. In addition, impacts to bat maternity colonies, which are considered native wildlife nursery sites, could be considered significant under CEQA.

2.2.4 Porter-Cologne Water Quality Act

The Porter-Cologne Water Quality Control Act requires "any person discharging waste, or proposing to discharge waste, within any region that could affect the waters of the State to file a report of discharge" with the Regional Water Quality Control Board (RWQCB) through State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State (Procedures) (CCR, Title 23, § 3855; State Water Resources Control Board 2021). *Waters of the State* is defined as any surface water or groundwater, including saline waters, within the boundaries of the State (California Water Code § 13050[e]). Pollution is defined as an alteration of the quality of the waters of the state by waste to a degree that unreasonably affects its beneficial uses (California Water Code § 13050) and includes filling in waters of the State. Note that CCR, title 23, § 3855 applies only to individual water quality certifications, but the new Procedures extend the application of § 3855 to individual waste discharge requirements for discharges of dredged or fill material to Waters of the State and waivers thereof.

A permit for impacts to Waters of the State of California would likely be required under the CWA and/or Porter-Cologne Water Quality Control Act. To determine whether a project should be regulated pursuant

to the Porter-Cologne Water Quality Control Act, the RWQCB considers whether project activities could impact the quality of Waters of the State.

On September 27, 2023, the USEPA published its final 2023 CWA Section 401 Quarter Quality Certification Improvement Rule (88 FR 66558). The final 2023 Rule revises and replaces the 2020 Rule's regulatory requirements for water quality certification that were adopted by the prior federal administration. The updates realign the scope of the Section 401 certification process with established practices, while also restoring the roles of states, territories, and authorized Tribes as certifying agencies.

2.2.5 California Environmental Quality Act Significance Criteria

Section 15064.7 of the CEQA Guidelines encourages local agencies to develop and publish the thresholds the agency uses in determining the significance of environmental effects caused by projects under its review. However, agencies may also rely upon the guidance provided by the CEQA checklist contained in Appendix G of the CEQA Guidelines. Appendix G provides examples of impacts that would normally be considered significant. Based on these examples, impacts to biological resources would normally be considered significant if a project would:

- 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 CDFW or USFWS;
- have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by CDFW or USFWS;
- 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;
- conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; and
- conflict with the provisions of an adopted Habitat Conservation Plan (HCP), Natural Community Conservation Plan (NCCP), or other approved local, regional, or state HCP.

An evaluation of whether an impact on biological resources would be substantial must consider both the resource itself and how that resource fits into a regional or local context. Substantial impacts would be those that would diminish, or result in the loss of, an important biological resource, or those that would obviously conflict with local, state, or federal resource conservation plans, goals, or regulations. Impacts are sometimes locally important but not significant according to CEQA. The reason for this is that although the impacts would result in an adverse alteration of existing conditions, they would not substantially diminish, or result in the permanent loss of an important resource on a population-wide or region-wide basis.

2.3 Local Regulations

2.3.1 Los Angeles County Significant Ecological Areas

In 1980 the Los Angeles County Board of Supervisors established the Significant Ecological Areas (SEA) Program as part of the General Plan (Los Angeles County Planning, 2022) to 'help conserve the genetic and physical diversity within Los Angeles County by designating biological resources areas capable of sustaining themselves into the future' (Los Angeles County Planning, 2024). The General Plan 2035 (General Plan) updated the SEA boundary map, goals and policies in 2015 (Los Angeles County Planning, 2022; Los Angeles County Department of Regional Planning, 2022). Chapter 22.102 of the General Plan 'establishes regulations to conserve the unique biological and physical diversity of the natural communities found within SEAs by requiring development to be designed to avoid and minimize impacts to SEA Resources. These requirements will help ensure the long-term survival of the SEAs and their connectivity to regional natural resources. This Chapter regulates development within SEAs by:

- protecting the biodiversity, unique resources, and geological formations contained in SEAs from incompatible development, as specified in the Conservation and Natural Resources Element of the General Plan;
- ensuring that projects reduce the effects of habitat fragmentation and edge effects by providing additional technical review of existing resources, potential impacts, and required mitigations;
- ensuring that development within a SEA conserves biological diversity, habitat quality, and connectivity to sustain species populations and their ecosystem functions into the future; and
- directing development to be designed in a manner that considers and avoids impacts to SEA resources within the Los Angeles County region.' (Los Angeles County Department of Regional Planning 2022) (Ord. 2019-0072 § 2, 2019; Los Angeles County Department of Regional Planning 2022; County of Los Angeles 2025a).

2.3.2 Los Angeles County Oak Tree Ordinance

The Los Angeles County Oak Tree Ordinance is established (a) to recognize oak trees as significant historical, aesthetic and ecological resources, and as one of the most picturesque trees in Los Angeles County, lending beauty and charm to the natural and manmade landscape, enhancing the value of property, and the character of the communities in which they exist; and (b) to create favorable conditions for the preservation and propagation of this unique, threatened plant heritage, particularly those trees which may be classified as heritage oak trees, for the benefit of current and future residents of Los Angeles County. It is the intent of the oak tree permit to maintain and enhance the general health, safety, and welfare by assisting in counteracting air pollution and in minimizing soil erosion and other related environmental damage. The oak tree permit is also intended to preserve and enhance property values by conserving and adding to the distinctive and unique aesthetic character of many areas of Los Angeles County in which oak trees are indigenous. The stated objective of the oak tree permit is to preserve and maintain healthy oak trees in the development process. (Ord. 88-0157 § 1, 1988: Ord. 82-0168 § 2 [part], 1982) (County of Los Angeles 2025b).

Los Angeles County Oak Tree Ordinance, Section 22.56.2060, Part 16, applies to all unincorporated areas of Los Angeles County. The ordinance states:

> A person shall not cut, destroy, remove, relocate, inflict damage or encroach into a protected Zone of any tree of the oak genus which is (a) 25 inches or more in circumference (eight inches in diameter) as measured four and one-half feet above mean natural grade; in the case of an oak with more than one trunk, whose combined circumference of any two trunks is at least 38 inches (12 inches in diameter) as measured four and one half feet above mean natural grade, on any lot or parcel of land within the unincorporated area of Los Angeles County, or (b) any tree that has been provided as a replacement tree, pursuant to Section 22.56.2180, on any lot or parcel of land within the unincorporated area of Los Angeles County, unless an oak tree permit is first obtained as provided by this Part 16. (County of Los Angeles 2025b).

The ordinance specifically prohibits the destruction of any tree of the oak genus indigenous to California. (County of Los Angeles 2025b).

3.0 METHODS

3.1 Literature Review

Prior to conducting the biological reconnaissance survey, ECORP biologists performed a literature review including a query of the CDFW's California Natural Diversity Database (CNDDB; CDFW 2025a) and the California Native Plant Society's (CNPS') Electronic Inventory (CNPSEI; CNPS 2025) to determine the special-status plant and wildlife species that have been documented within the Project Site and a 500-foot buffer (herein after referred to collectively as the 'Survey Area'). ECORP searched CNDDB and CNPSEI records within the Survey Area boundaries as depicted on the USGS 7.5-minute Whittier topographic quadrangle, plus the surrounding eight topographic quadrangles including Baldwin Park, El Monte, Los Angeles, Anaheim, La Habra, South Gate, Long Beach and Los Alamitos. The CNDDB and CNPSEI contain records of reported occurrences of federally and/or state-listed endangered, threatened, proposed endangered or threatened species, California Species of Special Concern (SSC), or other special-status species or habitat that may occur within or near the Survey Area. Additional information was gathered from the following sources and includes, but is not limited to:

- *State and Federally Listed Endangered and Threatened Animals of California* (CDFW 2025b);
- *Special Animals List* (CDFW 2025c);
- *The Jepson Manual: Vascular Plants of California* (Baldwin et al. 2012);
- *A Manual of California Vegetation*, 2nd Edition (MCV; Sawyer et al. 2009);
- National Wetlands Inventory (NWI; USFWS 2025a); and
- various online websites (e.g., Calflora 2025).

Using this information and observations in the field, a list of special-status plant and wildlife species that have the potential to occur on or near the Survey Area was generated. For the purposes of this assessment, special-status species are defined as plants or animals that:

- have been designated as either rare, threatened, or endangered by CDFW, CNPS, or the USFWS, or are protected under either the federal ESA or California ESA;
- are candidate species being considered or proposed for listing under these same acts;
- are fully protected by the California Fish and Game Code, §§ 3511, 4700, 5050, or 5515; or
- are of expressed concern to resource and regulatory agencies or local jurisdictions.

Special-status species reported for the region in the literature review or for which suitable habitat occurs on the site were assessed for their potential to occur within the Survey Area based on the following guidelines:

- Present: The species was observed onsite during a site visit or focused survey.
- High: Habitat (including soils and elevation factors) for the species occurs within the Survey Area and a known occurrence has recently been recorded (within the last 20 years) within 5 miles of the area.
- Moderate: Habitat (including soils and elevation factors) for the species occurs within the Survey Area and a documented observation occurs within the database search, but not within 5 miles of the area; or a recently documented observation occurs within 5 miles of the area and marginal or limited amounts of habitat occurs in the Survey Area.
- Low: Limited or marginal habitat for the species occurs within the Survey Area and a recently documented observation occurs within the database search, but not within five miles of the area; a historic documented observation (more than 20 years old) was recorded within 5 miles of the Survey Area; or suitable habitat strongly associated with the species occurs on site, but no records or only historic records were found within the database search.
- Presumed Absent: Species was not observed during a site visit, or focused surveys conducted in accordance with protocol guidelines at an appropriate time for identification; habitat (including soils and elevation factors) does not exist onsite; or the known geographic range of the species does not include the Survey Area.

Note that location information on some special-status species may be of questionable accuracy or unavailable. Therefore, for survey purposes, the environmental factors associated with a species' occurrence requirements may be considered sufficient reasons to give a species a positive potential for occurrence. In addition, just because a record of a species does not exist in the databases does not mean it does not occur. In many cases, records may not be present in the databases because an area has not been surveyed for that species.

The desktop literature review for the Aquatic Resource Delineation began with an interpretation of aerial photographs. Preliminary mapping was conducted on digital files using Geographic Information System

(GIS) software and AutoDesk Civil 3D software. The literature review reviewed topographic, soils, and land cover data. Detailed aquatic resources delineation methods are provided in the Aquatic Resources Delineation Report (Appendix A).

3.2 Field Survey

3.2.1 Biological Reconnaissance Survey

The biological reconnaissance survey was conducted by walking the entire Survey Area, where accessible, to determine the vegetation communities and wildlife habitats present on the site. Areas that were not accessible by foot were scanned using binoculars for suitable habitat. The biologists documented the plant and wildlife species present on the Survey Area, and the location and condition of the Survey Area were assessed for the potential to provide habitat for special-status plant and wildlife species. Data were recorded in the field utilizing ArcGIS™ Field Maps on a device (smartphone or tablet) connected to a Global Positioning System (GPS) unit, field notebooks, or maps. Photographs were also taken during the survey to provide visual representation of the conditions within the Survey Area. The Survey Area was also examined to assess its potential to facilitate wildlife movement or function as a movement corridor for wildlife moving throughout the region. The biologists also documented the vegetation communities present on the Survey Area.

Plant and wildlife species, including any special-status species that were observed during the survey, were recorded. Plant nomenclature follows that of *The Jepson Manual: Vascular Plants of California* (Baldwin et al. 2012). Wildlife nomenclature follows Society for the Study of Amphibians and Reptiles (2017), *Check-list of North American Birds* (Chesser et al. 2023), and the *Revised Checklist of North American Mammals North of Mexico* (Bradley et al. 2014). In instances where a special-status species was observed, the date, species, location and habitat, and GPS coordinates were recorded.

3.2.2 Bat Surveys

A bat habitat assessment and focused bat survey of the Slauson Avenue Bridge was conducted by Ultrasystems Environmental, Inc. (Ultrasystems) and qualified bat biologist Stephanie Remington in 2015 (Ultrasystems 2015). An additional Bat Survey and Bridge Assessment was conducted by Rahn Conservation Consulting, LLC (Rahn) in March 2016 (Rahn 2016). A follow-up inspection of the Project Site and Slauson Avenue Bridge for bat habitat and bat sign was conducted by Watearth in 2024 (Appendix B). The methods utilized for each survey are provided in the respective survey reports.

3.2.3 Aquatic Resources Delineation

The jurisdictional delineation was conducted during a site visit by Watearth senior biologist Lee Vella and field scientist Jorel Hingada on July 12, 2024, and by senior biologist Lee Vella and principal engineer Jennifer J. Walker on August 15, 2024. A handheld GPS unit (TDC650) was used to mark the aquatic resource features and the Ordinary High-Water Mark (OHWM). The delineation of the OHWM began with an interpretation of aerial photographs. Preliminary mapping was conducted on digital files using Geographic Information System (GIS) software and AutoDesk Civil 3D software. Topographic, soils, and, land cover maps were created to interpret the influence of the surrounding landscape on the delineation

location. Detailed aquatic resources delineation methods are provided in the Aquatic Resources Delineation Report (Appendix A).

4.0 RESULTS

Summarized below are the results of the literature review and field surveys, including site characteristics, vegetation communities, wildlife, special-status species, and special-status habitats (including any potential wildlife corridors).

4.1 Literature Review

4.1.1 Special-Status Plants and Wildlife

The literature review and database searches identified 32 special-status plant species and 36 special-status wildlife species that have been previously documented near the Survey Area. A list was generated from the results of the literature review and the Project Site was evaluated for suitable habitat that could support any of the special-status plant or wildlife species on the list. Section 4.2.5 contains more details on special-status plant and wildlife species that have potential to occur on or adjacent to the Project Site.

4.1.2 U.S. Fish and Wildlife Service Designated Critical Habitat

The Survey Area is not located within any USFWS-designated Critical Habitat (USFWS 2025b). Designated Critical Habitat for California gnatcatcher (*Polioptila californica californica*) is located approximately 3.2 miles northeast, 7.5 miles southeast, and 19 miles southwest of the Survey Area. Designated Critical Habitat for southwestern willow flycatcher (*Empidonax traillii extimus*) is located approximately 12.5 miles northeast of the Survey Area. Designated Critical Habitat for the snowy plover (*Charadrius nivosus nivosus*) is located approximately 17.5 miles south of the Survey Area. There are no expected impacts to the Critical Habitat because there is no critical habitat on or adjacent to the Survey Area.

4.1.3 Aquatic Resources

Results of the aquatic resources literature review found that the San Gabriel River underneath the Slauson Avenue Bridge is listed as an intermittent riverine feature on the NWI (USFWS 2025a). The soil types in the project area consist of urban land-Hueneme, drained-San Emigdio complex, 0 to 2 percent slopes, and Xeropsamments, frequently flooded, 0 to 2 percent slopes. These soil types are hydric and form in alluvial fans, rivers, and channels (Natural Resources Conservation Service 2024a). Detailed aquatic resources delineation literature review results are provided in the Jurisdictional Delineation Report (Appendix A).

4.1.4 Habitat Conservation Plan and Natural Community Conservation Plan

The Survey Area is not located in an area covered by an HCP or NCCP; therefore, the Project will not conflict with the provisions of an adopted HCP or NCCP.

4.2 Biological Reconnaissance Survey

The biological reconnaissance survey was conducted within the entire Survey Area, where accessible, on July 3, 2024, by ECORP biologists Carley Adams and Verity Richardson. Summarized below are the results of the biological reconnaissance survey including site characteristics, plant communities present, wildlife observed, special-status species observed, and special-status habitats present (including any potential wildlife corridors). Weather conditions during the survey are summarized in Table 1.

Table 1. Weather Conditions During the Survey

Date	Time		Temperature (˚F)		Cloud Cover (%)		Wind Speed (mph)	
	Start	End	Min	Max	Min	Max	Min	Max
7/3/24	0640	1000	63.2	82.3	0	0	1-3	0-3

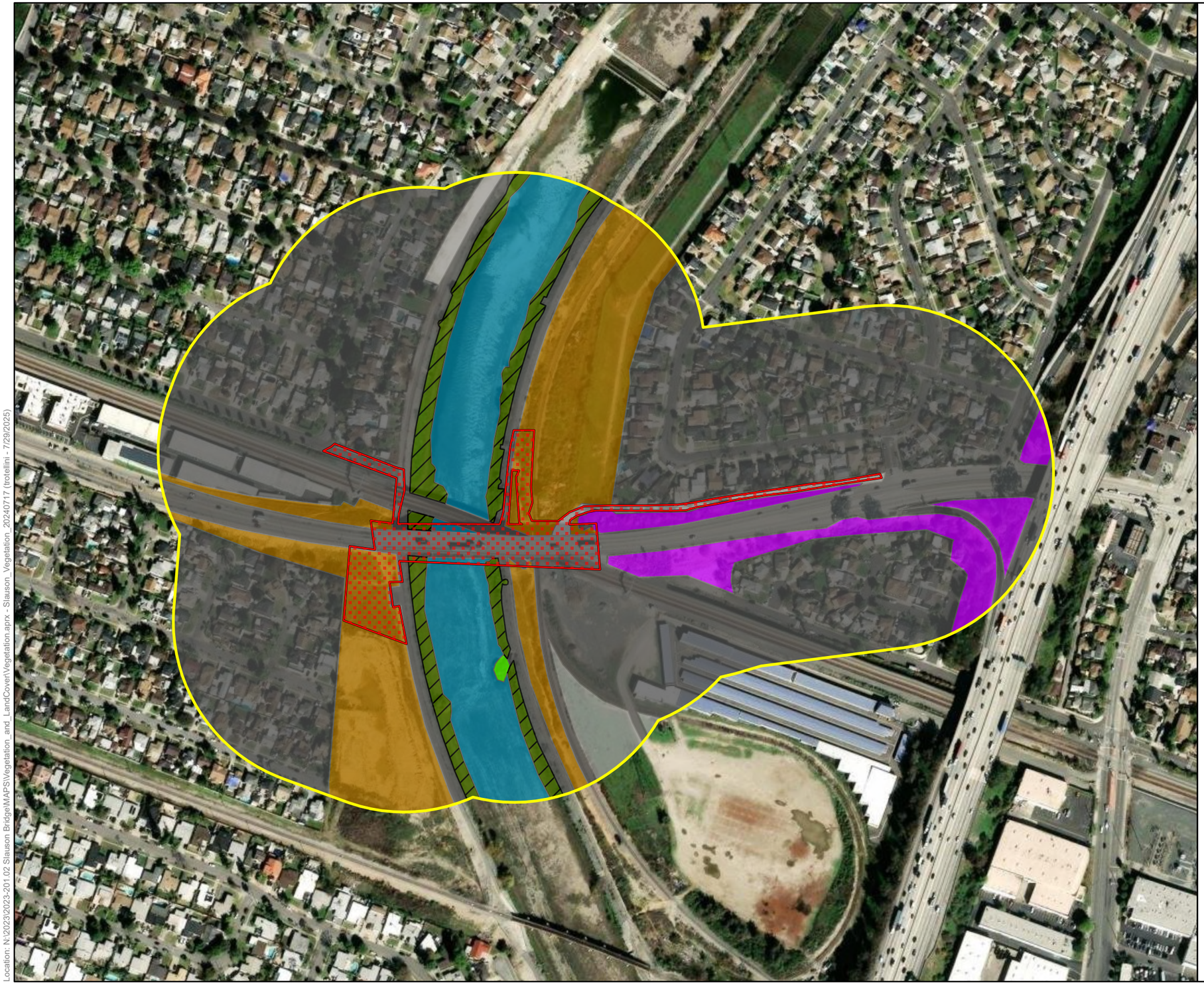
Notes: °F = degrees Fahrenheit; mph = miles per hour

4.2.1 Property Characteristics

The Slauson Avenue Bridge is a four-lane arterial roadway bridge that crosses the San Gabriel River and BNSF/SCRA, and tracks. The San Gabriel River intersects the Survey Area. The Survey Area is surrounded by residential development with railway infrastructure located to the east and the west within the 500-ft buffer. I-605 is east of the Project Site. Due to the developed location of the Survey Area, anthropogenic disturbances are present throughout in the form of non-native vegetation, debris dumping on site, and the presence of in-use encampments utilized by unhoused persons. Representative photographs of the Survey Area are presented in Appendix C.

4.2.2 Vegetation Communities and Land Cover Types

The Survey Area is located within a developed environment that is generally subject to repeated and ongoing disturbance from human activities. No native vegetation communities falling into the classifications in Sawyer et al. (2009) were documented within the Survey Area. The land cover types present within the Survey Area are classified as unvegetated Wash, Disturbed Wetlands, Ruderal, Disturbed and Developed (Figure 6). These land cover types, as they exist within the Survey Area, are described below and the acreages of each are provided in Table 2.



Map Contents

- Project Site
- 500-ft Buffer

Vegetation Communities and Land Cover Types

- Bullrush Marsh
- Developed
- Disturbed
- Disturbed Wetlands
- Landscaped
- Ruderal
- Unvegetated Wash

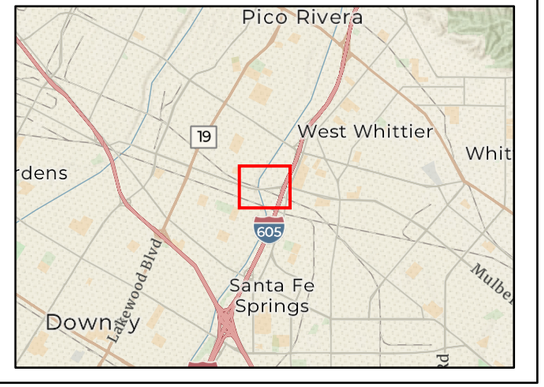
Scale in Feet

0 300

Map Date: 7/29/2025

Sources: ESRI, Maxar (2022), NWI

2023-201.02 Slauson Bridge



Location: N:\2023\2023-201.02 Slauson Bridge\MAPS\Vegetation_and_LandCover\Vegetation.aprx - Slauson_Vegetation_20240717 (trotellini - 7/29/2025)

Table 2. Land Cover Acreages within the Project Site	
Land Cover Type	**Acreages within Project Site**
Developed	1.81
Disturbed	0.36
Disturbed Wetlands – Riparian	0.07
Unvegetated Wash	0.12
Ruderal	1.33
Total	**3.69***

*Total may vary slightly due to rounding.

4.2.2.1 Developed

Developed areas within the Survey Area include roadways, railways, bike paths, residential housing, commercial buildings, infrastructure associated with the railway and associated landscaping with these areas.

4.2.2.2 Disturbed

Areas classified as Disturbed were characterized by the presence of nonnative vegetation and compact or disturbed soils. Previous signs of discing or ground disturbance were evident as well as trash and unauthorized dump sites.

4.2.2.3 Disturbed Wetlands-Riparian

Disturbed wetland-riparian is not a documented alliance within the MCV. This designation was used because the areas mapped as disturbed wetland-riparian did not fit the classification for any alliance within MCV. These areas showed a moderate to high level of disturbance from anthropogenic influence and nonnative plants. These areas also showed a high level of influence from the adjacent channel and contained plant species that are typically found in wetland communities. Common plant species observed within the areas mapped as disturbed wetland-riparian included common knotweed (*Persicaria lapathifolia*), castor bean (*Ricinus communis*), tall flatsedge (*Cyperus eragrostis*), curly dock (*Rumex crispus*), perennial pepperweed (*Lepidium latifolium*), Italian thistle (*Carduus pycnocephalus*), and giant reed (*Arundo donax*). This community also contained sparse shrubs such as mulefat (*Baccharis salicifolia*) and sparse trees such as Goodding's willow (*Salix gooddingii*). In addition, a small patch of California bulrush (*Schoenoplectus californicus*) was also observed within this community to the south of the railroad tracks; however, the area covered by this species only comprised approximately 2,500 square feet or 0.06 acre which did not meet the standard minimum mapping unit of 0.25 acre for wetland communities and therefore was not mapped as a separate community.

4.2.2.4 Unvegetated Wash

Unvegetated wash is not a vegetation classification; rather, it is a landcover type. Areas mapped as unvegetated wash were mostly devoid of vegetation and were heavily influenced by flows from the San Gabriel River. Portions of the areas mapped as unvegetated wash also had surface water present at the time of the biological reconnaissance survey. These areas were observed to be dynamic in nature and soil deposits from flowing water were observed throughout the unvegetated wash.

4.2.2.5 Ruderal

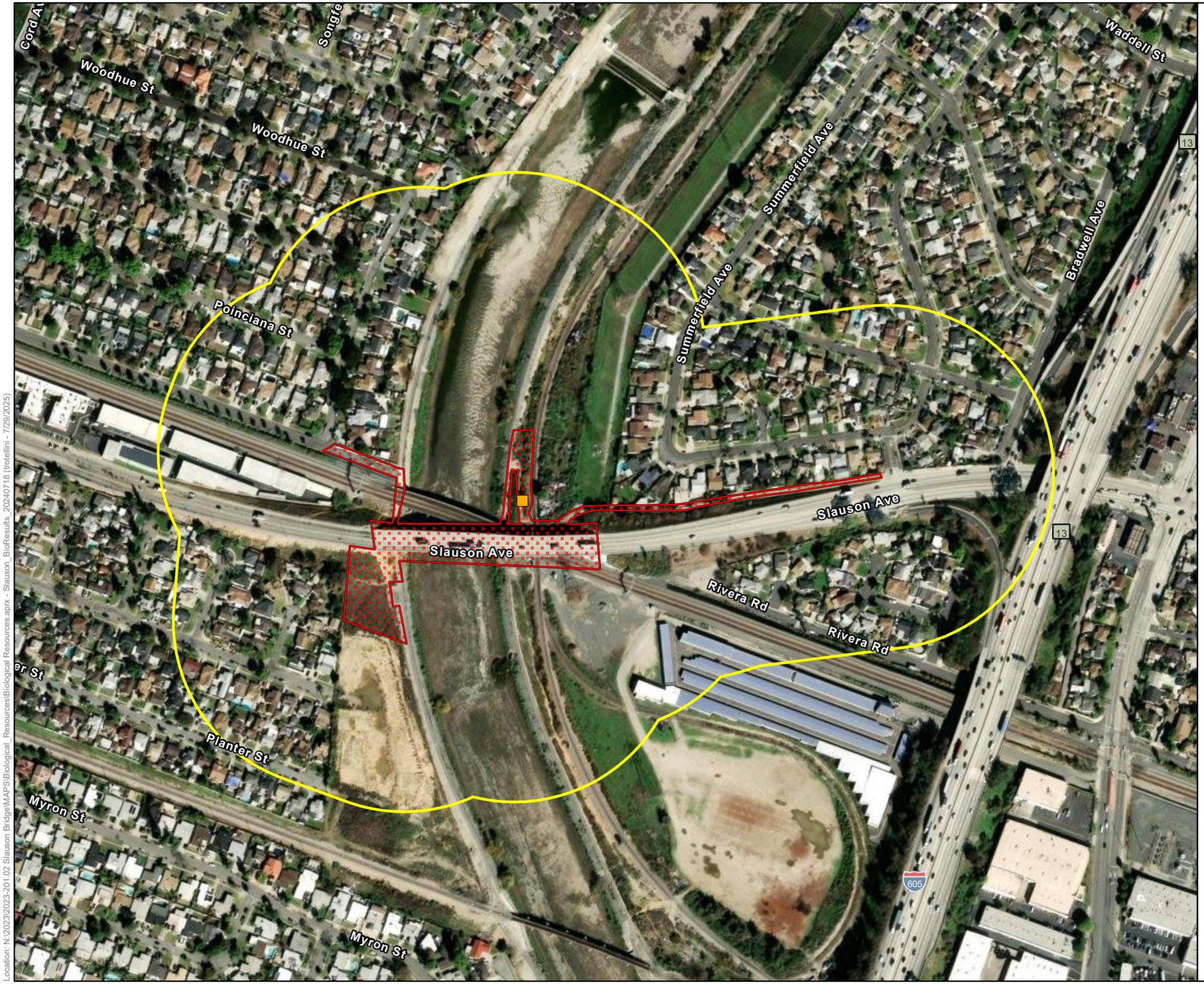
Ruderal is not a documented alliance within MCV. This designation was used because the areas mapped as ruderal did not fit the classification for any alliance within MCV. These areas showed a high level of disturbance from anthropogenic influence and nonnative plants. These areas were typically dominated by species such as castor bean, black mustard (*Brassica nigra*), tocalote (*Centaurea melitensis*), Canada horseweed (*Erigeron canadensis*), telegraph weed (*Heterotheca grandiflora*), cheatgrass (*Bromus tectorum*), and other nonnative grasses and forbs. This community also contained sparse shrubs such as mulefat and tree tobacco (*Nicotiana glauca*) and sparse trees such as Shamel ash (*Fraxinus uhdei*).

4.2.3 Plants

Plant species observed in the Survey Area were generally characteristic of areas disturbed by anthropogenic factors. Dominant plant species observed within the Survey Area included nonnative species such as castor bean, tree tobacco, Russian thistle (*Salsola tragus*), black mustard, perennial pepperweed, wild radish (*Raphanus sativus*) and wild oat (*Avena fatua*). Two stands of Goodding's willow and a few scattered individuals were present along the San Gabriel River banks. Chinese elm (*Ulmus parvifolia*), shamel ash, olive (*Olea* sp.), Mexican fan palm (*Washingtonia robusta*), and fruit trees including pomegranate (*Punica granatum*) and orange (*Citrus* sp.) were present in the landscaping. A full list of plant species observed on and immediately adjacent to the Survey Area is included in Appendix D.

4.2.4 Wildlife

Despite the disturbed nature of the Survey Area, numerous wildlife species were documented during the survey. Wildlife observed during the biological reconnaissance survey included species such as western side-blotched lizard (*Uta stansburiana elegans*), and California ground squirrel (*Otospermophilus beecheyi*). Due to presence of open water, numerous coastal and aquatic species were documented within the Survey Area including double-crested cormorant (*Nannopterum auritum*), least sandpiper (*Calidris minutilla*), western gull (*Larus occidentalis*), great egret (*Ardea alba*), great blue heron (*Ardea herodias*), and snowy egret (*Egretta thula*). Small mammal burrows suitable for use by burrowing owls were observed within the Survey Area; however, no burrowing owls or burrowing owl sign (e.g., suitable burrows, whitewash, pellets, feathers) were observed during the reconnaissance-level surveys (Figure 7). A full list of wildlife species observed on and immediately adjacent to the Survey Area is included in Appendix E.



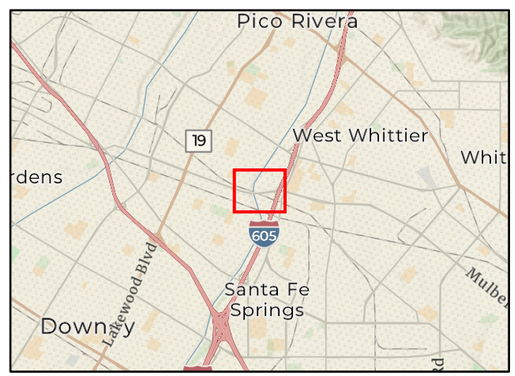
Map Contents

- Project Site
- 500-ft Buffer
- Potential Burrowing owl Burrow (No Sign)

Scale in Feet
0 300

Map Date: 7/29/2025
Sources: ESRI, Maxar (2022), NWI

2023-201.02 Slauson Bridge



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4.2.5 Potential for Special-Status Plant and Wildlife Species to Occur in the Survey Area

The literature review and database searches identified 32 special-status plant species and 36 special-status wildlife species that have previously been documented on or near the Survey Area. However, due to the level of human disturbance in the Survey Area and the current lack of suitable habitat for the special-status plant and wildlife species, many of the species are presumed absent from the Survey Area.

4.2.5.1 Special-Status Plants

There were 32 special-status plant species that appeared in the literature review and database searches for the Survey Area (CDFW 2025a; CNPS 2025). A list was generated from the results of the literature review and the Project was evaluated for suitable habitat that could support any of the special-status plant species on the list. With various habitat types occurring within the nine-quadrangle search, several species appeared in the literature review results that have no potential to occur on or near the Survey Area.

After review, three special-status plant species identified in the literature review have a low potential to occur, while the remaining 29 species are presumed absent due to the heavily disturbed nature of the Survey Area and the lack of suitable habitat (including elevation and soils), or because the Survey Area is located outside of the known range for the species. Although focused special-status plant surveys were not conducted, no special-status plants were observed during the biological reconnaissance survey, bat surveys, or aquatic resources delineation.

Descriptions of the California Rare Plant Rank (CRPR) designations are found in Table 3. Plant species with a CRPR ranking of 3 and 4 were eliminated from the analysis because these rankings are considered a review list and a watch list, respectively. With these rankings, these species are not likely to be federally- or state- listed in the near future. Due to the disturbed nature of the Survey Area, these species are not likely to occur. However, even if they did occur in the Survey Area, any impacts to CRPR 3 and 4 species would not be considered significant under CEQA. A table outlining each species, their designations, and potential for occurrence on the Survey Area can be found in Appendix F.

Table 3. California Rare Plant Rank Status Designations

List Designation	Meaning
1A	Plants Presumed Extirpated in California and Either Rare or Extinct Elsewhere
1B	Plants Rare, Threatened, or Endangered in California and Elsewhere
2A	Plants Presumed Extirpated in California, But Common Elsewhere
2B	Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere
3	Plants about which more information is needed; a review list
4	Plants of limited distribution; a watch list

Table 3. California Rare Plant Rank Status Designations	
List Designation	**Meaning**
CBR	Considered but rejected
List .1, .2 and .3 Extension Meanings:	
.1	Seriously threatened in California (over 80 percent of occurrences threatened / high degree and immediacy of threat)
.2	Moderately threatened in California (20 to 80 percent occurrences threatened / moderate degree and immediacy of threat)
.3	Not very threatened in California (less than 20 percent of occurrences threatened/low degree and immediacy of threat or no current threats known)

Notes: According to the California Native Plant Society (Skinner and Pavlik 1994), plants on Lists 1B and 2 meet definitions for listing as threatened or endangered under Section 1901, Chapter 10, of the California Fish and Game Code (California Department of Fish and Game 1984). This interpretation is inconsistent with other definitions.

(a) Plant Species with a Low Potential to Occur

Three species were determined to have a low potential to occur within the Survey Area for one or more of the following reasons: limited habitat for the species within the Survey Area and a recently documented observation occurs within the database search, but not within 5 miles of the area; a historic documented observation (more than 20 years old) was recorded within 5 miles of the Survey Area; or suitable habitat strongly associated with the species occurs onsite, but no records or only historic records were found within the database search. These species are:

- lucky morning-glory (*Calystegia felix*), CRPR 1B.1;
- prostrate navarretia (*Navarretia prostrata*), CRPR 1B.2;
- San Bernardino Aster (*Symphyotrichum defoliatum*), CRPR 1B.2.

(b) Plant Species Presumed Absent

The following species were presumed absent from the Survey Area due to the heavily disturbed nature of the Survey Area and the lack of suitable habitat (including elevation and soils), or because the Survey Area is located outside of the known range for the species:

- chaparral sand-verbena (*Abronia villosa* var. *aurita*), CRPR 1B.1;
- Horn's milk vetch (*Astragalus hornii* var. *hornii*), CRPR 1B.1;
- Coulter's saltbush (*Atriplex coulteri*), CRPR 1B.2;
- Parish's brittlescale (*Atriplex parishii*), CRPR 1B.1;
- Davidson's saltscale (*Atriplex serenana* var. *davidsonii*), CRPR 1B.2;

- Nevin's barberry (*Berberis nevinii*), CRPR 1B.1, state and federally listed (Endangered);
- intermediate mariposa lily (*Calochortus weedii var. intermedius*), CRPR 1B.2;
- southern tarplant (*Centromadia parryi* ssp. *australis*), CRPR 1B.1;
- salt marsh bird's-beak (*Chloropyron maritimum* ssp. *maritimum*), CRPR 1B.2, state and federally listed (Endangered);
- Peruvian dodder (*Cuscuta obtusiflora* var. *glandulosa*), CRPR 2B.2;
- slender-horned spineflower (*Dodecahema leptoceras*), state and federally listed (Endangered), CRPR 1B.1;
- many-stemmed dudleya (*Dudleya multicaulis*), CRPR 1B.2;
- Los Angeles sunflower (*Helianthus nuttallii* ssp. *parishii*), CRPR 1A;
- mesa horkelia (*Horkelia cuneata* var. *puberula*), CRPR 1B.1;
- decumbent goldenbush (*Isocoma menziesii var. decumbens*), CRPR 1B.2;
- Coulter's goldfields (*Lasthenia glabrata* ssp. *coulteri*), CRPR 1B.1;
- mud nama (*Nama stenocarpa*), CRPR 2B.2;
- Gambel's watercress (*Nasturtium gambelii*), CRPR 1B.1, state listed (endangered), federally listed (threatened);
- coast woolly-heads (*Nemacaulis denudata var. denudate*), CRPR 1B.2;
- California Orcutt grass (*Orcuttia californica*), CRPR 1B.1, state and federally listed (Endangered);
- Lyon's pentachaeta (*Pentachaeta lyonii*), CRPR 1B.1, state and federally listed (Endangered);
- Brand's star phacelia (*Phacelia stellaris*), CRPR 1B.1;
- white rabbit tobacco (*Pseudognaphalium leucocephalum*), CRPR 2B.2;
- Parish's gooseberry (*Ribes divaricatum* var. *parishii*), CRPR 1A;
- Sanford's arrowhead (*Sagittaria sanfordii*), CRPR 1B.2;
- southern mountains skullcap (*Scutellaria bolanderi ssp. austromontana*), CRPR 1B.2;
- salt spring checkerbloom (*Sidalcea neomexicana*), CRPR 2B.2;
- estuary seablite (*Suaeda esteroa*), CRPR 1B.2; and
- Greata's aster (*Symphyotrichum greatae*), CRPR 1B.3.

4.2.5.2 Special-Status Wildlife

The literature search identified 36 special-status wildlife species that had previously been documented on or in the vicinity of the Survey Area. A list was generated from the results of the literature review and the Project was evaluated for suitable habitat that could support any of the special-status wildlife species on the list. The Survey Area's disturbed nature, proximity to residential and commercial development, and anthropogenic influences likely preclude many of these species from occurring. A brief natural history and discussion of the special-status wildlife species that were determined to have a moderate potential to occur within the Survey Area is provided below.

A complete list of the 36 special-status wildlife species, with details regarding habitat requirements and potential for occurrence designations, is included as Appendix G.

(a) Wildlife Species with a Moderate Potential to Occur

One species was found to have a moderate potential to occur. Although this species was not observed in the Survey Area during the biological reconnaissance survey, habitat for the species occurs onsite, and a known occurrence has been reported in the database, but not within 5 miles of the Project site; or a recently documented observation occurs within 5 miles of the site and marginal or limited amounts of habitat occurs onsite.

Burrowing Owl

Burrowing owl (*Athene cunicularia*) is a Candidate for state listing under CESA and a CDFW SSC. Burrowing owls are a small, migratory owl found in various habitats throughout North America, including disturbed areas. These owls either excavate their own burrows or rely on California ground squirrel (*Otospermophilus beecheyi*) and other burrowing mammals for burrow construction. They are also known to nest within natural rock cavities, debris piles, culverts, and pipes (Rosenberg et al. 1998; Zeiner et al. 1990). Burrowing owl was determined to have a moderate potential to occur due to the presence of marginally suitable habitat within the ruderal and disturbed areas mapped within the Survey Area (Figure 3). Suitably sized burrows, mammal burrowing activity, and debris piles providing burrow substrates were observed within the Survey Area (Figure 7). There is a high level of anthropogenic disturbance within the Survey Area that reduces the suitability of the habitat for burrowing owl. One recent occurrence was documented in 2010 approximately 3.3 miles from the Survey Area (Occ #1291). No burrowing owls were observed during the biological reconnaissance survey; however, due to the mobile nature of the burrowing owl, there is potential for this species to move into the Survey Area prior to ground-disturbing activities commencing.

(b) Wildlife Species with a Low Potential to Occur

Six species were determined to have a low potential to occur within the Survey Area for one or more of the following reasons: limited or marginal habitat for the species occurs within the Survey Area and a recently documented observation occurs within the database search, but not within 5 miles of the area; a historic documented observation (more than 20 years old) was recorded within 5 miles of the Survey Area; or suitable habitat strongly associated with the species occurs onsite, but no records or only historic records were found within the database search. These species are:

- Crotch's bumble bee (*Bombus crotchii*), state listed (Candidate Endangered);
- western spadefoot (*Spea hammondii*), CDFW SSC, federally listed (Proposed Threatened);
- coastal whiptail (*Aspidoscelis tigris stejnegeri*), CDFW SSC;
- coast horned lizard (*Phrynosoma blainvillii*), CDFW SSC;
- pallid bat (*Antrozous pallidus*), CDFW SSC; and
- western yellow bat (*Lasiurus xanthinus*), CDFW SSC.

(c) Wildlife Species Presumed Absent

A total of 29 species are presumed absent from the Survey Area. These species were not observed or documented in the Survey Area at the time of the biological reconnaissance survey and the habitat present in the Survey Area was not suitable to support these species. For some species, there were historic or recent sightings near the site; however, due to the lack of suitable habitat within the Survey Area, these species are presumed absent:

- monarch (*Danaus Plexippus plexippus*) (overwintering population), federally listed (Proposed Threatened);
- Quino checkerspot butterfly (*Euphydryas editha quino*), federally listed (Endangered);
- steelhead (*Oncorhynchus mykiss irideus*), state listed (Candidate Endangered), federally listed (Endangered);
- Coast Range newt (*Taricha torosa*), CDFW SSC;
- Southern California legless lizard (*Anniella stebbinsi*) CDFW SSC;
- California glossy snake (*Arizona elegans occidentals*) CDFW SSC;
- green turtle (*Chelonia mydas*), federally listed (Threatened);
- western pond turtle (*Emys marmorata*), state listed (Proposed Threatened), CDFW SSC;
- two-striped garter snake (*Thamnophis hammondii*), CDFW SSC;
- tricolored blackbird* (*Agelaius tricolor*) (nesting colony), state listed (Threatened), CDFW SSC;

- grasshopper sparrow (*Ammodramus savannarum*), CDFW SSC;
- Swainson's hawk (*Buteo swainsoni*), state listed (Threatened);
- coastal cactus wren (*Campylorhynchus brunneicapillus sandiegensis*), CDFW SSC;
- western yellow-billed cuckoo* (*Coccyzus americanus occidentalis*), state listed (Endangered), federally listed (Threatened);
- southwestern willow flycatcher* (*Empidonax traillii extimus*) (nesting), federally and state listed (Endangered)
- yellow-breasted chat* (*Icteria virens*), CDFW SSC;
- California black rail (*Laterallus jamaicensis coturniculus*), state listed (Threatened), CDFW Fully Protected;
- Belding's savannah sparrow (*Passerculus sandwichensis beldingi*) state listed (Endangered);
- coastal California gnatcatcher (*Polioptila californica californica*), federally listed (Threatened), CDFW SSC;
- bank swallow (*Riparia riparia*), state listed (Threatened);
- California least tern (*Sternula antillarum browni*), federally and state listed (Endangered), CDFW Fully Protected;
- least Bell's vireo* (*Vireo bellii pusillus*), federally and state listed (Endangered);
- western mastiff bat (*Eumops perotis californicus*) CDFW SSC;
- south coast marsh vole (*Microtus californicus stephensi*), CDFW SSC;
- pocketed free-tailed bat (*Nyctinomops femorosaccus*), CDFW SSC;
- big free-tailed bat (*Nyctinomops macrotis*), CDFW SSC;
- Pacific pocket mouse (*Perognathus longimembris pacificus*), federally listed (Endangered), CDFW SSC;
- Southern California saltmarsh shrew (*Sorex ornatus salicornicus*), CDFW SSC; and
- American badger (*Taxidea taxus*), CDFW SSC.

*Although mulefat and Goodding's willow were documented in the northern portion of the Survey Area, these areas were not large or well-established enough to provide suitable habitat for special-status riparian-obligate bird species. These sparsely distributed mulefat and Goodding's willow, consisting of approximately one to five individuals each, do not provide the appropriate structure, cover, size, or density for the special-status bird species identified in the literature review to inhabit, nest in, or use as a migratory stopover point.

4.2.6 Raptors and Migratory Birds

Suitable nesting habitat for migratory birds and raptors protected by the MBTA and California Fish and Game Code was present throughout the Survey Area in the form of trees, such as the Goodding's willow and landscaped trees, and structures (buildings, bridges, etc.). During the biological survey conducted in July 2024, ECORP biologists observed cliff swallow (*Petrochelidon pyrrhonota*) mud nests on the underside of the Slauson Avenue Bridge structure. Cliff swallows nest in colonies and will return to these same nesting locations year after year to lay eggs and rear young. Suitable nesting habitat for ground-nesting bird species, such as mourning doves (*Zenaida macroura*) and killdeer *(Charadrius vociferus),* was also present in the Survey Area. Due to the presence of suitable nesting habitat, nesting native, and migratory birds, and raptors could use the Survey Area during the nesting bird season (typically February 1 through August 31).

4.2.7 Roosting Bats

During the bat habitat assessment and focused bat survey of the Slauson Avenue Bridge conducted by Ultrasystems and bat biologist Stephanie Remington in August 2015, a total of 52 bats were observed exiting the bridge. The bats were confirmed acoustically to be Mexican free-tailed bats (*Tadarida brasiliensis*) and Yuma myotis (*Myotis yumanensis*). Based on the survey, it was concluded that the observations may represent the remnants of a maternity colony that had occupied the site in 2015 and was beginning to disband (Ultrasystems 2015). During the bat survey conducted by Rahn in March 2016, between 35-40 bats were observed day roosting in the bridge. These bats were confirmed acoustically to be canyon bats (*Parastrellus hesperus*) and Mexican free-tailed bats. Big brown bats (*Eptesicus fuscus*) were also observed in the vicinity but not occupying the bridge during the 2016 survey. Suitable bat roosting habitat and bat sign (guano) was observed at the bridge by Watearth in 2024 (Watearth 2024). Detailed results of each survey effort are provided in the respective survey reports.

4.2.8 Aquatic Resources

The delineators observed hydrology indicative of wetlands during the field survey. A number of OHWM Geomorphic and Vegetative indicators were identified in the field to determine the location of the OHWM. Indications of wetland hydrology included factors such as surface water, topography, watermarks, drift lines, and patterns of drainage. At the project location, the San Gabriel River functions as a flood control channel, with surface water levels that change from year to year. The water flow can vary significantly, sometimes reaching the riprap along the channel's edges. By analyzing the hydrological patterns, Watearth has concluded that the San Gabriel River under the Slauson Avenue Bridge contains hydrologic features and characteristics; and therefore, jurisdictional wetlands or other waters of the United States were determined to occur underneath the bridge. The project is anticipated to result in temporary impacts to jurisdictional resources. Detailed results of the aquatic resources delineation survey are found in the Jurisdictional Delineation Report (Appendix A).

4.2.9 Wildlife Movement Corridors, Linkages, and Native Wildlife Nursery Sites

The concept of habitat corridors addresses the linkage between large blocks of habitat that allow the safe movement of mammals and other wildlife species from one habitat area to another. The definition of a corridor varies, but corridors may include such areas as greenbelts, refuge systems, channels and flood control, underpasses, and biogeographic land bridges. In general, a corridor is described as a linear habitat embedded in a dissimilar matrix that connects two or more large blocks of habitat. Wildlife movement corridors are critical for the survivorship of ecological systems for several reasons. Corridors can connect water, food, and cover sources, spatially linking these three resources with wildlife in different areas. In addition, wildlife movement between habitat areas provides for the potential of genetic exchange between wildlife species populations, thereby maintaining genetic variability and adaptability to maximize the success of wildlife responses to changing environmental conditions. This is especially critical for small populations subject to loss of variability from genetic drift and effects of inbreeding. The nature of corridor usage and wildlife movement patterns vary greatly among species.

The Survey Area was assessed for its ability to function as a wildlife corridor. Although the San Gabriel River is itself a channel that could function as a corridor, it contains a system of debris basins and dams, and much of the river is channelized with rip rap and concrete banks. In addition, the Survey Area is completely surrounded by urban development and isolated from large, contiguous blocks of native habitat. The nearest natural wildlife corridor and area is the Sycamore Canyon Open Space, approximately 3 miles northeast of the Survey Area. The Survey Area is bordered by I-605 to the east, and I-5 lies approximately 1.3 miles to the southwest; both are major highways that limit wildlife movement. Additionally, the lack of consistent vegetative cover within the Survey Area, the urban nature of the site, and the high density of nonnative weedy vegetation across the Survey Area likely deter wildlife from using the area for substantial movement opportunities due to lack of suitable cover. Wildlife commonly found in urban areas (e.g., coyote [*Canis latrans*]) may use portions of the Survey Area or areas immediately adjacent to the Survey Area for local travel but the Survey Area itself does not provide a significant wildlife movement corridor or linkage opportunities.

The Survey Area was also assessed for its ability to function as a native wildlife nursery site. Suitable nesting habitat for bird species was documented within the Survey Area. However, due to the level of disturbance within and adjacent to the Survey Area, nursery site habitat for bird species (e.g., heron rookery) is not anticipated to occur. Suitable bat roosting habitat was observed within the Survey Area and there is potential for the structures and trees observed to serve as bat maternity roost sites during the bat maternity season (April 1 through August 31). Bat maternity roosts are considered native wildlife nursery sites under CEQA and are discussed further below.

5.0 IMPACT ANALYSIS

5.1 Special-Status Species

The Survey Area consists of a section of the San Gabriel River, floodplain and land parallel. Anthropogenic disturbances were present throughout the Survey Area and included the presence of non-native vegetation, debris piles, scattered trash, compacted soils, and homeless encampments.

The literature review and database searches identified 32 special-status plant species and 36 special-status wildlife species that have previously been documented on or near the Survey Area. Three special-status plant species were determined to have a low potential to occur while the remaining 29 special-status plant species were presumed to be absent due to the heavily disturbed nature of the Survey Area and the lack of suitable habitat (including elevation and soils) or because the Project is located outside of the known range for the species. Anthropogenic disturbances, such as the dominating presence of non-native species and activities associated with managing the river, reduce the suitability of habitat within the Survey Area and likely precludes these species from occurring. Should these species occur within the Survey Area, direct impacts in the form of ground disturbance, vegetation removal, and mortality and indirect impacts from dust and habitat loss may occur to this species. These species have a low probability of occurring in the Project Site, and if present, these species are not expected to occur at higher densities than in the surrounding vicinity. The potential loss of individuals of these species should they be present in the Project Site would not be expected to contribute to the decline in regional populations and would therefore not be considered a significant impact under CEQA. Under NEPA, no adverse effects are expected to federally listed species as a result of the Project.

Of the 36 special-status wildlife species identified in the literature review, one has a moderate potential to occur, and six have a low potential to occur. The remaining 29 species are presumed absent due to a lack of suitable habitat, the Survey Area being outside the known range for the species, or because there are no recent or historic occurrences within five miles of the Survey Area.

Crotch bumble bee is a Candidate for state listing and is therefore afforded all the protections as though it were listed under the California ESA. This species has a low potential to occur due to the presence of pockets of suitable friable soils, suitable burrow habitat, suitable burrows (i.e., California ground squirrel burrows), and minimal nectar sources within and adjacent to the Survey Area. If Crotch bumble bee is found to be using or nesting in the Survey Area prior to the start of construction, impacts to Crotch bumble bee may occur in the form of direct mortality of individuals, direct mortality to an active nesting colony, direct mortality to an overwintering individual, conversion of foraging habitat, or permanent loss of foraging resources. Because this species is a generalist forager that chooses nest and overwintering locations on an annual basis, temporary and permanent loss of habitat resulting from the Project would not be expected to contribute substantially to the overall decline of this species unless direct impacts were to occur to an active nest or overwintering gyne (future queen). Impacts to Crotch bumble bee would be less than significant with the implementation of Mitigation Measures BIO-1, 2 and 3. The Mitigation Measures for the Proposed Project are discussed in Section 6.0.

Western spadefoot is Proposed for federal listing and a CDFW SSC. This species has a low potential to occur due to the presence of low-quality habitat present within the floodplain of the San Gabriel River within the Survey Area. If present, direct impacts to this species could occur in the form of injury or mortality due to vehicle or equipment strike or entombment inside of burrows that are graded over during construction, and loss of habitat. If present, indirect impacts to these species could occur in the form of increased human activity, noise, dust, nighttime lighting, and ground vibrations. This species has a low probability of occurring in the Survey Area, and if present, western spadefoot are not expected to occur at high densities due to the highly disturbed nature of the site and recent mechanical disturbances

to the soil affecting habitat or prey base for these species. Impacts resulting from the temporary impacts to 0.12 acre of low quality habitat for this species from the Project would not be expected to contribute substantially to the overall decline of this species and would therefore not be considered a significant impact under CEQA, nor would the Project result in adverse effects to this species under NEPA.

Coastal whiptail (CDFW SSC) and coast horned lizard (CDFW SSC) have a low potential to occur within the Survey Area due to the presence of minimal low-quality habitat present. If present, direct impacts to these species could occur in the form of injury or mortality due to vehicle or equipment strike, and loss of habitat. If present, indirect impacts to these species could occur in the form of increased human activity, noise, dust, nighttime lighting, and ground vibrations. These species have a low probability of occurring in the Survey Area, and if present, neither coastal whiptail nor coast horned lizard are expected to occur at high densities due to the highly disturbed nature of the site and recent mechanical disturbances to the soil affecting habitat or prey base for these species. Impacts resulting from the Project would not be expected to contribute substantially to the overall decline of these species and would therefore not be considered a significant impact under CEQA.

Burrowing owl is a Candidate for state listing under CESA, a CDFW SSC, and protected by the MBTA and California Fish and Game Code. This species has a moderate potential to occur due to the presence of limited suitable habitat (including suitable sized burrows, mammal burrowing activity, and debris piles) within the Survey Area. One potential burrow (suitably sized but no sign of burrowing owl use at the time of the biological survey) was documented within the Survey Area. No burrowing owls were observed during the biological reconnaissance survey, however, due to the mobile nature of the burrowing owl, there is potential for this species to move into the Survey Area prior to the start of Project activities. Direct impacts in the form of ground disturbance, vegetation removal, habitat loss, and mortality and indirect impacts from construction noise and vibrations may occur to this species. Impacts to burrowing owl would be less than significant with the implementation of Mitigation Measures BIO-1, 2, and 4.

The literature review identified two special-status bat species with potential to occur within the Survey Area. Western yellow bat and pallid bat have a low potential to occur; both species are CDFW SSC. Suitable roosting habitat is present within the surrounding areas outside of the Project Site for the western yellow bat in the form of palm trees with untrimmed skirts. The Slauson Avenue bridge provides suitable roosting habitat for pallid bat although this species tends to be concentrated in areas with lower levels of human disturbance. The presence of water in the river basin provides suitable foraging habitat for both bat species as they harbor or attract prey for these species such as insects. Additionally, suitable foraging habitat is present throughout the Survey Area. Direct impacts in the form of ground disturbance, habitat loss, and mortality and indirect impacts from construction noise and vibrations may occur to these species. Impacts to western yellow bat and pallid bat would be less than significant with the implementation of Mitigation Measures BIO-1, 2, and 5. Further discussion of impacts to bat roosting habitat as native wildlife nursery sites is included in Section 5.4.

The remaining 29 special-status wildlife species are presumed absent from the Survey Area or areas adjacent to the Survey Area due to the lack of suitable habitat and ongoing disturbances within and adjacent to the Survey Area. No impacts to the 29 presumed absent special-status wildlife species are anticipated to result from the development of this Project.

Numerous tree and shrub species, including tall ornamental species, are present within and immediately adjacent to the Survey Area. These can provide nesting habitat for songbirds and raptors protected by the MBTA and California Fish and Game Code. Cliff swallow mud nests were observed on the underside of the bridge structure during the biological survey. Because cliff swallows are known to return to their mud nest location year after year, it is highly likely that individuals will return year after year to nest in this same location on the bridge structure. Furthermore, the Survey Area can provide nesting habitat for ground-nesting bird species such as mourning dove. If construction of the Proposed Project occurs during the bird breeding season (typically February 1 through August 31), ground-disturbing construction activities could directly affect birds protected by the MBTA and their nests through the removal of occupied habitat (e.g., destruction of nests, mortality of flightless juveniles) in the Survey Area, and indirectly through increased noise, vibrations, increased lighting/glare, and increased human activity that could cause nest abandonment or disruption of nesting cycles. These impacts to nesting songbirds and raptors would be less than significant with the implementation of Mitigation Measures BIO-1, 2, and 6.

5.2 Sensitive Natural Communities

No sensitive natural communities, according to classifications described in Sawyer et al. (2009) and by CDFW, were identified within the Survey Area. Rather, five land cover types are present within the Survey Area: Disturbed Wetlands, Unvegetated Wash, Ruderal, Disturbed and Developed. During the biological survey, sparsely distributed individuals of mulefat and Goodding's willow, ranging from one to three individuals each, were documented within the Survey Area. Due to their small size and sparse nature, these individuals were not large or established enough to be mapped as a vegetation community. Additionally, these individuals are not considered a sensitive natural community. As such, no impacts to sensitive natural communities are anticipated as a result of the Project.

5.3 State and Federally Protected Wetlands and Waters of the United States

The project is anticipated to cause temporary disturbances affecting approximately 0.002 acres of aquatic resources under the jurisdiction of the USACE and the Los Angeles Regional Water Quality Control Board, and approximately 0.048 acres of aquatic resources jurisdictional to CDFW (see Appendix B for the full aquatic resources delineation results). The impacted areas consist mostly of herbaceous riparian wetlands characterized by pioneering plant species that readily recolonize disturbed sites. Because these impacts are temporary in nature, no compensatory mitigation is expected to be required. However, pre-application coordination with the regulatory agencies will confirm this.

Following project construction, the grade and topography of the channel bed will be restored to pre-project conditions to ensure floodway function. Additionally, future seasonal flood flows are expected to naturally redistribute sediments and soil throughout the channel, which would bring the project area back to a similar baseline condition. Therefore, no significant impacts to state and federally protected wetlands and waters of the U.S. are expected to occur.

5.4 Wildlife Corridors and Nursery Sites

The Survey Area is located within and adjacent to areas containing existing disturbances (e.g., paved roads, railroads, major highways, residential and commercial development). Despite these disturbances, the Survey Area does contain open areas and resources that can provide limited movement opportunities in the immediate vicinity of the Survey Area. The Survey Area is completely surrounded by urban development and anthropogenic disturbances and provides no connection between large, contiguous blocks of native habitat in the region. The San Gabriel River may serve as a movement corridor for local urban wildlife species such as coyote during periods of low flow. However, due to its isolation and lack of substantive vegetative cover, no significant wildlife corridors or linkages are present within the Survey Area. Further, impacts to the San Gabriel River resulting from the project would be considered minimal and temporary and would not impact the ability of the river to function as a wildlife corridor. Therefore, no impacts to these resources are expected to occur as a result of the Project.

Suitable bat roosting habitat for common and special-status bat species was identified within the Survey Area in the form of structures and mature trees. The Slauson Avenue bridge contains suitable habitat to house bat maternity colonies and evidence of bat occupation (guano) was documented at the bridge during the 2024 maternity season (Watearth 2024). Previous studies conducted in 2015 and 2016 confirmed bats day-roosting in the bridge, although neither study was conducted during what is considered the peak of maternity season in southern California (May through July). Based on the bat assessments and surveys completed at this bridge to date, it is likely that the bridge houses a bat maternity colony of at least one species during the bat maternity season. Impacts to bat maternity colonies of any native bat species (including species not considered special-status) could be considered a significant impact to a native wildlife nursery site under CEQA. If bats are roosting within the Survey Area during Project construction, direct impacts can occur in the form of mortality or roost abandonment. Roost abandonment during the maternity season could result in the mortality of flightless young, which could be a violation of California Fish and Game Code Section 4150 as well as constitute a significant impact to a native wildlife nursery site under CEQA. Additionally, activities conducted outside of the maternity season that cause bats to leave a roost during daytime hours pose a mortality risk to individual bats. A Bat Exclusion and Monitoring Plan was prepared by Rahn in May 2017 that was reflective of site conditions both at the Slauson Avenue Bridge and nearby bridges at that time (Rahn 2017). In order to appropriately mitigate for impacts to bats roosting in the bridge during Project construction, a Bat Management Plan that incorporates the recommendations provided in the 2015 bat survey report and the 2017 bat exclusion and monitoring plan, and provides necessary updates based on current site conditions, site conditions during the maternity season prior to construction, and any changes in industry-standard bat mitigation practices since the preparation of the 2015 and 2017 reports should be prepared. Impacts to roosting bats would be less than significant with the implementation of Mitigation Measures BIO-1, 2, and 5.

5.5 Significant Ecological Areas and Local Tree Protection Ordinances

The literature review confirmed that the Survey Area is not located within an adopted or proposed SEA. No native trees protected by City or County municipal codes, ordinances, or the General Plan were observed within the Project Site during the biological reconnaissance survey.

5.6 Habitat Conservation Plans and Natural Community Conservation Plans

The Survey Area is not located in an area covered by an HCP or NCCP therefore the Project will not conflict with the provisions of an adopted HCP or NCCP.

6.0 MITIGATION MEASURES AND RECOMMENDATIONS

The following mitigation measures are recommended prior to Project implementation:

BIO-1 **Worker Environmental Awareness Program.** Before construction begins, a Worker Environmental Awareness Program (WEAP) shall be developed. A qualified biologist experienced with the region's special-status biological resources shall present the WEAP to all personnel working in the Survey Area, whether temporarily or permanently, prior to the start of project activities. The WEAP shall cover topics including, but not limited to, the sensitive and special-status biological resources associated with the project (such as nesting birds and bats), project-specific measures to avoid or minimize impacts to these resources, consequences of noncompliance with project permits and agreements, and contact information for the lead biologist. Records of personnel who have completed the training shall be maintained.

BIO-2 **Biological Monitor.** Although the potential for special-status species to occur on the project site is low (see Appendices F and G of the Biological Technical Report for special-status species with potential to occur on or near the project site), there remains a possibility that such species could be present on or adjacent to the site before project activities begin. To address this, a qualified biologist experienced in monitoring and identifying special-status biological resources known to occur in the area shall be present daily during fence removal and installation activities and vegetation removal activities including site clearing and grubbing. If no fence removal or installation, vegetation removal, or site clearing and grubbing occurs, no monitoring will be required.

The biological monitor's responsibilities shall include:

- Conducting worker education training to inform project personnel about special-status species and associated compliance measures.
- Verifying compliance with project permits.
- Ensuring that project activities remain confined to designated work areas.

The biological monitor shall maintain a daily log documenting general project activities, compliance with permit conditions, and any observed non-compliances. Non-compliance incidents will be recorded in the daily log, along with corrective measures taken. Representative photographs of daily activities will also be included in the documentation.

Additionally, the biological monitor shall perform daily biological clearance surveys ("sweeps") at the start of each workday during fence installation and vegetation removal. These surveys will confirm the absence of special-status species in the work areas before activities commence. If no special-status species are observed during these sweeps, work activities may proceed.

If a special-status species is identified in the work area during a daily sweep or during monitoring duties, the biological monitor shall have the authority to halt project activities in the affected area to prevent injury or mortality to the species. Work may only resume once the risk to the individual has been mitigated and it is confirmed that the area is safe for project activities to continue.

BIO-3 **Preconstruction Survey for Crotch's Bumble Bee.** Due to the presence of suitable nesting habitat within disturbed areas and minimal foraging resources, a single preconstruction survey for Crotch's bumble bee shall be conducted prior to initial vegetation removal, fence removal and installation, and clearing and grubbing activities scheduled during the species' flight season (February-October). This survey is only required if Crotch's bumble bee remains a candidate species or becomes listed by the time of project implementation. The preconstruction survey shall follow CDFW survey recommendations (CDFW 2023) or the most recent CDFW-approved survey protocol, including the avoidance and minimization measures outlined below:

- Preconstruction Crotch's Bumble Bee Survey During Flight Season. Prior to ground disturbances during the Crotch's bumble bee flight season (February – October) that would impact potentially suitable nectaring and nesting habitat for Crotch's bumble bee, a flight/forage and nest search survey shall be conducted no more than 48 hours prior to initial vegetation removal and/or initial ground-disturbing activities by the Crotch's bumble bee-qualified lead biologist and survey team. The 48-hour preconstruction surveys shall be repeated as necessary if the Project does not begin with 48 hours of completion of the preconstruction survey.
- Protection of Occupied Crotch's Bumble Bee Habitat. Occupied Crotch's bumble bee habitat shall be defined as an active Crotch's bumble bee nest and its 50-foot buffer including any obvious foraging/flight corridors that provide connectivity to other onsite foraging patches or connectivity to offsite foraging areas that are necessary to support the nest colony. The outer limits of the occupied habitat shall be visibly flagged by the Crotch's bumble bee qualified biologist upon discovery and protected in place as an Environmentally Sensitive Area (ESA). The qualified Crotch's bumble bee biologist shall provide a notification with a map of the ESA to be protected in

place to the Applicant/Contractor and CDFW within 24 hours of nest detection. The ESA shall be protected in place until the Crotch's bumble bee nest colony is no longer active.

- Biological Monitoring. A biological monitor shall be present during initial vegetation removal and fence installation activities that are scheduled to occur during the Crotch's bumble bee flight season (February – October) as stipulated in MM BIO-2. The biological monitor shall have the authority to temporarily stop work if impacts to a Crotch's bumble bee individual or Crotch's bumble bee active nest are likely to occur.
- CDFW Reporting and Coordination. If a CBB individual (alive or dead) is detected during preconstruction surveys or monitoring and the species is still legally protected under CESA, CDFW shall be notified within 24 hours of detection as further coordination may be required to avoid or mitigate certain impacts and an Incidental Take Permit may be required.

BIO-4 **Preconstruction Surveys for Burrowing Owl**. Preconstruction surveys for burrowing owls shall be conducted before initiating any ground-disturbing activities (e.g., vegetation removal, fence installation). Surveys shall follow the protocols outlined in the *Staff Report on Burrowing Owl Mitigation* (California Department of Fish and Game, 2012). Two surveys are required: the first survey must occur 14 to 30 days prior to ground disturbance, and the second survey must be conducted within 24 hours of the start of ground disturbance.

If no burrowing owls or signs of active burrow occupancy (e.g., whitewash, pellets, feathers, prey remains) are detected, project activities may proceed without restriction. However, if burrowing owls or active burrows are identified within the project work zone, a qualified burrowing owl biologist shall prepare a Burrowing Owl Management Plan in accordance with CDFW guidelines. This plan would specify additional protection measures, which may include:

- Coordination with CDFW if Candidate or listed species under the California Endangered Species Act are present;
- Additional surveys and monitoring of burrows within the project area using methods such as remote cameras;
- Establishment of non-disturbance buffers; and
- Biological monitoring during construction activities.

These measures aim to ensure compliance with applicable regulations and the protection of burrowing owls and their habitat.

BIO-5 **Bat Mitigation.** The Project is scheduled to begin during the bat maternity season, which typically runs from April through August. The peak of the bat maternity season, when bat maternity colonies are most detectable during emergence surveys, occurs between May and July. Day-roosting bats (observed during the bat maternity season) and suitable bat roosting

habitat are present on the Project site (Ultrasystems 2015; Rahn 2016, 2017; Watearth 2024). Implementation of the following measures would minimize potential impacts to special-status bat species and bat maternity colonies:

- A focused bat emergence survey shall be conducted by a qualified bat biologist at the bridge structure during the peak of the bat maternity season in southern California (May through July). The focused bat emergence survey shall be conducted during the peak of the bat maternity season (May through July) during the year prior to the start of construction activities. The purpose of the focused bat emergence survey is to assess the current site conditions to adequately prepare a Bat Management Plan that includes a Bat Exclusion and Monitoring Plan. At a minimum, the focused bat emergence survey will assess the presence and type of bat roosting, size of the colony (colonies), species present, and the features of the bridge used for bat roosting. The focused bat emergence survey shall adhere to industry-standard protocols and survey methods for bat emergence surveys.

- A qualified bat biologist shall prepare a Bat Management Plan that includes a Bat Exclusion and Monitoring Plan. The Bat Management Plan shall be prepared after the focused bat emergence survey is complete and finalized during the year prior to the start of Project activities. To reduce impacts to maternity colonies and special-status bat species, the Bat Management Plan shall include project-specific avoidance and minimization measures, including, but not limited to, a summary of previous surveys, current site conditions, bat emergence and pre-construction surveys (including acoustic monitoring), cliff swallow nest removal protocols, tree removal protocols, non-disturbance buffers, and timing and methodology for humane bat exclusion (including appropriate timing and details ensuring safety for bats and other wildlife). Additionally, if permanent impacts to maternity roosting habitat are expected, then species-specific replacement roosting habitat may be recommended in the Bat Management Plan to ensure no net loss of bat roosting habitat. If temporary impacts to maternity roosting habitat are expected, then temporary exclusion measures, a phased approach to bat exclusion and the establishment of non-disturbance buffers and biological monitoring may be appropriate. If impacts are determined to be temporary, additional buffer zones for specific construction activities may be warranted and implemented, as recommended by the qualified bat biologist depending on the species documented during the focused bat emergence survey(s). The California Department of Transportation Bat Mitigation Guide (Johnston et al. 2019) details additional buffer zones that can be used as guidelines during project activities. The Bat Management Plan and Bat Exclusion and Monitoring Plan shall be submitted to CDFW for review prior to the start of any bat exclusion activities. The Bat Management Plan will also include guidance from *Bat Mitigation: A Guide to Developing Feasible and Effective Solutions* (Johnston et al. 2019), established by the California Department of Transportation in 2019, as appropriate.

- Cliff swallow nest removal for bats: Bats are known to roost inside inactive cliff swallow mud nests. Therefore, if cliff swallow nest removal will be performed as part of the Project, nest removal shall be conducted outside of the bat maternity season but before the onset of seasonal torpor; this timeframe is typically September to October or when evening temperatures are not below 45°F and rain is not over 0.5 inch in 24 hours, or between mid-February and March with the same parameters. Cliff swallow nest removal shall be performed under the direct supervision of a biologist with a Specific Use Permit from CDFW to handle bats and in such a way that the nest is kept intact and not dropped to the ground until it can be inspected by the biologist. Swallow nest removal shall follow the guidance provided by the California Bat Working Group Bats in Swallow Nests resource (CBWG 2022).
- If trees are scheduled to be removed or modified (i.e., trimming) they shall be evaluated for their suitability as bat-roosting habitat by a qualified bat biologist. Trees that were determined to be suitable for bat roosting shall only be trimmed during seasonal periods of bat activity (September to October) or when evening temperatures are not below 45 °F and rain is not over 0.5 inch in 24 hours; or between mid-February and March with the same parameters. Additional details of the two-step tree removal process shall be outlined in the Bat Management Plan.
- If bat exclusion from the bridge is necessary, then, following CDFW's review of the Bat Management Plan and Bat Exclusion and Monitoring Plan, a qualified bat biologist will directly oversee the contractor's implementation of the bat exclusion process from the bridge. Exclusion can be overseen by a qualified bat biologist; however, a permitted bat biologist should be retained in the event that handling of bats is required during the exclusion effort. Ideally exclusion will occur in the fall the year prior to the anticipated start of construction. The precise methods and materials for exclusion will be outlined in the Bat Exclusion and Monitoring Plan, but exclusion will generally involve the installation of one-way doors and the sealing of roosting habitat that has been determined to be unoccupied by the qualified bat biologist in order to humanely exclude bats from the bridge prior to construction. To reduce impacts to roosting bats and avoid direct mortality of bats, bat exclusion shall not occur during the bat maternity season (April-August) or during the bat inactive/hibernation season (typically between November–February; however, bat inactive/hibernation season is contingent upon weather conditions during this time period (when forecast nighttime temperatures reach 45°F or lower and rain is not over 0.5 inch in 24 hours).
- Immediately prior to exclusion, a qualified bat biologist will conduct a pre-construction emergence survey with acoustic monitoring, following industry-standard protocols and survey methods. The emergence survey will determine if there are any changes in bat usage at the bridge prior to the start of exclusion activities.
- Following the implementation of all avoidance, minimization, and exclusionary measures in the project-specific Bat Management Plan and Bat Exclusion and

Monitoring Plan, a qualified bat biologist shall conduct a final inspection of the bridge. This inspection will confirm that bats have been successfully excluded in accordance with the timing and methods outlined in the plans. Project activities may commence only after the biologist confirms the exclusion process has successfully been completed. A qualified biologist will conduct regular inspection of bat exclusion materials to ensure they are intact, particularly following storm events.

- If permanent impacts to maternity roosting habitat are expected, then species-specific replacement roosting habitat or alternate roosting habitat may be recommended in the Bat Management Plan. Impacts to bat roosting sites are considered temporary when it is less than one year before ambient or baseline conditions (available roosting space) are restored following project completion. In this case, replacement roosting habitat may not be necessary. A loss of bat roosting habitat for a period of one year or greater is generally considered a permanent impact to a bat roost (Johnston et al. 2019).
- If permanent impacts to maternity roosting habitat are expected, installation of species-specific replacement roosting habitat would be required to ensure no net loss of bat roosting habitat occurs as a result of the project. Replacement or alternative roosting habitat will be installed as far in advance of the bat maternity season as possible, but no less than 90 days prior to the implementation of exclusion activities. If found necessary, replacement roosting habitat shall be installed before impacts to maternity roosting habitat on the bridge would occur so the excluded bats have an alternate roosting location to utilize. In the event that replacement roosting habitat is installed, the replacement roosting habitat shall be monitored for success and reports submitted annually to CDFW for a period of performance standards established in the Bat Management Plan.

BIO-6 **Nesting Bird Management Plan.** The Project is scheduled to begin during the bird and raptor nesting season, which typically runs from February 1 through August 31. Additionally, cliff swallow mud nests were identified on the underside of the bridge structure, and because of their strong site fidelity, cliff swallows will return year after year to nest in existing mud nests they built during previous nesting seasons. Because the Project is scheduled to begin during the bird and raptor nesting season, nest exclusion methods and devices may need to be implemented during the non-nesting season for the Project to comply with the federal Migratory Bird Treaty Act and California Fish and Game Code (Sections 3503, 3503.5, 3800, and 3513) and to prevent Project schedule delays due to nesting activity, Therefore, a Nesting Bird Management Plan shall be prepared by a qualified biologist no more than 1 year before the start of construction activities. The Nesting Bird Management Plan shall include, but not be limited to:

- Recommendations and guidance on implementing nest exclusion methods or devices to discourage or prevent nesting activity on the bridge prior to the start of project activities. Exclusion methods or devices shall be implemented during the non-nesting

season (September 1 through January 31). Exclusion methods and devices shall be identified based on current site conditions as well as on industry standards for bird and raptor safety at the time the Nesting Bird Management Plan is developed. Detailed protocols for cliff swallow nest removal shall be included as part of the nest exclusion section of the Nesting Bird Management Plan.

- The timing and methods of preconstruction nesting bird and raptor surveys, a preconstruction nesting bird and raptor survey would need to be conducted within the Project work areas and adjacent areas containing suitable nesting habitat no more than three days prior to the start of initial Project activities conducted during the nesting bird season (typically February 1 through August 31). The preconstruction nesting bird and raptor survey would need to be repeated if work ceases in an area for more than two weeks or before moving into a new portion of the Project area that has not yet been disturbed by Project activities.
- Nest monitoring methods and timing. Should an active bird or raptor nest be identified within or adjacent to the Project area during preconstruction surveys, the Nesting Bird Management Plan would outline the frequency that nest monitoring would need to be performed in order determine nest status and success or failure. Minimum qualifications of the monitoring biologist shall be included in the Nesting Bird Management Plan. The section discussing nest monitoring methods and timing in the Bird Management Plan shall also include discussion on methods and timing for removal of any nondisturbance buffers based on nest monitoring results.
- Project-specific recommendations to minimize impacts to nesting birds and raptors, should any active nests be identified during preconstruction surveys, such as the implementation of appropriate nondisturbance buffers. Nondisturbance buffer size would be determined by the Project biologist based on nest location, proposed work activities, and species' tolerance of anthropogenic influences.
- A reporting schedule, including an outline that establishes the appropriate situations and requirements for coordination with relevant wildlife agencies.

7.0 CERTIFICATION

I hereby certify that the statements furnished above and in the attached exhibits present the data and information required for this biological evaluation, and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief. Field work conducted for this assessment was performed by me or under my direct supervision. I certify that I have not signed a non-disclosure or consultant confidentiality agreement with the Project applicant or the applicant's representative and that I have no financial interest in the Project.

SIGNED: DATE:

Verity Richardson
Staff Biologist
ECORP Consulting, Inc.

SIGNED: DATE:

Kristen Wasz
Senior Biologist
ECORP Consulting, Inc.

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APPENDIX A

Aquatic Resources Delineation Report (Watearth)

Aquatic Resources Delineation Report

Slauson Avenue Bridge Over San Gabriel River Seismic Retrofit Project

Prepared for:
County of Los Angeles Department of Public Works

Prepared by:

December 23, 2024

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Acronyms and Abbreviations

Acronym/Abbreviation	Full Form
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
GIS	Geographic Information Systems
HUC	Hydrologic Unit Code

Acronym/Abbreviation	Full Form
NRCS	Natural Resources Conservation Service
OHWM	Ordinary High-Water Mark
SGR1	San Gabriel River 1 Levee System
TNW	Traditional Navigable Waters
USACE	United States Army Corps of Engineers
USDA	United States Department of Agriculture
WOTUS	Waters of the United States

Jurisdictional Delineation Report

Slauson Avenue Bridge over San Gabriel River Seismic Retrofit Project

1.0 Introduction

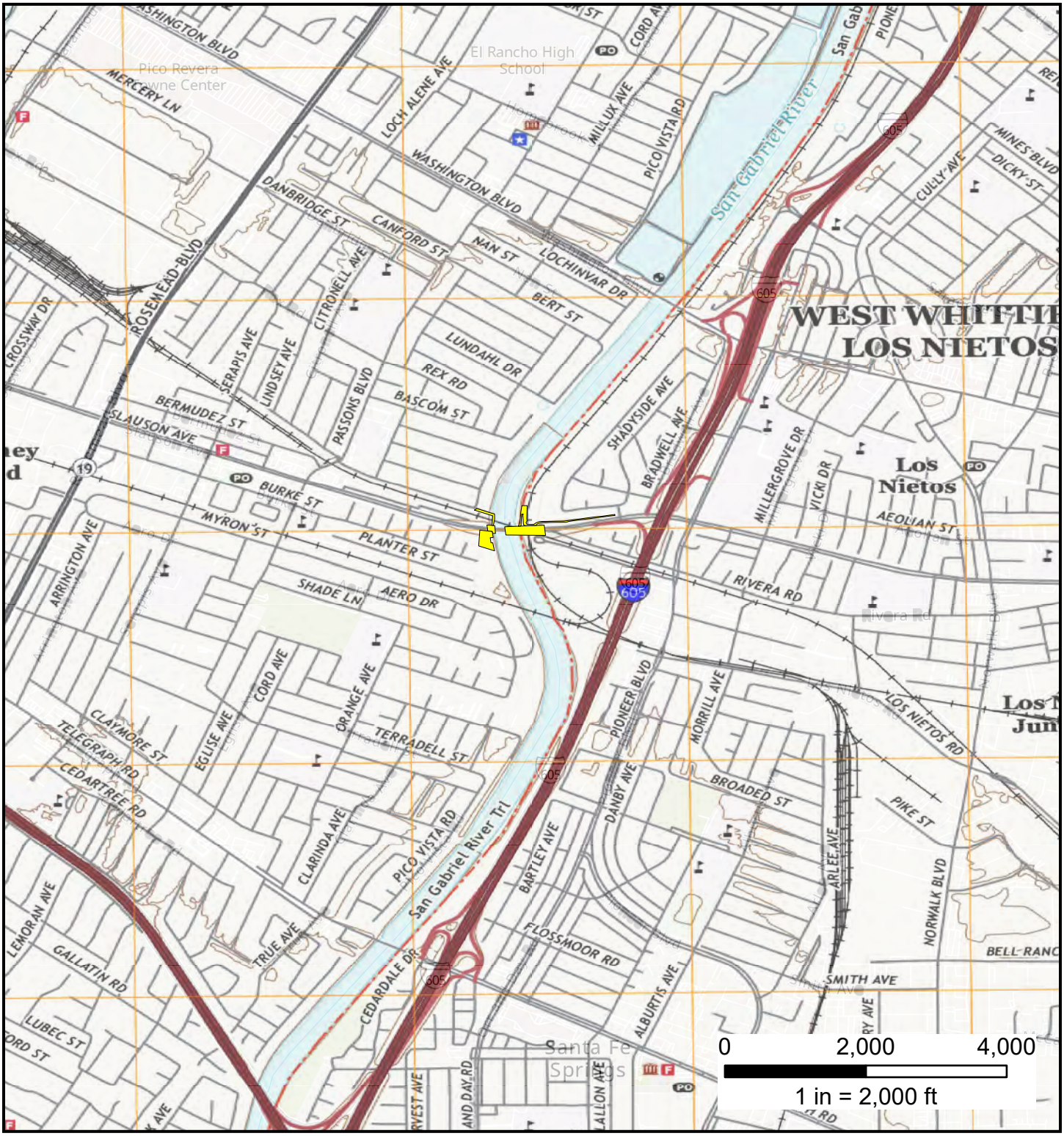
The County of Los Angeles Department of Public Works (Public Works) is proposing to upgrade the Slauson Avenue Bridge to comply with current seismic standards, particularly with the California Department of Transportation (Caltrans) Bridge Design Specifications and Caltrans Seismic Design Criteria. There are no plans to widen the Slauson Avenue Bridge or modify the lane configuration. Instead, the focus will be on strengthening abutment backwalls, installing shear keys, adding hinge seat extenders, and installing cable restrainers and pier infill walls. The project will involve removing existing concrete as needed, drilling through existing concrete and steel, and placing new rebar where necessary. The site of the Slauson Avenue Bridge is located at latitude and longitude, 33.966694, -118.089444. Slauson Avenue, a four-lane major east-west arterial roadway, crosses the San Gabriel River on a bridge that is approximately 655 feet long and 63 feet, 8 inches wide, in which steel railing and sidewalks line both sides of the bridge. The Slauson Avenue Bridge connects the cities of Pico Rivera and Santa Fe Springs, as well as the unincorporated area of West Whittier in Los Angeles County. The bridge is located approximately 0.3 miles west of Interstate 605 and 1.75 miles north of the Interstate 605 and Interstate 5 interchange.

The bridge is supported by two abutments and six piers, spanning seven sections with three expansion and four deflection hinges. The bridge is constructed from welded steel plate girders. At the project location, the San Gabriel River spans approximately 320 feet wide, with a soft bottom contained by trapezoidal earthen embankment levees lined with riprap and grouted stone slopes on both sides of the river. The Slauson Avenue Bridge also crosses over railroad tracks owned by the Burlington Northern Santa Fe Railroad and a recreational bike path on both sides of the river. The surrounding areas northeast, southeast, and southwest of the bridge consist mostly of single-family residences. See **Exhibit 1** and **Exhibit 2** for the project area and project location maps. Refer to **Exhibit 3** for the 7.5-minute United States Geological Survey topographic quadrangle map. The township and range are T02S and R12W, respectively, and the section is not applicable. The site visit photo log is included in **Appendix A.** Refer to **Exhibit 4** for the photo location map.

This report outlines the findings from the delineation of wetlands and other waters of the United States beneath the Slauson Avenue Bridge over the San Gabriel River. Public Works requires seismic retrofitting of the bridge, necessitating access to the riverbed beneath it. The presence and boundaries of regulated wetlands on a site are established using the methodology outlined in the *1987 U.S. Army Corps of Engineers (USACE) Wetland Delineation Manual* (USACE 1987) and the *Regional Supplement to the USACE Wetland Delineation Manual: Arid West Region* (Arid West Region Supplement Version 2.0, USACE 2008). The Ordinary High-Water Mark was identified in accordance with the *Field Guide to the Identification of Ordinary High-Water Mark (OHWM) in the Arid West Region of the United States: A Delineation Manual* (2008). This methodology requires conclusive evidence of wetland hydrology to determine an area's classification as a wetland. In areas where wetlands are absent, such as in non-tidal waters like intermittent streams, the lateral extent of the USACE's regulatory authority extends to the OHWM. In the absence of wetlands, it is determined that the upstream boundary of the USACE's jurisdiction ends where the OHWM is no longer distinguishable. The type and extent of wetlands and other waters under jurisdiction of the USACE, the Los Angeles Regional Water Quality Control Board, and the California Department of Fish and Wildlife is described in this report.

Exhibit 1 - Project Location Map

Exhibit 2 - Project Area Map



Slauson Avenue over San Gabriel River Bridge Retrofit Project

Exhibit 3 - Site Location (USGS 7.5-Minute Quadrangle)

Watearth

Legend

Project Area

USGS 7.5-Minute Quadrangle: Whittier
Township: T02S
Range: R12W
Coordinates: (118.0894875°W, 33.9666579°N)

21.056.0a
D. Jacobson - September 5, 2024

Datum: NAD83, Units: US Feet
Sources: TWDB, USGS, Esri, NASA, NGA, FEMA, County of Los Angeles, BLM, EPA, NPA, US Census

Slauson Avenue Over San Gabriel River Bridge

Exhibit 4 - Photo Locations and Directions

Watearth
Water Resources • Environmental • Green Infrastructure

Legend

- Photo Points
- Access and Staging Areas
- Bridge Work Area
- Direction Photo Taken

Datum: NAD83
Units: US Feet

1:1,800

21.056.0a
D. Jacobson - November 11, 2024

Datum: NAD83, Units: US Feet
Sources: Plummer

2.0 Existing Conditions

The San Gabriel River underneath the Slauson Avenue Bridge is listed on the National Wetlands Inventory of the U.S. Fish and Wildlife Service. Refer to **Exhibit 5** for the wetland map (ArcGIS). The National Wetlands Inventory classifies the San Gabriel River as deepwater habitat that consists of a total of 129.13 acres. The river includes a flood control channel that contains flowing water only part of the year; however, the San Gabriel River currently contains flowing surface water, as well as isolated pools of surface water, as noted by Watearth, Inc. on July 12 and August 15, 2024, during the field visits to the project site.

The surrounding area is located on Hydrologic Soil Group A, as defined by the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS). Refer to **Exhibit 6** for the soils map. Hydrologic Soil Group A soils have a high infiltration rate even when thoroughly wetted (USDA ArcGIS Online, 2024). According to the USDA NRCS, the map units' names of the soils consist of urban land-Hueneme, drained-San Emigdio complex, 0 to 2 percent slopes, and Xeropsamments, frequently flooded, 0 to 2 percent slopes.

The San Gabriel River is relatively flat at the project location. The topography of the site is shown in **Exhibit 7.** The surrounding areas northeast, southeast, and southwest of the bridge consist mostly of single-family residences. The surrounding areas of the project site consist mostly of development, and minimal open space. Refer to **Exhibit 8** for the land use map. The San Gabriel River is associated with Federal Emergency Management Agency (FEMA) flood zone A, which has a 1% annual risk of flooding, also known as the base flood or 100-year flood. Refer to **Exhibit 9** for the FEMA Flood Insurance Rate (FIRM) Map.

The project area is within part of the San Gabriel River 1 (SGR1) Levee System, located along the right/west bank of the San Gabriel River in Los Angeles County, California. This system traverses the cities of Pico Rivera, Downey, Bellflower, Cerritos, Lakewood, Long Beach, and Seal Beach, within the Los Angeles County Drainage Area. Extending approximately 20.54 miles, the SGR1 Levee System starts near San Gabriel River Parkway in Pico Rivera and ends near Marina Drive in Long Beach. The leveed area includes a mix of residential, commercial, industrial, and civic developments. The system features an earthen levee embankment and a trapezoidal channel, with the riverward slope reinforced by riprap and/or grouted stone, and no revetment on the landward slope. In total, the San Gabriel River includes seven drop structures, 118 culverts and discharge pipes, a pump station, 38 bridge crossings, 28 access ramps, three spillways, and numerous utility crossings.

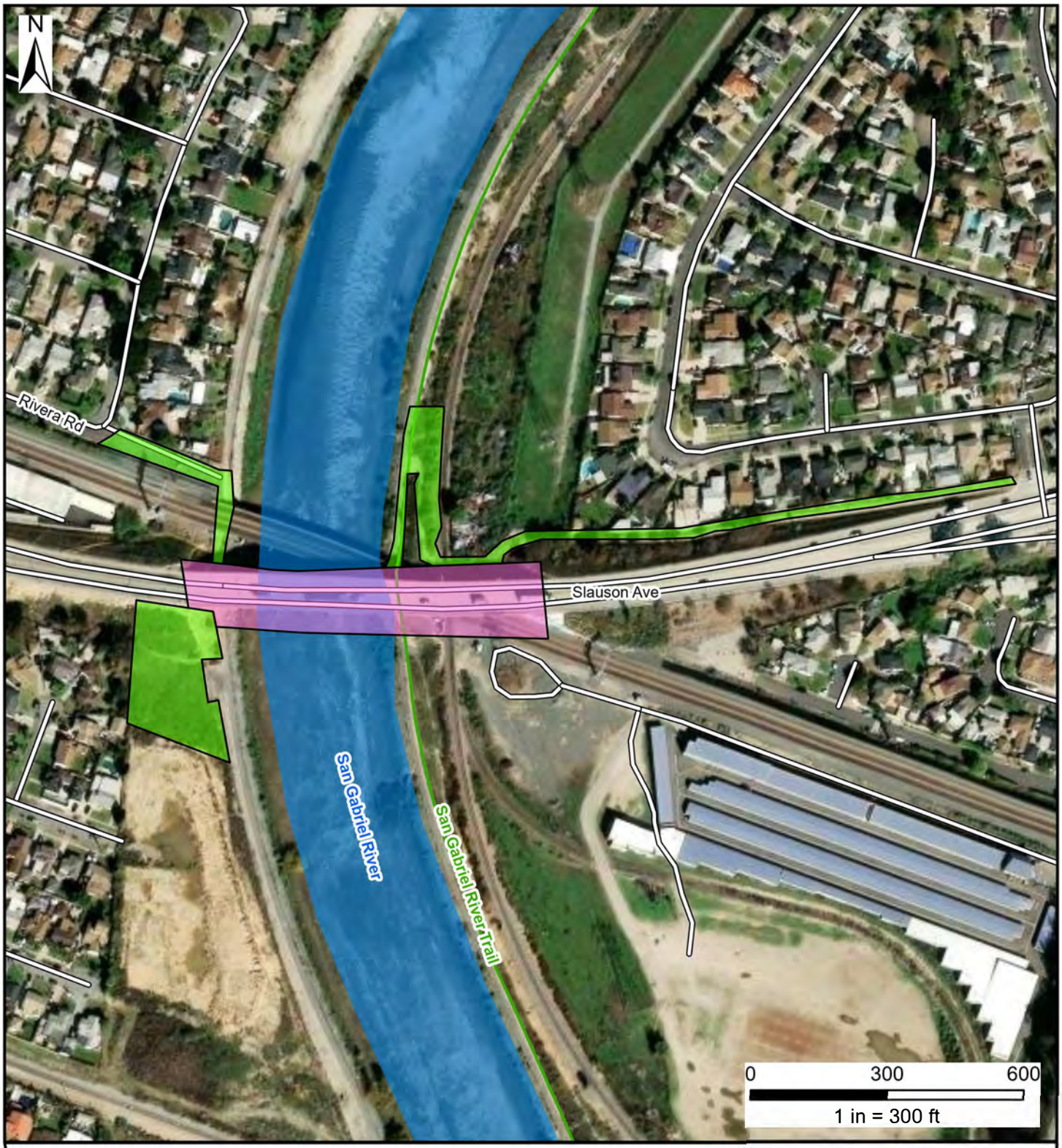
The San Gabriel River channel and its SGR1 Levee System were enhanced as part of a comprehensive flood control and improvement plan for the basins of the San Gabriel River. The San Gabriel River receives drainage from 689 square miles of eastern Los Angeles County; the headwaters originate in the San Gabriel Mountains. In the lower reaches downstream of the project site, the river flows through a concrete-lined channel in a densely developed urban area before transitioning to a natural and soft-bottom channel as the river approaches the Pacific Ocean in Long Beach.

The project area is located within Reach 2 of the Lower San Gabriel River HUC-10 watershed, which is part of the San Gabriel HUC-08 subbasin. The Lower San Gabriel River Watershed spans

approximately 78.5 square miles (50,240 acres) in Los Angeles County, and includes approximately 150 miles of streams.

The project area is characterized by relatively warm, wet winters and dry summers. The area is influenced mainly by winter frontal storms from the Pacific Ocean. Most precipitation falls from November to April (National Weather Service). According to the National Weather Service, the last spring season precipitation event in the area occurred on May 5, 2024, at 0.13 inches in 24 hours. See **Appendix B** for the summarized monthly data of precipitation in the Los Angeles region for 2024 to date.

The Flood Control Act of 1936 authorized Federal civil works flood-risk management projects for Los Angeles County, California. The Act authorized construction of flood-control structures for the Los Angeles County Drainage Area and the improvement of the San Gabriel River for the protection of metropolitan Los Angeles County, due to economically devastating floods that the Los Angeles area historically experienced.



Slauson Avenue over San Gabriel River Bridge Retrofit Project

Exhibit 5 - Wetlands and Waters of the US Map

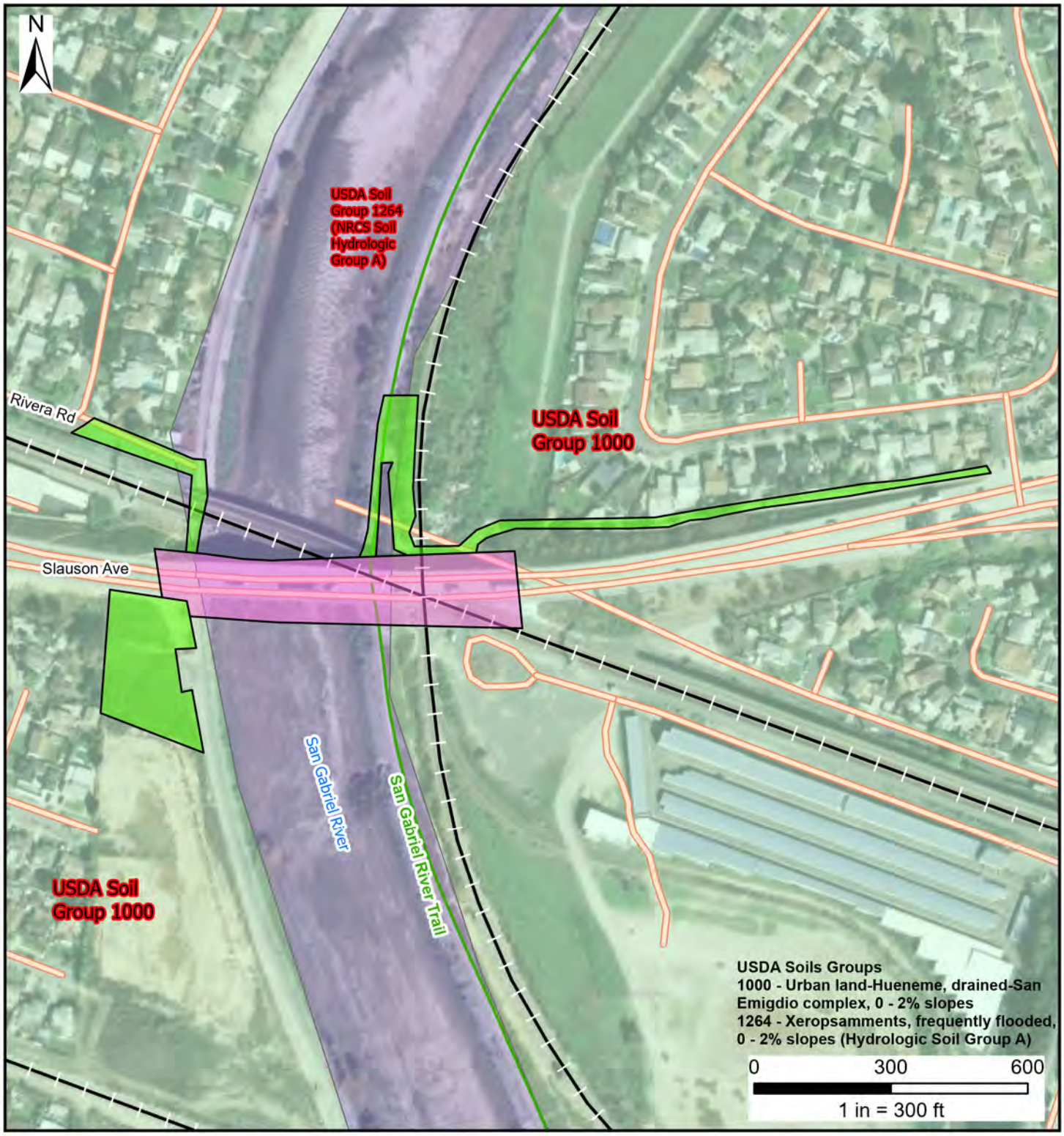
Wetearth

Legend

- Access and Staging Areas
- Bridge Work Area
- LA County Trails
- Roads
- Waters of the US

21-056.0a
D. Jacobson - December 18, 2024

Datum: WGS 1984 Web Mercator, Units: US Feet
Sources: Google Earth, CA State Geoportal, LA County, USFWS, ESRI



Slauson Avenue over San Gabriel River Bridge Retrofit Project

Exhibit 6 - Soils Map

Watearth

Legend

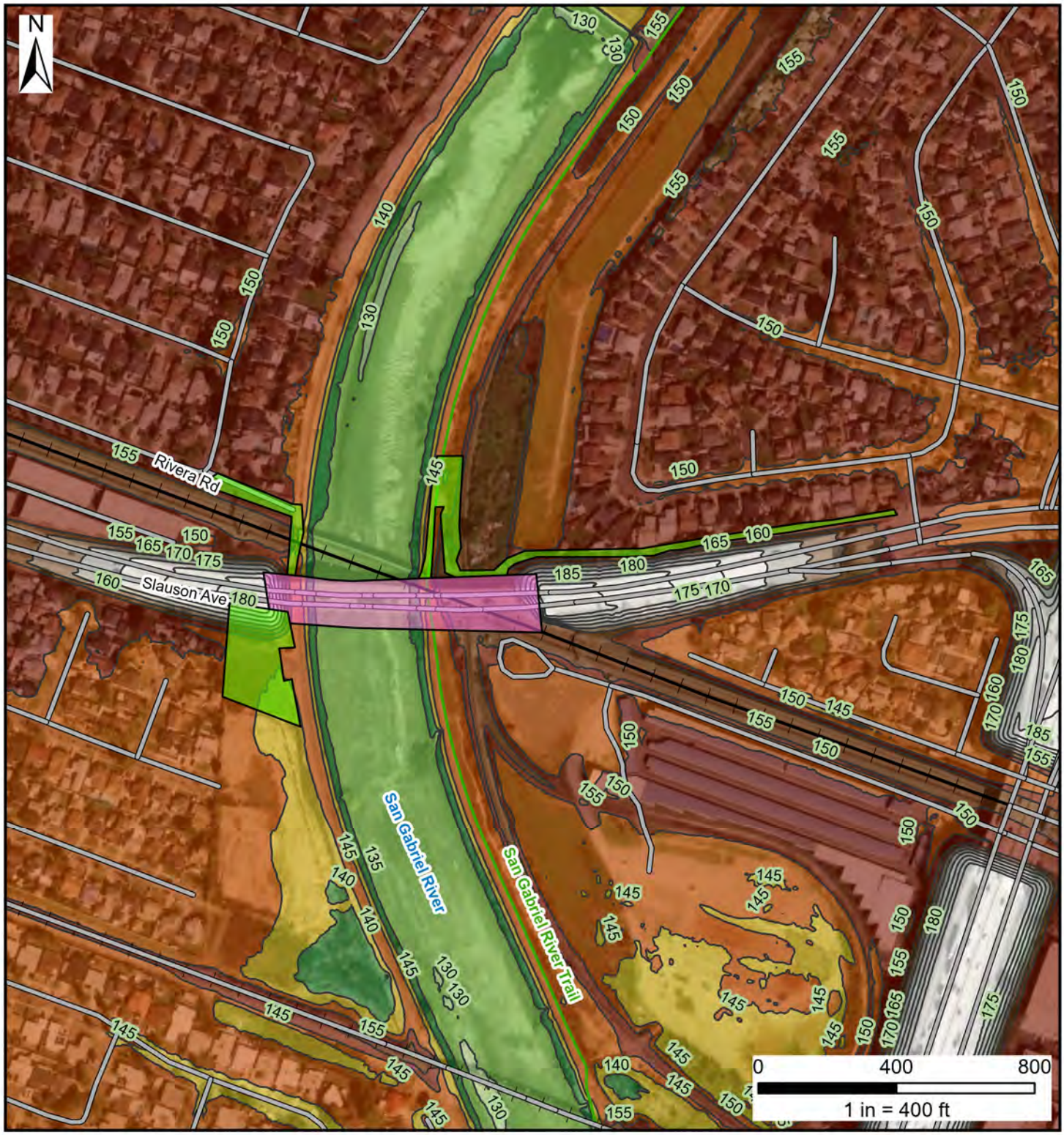
- Access and Staging Areas
- Bridge Work Area
- Roads
- Railroad
- LA County Trails

USDA Soil Groups

- 1000
- 1264 (NRCS Soil Hydrologic Group A)

21-056.0a
D. Jacobson - December 24, 2024

Datum: WGS 1984 Web Mercator , Units: US Feet
Sources: Google Earth, CA State Geoportal, LA County, USDA



Slauson Avenue over San Gabriel River Bridge Retrofit Project

Exhibit 7 - Topographic Map

Watearth

Legend

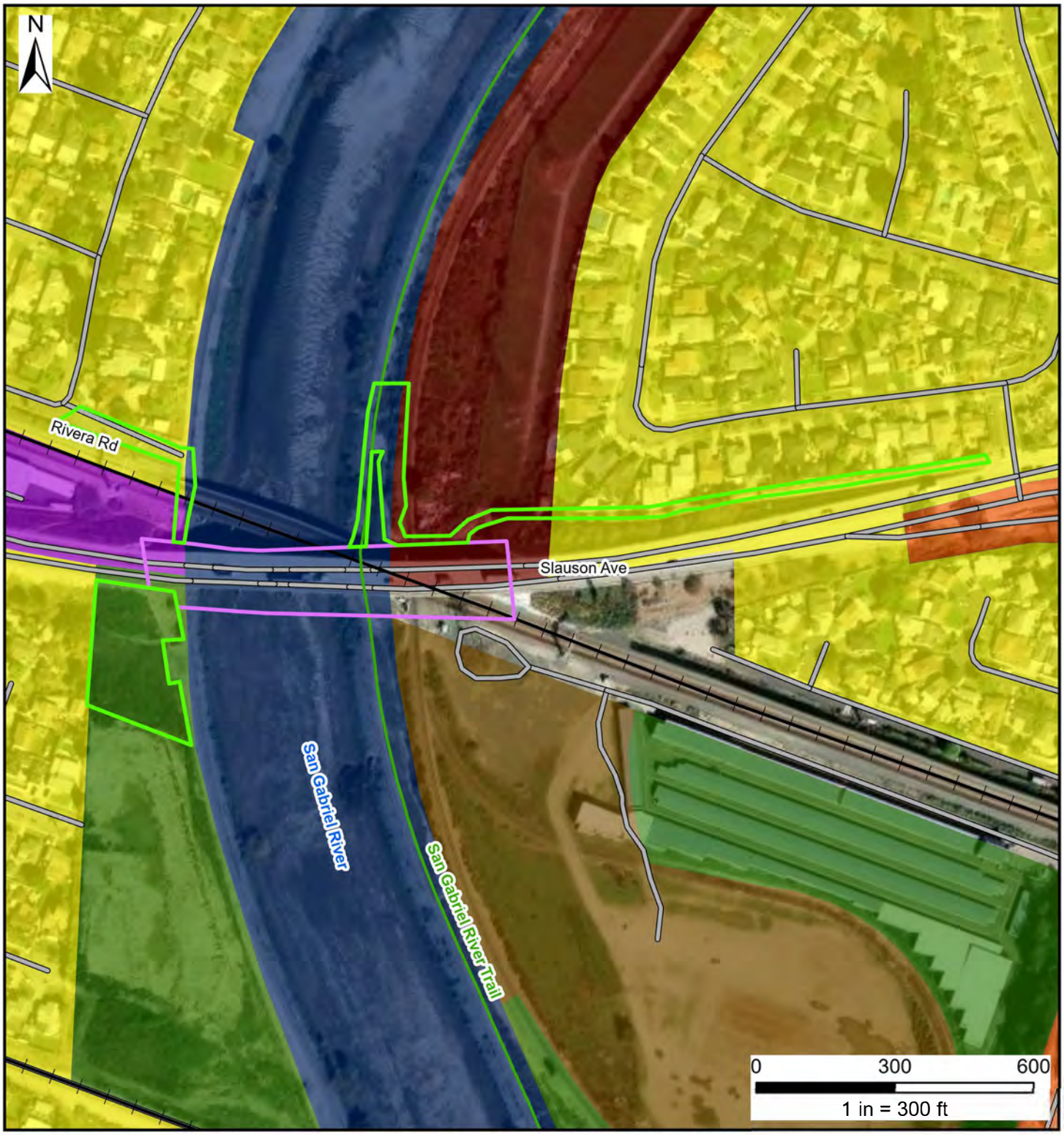
- Access and Staging Areas
- Bridge Work Area
- 5-Foot Contour Line
- LA County Trails

Elevation (Feet)

- 125 - 130
- 130 - 135
- 135 - 140
- 140 - 145
- 145 - 150
- 150 - 155
- 155 - 160
- 160 - 165
- 165 - 170
- 170 - 175

21-056.0a
D. Jacobson - December 23, 2024

Datum: NAD83, Units: US Feet
Sources: Google Earth, CA State Geoportal, LA County, USGS



Slauson Avenue over San Gabriel River Bridge Retrofit Project

Exhibit 8 - Land Use Map

Watearth

Legend

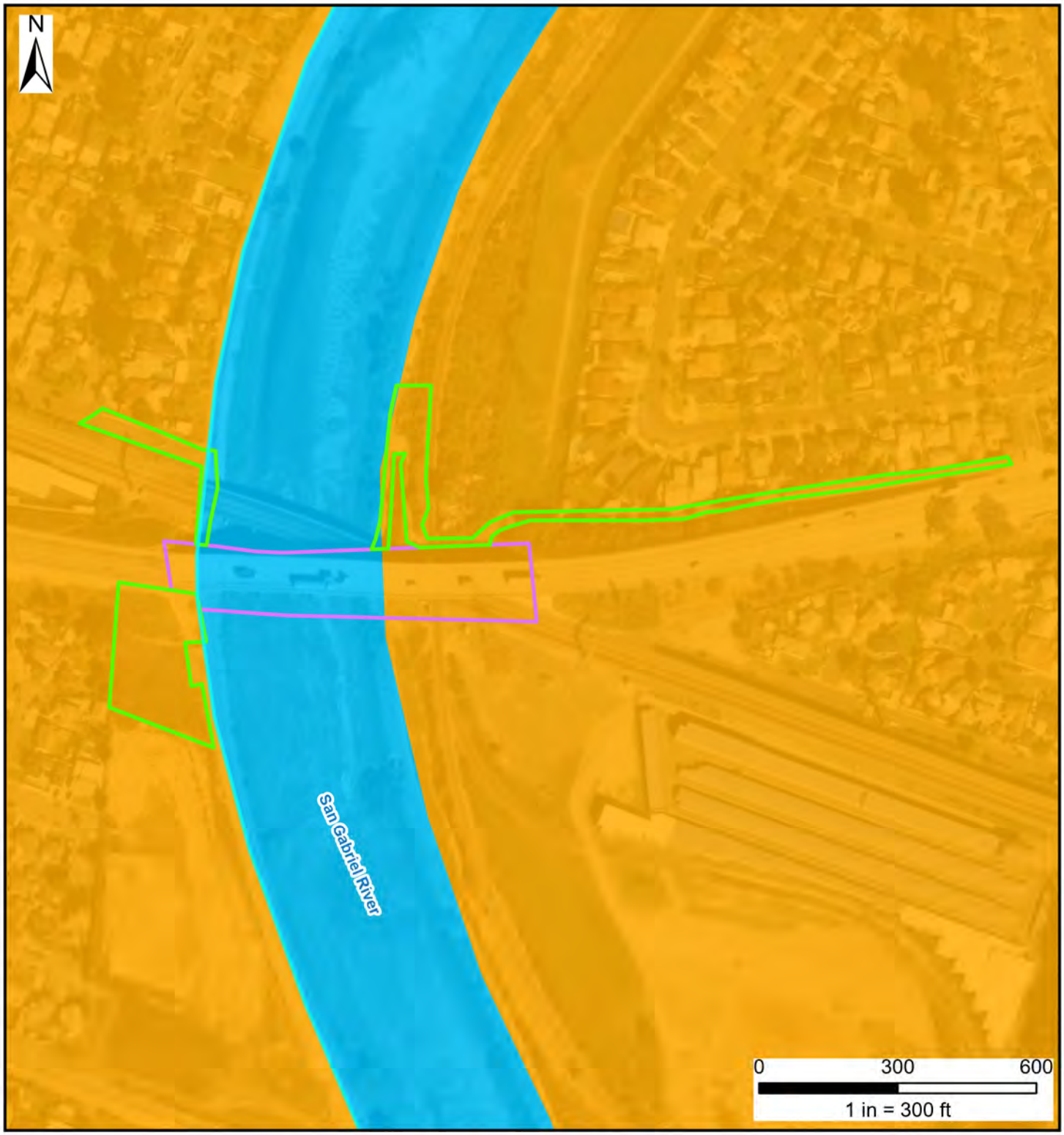
- Access and Staging Areas
- Bridge Work Area
- Roads
- Railroad
- LA County Trails

Land Use

- Commercial Storage
- Freeways and Major Roads
- High-Density Single Family Residential
- Horse Ranches
- Improved Flood Waterways and Structures
- Nurseries
- Vacant Undifferentiated

21-056.0a
D. Jacobson - December 18, 2024

Datum: NAD83, Units: US Feet
Sources: Google Earth, CA State Geoportal, LA County



Slauson Avenue over San Gabriel River Bridge Retrofit Project

Exhibit 9 - FEMA Flood Zone Map

Watearth

Legend

- Access and Staging Areas
- Bridge Work Area

FEMA Flood Zone

- A
- X (< 0.2%)

21-056.0a
D. Jacobson - December 23, 2024

Datum: WGS 1984 Web Mercator, Units: US Feet
Sources: Google Earth, LA County, FEMA

3.0 Regulatory Setting

The proposed seismic retrofit of the Slauson Avenue Bridge over the San Gabriel River necessitates several regulatory approvals and permits. These include a Section 404 permit from the USACE, a Section 401 Water Quality Certification or Waiver of Certification from the Los Angeles Regional Water Quality Control Board, and a Section 1600 Streambed Alteration Agreement from the California Department of Fish and Wildlife. Ultimately, these regulatory agencies will determine the permits required for the project; however, the anticipated permits that will be required are described below.

United States Army Corps. Of Engineers

Under Section 404 of the Clean Water Act, the USACE is responsible for permitting activities that impact waters of the United States. A section 404 permit from the USACE is anticipated to be required due to the impacts associated with construction activities related to the San Gabriel River, which is defined as "waters of the United States" (WOTUS). The construction activities associated with the project are anticipated to impact aquatic resources within the San Gabriel River and requires a 404 permit to manage the potential effects on water quality, fish, and other aquatic life.

The seismic retrofit project may fall under the Nationwide Permit Program, specifically Nationwide Permit 3, which expedites approval for repair, rehabilitation, or replacement of existing structures without significant changes to their original purpose or environmental impacts. If dewatering is required, Nationwide Permit 33 applies, covering temporary structures and discharges for construction activities with pre-construction notification. In summary, Nationwide Permit 3 enables maintenance work on existing structures, such as the Slauson Avenue Bridge, to be conducted efficiently while protecting aquatic resources. The intention is to streamline the process for essential repairs and upkeep, provided the work has minimal environmental impact and stays within the original design scope.

The project will also need a Section 408 Permission from the USACE. Public Works may request permission from USACE to alter or impact the San Gabriel River, if necessary. The project is not anticipated to require a Section 10 permit from the Rivers and Harbors Act of 1899, as the project is not anticipated to affect the course, location, or condition of the water body. In addition, the San Gabriel River is not listed as a "Traditional Navigable Waters" (TNWs) within Los Angeles District and within Los Angeles County, pursuant to Section 404 of the Clean Water Act, and to Section 10 of the Rivers and Harbors Act.

California Department of Fish and Wildlife

Given the project's impact on "waters of the State," defined under Section 1600 of the State Fish and Game Code, a Section 1601 Streambed Alteration Agreement is required from the California Department of Fish and Wildlife. This permit is necessary when any proposed activity may substantially alter or impact a river in California, which can affect wildlife resources and their habitats. The LSA permit is intended to protect fish, plants, wildlife, and aquatic ecosystems from harm caused by modifications, including bridge repairs. This agreement may include conditions for mitigating impacts to waters and wetlands, including specified mitigation measures.

Los Angeles Regional Water Quality Control Board

Before issuing the Section 404 permit, compliance with Section 401 of the Clean Water Act is mandatory. The project will require a Section 401 State Water Quality Certification from the Los Angeles Regional Water Quality Control Board. The certification is necessary for any federal permit or license (such as a Section 404 permit from the U.S. Army Corps of Engineers) involving activities that may result in discharges into WOTUS. 401 Water Quality Certification will involve a detailed review of the project plans, analysis of potential pollutant discharges, and evaluation of proposed best management practices.

4.0 Methodology

The jurisdictional delineation was conducted during a site visit by senior biologist Lee Vella and field scientist Jorel Hingada on July 12, 2024, and by senior biologist Lee Vella and Principal Engineer Jennifer J. Walker on August 15, 2024. Wetland boundaries were identified by the identification of the OHWM and the top of banks. No remote sensing was used as a part of this methodology. The OHWM was identified in accordance with the *Field Guide to the Identification of the OHWM in the Arid West Region of the Western United States* (USACE 2008).

A comprehensive desktop analysis of the area was conducted that included project area and location maps, topographic and soils information, hydrology data, and land use information. Additionally, the analysis incorporated photo documentation of site conditions, FEMA floodplain mapping, relevant regulations, and historical data.

A handheld GPS unit (TDC650) was used to mark the aquatic resource features and the OHWM. The GPS equipment that was used has a capability of sub-meter (<=1 meter) level horizontal accuracy. The accuracy of handheld GPS units used for the project may vary due to the presence of bridges/overpasses overhead. GPS readings were taken on August 15, 2024 by the field personnel.

The delineation of the OHWM began with an interpretation of aerial photographs of the project location. Preliminary mapping was conducted on digital files using Geographic Information Systems (GIS) software and AutoDesk Civil 3D software. Topographic, soils, and land use maps were created to interpret the influence of the surrounding landscape on the delineation location. Refer to **Exhibits 6, 7,** and **8** for the land use, soils, and topography maps. The field personnel also noted the geomorphic features that will be useful in determining the limit of the OHWM, such as breaks in slope.

Soil samples were not taken at the site due to the clearly exhibited wetland hydrology (e.g., standing water, water-stained debris, and saturated soil conditions) and the presence of obligate wetland vegetation. Soil sampling was considered unnecessary due to these indicators and hydrologic conditions.

5.0 Results

The field survey personnel observed and noted hydrology indicative of wetlands. The field personnel also identified and determined the OHWM, based on hydrologic indicators and features. The location of the OHWM transect/cross section is shown in **Appendix C**.

The field personnel identified the OHWM by using various geomorphic and vegetative indicators. Refer to **Table 1** for the indicators that were identified in the field to determine the location of the OHWM.

Table 1: OHWM Indicators

OHWM Geomorphic and Vegetative Indicators
1. Surface water was present during the site visit, and water marks indicated surface water as seasonally variable, that could reach the edges of the installed riprap along the edges of the channel during high precipitation seasons.
2. Geomorphic indicators below the OHWM were composed of mud cracks and muddy point bars created by reduced flow velocity.
3. Geomorphic indicators at the OHWM consisted of a change in particle size distribution and the upper limit of sand-sized particles due to the riprap along the edges of the river.
4. Geomorphic indicators above the OHWM consisted of desert pavement and soil development.
5. Vegetative OHWM indicators consisted of wetland plants, primarily consisting mostly of facultative wetland, facultative, and obligate wetland plants.
6. Indicators of the active floodplain consisted of a break in slope, the textural change from sand cobble in the active floodplain to a finer-grained matrix within the low terrace, and the increase in vegetative cover and maturity within the low terrace.
7. The species composition changed from wetland plants to ruderal upland vegetation, including less vegetation cover. The transition area from the low flood channel and the active floodplain was identified by a change in vegetation growth form and species composition.

Indications of wetland hydrology included factors such as surface water, topography, watermarks, drift lines, and patterns of drainage. At the project location, the San Gabriel River serves as a managed flood control channel, with surface water levels that fluctuate from month to month and year to year. The amount of water in the river can be quite variable, occasionally reaching the riprap along the edges of the channel. The riprap is referring to the layer of large, loose boulders and rocks placed along the riverbanks, as part of the San Gabriel River 1 (SGR1) Levee System.

Flowing water was observed during the survey. No upland swales or ditches were observed at the site. Surface water was a primary indicator, and with the extent and signs of fluctuation, revealed important indicators of riverine wetland conditions. Indications of seasonal variations further illustrate the wetland's presence, such as flattened vegetation, and debris deposits. Rafted debris (vegetation remnants, human-caused litter) was deposited on the ground or entangled in vegetation or other fixed objects at the site. In addition, flow patterns were visible on the soil surface and eroded into the soil, with low vegetation bent over in the direction of flow.

Topography also plays a significant role, with flat or gently sloping land typically favoring wetland formation. The topography of the site is relatively flat (0-2% slopes) with soils that are frequently flooded (Xeropsamments). The watermarks were present, which are signs of past water levels on vegetation or soil. Discolorations or stains on the soils were a result of previous

inundation. Drift lines were also present as the wetland formed debris deposition, indicating water flow patterns and sediment movement, while patterns of drainage—both surface and subsurface—revealed how water was distributed within the wetland. Together, these factors provide a comprehensive depiction of wetland hydrology.

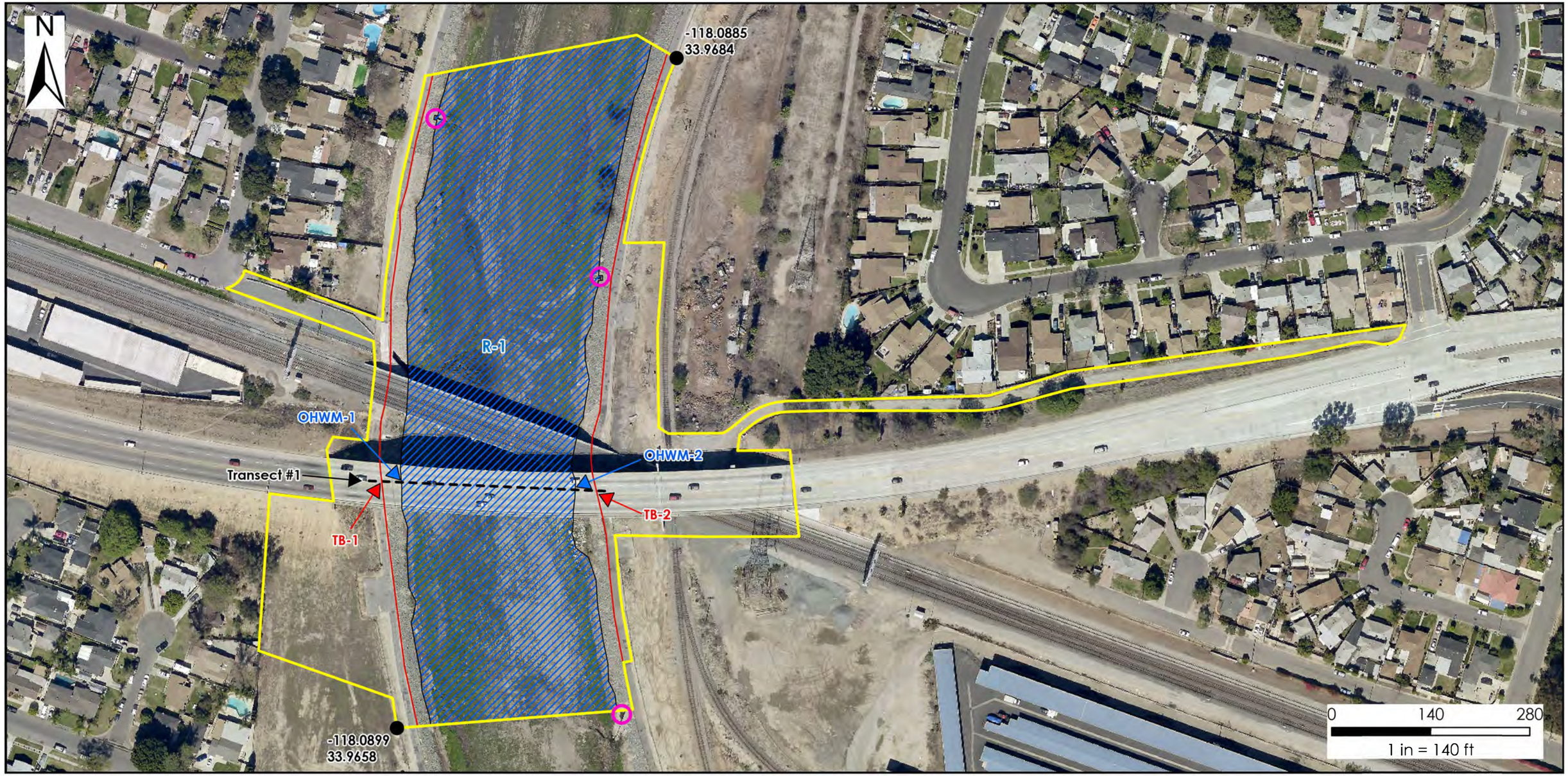
Ultimately, a riverine wetland was identified along the San Gabriel Riverbanks beneath the Slauson Avenue Bridge, as well as upstream and downstream of the bridge in the river channel. The final map of aquatic resources and the wetland delineation is found in **Exhibit 10**, and the OHWM data sheet is included in **Appendix D**. 5.62 acres of riverine wetland was determined to fall under the jurisdiction of the USACE and the Los Angeles Regional Water Quality Control Board. The potential jurisdictional limits of the California Department of Fish and Wildlife was determined to be 7.00 acres.

The vegetation in the project area was characterized as an herbaceous riparian community according to Holland's habitat classification scheme. This type of community consists of pioneering plant associations, often dominated by non-native weed species that readily colonize flood control channels subject to periodic scouring or mechanical clearing. According to Cowardin's wetlands classification, this community is classified as riverine, intermittent, streambed, and sand (R4SB4). The jurisdictional limits of each agency and the classification of the wetland are indicated in **Table 2**.

The soils were identified as sandy/silty alluvium that are regularly scoured and disturbed by stormflows. Dominant shrubs and herbs on the banks and bed included species such as tall flatsedge (*Cyperus eragrostis*), lady's thumb (*Polygonum persicaria*), barnyard grass (*Echinochloa crusgalli*), and curly dock (*Rumex crispus*). Along the upper edges of the channel, vegetation consisted of a ruderal upland plant community dominated by mature castor-bean (*Ricinus communis*) and crimson fountain grass (*Cenchrus setaceus*). The jurisdictional limits of the USACE and the Los Angeles Regional Water Quality Control Board were identified by the hydrologic indicators, and the OHWM described above. The California Department of Fish and Wildlife jurisdictional limits were determined by the top of banks on each side of the riverine wetland.

Table 2: Jurisdictional Limits and Classification

USACE	Los Angeles Regional Water Quality Control Board	California Department of Fish and Wildlife
5.62 acres	5.62 acres	7.00 acres
Riverine Wetland - riverine, intermittent, streambed, and sand (R4SB4)	Riverine Wetland - riverine, intermittent, streambed, and sand (R4SB4)	Riverine Wetland - riverine, intermittent, streambed, and sand (R4SB4)



Slauson Avenue over San Gabriel River Bridge Retrofit Project

Exhibit 10 - Wetland Delineation

Watearth™

Legend

- Riverine Waters (5.62 acres)
- Survey Area (10.11 acres)
- Potential CDFW Jurisdictional Limits (7.00 acres)
- OHWM - Transect #1
- Control Points
- Outfalls

OHWM = Ordinary High Water Mark
TB = Top of Bank
R = Riverine Feature

*USACE and RWQCB jurisdictional limits are both the same as Riverine Waters feature boundary.

Datum: NAD83
Units: US Feet

21-056.0a
D. Jacobson - November 13, 2024

Datum: NAD83, Units: US Feet
Base Map Source: AERIAL MAPPING
201312_LOS_ANGELES_COUNTY_CA_SP_CIR

6.0 Conclusions

In summary, the wetland delineation process has demonstrated that the project area contains wetland hydrology. At the project location, the San Gabriel River functions as a flood control channel, with surface water levels that change from year to year. The water flow can vary significantly, sometimes reaching the riprap along the channel's edges. By analyzing the hydrological patterns, Watearth has concluded that the San Gabriel River under the Slauson Avenue Bridge contains hydrologic features and characteristics; and therefore, jurisdictional wetlands or other waters of the United States were determined to occur underneath the bridge.

Approximately 5.62 acres of aquatic resources fall under the jurisdictional limits of the USACE and the Los Angeles Regional Water Quality Control Board. Approximately 7.00 acres of aquatic resources fall under the jurisdictional limits of the California Department of Fish and Wildlife. The project area consists mostly of herbaceous riparian wetlands characterized by pioneering plant species that readily recolonize disturbed sites. The results of the wetland delineation and determination of the OHWM are indicated in the data sheet provided in **Appendix D**. Refer to **Appendix E** for the Ordinary Resource Management table.

In conclusion, hydrology indicators played a crucial role in determining the presence of wetlands during the delineation. Key hydrology indicators, such as the presence of surface water, saturation within 12 inches of the soil surface, water-stained debris, and defined drainage patterns, provide strong evidence of regular or prolonged water availability underneath the Slauson Avenue Bridge. These indicators helped ensure that the conditions necessary for wetland classification were met, without the need for soil sampling. Thus, relying on hydrology indicators allowed for a reliable assessment of wetland boundaries and ensures accurate delineation beneath the Slauson Avenue Bridge. By analyzing these hydrologic indicators in conjunction with existing regulatory guidelines and historical data, Watearth established that the project site qualifies as jurisdictional wetlands and WOTUS.

1. **Permitting:** The project site within the San Gabriel River underneath the Slauson Avenue Bridge was determined to be a riverine wetland. Thus, because the project site falls under the jurisdiction of the USACE, the Los Angeles Regional Water Quality Control Board, and the California Department of Fish and Wildlife, the project will require various permits. The project will require a permit from the USACE under Section 404 of the Clean Water Act, authorized through the Nationwide General Permit program. Additionally, a Section 1601 Streambed Alteration Agreement will be needed from the California Department of Fish and Wildlife, along with a Section 401 State Water Quality Certification or a Waiver of Certification from the Los Angeles Regional Water Quality Control Board. The project is also anticipated to require a 408 permission from the USACE.
2. **Wetland Hydrology:** The project site consisted of wetland hydrology indicators including surface water, inundation, watermarks, drift lines, and patterns of drainage. Thus, the project site qualifies as jurisdictional wetlands and WOTUS, and falls within the jurisdictional limits of the USACE, the Los Angeles Regional Water Quality Control Board, and the California Department of Fish and Wildlife, as indicated in **Exhibit 10**.

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Watearth™

Jurisdictional Delineation Report

Slauson Avenue Bridge over San Gabriel River
Seismic Retrofit Project

Appendix A

Photo Log

Photo Log

Wetland Delineation

Photo 1: 33.966356, -118.090042

On West end of the bridge, directly underneath the bridge looking East at stagnant water – Photo taken on July 12th, 2024

Photo 2: 33.966811, -118.089822

Soil Sample taken on West end of bridge, directly underneath bridge and below upland vegetation – Photo taken August 15th, 2024

Photo 3: 33.966708, -118.089828

On West end of bridge, looking southeast toward San Gabriel River – continuous flowing water – Photo taken on July 12th, 2024

Photo 4: 33.966883, -118.089928

On West end of bridge, overlooking San Gabriel River. Looking East - Photo taken on July 12th, 2024

Photo 5: 33.966594, -118.089133

On east end of bridge, looking at BNSF railroad tracks, facing North, photo taken just north of bridge - Photo taken on July 12th, 2024

Photo 6: 33.966736, -118.089072

Overlooking San Gabriel River on East end of the bridge, surrounded by upland vegetation, facing southeast at continuously flowing water - Photo taken on July 12th, 2024

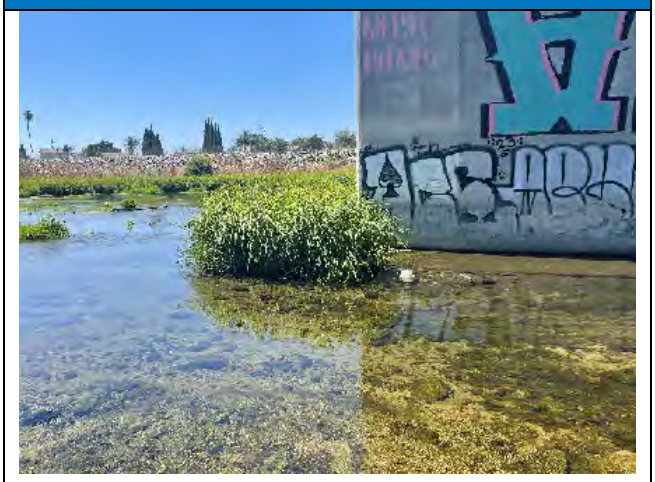
Photo 7: 33.966628, -118.089850

On west end of the bridge, directly underneath the bridge looking northeast at stagnant water - Photo taken on August 15th, 2024

Photo 8: 33.966733, -118.089058

On East end of the bridge, directly underneath the bridge, looking North past the railroad tracks at stagnant water. Facing northwest. - Photo taken on July 12th, 2024

Photo 9: 33.966522, -118.089308



On east end of bridge looking west, looking at flowing water - Photo taken on August 15th, 2024

Photo 10: 33.966811, -118.089828

On west end of bridge just north of bridge overhang, looking east - Photo taken on August 15th, 2024

Photo 11: 33.966811, -118.089828

On west end of the bridge, directly underneath the bridge looking East at wetland vegetation - Photo taken on August 15th

Photo 12: 33.967064, -118.087014

Path towards east end of bridge, looking west – proposed staging area - Photo taken on August 15th, 2024

Photo 13: 33.966542, -118.088914

On east end of bridge looking northwest, near bike path – proposed staging area - Photo taken on August 15th

Photo 14: 33.966889, -118.089881

On west end of bridge, looking at upland vegetation, looking west at proposed staging areas - Photo taken on August 15th

Photo 15: 33.966919, -118.088356

On east end of bridge, looking north at proposed staging areas, north of railroad tracks - Photo taken on August 15th

Photo 16: 33.966958, -118.089906

On west end of the bridge, looking east at railroad tracks, bridge to the right of the photo - Photo taken on August 15th

Photo 17: 33.966594, -118.089133

On East end of the bridge, looking northwest at San Gabriel River, directly underneath the bridge - Photo taken on August 15th, 2024

Photo 18: 33.966594, -118.089128

Upland Vegetation on East end of the bridge, photo taken just south of the bridge, looking north underneath the bridge - Photo taken on August 15th, 2024

Photo 19: 33.966811, -118.089828

On West end of bridge, underneath bridge, looking south east toward San Gabriel River – stagnant water - Photo taken on August 15th

Watearth™

Jurisdictional Delineation Report

Slauson Avenue Bridge over San Gabriel River
Seismic Retrofit Project

Appendix B

Precipitation Data

Monthly Total Precipitation for Los Angeles Downtown Area, CA (ThreadEx)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
2024	2.05	12.66	3.50	0.63	0.13	0.00	0.00	0.00	0.00	0.00	M	M	M
Mean	2.05	12.66	3.50	0.63	0.13	0.00	0.00	0.00	0.00	0.00	M	M	M
Max	2.05 2024	12.66 2024	3.50 2024	0.63 2024	0.13 2024	0.00 2024	0.00 2024	0.00 2024	0.00 2024	0.00 2024	M -	M -	M M
Min	2.05 2024	12.66 2024	3.50 2024	0.63 2024	0.13 2024	0.00 2024	0.00 2024	0.00 2024	0.00 2024	0.00 2024	M -	M -	M M

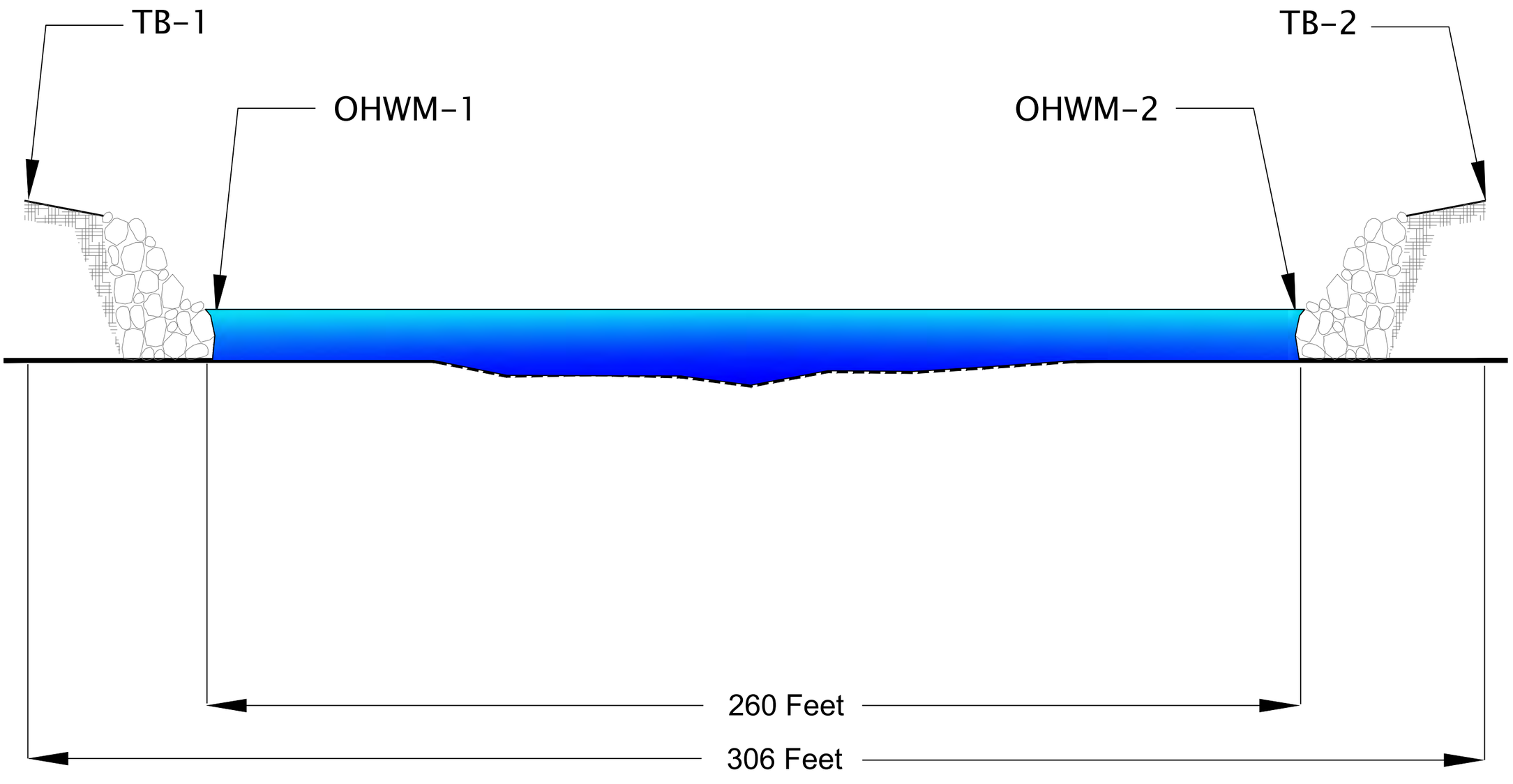
Watearth™

Jurisdictional Delineation Report

Slauson Avenue Bridge over San Gabriel River
Seismic Retrofit Project

Appendix C

Cross Section



TRANSECT #1

1 inch ~ 20 feet

Watearth™

Jurisdictional Delineation Report

Slauson Avenue Bridge over San Gabriel River
Seismic Retrofit Project

Appendix D

Field Data Sheet

Arid West Ephemeral and Intermittent Streams OHWM Datasheet

Project: Slauson Avenue Bridge over San Gabriel River Seismic Retrofit Project **Project Number:** N/A **Stream:** San Gabriel River **Investigator(s):** Lee Vella; Jorel Hingada, Jennifer J Walker

Date: August 15 **Time:** 10:00AM

Town: Sante Fe Springs/ Los Angeles **State:** CA

Photo end file#: See Photo Log

Photo begin file#: See Photo Log

Y [X] / N [ ] Do normal circumstances exist on the site?

Y [ ] / N [X] Is the site significantly disturbed?

Location Details:
Slauson Avenue Bridge Over San Gabriel River, in Santa Fe Springs, CA

Projection: California State Plane Zone 5 **Datum:** NAD83 (2011)

Coordinates: 33.96669 degrees N,-118.08945degrees W

Potential anthropogenic influences on the channel system:

The project area is part of the San Gabriel River 1 (SGR1) Levee System, located along the right/west bank of the San Gabriel River in Los Angeles County, California. This system traverses the cities of Pico Rivera, Downey, Bellflower, Cerritos, Lakewood, Long Beach, and Seal Beach, within the Los Angeles County Drainage Area. Extending approximately 20.54 miles, the SGR1 Levee System starts near San Gabriel River Parkway in Pico Rivera and ends near Marina Drive in Long Beach. The leveed area includes a mix of residential, commercial, industrial, and civic developments. The system features an earthen levee embankment and a trapezoidal channel, with the riverward slope reinforced by riprap and grouted stone, and no revetment on the landward slope. It also includes a total seven drop structures, 118 culverts and discharge pipes, a pump station, 38 bridge crossings, 28 access ramps, three spillways, and numerous utility crossings.

Brief site description:

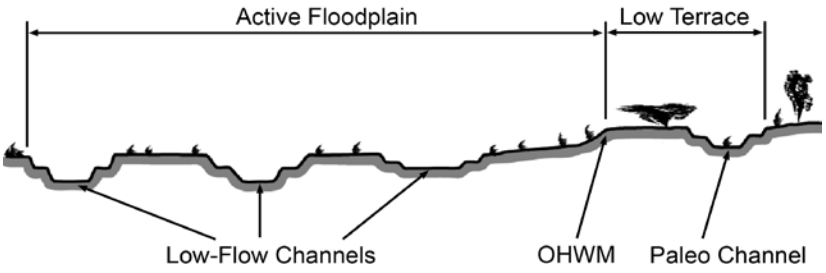
The San Gabriel river includes channels that contain flowing water only part of the year; however, surface water is currently present, and the river currently contains flowing surface water, as well as isolated pools of surface water. The surrounding area is located on soil Group A, as defined by the United States Department of Agriculture (USDA) Natural Resources Conservation Service. According to the United States Department of Agriculture (USDA) Natural Resources Conservation Service the, the map units' names of the soils consist of urban land-Hueneme, drained-San emigdio complex, 0 to 2 percent slopes, and xeropsamments, frequently flooded, 0 to 2 percent slopes. The San Gabriel River is relatively flat at the project location. The topography of the site is shown in Exhibit 5. The surrounding areas northeast, southeast, and southwest of the bridge consist mostly of vacant land and single-family residences. Refer to Exhibit 6 for the land use map.

Checklist of resources (if available):

- [X] Aerial photography
  Dates:
- [X] Topographic maps
- [X] Geologic maps
- [X] Vegetation maps
- [X] Soils maps
- [X] Rainfall/precipitation maps
- [X] Existing delineation(s) for site
- [X] Global positioning system (GPS)
- [X] Other studies

- [ ] Stream gage data
  Gage number:
  Period of record:
- [ ] History of recent effective discharges
- [ ] Results of flood frequency analysis
- [ ] Most recent shift-adjusted rating
- [ ] Gage heights for 2-, 5-, 10-, and 25-year events and the most recent event exceeding a 5-year event

Hydrogeomorphic Floodplain Units



Procedure for identifying and characterizing the floodplain units to assist in identifying the OHWM:

1. Walk the channel and floodplain within the study area to get an impression of the geomorphology and vegetation present at the site.
2. Select a representative cross section across the channel. Draw the cross section and label the floodplain units.
3. Determine a point on the cross section that is characteristic of one of the hydrogeomorphic floodplain units.
   a) Record the floodplain unit and GPS position.
   b) Describe the sediment texture (using the Wentworth class size) and the vegetation characteristics of the floodplain unit.
   c) Identify any indicators present at the location.
4. Repeat for other points in different hydrogeomorphic floodplain units across the cross section.
5. Identify the OHWM and record the indicators. Record the OHWM position via:
   - [X] Mapping on aerial photograph
   - [X] Digitized on computer
   - [X] GPS
   - [ ] Other:

Project ID: N/A **Cross section ID:** N/A **Date:** August 15 **Time:** 10:00 AM

Cross section drawing:

See Appendix C and Exhibit 10 - Riverine intermittent, streambed, sand (R4SB4

OHWM

GPS point: 33.9668°N, -118.0890°W

Indicators:

- [X] Change in average sediment texture
- [X] Change in vegetation species
- [X] Change in vegetation cover
- [X] Break in bank slope
- [ ] Other: _____
- [ ] Other: _____

Comments: Indications of wetland hydrology included factors such as surface water, topography, watermarks, drift lines, and patterns of drainage. At the project location, the San Gabriel River serves as a managed flood control channel, with surface water levels fluctuating from month to month and year to year. The amount of water in the river is variable, occasionally reaching the riprap along the edges of the channel.
Flowing water was observed during the survey. No upland swales or ditches were observed at the site. Surface water was a primary indicator, and with the extent and signs of fluctuation, revealed important indicators of riverine wetland conditions. Indications of seasonal variations further illustrate the wetland's presence, such as flattened vegetation, and debris deposits. Rafted debris (vegetation remnants, human-caused litter) was deposited on the ground or entangled in vegetation or other fixed objects at the site. In addition, flow patterns were visible on the soil surface and eroded into the soil, with low vegetation bent over in the direction of flow.

Floodplain unit:

- [ ] Low-Flow Channel
- [X] Active Floodplain
- [ ] Low Terrace

GPS point: 33.966682, -118.088783

Characteristics of the floodplain unit:

Average sediment texture: Sandy Mucky - fine sand

Total veg cover: 50 % Tree: 0 % Shrub: 25 % Herb: 75 % Community successional stage:

- [ ] NA
- [ ] Early (herbaceous & seedlings)
- [X] Mid (herbaceous, shrubs, saplings)
- [ ] Late (herbaceous, shrubs, mature trees)

Indicators:

- [ ] Mudcracks
- [ ] Ripples
- [X] Drift and/or debris
- [x] Presence of bed and bank
- [ ] Benches
- [x] Soil development
- [x] Surface relief
- [X] Other: Rip Rap
- [ ] Other:
- [ ] _____
  Other: _____

Comments:

the wetland delineation process has demonstrated that the project area contains wetland hydrology. At the project location, the San Gabriel River functions as a flood control channel, with surface water levels that change from year to year. The water flow can vary significantly, sometimes reaching the riprap along the channel's edges. By analyzing the hydrological patterns, Watearth has concluded that the San Gabriel River under the Slauson Avenue Bridge contains hydrologic features and characteristics; therefore, jurisdictional wetlands or other waters of the United States were determined to occur underneath the bridge.
The soils were identified as sandy/silty alluvium that are regularly scoured and disturbed by stormflows. Dominant shrubs and herbs on the banks and bed included species such as tall flatsedge (Cyperus eragrostis), lady's thumb (Polygonum persicaria), barnyard grass (Echinochloa crusgalli), and curly dock (Rumex crispus). Along the upper edges of the channel, vegetation consisted of a ruderal upland plant community dominated by mature castor-bean (Ricinus communis) and crimson fountain grass (Cenchrus setaceus). The jurisdictional limits of the USACE and the Los Angeles Regional Water Quality Control Board were identified by the hydrologic indicators, and the OHWM described above. The California Department of Fish and Wildlife jurisdictional limits were determined by the top of banks on each side of the riverine wetland.

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Jurisdictional Delineation Report

Slauson Avenue Bridge over San Gabriel River
Seismic Retrofit Project

Appendix E

Ordinary Resource Management Table

Waters	State	Cowardin Code	HGM_Code	Meas_Type	Amount	Units	Waters_Type	Latitude	Longitude
R-1	California	R4SB4	RIVERINE	Area	5.62	ACRES	A5	33.9667301	-118.0893806

APPENDIX B

Bat Survey Report (Watearth)

Bat Survey Report

Slauson Avenue Bridge Seismic Retrofit Project

Project	Slauson Avenue Bridge over San Gabriel River Seismic Retrofit Project – Parsons
Watearth #	21-056.0a
Subject	Bat Survey Report
Date	September 17, 2024
Prepared by	Lee Vella, Senior Biologist (Main Author)
	Jennifer J. Walker, PE, DWRE, ENV SP, CFM, QSD, LEED AP BD+C

Introduction

Watearth has been assigned to conduct a screening bat survey as part of the environmental impact analysis for the proposed Slauson Avenue Bridge over the San Gabriel River Seismic Retrofit Project. The purpose of the survey is to confirm the habitat and presence or absence of bats under the bridge and determine the necessary mitigation steps if bats are found to inhabit the area.

Project Description

Slauson Avenue, a four-lane major east-west arterial roadway, crosses the San Gabriel River on a bridge that is about 655 feet long and 63 feet, 8 inches wide, in which steel railing and sidewalks line both sides of the bridge. The Los Angeles County Public Works Department (Public Works) is proposing to upgrade the Slauson Avenue Bridge to comply with modern criteria for highway bridge seismic safety. There are no plans to widen the Slauson Avenue Bridge or modify the lane configuration. Instead, the focus will be on strengthening abutment backwalls, installing shear keys, adding hinge seat extenders, installing cable restrainers, and installing infill walls. The project will involve removing existing concrete as needed, drilling through existing concrete and steel, and placing new rebar where necessary. The geographic location of the project site and site vicinity are shown in **Appendix A.**

The Slauson Avenue Bridge spans the San Gabriel River, connecting the cities of Pico Rivera and Santa Fe Springs, as well as the unincorporated area of West Whittier in Los Angeles County. The bridge is located approximately 0.3 miles west of Interstate 605 and 1.75 miles north of the Interstate 605 and Interstate 5 interchange.

The bridge is supported by two abutments and six piers, spanning seven sections with three expansion and four deflection hinges. The bridge is constructed from welded steel plate girders. At this specific location, the San Gabriel River spans approximately 320 feet wide, with a soft bottom contained by trapezoidal levees lined with riprap and grouted stone slopes. The Slauson Avenue Bridge also crosses over railroad tracks owned by the Burlington Northern and Santa Fe Railway and a recreational bike path on both sides of the river. The surrounding areas northeast, southeast, and southwest of the bridge consist mostly of vacant land and single-family residences.

Methodology

Lee Vella, a qualified biologist performed two screening bat surveys to confirm the habitat and presence/absence of bats within the study area. The surveys were performed following the guidelines indicated in the *Level 1: Habitat Potential Screening of Bats and Bridges Technical Bulletin: Hitch Hikers Guide to Bat Roosts.* The surveys were performed from 4:00 to 6:00 p.m., and 8:00 to 9:30 p.m. on July 1, 2024 and July 2, 2024, respectively. The following field equipment was

used as part of the survey: a field notebook, digital camera, flashlight, and binoculars. A flashlight and binoculars were used when viewing higher areas. The qualified biologist surveyed areas that could potentially serve as roosting sites for bat species, assisted by wildlife field guides for species identification.

The weather consisted of clear skies, minimal wind, and dry conditions on both field days, and the temperatures were 73.5- and 72.0-degrees Fahrenheit on July 1st and July 2nd, respectively. The qualified biologist's goal for the surveys was to identify bat habitat and observe bats exiting and entering the areas near the bridge hinges, crevices in bridge joints, abandoned structures, cracks and culverts, and take notes regarding habitat characteristics, presence indicators, and potential behavior for identification purposes.

Literature Review

Of the 25 species of bats in the state of California, 24 have been detected in the south coast ecoregion, many of which appear to have experienced population declines. Of the 25 species, 20 are officially listed as a "species of special concern" by the California Department of Fish and Wildlife. There are no listed species of bats on the *State and Federally Listed Endangered and Threatened Animals of California List* developed by the California Department of Fish and Wildlife via the California Natural Diversity Database. The Lesser long-nosed bat (*Leptonycteris yerbabuenae*) was federally delisted in 2018. Approximately 93% of the rare bats in California either use or are likely to use bridges (Erickson, Gregg A., et al.).

See **Table 1** for the list of special status species of bats within California. The state rank for the imperilment status within California's state boundaries is included in the table below. The potential for occurrence of each special status species of bat within California is described in **Table 1**.

Table 1: Bat Species of Special Concern in California

Bat Species	Potential for Occurrence
Mexican long tongued bat (*Choeronycteris mexicana*) - Critically Imperiled	Very Low Potential. Species are usually found in San Diego County, California. Species possibly using bridges (but not recorded in California).
Lesser long-nosed bat (*Leptonycteris yerbabuenae*) - Critically Imperiled	Very low potential. Species are usually found in Baja California. Species possibly using bridges.
Townsend's big-eared bat (*Corynorhinus townsendii*) - Imperiled	Moderate potential. Species range overlaps with project site. Species are sometimes found on bridges.
Silver-haired bat (*Lasionycteris noctivagans*) -Vulnerable/Apparently Secure	Very low potential. Species range overlaps with project site. Species are not known to use bridges.
Long-eared myotis (*Myotis evotis*) - Vulnerable	Moderate potential. Species range overlaps with project site. Species are sometimes found on bridges.

Bat Species	Potential for Occurrence
Western yellow bat (*Lasiurus xanthinus*) - Vulnerable	Very low potential. Species range overlaps with project site. Species are not known to use bridges.
Arizona Myotis (*Myotis occultus)* - Critically Imperiled	No potential. Species range does not overlap with project site. Species are rarely found on bridges.
Cave myotis (*Myotis velifer*) - Critically Imperiled	No potential. Species range does not overlap with project site. Species are sometimes found on bridges.
Yuma myotis (*Myotis yumanensis*) - Apparently Secure	High potential. Species range overlaps with project site. Species are commonly found on bridges. Previously seen on bridge on August 23, 2015.
Western mastiff bat (*Eumops perotis californicus*) - Vulnerable/Apparently Secure	Very low potential. Species range overlaps with project site. Species possibly use bridges (but not recorded in California).
California leaf-nosed bat (*Macrotus californicus*) - Vulnerable	No potential. Species are rarely found on bridges. Species range does not overlap with project site.
Pallid bat (*Antrozous pallidus*) - Vulnerable	Low potential. Species range overlaps with project site. Species are commonly found on bridges.
Spotted bat (*Euderma maculatum*) - Vulnerable	Very low potential. Species are not known to use bridges. Species range overlaps with project site.
Hoary bat (*Lasiurus cinereus*) - Apparently Secure	Very low potential. Species are not known to use bridges. Species range overlaps with project site.
Western red bat (*Lasiurus frantzii*) - Vulnerable	Very low potential. Species are not known to use bridges. Species range does overlap with project site.
Western small-footed myotis (*Myotis ciliolabrum*) - Vulnerable	Moderate potential. Species range overlaps with project site. Species sometimes found on bridges.

Bat Species	Potential for Occurrence
Fringed myotis (*Myotis thysanodes*) - Vulnerable	Low potential. Species range overlaps with project site. Species sometimes found on bridges.
Long-legged myotis (*Myotis Volans*) - Vulnerable	Low potential. Species range overlaps with project site. Species sometimes found on bridges.
Big free-tailed bat (*Nyctinomops macrotis*) - Vulnerable	No potential. Species range does not overlap with project site. Species possibly use bridges (but not recorded in California).
Pocketed free-tailed bat (*Nyctinomops femorosaccus*) - Vulnerable	No potential. Species range does not overlap with project site. Species possibly use bridges (but not recorded in California).

Source: California Natural Diversity Database, Special Animals List

Previous Bat Assessment Summary

Public Works initiated the proposed Slauson Avenue Bridge Retrofit Project back in 2015 but the project did not proceed to completion. Two bat surveys were performed at the bridge area by other consultants in 2015 and 2016 as part of the initial environmental review process for the proposed project, as summarized below.

- On August 19, 2015 and August 23, 2015, UltraSystems performed a bat assessment at the Slauson Avenue Bridge location as part of the Biological Resources Evaluation Report for the Slauson Avenue Bridge Retrofit Project report. The bat letter report is shown in **Appendix C**. Three Anabats and two SM2 detectors were deployed. During the survey, qualified biologists observed a total of 52 bats from four primary locations. The majority of the bats were seen exiting near the eastern end of the bridge. Specifically, 16 bats were observed exiting from the vicinity of the easternmost hinge, and 33 bats emerged from around the second hinge from the east. All recorded bat calls belonged to two species: Mexican free-tailed bats (Tadarida brasiliensis) and Yuma myotis (Myotis yumanensis). As of 2024, Yuma myotis (Myotis yumanensis) is now listed as a species of special concern within California.
- On March 30, 2016, Rahn Conservation Consulting LLC performed bat surveys for the Slauson Avenue Bridge location as part of the *Bat Surveys and Bridge Assessment: Slauson Avenue Over San Gabriel River* report (**Appendix D**). Additional inspection was performed on bridges along the San Gabriel River up to 2.5 miles north of the Slauson Avenue Bridge. Three bat species were detected in the project location including the Western pipistrelle (*Parastrellus hesperus*), the Mexican free-tailed bat (*Tadarida brasiliensis*), and the Big Brown Bat (Eptesicus fuscus). There were 35 to 40 bats observed, with most roosting in the expansion joints on the east and west ends of the bridge.

Following the 2016 survey, Rahn Conservation Consulting prepared the *Bat Exclusion and Monitoring Plan: Slauson Avenue Over San Gabriel River* in 2017 (**Appendix E**). The bat exclusion

monitoring plan also provides strategies to avoid, minimize, and mitigate any potential impacts to bats during construction activities associated with the project.

Field Survey and Findings

The qualified biologist observed cracks in the concrete suitable for footholds in roosting. The qualified biologist also observed expansion joints underneath the bridge, providing suitable habitat for bats. The bridge spans a relatively wide floodplain that offers excellent areas for roosting. The Slauson Avenue Bridge also has the potential to provide an ample food supply and may offer opportunities for maternity roosting. Bat maternity season is typically from April 1 to August 31.

Girder structures often serve as night roosts and occasionally as day roosts in expansion joints. Around 60% of documented roosts utilize girder designs, which are recognized for their high suitability for bats (Erickson, Gregg A., et al.). Concrete structures commonly provide night roost habitat and occasionally provide day roosting opportunities. The area below and within the bridge is shaded from light sources, which is also favorable for bats. See **Appendix B** for field photos of the site.

Yuma myotis (*Myotis yumanensis*) and the Mexican free-tailed bat (*Tadarida brasiliensis*) have a high potential of occurring at the site due to suitable habitat, and previous confirmation of presence; however, the Mexican free-tailed bat (*Tadarida brasiliensis*) is not listed as a species of special concern. No bat species were observed, and no high-pitched squeaking or chirping was heard during the two field surveys performed on July 1, 2024 and July 2, 2024. Guano stains were observed under joints and on the sides of pier caps.

The qualified biologist could not confirm with binoculars if the guano stains were older or more recent stains due to the inaccessible distance from the piers. Surface water from the San Gabriel River prevented the qualified biologist from determining if the guano stains were fresh by limiting the accessible areas for the surveys. Guano stains confirm that bat habitat exists and shows that bats have either previously existed in this location or currently exist in this location. No bats were observed exiting or entering potential roosting sites underneath the bridge. The field surveys could not definitively confirm the presence or absence of bat species; however, suitable habitat was identified. An updated Bat Management Plan is recommended to be created no less than one year prior to the commencement of construction activities, as outlined in the recommendations section. No abandoned structures were observed in the area. The surrounding areas around the Slauson Avenue Bridge were also surveyed for bat habitat and presence indicators. The San Gabriel River underneath the Slauson Avenue Bridge contains flowing water and isolated pools of stagnant surface water, creating suitable habitat and a potential steady supply of food for bat species.

The Slauson Avenue Bridge contains suitable habitat for bats, and presence indicators were observed; however, no bat species were observed during the two field surveys. Because guano stains were evident, but bats were not found during the field surveys, the site could be serving as a migratory stopover site for bat species. The qualified biologist also observed Barn Swallows (*Hirundo rustica*) and White-throated Swifts (*Aeronautes saxatalis*), which are both protected under the Migratory Bird Treaty Act (MBTA), nesting underneath the bridge.

Conclusions

The surveys conclusive notes are summarized below:

1. **Previous Studies**: Bats were previously found at Slauson Avenue Bridge in the 2015 and 2016 surveys performed by UltraSystems and Rahn Conservation Consulting LLC, respectively. Following the 2016 survey, a bat exclusion and monitoring plan was prepared by Rahn Conservation Consulting LLC in 2017, which details strategies to avoid, minimize, and mitigate any potential impacts to bats during construction activities associated with the project.
2. **Presence Indicators:** Bat guano stains were evident under the joints and on the sides of pier caps. The qualified biologist was unable to determine if the stains were fresh or older stains due to the distance from the piers and joints and the inaccessibility underneath the bridge due to the surface water from the San Gabriel River. Guano stains confirm that bat habitat exists and indicates that bats have previously existed or currently exist underneath the Slauson Avenue Bridge.
3. **Habitat Assessment:** Based on the previous surveys and the current survey, it is evident that the Slauson Avenue Bridge contains suitable habitat and footholds for bat roosting, even though bats were not observed during the two field surveys performed on July 1, 2024 and July 2, 2024.

Recommendations and Mitigation Measures

Public Works plans to retrofit the Slauson Avenue Bridge in 2027, with construction expected to last approximately six months. The proposed activities could potentially impact bats that may inhabit the area beneath the bridge. In light of the construction schedule and the potential impacts on bats and their habitat, the following mitigation measures are being proposed:

1. **Bat Focused Survey:** A focused emergence bat survey to identify species and size of the colony occupying the bridge area should be conducted during the peak of the maternity season (one survey in May/June, one survey in July) at least one year prior to the start of construction.
2. **Bat Management Plan:** An updated Bat Management Plan shall be prepared by a qualified bat biologist no less than one year prior to the commencement of construction activities that will include specific avoidance and minimization measures to reduce impacts to roosting bats. The Bat Management Plan will incorporate the results and recommendations provided in the previous focused bat survey reports and plans (UltraSystems 2015; Rahn 2016, 2017), and will include the results of recent surveys (including a focused emergence survey to be conducted during the maternity season prior to the start of construction activities), and will provide any necessary revisions to previous recommendations based on current site conditions and any updates to industry-standard bat mitigation practices since the previous reports were prepared. The Project-specific Bat Management Plan will include any of the following as necessary and appropriate:, emergence and/or acoustic surveys for bats during the maternity season (April through August) prior to construction to assess the potential for bat maternity roosts in the Survey Area, and pre-construction surveys for roosting bats including acoustic monitoring. The Bat Management Plan shall also include recommendations to minimize impacts to roosting bats including the implementation of no-disturbance buffers, tree- and cliff-swallow nest removal protocols, passive exclusion of bats outside of the maternity and hibernation seasons (if impacts are unavoidable), and/or species-specific replacement alternative roosting habitat. If necessary, the Bat Management Plan will

also include a revised Exclusion Plan that will incorporate the recommendations provided in Rahn 2017 and reflect current site conditions and industry standards.

3. **Worker Environmental Awareness Program (WEAP):** Before construction activities begin, a qualified biologist must develop and deliver a Worker Environmental Awareness Program (WEAP) that outlines the project's biological constraints and bat species concerns. All personnel working on the site must complete the training before starting any work. The WEAP should include findings from pre-construction surveys, information on sensitive biological resources potentially present, project restrictions, avoidance and protection measures, any required mitigation, and individual responsibilities. It should also detail the procedures for reporting encounters with sensitive wildlife, including notifying either the biological monitor or the construction supervisor, who will then inform the biological monitor.

   After completing the WEAP, workers must sign a form acknowledging their understanding of and commitment to the program's protection measures and rules. The construction supervisor must maintain a record of all trained personnel on-site. Any new workers added later must also receive training before beginning work. The biologist should provide written hard copies of the WEAP to the construction supervisor.

4. **Biological Monitoring:** A biological monitor must be present on-site to oversee activities involving resources in jurisdictional areas. This ensures that impacts remain within approved limits and reduces the risk of unintended effects on special-status bat species. The biological monitor is responsible for confirming that all biological minimization measures, best management practices (BMPs), avoidance, and protection measures specified in project permits, approvals, licenses, and environmental reports are implemented and followed, specifically in relation to the findings of the California Environmental Quality Act Initial Study. Monitoring should continue until sensitive habitats and jurisdictional areas are cleared or otherwise impacted and should occur periodically throughout the construction phase, as necessary.

   All observations of special-status species must be documented and mapped in monitoring logs, which should be completed daily. Records of the species must be submitted to the California Natural Diversity Database (CNDDB). The biological monitor has the authority to temporarily halt construction activities and non-emergency actions if special-status species are identified and at risk. The monitor should promptly notify the relevant resource agency and seek consultation if necessary. If possible, the monitor should relocate the species outside the work area to prevent harm. Construction can resume if Public Works and the consulted resource agency determine that the activity will not adversely affect the species. Additionally, if a dead or injured protected bat species is found on-site, the appropriate agencies must be notified. Written notification must be submitted within 15 days of the discovery or incident and must include the location of the carcass, a photograph, the cause of death (if known), and any other relevant information.

5. **Tree Avoidance and Removal Process:** Prior to the removal or modification (e.g., trimming) of any trees, they must be assessed for their potential as bat-roosting habitat by a qualified bat biologist. Trees identified as suitable for bat roosting can only be trimmed during the bat activity seasons of September 1 to October 15 or when evening temperatures are above 45 °F and rainfall is less than 0.5 inches in the previous 24 hours; or between March 1 and April 15, under the same weather conditions.

a. If tree removal or modification is necessary during the maternity season, a qualified bat biologist must conduct a focused emergence survey of the tree(s) within 48 hours before the scheduled work. If a maternity roost is found, whether solitary or colonial, it must remain undisturbed until after the maternity season or until a qualified biological monitor confirms that the roost is no longer active.

b. For trees with suitable bat roosting habitat scheduled for removal or relocation outside of the maternity season, the removal should follow the specified weather conditions and be conducted using a two-step method:

    i. Vegetation and trees within the area that are not suitable for roosting bats should be removed first to decrease the likelihood of bats using the habitat.

    ii. The two-step tree removal process will be carried out over two consecutive days under the supervision of a qualified bat biologist. On Day 1, small branches and limbs without cavities, crevices, or exfoliating bark (or outer fronds in the case of palm trees), as identified by the biologist, will be removed using chainsaws only (no heavy equipment such as dozers or backhoes). On Day 2, the remaining part of the tree will be felled or removed. This method aims to disturb the tree with noise and vibration on Day 1, encouraging any day-roosting bats to leave before the tree is completely removed on the following day, thereby reducing the chance of reoccupation.

Preparers

Lee Vella, Senior Biologist

- Lee Vella is an accredited wildlife biologist with field survey experience for avians and other species for Los Angeles County Public Works and elsewhere in Southern California. Vella supports Watearth's environmental and permitting projects through site inspections, species identification, and interpretation of field data for technical reports. As a wildlife biologist, Vella researches pest and wildlife control issues and conveys information of potential impacts to wildlife. Vella's experience includes work for Southern California Gas, Los Angeles County Beaches and Harbor, several projects Los Angeles County Public Works, City of Palm Springs, and more.

Jeremy Liby, QA/QC Review

Jennifer J. Walker, Senior QA/QC Review

Adam Wolven, Technical Editor

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Federal Transportation Agency/State Department of Transportation (DOT) Preliminary Guidelines for Using the Bridge/Structure Bat Assessment Form. April 2020.

Appendices

Appendix A – Exhibits - Project Location/Project Area Maps

Appendix B – Site Visit Photo Log

Appendix C – 2015 Bat Letter Report

Appendix D – 2016 Bat Surveys and Bridge Assessment

Appendix E – 2017 Bat Exclusion and Monitoring Plan

Appendix A

Exhibits

Exhibit 1 - Project Location Map

Exhibit 2 - Project Area Map

Data Source: ESRI; Parsons 2023. Date Last Saved: 8/1/2024

Appendix B

Site Visit Photo Log

Photo Log – Bat Survey

Slauson Avenue Bridge over San Gabriel River Seismic Retrofit Project

Photo 1:

On east end of bridge looking west, staining seen on piers, directly underneath the bridge – July 1, 2024 at 5:30PM.

Photo 2:

On east end of bridge, looking north at San Gabriel River, BNSF railroad tracks behind – July 1, 2024 at 5:30 PM.

Photo 3:

Underneath the bridge, on east end of bridge, looking up at expansion joints – July 1, 2024 at 5:30 PM.

Photo 4:

Underneath bridge, on east end of bridge, looking west - July 1, 2024 at 5:30 PM.

Photo Log – Bat Survey

Slauson Avenue Bridge over San Gabriel River Seismic Retrofit Project

Photo 5:

On west end of bridge, looking east, monitoring for bat activity - July 2, 2024 at 7:00 PM.

Photo 6:

On west end of bridge, looking east and towards piers, staining seen on piers - July 2, 2024 at 7:00 PM.

Watearth™

Bat Survey Report

Slauson Avenue Bridge Seismic Retrofit Project

Appendix C

2015 Bat Letter Report

Stephanie Remington
PO Box 12383 • Costa Mesa, CA 92627
(949) 400-0675 • stremington@earthlink.net

1 October 2015

Dear Michelle,

The purpose, methods, and results of the bat survey at the Slauson Avenue Bridge over the San Gabriel River on 23 August 2015 are as follows:

Background
Of 24 bat species known to occur in the south coast ecoregion, 16 have been documented roosting in bridges (Table 1). Ten of these are California special status species and one is federally endangered.

Table 1.

Latin Name	Common Name	Known Bridge Roosting
Family Phyllostomidae	**Leaf-nosed bats**	
Choeronycteris mexicana [1]	Mexican long-tongued bat	X
Leptonycteris yerbabuenae [4]	Lesser long-nosed bat	
Macrotus californicus [1,2]	California leaf-nosed bat	X
Family Molossidae	**Free-tailed bats**	
Eumops perotis [1,2]	Western mastiff bat	
Nyctinomops femorosaccus [1]	Pocketed free-tailed bat	?
Nyctinomops macrotis [1,2]	Big free-tailed bat	X
Tadarida brasiliensis	Mexican free-tailed bat	X
Family Vespertilionidae	**Mouse-eared bats**	
Antrozous pallidus [1]	Pallid bat	X
Corynorhinus townsendii [1,2,3]	Townsend's big-eared bat	X
Eptesicus fuscus pallidus	Big brown bat	X
Euderma maculatum [1,2]	Spotted bat	
Lasionycteris noctivagans	Silver haired bat	X
Lasiurus blossevillii [1]	Western red bat	
Lasiurus cinereus	Hoary bat	
Lasiurus xanthinus [1]	Southern yellow bat	
Myotis californicus	California myotis	X
Myotis ciliolabrum [2]	Small-footed myotis	X
Myotis evotis [2]	Long-eared myotis	X
Myotis lucifugus	Little brown myotis	X
Myotis thysanodes [2]	Fringed myotis	X
Myotis volans [2]	Long-legged myotis	X
Myotis yumanensis [2]	Yuma myotis	X
Parastrellus hesperus	Canyon bat	X

[1] California Department of Fish and Game, Mammal of Special Concern or Sensitive Species
[2] Former Candidate (Category 2) for listing under U.S. Endangered Species Act; Species of Concern
[3] Candidate for Threatened Status in California
[4] Listed under ESA as Threatened/Endangered

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Purpose

On 19 August Sloane Seferyn noted guano deposits below the hinges of the Slauson Avenue Bridge during a site inspection of this bridge and the adjacent railroad bridge. The bat survey on 23 August was conducted to determine the following:

1) Which bat species are currently roosting in the bridge?
2) What type of roost is present?
3) How many individuals are currently occupying the bridge?

Methods

An observer with an ultrasonic detector was stationed at each of the four hinges. An additional observer was stationed at the ponded area at the northwest end of the railroad bridge. Three Anabats and two SM2 detectors were deployed (Figure 1). The Anabat is a broadband detector with a receiver sensitive to sound frequencies ranging from the high end of human hearing upwards to frequencies substantially higher than those audible by humans (4kHz to >200 kHz; maximum human hearing is approximately 17-20 kHz). The signal is stored on a CF card for later analysis of the time/frequency data and, in real time, can be converted to a pulse that is audible to humans. The SM2 detectors detect audio pulses within a similar frequency range. The signals are recorded onto a flash card and can be converted into either time/frequency sonograms or into full spectrum sonograms.

Each observer counted the numbers of bats exiting the hinge adjacent areas of the bridge and recorded echolocation calls on the ultrasonic detectors for later identification and analysis.

Figure 1. Observer/detector locations during the emergence survey at the Slauson Avenue Bridge.

The temperature was 74-76°F throughout the survey. Wind speed was 0-3mph at all stations except the easternmost hinge, which had a slightly stronger breeze. The sky was clear with a waxing gibbous moon (60% illuminated).

Results and Discussion

A total of 52 bats from four main areas were counted between 1930-2000 hours. The majority were observed exiting near the eastern end of the bridge. A total of 16 individuals were observed exiting from the vicinity of the easternmost hinge and 33 were observed emerging from the vicinity of the second hinge from the east. Three of the 33 were observed exiting the hinge itself, near the northern edge of the bridge. The remaining 30 at this station were observed emerging from an area beneath the deck at the north side of the bridge adjacent to where the railroad bridge passes beneath Slauson Avenue.

Three individuals exited the westernmost hinge, two of which emerged from the northern edge of the hinge. The specific exit point of the third individual was not observed, but it appeared to have emerged from the same location.

No bats were observed emerging from the second hinge from the west.

All recordings were of two species: Mexican free-tailed bats (*Tadarida brasiliensis*) and Yuma myotis (*Myotis yumanensis*). Neither is listed as a sensitive species in California. All of the bats emerging from the bridge appeared to be *T. brasiliensis*. The *M. yumanensis* arrived soon after sunset, and were – therefore – roosting nearby, but their roost location is unknown.

The Mexican free-tailed bat is a highly colonial species that may form enormous maternity colonies (congregations of females who gather in the spring to give birth and raise young; these typically disband in the fall). This results of this survey indicate a possible maternity colony toward the tail end of the maternity season.

T. brasiliensis is a fast-flying species, known for long distance foraging high above the ground. They are known to consume large numbers of agricultural pests, mostly moths, but also feed on a variety of other insect species.

T. brasiliensis is known to roost in a variety of roost types throughout southern California, tends to congregate in large numbers in suitable roosts, and is known to adapt very well to urban environments. Colony size can be millions of individuals, but in southern California, the largest known roost of this species has been estimated at approximately 10,000 individuals. In this region roost size commonly ranges from a few dozen to several hundred individuals, with a few numbering in the thousands. Natural roosts commonly used are caves, cliffs, and rock crevices. They are commonly found roosting in human-made structures, as well (often transportation structures), and are known to use swallow's nests.

The Mexican free-tailed bat mates in the spring. Maternity colonies may disband in the fall, but very large colonies of this species persist throughout the fall and sometimes into winter. It is considered a year-round resident in southern California, but there is some anecdotal evidence that migratory

populations from other locations may arrive in fall and stay for some period of time before leaving again. *T. brasiliensis* is active throughout the winter in southern California.

The roosting bats may represent the remnants of a maternity colony that is beginning to disband. *T. brasiliensis* often increase in numbers at certain roosts in the fall. Either or both may be the case here, but it is impossible to determine from a single survey. These are the two most common urban-adapted bats in southern California. Other species may roost in the bridge at other times of the year, but – again – this is impossible to determine from a single survey.

M. yumanensis, like *T. brasiliensis*, considered a highly urban adapted species. Its presence in an area is highly associated with the existence of permanent water sources. In natural environments, this includes primarily rivers and streams. They are found in a variety of ponded habitats in southern California. This species specializes in the capture of aquatic emergent insects, but will also feed in adjacent areas if insect concentrations are higher there. *M. yumanensis* roosts in a variety of natural and human-made structures, including transportation structures.

This species mates in the fall, stores sperm over the winter and ovulates in the spring. *M. yumanensis* forms maternity colonies in the spring. As with *T. brasiliensis*, females typically have one pup a season and the young of the year are capable of flight by midsummer. Roost size may comprise several thousand individuals, but in southern California it is common to find colonies ranging in size from a few individuals to a few hundred.

Mitigation

Based on observations from the 23 August survey, construction on the new bridge design will potentially impact bats roosting in the bridge directly, as well as indirectly.

The new design will impede exit and entry into the hinges, except at the extreme edges (Figure 2). The five feet of remaining space below the hinge will limit the distance bats can drop when emerging to less than half the minimum typically present in roosts chosen by *T. brasiliensis*. This will most likely limit the portions of the hinges used for roosting by *T. brasiliensis*, and possibly even by more maneuverable species, such as *M. yumanensis*, to the few feet of hinge at the extreme ends.

Figure 2. The portion of the hinges that will be modified (blue) unmodified (yellow) during the project.

Since most of the emerging bats were observed exiting the eastern end of the bridge, but the specific exit points were not identified, a second exit survey would help determine the extent of the bridge requiring exclusion and how much alternative roosting habitat would be necessary. Without a second survey (using 2-4 observers) it would be necessary to assume that the full length of each hinge was potential roosting habitat and, therefore, build and install exclusion devices for the full length of each hinge. If CDFW requires a 1:1 ratio of alternative roosting habitat placed on the bridge to replace the potential habitat lost, then it would be the full length of each hinge. The new design currently has no new concrete crevices to replace the length effectively lost from potential available roosting habitat.

If, for example, results of the second survey indicated that bats were all (or mostly) exiting from the edges of the hinges that will not be directly impacted, that would dramatically decrease the time and cost of both exclusion and installation of alternative habitat.

The county has been apprised of the situation described above and is evaluating the possibility of authorizing a second survey.

Alternative Roosting Habitat

There are a variety of post-bridge-construction designs that may be used for providing alternative roosting habitat for bats in highway structures. Two that have been used successfully in southern California are shown in Figures 3 and 4.

Figure 3. St. John's River Bridge design shown on the Santa Clarita River Bridge.

The advantages of this design are that its length can be adjusted to fit the specifications of the existing bridge and it can house a much larger number of bats than the simple rectangular panels often employed for housing bats.

A potential limitation is the amount of uninterrupted vertical space existing on concrete surfaces.

A second possible structure is a modified Oregon Wedge. This is a rectangular panel, modified to include a ledge for pups (Figure 4, Modified Oregon Wedge).

Figure 4. Modified Oregon Wedge bat roosting panels.

A potential advantage of this design is that they are much smaller than the St. John's River design and so may be easier to install. Potential disadvantages are that a lot of them may be required if there is a 1:1 replacement required without data from a second survey.

Any alternative roosting habitat should be installed either on the bridge or within line of sight of it and as soon as possible, so that

bats currently roosting in the bridge have time to notice the new structures and investigate and use them.

A third design that has been used successfully in other states is the Texas Bat Abode (Figure 5).

Figure 5. Texas Bat Abode modified for a steel I-beam bridge (from Bats in American Bridges, 1999).

An advantage of this design is that materials are less expensive than the other designs. Disadvantages are that wood lacks the thermal properties of concrete, it degrades more quickly, and requires more maintenance.

In a discussion with Los Angeles County Department of Public Works (LACDPW) of the pros and cons of each design, LACDPW chose the Texas Bat Abode. To maximize potential for its successfully being used by roosting bats, the following terms were agreed upon:

1) Construction on the Slauson Avenue Bridge Retrofit Project will begin in 2017.
2) Installation of the Texas Bat Abode (TBA) will occur in October 2015.
3) The wood panels of the TBA will be constructed of marine-grade plywood, a minimum of ¾" thickness (3/4" – 1") to maximize longevity and minimize warping of the panels.
4) The panels will be installed flush against the lower deck of the bridge to ensure that there is no air flow from the top.
5) Installation of the TBA will be overseen by a bat biologist.
6) The panels of the TBA will be inspected at least once, in spring 2016.

7) If the panels are not used by bats by 1 June 2016, the Oregon Wedge option I outlined earlier will be installed by 30 June 2016.

Exclusion

Bats may be excluded from areas that will be impacted, directly or indirectly, by construction operations. The process involves creation of, essentially, one-way doors that allow bats to leave but not re-enter the roost. The design of these materials depends on the structure of the specific areas being excluded.

The areas to be excluded are generally determined by a combination of exit surveys that identify specific exit points and inspection from a lift. If visibility from the lift allows full, unobstructed inspection of the crevice, then areas that definitely have no bats inside them may be plugged. Areas where bats are present or visibility is incomplete or obstructed would have exclusion materials placed on them. Construction and installation of exclusion materials is more costly (time, personnel, and materials) than plugging. A second exit survey could narrow down the potential area requiring exclusion.

Exclusion, if necessary, should be conducted in the fall of 2016* after bats have had an opportunity to find and use the alternative roosting panels and after the young of the year can fly. It should be done as soon as possible after an emergence count (within a week is best). An exit count should be conducted on the night the exclusion materials are installed to ensure that the same number of bats exit as were present prior to the exclusion. The materials are left in place for 7-10 days to ensure that all bats have left the roost. Fall is the best time of year to conduct exclusions to avoid trapping flightless young in the roost. If the exclusion is delayed until the weather gets cold, then hibernating individuals may be trapped inside.

Please let me know if you have any questions.

Best,

Stephanie Remington

* Assuming project construction will begin in 2017.

Watearth™

Bat Survey Report

Slauson Avenue Bridge Seismic Retrofit Project

Appendix D

2016 Bat Surveys and Bridge Assessment

Bat Surveys and Bridge Assessment:

Slauson Avenue Over San Gabriel River

March 31, 2016

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1.0 Summary

Bat surveys and assessments for the Slauson Avenue over San Gabriel River Bridge were conducted on March 30, 2016. Assessments also included inspections of bridges up to 2.5 miles north and south of the project site (along the San Gabriel River). A total of three bat species were detected in the project area. The western pipistrelle (*Parastrellus hesperus*) and the Mexican free-tailed bat (*Tadarida brasiliensis*) were observed using the Slauson Avenue Bridge. The Big Brown Bat (*Eptesicus fuscus*) was observed in the area (but not roosting in the bridge). There were approximately 35-40 bats using the bridge as a day roost, with most bats roosting in the first expansion joints located on both the east and west side of the bridge. At least five bridges located within 2.2 miles north and south of Slauson Ave. had sufficient habitat for roosting bats, with at least three bridges having existing resident populations.

2.0 Introduction

California has twenty-five bat species, eighteen of which are classified as rare and/or considered Species of Special Concern by the California Department of Fish and Wildlife, Species of Concern by the U.S. Fish and Wildlife Service or Sensitive by the U.S. Forest Service and Bureau of Land Management. Many of these species are known to use bridge roosts and have behavioral and ecological interactions with the riparian habitat types and infrastructure that are located at or near the project site for the Slauson Avenue Bridge.

Bat surveys were conducted to determine the status of resident bats and their potential use of the project, including presence, relative abundance, and distribution of species within the project area. Surveys were performed during times of potential activity periods to maximize our understanding of bat use at the Slauson Avenue Bridge. Biologists Dr. Matt Rahn and Kelcey Stricker conducted a survey of the bridge on March 30, 2016 using a combination of audio and visual techniques. The surveys focused on answering the following questions:

- Which species of bats use the bridge?
- What is the relative abundance of these species?
- What is approximate distribution of these species in the bridge?
- Are any sensitive species of bats roosting in the bridge?
- Is the project area (area around the bridge) used by sensitive bat species in the course of its normal movements and activities (e.g. drinking, foraging, migrating, or commuting)?
- Are there any bridges or other features that can support (or currently support) bat populations within 2.5 miles of the Slauson Avenue Bridge (along the San Gabriel River)?

3.0 Methods

The study and monitoring of bats has been accomplished through a variety of techniques, each of which have strengths and weaknesses. The type of data available to an observer is largely dependant on the survey techniques used. While trapping (using mist nets or harp traps) is often used as a survey and monitoring tool, many bats fly just above the height of the traps, or are able to avoid them altogether. Consequently, many bat ecologists have turned to other tools for assessing bats and habitat.

For these surveys, we employed the use of acoustic survey techniques, visual surveys, and thermal imaging. The AnaBat™ system (developed by Chris Corben and Titley Electronics) is designed to help users identify species of bats based on their unique echolocation call frequency. The use of AnaBat monitoring equipment to record and analyze bat echolocation calls is well documented in an array of scientific journals, becoming a widely accepted technique. Basically, the system converts the ultrasonic echolocation signals of bats into audible electronic signals that can be recorded and processed to assist in identification of the species. Most bats have very unique, readily identifiable echolocation calls. As with many tools, AnaBat has its limitations, including the inability to accurately assess abundance and behavior (e.g. roosting, foraging, drinking, etc). To compensate for this, we used visual inspections and thermal imaging cameras designed by Raytheon and MSA to visually monitor the bat community in the project area. These devices have significant advantages over traditional IR cameras, namely the ability to record bats from farther distances and much better resolution for exit and habitat surveys. By combining observational studies with broader acoustic monitoring, we are able to assess areas with greater accuracy, significantly increasing our confidence regarding the presence and absence of bats and their associated use of the bridge.

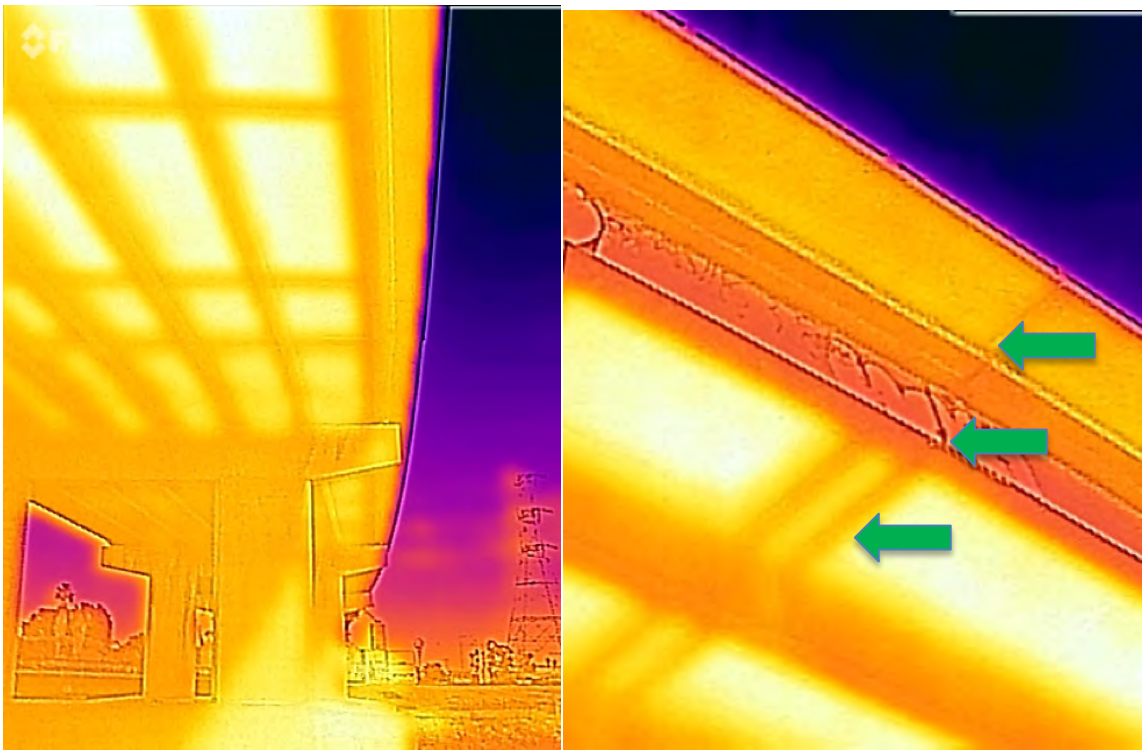
4.0 Results

4.1 Slauson Bridge Survey

Biologists Stricker and Rahn met on site at 17:00 to conduct visual inspections of the bridge, and to meet with the County project engineer and UltraSystems consultants. Meteorological data was collected during the survey period, ensuring that data were collected during ideal weather conditions conducive to bat activity with limited moonlight, no precipitation and low wind speeds (0-2mph). Ambient air temperature was 64.6 ˚F at the start of the survey (19:00), and 63.6 ˚F at the end of the survey (20:15).

Biologists Stricker and Rahn were positioned at the east and west sides of the bridge, equipped with both thermal cameras and AnaBat echolocation detectors. First emergence occurred on the west side of the bridge at 19:12, with the remaining bats emerging from the bridge between 19:20 and 19:50. Based on the number of echolocation calls recorded and thermal observations, the total estimated number of bats using the project area was between 35-40 (Figure 1).

FIGURE 1. Example of thermal images from Slauson Avenue Bridge and approximate locations of roosting bats (shown in green arrows).



Most of the bats were roosting in the first expansion joint located on the west side of the bridge (with approximately 15 Mexican free-tailed and 3-5 Pipistrelles). Few bats were in the center expansion joints of the bridge (approximately 5-10 Mexican free-tailed bats). The east gap had 5-10 Mexican free-tailed bats. Roosting locations are shown in the red highlighted areas within the expansion joints of the bridge. For each area where bats were observed, roosting was generally located in the expansion joint near the edge of the bridge on both the north and south sides. The Pipistrelles, however, were generally seen roosting and emerging closer to the center of the bridge.

4.1 Habitat and Use Assessment

Bats emerging from the Slauson Avenue Bridge spent little time foraging and generally flew north along the San Gabriel River (with few bats flying south). In addition to the two species recorded using the bridge, the Big brown bat was detected near the bridge but was observed coming into the active survey area from offsite roosts located to the north. The area south of the bridge was actively used by offsite bats (e.g. not from Slauson bridge) for foraging. Active foraging, and water resource, and commuting habitat was identified during surveys and is located throughout the San Gabriel River/riparian area.

Biologists Stricker and Rahn also assessed all bridges located within 2.5 miles (North and South) of the Slauson Avenue Bridge along the San Gabriel River. Five unique bridges were identified as having sufficient habitat and infrastructure for roosting bats. These sites contained several sections (mostly expansion joints) of the type that could support bat roosting. Three of the bridges surveyed had active resident populations of bats (including Mexican free-tailed bats; **Figure 2**).

Aside from the bridges surveyed, additional bat habitat could include trees in the riparian area and larger culverts that feed water into the main riparian channel from areas east and west of the river. Bats were observed using the river corridor and surrounding habitat during the surveys for foraging, water resources, and commuting.

Figure 2. Existing or potential bat roosts/bridge locations observed within 2.5 miles of the Slauson Avenue Bridge along the San Gabriel River.

Bats were observed at three of the adjacent bridges along the San Gabriel River; two bridges contained significant features that could potentially support bat roosting.

5.0 Recommendations and Conclusions

The Slauson Avenue Bridge provides bat roosting habitat. No sensitive species were recorded using the site. Based on the surveys conducted by Remington (2015) and these surveys (conducted by RCC), it appears that the majority of the bats roost on the east and west sides of the bridge, in expansion joints.

It appears that the seismic retrofitting of the bridge and installation of hinges could disturb actively roosting bats. Based on the design of the hinges, it does not appear that the retrofit will constitute a permanent impact to bat roosts (once installation is completed). When construction activity creates a disturbance to known bat roosts, there are generally two options for mitigation: onsite and offsite. Onsite mitigation typically includes the construction of bat roost habitat through the installation of bat boxes or more complex structures to facilitate alternative onsite roosting locations. Since no permanent habitat loss is anticipated at the Slauson Avenue Bridge, sufficient offsite alternative roosting opportunities exist at adjacent bridges to provide sufficient mitigation for the temporary construction impacts proposed.

Local surveys demonstrated that significant offsite mitigation opportunities exist both during and after project completion. In this case, in order to facilitate construction and provide appropriate offsets for potential disturbance, we provide three potential options that would avoid, minimize, and mitigate disturbance to the bats, largely based on timing of activity and offsite mitigation. Again, sufficient bat roosting habitat already exists at nearby bridges and culverts (with documented use) and should provide ample roosting habitat for the potential displaced bats that are currently using the Slauson Avenue Bridge.

5.1 Exclusion Devices

Bat Conservation International and our own firm (RCC) has observed that bats occupying bridge crevices often ignore workers in the general area. However, when construction is in the area directly adjacent to the bat roosts, disturbance can occur (along with potential concerns of worker exposure and risks). Therefore, it is recommended that the project include the installation of exclusion devices if construction occurs during the active bat season. Excluding bats from a bridge roost will allow the animals to exit unharmed, but not re-enter the site during construction. Given the complexity of the expansion areas at Slauson Avenue Bridge, the transiency of roosting locations, and logistical constraints in identifying exact roosting locations (and preferred entrances and exits), it is recommended that exclusion devices be installed to encompass the entire edge of the expansion joint and length of the bridge.

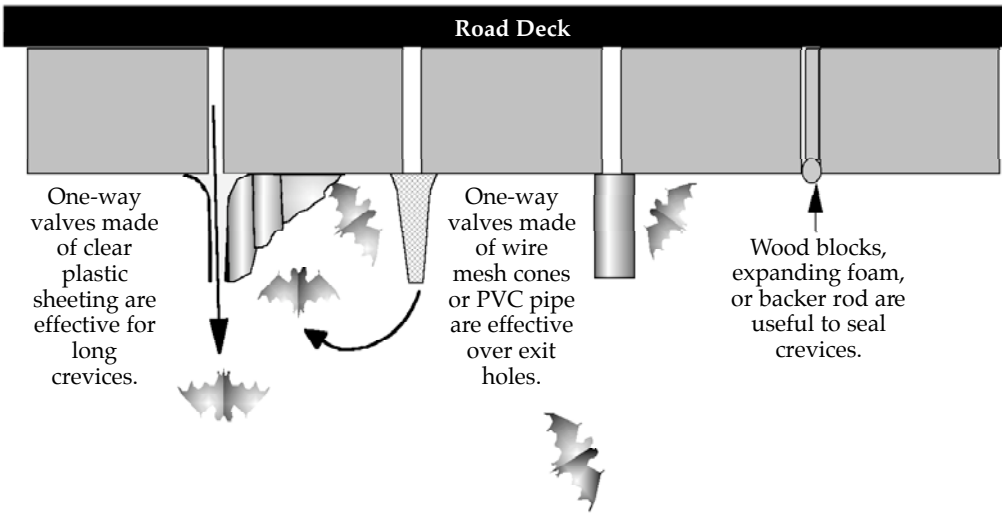
A one-way passage can be placed over the main exit points to prevent re-entry, focusing on the edge of the bridge, and the length of the expansion joint under the bridge (**Figure 3**).

FIGURE 3. *Location of western expansion joint showing the edge of the bridge where the bulk of the roosting occurred, and the length of the expansion joint (where some bats were observed exiting from the middle of the bridge). Green arrows indicate location of bat roosts and observed areas of emergence.*

Exclusion devices can include wire mesh cones, PVC, or strips of clear plastic sheeting (**Figure 4**). Access to other entry areas into the expansion joints can be minimized by filling them with suitable material, such as wood or expanding foam. Care should be taken to avoid trapping bats into the roost (without a suitable one-way passage for exit).

The installation of the exclusionary devices should be done in conjunction with a qualified bat biologist to ensure proper design and installation. Biologists should also provide subsequent monitoring to ensure that the devices have successfully excluded bats from the section of the bridge. Plastic mesh netting or plastic sheeting can be used to create a one-way valve for the expansion joints. The mesh should be made of thick plastic with at least ¼ inch screening; plastic sheeting should be at least 4mm thick. For most applications, enclosures can be installed by affixing or gluing wood slats along the openings of the cavities and stapling sheet plastic or mesh in place. The two lengths of the plastic or mesh sheeting (hanging below the expansion joint) should be long enough that they come together and prevent bats from reentering the site. Given the length of the expansion joint, it may be necessary to staple the ends together every few feet to ensure that sufficient exclusion is achieved.

FIGURE 4. Examples of exclusion devices and one-way passages for bridges (from Bat Conservation International).



As discussed earlier, offsite roosting locations identified at bridges north and south of the Slauson Avenue Bridge can provide potential suitable offsite mitigation for any potential construction-related impacts to roosting bats. In addition to these off site solutions, the following options are provided (in order of preference) to avoid, minimize and mitigate those potential impacts to bats roosting in the bridge.

Option 1: Construction activity starts in Fall 2016 – full bat exclusion

- Bats typically leave their summer bridge roosts to overwinter in more protected locations.
- Maintenance should be conducted between November 1 and February 1 and will generally avoid disturbance or impact
- Bat biologists should confirm that the bats have departed the bridge roost by mid- to late-October
- If any bats remain in the bridge, exclusion devices should be installed and monitored prior to construction beginning on those expansion joints that have bat roosting activity – weekly monitoring of the exclusion devices is recommended
- Alternatively, construction activity can occur at the expansion joints without bat roosting, and proceed to the other expansion joints after the bats have departed for the year

Option 2: Construction activity starts in Spring/Summer 2016 – phased bat exclusion

- Install retrofit hinges and allow construction at one expansion joint at a time
- Install exclusion devices (with one-way exits) along the entire expansion joint and edges where hinge installation will occur
- Allow bats to exit the site before construction commences; bat biologists should confirm the devices were successful at allowing bats to leave, and prevented them from reentering the site - weekly monitoring of the exclusion devices is recommended
- Allow bats to continue roosting in other expansion joints that are not currently under construction
- Once the retrofit of the first expansion joint is complete, remove all exclusion materials from the first expansion joint and install exclusion devices on the next expansion joint
- Offsite and onsite roosts (e.g. adjacent bridges along the San Gabriel River and the other expansion joints in the bridge) should provide sufficient mitigation areas for bat roosting while construction is conducted (one expansion joint at a time)

Option 3: Construction activity starts in Spring/Summer 2016 – full bat exclusion

- Install retrofit hinges at all expansion joints
- Install exclusion devices (with one-way exits) along the entire expansion joint and edges at each expansion joint on the bridge where hinge installation will occur -
- Allow bats to exit the site before construction commences; bat biologists should confirm the devices were successful at allowing bats to leave, and prevented them from reentering the site
- Ensure that the exclusion devices remain in place for the duration of the project retrofit - weekly monitoring of the exclusion devices is recommended
- Offsite roosting locations (e.g. adjacent bridges along the San Gabriel River) should provide sufficient mitigation areas for bat roosting while construction is conducted

Appendix E

2017 Bat Exclusion and Monitoring Plan

Bat Exclusion and Monitoring Plan:

Slauson Avenue Over San Gabriel River

May 10, 2017

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DRAFT

1.0 Introduction

The purpose of this Bat Exclusion and Monitoring Plan (BEMP) is to define the strategies to avoid, minimize and mitigate any potential impacts to bats during construction activities associated with the seismic retrofitting of the Slauson Avenue Bridge over the San Gabriel River. The strategies described herein provide guidance to meet the requirements related to potential bat species impacts, described in the California Department of Fish and Wildlife (CDFW) Stream Bed Alteration Agreement (No. 1600-2015-0103-R5, Revision 2). While no sensitive species of bats were identified using the bridge, the history of documented periodic bat roosting at the bridge requires that any disturbance requires that a plan be developed that specifies the measures used to humanely exclude bats from the site and a monitoring plan to ensure success and compliance with those measures. No significant deviations from the methods described in this plan will be made without prior discussion with a qualified bat biologist and approved by CDFW.

2.0 Background

Bat surveys and assessments for the Slauson Avenue over San Gabriel River Bridge were conducted on March 30, 2016. Assessments also included inspections of bridges up to 2.5 miles north and south of the project site (along the San Gabriel River). A total of three bat species were detected in the project area. The western pipistrelle (*Parastrellus hesperus*) and the Mexican free-tailed bat (*Tadarida brasiliensis*) were observed using the Slauson Avenue Bridge. The Big Brown Bat (*Eptesicus fuscus*) was observed in the area (but not roosting in the bridge). There were approximately 35-40 bats using the bridge as a day roost, with most bats roosting in the first expansion joints located on both the east and west side of the bridge. At least five bridges located within 2.2 miles north and south of Slauson Ave. had sufficient habitat for roosting bats, with at least three bridges having existing resident populations.

Most of the bats using the bridge were roosting in the first expansion joint located on the west side of the bridge (with approximately 15 Mexican free-tailed and 3-5 Pipistrelles). Few bats were in the center expansion joints of the bridge (approximately 5-10 Mexican free-tailed bats). The east expansion joint had 5-10 Mexican free-tailed bats. For each area where bats were observed, roosting was generally located in the expansion joint near the edge of the bridge on both the north and south sides. The Pipistrelles, however, were generally seen roosting and emerging closer to the center of the bridge.

Bats were also observed using other bridges along the San Gabriel River located within 2.5 miles north and south of the Slauson Avenue Bridge along the San Gabriel River. Five unique bridges were identified as having sufficient habitat and infrastructure for roosting bats. These sites contained several sections (mostly expansion joints) of the type that could support bat roosting. Three of the bridges surveyed had active resident populations of bats (including Mexican free-tailed bats). These bridges provide suitable offsite roosting for bat that may be excluded from the Slauson Avenue Bridge during construction.

DRAFT

3.0 Recommendations

To minimize impacts to bats roosting within the Bridge, a humane bat eviction and exclusion should be implemented preceding construction activity to temporarily exclude bats from directly affected work areas and thereby avoid any potential direct impacts.

Potential impacts to roosting bats that are present within the expansion joints of the Slauson Avenue Bridge address the recommendations from the Stream Bed Alteration Agreement, including 1) the timing and method of the exclusionary efforts, 2) construction monitoring and reporting plan for bats prior to and during project construction, 3) avoidance and minimization measures to be implemented, 4) removal plan of exclusionary devices, and 5) post-construction monitoring and reporting.

3.1 Timing

The installation of all exclusion devices will occur prior to the start of construction activities. Based on previous surveys, it appears that the majority of the bats roost on the east and west sides of the bridge, in expansion joints above the public trails. Since many of the bats were observed using the areas of the bridge that are not directly over the jurisdictional waterway, exclusion devices can be installed during the "waterway work prohibition period" (October 15 to April 15) since no direct impacts or entry into the waterway would occur. Work on installing exclusion devices outside the waterway can begin in February 2018 (as planned) as long as all activities are outside of the waterway and will have no impacts to that zone. Additionally, bat surveys prior to this activity are not needed as no bats are expected to roost in the bridge during the winter months.

No earlier than April 15, construction will begin on building the water diversion structures (prior to bridge construction commencing). The bat exclusion devices shall be installed after the water diversion structure is in place. Pre-construction bat surveys will be completed prior to any exclusion devices being installed, and a biologist will be on site to supervise activity. If the entire site is not able to be excluded at the same time, a biologist will work with the contractor to exclude bats from the area of the bridge where construction activity will occur. In this case, at least half of the bridge will be excluded (following appropriate pre-construction survey protocols and exclusion devices), with the second half of the bridge excluded prior to construction commencing on that portion of the bridge.

3.2 Exclusion Methods

It will be the County's responsibility to install the bat exclusion devices under the supervision of the bat biologist. The construction crews as well as the bat biologist will inspect the exclusionary devises. The crews will maintain them under the direction of the bat biologist. All aspects of bat exclusion will be directly supervised and monitored by a qualified bat biologist. Per CDFW recommendations, all exclusionary devices shall be installed prior to May 1.

Given the complexity of the expansion areas at Slauson Avenue Bridge, the transiency of roosting locations, and logistical constraints in identifying exact roosting locations,

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it is recommended that exclusion devices be installed to encompass the entire edge of the expansion joint and length of the bridge.

The expansion joints over the public trails (e.g. outside of the waterway) can be excluded during the winter prior to any construction activity. These crevices can be sealed with material such as foam backer rod and or pipe insulation that can be secure with construction adhesive. Expanding foam insulation can also be used to fill in smaller cracks and complex infrastructure. Care shall be taken to ensure that any overfill or discarded material does not fall from the site or contaminate the ground below.

During the potential occupancy season (March-November), the installation of the humane eviction/exclusion devices will require pre-construction bat surveys. Each crevice will be closely inspected (where safely accessible) for the presence of day-roosting bats. At crevices where the absence of bats can be confirmed, the crevices can be immediately sealed with foam backer rod or pipe insulation secured with construction adhesive and/or expanding foam. Again, special care must be taken to ensure that no contamination into the waterway occurs during installation of materials.

For those areas where a qualified biologist cannot visually inspect the crevices, they will instead conduct exit surveys to determine the presence or absence of bats and occupancy/use of the expansion joint. This will include visual observation, thermal imaging, and echolocation monitoring. For those areas without any documented use, the crevices can be immediately sealed. For those areas that are not adequately inspected or accessed, or where bats are observed using the site, humane eviction devices will be installed that will allow the bats to exit the bridge, but will prevent them from reentering the site. A one-way passage can be placed over the main exit points to prevent re-entry, focusing on the edge of the bridge, and the length of the expansion joint under the bridge.

Given the length of the expansion joints, we recommend using strips of clear plastic sheeting to create one way valves that will allow bats to exit the bridge, but not re-enter (**Figure 1**). Access to other entry areas into the expansion joints can be minimized by filling them with suitable material, such as the foam backer rod or expanding foam. Care should be taken to avoid trapping bats into the roost (without a suitable one-way passage for exit). The one-way doors will remain in place for at least 10 days following installation, to allow sufficient time for all bats to vacate the roosting crevice. After this exclusionary period, the one-way devices will be removed and the crevice sealed.

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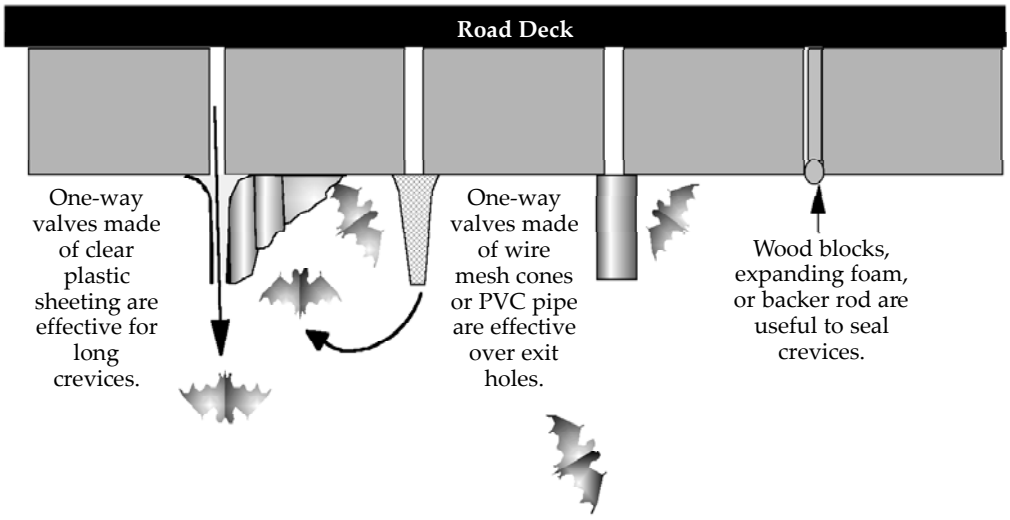
FIGURE 1. Examples of exclusion devices and one-way passages for bridges (from Bat Conservation International).



3.3 Construction Monitoring and Reporting Plan

Monitoring will only occur on the Slauson Bridge. No monitoring of the alternate roosting locations is anticipated. As described above, a qualified biologist will inspect the site and conduct pre-construction surveys for all bridge construction activity that occurs from after the installation of the water diversion structures (no earlier than April 15). The biologist will oversee the installation of the exclusionary devices and provide regular inspections of the site after installation. It is expected that the exclusionary material will remain in place throughout the duration of construction activities at the bridge, and will be inspected by a qualified biologist weekly for the first three weeks after initial installation, and then bi-monthly thereafter until the conclusion of construction. Biologists will also inspect the bridge within 72 hours of any significant rain events to ensure the integrity of the exclusion devices. A monthly status reports will be provided that will include photo documentation of the exclusionary device's integrity. Any required maintenance will also be documented and any failures of the exclusionary materials will be replaced as needed. The reports shall be submitted to CDFW for review.

3.4 Exclusionary Device Removal

Following completion of the construction work, the contractor (under supervision of a qualified bat biologist) shall remove all exclusionary devices from all expansion joints and hinge crevices where they were installed as required by the avoidance and mitigation measures. Removing all material from the crevices should allow the bats to return to the bridge and use the available crevices. We anticipate the total impact of the construction activity will therefore result in only a temporary loss of the bat roosting habitat.

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3.5 Post-Construction Monitoring

After the completion of the construction activity, a summary report for bat activity will be assessed after completion of the project. This will include an estimate of the number of bats using the bridge, approximate locations, and species. The final report shall be submitted to CDFW for review.

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APPENDIX C

Representative Site Photographs

Photo 1. Southwest Corner of the Project Site, Facing Northwest.

Photo 2. Southwest Corner of the Project Site, Facing North.

Photo 3. Northeast Corner of the Project Site, Facing South.

Photo 4. Unvegetated Channel with Water Present, Photo Taken from the Northern End of the Project Site, Facing South.

Photo 5. Unvegetated Channel with Water Present, Facing West.

Photo 6. Area Mapped as Developed within the Southern Section of the Project Area, Facing Northwest.

Photo 7. Area Mapped as Disturbed within the Southwestern Section of the Project Area, Facing North.

Photo 8. Area Mapped as Disturbed within the Southeastern Section of the Project Area, Facing North.

Photo 9. View of Disturbed Habitat Mapped in the Eastern Section of the Project Site, Showing Slauson Avenue Bridge and Railway Tracks, Facing South.

Photo 10. Disturbed Area within the Northeast Section of the Project Site, Debris and Trash Present, Facing South.

Photo 11. Disturbed Area within the Northeast Section of the Project Site, Abandoned Vehicle, Trash Present, Facing Northwest.

Photo 12. Patch of California Bulrush (*Schoenoplectus californicus*) Mapped within Disturbed Wetland-Riparian within Southern Section of Project Area, Facing South.

Photo 13. Ruderal Vegetation Mapped within the Project Area, Facing West.

Photo 14. Stand of Goodding's Willow (*Salix gooddingii*) in Northern Section of the Project Area, Facing North.

Photo 15. Mature Landscaped Trees within the Project Site along the Access Road, Facing East.

Photo 16. Potential Burrowing Owl Burrow (no sign).

Photo 17. Palm Tree within the Project Area with Fronds Intact, Potential Bat Roosting Habitat.

Photo 18. Disturbed Area within the Project Site, Debris, Trash and Unhoused Encampment Present.

APPENDIX D

Plant Species Observed

SCIENTIFIC NAME	COMMON NAME
ANGIOSPERMS (DICOTYLEDONS)	
AMARANTHACEAE	**PIGWEED FAMILY**
*Amaranthus albus**	Pigweed amaranth
APOCYNACEAE	**DOGBANE FAMILY**
Plumeria sp.	Plumeria species
ASTERACEAE	**SUNFLOWER FAMILY**
Baccharis salicifolia	Mulefat
*Carduus pycnocephalus**	Italian thistle
*Centaurea melitensis**	Maltese star thistle
*Erigeron bonariensis**	Flax-leaved horseweed
Erigeron canadensis	Canada horseweed
Heterotheca grandiflora	Telegraph weed
Isocoma menziesii	Menzie's goldenbush
*Lactuca serriola**	Prickly lettuce
Persicaria lapathifolia	Common knotweed
*Rumex crispus**	Curly dock
*Sonchus asper**	Spiny sowthistle
BIGNONIACEAE	**BIGNONIA FAMILY**
Jacaranda mimosifolia	Jacaranda
BRASSICACEAE	**MUSTARD FAMILY**
*Brassica nigra**	Black mustard
*Lepidium latifolium**	Perennial pepperweed
*Raphanus sativus**	Wild radish
CHENOPODIACEAE	**CHENOPOD FAMILY**
*Salsola tragus**	Russian thistle
CUCURBITACEAE	**GOURD FAMILY**
*Cucurbita ficifolia**	Figleaf gourd
CYPERACEAE	**SPIDERWORT FAMILY**
Cyperus eragrostis	Tall Cyperus
EUPHORBIACEAE	**SPURGE FAMILY**
*Ricinus communis**	Castor bean

SCIENTIFIC NAME	COMMON NAME
FABACEAE	**LEGUME FAMILY**
*Senna didymobotrya**	Popcorn senna
LYTHRACEAE	**LOOSESTRIFE FAMILY**
*Punica granatum**	Pomegranate
OLEACEAE	**OLIVE FAMILY**
*Fraxinus uhdei**	Shamel ash
Olea sp.	Olive species
RUTACEAE	**CITRUS FAMILY**
Citrus sp.	Orange tree species
SALICACAEA	**WILLOW FAMILY**
Salix gooddingii	Black willow
SIMAROUBACEAE	**QUASSIA FAMILY**
*Ailanthus altissima**	Tree of heaven
SOLANACEAE	**NIGHTSHADE FAMILY**
*Nicotiana glauca**	Tree tobacco
Solanum douglasii	Douglas' nightshade
ULMACEAE	**ELM FAMILY**
*Ulmus parvifolia**	Chinese elm
URTICACEAE	**NETTLE FAMILY**
*Urtica urens**	Dwarf nettle
ZYGOPHYLLACEAE	**CALTROP FAMILY**
*Tribulus terrestris**	Puncture vine
ANGIOSPERMS (MONOCOTYLEDONS)	
ARECACEAE	**PALM FAMILY**
*Washingtonia robusta**	Mexican fan palm
CYPERACEAE	**SEDGE FAMILY**
Schoenoplectus californicus	California bulrush
POACEAE	**GRASS FAMILY**
*Arundo donax**	Giant reed
*Avena barbata**	Slender wild oat

SCIENTIFIC NAME	COMMON NAME
*Bromus tectorum**	Cheatgrass
*Pennisetum setaceum**	Crimson fountain grass

Notes: * = not native to California
Sources: California Natural Diversity Data Base (CDFW 2024)
CNPS Rare and Endangered Plant Inventory (CNPS 2024)
United States Fish and Wildlife Service (USFWS) Information for Planning and Consulting (IPaC) (USFWS 2024)
The Jepson Manual: Vascular Plants of California, 2nd Edition (Baldwin, B. et al, 2012)

APPENDIX E

Wildlife Species Observed

SCIENTIFIC NAME	COMMON NAME
INSECTA	**INSECTS**
Apidae	**Bees**
Apis mellifera	Western honey bee
Bombus sp.	Bumble bee species
Xylocopa californicus	California carpenter bee
Nymphalidae	**Brush-Footed Butterfly**
Nymphalis antiopa	Mourning cloak
Vanessa cardui	Painted lady
Pieridae	**Orange-tips, Whites and Sulphurs**
Pieris rapae	Cabbage white butterfly
Phoebis sennae	Cloudless sulphur
REPTILIA	**REPTILES**
Phrynosomatidae	**Spiny Lizards**
Sceloporus occidentalis	Western fence lizard
Uta stansburiana elegans	Western side-blotched lizard
AVES	**BIRDS**
Accipitridae	**Hawks and Eagles**
Buteo jamaicensis	Red-tailed hawk
Aegithalidae	**Bushtits**
Psaltriparus minimus	Bushtit
Ardeidae	**Herons and Egrets**
Ardea alba	Great egret
Ardea herodias	Great blue heron
Egretta thula	Snowy egret
Charadriidae	**Plovers, Dotterels, and Lapwings**
Charadrius vociferus	Killdeer
Corvidae	**Jays and Crows**
Corvus corax	Common raven
Fringillidae	**Finches**
Haemorhous mexicanus	House finch

SCIENTIFIC NAME	COMMON NAME
Spinus psaltria	Lesser goldfinch
Hirundinidae	**Swallows**
Petrochelidon pyrrhonota	Cliff swallow
Icteridae	**New World Blackbirds**
Quiscalus mexicanus	Great-tailed grackle
Laridae	**Gulls, Terns, and Skimmers**
Larus occidentalis	Western gull
Mimidae	**Mockingbirds and Thrashers**
Mimus polyglottos	Northern mockingbird
Passerellidae	**New World Sparrows**
Melozone crissalis	California towhee
Passeridae	**Old World Sparrows**
Passer domesticus	House sparrow
Phalacrocoracidae	**Comorants and Shags**
Nannopterum auritum	Double-crested cormorant
Scolopacidae	**Sandpipers**
Calidris minutilla	Least sandpiper
Sturnidae	**Starlings**
*Sturnus vulgaris**	European starling
Trochilidae	**Hummingbirds**
Calypte anna	Anna's hummingbird
Turdidae	**Thrushes, Bluebirds and Robins**
Turdus migratorius	American robin
Tyrannidae	**Tyrant flycatchers**
Sayornis nigricans	Black phoebe
MAMMALIA	**MAMMALS**
Canidae	**Dogs, Wolves and Foxes**
Canis latrans	Coyote
Leporidae	**Rabbits and Hares**
Sylvilagus audubonii	Desert cottontail rabbit

SCIENTIFIC NAME	COMMON NAME
Procyonidae	**Raccoons**
Procyon lotor	Raccoon (tracks)
Sciuridae	**Squirrels**
Otospermophilus beecheyi	California ground squirrel

Notes: * = Non-native species
Sources: California Natural Diversity Data Base (CDFW 2024a)
Special Animals List (CDFW 2024b)
United States Fish and Wildlife Service (USFWS) Information for Planning and Consulting (IPaC) (USFWS 2024)

APPENDIX F

Special-Status Plant Species Potential for Occurrence

Scientific Name **Common Name**	**Status**		**Bloom Period & Elevation (feet)**	**Habitat Requirements**	**Potential for Occurrence**
Abronia villosa var. *aurita* chaparral sand-verbena	Fed: Ca: CRPR:	none none 1B.1	(Jan) Mar-Sept 245-5,250	Occurs in chaparral, coastal scrub, and desert dune habitats. Often found in sandy soil.	Presumed Absent: No suitable chaparral, coastal scrub or desert dune habitats are present within the Project Site.
Astragalus hornii var. *hornii* Horn's milk-vetch	Fed: Ca: CRPR:	none none 1B.1	May-Oct 195-2,790	Occurs in meadows, seeps, and playas. Often found along lake margins in alkaline soils.	Presumed Absent: No suitable meadow, seep, playa, or lake habitat was present on the Project Site and there are no records within 5 miles.
Atriplex coulteri Coulter's saltbush	Fed: Ca: CRPR:	none none 1B.2	Apr-Sept 5-1,510	Occurs in coastal bluff scrub, coastal dunes, coastal scrub, and valley and foothill grassland in alkaline and clay soils.	Presumed Absent: No suitable coastal bluff scrub, coastal dunes, coastal scrub or valley and foothill grassland occurs within the Project Site.
Atriplex parishii Parish's brittlescale	Fed: Ca: CRPR:	none none 1B.1	Jun-Oct 80-6,235	Occurs in chenopod scrub, playas, and vernal pools in alkaline soils.	Presumed Absent: No suitable playa, chenopod scrub, or vernal pool habitat is present on the Project Site. In addition, there are no records within 5 miles.
Atriplex serenana var. *davidsonii* Davidson's saltscale	Fed: Ca: CRPR:	none none 1B.2	Apr-Oct 35-655	Occurs in coastal bluff scrub and coastal scrub in alkaline soils.	Presumed Absent: No suitable coastal scrub habitat with alkaline soils is present on the Project Site and there are no records within 5 miles.
Berberis nevinii Nevin's barberry	Fed: Ca: CRPR:	END END 1B.1	(Feb) Mar-Jun 230-2,705	Occurs in chaparral, cismontane woodland, coastal scrub, and riparian woodland in sandy or gravelly soils.	Presumed Absent: No suitable chaparral, cismontane woodland, coastal scrub, or riparian woodland present within the Project Site.
Calochortus weedii var. *intermedius* intermediate mariposa lily	Fed: Ca: CRPR:	none none 1B.2	May-Jul (340-2805)	Occurs in chaparral, coastal scrub, and valley and foothill grassland in rocky, calcareous soils.	Presumed Absent: No suitable chaparral, coastal scrub, or valley and foothill grassland habitats are present within the Project Site.

Scientific Name **Common Name**	**Status**		**Bloom Period & Elevation (feet)**	**Habitat Requirements**	**Potential for Occurrence**
Calystegia felix Lucky morning-glory	Fed: Ca: CRPR:	none none 1B.1	Mar-Sept 95-700	Occurs in meadows, seeps, and riparian scrub.	Low Potential to Occur: Marginally suitable habitat present within riparian vegetation in the San Gabriel River bed. One historic occurrence was documented in 1902 less than one mile north of the Project Site (Occ #7).
Centromadia parryi ssp. *australis* southern tarplant	Fed: Ca: CRPR:	none none 1B.1	May-Nov 0-1,600	Occurs in margins of marshes and swamps, in vernally mesic valley and foothill grassland, and vernal pools.	Presumed Absent. No suitable marsh, grassland, or vernal pool habitat is present within the Project Site. A small patch of bullrush marsh was mapped south of the Project Site, but no Project activities will occur in this area. There is one historic record approximately 2.7 miles northwest of the Project Site, documented in 1931 (Occ #29).
Chloropyron maritimum ssp. *maritimum* salt marsh bird's-beak	Fed: Ca: CRPR	END END 1B.2	May-Oct (Nov) 0-100	Occurs in coastal dunes and in coastal salt marshes and swamps.	Presumed Absent: No dune, salt marsh, or swamp habitat occurs on site, and the project is outside of the elevational range for the species. Also, no records occur within 5 miles.
Cuscuta obtusiflora var. *glandulosa* Peruvian dodder	Fed: Ca: CRPR:	none none 2B.2	Jul-Oct 50-920	Occurs in freshwater marshes and swamps.	Presumed Absent: No suitable freshwater marsh or swamp habitat is present on the Project Site and there are no records within 5 miles.
Dodecahema leptoceras slender-horned spineflower	Fed: Ca: CRPR:	END END 1B.1	Apr-Jun 655-2,495	Occurs in chaparral, cismontane woodland, and alluvial fan coastal scrub in sandy soils. Generally only located in large alluvial systems.	Presumed Absent: No chaparral, cismontane woodland, or alluvial fan coastal scrub habitat is present on site, and there

Scientific Name **Common Name**	**Status**		**Bloom Period & Elevation (feet)**	**Habitat Requirements**	**Potential for Occurrence**
					are no records within 5 miles of the Project Site.
Dudleya multicaulis many-stemmed dudleya	Fed: Ca: CRPR:	none none 1B.2	Apr-Jul 50-2,600	Occurs in chaparral, coastal scrub, and valley and foothill grassland habitats. Often found in clay soils.	Presumed Absent: No suitable chaparral, coastal scrub, or valley and foothill grassland habitats present within the Project Site.
Helianthus nuttallii ssp. *parishii* Los Angeles sunflower	Fed: Ca: CRPR:	none none 1A	Aug-Oct 35-5,005	Occurs in marshes and swamps within freshwater and coastal salt habitats.	Presumed Absent: This species is thought to be extirpated from the region. No suitable marsh habitat is present within the Project Site. A small patch of bullrush marsh was mapped south of the Project Site, but no Project activities will occur in this area. There is one historic record approximately 5 miles from the Project Site documented in 1901 (Occ #11).
Horkelia cuneata var. *puberula* mesa horkelia	Fed: Ca: CRPR:	none none 1B.1	Feb-Jul (Sep) 230-2,660	Occurs in cismontane woodland, coastal scrub, and maritime chaparral in sandy or gravelly soils.	Presumed Absent: No suitable cismontane woodland, coastal scrub, or maritime chaparral habitat present within the Project Site.
Isocoma menziesii var. decumbens decumbent goldenbush	Fed: Ca: CRPR:	none none 1B.2	Apr-Nov 30-450	Occurs in chaparral and coastal scrub in sandy, often disturbed areas.	Presumed Absent: No suitable chaparral or coastal scrub present within the Project Site. No records within 5 miles of the Project Site.
Lasthenia glabrata ssp. co*ulteri* Coulter's goldfields	Fed: Ca: CRPR:	none none 1B.1	Feb-Jun 5-4,005	Occurs in coastal salt marshes and swamps, playas, and vernal pools.	Presumed Absent: No salt marsh, swamp, playa, or vernal pool habitat occurs with the Project Site.
Nama stenocarpa mud nama	Fed: Ca: CRPR:	none none 2B.2	Jan-Jul 15-1,640	Occurs in marshes and swamps including lake margins and riverbanks.	Presumed Absent: No suitable marsh or swamp habitat is present within the Project Site. A small

Scientific Name **Common Name**	**Status**		**Bloom Period & Elevation (feet)**	**Habitat Requirements**	**Potential for Occurrence**
					patch of bullrush marsh was mapped south of the Project Site, but no Project activities will occur in this area. There are no records documented within 5 miles of the Project Site.
Nasturtium gambelii Gambel's water cress	Fed: Ca: CRPR:	THR END 1B.1	Apr-Oct 15-1,085	Occurs in marshes and swamps.	Presumed Absent: No suitable marsh or swamp habitat is present within the Project Site. A small patch of bullrush marsh was mapped south of the Project Site, but no Project activities will occur in this area. There are no records within 5 miles of the Project Site. The closest record of this species was documented in 1927 approximately 18.7 miles from the Project Site (Occ #17).
Navarretia prostrata prostrate navarretia	Fed: Ca: CRPR:	none none 1B.2	Apr-Jul 10-3,970	Occurs in coastal sage scrub, wetland-riparian, meadows and seeps, valley and foothill grassland, vernal pools.	Low Potential to Occur: Marginally suitable wetland-riparian habitat is present on the Project Site within the San Gabriel River bed. One historic record was documented in 1895 approximately 2 miles southwest of the Project Site (Occ #11)
Nemacaulis denudata var. denudata coast woolly-heads	Fed: Ca: CRPR:	none none 1B.2	Apr-Sept 0-330	Occurs in coastal dunes, and coastal strand habitats.	Presumed Absent: No suitable coastal dune or coastal strand habitat is present within the Project Site.
Orcuttia californica California Orcutt grass	Fed: Ca: CRPR:	END END 1B.1	Apr-Aug 50-2,170	Occurs in vernal pools, valley grassland, and wetland-riparian habitats.	Presumed Absent: No suitable vernal pool habitat is present within the Project Site. One historic occurrence is documented 2.1 miles

Scientific Name **Common Name**	**Status**		**Bloom Period & Elevation (feet)**	**Habitat Requirements**	**Potential for Occurrence**
					from the Project Site (Occ #14, undated) but this population is believed to be extirpated.
Pentachaeta lyonii Lyon's pentachaeta	Fed: Ca: CRPR:	END END 1B.1	Mar-Aug 100-2,275	Rocky and clay soils within openings in chaparral, coastal sage scrub, and valley and foothill grassland.	Presumed Absent: No suitable chaparral, coastal sage scrub or valley and foothill grassland habitats present within the Project Site. In addition, the Project Site lacks rocky or clay soils.
Phacelia stellaris Brand's star phacelia	Fed: Ca: CNPS:	none none 1B.1	Mar-Jun 5-1,310	Occurs in coastal dunes and coastal scrub.	Presumed Absent: No suitable coastal dune or coastal scrub habitat is present within the Project Site.
Pseudognaphalium leucocephalum white rabbit-tobacco	Fed: Ca: CRPR:	none none 2B.2	Aug-Nov 0-6,900	Sandy or gravelly soils within chaparral, cismontane woodland, coastal sage scrub, and riparian woodland.	Presumed Absent: No suitable chaparral, cismontane woodland, coastal sage scrub, or riparian woodland habitat is present within the Project Site.
Ribes divaricatum var. *parishii* Parish's gooseberry	Fed: Ca: CRPR:	none none 1A	Feb-Apr 215-985	Occurs in riparian woodlands.	Presumed Absent: Riparian woodland habitat is not present on the Project Site and this species is presumed to be extinct. There are two historic records documented within 5 miles of the Project Site in 1981 (Occ #1) and 1979 (Occ #2).
Sagittaria sanfordii Sanford's Arrowhead	Fed: Ca: CRPR:	none none 1B.2	May-Oct 0-2,150	Occurs in shallow freshwater marshes and swamps.	Presumed Absent: No suitable marsh or swamp habitat is present within the Project Site. A small patch of bullrush marsh was mapped south of the Project Site, but no Project activities will occur in this area. No

Scientific Name **Common Name**	**Status**		**Bloom Period & Elevation (feet)**	**Habitat Requirements**	**Potential for Occurrence**
					occurrences documented within 5 miles.
Scutellaria bolanderi ssp. austromontana southern mountains skullcap	Fed: Ca: CRPR:	none none 1B.2	Jun-Aug 1,350-6,600	Occurs in mesic soils within chaparral, cismontane woodland, and lower montane coniferous forest.	Presumed Absent: No suitable chaparral, cismontane woodland, or lower montane coniferous forest present within the Project Site.
Sidalcea neomexicana salt spring checkerbloom	Fed: Ca: CRPR:	none none 2B.2	Mar-Jun 50-5,020	Occurs in chaparral, coastal scrub, lower montane coniferous forest, Mojavean desert scrub, and playas. Often found in alkaline and mesic soils.	Presumed Absent: No suitable chaparral, coastal scrub, lower montane coniferous forest, Mojavean desert scrub, or playas are present within the Project Site.
Suaeda esteroa estuary seablite	Fed: Ca: CRPR:	none none 1B.2	May-October 0-20	Occurs in coastal salt marsh, and wetland-riparian	Presumed Absent: No suitable brackish habitat is present within the Project Site. In addition, the Project Site is outside of the known elevation range for this species.
Symphyotrichum defoliatum San Bernardino aster	Fed: Ca: CRPR:	none none 1B.2	Jul-Nov 5-6,695	Occurs in meadows and seeps, marshes, and swamps, coastal scrub, cismontane woodland, lower montane coniferous forest, and vernally mesic valley and foothill grassland. Often found in disturbed areas and near ditches, streams, and springs.	Low Potential to Occur: The Project Site contains marginally suitable riparian habitat and disturbed areas; however, the closest record (Occ # 80) of the species was recorded in 1930 approximately 7 miles north of the Project Site.
Symphyotrichum greatae Greata's Aster	Fed: Ca: CRPR:	none none 1B.3	Jun-Oct 980-6,600	Mesic soils within broad-leafed upland forest, chaparral, cismontane woodland, lower montane coniferous forest, and riparian woodland	Presumed Absent: No suitable habitat for this species is present within the Project Site. There are no records documented within 5 miles.

Status Codes:

Federal Designations: State designations: CRPR Ranking

Scientific Name **Common Name**	**Status**	**Bloom Period & Elevation (feet)**	**Habitat Requirements**	**Potential for Occurrence**
(Federal Endangered Species Act, USFWS) END: federally listed, endangered THR: federally listed, threatened	(California Endangered Species Act, CDFG) END: state-listed, endangered THR: state-listed, threatened		1A: Presumed extinct 1B: Rare, threatened, or endangered in California and elsewhere 2B: Rare, threatened, or endangered in California, but more common elsewhere 3: Review list of plants requiring more study 4: Plants of limited distribution watch list <u>CRPR Threat Code</u> 0.1: Seriously threatened in California 0.2: Fairly threatened in California 0.3: Not very threatened in California	

Source: California Natural Diversity Data Base (CNDDB) California Native Plant Society Electronic Inventory (CNPSEI) Whittier, Baldwin Park, El Monte, Los Angeles, Anaheim, La Habra, South Gate, Long Beach, and Los Alamitos 7.5-minute quads.

APPENDIX G

Special-Status Wildlife Species Potential for Occurrence

Scientific Name **Common Name**	**Status**		**Habitat Requirements**	**Potential for Occurrence**
Invertebrates				
Bombus crotchii Crotch bumble bee	Fed: CA:	none CAN	Found in coastal California east to the Sierra-Cascade crest and south into Mexico. Occurs in open grassland and scrub habitats. Prefers a diet consisting of certain plant species including milkweeds, dusty maidens, lupines, medics, phacelias, sages, clarkias, poppies, and wild buckwheats. Nests are often located underground in abandoned rodent nests, or above ground in tufts of grass, old bird nests, rock piles, or cavities in dead trees.	Low Potential to Occur: None of the preferred forage species are present within the Project Site; however, other forage species are present that the bumble bee could utilize for nectar. One historic occurrence was recorded within 5 miles of the Project Site.
Danaus plexippus plexippus pop. 1 Monarch - overwintering population	Fed: CA:	PRO none	Roosts in wind-protected tree groves (Coastal California conifer, eucalyptus) from Northern Mendocino to Baja California. Milkweed is essential for the larvae of this species.	Presumed Absent. No suitable overwintering habitat in the form of wind-protected tree groves is present within the Project Site. Additionally, no milkweed was observed in the Project Site. No occurrences recorded within 5 miles of the Project Site.
Euphydryas editha quino Quino checkerspot butterfly	Fed: CA:	END none	Chaparral and coastal sage scrublands in Riverside and San Diego counties.	Presumed Absent. No suitable habitat is present within the Project Site. Further, the Project Site is located outside the known range for this species.
Fishes				
Oncorhynchus mykiss irideus pop. *10* steelhead - southern California DPS	Fed: CA:	END CAN	Typically occurs in slow water streams or rivers.	Presumed Absent. No suitable habitat in the form of permanent streams or rivers is present in the Project Site.

Scientific Name **Common Name**	**Status**		**Habitat Requirements**	**Potential for Occurrence**
Amphibians				
Spea hammondii western spadefoot	Fed: CA:	PRO SSC	Open areas with sandy soils in a wide range of habitats including lowlands to foothills, coastal sage scrub, chaparral, mixed woodlands, sandy washes, river floodplains, alluvial fans, playas, and grasslands. Vernal pools are essential for breeding and egg-laying. The species is almost completely terrestrial, entering water only to breed.	Low Potential to Occur. Marginally suitable habitat is present within the Project Site within the floodplain of the San Gabriel River. Three historical and one recent occurrence have been documented within 5 miles of the Project Site. The most recent occurrence was documented in 2005 approximately 4.7 miles from the Project Site (Occ #128).
Taricha torosa Coast Range newt	Fed: CA:	none SSC	Upland areas including grasslands, forests, and woodlands. Burrows in soil or wood debris.	Presumed Absent. No suitable upland habitat is present within the Project Site.
Reptiles				
Anniella stebbinsi Southern California legless lizard	Fed: CA:	none SSC	Coastal sand dunes, and variety of interior habitats including sandy washes and alluvial fans. Occurs in moist warm loose soil with plant cover and sparsely vegetated beach dunes, pine-oak woodlands, desert scrub, chaparral, and stream terraces with sycamores, cottonwoods, or oaks. Sometimes found in suburban gardens.	Presumed Absent. No suitable habitat is present within the Project Site.
Arizona elegans occidentalis California glossy snake	Fed: CA:	none SSC	Most common in desert habitats but also found in arid scrub, rocky washes, grasslands, low elevation coastal scrub, valley-foothill hardwood, and chaparral. Prefers washes and sandy areas with patchy brush and rocks. Perennial plants necessary in habitat for food source.	Presumed Absent. No suitable habitat is present within the Project Site.

Scientific Name **Common Name**	**Status**		**Habitat Requirements**	**Potential for Occurrence**
Aspidoscelis tigris stejnegeri coastal whiptail	Fed: CA:	none SSC	Arid habitats including chaparral, woodlands, and dry riparian areas.	Low Potential to Occur. Marginally suitable foraging and breeding habitat is present within the Project Site within the disturbed and ruderal areas. However, the disturbed nature of the Project Site likely precludes this species from occurring. Three historic and three recent occurrences were documented within 5 miles of the Project Site; the nearest occurrence was documented in 2000 approximately 3.4 miles from the Project Site (Occ #106). The most recent occurrences were documented in 2017 (#145, #146 and #147) approximately 4 miles from the Project Site.
Chelonia mydas green turtle	Fed: CA:	THR none	Ocean dwelling species, when close to shore occurs in shallow waters of lagoons, bays, estuaries, mangroves, eelgrass and seaweed beds. Prefers areas with abundant aquatic vegetation, such as pastures of sea grasses and algae, in shallow, protected water.	Presumed Absent: No suitable marine habitat is present within the Project Site.
Emys marmorata western pond turtle	Fed: CA:	PRO SSC	Ponds, lakes, rivers, streams, marshes, and other water sources with rocky or muddy substrate. Needs basking sites (logs, rocks, and exposed banks) and suitable (sandy banks or grassy open fields) upland habitat up to 0.25 mile from water for egg-laying.	Presumed Absent. No suitable aquatic habitats were documented within the Project Site due to the channelized nature of the San Gabriel River. Two historic occurrences (#923 and #921) were documented within 5 miles of the Project Site in 1965 and 1987.

Scientific Name **Common Name**	**Status**		**Habitat Requirements**	**Potential for Occurrence**
Phrynosoma blainvillii coast horned lizard	Fed: CA:	none SSC	Occurs in chaparral, cismontane woodland, coastal bluff scrub, coastal scrub, desert wash, pinon & juniper woodlands, riparian scrub, riparian woodland, and valley & foothill grassland habitats. Requires open areas for sunning, bushes to provide cover, and loose soil for burial. Diet consists mainly of ants and also small invertebrates. Most commonly found in lowlands along sandy washes with scattered low bushes.	Low Potential to Occur. Marginally suitable habitat in the form of disturbed and ruderal land covers is present in the Project Site. Two historic occurrences were documented within 5 miles of the Project Site.
Thamnophis hammondii two-striped garter snake	Fed: CA:	none SSC	Occur along aquatic habitats such as pools and creeks usually near chaparral, rocky areas, brushland, oak woodland, and conifer forests. Found in coastal California from vicinity of Salinas to northwest Baja California. From sea to about 7,000 ft elevation. Hunts in water.	Presumed Absent. No suitable habitat is present within the Project Site.
Birds				
Agelaius tricolor tricolored blackbird (nesting colony)	Fed: CA:	none THR/SSC	Occurs in freshwater marsh, swamp, and wetland habitats. Largely endemic to California. Highly colonial species, most numerous in Central Valley & vicinity. Requires open water, protected nesting substrate, and foraging area with insect prey within a few kilometers of the colony. Forages in open habitat such as cultivated fields and pastures.	Presumed Absent. No suitable habitat in the form of freshwater marsh, swamp or vegetated wetland is present within the Project Site. The wetland habitat present within the Project Site is not of sufficient size or quality to support nesting of this species. No occurrences documented within 5 miles of the Project Site.
Ammodramus savannarum Grasshopper sparrow	Fed: CA:	none SSC	Grasslands and prairies of moderate height with clusters of scattered shrubs among patches of bare ground.	Presumed Absent: No suitable grassland or prairie habitat present within the Project Site.

Scientific Name **Common Name**	**Status**		**Habitat Requirements**	**Potential for Occurrence**
Athene cunicularia burrowing owl (burrow & some wintering sites)	Fed: CA:	none CAN, SSC	Open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Occurs in coastal prairie, coastal scrub, Great Basin grassland, Great Basin scrub, Mojavean desert scrub, Sonoran desert scrub, and valley & foothill grassland habitats. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel. Also found in vacant lots and airports.	Moderate Potential to Occur. Marginally suitable habitat is present within the ruderal and disturbed habitats within the Project Site; however, high level of anthropogenic disturbance within the Project Site, including the presence of homeless encampments in the area, likely affect the potential for this species to occur. Small mammal burrows and debris piles potentially providing burrow substrates are present within the Project Site. One recent occurrence was documented in 2010 approximately 3.3 miles from the Project Site (Occ #1291).
Buteo swainsoni Swainson's hawk (nesting)	Fed: CA:	none THR	Occurs in Great Basin grassland, riparian forest, riparian woodland, and valley & foothill grassland habitats. Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, & agricultural or ranch lands with groves or lines of trees. Nests in solitary bush or tree, or in small groves. Requires adjacent suitable foraging areas such as grasslands or alfalfa/grain fields supporting rodent populations.	Presumed Absent. No suitable nesting habitat in the form of tall stands of trees is present. Due to the lack of nesting substrates, this species is not expected to forage in the Project Site and is therefore presumed absent.
Campylorhynchus brunneicapillus sandiegensis coastal cactus wren	Fed: CA:	none SSC	Occurs in scrubby coastal sage scrub habitats throughout the Mojave, Sonoran, and Chihuahuan Deserts. Associated with cholla, saguaro, catclaw acacia, mesquite, desert willow, and other desert plant species.	Presumed Absent. No suitable coastal sage scrub habitat present within the Project Site. Additionally, no cholla, saguaro, and other like plant species are present within the Project Site.

Scientific Name **Common Name**	**Status**		**Habitat Requirements**	**Potential for Occurrence**
Coccyzus americanus occidentalis western yellow-billed cuckoo (nesting)	Fed: CA:	THR END	Occurs in riparian forest habitat. Nests along the broad (≥ 5 hectares) patches of multi-layered riparian woodland, often dominated by willows and cottonwoods of lower flood bottoms of larger river systems.	Presumed Absent. No suitable nesting habitat in the form of multi-layered riparian areas is present within the Project Site. The riparian habitat present within the Project Site is not of sufficient size or quality to support nesting of this species. No recent occurrences were documented within 5 miles of the Project Site.
Empidonax traillii extimus southwestern willow flycatcher (nesting)	Fed: CA:	END END	Occurs in riparian woodland habitat in Southern California. Nests in densest areas of riparian tree and shrub communities associated with rivers, swamps, and other wetlands, including lakes and reservoirs. Nests are often in nonnative tamarisk (*Tamarisk* spp.) and native willow (*Salix* spp.), typically in vegetation stands of approximately 10 to 20 feet in height.	Presumed Absent. No suitable riparian woodland habitat is present within the Project Site. The riparian habitats present within the Project Site is not of sufficient size or quality to support nesting of this species. No occurrences were documented within 5 miles of the Project Site.
Icteria virens yellow-breasted chat	Fed: CA:	none SSC	Occurs in riparian forest, riparian scrub, and riparian woodland habitats. Nests in low, dense riparian, consisting of willow, blackberry, wild grape along streams or at the edges of ponds or swamps. Forages and nests within 10 feet of ground.	Presumed Absent. No suitable habitat in the form of dense riparian vegetation was present within the Project Site. The riparian habitats present within the Project Site is not of sufficient size or quality to support nesting of this species. One recent occurrence (Occ# 119) was documented in 2017 approximately 3.3 miles from the Project Site.
Laterallus jamaicensis coturniculus California black rail	Fed: CA:	none THR, FP	Occurs in wetland, marsh, wet meadows, and swamp habitats. Needs water depths of about 1 inch that do not fluctuate during the year and dense vegetation for nesting habitat.	Presumed Absent. No suitable habitat in the form of stable-depth wetlands or marshes is present within the Project Site. The riparian vegetation present within the Project Site is not of sufficient size or quality to support nesting of this species. No recent or historical occurrences have been documented within 5 miles of the Project Site.
Passerculus sandwichensis beldingi	Fed: CA:	none END	Salt marshes especially with pickleweed. Nests on ground	Presumed Absent. No suitable salt marsh habitat is present within the Project Site.

Scientific Name **Common Name**	**Status**		**Habitat Requirements**	**Potential for Occurrence**
Belding's savannah sparrow			at higher levels of marsh, out of the reach of high tides.	
Polioptila californica californica coastal California gnatcatcher	Fed: CA:	THR SSC	Dry coastal slopes, washes, and mesas with areas of low vegetation and coastal sage scrub including California sagebrush, California buckwheat, salvia, and prickly pear cactus. Moves about actively in shrubs and low trees to forage. Generally found at elevations below 3,000 ft.	Presumed Absent. No suitable coastal sage scrub habitat is present within or adjacent to the Project Site.
Riparia riparia Bank swallow	Fed: CA:	none THR	Open and semi-open habitats, such as fields or marshes, often near flowing water. Nests in colonies in vertical banks of sand or dirt along a water body.	Presumed Absent. No suitable nesting habitat in the form of vertical banks of sand or dirt is present within the Project Site.
Sternula antillarum browni California least tern	Fed: CA:	END END, FP	Inhabits beaches, mudflats, and sand dunes, typically near lagoons or shallow estuaries near the ocean. They roost on the ground in unprotected areas of the coastal environment.	Presumed Absent. No suitable beach, mudflat or sand dune habitats are present within the Project Site. No occurrences documented within 5 miles of the Project Site.
Vireo bellii pusillus least Bell's vireo (nesting)	Fed: CA:	END END	Occurs in riparian forest, riparian scrub, and riparian woodland habitats. Summer resident of Southern California in low riparian vegetation in the vicinity of water or in dry river bottoms, below 2,000 ft. Nests placed along margins of bushes or on twigs projecting into pathways, usually willow, mulefat, and mesquite.	Presumed Absent. No suitable nesting or foraging habitat is present within the Project Site. The small patches of riparian vegetation do not provide sufficient cover to accommodate nesting and foraging for this species.

Scientific Name **Common Name**	**Status**		**Habitat Requirements**	**Potential for Occurrence**
Mammals				
Antrozous pallidus pallid bat	Fed: CA:	none SSC	Occurs in chaparral, coastal scrub, desert wash, Great Basin grassland, Great Basin scrub, Mojavean desert scrub, riparian woodland, Sonoran desert scrub, upper montane coniferous forest, and valley & foothill grassland habitats. Most commonly found in open, dry habitats with rocky areas for roosting. Roosts must protect bats from high temperatures. Frequently roost in live trees and snags that have holes and cavities or crevices formed by exfoliating bark. Very sensitive to disturbance of roosting sites.	Low Potential to Occur. No suitable roosting habitat for this species is present within the Project Site. The location of this Project within an urban environment subjects the area to regular disturbances, rendering it unsuitable for this species as a roosting site, but this species may forage through the Project Site from nearby roosting habitat.
Eumops perotis californicus western mastiff bat	Fed: CA:	none SSC	Roosts high above ground in rock and cliff crevices, shallow caves, and rarely in buildings. Occurs in arid and semiarid regions including rocky canyon habitats.	Presumed Absent. No suitable roosting habitat for this species is present within the Project Site; however, this species may forage within the Project Site. No occurrences documented within 5 miles of the Project Site.
Lasiurus xanthinus western yellow bat	Fed: CA:	none SSC	Found in valley foothill riparian, desert riparian, desert wash, and palm oasis habitats and human developed areas. Roosts in trees, particularly palms. Forages over water and among trees.	Low Potential to Occur. Suitable foraging and roosting habitat in the form of palm trees, wash habitat, and riparian tree species is present adjacent to the Project Site. However, the Project Site itself does not provide suitable roosting habitat because no trees are located within the Project Site boundaries. No occurrences documented within 5 miles of the Project Site.
Microtus californicus stephensi south coast marsh vole	Fed: CA:	none SSC	Occurs in tidal marshes in Los Angeles, Orange and southern Ventura counties.	Presumed Absent. No tidal marsh habitat is present within the Project Site.
Nyctinomops femorosaccus pocketed free-tailed bat	Fed: CA:	none SSC	Roosts in crevices of outcrops and cliffs, shallow caves, and buildings. Found along rugged canyons, high cliffs,	Presumed Absent. No suitable roosting habitat for this species is present within the Project Site. This species may forage within the Project Site. No occurrences

Scientific Name **Common Name**	**Status**		**Habitat Requirements**	**Potential for Occurrence**
			and semiarid rock outcroppings.	documented within 5 miles of the Project Site.
Nyctinomops macrotis big free-tailed bat	Fed: CA:	none SSC	Roosts primarily in cliff crevices, and less often in buildings, caves, and tree cavities. Occurs in rocky areas of rugged and hilly country including woodlands, evergreen forests, river floodplain-arroyo habitats, and desert scrub.	Presumed Absent. No suitable roosting habitat for this species is present within the Project Site; however, this species may forage within the Project Site. No occurrences documented within 5 miles of the Project Site.
Perognathus longimembris pacificus Pacific pocket mouse	Fed: CA:	END SSC	Inhabits sandy substrates of coastal sage scrub, coastal dunes, and alluvial plains of marine terraces.	Presumed Absent. No suitable coastal sage scrub, coastal dunes or marine terrace habitat is present within the Project Site.
Sorex ornatus salicornicus Southern California saltmarsh shrew	Fed: CA:	none SSC	Dense vegetative ground cover typically in coastal protected nesting sites above mean high tide which are free from inundation, and moist surroundings.	Presumed Absent. No saltmarsh habitat is present within the Project Site.
Taxidea taxus American badger	Fed: CA:	none SSC	Low, semi-open, and open scrub habitats with flat, sandy valley floors. Habitats include coastal and mixed chaparral, coastal sage scrub, riparian scrub, low sagebrush, and grasslands with interspaced shrubs. Prefers open areas and may also frequent brushlands with little groundcover. When inactive, occupies underground burrow.	Presumed Absent. Project Site is located in an urban environment, no suitable habitat is present within the Project Site.

Status Codes:

Federal Designations:
(Federal Endangered Species Act, U.S. Fish and Wildlife Service)
END: Federally-listed, Endangered
THR: Federally-listed, Threatened
CAN: Candidate Endangered Species
PRO: Proposed Threatened Species

State Designations:
(California Endangered Species Act, CDFW)
END: State-listed, Endangered
THR: State-listed, Threatened
CAN: Candidate for state listing
SSC: Species of Special Concern
FP: Fully Protected Species

Source: California Natural Diversity Data Base (CNDDB) Whittier, Los Angeles, El Monte, Baldwin Park, South Gate, La Habra, Long Beach, Los Alamitos, and Anaheim 7.5-minute quads.

Addendum to Jurisdictional Delineation Report
for the Slauson Avenue Bridge over the San Gabriel River Seismic Retrofit Project

Clarification of Methodology, Terminology, and Jurisdictional Conclusions

Prepared by Lee Vella, Watearth

January 5, 2026

1.0 Purpose of the Addendum

The Addendum to the Jurisdictional Delineation (JD) Report, titled *Jurisdictional Delineation Report for the Slauson Avenue Bridge over the San Gabriel River Seismic Retrofit Project* and prepared by Watearth in December 2024, is provided to clarify the administrative record with respect to terminology used in the JD Report and to support agency review of the jurisdictional delineation by the Los Angeles Regional Water Quality Control Board (RWQCB), the U.S. Army Corps of Engineers (USACE), the California Department of Fish and Wildlife (CDFW), and the Los Angeles County Department of Public Works.

2.0 Delineation Methodology Used

The aquatic resource delineation for the Slauson Avenue Bridge over the San Gabriel River Seismic Retrofit Project was conducted to identify the lateral extent of riverine waters within the San Gabriel River channel for purposes of jurisdictional review. The delineation was performed using Ordinary High Water Mark (OHWM) indicators, consistent with guidance provided in the Field Guide to the Identification of the Ordinary High Water Mark in the Arid West Region of the United States (USACE 2008) and applicable U.S. Army Corps of Engineers regulatory standards.

Field surveys documented hydrologic and geomorphic indicators associated with active riverine processes, including the presence of surface water, drift and debris lines, sediment sorting, changes in particle size, breaks in slope, and channel morphology consistent with a managed flood control channel. These indicators were used to identify the OHWM and delineate the lateral extent of riverine waters within the channel.

No wetlands were identified within the project area during field surveys. Based on observed site conditions, the aquatic resource present beneath the Slauson Avenue Bridge was characterized as a riverine system, and the delineation focused exclusively on identification of riverine waters using OHWM indicators.

Because wetlands were not identified, a three-parameter wetland delineation under the Corps of Engineers Wetlands Delineation Manual (USACE 1987) or the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (USACE 2008) was not required and was not performed. Accordingly, no federal wetland datasheets were prepared as part of the delineation effort. Soil sampling was not conducted because wetlands were not identified in the field and the delineation relied exclusively on OHWM indicators to characterize riverine waters.

The OHWM was mapped in the field using a handheld GPS unit, and delineation boundaries were subsequently digitized using Geographic Information Systems (GIS) software. The mapped aquatic resource boundaries are presented on **Exhibit 10** of the JD Report and are supported by the OHWM field datasheets included in **Appendix D**. References in the JD Report to ecological or habitat classification systems, including Cowardin classification terminology, are descriptive in nature only and do not constitute a determination of federal wetland jurisdiction.

The delineation methodology described above formed the technical basis for the jurisdictional characterization presented in the JD Report. This methodology remains unchanged, and the mapped aquatic resource boundaries and jurisdictional acreages presented in the JD Report are not modified by this Addendum.

3.0 Clarification of Terminology Used in the JD Report (Revised)

Portions of the JD Report narrative use terms such as "wetland hydrology" and "riverine wetland" when describing hydrologic conditions observed within the San Gabriel River channel. Use of this terminology has led to confusion regarding whether a federal wetland delineation was performed or whether wetlands were independently identified within the project area.

The intent of the JD was to characterize the San Gabriel River as a riverine system and to identify the lateral extent of aquatic resources based on OHWM indicators. As described in Section 2.0, no wetlands were identified during field surveys, and no three-parameter wetland delineation was required or performed. References to "wetland hydrology" in the JD Report narrative were used descriptively to convey the presence of surface water, saturation, debris lines, and other hydrologic indicators commonly associated with active riverine processes, and were not intended to indicate the presence or delineation of wetlands under federal criteria.

Similarly, isolated references to "riverine wetland" within the JD Report narrative represent a terminology inconsistency and do not reflect the delineation methodology used or the jurisdictional conclusions presented in the report. The final delineation relied exclusively on OHWM indicators to characterize riverine waters within the San Gabriel River channel, as depicted on **Exhibit 10** and supported by the OHWM field datasheets included in **Appendix D** of the JD Report.

To provide additional clarity, the appropriate term for the aquatic resource evaluated in the JD is "riverine waters". References to "riverine wetland" in the JD were intended to describe hydrologic conditions within the river channel and were not intended to indicate the presence or delineation of wetlands. For purposes of jurisdictional interpretation, "riverine waters" more accurately reflects the delineation methodology used, which relied exclusively on OHWM indicators. No wetlands were identified, and no wetland delineation was performed.

The terminology clarification provided in this Addendum does not modify the delineation methodology, mapped aquatic resource boundaries, or jurisdictional determinations presented in the JD Report. The JD continues to identify a riverine aquatic resource delineated based on OHWM indicators, and the jurisdictional acreages and conclusions remain unchanged.

4.0 Conclusion

This Addendum clarifies terminology used in the JD Report narrative and confirms that the delineation evaluated a riverine system using OHWM indicators. No wetlands were identified or delineated, and the mapped aquatic resources and jurisdictional conclusions presented in the JD Report remain unchanged.

Appendix D
Cultural Resources Assessment Report

CULTURAL RESOURCES ASSESSMENT REPORT

for the

Slauson Avenue Over San Gabriel River Bridge Seismic Retrofit Project

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LIST OF ACRONYMS AND ABBREVIATIONS

Term	Definition
ACHP	Advisory Council on Historic Preservation
APE	Area of Potential Effect
AT&SF	Atchison, Topeka, & Santa Fe
BERD	Built Environment Resource Directory
BNSF	Burlington Northern Santa Fe Railway
BP	Years before present
Caltrans	California Department of Transportation
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CHRIS	California Historical Resources Information System
CRHR	California Register of Historical Resources
LACFCD	Los Angeles County Flood Control District
MP	Mile Post
N/A	Not Applicable
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NRHP	National Register of Historic Places
OHP	California Office of Historic Preservation
PRC	Public Resources Code
RPA	Registered Professional Archaeologist
SCAG	Southern California Association of Governments
SCCIC	South Central Coastal Information Center
SLF	Sacred Lands File
TCRs	Tribal cultural resources
USGS	U.S. Geological Survey

1.0 EXECUTIVE SUMMARY

Description of the Undertaking: The undertaking consists of retrofitting the existing bridge at Slauson Avenue over the San Gabriel River to meet current seismic requirements for highway bridges.

Description Stockpile Area: Three potential staging areas are proposed to be used during construction of the Project. Staging areas will be located outside of the river in non-vegetated areas.

Construction Activities: Construction activities include strengthening the abutment backwall, providing abutment and pier shear keys, and installing pier infill walls, hinge seat extenders and cable restrainers. Where needed, the Project would remove existing concrete, install rebar, and anchor/drill through existing concrete and steel.

An Area of Potential Effects (APE): The APE includes the areas where Historical Resources may be directly or indirectly impacted by Project-related activities. The 3.7-acre APE encompasses areas within the cities of Pico Rivera and Santa Fe Springs where all Project work and staging activities would occur. The APE also encompasses a portion of the San Gabriel River Channel (constructed circa the 1940s), which lies under the bridge that is the subject of the proposed Project.

Steps Taken to identify Historical Resources: ECORP Archaeologist Robert Cunningham conducted a records search for the Project at the California Historical Resources Information System (CHRIS) South Central Coastal Information Center (SCCIC) at California State University, Fullerton. The records search included a review of all previously recorded cultural resources and previous cultural resources studies within a 0.5-mile radius of the APE. The records search results indicate that 51 cultural resources have been previously recorded within the 0.5-mile records search radius; however, none of these 51 cultural resources were located within the APE. This portion of the San Gabriel River Channel has not been subjected to previous surveys or evaluations.

The California Native American Heritage Commission (NAHC) maintains a confidential Sacred Lands File (SLF), which contains sites of traditional, cultural, or religious value to the Native American community. ECORP contacted the NAHC on July 10, 2024 to request a search of the SLF. The NAHC responded to the request in a letter dated July 23, 2024. The results of the SLF search of the APE were negative.

California Assembly Bill 52 (AB 52) consultation was conducted by the County of Los Angeles Department of Public Works (County Public Works) as part of environmental review under the California Environmental Quality Act. On July 8, 2024, County Public Works sent letters to three consulting tribes: the Gabrieliño Tongva Indians of California,

Gabrieleno Band of Mission Indians – Kizh Nation, and the San Gabriel Band of Mission Indians. The Gabrieliño Tongva Indians of California and the Gabrieleno Band of Mission Indians – Kizh Nation both responded that they did not have any concerns, asking only to be notified if changes to the Project occur that would require ground disturbance. The San Gabriel Band of Mission Indians did not respond.

ECORP examined historic topographic maps and aerial photographs to provide historic land use information about the APE and vicinity. This review indicated a realignment of the San Gabriel River in the late-19th or early-20th centuries. The APE was otherwise unchanged through the first half of the 20th century, but changed significantly due to urban road, flood-control, and residential development after the 1950s.

ECORP conducted an intensive pedestrian survey on August 29, 2024. No archaeological resources were encountered during the survey of the APE. A feature of the San Gabriel River Channel, a historic-era survey benchmark, was recorded during the survey effort.

During the course of the study, three previously documented historic-period built resources (Slauson Avenue Bridge, the Atchison, Topeka, and Santa Fe/Burlington Northern Santa Fe Railroad, and the Southern Pacific/Union Pacific Railroad) and one newly documented historic-period built resource (San Gabriel River Channel) were encountered in the APE. Although segments of the two railroads are located within the APE, none of the proposed Project activities are anticipated to have direct or indirect impacts to the resources and they will be protected in place. Therefore, no additional evaluation effort is required. Slauson Avenue Bridge has already been evaluated by Caltrans as ineligible for the National Register of Historic Places (NRHP) or the California Register of Historical Resources (CRHR).

The architectural history evaluation of the San Gabriel River Channel included a review of the records search of the APE with the SCCIC, a visit to the San Gabriel River Channel to document the current conditions, focused archival and historical research, and an evaluation of the San Gabriel River Channel using CRHR eligibility criteria.

A 2019 Historical Resources Evaluation Report for the Interstate 605 Corridor Improvement Project PA/ED by California Department of Transportation (Caltrans) and LA Metro assumed the entirety of the San Gabriel River Channel to be eligible for the CRHR under Criterion 1 as a contributing element to the larger potential Los Angeles Flood Control District. The 2019 report did not evaluate the San Gabriel River Channel for individual eligibility, and an official Los Angeles Flood Control District has not been created. As a result of the San Gabriel River Channel being within the APE, and due to the amount of time since the 2019 evaluation, ECORP evaluated the channel individually using CRHR criteria. The channel was not listed in the California Office of Historic Preservation's Built Environment Resource Directory (BERD) for Los Angeles

County and was not identified in the SCCIC Record Search as having been previously recorded or evaluated.

ECORP used the results of the pedestrian survey and focused archival research to inform the CRHR eligibility evaluation of the San Gabriel River Channel. ECORP evaluated the San Gabriel River Channel and found it eligible for the CRHR under Criterion 1 as a critical component of the greater Los Angeles County Flood Control system. Therefore, the San Gabriel River Channel is considered a Historical Resource for purposes of CEQA. The San Gabriel River Channel was not found eligible as part of a local district because no known Historic District currently exists. Although bridge upgrades are proposed to occur for the Project, with some bridge improvements proposed within the channel, the use of scaffolding systems, and debris-containment systems will mitigate disruptions to the river channel itself and will not impact character-defining features of the channel, nor will they impact aspects of integrity. Therefore, it is unlikely that project implementation would impact intact subsurface archaeological resources. As such, the Project will have no impact on historical resources as defined by CEQA.

2.0 INTRODUCTION

Public Works retained ECORP consulting in 2024 to prepare a cultural resources assessment for the Slauson Avenue Over San Gabriel River Bridge Retrofit Project (Project). The Project involves upgrading the existing bridge at Slauson Avenue over the San Gabriel River to meet current seismic requirements. Construction activities include removing existing concrete, drilling/anchoring through existing concrete and steel, and installing rebar. The Project is subject to the California Environmental Quality ACT (CEQA).

ECORP personnel involved in the preparation of this report include Staff Archaeologist Robert Cunningham, Senior Architectural Historian Andrew Bursan, Staff Archaeologist Casey LeJeune, RPA, and Director of Cultural Resources Lisa Westwood, RPA. Resumes of key personnel are included in **Appendix A**.

2.1 Project Location

The Project site is located in an unsectioned portion of the Rancho Paso de Bartolo in Township 2 South, Range 12 West on the Whittier, CA U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle map (Figure 1). It is located within the cities of Pico Rivera and Santa Fe Springs, and the unincorporated community of West Whittier in Los Angeles County,0.3 mile west of Interstate (I) 605 and approximately 1.75 miles north of the I-605/I-5 interchange. The Project site consists of the Slauson Avenue Bridge over the San Gabriel River and adjacent staging and access areas (Figure 2).

Slauson Avenue is a four-lane major east–west arterial roadway located in the San Gabriel Valley region of Los Angeles County. The Slauson Avenue Bridge spans the San Gabriel River approximately 0.3 mile west of Interstate 605 (I-605) and approximately 1.75 miles north of the I-605/Interstate 5 (I-5) interchange. At this location, the San Gabriel River is confined within a flood control channel. Most of the bridge structure lies within the city of Pico Rivera, whose eastern jurisdictional boundary generally follows the eastern bank of the channel. The easternmost end of the bridge is within the unincorporated community of West Whittier and the city of Santa Fe Springs, where Rivera Road forms the boundary between these two jurisdictions near the bridge. (*See Figure 1: Project Location Map.*)

2.2 Setting

The Slauson Avenue Bridge was originally constructed in 1958 by the Los Angeles County Department of Public Works (Public Works) and underwent modifications in 1964. The bridge is approximately 655 feet long and 63 feet, 8 inches wide. The bridge deck contains undivided 12-foot-wide travel lanes, 4-foot, 10-inch-wide sidewalks on both sides, and steel railings along the edges. The deck, which is 7 inches thick, consists of seven spans supported by 5-foot-deep steel plate girders. These spans rest on abutments

at each end (Abutments 1 and 8) and on six intermediate piers (Piers 2 through 7). Additionally, the spans are connected by two expansion and five deflection hinges. (*See Figure 2: Existing Slauson Bridge Configuration).*

The abutments are located outside of the flood control channel, while three of the piers (Piers 3, 4, and 5) have foundations located within the channel bottom. Pier 2 is supported by a foundation on the channel's western levee wall. Piers 2 through 5 each consist of elongated concrete footings and caps that span the width of the bridge deck and are supported by double concrete columns.

Adjacent to and beneath the Slauson Avenue Bridge, two freight rail lines operate in close proximity. The Union Pacific Railroad (UPRR) owns and operates a single-track, north–south rail line located along the eastern side of the channel. The Burlington Northern Santa Fe Railway (BNSF) owns and operates a rail line with three tracks that cross the San Gabriel River via a bridge that runs roughly parallel—though skewed—to the Slauson Avenue Bridge. The BNSF bridge, which is lower in elevation, crosses underneath the Slauson Avenue Bridge at an angle immediately east of the channel, between Pier 6's straddle-type foundations (i.e., two sets of columns and foundations). At this crossing, both the BNSF and UPRR rail lines are at-grade. BNSF leases track usage rights to Metrolink, operated by the Southern California Regional Rail Authority (SCRRA). *(Refer to Figure 2: Existing Bridge Configuration and Figure 3: Aerial View of the Project Area.)*

The San Gabriel River at this location flows through a flood control channel constructed by the U.S. Army Corps of Engineers. Upstream, the channel extends approximately 12.5 miles to the Santa Fe Flood Control Basin. Near the bridge, the channel is about 320 feet wide and features a soft earthen bottom with vegetation, contained by trapezoidal levees lined with riprap or grouted stone. Stormwater outfalls are located at various points along the levees. The river bottom lies approximately 38 feet below the bridge deck at an elevation of 144 feet above mean sea level.

The San Gabriel River Trail, a paved recreational bicycle and pedestrian path, runs along the eastern side of the channel between the river and the UPRR tracks. A restricted-access maintenance road runs along the western levee. Downstream of the bridge, the channel continues approximately 12 miles to its confluence with the Coyote Creek flood control channel, ultimately discharging into the Pacific Ocean in Long Beach.

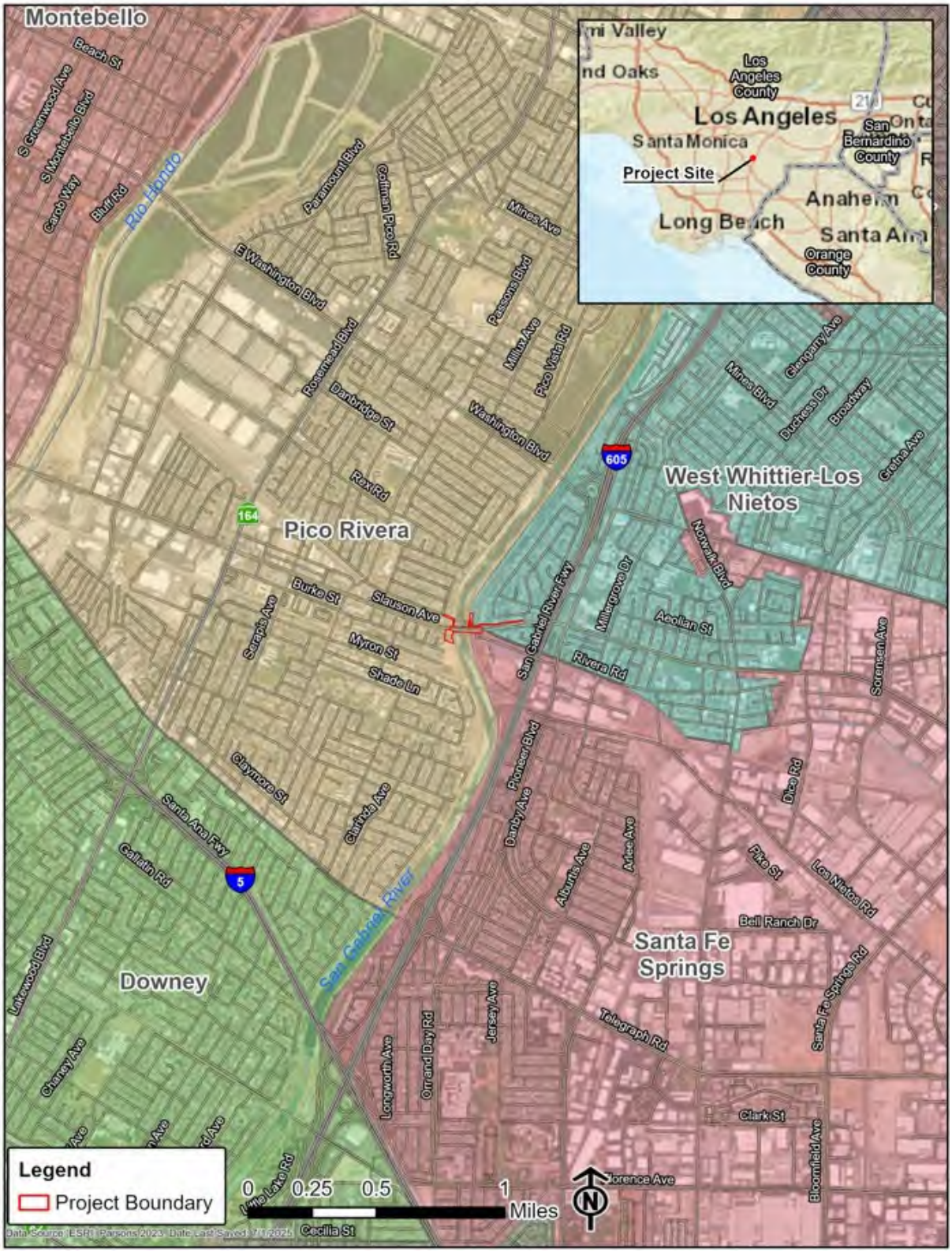


Figure 1: Project Location

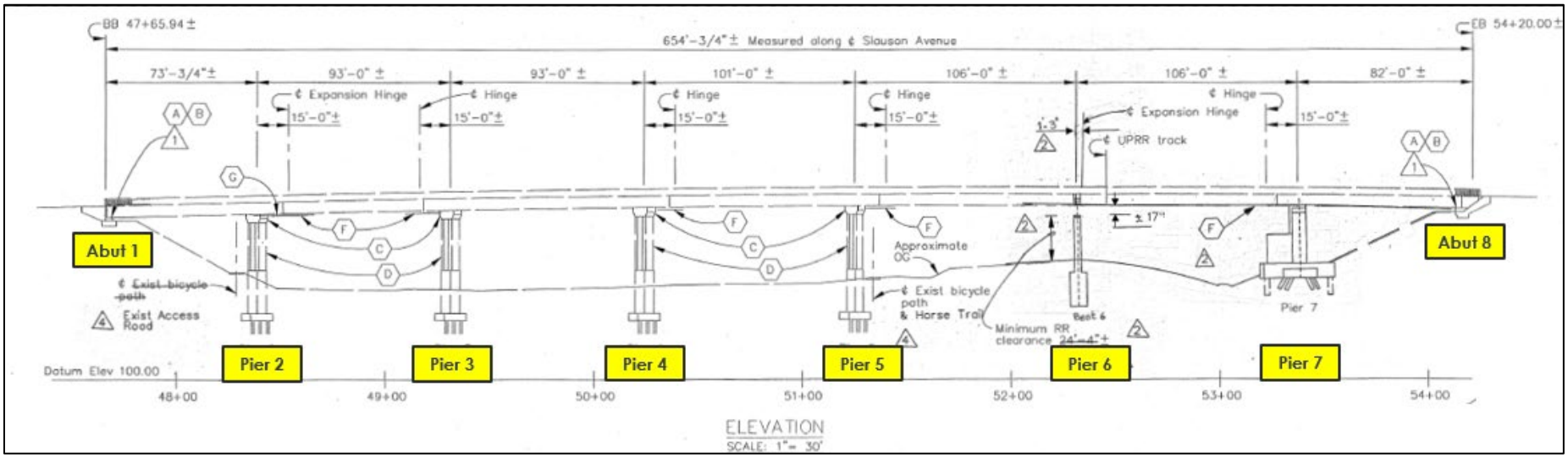


Figure 2: Existing Slauson Bridge Configuration

Figure 3: Aerial View of the Project Area

2.3 Surrounding Land Uses

In addition to the flood control channel, railroad facilities, and the San Gabriel River Trail, the area surrounding the Slauson Avenue Bridge includes primarily vacant parcels located to the northeast, southwest, and southeast of the bridge. Beyond these vacant areas, single-family residential subdivisions are located farther northeast and southwest. On the southeastern side, a self-storage facility occupies the area beyond the adjacent vacant parcel. To the northwest of the bridge, land uses include additional single-family residences and another self-storage facility located between Slauson Avenue and the BNSF rail corridor. *(See Figure 3: Aerial View of the Project Area.)*

2.4 Project Description

In 1995, the County Public Works inspected the Slauson Avenue Bridge and found no visible signs of structural distress. At that time, the bridge was considered to be in good condition. However, the inspection concluded that during a major earthquake, the bridge could sustain severe damage, including partial collapse, due to many of its components not conforming to current seismic design standards. A retrofit strategy was developed and proposed by Public Works following that evaluation.

A subsequent inspection was conducted in 2022. This inspection documented the accumulation of debris around the pier columns and bent areas, as well as evidence of past fires near the abutments. The report also assessed the condition of various bridge elements and included recommendations for repair. The purpose of the current Project is to seismically retrofit the Slauson Avenue Bridge to meet Caltrans Bridge Design Specifications and Seismic Design Criteria.

The proposed seismic retrofit elements include the following components:

- Strengthening the abutment backwalls;
- strengthening Piers 2 through 5 by infilling the space between the double columns with concrete, thereby converting each pair of columns into a single elongated column;
- installing shear keys between the girders and the caps of Piers 2 through 5 and on the top of the abutment walls;
- installing hinge seat extenders between all the deck spans, except at Pier 6; and
- installing cable restrainers between Spans 1 and 2, near Pier 2.

No modifications are proposed for Piers 6 and 7, as retrofit work on these piers was completed in 2017. The project would not alter the bridge deck or change the configuration of the San Gabriel River flood control channel. Additionally, the pier foundations, including those located within the channel, would not be modified. Existing adjacent railroads and utilities, including overhead electrical transmission lines along the

eastern side of the channel, would remain in place and be protected during construction. A portion of the San Gabriel River Trail would be temporarily closed during construction, with detours provided to maintain trail connectivity.

2.4.1 Construction Footprint

The construction footprint includes the bridge working area, existing paved access roads along both sides of the river, and nearby vacant parcels that would accommodate temporary field offices, equipment staging, and materials storage. (*See Figure 4: Construction Footprint*.)

2.4.2 Construction Methods

Construction of the seismic retrofit would be carried out with minimal disturbance to the San Gabriel River and flood control channel, as no pier foundation work is proposed. Handheld equipment would be used to break existing concrete, followed by drilling and anchoring through existing concrete and steel to install rebar. Concrete infill walls and seat extenders would be framed using wood or metal forms and placed with a concrete pump and boom truck, operating from the bridge deck, trail, or staging area. Forms would remain in place for curing, typically up to seven days.

All work would comply with applicable stormwater regulations, including:

- MS4 Permit Compliance: Order No. R4-2021-0105 (or subsequent orders) for discharges within the Coastal Watersheds of Los Angeles and Ventura Counties.

- Construction General Permit: If applicable, the project would enroll under Order No. 2022-0057-DWQ (Permit No. CAS000002), with development and implementation of a project-specific Storm Water Pollution Prevention Plan (SWPPP).

Construction debris would be contained in accordance with a Debris Containment Plan to be prepared by the contractor and approved by Public Works. No debris would be allowed to fall into the streambed.

The concrete footprint would not increase. All new concrete would be delivered by mixer trucks and temporarily staged on the bridge deck prior to its use. Retrofit work at the piers would occur above ground, while limited abutment work would take place at ground level, more than 15 feet above the river bottom. Vegetation removal is not anticipated

2.4.3 Staging Areas

Three vacant parcels adjacent to the bridge, all located outside of the river channel and currently non-vegetated, may be used for equipment and materials staging during construction. (*Refer again to Figure 4: Construction Footprint.)*

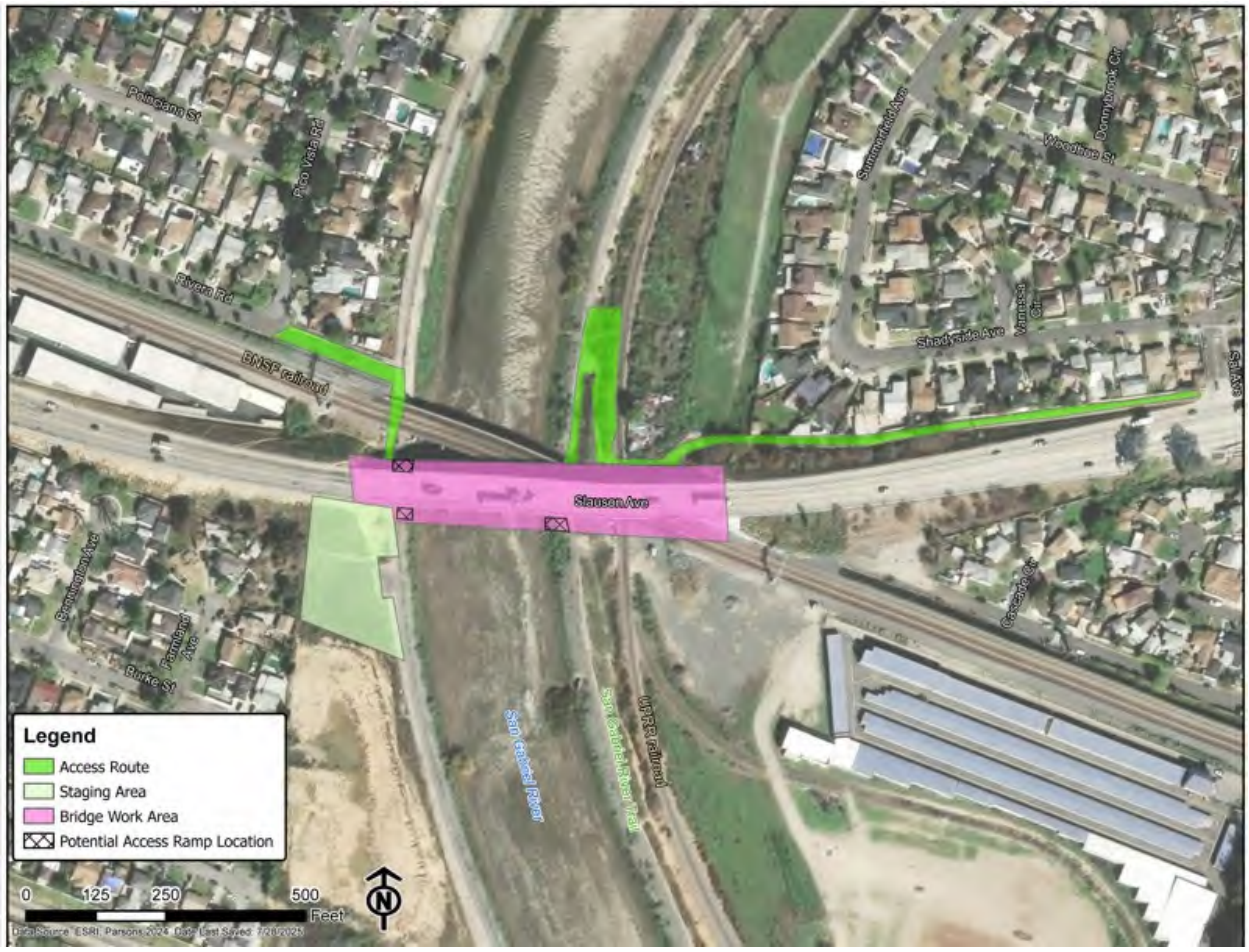


Figure 4: Construction Footprint

2.4.4 Access and Scaffolding Platform

The San Gabriel River at the project location has a natural earthen bottom. To install and remove scaffolding platforms, construction workers and rubber-tired equipment (e.g., telescopic manlifts and forklifts) would access the channel using existing paved roads along both riverbanks. Equipment may be brought to the channel floor using the natural slopes on either side of the river or lowered directly from the bridge deck using a crane. No placement of gravel or other materials on the existing riprap would be required. (*See Figure 5: Existing Paved Access Roads on Each Side of the Bridge*).

Only rubber-tired vehicles and construction workers would be permitted in the channel. No equipment would be parked overnight within the streambed; all equipment must be removed from the channel at the end of each workday.

Figure 5: Existing Paved Access Roads on Each Side of the Bridge

(East Side)

(West Side)

Scaffolding platforms would be suspended above the riverbed, supported by the existing bridge piers. Workers would use rubber-tired basket trucks to reach the riverbed and construct the scaffolding, and to elevate themselves to the platform to perform retrofit work. Once installed, the platforms would allow all remaining work to occur above the waterline.

Construction equipment and materials would be lowered from the bridge deck using a crane. While they may be temporarily placed on the channel bottom before use, no overnight storage in the channel would be allowed.

Use of suspended scaffolding platforms during the dry season eliminates the need for in-channel water diversion. No work would be scheduled during rainy conditions, forecasted precipitation, or when water is present in the channel.

2.4.5 Vehicle, Equipment and Materials

Construction would involve vehicles and equipment, including hydraulic cranes, telescopic boom forklifts, core-drilling machines, jack hammers, air compressors, manlifts, welding machines, and concrete boom pumps. Rebar and materials for column infills would be delivered via tractor-trailers. Concrete would be delivered by mixer trucks. Dump trucks would be used to haul waste and debris from the site.

2.4.6 Traffic Control

Although retrofit work would occur beneath the bridge deck, traffic control would be necessary to remove live loads during construction on the girders. Concrete pump trucks may be temporarily stationed on the bridge deck, and materials may be lowered from the deck, both requiring temporary traffic control measures. In addition, the adjacent San Gabriel River Trail would require a detour during construction hours, with access restored during non-working hours.

A Traffic Control Plan (TCP) has been prepared and includes signage, flaggers, signal boards, and speed reduction measures. Pedestrian access across the bridge would be maintained, with temporary detours to one side of the bridge when necessary. A portion of the San Gabriel River Trail beneath the bridge would be closed for at least part of the construction period. Trail users would be redirected to parallel streets east of the river, with detour connections at Washington Boulevard to the north and Telegraph Road to the south.

2.4.7 Schedule

Construction is expected to take approximately six months. In-channel activities would be limited to a single dry-season window, from April through October. Work would be conducted during regular daytime weekday hours, in accordance with applicable local regulations. No nighttime or weekend work is anticipated.

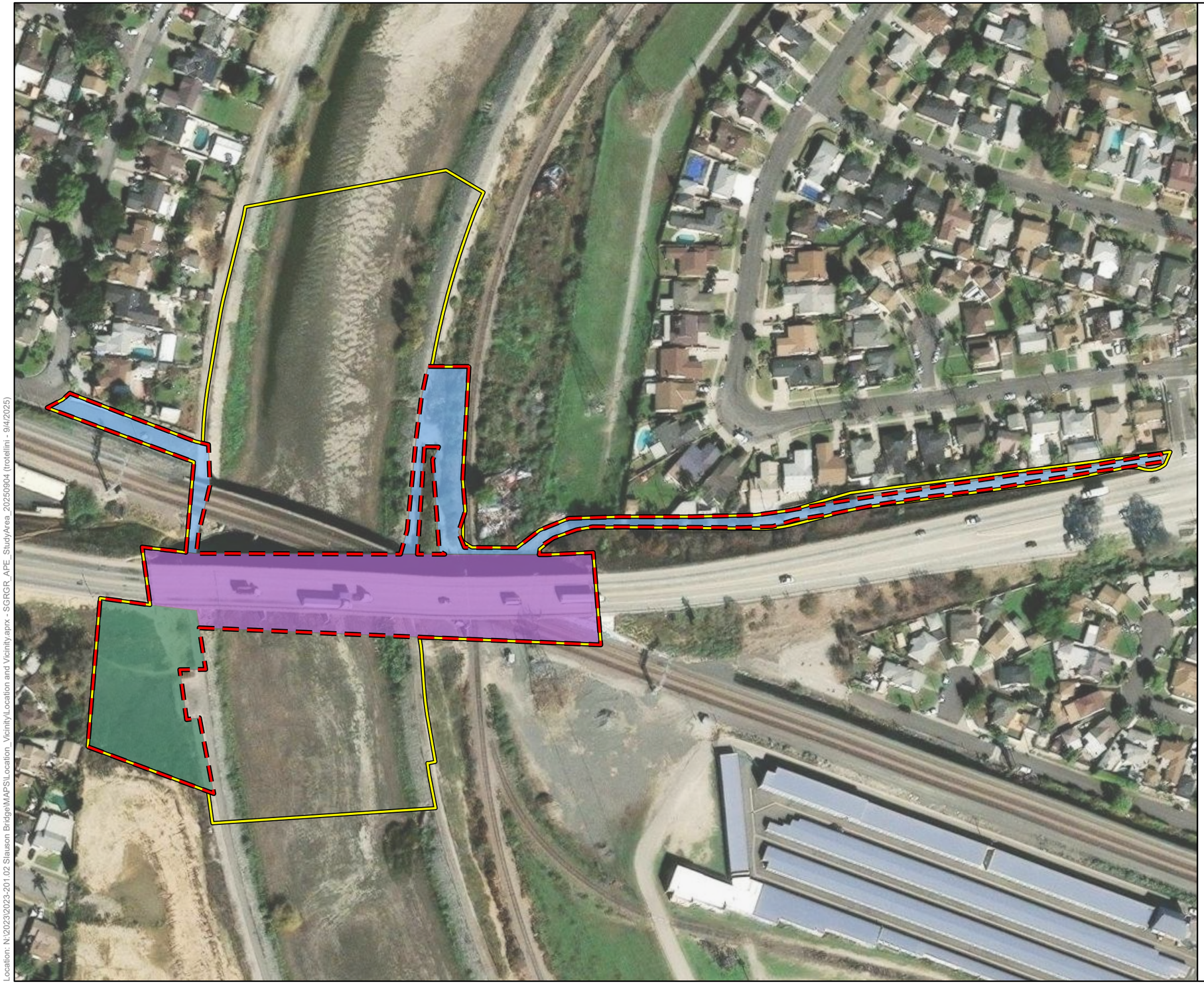
3.0 AREA OF POTENTIAL EFFECTS AND STUDY AREA

Initially, a Federal permit was anticipated for the Project; however, after design changes, it was determined that Federal oversight was no longer required. Due to the original Project approach, the NHPA specific term Area of Potential Effects (APE) has been retained in this report. The APE is defined for projects subject to regulations implementing Section 106 (federal law and regulations). For projects subject to the California Environmental Quality Act (CEQA) review, the term Project Area is used rather than APE. The terms Project Area and APE are, therefore, interchangeable for the purpose of this document.

According to Section 106 of the NHPA, the Area of Potential Effects (APE) is:

> *the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if anysuch properties exist. The APE is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking (36 Code of Federal Regulations [CFR] 800.16[d]).*

An APE was delineated pursuant to Section 106 of the NHPA and includes the areas where Historic Properties may be directly or indirectly impacted by Project-related activities. The original APE encompassed a 10.11-acre area along the San Gabriel River Channel that was the subject of the field effort and archival research. After completion of the study, the APE was reduced due to Project design changes. Therefore, the original 10.11-acre APE is heretofore referred to as the Study Area (Figure 6). The final APE is a 3.7-acre area that encompasses the areas where all project work and staging activities would occur (*See Figure 6*). The APE also encompasses a portion of the San Gabriel River Channel, which lies under the bridge that is the subject of the proposed project.



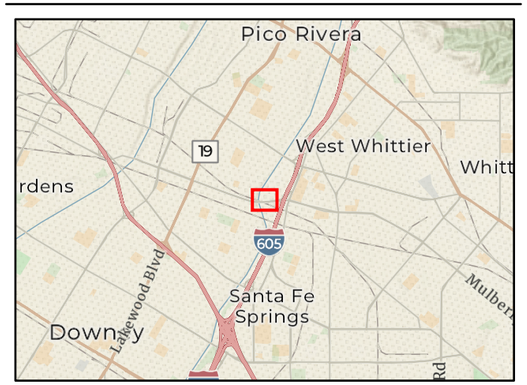
Map Contents

- Study Area (10.11 Acres)
- 2025 APE (3.70 Acres)

2025 Project Components

- Access Route
- Bridge Work Area
- Staging Area

Photo Source: ESRI (Maxar 2024)



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Map Date: 9/4/2025

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

Scale in Feet
0 150

Figure 7. APE and Study Area

2023-201.02 Slauson Bridge

The Project proposes upgrades to the Slauson Avenue Bridge over San Gabriel River, which passes over the San Gabriel River. The San Gabriel River Channel was constructed in the 1940s and therefore meets the 50-year-old threshold for consideration as a Historic Property pursuant to Section 106 of the NHPA and as a Historical Resource under CEQA. Because the Project proposes to modify the existing Slauson Avenue Bridge abutments, the entirety of the 650-foot-long bridge and the affected 250-foot-wide portion of the San Gabriel River are included in the APE (*see Figure 6*).

4.0 ENVIRONMENTAL SETTING AND BACKGROUND

4.1 Natural Setting

Prior to urbanization associated with the development of Los Angeles, the APE's setting encompassed the prairies of the San Gabriel Basin at the base of the San Gabriel Mountains. This environment supported habitats including coastal and alluvial sage scrub, grassland, and chaparral, with occasional riparian or woodland habitat associated with riverine or other aquatic features (Los Angeles Department of Public Works 2006). The present-day APE is located within a suburban area of the cities of Pico Rivera and Santa Fe Springs, and the unincorporated community of West Whittier, and encompasses the Slauson Avenue San Gabriel River Bridge and a segment of the concrete-lined San Gabriel River Channel.

4.2 Precontact Setting

It is generally believed that human occupation of California began at least 10,000 years before present (BP). The archaeological record indicates that between approximately 10,000 and 8,000 BP, a predominantly hunting economy existed, characterized by archaeological sites containing numerous projectile points and butchered large animal bones. Animals that were hunted probably consisted mostly of large species still in existence today. Bones of extinct species have been found but cannot definitively be associated with human artifacts. Although small animal bones and plant grinding tools are rarely found within archaeological sites of this period, small game and floral foods were probably exploited on a limited basis. A lack of deep cultural deposits from this period suggests that groups included only small numbers of individuals who did not often stay in one place for extended periods (Wallace 1978).

Around 8,000 BP, there was a shift in focus from hunting toward a greater reliance on plant resources. Archaeological evidence of this trend consists of a much greater number of milling tools (e.g., metates and manos) for processing seeds and other vegetable matter. This period, which extended until around 5,000 years BP, is sometimes referred to as the Millingstone Horizon (Wallace 1978). Projectile points are found in archaeological sites from this period, but they are far fewer in number than

from sites dating to before 8,000 BP. An increase in the size of groups and the stability of settlements is indicated by deep, extensive middens at some sites from this period (Wallace 1978).

In sites dating to after about 5,000 BP, archaeological evidence indicates that reliance on both plant gathering and hunting continued as in the previous period, with more specialized adaptation to particular environments. Mortars and pestles were added to metates and manos for grinding seeds and other vegetable material. Flaked-stone tools became more refined and specialized, and bone tools were more common. During this period, new peoples from the Great Basin began entering southern California. These immigrants, who spoke a language of the Uto-Aztecan linguistic stock, seem to have displaced or absorbed the earlier population of Hokan-speaking peoples. During this period, known as the Late Horizon, population densities were higher than before, and settlement became concentrated in villages and communities along the coast and interior valleys (Erlandson 1994; McCawley 1996). Regional subcultures also started to develop, each with its own geographical territory and language or dialect (Kroeber 1925; McCawley 1996; Moratto 1984). These were most likely the basis for the groups encountered by the first Europeans during the eighteenth century (Wallace 1978). Despite the regional differences, many material culture traits were shared among groups, indicating a great deal of interaction (Erlandson 1994). The introduction of the bow and arrow into the region sometime around 2,000 BP is indicated by the presence of small projectile points (Moratto 1984; Wallace 1978).

4.2.1 Paleo-Indian Period/Terminal Pleistocene (12,000 to 10,000 BP)

The first inhabitants of southern California were big game hunters and gatherers exploiting extinct species of Pleistocene megafauna (e.g., mammoth and other Rancholabrean fauna). Local "fluted point" assemblages comprised of large spear points or knives are stylistically and technologically similar to the Clovis Paleo-Indian cultural tradition dated to this period elsewhere in North America (Moratto 1984). Archaeological evidence for this period in southern California is limited to a few small temporary camps with fluted points found around late Pleistocene Lake margins in the Mojave Desert and around Tulare Lake in the southern San Joaquin Valley. Single points are reported from Ocotillo Wells and Cuyamaca Pass in eastern San Diego County and from the Yuha Desert in Imperial County (Rondeau et al. 2007).

4.2.2 Early Archaic Period/Early Holocene (10,000 to 8,500 BP)

Approximately 10,000 years ago, at the beginning of the Holocene, warming temperatures, and the extinction of the megafauna resulted in changing subsistence strategies with an emphasis hunting smaller game and increasing reliance on plant gathering. Previously, Early Holocene sites were represented by only a few sites and isolates from the Lake Mojave and San Dieguito complexes found along former

lakebeds and grasslands of the Mojave Desert and in inland San Diego County. More recently, southern California Early Holocene sites have been found along the Santa Barbara Channel (Erlandson 1994), in western Riverside County (Goldberg 2001; Grenda 1997), and along the San Diego County coast (Gallegos 1991; Koerper et al. 1991; Warren 1967).

The San Dieguito Complex was defined based on material found at the Harris site (CA-SDI-149) on the San Dieguito River near Lake Hodges in San Diego County. San Dieguito artifacts include large leaf-shaped points; leaf-shaped knives; large ovoid, domed, and rectangular end and side scrapers; engraving tools; and crescentics (Koerper et al. 1991). The San Dieguito Complex at the Harris site dates to 9,000 to 7,500 BP (Gallegos 1991). However, sites from this time period in coastal San Diego County have yielded artifacts and subsistence remains characteristic of the succeeding Encinitas Tradition, including manos, metates, core-cobble tools, and marine shell (Gallegos 1991; Koerper et al. 1991).

4.2.3 Encinitas Tradition or Milling Stone Period/Middle Holocene (8,500 to 1,250 BP)

The Encinitas Tradition (Warren 1968) and the Milling Stone Period (Wallace 1955) refer to a long period of time during which small mobile bands of people who spoke an early Hokan language foraged for a wide variety of resources including hard seeds, berries, and roots/tubers (yucca in inland areas), rabbits and other small animals, and shellfish and fish in coastal areas. Sites from the Encinitas Tradition consist of residential bases and resource acquisition locations with no evidence for overnight stays. Residential bases have hearths and fire-affected rock indicating overnight stays and food preparation. Residential bases along the coast have large amounts of shell and are often termed shell middens.

The Encinitas Tradition as originally defined (Warren 1968) applied to all of the non-desert areas of southern California. Recently, four patterns within the Encinitas Tradition have been proposed which apply to different regions of southern California (Sutton and Gardner 2010). The Topanga Pattern includes archaeological material from the Los Angeles Basin and Orange County. The Greven Knoll Pattern pertains to southwestern San Bernardino County and western Riverside County (Sutton and Gardner 2010). Each of the patterns is divided into temporal phases. The Topanga I phase extends from 8,500 to 5,000 BP and Topanga II runs from 5,000 to 3,500 BP. The Topanga Pattern ended about 3,500 BP with the arrival of Takic speakers, except in the Santa Monica Mountains where the Topanga III phase lasted until about 2,000 BP.

The Encinitas Tradition in inland areas east of the Topanga Pattern (southwestern San Bernardino County and western Riverside County) is the Greven Knoll Pattern (Sutton and Gardner 2010). Greven Knoll I (9,400 to 4,000 BP) has abundant manos and

metates. Projectile points are few and are mostly Pinto points. Greven Knoll II (4,000 to 3,000 BP) has abundant manos and metates and core tools. Projectile points are mostly Elko points. The Elsinore site on the east shore of Lake Elsinore was occupied during Greven Knoll I and Greven Knoll II. During Greven Knoll I faunal processing (butchering) took place at the lakeshore and floral processing (seed grinding), cooking, and eating took place farther from the shore. The primary foods were rabbit meat and seeds from grasses, sage, and ragweed. A few deer, waterfowl, and reptiles were consumed. The recovered archaeological material suggests that a highly mobile population visited the site at a specific time each year. It is possible that their seasonal round included the ocean coast at other times of the year. These people had an unspecialized technology as exemplified by the numerous crescents, a multi-purpose tool. The few projectile points suggest that most of the small game was trapped using nets and snares (Grenda 1997). During Greven Knoll II, which included a warmer drier climatic episode known as the Altithermal, it is thought that populations in interior southern California concentrated at oases and that Lake Elsinore was one of them. The Elsinore site (CA-RIV-2798) is one of five known Middle Holocene residential sites around Lake Elsinore. Tools were mostly manos, metates, and hammerstones. Scraper planes were absent. Flaked-stone tools consisted mostly of utilized flakes used as scrapers. The Elsinore site during the Middle Holocene was a “recurrent extended encampment” which could have been occupied during much of the year.

The Encinitas Tradition lasted longer in inland areas because Takic speakers did not move east into these areas until circa 1,000 BP. Greven Knoll III (3,000 to 1,000 BP) is present at the Liberty Grove site in Cucamonga (Salls 1983) and at sites in Cajon Pass that were defined as part of the Sayles Complex (Kowta 1969). Greven Knoll III sites have a large proportion of manos and metates and core tools as well as scraper planes. Kowta (1969) suggested the scraper planes may have been used to process yucca and agave. The faunal assemblage consists of large quantities of lagomorphs (rabbits and hares) and lesser quantities of deer, rodents, birds, carnivores, and reptiles.

4.2.4 Palomar Tradition (1,250 to 150 BP)

The native people of southern California (north of a line from Agua Hedionda to Lake Henshaw in San Diego County) spoke Takic languages which form a branch or subfamily of the Uto-Aztecan language family. The Takic languages are divided into the Gabrieliño-Fernandeño language, the Serrano-Kitanemuk group (the Serrano [includes the Vanyume dialect] and Kitanemuk languages), the Tataviam language, and the Cupan group (the Luiseño-Juaneño language, the Cahuilla Language, and the Cupeño language) (Golla 2011). According to Sutton (2009), Takic speakers occupied the southern San Joaquin Valley before 3,500 BP. Perhaps because of the arrival of Yokutsan speakers (a language in the Penutian language family) from the north, Takic speakers moved southeast. The ancestors of the Kitanemuk moved into the Tehachapi

Mountains and the ancestors of the Tataviam moved into the upper Santa Clara River drainage. The ancestors of the Gabrieliño (Tongva) moved into the Los Angeles Basin about 3,500 BP, replacing the native Hokan speakers. Speakers of proto-Gabrieliño reached the southern Channel Islands by 3,200 BP (Sutton 2009) and moved as far south as Aliso Creek in Orange County by 3,000 BP.

Takic people moved south into southern Orange County after 1,250 BP and became the ancestors of the Juaneño. Takic people moved inland from southern Orange County about 1,000 BP, becoming the ancestors of the Luiseño, Cupeño, and Cahuilla. Takic people from the Kitanemuk area moved east along the northern slopes of the San Gabriel Mountains and spread into the San Bernardino Mountains and along the Mojave River becoming the ancestors of the Serrano and the Vanyume.

The material culture of the inland areas where Takic languages were spoken at the time of Spanish contact is part of the Palomar Tradition (Sutton 2011). San Luis Rey I Phase (1,000 to 500 BP) and San Luis Rey II Phase (500 to 150 BP) pertain to the area occupied by the Luiseño at the time of Spanish contact. The Peninsular I (1,000 to 750 BP), II (750 to 300 BP), and III (300 to 150 BP) Phases are used in the areas occupied by the Cahuilla and Serrano (Sutton 2011).

4.3 Ethnographic Setting

4.3.1 Gabrieliño

Ethnographic accounts of Native Americans indicate that the Gabrieliño (also known as Gabrieleno, or Tongva) once occupied the region that encompasses the APE. At the time of contact with Europeans, the Gabrieliño were the main occupants of the southern Channel Islands, the Los Angeles Basin, much of Orange County, and extended as far east as the western San Bernardino Valley. The term “Gabrieliño” came from the group’s association with Mission San Gabriel Arcángel, established in 1771. The Gabrieliño are believed to have been one of the most populous and wealthy Native American tribes in southern California prior to European contact, (Bean and Smith 1978; McCawley 1996; Moratto 1984) and spoke a Takic language. The Takic group of languages is a subgroup of the Uto-Aztecan language family.

The Gabrieliño occupied villages located along rivers and at the mouths of canyons. Populations ranged from 50 to 200 inhabitants. Residential structures within the villages were domed, circular, and made from thatched tule or other available wood. Gabrieliño society was organized by kinship groups, with each group composed of several related families who together owned hunting and gathering territories. Settlement patterns varied according to the availability of floral and faunal resources (Bean and Smith 1978; McCawley 1996; Miller 1991).

Vegetal staples consisted of acorns, chia, seeds, piñon nuts, sage, cacti, roots, and bulbs. Animals hunted included deer, antelope, coyote, rabbits, squirrels, rodents, birds, and snakes. The Gabrieliño also fished and collected marine shellfish (Bean and Smith 1978; McCawley 1996; Miller 1991).

By the late-18th century, the Gabrieliño population had significantly dwindled due to introduced European diseases and dietary deficiencies and communities disintegrated as families were taken to the missions (Bean and Smith 1978; McCawley 1996; Miller 1991). Recently, Gabrieliño culture has undergone a resurgence, and current descendants are actively preserving their heritage.

4.4 Historic Setting

4.4.1 The Spanish Period

The first European to visit California was Spanish maritime explorer Juan Rodriguez Cabrillo in 1542. Cabrillo was sent north by the Viceroy of New Spain (Mexico) to look for the Northwest Passage. Cabrillo visited San Diego Bay, Catalina Island, San Pedro Bay, and the northern Channel Islands. Sebastian Vizcaíno explored the coast as far north as Monterey in 1602 (Castillo 1978).

Colonization of California began with an expedition, led by Captain Gaspar de Portolá of the Spanish army and Father Junipero Serra, a Franciscan missionary, who explored the California coast from San Diego to the Monterey Bay Area in 1769. As a result of this expedition, Spanish missions to convert the native population, presidios (forts), and pueblos (towns) were established. The Franciscan missionary friars established 21 missions in Alta California (the area north of Baja California) beginning with Mission San Diego in 1769 and ending with the mission in Sonoma established in 1823. The purpose of the missions and presidios was to establish Spanish economic, military, political, and religious control over the Alta California territory. Mission San Gabriel Arcángel was founded in 1771 east of what is now Los Angeles to convert the Tongva or Gabrieliño. (Castillo 1978:100).

The missions sustained themselves through cattle ranching and traded hides and tallow for supplies brought by ship (Gunther 1984). The Spanish also constructed a pueblo, or town, at Los Angeles. The Spanish period in California began in 1769 with the Portolá expedition and ended in 1821 with Mexican independence.

4.4.2 The Mexican Period

After Mexico became independent from Spain in 1821, what is now California became the Mexican province of Alta California. The Mexican government closed the missions in the 1830s and former mission lands were granted to retired soldiers and other Mexican citizens for use as cattle ranches. Much of the land along the coast and in the interior

valleys became part of Mexican land grants or “ranchos” (Robinson 1948). The Mexican Period includes the years 1821 to 1848.

4.4.3 The American Period

The American period began when the Treaty of Guadalupe Hidalgo, which ended the Mexican-American War, was signed between Mexico and the U.S. in 1848. As a result of the treaty, Alta California became part of the U.S. as the territory of California. Rapid population increase occasioned by the Gold Rush of 1849 allowed California to become a state in 1850. Most Mexican land grants were confirmed to the grantees by U.S. courts, but usually with more restricted boundaries which were surveyed by the U.S. Surveyor General’s office. Land that was not part of a land grant was owned by the U.S. government until it was acquired by individuals through purchase or homesteading. Floods and drought in the 1860s greatly reduced the cattle herds on the ranchos, making it difficult to pay the new American taxes on the thousands of acres they owned. Many Mexican-American cattle ranchers borrowed money at usurious rates from newly arrived Anglo-Americans. The resulting foreclosures and land sales transferred most of the land grants into the hands of Anglo-Americans (Cleland 1941:137-138).

4.4.4 City of Pico Rivera

Pico Rivera is a city in Los Angeles County bounded on the west by Rio Hondo and on the east by the San Gabriel River. The City is located on a portion of the former Mexican land grant known as Rancho Paso de Bartolo.

Rancho Paso de Bartolo is a Mexican land grant that was issued to Juan Crispin Perez, *mayordomo* of Mission San Gabriel, in 1835. Part of Rancho Paso de Bartolo was later owned by Pio Pico who became Mexican governor of California in 1845. In 1846, Pico escaped to Mexico when American forces invaded California. Pio Pico’s brother, Andres Pico (Mexican military commander), capitulated to the American forces at Cahuenga near Los Angeles in 1847 and Pio Pico returned to California, which became part of the United States in 1848. Pio Pico purchased portions of Rancho Paso de Bartolo from the heirs of Perez between 1848 and 1852 (Friends of Pio Pico 2010). A few years earlier, in 1843, a small part (876 acres) of the Rancho (south of the portion held by Pio Pico) had been purchased from Perez by Bernardo Guirado, who worked at Mission San Gabriel.

Pio Pico owned 8,891 acres of Rancho Paso de Bartolo and called it El Ranchito. He built his adobe house on El Ranchito in 1853 (on the east bank of the San Gabriel River near what is now Whittier Boulevard). A flood destroyed part of the house in 1867 and another flood damaged the house in 1884, after which the house was rebuilt and enlarged. Pio Pico accumulated a large debt from building the Pico House Hotel in Los Angeles in 1870 and expanding his house on El Ranchito in 1884, so he began selling off parcels of Rancho Paso de Bartolo in order to reduce his debt (Estrada 2017).

Pio Pico, who could not read English and thinking he was signing loan papers, actually signed a deed giving ownership of El Ranchito to Bernard Cohn, a merchant and city council member in Los Angeles, in 1883. After a court battle, he lost the remaining portion of Rancho Paso de Bartolo and his house to Cohn in 1892. Pio Pico died a pauper at his daughter's house in Los Angeles in 1894 (Friends of Pio Pico 2010). It is likely that Cohn and the others who had purchased parcels in Rancho Paso de Bartolo from Pico subdivided their parcels and sold them to farmers in the late-19th and early-20th centuries.

The community of Pico began as a station on the San Pedro, Los Angeles, and Salt Lake Railroad, built from Los Angeles to Riverside in 1904 (Robertson 1998). This railroad was purchased by the Union Pacific Railroad in 1921 and was part of its route from Salt Lake City to Los Angeles. Pico was located along San Gabriel Boulevard (now Durfee Avenue) between the railroad and Whittier Boulevard (USGS El Monte quad 1925). There were only a few buildings in Pico in 1925. The community of Rivera began as a station on the Atchison, Topeka, & Santa Fe Railway (AT&SF) line that was built from Los Angeles to Santa Ana in 1888 (Robertson 1998). Rivera was located at the intersection of the AT&SF line (runs parallel with Slauson Avenue) with Lexington and Gallatin Road (now Passons Boulevard) (USGS Whittier quad 1925). Rivera was in the portion of Rancho Paso de Bartolo that had been owned by Bernardo Guirado (USGS Whittier quad 1965, photorevised 1981).

The area around Pico and Rivera was agricultural during the first half of the 20th century. Prior to becoming one city, Pico and Rivera's rich agricultural soil brought many farmers to the area. Crops in Pico and Rivera included large groves of citrus, avocados, and walnut trees. Farmers increasingly began to arrive once the AT&SF and the Union Pacific railroad lines were completed through the area (City of Pico Rivera 2024). The land between the Rio Hondo and San Gabriel Rivers, creating today's city limits, provided a rich agricultural setting and environment. It was said that fence posts cut from willow trees sprouted and grew into trees themselves because the soil was so rich (County of Los Angeles Public Library 2024). Cattle ranching was the dominant agricultural practice on Rancho Paso de Bartolo prior to the Civil War, until a severe drought, which lasted from 1862 to 1865, greatly reduced the herds. In 1875, walnuts became the dominant crop grown in the two communities. The first walnut shipment out of California was sent out of Rivera (County of Los Angeles Public Library 2024). In the 20th century, the production of walnuts declined due to crop disease and insects, shifting focus to cultivation of oranges and avocados.

Pico and Rivera's rich agricultural community evolved into an urban center due largely to the demand for housing after World War II, when urban development began, and the two communities grew together. In the 1950s, large parcels of farmland were being sold and developed for tract homes, schools, and churches, as well as commercial and

industrial areas (City of Pico Rivera 2024). The residential subdivisions, conveniently located near three major highways, railroads, and airports helped draw new residents to the communities. As the neighboring communities grew, local officials and residents voiced their support to incorporate the two communities as one city. During the election that was held in January 1958, over half of the voters were in support of the incorporation and approved a Council-Manager form of local government, thus creating the City of Pico Rivera. Five citizens were elected to serve as members of the first City Council (City of Pico Rivera 2024).

The Pico Rivera City Council carries out policies and ensures that the entire community is being served. The City Council members choose a City Manager as the administrative head of the City responsible for overseeing the City's employees for all City programs, service, and projects and to appoint department directors. The City, therefore, is responsible for the management, maintenance, and operation of the former community center building. The County of Los Angeles manages police, fire, and library services (City of Pico Rivera 2024).

Pico Rivera operates under the Southern California Association of Governments' (SCAG) Regional Council, which includes 69 districts and represents 191 cities in six counties. SCAG is the largest Metropolitan Planning Organization in the nation (SCAG 2024). Pico Rivera is within District 31 and includes neighboring cities: La Habra Heights, La Mirada, Santa Fe Springs, and Whittier. SCAG was founded in 1965 and develops long-range transportation plans, regional transportation improvement programs, regional housing needs, and a portion of the South Coast Air Quality management plans (SCAG 2024).

The Pico Rivera City Hall, Pico Rivera Sheriff Department, Pico Rivera Parks and Recreation Department, Pico Rivera Chamber of Commerce, and Pico Rivera Housing Services Division offices are all located along Passons Boulevard, which is approximately two miles southwest of the former community center and Pico Park. These buildings represent the majority of the City's civic buildings. Pico Rivera has more than 120 developed acres devoted to various recreational facilities for the community and includes less than 100 acres of local parks, of which Pico Park consists of 17 acres.

4.4.5 City of Santa Fe Springs

The area of Santa Fe Springs was once part of the Spanish rancho owned by Jose Manuel Nieto in 1789, who held the largest Spanish land grant in California, totaling approximately 300,000 acres. Nieto, along with his family, built a rancho which later would become a prominent cattle ranch (Jensen 1991).

In the late 1800s, Dr. James E. Fulton, an agent for the San Gertrudes Land Company, was drilling for a well in the area. He uncovered a natural sulfur spring and sought to

use this newfound spring for a business venture. Fulton began to develop the area as the Fulton Wells Health Resort, which attracted hundreds of visitors each year, hoping to reap health benefits from the sulfur spring (Democratic Caucus 2022).

Later in the 1900s, others came to seek their fortune in the area but this time through an oil strike. An oil strike in 1919 led to a change in the area and landscape as oil refineries and oil derricks dotted the area. Subsequent oil deposits were found, such as the 1921 Union-Bell gusher which blew in with an estimated 2,500-barrel supply. Only a year later, Santa Fe Springs was considered as one of the richest oil producing areas in California. This prompted the arrival of both temporary and permanents to move into the area hoping to strike it rich. Oil production continued to ramp up but by 1928, oil production began to steadily decline in the subsequent years (Democratic Caucus 2022).

Santa Fe Springs is also home to one of the most recognizable American muscle cars, the Shelby Cobra. Carroll Shelby set up his shop in 1962 in Santa Fe Springs and Dean Moon's speed shop. Shelby famously combine a British sports car with an American engine and created the iconic hot rod (Democratic Caucus 2022).

The City of Santa Fe Springs incorporated in 1957 and today is home largely to manufacturing businesses and residential areas.

4.4.6 West Whittier-Los Nietos

Located in eastern Los Angeles County, the West Whittier-Los Nietos neighborhood consists of a 2.5 square mile area of the unincorporated communities of West Whittier and Los Nietos. Los Nietos is Spanish for "the grandchildren." The name recalls the five heirs of Manuel Nieto, who were granted the lands that the elder Nieto received in 1784 (Durham 1998). West Whittier as well as the neighboring City of Whittier were named in honor of the 19th-century Quaker poet John Greenleaf Whittier due to the large Quaker community that settled in the area (City of Whittier 2024). Following the incorporation of the City of Whittier in 1898, unincorporated areas in Los Angeles County that surrounded the City were also identified by the name "Whittier," such as West Whittier.

Los Nietos is a long-established community in southern California. In the year of 1800, shortly before Manuel Nieto's death, a major settlement already existed in the area. By 1860, 2,000 people were living in the area (La Miranda Review 1976). The area flourished, with a school district that was established in 1861 and a Methodist church in 1867 (Holland 1974). In the early 1870s, the Los Nietos railroad and depot was completed, establishing Los Nietos as one of the more prominent transportation hubs within the region (Los Angeles Herald 1874). The Southern Pacific and Atchison, Topeka and Santa Fe Railroads both intersected the Los Nietos Depot. As one of the largest communities in the region, other neighboring communities relied on Los Nietos, such as West Whittier. Children in West Whittier attended school in Los Nietos, until a

schoolhouse was built in West Whittier in 1887 (The Whittier News 1958). The area that comprised West Whitter-Los Nietos was also well-suited for agriculture, with vineyards, orchards, and small farms dotting the landscape. Agriculture dominated the area well into the 20th century.

As cities, towns, and communities in the region began to grow, Los Nietos began to fade. Once a prosperous area, Los Nietos was overshadowed by the growing communities which surrounded it. The expansive suburbanization following World War II resulted in the disappearance of farms and orchards in favor of tract housing. At an unknown period, the unincorporated areas of West Whittier and Los Nietos were merged to form the Census-Designated neighborhood of West Whittier-Los Nietos, in what is now a residential area of single-family tract homes. Around 80% of the current homes in West Whittier-Los Nietos were built from the 1940s-1960s during the post-World War II population boom that led to extensive suburbanization across the country (Los Angeles County 2019). Most of the streets in West Whittier-Los Nietos were built without sidewalks due to there being no requirement for sidewalk construction in unincorporated areas at the time (Los Angeles County 2019). The West Whittier-Los Nietos area has historically been one of the major traditional centers of Mexican-American population in Los Angeles County (Holland 1974).

4.4.7 Formation of the Los Angeles County Flood Control District

Prior to the widespread flood control projects in Los Angeles County during the first quarter of the 20th century, drainage of local rivers and streams during winter rains often resulted in destructive flooding that cost millions in property damage and deaths to hundreds of individuals. Since the topography of the region was characterized by streams and washes flowing from steep mountainsides into flat areas such as the LA Basin or San Fernando Valley, Los Angeles County was believed to be subject to greater potential flood hazards than anywhere in the United States prior to the installation of flood control works. Although flooding issues had been well documented in Los Angeles since at least the early 1800s, there had been little general demand for major flood control efforts before the 1880s because the county had such limited development, low population, and subsequent low property values.

As the county development and population accelerated between the late 1880s and the 1920s, flooding in the region became more of a hazard since it could impact a great number of people, harm property values, and threaten the continued existence of growing Los Angeles. Perhaps the biggest motivation for a more comprehensive flood control program came from the destructive flooding in the winter of 1914 which was the costliest flood to ravage Los Angeles to that point with an estimated $10 million dollars (not inflation adjusted) in damages and 1,094 acres of farmland destroyed. During the early 1910s, residents of communities with major drainages formed local flood-control protection districts, including the San Fernando Protection District, to undertake channel

improvements and other flood control measures. However, the devastating floods of 1914 laid bare the inadequacy of local protection districts' efforts. In response to the 1914 floods, the state legislature authorized creation of the Los Angeles County Flood Control District (LACFCD) to undertake construction of upstream mountain flood-control dams as well as levees and dams nearer to population centers. In June of 1915, the California State Legislature created the LACFCD to encompass all of Los Angeles County except the northern portion of the county within the Mojave Desert.

The agency aimed to not only control flooding but also provide water conservation and storage. Based on a series of reports from 1914 documenting the flooding problems in the county and the suggestion of LACFCD Engineer Frank Olmstead, the Flood Control District adopted a plan with the following elements (Van Wormer 1991):

1) Conservation of storm waters through reforestation to prevent erosion
2) Containment of storm waters with dams in the mountains
3) The spreading of storm waters on gravel deposits at the mouth of canyons to replenish the water table
4) Diversion of the San Gabriel and the Los Angeles Rivers to prevent siltation of the harbors at San Pedro and Long Beach
5) Acquiring official channels and streams within the Los Angeles basin for the permanent alignment and protection of those channels (Van Wormer 1991: 55-69).

After the creation of the LACFCD, James W. Reagan was named Chief Engineer. He formulated programs that incorporated the five stated elements of the flood control plan to guide the agencies' works over a 12-year period, from 1915 to 1927. In 1917, he presented a report calling for the construction of dams at Pacoima Canyon, Devil's Gate, San Dimas Canyon, and Puddingstone. Money from a 1917 bond measure was used to build the first three dams cited in the flood control program: Devil's Gate, San Dimas Canyon, and Live Oaks Canyon (not cited in the original report). Nevertheless, major upstream flood control projects did not occur on the Tujunga or Pacoima watersheds for over a decade. Tujunga and Pacoima Washes continued to flood into the 1920s, repeatedly washing out Southern Pacific and San Fernando Road bridges. Present today, although altered, a new concrete bridge was constructed to carry San Fernando Road traffic over Pacoima Wash in 1926 (Ehringer 2012).

By that time, plans were in place for new upstream flood-control measures involving the Pacoima and Tujunga Washes. In a 1924 report, LACFCD Chief Engineer James W. Reagan recommended flood-control dams at Tujunga and Pacoima Canyons. Before the end of that year, Los Angeles County voters approved a $35 million bond measure for implementation of Reagan's flood control program, the district's most ambition set of

undertakings to date. LACFCD contracted Bent Brothers to construct the Pacoima Dam, which was completed in 1929. Creating the Pacoima Reservoir, Pacoima Dam was the world's tallest concrete arch dam at the time of its construction, reaching a height of 375 feet from the stream bed. Although the plan for a major concrete arch dam at Big Tujunga Creek was temporarily shelved in favor of a plan for four smaller dams, the district ultimately opted to move forward with the former plan in 1929. The district contracted the construction to L.W. Dixon Company, which completed the 200-foot high, 505-foot-long (at crest), and 73-foot-thick (at base) Big Tujunga Dam in the summer of 1931.

Los Angeles County voters failed to approve two additional bond measures for flood control development during the latter 1920s and during the early Great Depression decade of the 1930s. However, continued disastrous flooding and the growing role of the federal government in public works development as a result of the Franklin Delano Roosevelt administration's New Deal reversed this trend. Devastating floods in 1934 led the LACFCD to seek assistance from the federal government, which garnered nearly $14 million in appropriations for flood control work in Los Angeles County. Funded by the Public Works Administration, a new and wider concrete San Fernando Road bridge over the Tujunga Wash was completed in 1935 (Ehringer 2012). Federal commitments to Los Angeles-area flood control dramatically increased the role of the U.S. Army Corps of Engineers (USACE) in such development. During the latter 1930s, the LACFCD and the USACE partnered in the Works Progress Administration–funded development of Hansen Dam to control Tujunga Wash floodwaters. The $11 million project was completed in 1940 and created Hansen Dam. The massive earthen dam incorporated a highly visible concrete spillway, bridge, and tower, and it became an iconic feature of the eastern San Fernando Valley landscape. The expansive basin to the north and east of the dam, including borrow pits created by the dam's construction, provided a new water-oriented recreational area for Los Angeles-area residents. Despite these measures, the threat of flooding from the Pacoima and Tujunga Washes remained a problem after World War II. Beginning in 1950, the USACE and the LACFCD undertook extensive flood control work that included concrete channelization of Tujunga Wash west of Hansen Dam and construction of a diversion channel from Pacoima Wash to Tujunga Wash (The Van Nuys News 1950, 1955; USACE 2011).

4.4.8 The San Gabriel River and Flood Control Channel

The San Gabriel River has had a considerable impact on flood control in Los Angeles County, reflecting greater regional patterns and issues. The river, which originates in the San Gabriel Mountains, has been prone to catastrophic floods because of the Los Angeles Basin's steep terrain and abrupt elevation fluctuations. These characteristics, along with increased urbanization, have made flood management an urgent concern.

Flooding in the San Gabriel River was first reported in 1771, and large episodes continued throughout the 19th century. Notably, during the winter of 1867–1868, the river dramatically changed course, spilling into Alamitos Bay rather than its original exit in San Pedro Bay. The regular floods caused enormous damage, but it wasn't until the early 20th century that large-scale flood control operations really began. The floods of 1910–1911 were extremely catastrophic, destroying bridges and crops. These incidents prompted the development of local protection districts, such as the San Antonio Protection District, which built basic flood control infrastructure along the San Gabriel River. These initiatives, while initially beneficial, highlighted the need for a more comprehensive, countywide strategy to flood prevention. This need became even more obvious during the devastating floods of 1914, prompting the establishment of the Los Angeles County Flood Control District in 1915 (Van Wormer 1991).

One of the earliest comprehensive flood management schemes, suggested in 1913, called for the building of reservoirs, artificial spreading grounds to refill the water table, and strengthened river channels. These factors laid the groundwork for subsequent flood control operations along the San Gabriel River and across Los Angeles County. The emphasis on integrating flood control and water conservation became a common feature in later designs (Van Wormer 1991).

In the 1920s, plans for a "great dam" in the San Gabriel Canyon were conceived as a key component of flood control operations. This dam was supposed to be the largest of its type, storing massive volumes of water for flood control and conservation. However, due to geological problems, including the finding of fault lines at the intended location, this ambitious project was abandoned. Instead, smaller dams were built throughout the San Gabriel River watershed, notably San Gabriel Dam Number One and Cogswell Dam (formerly San Gabriel Dam Number Two). These constructions were part of a larger network of dams, spreading grounds, and channel upgrades that were eventually built to reduce flood danger (Covina Argus 1929).

By the mid-20th century, flood management along the San Gabriel River had turned to larger-scale government programs, notably following the 1934 and 1938 floods. As part of these efforts, the Santa Fe and Whittier Narrows dams were built, transferring flood management responsibility from municipal to federal authority. The completion of these projects in the 1940s and 1950s marked the conclusion of decades of flood control work, dramatically lowering the risk of catastrophic flooding in the Los Angeles Basin (The Whittier News 1955).

Historic aerial images suggest that the subject 994-foot-long stretch of the San Gabriel River Channel was most likely constructed into its current configuration sometime in the 1940s as the channel appears in its current shape as early as 1952 on aerial images. At the time of the 1952 aerial, the surrounding neighborhoods to the east and west of the river had the same single-family residential layout as currently seen but Slauson

Avenue had yet to be realigned. By the 1963 aerial image, Slauson Avenue appears in its modern route.

Overall, the history of flood management along the San Gabriel River has been shaped by a mix of local effort, improving engineering methods, and increased government participation. The shift from small, local efforts to larger, federally supported projects demonstrates the region's rising complexity and size of flood control concerns. The dramatic reduction in flood-related damage seen in the later part of the 20th century demonstrates the efficacy of these initiatives (Van Wormer 1991).

5.0 REGULATORY FRAMEWORK

5.1 California Environmental Quality Act

CEQA is the state law that applies to a project's impacts on cultural resources. A *project* is an activity that may cause a direct or indirect physical change in the environment and that is undertaken or funded by a state or local agency, or that requires a permit, license, or lease from a state or local agency. CEQA requires that impacts to Historical Resources be identified and, if the impacts would be significant, then apply mitigation measures to reduce the impacts.

Per CEQA, a Historical Resource is a resource that:

1. is listed in or is eligible for the California Register of Historical Resources (CRHR) by the State Historical Resources Commission, or has been determined historically significant by the CEQA lead agency because it meets the eligibility criteria for the CRHR;
2. is included in a local register of historical resources, as defined in Public Resources Code (PRC) 5020.1(k); or
3. has been identified as significant in a historical resources survey, as defined in PRC 5024.1(g) (California Code of Regulations [CCR] Title 14, Section 15064.5[a]).

The eligibility criteria for the CRHR are as follows (CCR Title 14, Section 4852[b]):

1. The resource is associated with events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States.
2. The resource is associated with the lives of persons important to local, California, or national history.

3. The resource embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master or possesses high artistic values.
4. The resource has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the Nation.

In addition, the resource must retain integrity, which is evaluated with regard to the retention of location, design, setting, materials, workmanship, feeling, and association (CCR Title 14, Section 4852(c)). Resources that have been determined eligible for the NRHP are automatically eligible for the CRHR.

Impacts to a Historical Resource, as defined by CEQA (listed in an official historic inventory or survey or eligible for the CRHR), are significant if the resource is demolished or destroyed, or if the characteristics that made the resource eligible are materially impaired (CCR Title 14, Section 15064.5(b)). Demolition or alteration of eligible buildings, structures, and features such that they would no longer be eligible would result in a significant impact. Whole or partial destruction of eligible archaeological sites would also result in a significant impact. In addition to impacts from construction resulting in destruction or physical alteration of an eligible resource, impacts to the integrity of setting (sometimes termed *visual impacts*) of physical features within a project area could also result in significant impacts.

Tribal cultural resources (TCRs) are defined in Section 21074 of the California PRC as sites, features, places, cultural landscapes (geographically defined in terms of the size and scope), sacred places, and objects with cultural value to a California Native American tribe that are either listed in or eligible for the CRHR, or are included in a local register of historical resources as defined in subdivision (k) of Section 5020.1, or are 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 Section 5024.1. Section 1(b)(4) of Assembly Bill (AB) 52 established that only California Native American tribes, as defined in Section 21073 of the California PRC, are experts in the identification of TCRs and impacts thereto. Because ECORP does not meet the definition of a California Native American tribe, it only addresses information in this report for which it is qualified to identify and evaluate, and that which is needed to inform the cultural resources section of CEQA documents. This report, therefore, does not identify or evaluate TCRs. If any California Native American tribe ascribes additional importance or interpretation to archaeological resources described herein, or if the tribe provides information about non-archeological TCRs, such information would be documented separately in the AB 52 tribal consultation record between the tribe and lead agency and summarized in the TCRs section of the CEQA document, if applicable.

5.2 Significance

The resource must be significant in American history, architecture, archaeology, engineering, or culture, and must also possess integrity of location, design, setting, materials, workmanship, feeling, and association. In addition, the resource must meet one or more of the four CRHR eligibility criteria, contained in CCR Title 14, Section 4852[b, which are:

1. The resource is associated with events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States.
2. The resource is associated with the lives of persons important to local, California, or national history.
3. The resource embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master or possesses high artistic values.
4. The resource has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the Nation.

In addition, the resource must be at least 50 years old, barring exceptional circumstances. Resources that have been determined eligible for the NRHP are automatically eligible for the CRHR.

Impacts to a Historical Resource, as defined by CEQA (listed in an official historic inventory or survey or eligible for the CRHR), are significant if the resource is demolished or destroyed, or if the characteristics that made the resource eligible are materially impaired (CCR Title 14, Section 15064.5(b)). Demolition or alteration of eligible buildings, structures, and features such that they would no longer be eligible would result in a significant impact. Whole or partial destruction of eligible archaeological sites would also result in a significant impact. In addition to impacts from construction resulting in destruction or physical alteration of an eligible resource, impacts to the integrity of setting (sometimes termed *visual impacts*) of physical features within a project area could also result in significant impacts.

5.3 Integrity

In addition to meeting one or more of the criteria of significance, a property must have integrity. Integrity is defined as the “authenticity of a historical resource's physical identity evidenced by the survival of characteristics that existed during the resource's period of significance”. The CRHR recognizes seven qualities that,in various combinations, define integrity. The seven factors that define integrity are location,

design, setting, materials, workmanship, feeling, and association (CCR Title 14, Section 4852(c)).

To retain historic integrity a property must possess several, and usually most, of these seven aspects. Thus, the retention of the specific aspects of integrity is paramount for a property to convey its significance.

Ordinarily moved properties, reconstructed buildings less than 50 years old and properties that have achieved significance within the past 50 years are not considered eligible for the CRHR unless they meet one of the four significance criteria and:

- It was moved to prevent its destruction, and the new location is consistent with the original character and function/use of the resource, or
- it can be demonstrated that sufficient time has passed to understand the significance of the resource, or
- It embodies traditional building methods and techniques that play an important role in a community's historically rooted beliefs, customs, and practices (CCR Title 14, Section 4852(c)).

6.0 ARCHIVAL RESEARCH

6.1 SCCIC Records Search

ECORP Staff Archaeologist Robert Cunningham conducted a records search for the Project on July 18, 2024 at the CHRIS South Central Coastal Information Center (SCCIC) at California State University, Fullerton. The records search included a review of all recorded cultural resources and previous studies within a 0.5-mile radius of the Study Area. The SCCIC records search results are included as **Appendix B**.

A total of 12 previous cultural resources investigations have been conducted within the Study Area or the 0.5-mile radius, covering approximately 20 percent of the total area surrounding the Study Area within the records search radius. Of the 12 studies within the 0.5-mile radius, 4 were conducted within the APE (Table 1). These studies revealed the presence of historic-era sites and isolates, including historic-era buildings and refuse. The previous studies were conducted between 1994 and 2015 and vary in size from 2 acres to 36 linear miles.

Table 1. Previous Cultural Studies within 0.5 Mile of the Study Area				
Report No. (LA-)	**Author(s)**	**Report Title**	**Year**	**Includes Portion of the APE?**
03408	Stickel, Gary E.	Draft Report: a Cultural Resources Literature Search for the Rio Hondo Water Reclamation Program	1994	No
03866	McLean, Deborah K.	Cultural Resources Survey Report for Pacific Bell Mobile Services Telecommunications Facility, La 006-14, City of Santa Fe Springs, Los Angeles County, CA.	1998	No
04880	Smith, Philomene and Sriro, Adam	Pavement Rehabilitation Along Route 605 Within the Cities of Long Beach, Lakewood, Cerritos, Downey, Pico Rivera, Santa Fe Springs, Whittier, City of Industry, Baldwin Park and Irwindale.	2000	Yes
05549	Ferraro, David D.	Archaeological Monitoring of Brushing at 8448 and 8508 Millergrove Drive, Whittier, Los Angeles County, California	2000	No
07834	Gust, Sherri	Archaeological Assessment and Mitigation Plan for the San Gabriel River Bike Trail Rehabilitation Project Los Angeles County, California	2003	Yes
07871	Tang, Bai "Tom" and Teresa Woodard	Historical Resource Compliance Report - Third Main Track and Grade Separation Project Hobart (MP 148.9) to Basta (MP 163.3), BNSF/Metrolink East-west Main Line Railroad Track, Vernon to Fullerton, Los Angeles and Orange Counties, California	2003	Yes
08158	Tang, Bai "Tom", Michael Hogan, and Deirdre Encarnacion	Archaeological Survey Report / Historical Resources Evaluation Report: Passons Boulevard Grade Separation Project BNSF / Metrolink East-west Main Line Railroad Track (MP 151.45) City of Pico Rivera, Los Angeles County, California 07-LA-0-PRV	2006	No
09444	Tang, Bai "Tom", Michael Hogan, Deirdre Encarnacion, and Josh Smallwood	Passons Boulevard Grade Separation Project BNSF/Metrolink East-West Main Line Railroad Track (MP 151.45) City of Pico Rivera, Los Angeles County, CA 07-LA-0-PRV	2008	No
10189	Gust, Sherri and Sara Alarcon	Archaeological and Paleontological Evaluation Report and Mitigation Plan for the Interstate 605 Soundwall Project, from Whittier to Baldwin Park, Los Angeles County, CA	2003	No

Table 1. Previous Cultural Studies within 0.5 Mile of the Study Area				
Report No. (LA-)	**Author(s)**	**Report Title**	**Year**	**Includes Portion of the APE?**
10391	Tang, Bai and Smallwood, Josh	Historical Resources Evaluation Report, Third Main Track Project, Segments 6, 7, and 8. Pico Rivera (MP) 150. to La Mirada (MP) 158.8, BNSF/Metrolink East- West Mainline Los Angeles County, California Caltrans District 7	2009	Yes
11106	Sims, Douglas B.	CA-LOS4155 9601 Slauson Avenue, Pico Rivera, CA 90660	2010	No
12962	Campbell, Breana, Christopher Duran, and Duane Vander Pluym	Archaeological and Paleontological Monitoring Conducted for the Water Replenishment District's 001B Turn-out Structure and Basin No. 2 Inlet/Turn-out Structure Projects, City of Pico Rivera, Los Angeles County, California	2015	No

Note: BNSF = Burlington Northern Santa Fe Railway; MP = Mile Post

The results of the records search indicate that approximately 30 percent of the Study Area has been previously surveyed for cultural resources; therefore, a pedestrian survey of the Study Area was warranted.

The records search also determined that 51 previously recorded cultural resources are located within 0.5 mile of the Study Area (Table 2). All are historic-era sites, primarily buildings, associated with urban and residential development in greater Los Angeles.

Table 2. Previously Recorded Resources within 0.5 Mile of the Study Area			
Primary No. (P-19-)	**Year and Recorder**	**Age/ Period**	**Site Description**
101354	2015 N/A	Historic	Isolated 7-UP Bottle
101355	2015 N/A	Historic	Isolated Ben Hur Seasoning Bottle
178666	1977 Tom Sitton, NHM	Historic	Osburn Burke House
186112	1999 S. Ashkar, Jones & Stokes; 2002 R.F. Herbert, JRP Historical Consulting Services; 2009 R. Ramirez and F. Smith, SWCA; 2012, 2017 A. Newcomb, SWCA; 2018 A. von Ahrens, GPA Consulting.	Historic	Southern Pacific/Union Pacific Railroad
186753	2002 B. Tang, CRM Tech	Historic	Single-family property
186754	2002 B. Tang, CRM Tech	Historic	Single-family property

Table 2. Previously Recorded Resources within 0.5 Mile of the Study Area			
Primary No. (P-19-)	**Year and Recorder**	**Age/ Period**	**Site Description**
186755	2002 B. Tang, CRM Tech	Historic	Single-family property
186756	2002 B. Tang, CRM Tech	Historic	Single-family property
186757	2002 B. Tang, CRM Tech	Historic	Single-family property
186758	2002 B. Tang, CRM Tech	Historic	Single-family property, detached garage, chain-link fence
186759	2002 B. Tang, CRM Tech	Historic	Single-family property
186760	2002 B. Tang, CRM Tech	Historic	Single-family property
186761	2002 B. Tang, CRM Tech	Historic	Single-family property
186762	2002 B. Tang, CRM Tech	Historic	Single-family property
186763	2002 B. Tang, CRM Tech	Historic	Single-family property
186764	2002 B. Tang, CRM Tech	Historic	Single-family property
186765	2002 B. Tang, CRM Tech	Historic	Single-family property
186766	2002 B. Tang, CRM Tech	Historic	Single-family property
186767	2002 B. Tang, CRM Tech	Historic	Single-family property
186768	2002 B. Tang, CRM Tech	Historic	Single-family property
186769	2002 B. Tang, CRM Tech	Historic	Single-family property
186770	2002 B. Tang, CRM Tech	Historic	Single-family property
186771	2002 B. Tang, CRM Tech	Historic	Single-family property
186772	2002 B. Tang, CRM Tech	Historic	Single-family property
186773	2002 B. Tang, CRM Tech	Historic	Single-family property
186774	2002 B. Tang, CRM Tech	Historic	Single-family property
186775	2002 B. Tang, CRM Tech	Historic	Single-family property
186776	2002 B. Tang, CRM Tech	Historic	Single-family property
186777	2002 B. Tang, CRM Tech	Historic	Single-family property
186779	2002 B. Tang, CRM Tech	Historic	Single-family property
186780	2002 B. Tang, CRM Tech	Historic	Single-family property
186781	2002 B. Tang, CRM Tech	Historic	Single-family property
186782	2002 B. Tang, CRM Tech	Historic	Single-family property
186783	2002 B. Tang, CRM Tech	Historic	Single-family property

Table 2. Previously Recorded Resources within 0.5 Mile of the Study Area			
Primary No. (P-19-)	**Year and Recorder**	**Age/ Period**	**Site Description**
186804	2002 B. Tang, CRM Tech; 2007 F.G. Smith and C.D. Harper, Parsons; 2011 P. Daly, Cogstone; 2016 A. Hill, AECOM; 2018 J.B. Feldman, ICF	Historic	Atchison, Topeka, and Santa Fe/ Burlington Northern Santa Fe Railroad
188232	2003 N/A	Historic	Single-family property
188233	2003 N/A	Historic	Single-family property
188235	2004 N/A	Historic	Single-family property
188238	2004 N/A	Historic	Single-family property
188239	2004 N/A	Historic	Single-family property
188245	2006 N/A	Historic	Single-family property
188252	2007 N/A	Historic	Single-family property
188253	2007 N/A	Historic	Single-family property
190511	2012 Jill Gibson, AECOM	Historic	San Gabriel Coastal Spreading Grounds, water conservation facility
191707	2010 Elizabeth Hilton, ICF	Historic	Single-family property
191708	2010 Elizabeth Hilton, ICF	Historic	Single-family property
191767	2010 Peter Moruzzi, ICF	Historic	Single-family property
191768	2010 Peter Moruzzi, ICF	Historic	Single-family property
191770	2010 Peter Moruzzi, ICF	Historic	Single-family property
192919	2020 M. Wilson, AECOM	Historic	Single-family property
192934	2020 M. Wilson, AECOM	Historic	Single-family property

Note: N/A = Not Applicable

The San Gabriel River Channel was not identified in the SCCIC Record Search as having been previously recorded or evaluated.

Segments of the Atchison, Topeka, and Santa Fe/ Burlington Northern Santa Fe Railroad and Southern Pacific/Union Pacific Railroad are located within the APE.

6.2 Sacred Lands File and Tribal Coordination

The California Native American Heritage Commission (NAHC) maintains a confidential Sacred Lands File (SLF), which contains sites of traditional, cultural, or religious value to the Native American community. ECORP contacted the NAHC on July 10, 2024 to request a search of the SLF. The NAHC responded to the request in a letter dated July 23, 2024. The results of the SLF search conducted by the NAHC indicate that no Native

American cultural resources are known to be located within the Study Area (**Appendix C**).

County Public Works conducted AB 52 consultation for the Project as part of environmental review under the California Environmental Quality Act. On July 8, 2024, County Public Works sent letters to three consulting tribes: the Gabrieliño Tongva Indians of California, Gabrieleno Band of Mission Indians – Kizh Nation, and the San Gabriel Band of Mission Indians.

- The Gabrieliño Tongva Indians of California responded on July 8, 2024, and stated that they did not have any concerns if the Project did not entail ground disturbance. The Tribe responded again on July 15, 2024, to request notification if it was later determined that the Project would require ground disturbance.
- The Gabrieleno Band of Mission Indians – Kizh Nation responded on July 15, 2024, and requested consultation and a meeting. On August 22, 2024, prior to the scheduled meeting, the Tribe sent a message to County Public Works to cancel the meeting, stating that after further review of the proposed Project, they no longer had any concerns.
- The San Gabriel Band of Mission Indians did not respond.

County Public Works has since notified all three consulting tribes that they have concluded AB 52 consultation.

6.3 Historic Maps and Aerial Photographs

ECORP reviewed historic topographic maps and aerial photographs to provide historical information about the Study Area and to contribute to an assessment of the APE and vicinity. Available maps include the 1896 and 1943 Downey, California 7.5-minute topographic quadrangle (1:62,500 scale) maps and the 1923, 1949, and 1965 Whittier, California 7.5-minute topographic quadrangle (1:24,000 scale) maps (USGS 2024). Historic aerial photographs of the Study Area were available for the years 1953, 1963, 1972, and 1974 (Historic Aerials 2024; USGS 2024).

- The 1896 topographic map depicts the San Gabriel River in the vicinity of the Study Area. An Atchison Topeka and Santa Fe Railroad line is also present and crosses over the river within the APE. The map also depicts a road that passes through the APE and immediately south of the railroad line, in addition to other roads and small buildings in the vicinity.
- The 1923 topographic map depicts the San Gabriel River in a different alignment compared to the previous map, curving toward the southeast immediately south of the Study Area. The Atchison Topeka and Santa Fe Railroad alignment is unchanged, and the road to the south of the railroad line is no longer present. The map now depicts a road immediately north of the railroad line. Immediately

south of the Study Area, the map depicts a line that represents the boundary of a land grant or tract. An additional railroad line labeled “Pacific Electric” crosses the river to the south of the Study Area.

- The 1943 topographic map depicts the San Gabriel River and the railroad line within the APE in the same alignments as the previous map. The road that crosses the river within the APE is now depicted slightly north of the railroad line. The map depicts more road alignments and buildings in the vicinity of the APE.
- The 1949 topographic map depicts the San Gabriel River in the same alignment as the previous map; however, it now depicts a labeled levee on the western side of the river within the APE. The railroad and the road that crosses the river within the APE appear unchanged. The line that depicts the boundary of a land grant or tract is present to the south of the Study Area.
- An aerial photograph from 1953 shows the San Gabriel River, which appears dry, and shows both the railroad and a road that crosses over the river within the APE. The surrounding area contains housing developments on both sides of the river.
- Aerial photographs from 1963 show the dry San Gabriel River and the railroad line within the APE as unchanged compared the previous photograph. The road visible in the previous photograph is no longer present, and the Slauson Avenue Bridge is now present within the APE, passing over the railroad line. The surrounding area primarily contains housing developments, and open fields are located to the southeast of the APE and east of the riverbank.
- The 1965 topographic map depicts the San Gabriel River in the same alignment as previous maps. It depicts the Atchison and Topeka Railroad line crossing over the river within the APE. Slauson Avenue is now visible; it crosses the river within the APE at the same point as the railroad line. Interstate 605 is now present to the east of the Study Area. The map also depicts several housing developments and road alignments in the vicinity.
- Aerial photographs from 1972 show the river, railroad, and bridge in the same alignment as previous images. The photograph shows a levee visible on the western side of the San Gabriel River within the APE. The fields to the southeast of the Study Area now contain a curved road alignment, possibly a railroad access road, which appears to enter the APE just under the Slauson Avenue Bridge.

In sum, the map and aerial photograph review indicates that the San Gabriel River was realigned in the late-19th or early-20th centuries, but that the Study Area otherwise remained unchanged through the first half of the 20th century. The Study Area

underwent dramatic changes associated with urban-road and flood-control development after the 1950s, with residential development from the 1950s onward.

6.4 Additional Research

6.4.1 Archival Research Methods

ECORP conducted development and archival research for the San Gabriel River Channel to establish a thorough and accurate historic context for the significance evaluations, and to confirm the development history of the San Gabriel River Channel and associated parcels.

6.4.2 Historical Newspaper Review

ECORP reviewed historical newspapers from the Los Angeles region to understand the development of the San Gabriel River Channel. ECORP used these documents in the preparation of the historic context and significance evaluations.

6.4.3 Built Environment Resources Directory

ECORP reviewed the California Office of Historic Preservation's Built Environment Resource Directory (BERD) for Los Angeles County for the any listed historic built environments within the APE. The San Gabriel River Channel was not listed (OHP 2024).

6.4.4 Other Sources of Information

A search of the National Register Information System (National Park Service 2024) did not reveal any eligible or listed properties within the APE.

Slauson Avenue Bridge, built in 1958, has been evaluated by Caltrans (53C0084) and is listed in their 2018 Local Agency Bridge Inventory as Category 5, not eligible for NRHP or CRHR (Caltrans 2018).

7.0 CULTURAL RESOURCES SURVEY

7.1 Survey Methods

ECORP conducted an intensive pedestrian survey of the 10.11-acre Study Area, which includes the 3.7-acre APE, on August 29, 2024 under the guidance of the Secretary of the Interior's Standards for the Identification of Historic Properties (NPS 1983) using 15-meter transects, where possible. The intensive archaeological resources survey included survey of the Slauson Avenue Bridge, a portion of the San Gabriel River Channel, access roads to the northeast and northwest of the bridge, and staging areas to the southwest, northwest, and northeast of the bridge. At the time, ECORP examined the ground surface for indications of surface or subsurface cultural resources. The archaeologists inspected the general morphological characteristics of the ground

surface for indications of subsurface deposits that may be manifested on the surface, such as circular depressions or ditches. Whenever possible, ECORP examined the locations of subsurface exposures caused by such factors as rodent activity, water or soil erosion, or vegetation disturbances for artifacts or for indications of buried deposits. ECORP did not conduct any subsurface investigations or artifact collections during the pedestrian survey.

Standard professional practice requires that all cultural resources encountered during the survey be recorded using Department of Parks and Recreation (DPR) 523-series forms approved by the California Office of Historic Preservation (OHP). The resources are usually photographed, mapped using a handheld Global Positioning System receiver, and sketched as necessary to document their presence using appropriate DPR forms.

7.2 Survey Results

The Study Area and APE comprises paved and unpaved surfaces. The unpaved areas had low ground surface visibility. The portions of the unpaved areas associated with the southwest and northeast staging areas were overgrown with dense and tall vegetation (waist to chest high) (Figure 7); modern dumping was present, and the ground surface was highly disturbed and uneven. The northwest staging area was clear of vegetation; however, the ground surface was covered with a layer of imported gravel and a pile of soil has been dumped in this area. The San Gabriel River Channel has paved access roads/bike paths that run parallel to the channel on the eastern and western sides; the northern half of the western embankment within the Study Area was encased in boulders and concrete. All of the other portions were covered with loose boulders. Areas around the periphery of the channel bottom, at the base of the embankments, contained dense vegetation that ranged from 5 to 7 feet tall. The northern two-thirds of the channel contained standing water. Active homeless encampments were present on the southwestern corner of Slauson Avenue Bridge and on the eastern side of the channel where the access road meets the staging area. ECORP observed large amounts of refuse present near the encampments. The majority of the Study Area (approximately 75 percent) had poor ground visibility of approximately 0 to 20 percent. Slauson Avenue is a four-lane roadway and crosses the San Gabriel River as a four-lane bridge (Figure 8 and 9). The bridge is approximately 655 feet long and approximately 63 feet and 8 inches wide. Steel railing and sidewalks line both sides of the bridge. The existing bridge has seven spans and contains two abutments and six piers, with three expansion and four deflection hinges. The structure consists of welded steel plate girders with a height of approximately 5 feet under a 7-inch concrete deck and on the piers.

During the survey, ECORP noted two previously recorded historic-period built environment resources (The Atchison, Topeka, and Santa Fe/ Burlington Northern

Santa Fe Railroad and the Southern Pacific/Union Pacific Railroad, Figure 10) and one newly recorded historic-period built environment resource (the San Gabriel River Channel) within the APE. No precontact or historic-period archaeological resources were identified.

Figure 7: Overview of staging area with Slauson Avenue Bridge (view north, 8/29/24)

Figure 8. West end of Slauson Avenue Bridge (view west, 8/29/24)

Figure 9. East end of Slauson Avenue Bridge (view southwest, 08/29/24)

Figure 10: West end of Slauson Avenue Bridge (view west, 8/29/24)

8.0 SIGNIFICANCE EVALUATION

Although the Atchison, Topeka, and Santa Fe/ Burlington Northern Santa Fe Railroad and the Southern Pacific/Union Pacific Railroad are located within the APE, none of the proposed Project activities are anticipated to have direct or indirect impacts to the resources and they will be protected in place. Therefore, no additional evaluation effort is required. Slauson Avenue Bridge has already been evaluated as ineligible for NRHP/CRHR. Significance evaluation was carried out for the San Gabriel River Channel. Following is an evaluation of significance of the San Gabriel River Channel.

8.1 Description

This 994-foot-long stretch of the San Gabriel River Channel, which runs north–south, is located at the intersection of the Slauson Avenue Bridge and the BNSF railroad bridge (Figure 11). Built circa the 1940s, the canal is roughly 320 feet wide and has a trapezoidal cross section with an earthen bottom to aid water movement. To the east and west of the channel, dry-laid stones line the levees at their top, transitioning to earthen slopes covered with flora as they touch the river's banks. The vegetation in the channel is mostly grass, with patches of heavier growth that might suggest changes in moisture levels or soil composition. An associated feature to the San Gabriel River Channel is a Los Angeles County Flood Control benchmark with a 1968 date mark that was identified on the western embankment of the San Gabriel River Channel (Figure 12). The benchmark is a brass marker that measures 2.25 inches in diameter. The marker is stamped “L.A. COUNTY FLOOD CONTROL DIST. \ B.M. 077 •• 01065 \ 1968”. The marker is embedded in a concrete- and boulder-encased section of the western embankment of the San Gabriel River Channel, north of Slauson Avenue. The channel does not have any notable constructions inside the waterway, allowing for free flow. Gravel walkways run along the tops of the levees on both sides and function as maintenance access routes. The surrounding area consists of suburban development, with roads, residences, and industrial facilities all near to the canal.

Figure 11: Overview of San Gabriel River Channel (view south, 8/29/24)

Figure 12: Close-up of Los Angeles County (plan view, 8/29/24)

8.2 Evaluation

ECORP evaluated the significance of the San Gabriel River Channel using the context of Los Angeles County Flood Control. Prior to channelization, the San Gabriel River had a course that changed within its alluvial flood plain seasonally and over time. The period of significance for the San Gabriel River Channel is circa 1940s, which is when the channel is believed to have been constructed.

The Los Angeles County Flood Control system, including the San Gabriel River Channel, represents a flood-control program that protected the rapidly growing Los Angeles region from frequent floods, promoted sustainable urban expansion, and assured water conservation and management in a semi-arid environment. The San Gabriel River Channel appears to have played an important part within the wider County-wide system, allowing for and promoting Los Angeles' expansion through constant, effective flood protection. The San Gabriel River Channel is a vital feature of the Los Angeles County Flood Control District and has directly resulted in the formation of the flood plain adjacent to the previously unpredictable San Gabriel River. It embodies the historical management of flood control in Los Angeles County. Therefore, as a critical component of the greater Los Angeles County Flood Control system, ECORP found the San Gabriel River Channel to be individually eligible for the CRHR under Criterion 1.

To be eligible under CRHR Criterion 2, the subject channel would need to be directly associated with a person considered historically significant at the local, state, or national level. Archival research failed to indicate any such direct association between individuals that are known to be historic figures at the national, state, or local level. The channel was likely constructed by Los Angeles County Flood Control District workers, and research did not uncover a specific individual directly associated with the work. There is no information in the archival record to suggest that the San Gabriel River Channel is associated with the lives of persons significant in our past; therefore, ECORP recommends the channel as ineligible for the CRHR under Criterion 2.

Although the Los Angeles County Flood Control system is a major engineering feat, the subject section of the San Gabriel River Channel represents a modestly designed flood-control channel with an earthen bottom flanked by rock-lined levees to the west and east. The simplistic design contrasts with more costly and substantial channelization efforts seen in other components of the larger flood control system, like the vast concrete-lined sections of the Los Angeles River. The basic design features of the San Gabriel River Channel suggest that it was not the sophisticated work of a master engineer but a conventional and cost-effective approach to flood control. It is not the first or last of its type, and levee designs like this were well established at the time of the circa 1940s channelization. It does not represent a unique design or innovative approach to flood control. The channel does not embody the distinctive characteristics

of a type, period, or method of construction, or represent a significant and distinguishable entity whose components may lack individual distinction. Therefore, due to commonplace channel construction and limited character-defining features, ECORP recommends the San Gabriel River Channel as ineligible for the CRHR under Criterion 3.

The information potential of the San Gabriel River Channel is expressed in its built form and in the historical record. It has not yielded, nor is it likely to yield, information important in history or prehistory. ECORP recommends the San Gabriel River Channel as ineligible for the CRHR under Criterion 4.

8.3 Integrity

The segment retains integrity of location because it has not been moved since its circa 1940s construction. The integrity of setting and feeling are not required for the channel to express its significance because the creation of this channel has accelerated the development of the neighboring districts. The integrity of design, materials, and workmanship are intact because this portion of the channel does not appear to have undergone any significant changes since its initial construction in the 1940s. As such, the integrity of association is intact because the segment still conveys the sense of a large, flood-control, infrastructure project.

9.0 CONCLUSIONS

During the course of the study, three previously documented historic-period built resources (Slauson Avenue Bridge, the Atchison, Topeka, and Santa Fe/ Burlington Northern Santa Fe Railroad, and the Southern Pacific/Union Pacific Railroad) and one newly documented historic-period built resource (San Gabriel River Channel) were encountered in the APE. Two of the resources, the Atchison, Topeka, and Santa Fe/ Burlington Northern Santa Fe Railroad and the Southern Pacific/Union Pacific Railroad, will not be directly or indirectly impacted by the project and will be protected in place. The Slauson Avenue Bridge has been previously evaluated as ineligible and is not considered a Historical Resource in accordance with CEQA. ECORP used the results of the intensive pedestrian survey, site recording, and focused archival research to inform the CRHR eligibility evaluation of the San Gabriel River Channel. ECORP evaluated the San Gabriel River Channel and found it eligible for the CRHR under Criterion1 as a critical component of the greater Los Angeles County Flood Control system. Therefore, the San Gabriel River Channel is considered a Historical Resource in accordance with CEQA.

9.1 Assessment of Impacts

ECORP applied the criteria of adverse effects in 36 CFR 800.5, as follows.

9.1.1 San Gabriel River Channel

The Project aims to bring the bridge up to modern seismic requirements. Construction work, which would involve strengthening existing abutments and piers, will be confined to the bridge deck. The contractor may employ scaffolding supported by bridge piers or the ground to minimize impacts on the river channel and to avoid disrupting the streambed. If a scaffolding system supported from the ground is used, contractors would work from the ground up with a timber slab/plate at the bottom for support. Once installed, the scaffolding platform would allow the remainder of the bridge retrofit work to be performed from a platform that is outside the river. The staging sites and scaffolding have been designed to not infringe on the natural river bottom. The impact on flora or the river ecosystem is predicted to be modest, and the bridge's footprint will not increase beyond the already disturbed channel footprint. The use of scaffolding systems, and debris containment systems will mitigate disruptions to the river channel and will not impact the character-defining features of the channel. The proposed Project will cause minimal physical changes to the channel, which is already a long, linear resource that extends for miles throughout the region.

9.1.2 Post-review Discoveries

Due to development within the APE and in the surrounding areas, the likelihood for *in situ* buried archaeological resources is low. The soils within the APE have been previously disturbed by channelization of the San Gabriel River and residential and commercial development in the immediate area. Additionally, planned project activities have a low potential to disturb any native soils within the APE because no soil excavation activities are anticipated.

9.1.3 Recommended Findings

Based on the results of the cultural resources inventory summarized herein, the Proposed Project will have no impact to historical resources as defined by CEQA.

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Appendix A: Personnel Qualifications

Robert Cunningham

Staff Archaeologist

Mr. Cunningham has 18 years of experience in cultural resources management, with an emphasis on the recording, analysis, and evaluation of historic-period resources. He has participated in all aspects of archaeological fieldwork, including survey, test excavation, and construction monitoring. He has served as a Project Manager and Field Director for a variety of projects, including construction monitoring, archaeological inventories, and site evaluation projects. He has recorded and mapped numerous prehistoric and historic-period archaeological sites and has identified and documented hundreds of prehistoric and historic artifacts. Mr. Cunningham has prepared numerous archaeological site records and has authored and contributed to a variety of cultural resources technical reports.

Education

B.A., Anthropology, University of California, Los Angeles

Registrations, Certifications, Permits and Affiliations

- Field Director listed under the BLM Permit
- Society for American Archaeology
- Society for California Archaeology
- GIS Professional Certificate

Professional Experience

Cultural Resources Monitoring for the High Desert Solar Project, Victorville, San Bernardino County – Middle River Power, LLC. (2020-2021). Project Manager and Field Director for Cultural Resources monitoring for construction of a concrete pad for a generator step-up transformer, trenching for an underground electrical line, and installation of a perimeter fence. Duties consisted of overseeing Cultural Resources Monitoring, testing and data recovery, coordination with water district personnel, construction staff, and tribal representatives, invoicing, and logistics.

East Side Dike Project, Indio, Riverside County – Coachella Valley Water District (2022-Ongoing). Field Director for a survey of over 40 acres covering a segment of an existing diversion dike in Indio, California. Responsible for supervising one field technician, filed logistics, documentation of one newly identified resource and updating site documentation for the historic East Side Dike.

Dune Palms Road Bridge Project, La Quinta, Riverside County – Sub to TY Line for the City of La Quinta (2023-Ongoing). Cultural lead for removal of a low water crossing and construction of a 480 feet long and 86 feet wide four-span bridge over the Coachella Valley Storm Channel. Duties included developing and providing an archaeological resources worker awareness training, monitoring construction

crews, overseeing archaeological monitors, coordination with construction personnel, logistics, tracking budget, and insuring compliance with mitigation measures.

North Indio Flood Control Project, Indio, Riverside County – Coachella Valley Water District (2022-Ongoing). Project Manager and Staff Archaeologist for Cultural Resources services in support of a municipal water district project consisting of the installation of 2.5 five miles of combined flood control channels from Adams Street to Jefferson Street in the City of Indio. Duties consisted of overseeing Cultural Resources Monitoring, testing and data recovery, coordination with water district personnel, construction staff, and tribal representatives, invoicing, and logistics.

Dana Point Rockfall Mitigation Project, Dana Point, Orange County – Sub to ENGEO for Orange County Public Works (2023). Conducted a California Historical Resources Information System records search at the South Central Coastal Information Center in support of proposed rockfall mitigation to reduce the impact of falling rock at the base of the western portion of the Dana Point Harbor bluff to improve the safety for vehicles, vehicle occupants, and pedestrians along a well-used thoroughfare. Duties included coordinating access, scheduling, and managing field staff.

Oak Glen Preserve Golden Spotted Oak Borer Treatment Area Project, San Bernardino County – Wildlands Conservancy (2023). Conducted a California Historical Resources Information System records search at the South Central Coastal Information Center in support of the proposed removal of beetle infested oak trees. Duties included coordinating access, scheduling, and managing field staff.

Victorville Bioenergy Facility Project, Victorville, San Bernardino County – Trinity Consultant, Inc. (2023). Conducted an archaeological resources survey for the proposed construction of a bioenergy facility within 29.49 acres of an existing wastewater treatment facility. Duties included conducting a California Historical Resources Information System records search at the South Central Coastal Information Center, recording one newly-identified resource, recording resource location and creating electronic map using Collector for ArcGIS and a GNSS receiver, keeping detailed field notes, creating a photo journal, and co-authoring a letter report.

Villa Serena Project, Upland, San Bernardino County – The Colonies Partners, LP (2023). Conducted a California Historical Resources Information System records search at the South Central Coastal Information Center in support of the proposed construction of 55 single family residential units and associated recreational space on a 23.21-acre property. Duties included coordinating access, scheduling, logistics, and managing field staff.

Tennessee Village Project, Redlands, San Bernardino County – Diversified Pacific (2022). Conducted a California Historical Resources Information System records search at the South Central Coastal Information Center in support of the proposed construction of a mixed-use residential and commercial development on a 13.65-acre parcel.

Riverside Chicago Avenue Project, Riverside County – County of Riverside Planning Department (2022). Conducted a Phase I update of 140-acre project area, Field Director for a pedestrian survey of a 20-acre addition to the project area, and Field Director for Phase II testing. Responsible for managing

archaeological field staff, recording new sites and isolates, coordinating with Tribal monitors, writing daily summaries, acquiring field equipment, and updating field maps. Cultural services were undertaken in support of the proposed Arroyo Vista residential development on 160 acres in the unincorporated community of Woodcrest.

Buena Vista Debris Basin Project, Santa Barbara County – Santa Barbara County Flood Control District (2022). Coordinated field staff and assisted the Architectural Historian with the evaluation of two historic-period built environment features. Duties included field logistics, managing field staff, and conducting archival research.

Xenia Apartments Project, Beaumont, Riverside County – Beaumont Land Partners (2022). Field Director for an archaeological resources survey for the proposed construction of an apartment complex on a 10.7 acre property. Duties included recording one newly-identified resource, preparing a DPR record, recording resource location and creating electronic map using Collector for ArcGIS and a GNSS receiver, keeping detailed field notes, creating a photo journal, and co-authoring a technical report.

Little Tujunga Canyon Road Over Pacoima Creek Bridge Replacement Project, Los Angeles County – Los Angeles County Department of Public Works (2022). Staff Archaeologist for survey in support of a Caltrans local assistance bridge replacement project. Responsible for field logistics, maintaining field notes and a photo log, updating documentation to two previously recorded resources.

Roseton Avenue Reservoir Tank and Booster Station Project, Artesia, Los Angeles County – Golden State Water Company (2022). Conducted a California Historical Resources Information System records search at the South Central Coastal Information Center in support of the proposed installation of a 750,000-gallon potable water storage tank and booster pump station. Authored results summary letter report.

Clearview Plant Replacement Tanks Project, Santa Ana, Orange County – Golden State Water Company (2022). Conducted a California Historical Resources Information System records search at the South Central Coastal Information Center in support of the proposed installation of two replacement reservoir tanks.

Banning 97 Project, Jurupa Valley, Riverside County – Diversified Pacific (2021-2022). Assistant Project Manager for construction monitoring for a new housing development on an approximately 35-acre area in the City of Banning. Responsible for managing archaeological monitors, coordinating with construction crews, writing daily summaries, and insuring compliance with approved mitigation measures and applicable state and federal environmental law.

Sierra Avenue Project, Jurupa Valley, Riverside County – JPMB Investments, LLC (2022). Contributed to the technical report for a cultural resources inventory in support of a proposed residential development, a hiking trail, and stormwater detention facility.

Saxon Reservoir and Booster Station Project, San Gabriel, Los Angeles County – Golden State Water Company (2022). Conducted a California Historical Resources Information System records search at the

South Central Coastal Information Center in support of the proposed the construction of a new reservoir and booster station. Coordinated site access and supervised field staff.

North Bench Recycled Water System Project, Yucaipa, San Bernardino County – Yucaipa Valley Water District (2022). Cultural Lead and Field Director for an archaeological resources and historic built environment inventory for the proposed construction of four booster stations, four reservoirs, and a 3.5-mile-long pipeline for recycled water distribution. Responsible for field logistics, supervising field staff, DPR records, recording resource locations and creating electronic maps using Collector for ArcGIS and a GNSS receiver, keeping detailed field notes, and creating a photo journal.

10 to 11 Recycled Water Pressure Zone Project, Calimesa, Riverside County – Yucaipa Valley Water District (2022). Cultural Lead and Field Director for an archaeological resources and historic built environment inventory for the proposed construction of a 5-million-gallon recycled water reservoir, a 5.5-million-gallon recycled water reservoir, a booster station, and approximately 0.35 mile of 24-inch recycled water pipeline. Responsible for field logistics, supervising field staff, DPR records, recording resource locations and creating electronic maps using Collector for ArcGIS and a GNSS receiver, keeping detailed field notes, and creating a photo journal.

Vega SES 4 Access Road Project, Imperial County – Vega SES 4, LLC (2022). Field Director for survey of six miles along the U.S./Mexico international border. The project was in support of proposed road improvements for access to the proposed Vegas SES 4 Solar Farm. Responsible for field logistics, supervising field staff, DPR records, recording resource locations and creating electronic maps using Collector for ArcGIS and a GNSS receiver, keeping detailed field notes, and creating a photo journal.

79 Acres for Prospecting and Mining Operations Project, San Bernardino County – Gold Discovery Group, LLC (2021-2022). Field Director for a cultural resources inventory of a 79-acre project area on Bureau of Land Management managed lands near Atolia. Responsible for managing two crews of archaeological field staff, recording new sites and isolates, coordinating with Bureau of Land Management, logistics, maintaining and organizing daily summaries, acquiring field equipment, DPR records, recording resource locations and creating electronic maps using Collector for ArcGIS and a GNSS receiver, and co-authoring technical report.

Gold Discovery Group 299 Project, Kern and San Bernardino Counties – Gold Discovery Group, LLC (2021-2022). Field Director for a cultural resources inventory of a 120.44-acre project area on Bureau of Land Management managed lands near the communities of Johannesburg and Atolia. Responsible for managing two crews of archaeological field staff, recording new sites and isolates, coordinating with Bureau of Land Management, logistics, maintaining and organizing daily summaries, acquiring field equipment, DPR records, recording resource locations and creating electronic maps using Collector for ArcGIS and a GNSS receiver, and co-authoring technical report.

Del Valle Road Water Main Replacement Project, Los Angeles County – Los Angeles County Department of Public Works (2021-2022). Staff Archaeologist responsible for conducting compliance

field checks during trenching. The project consisted of the replacement of a water main in the unincorporated community of Val Verde.

Cultural Resources Monitoring for the High Desert Solar Project, Victorville, San Bernardino County – Middle River Power, LLC. (2020-2021). Field Director and Lead Cultural Resources Monitor for the construction of a 700-acre solar farm project the City of Victorville. The project includes the construction of a 100-megawatt (MW) solar photovoltaic (PV) energy facility and an approximately 1.5-mile long interconnection line. Responsible for managing archaeological monitors, recording new sites and isolates, collecting and cataloguing artifacts, coordinating with construction crews about upcoming work, writing daily summaries, acquiring field equipment, updating field maps, maintaining field vehicles, insuring compliance with approved mitigation measures and applicable state and federal environmental law, and conducting on-site cultural resources sensitivity training for construction workers.

West Valley Boulevard Hotel Project, Colton, San Bernardino County – City of Colton Development Services Department (2022). Conducted a California Historical Resources Information System records search at the South Central Coastal Information Center in support of the proposed construction of a commercial hotel space.

Avenue 66 Grade Separation Project, Riverside County – Sub to Answer Advisory, Inc. for Riverside County Transportation Department (2022). Construction monitor for construction of a new grade separation and crossing of the Union Pacific Railroad in the community of Mecca. This was a Caltrans Local assistance project. Also served as Field director for limited testing to assist with the evaluation of a historic refuse deposit found during monitoring and contributed to the technical report.

Muscoy Area Pedestrian Improvement Project, San Bernardino County – County of San Bernardino Department of Public Works (2022). Conducted an archaeological and historic built environment resources inventory for the proposed construction of a pedestrian improvements along several streets in the unincorporated community of Muscoy. Duties included recording newly-identified resources, preparing DPR records, recording resource locations and creating electronic maps using Collector for ArcGIS and a GNSS receiver, keeping detailed field notes, creating a photo journal, and co-authoring a technical report.

Tentative Tract Map 37441 Project Additional Survey, Perris, Riverside County – Graham Development, LLC (2022). Conducted a cultural resources inventory of a project area addition for a proposed residential development in the City of Perris. Duties included using Collector for ArcGIS and a GNSS receiver, keeping detailed field notes, creating a photo journal, and authoring a technical report.

Tentative Tract Map 37441 Project, Perris, Riverside County – Graham Development, LLC (2017). Conducted a cultural resources inventory for the proposed residential development of a 4.96-acre parcel. Duties included using Collector for ArcGIS and a GNSS receiver, keeping detailed field notes, creating a photo journal, and authoring a technical report.

Victorville Wellness Center Project, Victorville, San Bernardino County – City of Victorville (2021). Conducted a cultural resources inventory and evaluation for the proposed construction of a wellness center campus on 13.65 acres. Duties included recording newly-identified resources, preparing DPR records,

recording resource locations and creating electronic maps using Collector for ArcGIS and a GNSS receiver, keeping detailed field notes, creating a photo journal, and authoring a technical report.

Calico Ghost Town Pizza Garden Tenant Improvement Project, San Bernardino County – County of San Bernardino Department of Public Works (2020). Contributed to a technical report presenting the results of construction monitoring within Calico Ghost Town Regional Park.

The Reserve at Chino Hills Project, Chino Hills, San Bernardino County – City of Chino Hills (2020). Prepared a technical report presenting the results of cultural resources study consisting of a records search, Sacred Lands File search, and field survey. The project was completed in compliance with CEQA.

Santa Monica-Malibu Unified School District Malibu Middle and High School Campus Master Plan Project, Malibu, Los Angeles County – Placeworks (2020). Field Director for an archaeological field survey of unpaved portions of the Juan Cabrillo Elementary School and the Malibu Middle and High School campuses. The study was conducted in support of an evaluation of eligibility for the buildings on the two school campuses for inclusion in the CRHR.

Rancho Cielito Project, Chino Hills, San Bernardino County – City of Chino Hills (2019 and 2020). Field Director for a cultural resources study of an approximately 49-acre property in Chino Hills. The Proposed Project included developing 354 residential units on property. Duties consisted of conducting a records search, requesting a Sacred Lands File search, field survey of the project area, preparing DPR records, resource evaluations, and preparation of a technical report. The project was completed in compliance with CEQA.

Cal Fire Prado Helitack Base Project, San Bernardino County – California Department of General Services (DGS), Real estate Division (RESD) (2020). Field Director for a cultural resources inventory of a 17-acre property in the City of Chino. Cal Fire proposes to construct a new helitack base on the property. Duties consisted of conducting a records search, requesting a Sacred Lands File search, field survey of the project area, and preparing DPR records. The project was completed in compliance with CEQA.

Placerita Canyon Trail Habitat Restoration Project, Newhall, Los Angeles County – County of Los Angeles Department of Parks and Recreation (2019). Field Director for a cultural resources inventory of a 1.8-mile trail within the Placerita Canyon Natural Area in Newhall. The 2016 Sand Fire burned portions of the trail and the subsequent rains in early 2017 overflowed Placerita Creek resulting in damage to portions the trail. Duties included recording newly-identified resources and updating previously recorded resources, preparing DPR records, recording resource locations and creating electronic maps using Collector for ArcGIS and a GNSS receiver, keeping detailed field notes, creating a photo journal, and authoring a technical report. The project was completed in compliance with CEQA.

Calimesa Lake and Spreading Grounds Project, Calimesa, Riverside County – Yucaipa Valley Water District (2020). Field Director for a cultural resources inventory of an approximately 75-acre property in Calimesa. The study was conducted at the request of Yucaipa Valley Water District in support of the potential construction of a spreading basin within a commercial development that is not yet constructed. Duties included recording three newly-identified resources, evaluation of three newly-identified resources

for the California Register of Historical Resources, preparing DPR records, creating electronic maps with a handheld GPS unit, keeping detailed field notes, creating a photo journal, and authoring a technical report. The project was completed in compliance with CEQA.

Cultural Resources Inventory and Evaluation for the Etiwanda Creek Park Expansion Project, San Bernardino – City of Rancho Cucamonga (2020). Field Director for a cultural resources inventory in support of the proposed expansion of Etiwanda Creek Park in the City of Rancho Cucamonga. Duties included recording newly-identified resources, evaluation of newly-identified resources for the California Register of Historical Resources, preparing DPR records, recording resource locations and creating electronic maps using Collector for ArcGIS and a GNSS receiver, keeping detailed field notes, creating a photo journal, and authoring a technical report.

Helendale Mobil Project, Near Helendale, San Bernardino County – Mark Maida (2020). Field Director for a cultural resources inventory of an approximately 4-acre property near Helendale. The landowner proposed to develop a Mobil gas station on the property. Duties included recording newly-identified resources, preparing DPR records, recording resource locations and creating electronic maps using Collector for ArcGIS and a GNSS receiver, keeping detailed field notes, creating a photo journal, and authoring a technical report. The project was completed in compliance with CEQA.

Bluff Lake Preserve Project, Near Big Bear, San Bernardino County – The Wildlands Conservancy/Oak Glen Preserve (2020). Archaeological field technician for a cultural resources inventory of an approximately 60-acre property near Big Bear in the San Bernardino Mountains. The property is a private inholding owned by the Wildlands Conservancy/Oak Glen Preserve within the San Bernardino National Forest. The property was designated as a State-sanctioned mitigation bank and CEQA was required for the restoration project. The project was completed in compliance with CEQA.

Mediterranean Village Apartments Project, Victorville, San Bernardino County – AIS, LLC. (2020). Field Director for a cultural resources study of an approximately 30-acre property in Victorville. The Proposed Project included developing approximately 444 apartment units on property. Duties included conducting a field survey, recording newly-identified resources, preparing DPR records, recording resource locations and creating electronic maps using Collector for ArcGIS and a GNSS receiver, keeping detailed field notes, creating a photo journal, and authoring a technical report. The project was completed in compliance with CEQA.

Coachella Valley Water District Sanitation Master Plan Update 2020, Riverside and Imperial Counties – Coachella Valley Water District (2020). Staff Archaeologist for a sanitation master plan update. The Coachella Valley Water District proposes to refurbish existing assets, optimize operations, and satisfy projected capacity needs of all sanitation facilities in a phased program to be implemented in five-year implementation phases between 2021 to 2040. As part of the cultural study tasks included conducting a cultural records search for 271,884 acres of the District service area, and assisting with developing an archaeological and built environment sensitivity model to aid the District in future planning within the Master Plan area. All work was completed in compliance with CEQA.

Hermosa Avenue Wall Project, Rancho Cucamonga, San Bernardino County – City of Rancho Cucamonga (2020). Field Director for an architectural history assessment of a historic-period wall. The City of Rancho Cucamonga was proposing to remove a potentially historic-age stone wall to widen a portion of Hermosa Avenue. ECORP conducted a cultural resources assessment of the structure and an evaluation of the wall for inclusion in the CRHR and as a local Historic Landmark and/or a Point of Historic Interest. Duties included conducting a records search, field survey, archival research, resource evaluation, and authoring a technical report. All work was completed in compliance with the cultural resources requirements of the CEQA and the City of Rancho Cucamonga.

Calhan Speedway Racing Track Project, Near Adelanto, San Bernardino County – Calhan Capital, Inc. (2020). Field Director for a cultural resources inventory of an approximately 240-acre property near Adelanto. Calhan Capital, Inc, proposed to construct a private automobile racing track on property. Duties included recording newly-identified resources and updating previously recorded resources, preparing DPR records, recording resource locations and creating electronic maps using Collector for ArcGIS and a GNSS receiver, keeping detailed field notes, and creating a photo journal. The project was completed in compliance with CEQA. The project was completed in compliance with CEQA.

Village Christian School Project, Los Angeles, Los Angeles County – Village Christian School (2020). Field Director for a 3.5-acre study in the Sun Valley neighborhood in the City of Los Angeles. The Village Christian School proposed to connect the 3.5-acre parcel to the main campus and construct a softball field on the property. Duties included a field survey, recording a historic-period single family property, DPR records, and contributing to a technical report. The project was completed in compliance with CEQA.

City Creek-Alabama Street Bikeways Project, Highland, San Bernardino County – Sub to KOA for the City of Highland (2019). Field Director for a Caltrans local assistance project in the City of Highland. The project is for the proposed addition of 1.7 miles of new Class I bikeway on the levee along the west side of the City Creek drainage, and 0.6 mile (2,000 feet) of new Class I/Class II bikeways along Alabama Street. Responsibilities included field logistics, identifying and documenting eight historic resources, recording resource locations and creating electronic maps using Collector for ArcGIS and a GNSS receiver, keeping detailed field notes, creating a photo journal, contributing to the Archaeological Survey Report.

Gold Creek Restoration Project, Los Angeles County – Los Angeles Community College District (2019). Field Director for the Gold Creek Restoration Project located in the foothills of the San Gabriel Mountains in Los Angeles County, California. The Los Angeles Community College District proposes to restore the native plants, buildings, footbridge, water supply system, and infrastructure within a 240-acre property that was damaged by the 2017 Creek Fire. Duties included conducting a records search, Sacred Lands File search, a field survey, recording newly-identified resources and updating previously recorded resources, preparing DPR records, recording resource locations and creating electronic maps using Collector for ArcGIS and a GNSS receiver, keeping detailed field notes, and creating a photo journal.

Jackson Ranch Specific Plan Project, Kings County – Placeworks (2019). Field Director for the Jackson Ranch Specific Plan area, a 425-acre property located within an unincorporated area of Kings County, California. Duties included a cultural resources inventory including a records search, Sacred Lands File search, field

survey, and technical report. ECORP also provided assistance to Kern County with AB 52 and SB 18 consultation. Consultation assistance included drafting consultation letters and providing technical support. The project was completed in compliance with CEQA.

Monitoring for the Martincoit Road Sewer Upsize Project, City of Poway, San Diego County – Sub to Psomas (2019). Cultural Resources Monitor for excavation for installation of a sewer line. Duties included monitoring construction crews, coordination with construction personnel, logistics, insuring compliance with mitigation measures. writing daily summaries, keeping detailed field notes, and creating a photo journal.

Cultural Resources Inventory and Evaluation for Three Emergency Flood Control Projects – San Bernardino County Department of Public Works (2019). Field Director for a cultural resources inventory in support of emergency repairs to three flood control facilities in the cities of Rancho Cucamonga and Redlands, and the community of Mt. Baldy, San Bernardino County. Duties included recording newly-identified resources, evaluation newly-identified resources and existing flood control features for the California Register of Historical Resources, preparing DPR records, recording resource locations using Collector for ArcGIS and a GNSS receiver, keeping detailed field notes, creating a photo journal, and authoring a technical report.

Cultural Resources Inventory and Evaluation for Twentynine Palms Emergency Flood Control Repairs, San Bernardino County – San Bernardino County Department of Public Works (2019). Field Director for a cultural resources inventory in support of emergency repairs to flood control facilities in the City of Twentynine Palms. Duties included recording newly-identified resources, evaluation of newly-identified resources and existing flood control features for the California Register of Historical Resources, preparing DPR records, recording resource locations and creating electronic maps of disturbance areas using Collector for ArcGIS and a GNSS receiver, keeping detailed field notes, creating a photo journal, and authoring a technical report.

Stoneridge Project, Riverside County – Richland Planned Communities, Inc. (2019). Field Director for an approximately 700-acre survey in unincorporated Riverside County, near Perris. The proposed Project provides for the development of a master-planned development that would amend the approved Stoneridge Specific Plan to provide light industrial, business park, commercial retail, and open space land uses in lieu of the approved residential, town center, and commercial Specific Plan land uses. Duties included conducting a field survey, recording newly-identified resources and updating previously recorded resources, preparing DPR records, recording resource locations and creating electronic maps using Collector for ArcGIS and a GNSS receiver, keeping detailed field notes, and creating a photo journal. The project was completed in compliance with CEQA.

Cultural Resources Monitoring for the City Creek Homeless Project, San Bernardino County – San Bernardino County Department of Public Works (2019). Cultural Resources Monitor for clearing and grading of an access road for the removal of 17 homeless encampments. Duties consisted of identification and recording of all potentially eligible features, flagging all potentially eligible features to ensure avoidance, recoding one newly identified resource, field logistics, writing daily summaries, keeping detailed

field notes, preparation of site records, creating a photo journal, recording resource locations using Collector for ArcGIS and a GNSS receiver, and co-authoring the technical report.

Cultural Resources Inventory and Evaluation for the Cactus Trail Improvements Project, Rialto, San Bernardino County – Sub to KOA for the City of Rialto (2018). Field Director for a cultural resources inventory of an 11.15-acre area for the proposed construction of a 1.49-mile long pedestrian trail. Duties included recording three newly-identified resources, evaluation of three newly-identified resources for the California Register of Historical Resources, preparing DPR records, creating electronic maps with a handheld GPS unit, keeping detailed field notes, creating a photo journal, and authoring a technical report.

Corona Regional Medical Center Project, Corona, Riverside County – The Boureston Companies (2018). Field Archaeologist for a cultural resources inventory of a 3.5-acre area for construction of a new medical facility. Duties included recording five newly-identified historic-period built environment features, recording resource locations using Collector for ArcGIS and a GNSS receiver, keeping detailed field notes, and creating a photo journal.

Cultural Resources Inventory for the Alberhill Substation and Transmission Line Project, Near Alberhill, Riverside County – Southern California Edison (2012). Field Archaeologist for a cultural resources inventory of 19 non-contiguous survey areas composing an approximately 40-acre area. Duties included recording three newly-identified resources, evaluation of one newly-identified resource for the California Register of Historical Resources, preparing DPR records, creating electronic maps with a handheld GPS unit, keeping detailed field notes, and creating a photo journal.

Taft Oil Dri Project, Near Taft, Kern County – Sespe Consulting, Inc. (2018). Field Director for a cultural resources inventory of a 60-acre area on land managed by the U.S. Bureau of Land Management for a proposed diatomaceous shale mining operation. Duties included proper identification of cultural materials, keeping detailed field notes, field logistics, recording resource locations using Collector for ArcGIS and a GNSS receiver, creating a photo journal, and authoring a technical report.

Cultural Resources Investigation for the Afflerbuagh-Paige Wastewater Treatment Demolition Project, La Verne, Los Angeles County – Los Angeles County Public Works (2018). Field Director for a cultural resources assessment of an 11-acre area for the proposed demolition of a wastewater treatment facility. Duties included recording and evaluating three newly-identified resources for the National Register of Historic Places/California Register of Historical Resources, preparing DPR records, keeping detailed field notes, field logistics, recording resource locations using Collector for ArcGIS and a GNSS receiver, creating a photo journal, and co-authoring a technical report.

Cultural Resources Inventory of 8320 Hazel Avenue, Near Orangevale, Sacramento County – Harvest Bible Chapel (2017). Field Archaeologist for a cultural resources inventory for the potential development of a 16.98-acre parcel. Duties included proper identification and description of cultural material, keeping detailed field notes, recording resource locations using Collector for ArcGIS and a GNSS receiver, and creating a photo journal.

Cultural Resources Inventory for a 0.77-Acre Parcel at the Intersection of 11th Street and East Stuart Avenue, Redlands, San Bernardino County – McKernan, Inc. (2018). Primary author of a technical report for a cultural resources survey in the City of Redlands. Duties also included preparing a DPR record for one newly-identified resource.

Cultural Resources Inventory for the Market Street Pedestrian and Streetscape Enhancements Project (LA River to Cherry Avenue), Long Beach, Los Angeles County – City of Long Beach as a Sub to Ardurra (2018). Field Director for a cultural resources inventory of a 1.9-mile section of Market Street selected for various road improvements as part of a Caltrans local assistance project. Duties included walking along each side of the road and inspecting all unpaved areas for archaeological resources, proper identification of cultural materials, keeping detailed field notes, field logistics, and creating a photo journal.

Cultural Resources Inventory for the Sunburst Avenue Bike Trail Project, Community of Joshua Tree, San Bernardino County – San Bernardino County Department of Public Works (2019). Field Director for a cultural resources inventory of a 2-mile section of Sunburst Avenue for construction of a Class I Bike Path and a Class II Bike Lane. Duties included proper identification of cultural materials, updating and evaluating one previously recorded resource for inclusion in the California Register of Historical Resources, recording and evaluating two newly-identified resources for inclusion in the California Register of Historical Resources, preparing DPR records for two newly-identified resources, keeping detailed field notes, field logistics, recording resource locations using Collector for ArcGIS and a GNSS receiver, creating a photo journal, and authoring a technical report.

Cultural Resources Inventory for the Pedley Road Improvements Project, Jurupa Valley, Riverside County – Sub to KOA for the City of Jurupa Valley (2018). Field Director for a cultural resources inventory of a 1.4-mile section of Pedley Road selected for various road improvements. Duties included proper identification of cultural materials, updating one previously recorded resource, preparing DPR records for five newly-identified resources, keeping detailed field notes, field logistics, recording resource locations using Collector for ArcGIS and a GNSS receiver, creating a photo journal, and authoring a technical report. This project was a Caltrans Local Assistance project.

Potrero Cal Fire Station Replacement Project, San Diego County – California DGS-RESD. (2018). Cultural Resources Monitor for geotechnical borings a 5-acre property near the community of Potrero. The California Department of Forestry and Fire Protection (Cal Fire) proposed to replace the existing Potrero fire station located at 25130 CA-94, Potrero, California with a new fire station.

Cultural Resources Study for the Kiowa Well, Water Tank, and Booster Station Project, Town of Apple Valley, San Bernardino County - Golden State Water Company (2018). Field Director for a cultural resources inventory of 4.4 acres for construction of water storage facilities and construction of a well. Duties included proper identification of cultural materials, updating one previously recorded resource, keeping detailed field notes, field logistics, recording resource locations using Collector for ArcGIS and a GNSS receiver, creating a photo journal, and authoring a technical report.

Cultural Studies for the Zanja Trails Project, Redlands, San Bernardino County – Redlands Conservancy (2018). Field Director for a survey of a section of the Zanja Trails and Greenway Project from 7th Street to Church Street. The proposed Project includes the construction of a pedestrian trail and intermittent pocket parks along the banks of the Mill Creek Zanja in the city of Redlands. Duties included updating and evaluating two previously recorded resources, preparing DPR records for three newly-identified resources, keeping detailed field notes, field logistics, recording resource locations using Collector for ArcGIS and a GNSS receiver, creating a photo journal, and authoring a technical report.

Villa Park High School Modernization Project, Villa Park, Orange County – Placeworks (2018). Field Director for the inventory and evaluation of Villa Park High School. Duties included recording 10 buildings and structures, evaluating the Villa Park High School complex for CRHR eligibility, evaluating each building and structure for CRHR eligibility as individual resources, preparing a DPR record for the Villa Park High School campus and buildings, supervising one field technician, keeping detailed field notes, field logistics, creating a photo journal, authoring a technical report. All work was performed under the supervision of an architectural historian meeting the Secretary of the Interior's standards for Architectural History and History.

Architectural History and Evaluation of Orange High School, Orange, Orange County – Placeworks (2018). Field Director for the inventory and evaluation of Orange High School. Duties included recording 20 buildings and structures, evaluating the Orange High School complex for CRHR eligibility, evaluating each building and structure for CRHR eligibility as individual resources, preparing a DPR record for the Orange High School campus and buildings, supervising one field technician, keeping detailed field notes, field logistics, creating a photo journal, authoring a technical report. All work was performed under the supervision of an architectural historian meeting the Secretary of the Interior's standards for Architectural History and History.

Cultural, Air Quality, and Biological Studies for the Shtockmaster Perris Project, Riverside County – Sam Shtockmaster (2017). Field Director for a cultural resources survey of a 0.7-acre property for proposed light industrial development. Duties included proper identification and description of cultural material, preparing DPR records for two newly-identified resources, keeping detailed field notes, field logistics, recording resource locations using Collector for ArcGIS and a GNSS receiver, creating a photo journal, and authoring sections of the technical report.

Medical Marijuana Cultivation Facility, Desert Hot Springs, Riverside County – DSH Enterprises (2017). Field Director for a cultural resources survey of a 13-acre area in the City of Desert Hot Springs. Duties included proper identification and description of cultural material, preparing DPR records for three newly-identified isolated finds, keeping detailed field notes, field logistics, recording resource locations using Collector for ArcGIS and a GNSS receiver, creating a photo journal, and authoring sections of the technical report.

Tentative Tract Map 37441 Project, Perris, Riverside County – Graham Development, LLC (2017). Conducted a cultural resources inventory for the proposed residential development of a 4.96-acre parcel.

Duties included using Collector for ArcGIS and a GNSS receiver, keeping detailed field notes, creating a photo journal, and authoring a technical report.

Cultural Resources Inventory for the Interstate Industrial Park Project, Desert Hot Springs, Riverside County (2017). Archaeological Field Technician for a cultural resources inventory of 101 acres in the City of Desert Hot Springs. Duties included identification of cultural materials, recording 11 newly-identified resources, creating electronic maps with a handheld GPS unit, creating a photo journal, and preparation of DPR site forms.

Cultural Resources Survey of 40 Acres near the Community of Hinckley, San Bernardino County – Z Global (2017). Field Director for a cultural resources survey of a 40-acre parcel for the proposed development of a solar power generation facility. Duties included supervising one field technician, proper identification and description of prehistoric and historic-period artifacts, updating four previously recorded resources, preparing a DPR records for four newly-identified resources, evaluation of resources for the California Register of Historical Resources, keeping detailed field notes, field logistics, creating a photo journal, and authoring sections of the technical report.

Cultural Inventory for the Indian Wells Hospitality Hotel Project, Riverside County – City of Indian Wells (2017). Field Director for a cultural resources survey of a 105-acre area for the proposed construction of recreational vehicle storage facility. Duties included proper identification and description of prehistoric and historic-period artifacts, preparing a DPR record for one newly-identified isolated find, keeping detailed field notes, field logistics, creating a photo journal, and authoring sections of the technical report.

Cultural Resources Survey for DHS RV Storage Project, Desert Hot Springs, Riverside County – My Desert Garage, LLC. (2017-2018). Field Director for a cultural resources survey of a 105-acre area for the proposed construction of recreational vehicle storage facility. Duties included supervising one field technician, proper identification and description of prehistoric and historic-period artifacts, keeping detailed field notes, field logistics, creating a photo journal, and authoring sections of the technical report.

Cultural Resources Survey for the High Desert Solar Project, Victorville, San Bernardino County – Middle River Power, LLC. (2017). Field Director for a 700-acre cultural resources inventory in the City of Victorville. As a result of the study, 24 previously recorded sites were updated, and 22 newly-identified resources were recorded. Duties included supervision of field technicians for a cultural resources survey and limited testing, field logistics, evaluation of resources for the National Register of Historic Places/California Register of Historical Resources, and authoring a technical report,

Langmuir Street Storm Drain Replacement, San Diego, San Diego County – New Century Construction, Inc. (2019). Lead Monitor during excavation for a storm drain replacement. Duties included field logistics, proper identification of prehistoric and historic-period artifacts, maintaining accurate fieldnotes and photolog, and authoring sections of the technical report.

Bieber Fire and Helitack, Lassen County – California DGS-RESD (2017). Field Archaeologist for a Phase II archaeological site testing for multiple historic and prehistoric-aged archaeological resources. Resources

included prehistoric lithic scatters, historic refuse scatters and historic road alignments. Duties included excavation of shovel test pits, screening soils, proper identification of artifacts, keeping accurate field notes, and maintaining a photo journal.

Natomas North Precinct CRM, Sacramento County – Brookfield Natomas, LLC. (2017). Field Archaeologist for a 3,666-acre survey over fallow and active agricultural land in Sacramento County. Duties included proper identification and description of historic-period artifacts, keeping detailed field notes, and creating a photo journal.

AT&T Fiber Optic Line from Baker to Fort Irwin Project, San Bernardino County – First Carbon Solutions (2016-2017). Lead Cultural Resources Monitor for the installation of new conduit and direct-buried fiber optic cable, and the installation of utility vaults along a 12.25-mile alignment from the community of Baker to Fort Irwin. Duties consisted of recordation of three sites and three isolated finds, field logistics, writing daily summaries, keeping detailed field notes, preparation of site records, creating a photo journal, creating electronic maps with a handheld GPS unit, and authoring sections of the technical report.

Stateline Solar Farm Survey Project near Primm (NV), San Bernardino County – First Solar (2013-2015). Lead Cultural Resources Monitor responsible for coordinating with BLM, First Solar Compliance Team, construction foremen and crews during excavation for an approximately 2,100-acre 300-megawatt (MW) photovoltaic (PV) solar farm. Duties included managing archaeological monitors, recording new sites and isolates, collecting and cataloguing artifacts, coordinating with construction crews about upcoming work, attending daily Plan of the Day meetings, writing daily summaries, acquiring field equipment, updating field maps, maintaining field vehicles, collecting receipts and time sheets from crew, and reporting daily to the client.

Fort Irwin Verizon Fiber Optic Project, Fort Irwin National Training Center, San Bernardino County – Verizon Communications (2015). Field Director responsible for leading five miles of linear cultural survey in preparation for fiber optic line installation by Verizon Communications for the residents of Fort Irwin. Duties included supervising field staff, ensuring adequate survey coverage, recording locational information of cultural resources using handheld GPS, interpreting records search results, locating and updating previously recorded sites in the area, and coordination of travel, authorization, and training for military installation access.

Barstow Reservoir Project Testing and Evaluation Project, San Bernardino County – Golden State Water Company (2016). Field Director for a Phase II testing and evaluation program for a multicomponent site near the community of Lenwood in the Mojave Desert, completed in support of a proposed 9.28-acre water reservoir project. Duties included supervising three field technicians, field logistics, overseeing the excavation of 20 shovel test pits and 3 surface scrape units, and recording artifact locations and site boundaries with a Trimble GPS unit. Coauthored the testing and evaluation report. The project was completed in compliance with the California Environmental Quality Act (CEQA).

Cultural Resources Monitoring for the Orange Street Alley Project, San Bernardino County – City of Redlands (2015). Lead Monitor during construction of the Orange Street Alley Pedestrian Enhancement Project, in Redlands, San Bernardino County. Duties included proper identification and description of historic-period artifacts, keeping detailed field notes, preparation of site records, field logistics, creating a photo journal, and authoring sections of the technical report.

Cultural Resources Survey and Evaluation of a Two Acre Parcel in San Bernardino County – Nancy Harper (2015). Field Director for an intensive survey of a two-acre parcel and evaluation of a historic-period residence and agricultural features for eligibility to the National Register of Historic Places, and to the California Register of Historical Resources. Duties included proper identification and description of historic-period artifacts, keeping detailed field notes, preparation of site records, field logistics, creating a photo journal, and authoring sections of the technical report.

Historical Resource Evaluation for California State Prison-Corcoran, Kings County – Sun Edison (2013). Field Director for a historical resource evaluation of a historic period site at California State Prison-Corcoran to evaluate for eligibility to the National Register of Historic Places, California Register of Historical Resources and as a California Historical Landmark. Duties included supervising two field technicians, identifying and documenting cultural resources, determining placement and excavating test units, field logistics, keeping detailed field notes, and authoring sections of the technical report.

Cultural Resources Survey for Two Solar Energy Sites in Owens Valley Olancha, Inyo County – ECOS Energy (2013). Field Director for a cultural resources survey of a 22-acre area and 4,300 feet of proposed underground power transmission line. Duties included supervising one field technician, proper identification and description of prehistoric and historic-period artifacts, keeping detailed field notes, preparation of site records for nine prehistoric and historic-period sites, field logistics, creating a photo journal, creating electronic maps with a handheld GPS unit, and authoring sections of the technical report.

Cultural Resources Inventory for the Proposed Lerdo Detention Facility Expansion Kern County – RBF Consulting (2013). Field Director for a cultural resources survey of a 172-acre area in support of the Kern County Sheriff Department's plan to expand the Lerdo Detention Facility, and wastewater treatment and disposal facility near Bakersfield, California. Duties included supervising one field technician, proper identification and description of prehistoric and historic-period artifacts, keeping detailed field notes, preparation of site records, field logistics, creating a photo journal, and creating electronic maps with a handheld GPS unit.

MRP Site UXO 1 Survey, Naval Weapons Station Seal Beach (NAVWPNSTA), Detachment Fallbrook, Fallbrook, San Diego County – TriEco-Tt, A Joint Venture of TriEco LLC and Tetra Tech EM, Inc. (2012). Field Archaeologist for a 96-acre pedestrian survey for the Munitions Response Program (MRP) Site UXO1 at NAVWPNSTA Seal Beach, Detachment Fallbrook, California. The survey was conducted to identify cultural resources that could be affected by remediation activities at MRP Site UXO1. Duties included identifying and documenting cultural resources, and creating a photo journal.

Twisselman Solar Project Survey, Lost Hills, Kern County – RBF Consulting/Michael Baker Company (2013). Field Director for a cultural resources survey of a 200-acre area and 7 miles of proposed Transmission line alternatives near Lost Hills, California. Duties included supervising two field technicians, proper identification and description of prehistoric and historic-period artifacts, keeping detailed field notes, preparation of site records for prehistoric and historic-period sites, field logistics, creating a photo journal, and creating electronic maps with a handheld GPS unit.

Cultural Resources Inventory and Evaluation for the Casa Blanca Specific Plan, San Bernardino County – Meridian Land Development Company (2012). Crew Chief for a cultural resources inventory of 235-acres located in San Bernardino County. Work consisted of an intensive pedestrian survey over hilly terrain and agricultural fields, the recordation of six historic period structures and 31 historic period features, supervising three field technicians, proper identification and description of historic-period artifacts, keeping detailed field notes, creating a photo journal, creating electronic maps with a handheld GPS unit, and authoring sections of the technical report.

Oro Verde Cultural Resources Survey, Edwards Air Force Base, Kern County – Sun Edison (2012). Field Director for a cultural resources survey of approximately 3,140 acres located on Edwards Air Force Base, California. Responsible for supervising five field technicians. Work consisted of an intensive pedestrian survey and the recordation of more than 60 archaeological sites and several isolated finds. Duties included performing a cultural resources records search using the California Historical Resources Information System, supervising five field technicians, proper identification and description of prehistoric and historic-period artifacts, keeping detailed field notes, preparation of site records for prehistoric and historic-period sites, creating a photo journal, creating electronic maps with a handheld GPS unit, and authoring sections of the technical report.

Cultural Resources Investigation of a 3.28-Acre Parcel, Victorville, San Bernardino County – Circle K Stores, Inc. (2017). Field Archaeologist for a cultural resources survey located in the city of Victorville, San Bernardino County. Work consisted of an intensive pedestrian survey, proper identification and description of artifacts, keeping detailed field notes, creating a photo journal, and authoring the technical report.

Data Recovery for the Desert Sunlight Solar Farm (DSSF) Project, Desert Center, Riverside County – First Solar (2013). Archaeologist responsible for implementing a data recovery program for 16 cultural resources located within the APE for the DSSF Project following guidelines in the Historic Properties Treatment Plan (HPTP) for the Project and stipulations in the Project MOA regarding the treatment of historic properties. Duties included supervising seven field technicians, shovel test pit excavation, detailed site recording, and organizing field logistics for data recovery efforts on historic-period sites.

Desert Sunlight Solar Farm Monitoring Project, Desert Center, Riverside County – First Solar (2011-2014). Archaeologist responsible for on-site monitoring of the construction of an approximately 6,000 acre, 550-megawatt (MW) photovoltaic (PV) solar farm and associated generation interconnection line (Gen-Tie Line) near Desert Center California. Duties included identification of cultural materials in compliance with Section 106 of the NHPA and CEQA.

Verizon Lake Isabella Survey Project near Weldon, Kern County – Verizon (2014). Field Archaeologist for a 251-acre survey along Kelso Creek Road and Kelso Valley Roads south of Weldon, California. Duties included identifying and documenting cultural resources, preparing DPR records, and authoring sections of the technical report. The project crossed BLM land and was a Section 106 project reviewed by the BLM.

Park Once Parking Structure Project, San Bernardino County – City of Redlands (2012). Field Director responsible for supervising three field technicians for the expanded phase I assessment of 1 acre of land located in the city of Redlands, San Bernardino County. Duties included proper identification and description of prehistoric and historic artifacts, placement and excavation of 13 shovel test pits, keeping detailed field notes, creating a photo journal, recording STP and artifact locations with a handheld GPS unit. This project is a Caltrans District 8 Local Assistance Project.

Cultural Resources Inventory for the Stateline Solar Farm Project, Near Primm, Nevada, San Bernardino County – First Solar (2010-2012). Crew Chief for a cultural resources inventory of 2,200-acres located on Bureau of Land Management property near Primm, Nevada. Work consisted of an intense pedestrian survey over hilly terrain and the recordation of 26 archaeological sites and several isolated finds. Duties included supervision of three archaeological field technicians, field logistics, proper identification and description of prehistoric and historic-period artifacts, keeping detailed field notes, preparation of site records for prehistoric and historic-period sites, creating a photo journal, and creating electronic maps with a handheld GPS unit.

Cultural Resources Investigation for Proposed Pole Replacement, San Bernardino County – Southern California Edison (2011). Field Archaeologist for a cultural resources investigation for SCE for the replacement of an unstable utility pole in Lucerne Valley, San Bernardino County. Duties included survey of a 50-meter buffer area around the pole and associated access route to identify any cultural material, photographed the pole and recorded its location with use of a handheld GPS receiver, took detailed field notes, maintained a photo log, principal author of report.

Edwards Air Force Base Damage V Supplement Project, Lancaster, Los Angeles and Kern Counties – Edwards Air Force Base (2010). Field Director responsible for supervising six field technicians implementing phase II testing activities on thirteen historic-period home sites. Duties included identifying and documenting cultural resources, determining placement and excavating test units and surface scrape units, creating electronic maps with handheld GPS unit, and organizing field logistics.

Cultural Resources Monitoring of the Replacement of Eight Poles, Los Angeles County – Southern California Edison (2010). Archaeologist responsible for on-site monitoring of the replacement of eight utility poles on the Petan 12kV Circuit. Duties included identification of cultural materials in compliance

with Section 106 of the (NHPA) and CEQA, creating a photo journal that included photos of each deteriorated pole and the surrounding area, and maintaining detailed filed notes.

Cultural Resources Monitoring of the Replacement of a Deteriorated Pole on BLM Land near Amboy, San Bernardino County – Southern California Edison (2010). Archaeologist responsible for on-site monitoring of the replacement of a deteriorated SCE utility pole on the Lava 12kV circuit, south of Amboy, California. Duties included identification of cultural materials in compliance with Section 106 of the (NHPA) and CEQA, creating a photo journal that included photos of the deteriorated pole and the surrounding area, maintaining detailed field notes, and producing a letter report.

Cultural Resources Inventory for a Proposed FRV Mojave Solar 1 Solar Farm and Transmission Line Near the Community of Rosamond, Kern County – Fotowatio Renewable Ventures (2012). Field Archaeologist for a cultural resources inventory of approximately 184 acres for the development of a 20 megawatt (MW) nominal alternating current (AC) solar photovoltaic (PV) energy-generating project near Rosamond, Kern County. Duties included performing a cultural resources records search using the California Historical Resources Information System, identification of cultural materials in compliance with Section 106 of the (NHPA) and CEQA, creating a photo journal, maintaining detailed field notes, and producing a letter report.

Cultural Resources Constraints Analysis for the Cielito I and II Sites, Near the City of Calexico, Imperial County – Foresight Solar, LLC. (2011). Field Archaeologist for a reconnaissance level site visit for a proposed solar facility. Duties included walking a portion of the site in order to determine if any highly-visible, unrecorded archaeological resources were present; proper identification and description of historic-period and precontact artifacts, keeping detailed field notes, creating a photo journal, and creating electronic maps with a handheld GPS unit.

Cultural Resources Constraints Analysis for the Cayuga Site, Near the Community of Mecca, Riverside County – Foresight Solar, LLC. (2011). Field Archaeologist for a reconnaissance level site visit for a proposed solar facility. Duties included walking a portion of the site in order to determine if any highly-visible, unrecorded archaeological resources were present; recording and analyzing data and contributing to the Cultural Resources Constraints Analysis.

Cultural Resources Inventory for a Proposed Waste to Energy Facility, Fort Irwin, San Bernardino County – Siemens (2013-2014). Archaeological Field Technician for a cultural resources inventory for the proposed development of a waste to energy facility. Duties included identification of cultural materials, recording two isolated finds, creating electronic maps with a handheld GPS unit, creating a photo journal, and preparation of DPR site forms.

Cultural Resources Inventory for the FRV Orion Solar Project Near Arvin, Kern County – RBF Consulting (2011). Field Archaeologist for a cultural resources inventory of 286 acres southwest of Arvin in Kern County. Duties included intensive pedestrian survey over agricultural fields, the recordation of one historic period resource, proper identification and description of historic-period artifacts, keeping detailed field notes, creating a photo journal, and creating electronic maps with a handheld GPS unit.

Archaeological Monitoring of Pole Replacement Activities, Angelus Oaks, San Bernardino County – Southern California Edison (2011). Archaeological Field Monitor during pole replacement activities for SCE in the San Bernardino National Forest. Responsibilities included coordinating with SCE in-house archaeologists; coordinating with pole replacement crews concerning the location of known sensitive cultural resources and options for avoiding any impact to them; creating a photo journal that included photos of each deteriorated pole, each replacement pole, and the surrounding area of each pole, and maintaining detailed field notes.

Cultural Resources Survey and Monitoring Along 16 Miles of the Bootlegger Circuit within Angeles National Forest, Los Angeles County – Southern California Edison (2010). Archaeological Field Monitor during pole replacement activities for SCE in the Angeles National Forest. Responsibilities included coordinating with SCE in-house archaeologists; coordinating with pole replacement crews concerning the location of known sensitive cultural resources and options for avoiding any impact to them; creating a photo journal that included photos of each replacement pole and the surrounding area, proper identification of cultural material, and maintaining detailed field notes.

Cultural Resources Investigation for Proposed Pole Removal, San Dimas Fire Station Project, Los Angeles County – Southern California Edison (2010). Field Archaeologist for a cultural resources investigation for SCE near the city of San Dimas, Los Angeles County, in support of the proposed removal of 27 idle poles along an idle portion of the Avenida 12kV power distribution line in the Angeles National Forest. Duties included proper identification of historic period and prehistoric cultural material, maintaining a photo journal, recording the location of artifacts with a handheld GPS unit, and taking detailed field notes.

Reconnaissance of Two Parcels for Potential Solar Development, Imperial County – Foresight Solar, LLC. (2011). Performed a reconnaissance-level site visit of two parcels totaling 197.3 acres in Calexico. Responsibilities included walking a portion of each parcel in order to determine if any highly-visible, unrecorded archaeological resources were present, recording and analyzing data, and contributing to the Cultural Resources Constraints Analysis.

Cultural Resources Investigation for Proposed Pole Replacement Project, San Bernardino County – Southern California Edison (2011). Field Archaeologist for a cultural resources investigation for SCE, near the city of Twentynine Palms, San Bernardino County, in support of the proposed inset of 47 new poles along an approximately 4-mile segment of the Sheephole 33kv power circuit. Duties included proper identification of historic period and prehistoric cultural material, maintaining a photolog, recording the location of artifacts with a handheld GPS unit, and taking detailed field notes.

Field Feasibility Analysis of Five Parcels in Kern County, and One Parcel in Kings County. Duties included conducting an archaeological records search for a 1-mile area around each parcel, performing a field visit to each parcel, maintaining detailed field notes and photo log, requesting a review of the Sacred Lands File of the Native American Heritage Commission, and contributing to a cultural constraints analysis report.

Archaeological Monitoring of Excavation of a Utility Trench, Holcomb Valley, San Bernardino County – Southern California Edison (2009-2010). Archaeological Field Monitor during excavation of a utility trench by SCE in the San Bernardino National Forest. Responsibilities included coordinating with SCE construction foreman and crew concerning the location of known sensitive cultural resources and options for avoiding any impact to them; photographing excavation activities and creating a photo journal and maintaining detailed field notes.

Field Feasibility Study for a Proposed Solar Farm, Kern County. Field Director for a feasibility study for a proposed solar farm near Lake Isabella, Kern County. Duties included performing a cultural resources records search using the California Historical Resources Information System, conducting a field visit, taking details field notes, keeping a photo journal, and producing a letter report.

Cultural Resources Monitoring of the Installation of Fiber Optic Line to the Proposed Clearwire Cell Site, Riverside County – Southern California Edison (2010). Field Director/Archaeological Field Monitor during excavation of a utility trench for the installation of a Southern California Edison fiber optic line in the city of Riverside, Riverside County. Duties included identification of cultural materials in compliance with Section 106 of the (NHPA) and CEQA, maintaining detailed field notes, and creating a photo journal. Principal author of technical report.

Cultural Resources Services for Proposed Wind Farm, San Bernardino County – Daggett Ridge Wind Farm, LLC. (2009). Field Archaeologist for a cultural resources inventory of approximately 2,400 acres located on Bureau of Land Management property near Daggett. Work consisted of an intense pedestrian survey over hilly terrain and the recordation of 12 archaeological sites and several isolated finds. Responsibilities included proper identification and description of prehistoric and historic-period artifacts and creating electronic maps with a handheld GPS unit.

Christensen Property Phase II Testing Project, Riverside County – Pardee Homes (2013). Archaeological Field Technician for the Phase II testing of a 21-acre parcel in Riverside County. Duties included excavation of shovel test pits, screening soil, proper identification of prehistoric and historic period artifacts, surface collection, creating electronic maps with a handheld GPS unit, and creating a photo journal.

Cultural Resources Monitoring of Trenching for Underground Service Line, Calico Ghost Town, San Bernardino County – Southern California Edison (2010). Archaeological Field Monitor during excavation of a utility trench by SCE in Calico Ghost Town, San Bernardino County. Responsibilities included coordinating with SCE construction foreman and crew concerning the location of known sensitive cultural resources and options for avoiding any impact to them; proper identification of artifacts; photographing excavation activities and creating a photo journal, and maintaining detailed field notes.

Cultural Resources Assessment of Two Proposed Well Sites Near the City of Ridgecrest, Kern County – Indian Wells Valley Water District (2011). Field Director responsible for the cultural resources assessment of two proposed well sites in Kern, County. Duties included the proper identification of

artifacts, keeping detailed field notes, detailed recordation of one historic period site, and creating electronic maps with a handheld GPS unit. Also authored portions of the technical report.

Cultural Resources Inventory for the Proposed Santa Ana River Power Relocation Project, Riverside County – City of Riverside (2011). Field Archaeologist for a cultural resources survey of a linear power pole alignment along the Santa Ana River Trail and surrounding areas in Riverside, California. Duties included proper identification of cultural material, keeping detailed field notes, creating a photo journal, and creating electronic maps with a handheld GPS unit. Contributing author of technical report.

Cultural Resources Monitoring of Emergency Repair to Underground Service Line, Calico Ghost Town, San Bernardino County – Southern California Edison (2012). Archaeological Field Monitor during the repair of an underground service line in Calico Ghost Town, San Bernardino County. Duties included proper identification of cultural material, maintaining a photo journal, updating previous site record, taking detailed field notes, authoring letter report.

Cultural Resources Inventory of the Desert View Conservation Area near Joshua Tree, San Bernardino County – San Bernardino County Special Districts Department (2010). Field Archaeologist for a cultural resources survey of a 320-acre area. Duties included proper identification and description of prehistoric and historic-period artifacts, keeping detailed field notes, creating a photo journal, and creating electronic maps with a handheld GPS unit.

Cultural Resources Survey of 40 Acres near Lake Elsinore, Riverside County – Southern California Edison (2010). Field Archaeologist for a cultural resources survey in support of proposed expansion of an SCE substation in the city of Lake Elsinore, Riverside County. Responsibilities included pedestrian survey, assisting with the recordation of three historic period sites, mapping of sites and features with a handheld GPS unit, proper identification of historic period artifacts and features.

Cultural Resources Inventory of Proposed Pole Replacement near Barstow, San Bernardino County – Southern California Edison (2010). Field Director responsible for the cultural resources assessment of a proposed pole replacement on the Remote 33kV circuit along Fort Irwin Road, near Barstow in San Bernardino County. Responsibilities included performing a cultural resources records search using the California Historical Resources Information System; consultation with the Native American Heritage Commission; surveying the pole location, access routes, and a 50 meter buffer area; proper identification of cultural material; taking detailed field notes; and keeping a photo journal.

Cultural Resources Monitoring of the Removal of Eleven Hazardous Trees in Barton Flats in the San Bernardino National Forest, San Bernardino County – Southern California Edison (2010). Monitor for the removal of 11 hazardous trees near SCE power lines in Barton Flats in the San Bernardino National Forest. Duties included surveying all work areas and access routes, including a 30 meter buffer area; coordinating with work crews on how to avoid impacts to known cultural resources; photographing tree removal activity; taking detailed field notes; recording the locations of trees subject to removal with a handheld GPS unit; keeping a photo journal; and producing a letter report.

Archaeological Survey for Proposed Pole Replacement near Bishop, Inyo County. Archaeologist responsible for survey of pole proposed for replacement after a portion of the pole burned in a wildfire. Surveyed a wide area around the pole and associated access route, photographed the pole and recorded its location with use of a handheld GPS receiver, took detailed field notes.

Cultural Resources inventory for the Proposed Desert Sunlight Solar Farm, Riverside County – First Solar (2010). Field Archaeologist for a cultural resources inventory of over 6,500 acres located near Desert Center. Work consisted of an intense pedestrian survey over hilly terrain and the recordation of 41 archaeological sites and numerous isolated finds. Responsibilities included proper identification and description of prehistoric and historic-period artifacts, artifact and site photography, preparation of site records for prehistoric and historic-period sites and creating a photo journal. Also prepared site records for approximately 100 archaeological resources and authored portions of the technical report.

Cultural Resources Inventory of the Proposed Seaggett-Tortilla Fiber Optic Line, San Bernardino County – AES Wind Generation, Inc. (2009). Field Archaeologist for a cultural resources inventory over 11 linear miles on BLM land near Barstow, San Bernardino County. Duties included pedestrian survey of the project area, taking detailed field notes, proper identification of prehistoric and historic period cultural material, recordation of prehistoric and historic aged sites and isolates, taking detailed field notes, artifact and site photography, and keeping a photo journal.

Phase I Cultural Resources Investigation for the Jurupa Avenue Extension, Riverside County. Archaeology Associate and Researcher for the Jurupa Avenue extension project. Duties included performing a pedestrian survey of the project area, photographing features of cultural significance within the impact area, creating a photo journal, maintaining detailed field notes, and performing archival research.

Archaeological Monitoring of the Northgate Project Area, Riverside County. Archaeological Field Monitor during excavation of the Northgate project area. Responsibilities included coordinating with construction foreman and crew concerning the location of known sensitive cultural resources and options for avoiding any impact to them; photographing excavation activities and creating a photo journal, and maintaining detailed field notes.

Archaeological Monitoring at 4th and Waterman, San Bernardino County. Archaeological Field Monitor during 4th and Waterman project area. Responsibilities included coordinating with construction foreman and crew concerning the location of known sensitive cultural resources and options for avoiding any impact to them; photographing excavation activities and creating a photo journal, and maintaining detailed field notes.

Phase II Mitigation of Prehistoric Site in Temecula, Riverside County. Field Archaeologist for a prehistoric site in Temecula. Duties included producing sketches of bedrock milling features, collection of surface artifacts, proper identification and description of artifacts, preparing shovel test pit and excavation units, screening excavated soil, creating a photo journal, and maintaining detailed field notes.

Dune Palms XP I, Riverside County. Field Director for an Extended Phase I project in Riverside County. Duties included supervising one field technician, field logistics, overseeing the excavation of 17 shovel test pits, and recording shovel test pit locations using Collector for ArcGIS and a GNSS receiver.

Cultural Resources Inventory of 7,500 Acres in the Western Mojave Desert, Los Angeles and Kern Counties. Field Archaeologist for an intensive survey of over 7,500 acres in the western Mojave, near Edwards Air Force Base, California. Responsibilities included site mapping, photo log, use of handheld GPS, reading topographical maps, and preparation of DPR 523 site forms.

Phase II Cultural Resources Investigation for LAUSD School #8 Project, Los Angeles County. Archaeological Associate and Researcher for preliminary evaluation of #8 project area for Los Angeles Unified School District. Duties included performing a pedestrian survey, cultural resources monitoring (CRM), Phase II mitigation, maintaining photographic record, providing detailed field notes for archaeological report, and assisted with archival research.

Phase II Archaeological Investigations in La Quinta, Riverside County. Archaeological Associate for Phase II Archaeological Investigations in La Quinta. Duties included performing pedestrian surveys of the project area, cultural resources monitoring (CRM), historic property surveys, assisting with archival research, keeping detailed field notes, Phase II mitigation, maintaining photographic record, and providing field notes for archaeological reports.

Phase I Cultural Resources Survey of the Highland School Site, San Bernardino County. Archaeological Associate and Researcher for the Highland School Site project. Duties included performing a pedestrian survey of the project area, historic property surveys, assistance with archival research, keeping detailed field notes, creating photographic record for features of cultural significance within the impact area.

Mitigation of Impacts for Proposed Wilson School Site, San Bernardino County. Archaeology Associate and Researcher of the proposed Wilson School site project. Duties included performing a pedestrian survey of the project area, photographing features of cultural significance within the impact area, creating a photo journal, maintaining detailed field notes, and performing archival research.

Archaeological Monitoring at the Agua Mansa Townsite, San Bernardino County. Archaeological Field Monitor during the Mansa Townsite project. Duties included cultural resources monitoring (CRM), photographing features of cultural significance within the impact area, keeping detailed field notes, and providing field notes for archaeological reports.

Phase I Cultural Resources Survey for Proposed Moreno Valley School Site, Riverside County. Researcher for proposed Moreno Valley School Site. Responsibilities included conducting archival research, performing a pedestrian survey of the project area, photographing features of cultural significance within the impact area, creating a photo journal, maintaining detailed field notes.

Archaeological Monitoring for Construction of a Bus Yard for Victor Valley School District, San Bernardino County. Archaeological Monitor during construction of a Bus Yard for Victor Valley School

District. Crew Chief conducted Phase I surface survey of the project area. Responsibilities included proper identification and description of prehistoric and historic-period artifacts collected, recorded provenience of material through use of handheld GPS, produced sketches of features, conducted CRM monitoring on construction sites, and performed archival searches for previous investigations and cultural resources.

Andrew Bursan, MCRP

Senior Architectural Historian (Professional V)

Mr. Bursan is a Staff Architectural Historian with 16 years (started in 2023 with ECORP) of combined experience in historic preservation and land planning with experience in project management as well as historic research and report writing. Mr. Bursan has worked with the California Department of Transportation (Caltrans), Los Angeles County Metropolitan Transportation Authority (Metro), cities of Pasadena, Santa Monica, Los Angeles, Santa Barbara, Arroyo Grande, and other state and local municipalities. Experience includes architectural surveys, reconnaissance-level surveys, historical assessments, and extensive historical research. Prepared historic context statements, technical reports, and impact analysis for cultural resources in Environmental Impact Reports (EIR). Breadth of work includes major transportation projects, intensive archival research, city-wide surveys, and analysis of individual properties under CEQA, Section106, Section 4(f), and NEPA.

Education

M.C.R.P. (Master of City & Regional Planning), California Polytechnic State University, San Luis Obispo

B.A., History, University of California at Los Angeles (UCLA)

Registrations, Certifications, Permits and Affiliations

- California Preservation Foundation member

Professional Experience

BRE Geothermal Cultural Resources Report, Imperial Valley, Imperial County and Riverside County, – Berkshire Hathaway Energy (2022). Lead architectural historian for the report. Andrew managed field survey work and oversaw and delegated tasks for the creation of a Historic Resource Evaluation Report. This included the documentation of agricultural water conveyance features.

Historical Resource Evaluation Report for 820 A Avenue, San Diego County – City of Coronado (2022). Senior architectural historian and main author of the report. It consisted of a Historical Resource Evaluation Report, under City of Coronado designation criteria and integrity requirements, for a single-family residential property located at 820 A Avenue in Coronado, CA. The property was built in 1922 and had not been previously evaluated for historical significance.

La Canada Soundwalls Phase IV, Los Angeles County – City of La Cañada Flintridge (2022). Senior architectural historian and main author of the Historic Property Survey Report (HPSR). Prepared a HPSR for the La Canada Flintridge I-210 Soundwall Improvement Project. The project calls for an intensive pedestrian survey of the project APE (both direct and indirect) for both archaeological and historic built environment resources.

Historical Resources Technical Report (HRTR) for the 5146-5148 Dehesa Road Project, San Diego County – Carlin Law Group, A.P.C (2021). Mr. Bursan served as a senior architectural historian and main

author of the report. He completed a Historical Resources Technical Report (HRTR) in support of the proposed 5146-5148 Dehesa Road Project in Dehesa, CA. This project proposed to subdivide an existing 5.87-acre parcel on Dehesa Road into four parcels.

Ventura County Transpiration Corridor – County of Ventura (2021). In conjunction with Caltrans, the County of Ventura proposed to widen Interstate 101 for 26 miles through the county. Andrew managed field survey work and oversaw and delegated tasks for the creation of a Historic Resource Evaluation Report (HRER) and Historic Structures Report as well as writing historic context. He engaged in several meetings with Caltrans for the purpose of creating an area of potential effects (APE) for the project.

I-605 Corridor Improvement Project, Los Angeles County – Caltrans (2020). Andrew managed field survey work, preformed evaluations of historic properties under CEQA and Section 106, documented tract development resources under a programmatic agreement, wrote historic context, and attended meetings regarding the historic documentation of built resources.

Environmental Services Cultural Assessment for Weatherization Projects – National Parks Authority of Antigua and Barbuda (2016-2021). Andrew performed analysis of hundreds of statewide properties to determine NRHP eligibility, as well as approved weatherization measures for individual residences. He has also overseen quality control for individual reviews.

Cajalco Road Widening Project, Riverside County (2019). Andrew surveyed properties, performed property research, and wrote DPRs for the project. He also wrote historic context for the report.

California High-Speed Train, Anaheim-to-Los Angeles, Orange County and Los Angeles County – California Highspeed Rail Authority (2010-2016) Architectural Historian. Andrew has done extensive work on the project including surveying and documenting hundreds of properties for NR and CR eligibility. Other work on the project includes property database management, writing of historic context, writing DPRs, and developing strategies for property documentation.

Cultural Resource Evaluations for NorthStar Solar Projects 1, 2, and 3, Imperial County – ZGlobal and APEX Energy Solutions, Inc. (2023-Ongoing). Cultural Resources Task Manager. Provided a cultural resources assessment of the 614-acre Project Area and the 15 acres for off-site gentie route along Ben Hulse Highway, totaling 630 acres. The scope of work for the cultural resources assessment included a records search of the California Historical Resources Information System (CHRIS) and literature review for the Project Area, and a Sacred Lands File search with the Native American Heritage Commission (NAHC), ZGlobal is proposing development of three NorthStar Solar Power Projects and Battery Electric Storage System (BESS), near the Salton Sea in Imperial County.

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

Casey LeJeune, M.A., RPA

Staff Archaeologist

Casey LeJeune is a Staff Archaeologist who has worked in cultural resource management since 2020, with experience in the Southeast and Southern California. She holds an M.A. in Anthropology, with a focus in forensic anthropology and bioarchaeology. She meets the Secretary of the Interior's Professional Qualifications Standards for prehistoric and historic archaeology. Ms. LeJeune has served as a field crew supervisor and participated in fieldwork on forensic and historic burials, survey, large-scale data recovery, testing, and construction monitoring. She also has extensive laboratory experience in human osteology and the analysis of prehistoric and historic artifacts. Additionally, she has contributed to numerous cultural resources technical reports.

Education

M.A., Anthropology, The University of Southern Mississippi, Hattiesburg

B.S., Forensic Science (Anthropology), The University of Southern Mississippi, Hattiesburg

Registrations, Certifications, Permits and Affiliations

- Registered Professional Archaeologist (Registration Number: 5405)
- Society for California Archaeology

Professional Experience

Cultural Resources Survey, Proposal Preparation, and Extended Phase I Test Excavations for SR-1 Capital Preventive Maintenance Project, Los Angeles County – Parsons, California Department of Transportation (2023-2024). Staff archaeologist responsible for surveying an 11.7-mile linear project area along SR-1 from Santa Monica to Malibu, California. A combination of windshield and pedestrian survey methods were utilized. Field director of a two-person crew responsible for photographing the project area, maintaining a photo log, and determining the presence of cultural resources in the project area. Also responsible for using GIS data and a submeter GPS unit to locate previously recorded resources and assess proposed locations for extended phase I testing. Additionally authored portions of the extended phase I proposal, including records search results, survey results, and background information. Served as field director for extended phase I test excavations, directing a two-person field crew and coordinating with Native American monitor, equipment company, Caltrans maintenance personnel, and Caltrans project manager. Responsible for carrying out test excavations for 11 excavation units, with 3 being mechanically excavated and the remainder excavated by hand. Additional responsibilities included determining locations of excavation, deciding terminal depth of excavation, and quality control of all documentation. Also responsible for authoring an initial findings letter and a combined Archaeological Survey Report/Extended Phase I Report after the conclusion of testing efforts.

Archaeological Monitoring for Monteith Park Project, Los Angeles County – Parsons (2023-2024). Archaeological monitor for drilling and excavation of trenches and dry wells for a water infrastructure project in Los Angeles, California. Responsible for monitoring activities of an excavator, bulldozer, and drill at one of two separate project areas. In charge of documenting daily construction activity and looking for archaeological resources within the active construction area. Also responsible for recognizing any indications of subsurface cultural deposits or features. Documented multiple historic sites and isolates within the project area. Documentation included photographing, writing descriptions, and mapping points on a submeter GPS unit.

Report Preparation for the 20-Acre Passive Park Project, Riverside County – PlaceWorks, Inc. (2024). Staff archaeologist responsible for conducting a literature review for background information and authoring portions of a cultural resources technical report, including background, methods, results, and regulatory information. Additional responsibilities included drafting and submitting a Sacred Lands File search request to the Native American Heritage Commission.

Archaeological Monitoring for CV Link Multi-Modal Transportation Project, Riverside County – Answer Advisory (2024). Cultural resources monitor for construction of multi-modal transportation infrastructure project in the City of Indio, California. Monitored a scraper and front loader grading and transporting soil off-site, looking for any archaeological or historical resources in the active construction area as well as indications of subsurface cultural deposits and features. Communicated with Native American monitor in order to coordinate efforts to mitigate impacts in the case of archaeological discoveries. Documented daily activity of construction crew.

Report Preparation for Smoketree Valley Conservation Bank Project, Imperial County – Wildlands (2024). Staff archaeologist responsible for authoring a letter report for a desktop review project. Duties included reviewing records search data and conducting background research and review of historical maps, photos, and archival information related to a project area in Imperial County. Also responsible for assuring timely completion of project deliverables and coordinating with Principal Investigator to ensure letter report met client's needs.

Archaeological Monitoring for Edwards Air Force Base Site 3 Landfill Cap Project, Kern County – OTIE (2023). Archaeological monitor for vegetation clearing, grubbing, and excavation from two borrow pit areas on Edwards Air Force Base, California. Responsible for monitoring activities of bulldozer and front loader during vegetation removal and and excavator during subsequent removal of material from borrow pits. In charge of documenting daily construction activity and looking for archaeological resources within the active construction area. Also responsible for recognizing any indications of subsurface cultural deposits or features. Documented multiple isolated artifacts and one lithic scatter site within the project area and collected or relocated artifacts outside of the project area. Documentation included photographing, writing descriptions, and mapping points on a submeter GPS unit. Additional responsibilities included coordinating with the construction crew and the installation historic preservation supervisor as well as authoring weekly summaries of the work conducted.

Cultural Resources Survey and Report for Palo Verde Irrigation District C-28 Canal Project, Imperial County – Burns & McDonnell (2023). Staff archaeologist and field director responsible for conducting a field survey over a 1.25-mile linear project area along a branch of the C-28 Canal near Palo Verde, California. Survey was conducted along with one other field personnel in fifteen-meter transects along either side of the canal. Responsible for drafting a work plan as well as pre-survey coordination with the client including meetings and obtaining access to the survey area. Duties also included photographing the project area, maintaining a photo log, and documenting one historic resource within the Project Area. Also responsible for technical report, including background information and adding survey results. Additionally drafted a DPR 523- series form to document the resource recorded during the survey.

Cultural Resources Survey for Ontario Avenue Widening Project, Riverside County – City of Corona, California Department of Transportation (2023). Staff archaeologist and field director responsible for conducting a field survey over an approximately 10 acre project area along Ontario Avenue in the City of Corona at Interstate 15. A reconnaissance survey was also conducted for indirectly affected properties adjacent to the project area. Pedestrian survey was conducted in fifteen-meter transects and included examining any exposed ground surface for indications of cultural resources. Duties included photographing the project area, maintaining a photo log, and documenting five historic resources within the project area. Also responsible for portions of technical report, including background information and survey results portion. Additional duties included drafting tribal coordination and historical society outreach letters and maintaining a log of tribal correspondence.

Cultural Resources Survey for Ontario Avenue at Lincoln Avenue Widening Project, Riverside County – PlaceWorks, Inc. (2023). Staff archaeologist and field director responsible for surveying a 20.13-acre project area along Ontario Avenue in the City of Corona. The intensive pedestrian survey was conducted in fifteen-meter transects, and efforts included examining any exposed ground surface for evidence of cultural resources. Additional responsibilities included photographing the project area, maintaining a photo log, and recording historical resources in the project area. Also responsible for coordinating access to portions of the survey area with landowners.

Report Preparation for Desert View Tank Project, San Bernardino County – Golden State Water Company (2023). Staff archaeologist responsible for authoring portions of a cultural resources technical report, including background information, methods, results, and regulatory information. Additional responsibilities included editing existing report sections.

Report Preparation for Yeager Well Replacement Project, San Bernardino County – Golden State Water Company (2023). Staff archaeologist responsible for editing several portions of a cultural resources technical report, including background information, methods, results, and regulatory information. Also responsible for authoring portions of those report chapters.

Cultural Resources Surveys for San Bernardino County Emergency Road Repairs, San Bernardino County – San Bernardino County (2023). Staff archaeologist and responsible for conducting reconnaissance surveys for multiple project areas along San Bernardino County roads in the cities of Lake Arrowhead, Crestline, Mounty Baldy, Hesperia, Adelanto, Silver Lake, Morongo Valley, Pioneertown, Landers, Joshua Tree, and Twentynine Palms. Surveys were conducted using a combination of windshield observation and pedestrian transects. Duties included photographing the project areas, maintaining a photo log, and documenting historic resources within the project area, including roadways, built environment resources, and isolated artifacts.

Archaeological Monitoring for North Indio Flood Control Project Phase 2, Riverside County – Coachella Valley Water District (2022-2023). Cultural resources monitor for construction of flood control infrastructure in the City of Indio, California. Monitored a front loader backfilling soil around a box culvert, looking for any archaeological or historical resources in the active construction area as well as indications of subsurface cultural deposits and features. Communicated with Native American monitor in order to coordinate efforts to mitigate impacts in the case of archaeological discoveries. Documented daily activity of construction crew.

Archaeological and Built Environment Resources Survey Pitchess Detention Center New Deep Well Project, Los Angeles County – Los Angeles County Department of Public Works (2023). Staff archaeologist responsible for conducting a field survey of a 12.2-acre project area in Castaic, California. Intensive pedestrian survey was conducted fifteen-meter transects. Sole surveyor responsible for coordinating with client contact, photographing the project area, maintaining a photo log, and documenting cultural resources within the project area. Resources included updates to two previously recorded historical resources and newly recording two additional historical resources.

Peer Review of Cultural Resources Sections of the Apple Valley General Plan Environmental Impact Report for the Cordova Business Center, Apple Valley, California, San Bernardino County – AV 3PL Center, LLC (2023). Staff archaeologist responsible for conducting a peer review for the cultural resources sections of the General Plan EIR for the Town of Apple Valley for applicable actions for the approximately 30-acre Cordova Business Center Project. Duties included review of the provided documents for their adherence to current regulatory guidelines and writing a letter report describing findings and recommendations.

Cultural Resources Survey for 525-Unit Apartment Project, Riverside County – Winchester Associates, Inc. (2023). Staff archaeologist responsible for conducting a field survey of a 23.6-acre project area located in Moreno Valley, California. Survey was conducted along with one other field personnel in fifteen-meter transects. Responsibilities included photographing the project area, maintaining a photo log, and determining the presence of any cultural resources in the project area. Resources recorded included historic road segments and a historic irrigation feature.

Cultural Resources Survey for Moreno Valley Logistics Project, Riverside County – Winchester Associates, Inc. (2023). Staff archaeologist responsible for conducting a field survey over an 8.43-acre project area along Alessandro Boulevard in Moreno Valley, California. Survey was conducted along with one other field personnel in fifteen-meter transects. Responsibilities included photographing the project area, maintaining a photo log, and determining the presence of any cultural resources in the project area. One resource was recorded: a historic road segment.

Cultural Resources Sensitivity Assessment for Riverside National Cemetery Master Planning and Phase 6 Gravesite Development Project, Riverside County – U.S. Department of Veterans Affairs (2023). Staff archaeologist responsible for conducting a sensitivity assessment of a project area including a literature review, archival research, and windshield survey. Responsible for researching historic significance of the property by reviewing national register listings, aerial photographs, and historic maps. Also conducted archival research at the Riverside National Archives and March Field Air Museum. Responsible for authoring background sections to contextualize the historic use and significance of the property. Sole personnel responsible for conducting a field visit and windshield survey of the property to determine the presence of historic and archaeological resources within the Project Area and to document historic built environment resources for evaluation.

Cultural Resources Survey and Report Preparation for CVWD WRP 7 Upgrade Project, Riverside County – Black & Veatch (2023). Staff archaeologist responsible for conducting a field survey over a 69.62-acre project area in Indio, California. Survey of all accessible areas was conducted with one other field personnel in fifteen-meter transects. Responsibilities included photographing the project area, maintaining a photo log, determining the presence of cultural resources in the project area, and coordinating with CWVD staff and private landowners to arrange access to the survey area. Also responsible for preparing technical report, including historical background, biological setting data, geological context, and survey results.

Report Preparation for Behringer Park Improvements and Upgrades Project, Los Angeles County – David Volz Design Landscape Architects, Inc. (2023). Staff archaeologist responsible for drafting cultural resources technical report. Duties included researching historical background information, determining geological and biological context for the project area, and a review of historical maps, aerial photographs, and land use documents.

Cultural Resources Survey and Report Preparation for Walnut Property Project, San Bernardino County – Diversified Pacific (2023). Staff archaeologist responsible for conducting a field survey over a 29.65-acre project area in Fontana, California. Survey of all accessible areas was conducted in fifteen-meter transects. Responsibilities included photographing the project area, maintaining a photo log, and determining the presence of cultural resources in the project area. Field survey included recording six historic period built environment resources. Also responsible for drafting portions of technical report, including survey methods and results.

Cultural Resources Survey and Report Preparation for Maple Property Project, San Bernardino County – Diversified Pacific (2023). Staff archaeologist responsible for conducting an intensive pedestrian survey over an 8.38-acre project area in Fontana, California. Survey of the property was conducted in fifteen-meter transects. Responsibilities included photographing the project area, maintaining a photo log, and determining the presence of cultural resources in the project area. Also responsible for drafting portions of technical report, including survey methods and results.

Cultural Resources Survey and Report Preparation for Fontana Badiola Project, San Bernardino County – Diversified Pacific (2023). Staff archaeologist responsible for conducting an intensive pedestrian survey over a 4.55-acre project area in Fontana, California. The project area was surveyed in fifteen-meter transects. Survey efforts included photographing the project area, maintaining a photo log, and determining the presence of cultural resources in the project area. Also responsible for drafting the survey methods and results portions of technical report.

Cultural Resources Reconnaissance Survey and Resource Mapping for Confidential Project, Riverside County (2023). Staff archaeologist responsible for conducting a reconnaissance survey to locate previously recorded archaeological sites over an approximately 700-acre project area. One of four personnel responsible for using site records and GIS data to locate and record updated information on five previously recorded archaeological sites in Riverside County. Duties included pre-field map preparation, pedestrian reconnaissance survey to located sites using GPS and site records, and recording the present-day condition of sites located. Also responsible for taking site photographs, maintaining a photo log, and using a handheld submeter GPS unit to record boundaries and features within sites. Also responsible for coordinating with project manager and field lead, communicating with on-site client representatives, and uploading and editing GIS data post-survey.

Cultural Resources Survey and Report Preparation for Bridgewalk 64 Project, Riverside County – Bridgewalk 64, LLC (2023). Staff archaeologist and field director for a 68.98-acre survey in Riverside County, California. Along with one other individual, conducted a survey of all accessible areas of a heavily overgrown property. Responsible for recording locational data for resources using Collector for ArcGIS and a handheld GPS device, determining strategy for maximum survey coverage, and identifying cultural resources present in the survey area. Additionally used handheld GPS data to locate and assess the condition of a previously recorded archaeological site to provide updated site information. Also prepared a DPR 523-series site update and assisted in writing the technical report, including historical background information, geographical attributes, property history and context, biological setting for the project area, and survey results.

Cultural Resources Survey for Base Camp 1 Normglo Road 10-acre Campsite Project, San Bernardino County – Base Camp 1, LLC (2023). Staff archaeologist responsible for conducting a field survey over a 10-acre project area in the desert near Twentynine Palms, California. Survey was conducted along with one other field personnel in fifteen-meter transects. Responsibilities included photographing the project area, maintaining a photo log, and determining the presence of any cultural resources in the project area.

Cultural Resources Survey for McCall Boulevard Widening Project, Riverside County – City of Menifee (2023). Staff archaeologist responsible for conducting a field survey over an approximately 0.75-mile linear project area along McCall Boulevard in Menifee, California. Survey was conducted in fifteen-meter transects or contours following geological features where necessary. Sole surveyor responsible for photographing project area, recording findings on paperwork, and documenting results in technical report. Also responsible for authoring report section documenting AB-52 Native American Consultation efforts in the McCall Boulevard Widening Project IS/MND report.

Cultural Resources Survey for Crystal Window Distribution Center Project, Riverside County – Yellow Sea Construction and Development Company (2023). Staff archaeologist, one of two field staff to conduct a field survey over an approximately 19-acre project area in Moreno Valley, California. Survey was conducted in fifteen-meter transects or contours following geological features where necessary. Responsible for locating and recording any historic and precontact resources encountered. Precontact resources recorded included a mano and a lithic core. Additionally responsible for maintaining a photo log and taking all photos during survey, including site overviews and detailed views of resources.

Historical Society Outreach for The Children's Foster Village Project, Los Angeles County – SOS Children's Villages California (2023). Staff archaeologist responsible for drafting and sending letter to Antelope Valley Historical Society soliciting any information regarding historical resources within the project area in Palmdale, California.

Report Junior Review for Butte Valley Conservation Bank Project, Los Angeles County – Wildlands (2023). Staff archaeologist responsible for junior review of a memo letter report indicating the findings of a records search requested by the client. Review included assessing grammar, content, and tone of report and assuring accuracy of information detailed therein.

Report Draft Preparation for El Camino Encinitas Project, San Diego County – El Camino Encinitas (2023). Staff archaeologist responsible for adding records search results from the California Historical Resources Information System to technical report. Drafted tables and narratives detailing the resources present within and in a one-mile radius of the project area.

Cultural Resources Survey and Report Draft Preparation for Oak Glen Preserve Project, San Bernardino County – Wildlands Conservancy (2023). Field director for a 58-acre survey in Oak Glen, California. Along with one other individual, conducted a survey of all accessible areas on the property of a nature conservancy in areas to be treated for golden-spotted oak borer beetles. Responsible for recording locational data for resources using Collector for ArcGIS and a handheld GPS device, determining strategy for maximum survey coverage, communicating with client representatives on site, and written documentation of historic built environment resources and features for all accessible portions of the project area. Additionally used handheld GPS data to locate and assess the condition of previously recorded historic sites and features. Also responsible for adding survey results to report, including drafting narratives for all new and previously recorded resources encountered on survey.

Worker Environmental Awareness Program Training Development for Dune Palm Road Bridge Improvement Project, Riverside County – City of La Quinta, California (2023). Staff archaeologist responsible for creating a training presentation for cultural resource awareness and sensitivity for construction personnel on project with sensitive cultural material in the immediate area. Provided information on regulatory context, procedures for unanticipated finds, and examples of cultural material that may be present in the project area. Recorded a lecture to demonstrate these points for future training use on the project.

Report Draft Preparation and AB-52 Consultation for Crescent Woods Cemetery Project, San Diego County – The County of San Diego Planning and Services Department (2023). Staff archaeologist responsible for sending out initial AB-52 consultation letters to tribal leadership using Native American Heritage Commission search results. Also responsible for reviewing and editing report draft for grammar, clarity, and formatting prior to final submission.

Report Preparation for Corvina Apartments Project, Tulare County – Ginder Development Corporation (2023). Staff archaeologist responsible for drafting letter report, including historical background information, geological and biological context for the project area, and project-specific information.

CEQA/NEPA Documentation and Report Preparation for WIFIA Projects, San Bernardino and Riverside Counties – Yucaipa Valley Water District (2023). Staff archaeologist responsible for report preparation including background research, content editing, and data input. Also prepared letters for AB-52 consultation, prepared consultation documents for the Environmental Protection Agency, and drafted site records for survey results.

Phase II Cultural Resources Assessment Testing for the Riverside Chicago Avenue Project, Riverside County – TTLC Management (2022). Field lead responsible for conducting testing to determine site boundaries within project area in Riverside, California. Testing was conducted by excavating shovel test pits. Acted as field lead responsible for documenting locations of test pits in GIS software, recording findings and soil characteristics on field paperwork, and directing other field staff. Coordinated with Native American monitors on site to implement an effective testing strategy for determining boundaries of multiple sites characterized by granitic milling slicks, earth-bound mortars, lithic scatters, and surface metate and mano fragments. Also responsible for coordinating with project lead.

Cultural Resources Survey for Northstar 1 Project, Imperial County – ZGlobal (2022). Staff archaeologist, one of three field staff to conduct a field survey over a 285-acre project area east of the Salton Sea in Imperial County, California. Survey was conducted in fifteen-meter transects. Responsible for locating and recording any historic and precontact resources encountered. Precontact resources recorded included multiple ceramic scatters, lithic scatters, and a habitation site containing multiple thermal features. Historic resources recorded included various types of ammunition and firearm accessories and a historic canal. All sites, isolated resources, and built environment resources were recorded digitally and on appropriate forms.

Cultural Resources Survey for Northstar 2 Project, Imperial County – ZGlobal (2022). Staff archaeologist, served as one of three field staff to conduct a field survey over an approximately 50-acre portion of the project area southeast of the Salton Sea in Imperial County, California. Responsible for filling out field documentation for any archaeological and historical resources encountered. Survey was conducted in fifteen-meter transects. Multiple isolates and historic sites were encountered over the portion of the project area surveyed and documented on appropriate field paperwork.

Cultural Resources Survey and DPR Drafts for Northstar 3 Project, Imperial County – ZGlobal (2022). Staff archaeologist conducted a field survey over 580 acres of land west of the Salton Sea in Imperial County, California. Along with two other individuals, walked in fifteen-meter transects over the project area looking for archaeological and historical resources and signs of subsurface cultural deposits and features. Responsible for documenting multiple historic and precontact sites and isolates throughout the project area. Served as the crew's primary document preparer in the field, filling out forms for all sites and isolates encountered on survey. Also one of five individuals to draft Department of Parks and Recreation forms for dozens of new sites and isolates recorded during the survey.

Report Preparation for Lake Forest ADA Access Project, Orange County – Onward Engineering (2022). Staff archaeologist, report preparer responsible for compiling historical background information and environmental data, including biological and geographical information for the project area, to supplement cultural report.

Archaeological Monitoring for Landers Sanitary Landfill Phase 1A Liner Construction Project, San Bernardino County – Tetra Tech (2022). Served as archaeological and paleontological monitor for construction of a landfill cell in Landers, California. Monitored four scraper machines and two bulldozers, which moved soil within the project area to get the cell to grade for subsequent liner installation. Responsible for documenting daily construction activity and looking for archaeological, historical, and paleontological resources within the active construction area. Also responsible for recognizing any indications of subsurface cultural deposits or features. Documentation included photographing construction area and logging any activity of heavy machinery within the project area.

Report Preparation for Elegante Estates Project, Fresno County – Ewell Group of Companies (2022). Staff archaeologist responsible for drafting background sections of technical report, including historical information, biological context for the project area, and geographical reports.

Report Preparation for Vega SES 2, 3, 5 Solar Energy Storage Project, Imperial County – Apex Energy Solutions, LLC (2022). Staff archaeologist, drafted report background portions, which included historical context for Imperial County and biological and geographic setting information for the project area.

Report Preparation for Andrew Molera Bank Stabilization Project, Monterey County – California Department of Parks and Recreation (2022). Staff archaeologist responsible for preparing portions of the technical report, including historical background information, geographical data for the project area, and biological setting information.

Cultural Resources Survey and Report Preparation for East Side Dike Extension Project, Riverside County – Coachella Valley Water District (2022). Staff archaeologist, conducted a field survey over 40 acres adjacent to the existing East Side Dike in Indio, California. One of two field staff responsible for determining the presence of historic and precontact resources within the project area and assessing the potential for subsurface resources. Responsible for photography and documentation of one precontact isolate resource and updating site documentation for the historic East Side Dike resource. Survey was conducted by walking in 15-meter transects over the entire project area. Also responsible for inputting survey results and drafting portions of the technical report.

Cultural Resources Survey for Sunnymead Master Drainage Plan Project, Riverside County – WSP USA (2022). Staff archaeologist, conducted a field survey over a 10-acre area in Moreno Valley, California around California State Route 60 and surrounding neighborhoods. One of two persons responsible for assessing for the presence of historic and precontact resources. Responsible for recording a historic road segment, including photographing and documenting the resource on site records. Survey included walking in fifteen-meter transects throughout the project area to look for surface resources and any evidence for the presence of subsurface resources.

Cultural Resources Survey for Devil's Punchbowl Nature Center Replacement Project, Los Angeles County – Withers & Sandgren (2022). Staff archaeologist, conducted a field survey over a 15-acre area around the ranger's station and former nature center at Devil's Punch Bowl Natural Area. One of two individuals responsible for recording three historic structures, including the existing ranger station, a large water tank, and the foundation of the former nature center destroyed by the 2020 Bobcat Wildfire. Recording of historic resources included taking photographs and measurements, maintaining a photo log, and filling out site records. Survey of the area included walking with one other individual in fifteen-meter transect lines over the survey area to look for surface resources and signs of subsurface resources.

Lithic Analysis for Edwards Air Force Base Solar Project, Kern County – Terra-Gen (2022). Laboratory analyst for lithic debitage, stone tools, and groundstone collected from a large data recovery project over multiple pre-contact sites on Edwards Air Force Base. One of the two individuals responsible for the inventory, cataloguing, and identification of lithic artifacts. Work entailed extensive analysis, recording, and documentation of a sample of lithics collected and determination of material type for the entire assemblage.

Cultural Resources Monitoring for Edwards Air Force Base Solar Project, Kern County – Terra-Gen (2022). Cultural Resources Monitor for construction work conducted as part of Edwards Air Force Base Solar Project, including trenching, ground wire installation, grading, and trash pick-up in environmentally sensitive areas. Duties consisted of identification and flagging of possible features, field logistics, writing daily summaries, keeping detailed field notes, and reporting findings to monitoring coordinator and principal investigator.

Field Crew Director for Data Recovery at Edwards Air Force Base Solar Project, Kern County – Terra-Gen (2022). Assistant Project Director for data recovery across multiple pre-contact sites on Edwards Air Force Base. Responsible for assisting in planning excavation strategies, directing field crew of between five and ten technicians and a crew chief, keeping detailed field notes, creating site maps for field use, keeping an inventory of material collected in the field, communicating findings to principal investigator, and directing a trenching crew operating an excavator and skid steer. Additional duties included recording test units, trenches, and surface artifacts using Collector for ArcGIS on a handheld GPS unit, quality control of field documents, and assuring the proper handling of material collected in the field.

Field Crew Lead for Data Recovery at Edwards Air Force Base Solar Project, Kern County – Terra-Gen (2021-2022). Crew Chief for data recovery across multiple pre-contact sites on Edwards Air Force Base. Responsibilities included directing a crew of between five and ten technicians in excavation, including setting up test units, excavating arbitrary levels, screening soil for artifacts, recording findings on level records, recording profiles, collecting soil samples and pollen samples, taking photographs, and maintaining a photo log in the field. Also responsible for assisting the project director with recording test units, trenches, and surface artifacts in Collector for ArcGIS on a handheld GPS unit, creating site maps, inventory of material collected, quality control of field documents, and taking detailed field notes.

Laboratory Analysis for Shintech Facility Expansion Project, Iberville and West Baton Rouge Parishes, Louisiana – Shintech (2021). Laboratory technician for a temporary field laboratory processing material collected during data recovery at the Shintech Facility Expansion Project. Responsibilities included inventory, analysis, and documentation of all material collected in the field from a historic antebellum-era plantation site and pre-contact Cole's Creek and Plaquemine site, including lithic tools and debitage, pre-contact ceramics, faunal remains, historic porcelain ware, historic hardware, and other historic material. Additional responsibilities included processing float samples and inventory of human remains recovered from a cemetery associated with the plantation site.

Data Recovery for a forensic investigation in the disappearance of Donald Izzett, Pike County, Mississippi – Debra Skelley (2020). Field technician in a data recovery project to investigate a modern forensic case. Fieldwork included excavation of a modern burn feature, collection and analysis of associated material, taking photographs, recording soil characteristics, and keeping detailed field notes.

Professional Development Courses/Training

2023 Paleontological Monitoring Training, ECORP Consulting, Inc.

2021 Worker Environmental Awareness Program Training Certified, Edwards Air Force Base

2019 Research Assistant. Mississippi Department of Archives and History Anthropology Laboratory

2018 Thesis Researcher. The University of Southern Mississippi Biological Anthropology Laboratory

2015 Research Assistant. The University of Southern Mississippi Biological Anthropology Laboratory

2015 Research Assistant. The University of Southern Mississippi Archaeology Laboratory

Selected Professional Publications/Papers/Presentations

2021 LeJeune, Casey. "An Evaluation of Activity in a Colonial Maya Cemetery Using Femoral Cross-Sectional Analysis". Master's thesis. The University of Southern Mississippi. https://aquila.usm.edu/masters_theses/833/

2020 Danforth, Marie Elaine, Carson Rouse, Rylie Halfhill, Amy Hair, **Casey LeJeune**, and Stacy Scott. "Comparison of Health Patterns of Two Ossuaries at the Shady Grove Site (22QU525), Quitman Co., MS." Abstract submitted for American Association of Physical Anthropology Conference 2020 (canceled)

2019 LeJeune, Casey. "An Attempt to Determine the Sex of Juveniles Using Mandibular Morphology". Poster Presentation. The University of Southern Mississippi Graduate Research Symposium.

Lisa Westwood

Director of Cultural Resources

Lisa Westwood is a Registered Professional Archaeologist with 30 years of cultural resource management experience. She exceeds the Secretary of the Interior's Professional Qualifications Standards for prehistoric and historical archaeologist and serves as principal investigator for cultural resources services required for compliance with Section 106 of the National Historic Preservation Act and CEQA. Her technical areas of expertise include advanced Section 106 compliance and consultation, cultural resources laws and regulations, preparation and negotiation of agency agreement documents (Programmatic Agreements and Memoranda of Agreement), space heritage, human bone (osteological) identification and analysis, and archaeology. She is well versed in impact assessment and development of mitigation measures for CEQA and Section 106 projects, including on-call and task-order based contracts. Her previous experience as a CEQA/NEPA project manager gives her a broader perspective of regulatory compliance issues, and she is recognized by the private and public sector for her ability to build consensus among stakeholders and solve complex problems quickly and effectively.

Education

M.A., Anthropology, Eastern New Mexico University

B.A., Anthropology, University of Iowa

Registrations, Certifications, Permits and Affiliations

- Registered Professional Archaeologist, No. 11692
- State of Nevada Antiquities Permit-Principal Investigator (Statewide, non-federal lands)
- Bureau of Land Management, California Archaeological Investigations Permit-Principal Investigator
- Bureau of Land Management, Nevada Cultural Resource Use Permit-Principal Investigator
- San Diego County Approved Archaeologist
- Riverside County Qualified Archaeologist
- County of Orange Qualified Archaeologist
- Society for California Archaeology
- Society for American Archaeology
- New Mexico Archaeological Council
- Archaeological Society of New Mexico

Representative Professional Experience

LaCosta Hotel Project, dasMOD Real Estate Development, City of Encinitas, San Diego County (2019). ECORP Consulting, Inc. carried out a cultural resources investigation for the La Costa Hotel Project Area, a

1.22-acre located in the City of Encinitas, San Diego County, California. The study was conducted at the request of dasMOD Real Estate Development for the construction of a boutique hotel and dining establishment, in response to a request for information from the City of Encinitas, which is carrying out environmental review under the California Environmental Quality Act. Under the direction of principal investigator Lisa Westwood, ECORP conducted a cultural resources field survey and auger testing program in 2019.

Ulatis Creek Bank Repairs Project, City of Vacaville, Solano County (2018-2023). The City of Vacaville Department of Public Works initiated construction on the Ulatis Creek Repair Project in September 2021 near downtown Vacaville, Solano County, California. The purpose of the Project is to construct and replace two retaining walls, bicycle and pedestrian paths, and repair utilities infrastructure on the western and eastern banks of Ulatis Creek. Recent storm events, severe winter storms, and heavy runoff created high creek flows that damaged portions of the retaining walls along Ulatis Creek. The discovery of human remains during construction halted the Project until consultation on evaluation and appropriate treatment could occur. The City of Vacaville, Federal Emergency Management Agency, and U.S. Army Corps of Engineers retained ECORP to develop a Cultural Resources Action Plan for Post-Review Discoveries. ECORP and the Yocha Dehe Wintun Nation subsequently implemented the Action Plan and monitored the resumed construction activity. Lisa Westwood served as the project manager and Qualified Professional Archaeologist for the project.

Emeryville Center of Innovation, Biomed Realty, City of Emeryville, Alameda County (2018-present). BRE-BMR Emeryville Center of Innovation Holdco LP (BMR) retained ECORP Consulting, Inc. to prepare an Archaeological Monitoring Program (AMP) for proposed development within the 2020 Final Development Plan (FDP) area within the Emeryville Center of Innovation (Project) in the City of Emeryville, Alameda County, California. The FDP is situated at the intersections of Hollis and Stanford Streets and Horton and 53rd Streets in Emeryville. Following approval of the AMP by the City, ECORP was retained to implement the AMP during construction activities. Lisa Westwood was the principal investigator and project manager.

Klotz Ranch Apartments Project, AG Spanos, City of Sacramento (2020-2023). In 2020, AG Spanos retained ECORP to assist the project team and City of Sacramento resolve disputes regarding the potential impact to tribal cultural resources caused by the proposed project. Toward this end, Lisa Westwood developed and helped negotiate a tribal cultural resources treatment plan and helped to revise the CEQA document. Subsequently, ECORP was retained to implement the treatment plan and carry out construction monitoring in coordination with consulting tribes.

Yarbrough Master Plan Project, ASB Southport II, LLC, Yolo County (2020-2022). ASB Southport II, LLC retained ECORP Consulting, Inc. to conduct an updated cultural resources inventory for the Yarbrough Master Plan update in West Sacramento, Yolo County, California. ASB Southport II, LLC proposes to construct a residential development with commercial center, golf course, recreational facilities and trails, and an elementary school. In 2020, ASB Southport II, LLC had retained ECORP to perform a records search, literature review, reconnaissance-level field visit, and architectural history evaluation of the project area, which had been previously surveyed by professional archaeologists. Comments from the US Army Corps of

Engineers necessitated a full resurvey, which ECORP conducted in 2022. The 2022 inventory included a review of the records search and literature, intensive pedestrian field survey, and evaluation of additional built environment resources. ECORP prepared an updated inventory and evaluation report to document all of the known resources present within the Project Area. Lisa Westwood served as principal investigator. ECORP evaluated all resources using the National Register of Historic Places and California Register of Historical Resources eligibility criteria and determined that the resources are not eligible.

Biomed Island Parkway, Biomed Realty, City of Belmont, San Mateo County (2022-2023). BioMed Realty retained ECORP Consulting, Inc. in 2022 to conduct a cultural resources inventory and impact analysis for the Island Parkway Project in the City of Belmont, San Mateo County, California. BioMed Realty proposes to develop four lots comprising 9.03 acres for a life science campus comprising three buildings and a structured parking garage. The Project Area, which encompasses the four lots, additional offsite work in public rights of way, and all areas of potential effects, is 12,44 acres. Lisa Westwood served as project manager. The inventory of cultural resources is the result of a record search, literature review, and field survey. ECORP did not identify any cultural resources during the survey, so no CEQA or NEPA impacts to known historical or cultural resources or human remains are anticipated.

Coyote Creek Agrivoltaic Ranch, Sacramento Valley Energy Center, LLC and DE Shaw Renewable Investments, Sacramento County (2022-present). Sacramento Valley Energy Center, LLC retained ECORP Consulting, Inc. in 2022 to conduct an inventory and evaluation of the built environment resources located within the Coyote Creek Agrivoltaic Ranch Project area in Sacramento County, California. Sacramento Valley Energy Center, LLC proposes to construct a 200-megawatt alternating current photovoltaic solar energy facility with associated onsite substation, inverters, fencing, roads, and supervisory control and data acquisition system on approximately 2,555 acres in an unincorporated area of Sacramento County. ECORP was initially retained to evaluate the significance of built-environment resources. In total, 20 built environment resources are located within the Project Area. The results of the site recording and archival research were used in the NRHP and CRHR eligibility evaluations of all 20 built environment resources. ECORP evaluated them and found them not eligible for listing in the NRHP and the CRHR under any criteria. Subsequently, ECORP was retained to negotiate and develop a tribal cultural resources treatment plan for the project. Lisa Westwood was the project manager and author of the treatment plan.

Willow Village, Signature Development Group and Meta, City of Menlo Park, San Mateo County (2022). In 2022, Signature Development Group, on behalf of Meta, retained ECORP to provide tribal consultation support and tribal liaison assistance to the project and the City of Menlo Park as it prepared the Environmental Impact Report for this high-profile proposed new headquarters for Meta. Lisa Westwood served as tribal liaison, worked closely with the design team and Meta to refine the project, and authored a new tribal cultural resources section of the EIR, which was eventually approved by the City Council in late 2022.

Woodcrest Riverside Chicago Avenue, The True Life Companies, Riverside County (2021-present). In 2021, ECORP was retained by the True Life Companies to update the Phase 1 cultural resources inventory for the proposed project area. Under the direction of principal investigator Lisa Westwood, ECORP

conducted an update to another consultant's 2015 study. The purpose of the update was to include an additional 20 acres added to the Project Area since the original study, cover lapses in the original study, and to present data consistent with Riverside County standards. ECORP conducted field visits in February and April 2022 to document ground conditions and to revisit four previously recorded sites. During the field visits, ECORP confirmed the presence of the four previously recorded resources and updated site boundaries. Previously recorded sites consisted of four bedrock milling sites. In March 2022, ECORP conducted an intensive pedestrian survey of the 20-acre addition to the Project Area. As a result of the 20-acre survey, ECORP identified two newly recorded resources. The two newly recorded resources consist of two bedrock milling feature sites. Subsequently, ECORP was retained to carry out Phase II testing in coordination with consulting tribes. ECORP made recommendations for avoidance and minimization of impacts to these cultural resources.

Hess Collection Winery Project, Kimley Horn and Associates and Hess Winery, Napa County (2021). Kimley Horn and Associates, Inc. retained ECORP Consulting, Inc. in 2021 to conduct a cultural resources inventory for the Hess Collection Winery Project in Napa County, California. The Project would require an amendment of the general plan and a rezone to redesignate the land for industrial uses, which would be constructed on the property. The inventory included a records search, literature review, field survey, and site boundary delineation through subsurface testing. Lisa Westwood served as project manager. As a result of the field survey, ECORP confirmed the locations of the pre-contact resources in the field and updated the site boundaries based on survey and subsurface testing data.

Zayo's Prineville to Reno Fiber Optic Line, California Public Utilities Commission (2020-2023). In 2020, the California Public Utilities Commission retained ECORP to prepare an Environmental Impact Report for the California portion of Zayo's proposed fiber optic line between Reno, Nevada and Prineville, Oregon. Lisa Westwood provided extension of staff services to CPUC during its tribal consultation under AB 52 and CPUC's tribal consultation policies. She also provided peer review of all cultural resources technical studies prepared by Zayo's consultant, and authored the cultural and tribal cultural resources sections of the EIR.

Piraeus Point Project, Lennar Homes of California, Encinitas, San Diego County (2022-2023). In 2021, ECORP Consulting, Inc. was retained to conduct an archaeological inventory for the proposed Piraeus Point Project in the City of Encinitas, San Diego County, California. Lennar Homes of California, Inc. proposes to develop the existing undeveloped property into a housing community. The inventory included a records search, literature review, and field survey. Lisa Westwood served as Principal Investigator. ECORP revisited and recorded portions of site P-37-012130 during the field survey. No other newly identified cultural resources were recorded as a result of the cultural resources inventory. The portion of site P-37-012130 that overlaps with the Project Area's development footprint was tested via 20 auger sample locations and evaluated based on archaeological information as not eligible for listing under Criterion D/4 for the National Register of Historic Places and the California Register of Historical Resources. Tribal consultation under Assembly Bill 52 with the City of Encinitas, Rincon Band of Luiseño Indians, the San Luis Rey Band of Mission Indians, and San Pasqual Band of Mission Indians resulted in the recommendation for tribal monitoring during construction and pre-designation of a reburial area, in the event of an unanticipated

discovery during construction, and whether or not the site is potentially significant as a tribal cultural resource will be determined by the City in consultation with the tribes. Recommendations for the management of unanticipated discoveries were provided.

Bayshore Bikeway to Barrio Logan Project, Anser Advisory, City of San Diego (2022-2023). In 2022, Anser Advisory retained ECORP under contract to provide mitigation monitoring services in connection with the Bayshore Bikeway to Barrio Logan Project. Archaeological monitoring was performed by a qualified professional archaeologist from ECORP. Native American monitors were provided under subcontract by Loveless Linton, Inc. Paleontological monitors were provided under subcontract by PaleoServices of the San Diego Natural History Museum. Monitors were given the authority to temporarily halt any structural, exterior, or earth-moving construction operations in the immediate vicinity of a find if significant or potentially significant cultural, tribal, or paleontological resources are exposed and/or adversely affected by construction operations. Lisa Westwood worked with City of San Diego staff to develop and then implement the monitoring approach, which was a combination of full time and spot check monitoring, depending on sensitivity.

City of Clearlake, Lake County (2022-present). In 2022, ECORP was retained by the City of Clearlake to provide tribal consultation liaison and technical support to the City on several projects, including the Burns Valley Sports Complex, Austin Park Splash Pad, and other matters. ECORP was also retained to develop standard operating procedures for the City in its compliance with AB 52, SB 18, and AB 168.

Elegante Estates, Ewell Group of Companies, Fresno County (2022). Ewell Group of Companies in Fresno, California retained ECORP Consulting, Inc. in 2022 to conduct an archaeological resources inventory and evaluate two built-environment resources (two historic-era residences) within the proposed Elegante Estates Project. Ewell Group of Companies proposes to construct a subdivision in Fresno County, within the vicinity of the City of Fresno, California. The inventory included a records search, literature review, and field survey. Lisa Westwood served as principal investigator. Two known architectural resources were located within the Project Area. Both are not eligible for listing in the National Register of Historic Places (NRHP) or California Register of Historical Resources (CRHR). ECORP completed a cultural resources survey of the Project Area on December 23, 2022. As a result of this survey, ECORP located P-10-4485 and P-10-4730 and identified two new architectural resources, EE-001 and EE-002. Through survey and archival research, ECORP evaluated EE-001 and EE-002 and concluded that neither are eligible for listing in the NRHP or CRHR.

Retherford-Corvina Apartments, Ginder Development Corporation, Tulare County (2022-2023). Ginder Development retained ECORP Consulting, Inc. in 2022 to perform a field survey for the proposed Corvina Apartments in the City of Tulare, Tulare County, California. A records search was previously conducted for the property at the South San Joaquin Valley Information Center of the California Historical Resources Information System (CHRIS) as part of the California Environmental Quality Act (CEQA) review for the Project. The results \indicate that no previously recorded resources are located on the property. Mitigation Measure TCR-4 of the CEQA document required that “a cultural resources survey…be performed on-site by a qualified archaeologist prior to earth-moving activities.” Therefore, in December 2022, ECORP

was retained to perform the required survey. Lisa Westwood served as principal investigator for the field survey. No cultural resources were identified.

El Camino Encinitas, El Camino Encinitas, LLC, San Diego County (2023). El Camino Encinitas, LLC retained ECORP Consulting, Inc. in 2022 to conduct an archaeological resources inventory for the El Camino Encinitas Project (Project) located in San Diego County, California. El Camino Encinitas, LLC proposes to construct a four-story apartment building and parking lot, as well as associated utilities, infrastructure, driveways, and landscaping. The inventory included a records search, literature review, and field survey. Lisa Westwood served as principal investigator. The records search results indicated that two previous cultural resources studies have been conducted within the Project Area. As a result of those studies, no sites have previously been recorded within the Project Area. The field survey did not yield cultural resources. Recommendations for the management of unanticipated discoveries are provided.

241 Andrew Multifamily Housing Project, The Brown Studio, Inc., San Diego County (2021). In 2021, ECORP Consulting, Inc. was retained to conduct a cultural resources inventory for the proposed 241 Andrew Multi-Family Housing Project in San Diego County, California. The Brown Studio, Inc. proposes to construct 10 to 14 units for a multi-family housing project on the property at 241 Andrew Avenue, Encinitas, California. Lisa Westwood served as project manager. The inventory included a records search, literature review, and field survey. Two cultural resources were recorded as a result of the field survey: 2021-137-01 is a single-family, two-story house with attached garage; and 2021-137-02 consists of three greenhouses. ECORP used archival research to evaluate the two historic-period resources using National Register of Historic Places and California Register of Historical Resources eligibility criteria and found the resources not eligible.

Yolo County Cannabis Land Use Ordinance (2021). ECORP provided technical support to the County of Yolo and Client in developing protocols for cultural and tribal cultural resources to implement the Yolo County Cannabis Land Use Ordinance. ECORP also participated in tribal consultation meetings with the County and Yocha Dehe Wintun Nation to seek comments and will make revisions directed by the Client and County staff.

City of San Marcos Staff Augmentation (2020-present). ECORP is currently serving as extension of staff to assist the City of San Marcos in carrying out its tribal consultation obligations under Assembly Bill 52 and Senate Bill 18. The City is actively consulting on a regular basis with the Pechanga, Rincon, San Luis Rey, and San Pasqual tribes. ECORP participates with City in tribal consultation meetings, maintains the consultation record on City servers, and advises the City during decision making relative to AB 52 and SB 18. ECORP also assisted the City in developing standard mitigation measures for tribal cultural resources for use in CEQA documents.

Huff's Corner Levee Raise & Channel Reconfiguration Project, County of Yolo. In 2020, ECORP was retained to carry out a cultural resources inventory and evaluation of significance for cultural resources in the proposed levee raise and channel reconfiguration project alone Cache Creek in Yolo County. ECORP

also provided technical support to the County in completing its tribal consultation under AB 52, and provided assistance to the design team in avoiding impacts to cultural resources.

Teichert Materials Mining Permit and Reclamation Plan (Shifler), County of Yolo. In 2021, ECORP was retained to provide tribal liaison and supplemental cultural resources assessment assistance to the County in support of its environmental review under CEQA for this proposed long-term aggregate mining project along Cache Creek. Ms. Westwood assisted the County in compliance with AB 52 and SB 18, served as a liaison between the Yocha Dehe Wintn Nation, County, and Teichert; designed and implemented, in collaboration with the tribe, a subsurface testing program; and assisted the County in revising the EIR in response to comments and in light of new information obtained as part of tribal consultation.

CEMEX Amended Use Permit, County of Yolo. In 2021, ECORP was retained to provide tribal liaison assistance and CEQA support to the County in preparing a Supplemental EIR under CEQA for a proposed Amendment to a Use Permit and Development Agreement for a mining permit and restoration plan in Yolo County. Ms. Westwood carried out a peer review of earlier studies, assisted the County in completing its tribal consultation, and provided CEQA document support for the cultural and tribal cultural resources sections.

Stoneridge Specific Plan, Riverside County – Richland Planned Communities, Inc. (2019-2021). Responsible for the cultural resources inventory of the on-site and associated off-site improvements for the proposed development of light industrial, business park, and commercial retail on 574 acres near the unincorporated communities of Neuvo and Lakeview. Ms. Westwood also managed the completion of noise, air quality, greenhouse gasses, and paleontology assessments.

McSweeny Specific Plan, Hemet, Riverside County – City of Hemet (2020). Coordinated with the Soboba Band of Luiseño Indians (SBLI) in the repatriation and reburial of Native American artifact collections that were previously generated by archaeological studies for the McSweeney Specific Plan in Hemet, a development project that is currently under construction. Ms. Westwood located the stored collections at another consultant's lab facility, and performed an inventory along side tribal representatives prior to assisting in the reburial of the collections in a location on the development site that will be preserved in perpetuity.

Countryview 310 Project (Countryview Estates), Riverside County – Richland Planned Communities, Inc. (2018). Principal Investigator, responsible for the completion of a Phase 1 Cultural Resources Assessment for the development of 27 smaller parcels. No cultural resources were identified as part of the inventory.

Summit Wind Farm, Alameda County – Salka LLC (2017). Agency liaison between the project proponent and San Francisco District of the US Army Corps of Engineers and Native American tribes in the negotiation of a Memorandum of Agreement to resolve adverse effects to a traditional cultural property.

Ecoplexus Atascadero State Hospital Solar Project, San Luis Obispo County - California Department of General Services, Real Estate Service Division (2016-2017). Cultural and paleontological monitor for

ground-disturbing activities in 2020, which followed serving as Principal Investigator for cultural resources during environmental review and permitting associated with the construction of a solar project at Atascadero State Hospital. Previously served as the Principal Investigator for cultural resources technical studies to support the project.

Construction Management Support Services for the Mid County Parkway (MCP) Sweeney Mitigation Improvement Project, Riverside County – RCTC Santec (2020). Cultural resources monitor for ground-disturbing activity associated with the habitat restoration project.

Cardiff School Modernization and Reconstruction Project, Encinitas, San Diego County - PlaceWorks, Inc. (2019). Principal Investigator and author of updating Section 106 compliance documentation and prepared an archaeological monitoring plan for the project. Coordinated with archaeological and tribal monitors during construction.

Cook's Crack Sea Cave Stabilization Project, San Diego County – TerraCosta Consulting Group, Inc. (2019-2020). Principal Investigator and archaeological monitor for emergency stabilization of Cook's Crack Sea Cave located beneath Coast Boulevard in San Diego, California. Duties included development of the Post Review Discovery and Monitoring Plan; monitoring of ground disturbance during drilling; and compliance reporting. (8/2019-11/2019) Cost $35,000

Scannell Detention Basin, Dixon, Solano County – Scannell Properties #357, LLC (2019-Ongoing). ECORP was retained to address an unanticipated discovery of a prehistoric archaeological site during the construction of a detention basin. ECORP prepared and implemented a rapid recovery and mitigation plan.

The Homestead, Southwest Dixon Specific Plan – JEN California 6, LLC (2019-Ongoing). ECORP was retained to assist a private developer in negotiating a tribal monitoring and treatment agreement stemming from the discovery of human remains during geotechnical investigations on the property. ECORP provided technical support to the developer and legal counsel in understanding the position of the tribe, offering language to mediate the two parties, and developing a work plan to involve the tribe in the reburial of human remains.

Birmingham Drive Improvements Project, City of Encinitas, San Diego County – Michael Baker International (2017-2018). Responsible for the cultural resources inventory and evaluation of a segment of Birmingham Drive, which includes autograph panels in the sidewalks from local figures and celebrities. The City of Birmingham proposes to widen and improve the project, and ECORP was tasked with evaluating the significance of the autograph panels and historic roadways to support a CEQA document.

City of Vista, Buena Sanitation District As-Needed Environmental Consulting Services for Sewer Projects, San Diego County – Harris & Associates (2018). Responsible for the cultural resources compliance under a certified master EIR for sewer projects within the district's jurisdiction, including construction monitoring and peer review services.

South Lake Community Park, City of San Marcos, San Diego County – Michael Baker International (2016). Principal Investigator for the cultural resources survey of a proposed community dock at South

Lake Reservoir. Carried out the survey, coordinated with the San Luis Rey Band of Mission Indians, and prepared the technical report.

Metropolitan Airpark Project (Brown Field Municipal Airport), San Diego County - City of San Diego (2016). Conducted a peer review and compliance assessment for the applicability of previously-prepared cultural resources documentation under CEQA for use in the Section 106 NHPA consultation process as it relates to a Section 404 permit with the USACE for a roadway improvement element of the larger project. Designed the recommended strategy for compliance, which includes an updated records search, addendum field survey, and preparation of a technical report. Subsequently, carried out two cultural resources inventories of five intersections and roadway improvement areas and prepared technical reports.

Lake 29 Improvements Project, Lake County- Shasta Consulting Group, Inc. (2019). Principal Investigator for the archaeological monitoring of all ground disturbing activity during construction alongside Highway 29 located approximately seven miles southeast of Kelseyville in Lake County. Oversaw a qualified archaeologist to train all construction crew regarding the nature and physical appearance of archaeological materials that may be present during ground disturbing work and a qualified archaeologist during all construction activity located within the Archaeological Monitoring Areas. The project required coordination with Caltrans and the Big Valley Band of Pomo Indians.

Dixon Crossing, Solano County - City of Dixon (2019-Ongoing). ECORP was retained to assume the technical lead on cultural resources compliance for a proposed development in the City of Dixon, which requires a 404 Clean Water Act from the US Army Corps of Engineers. Due to complexities in the Section 106 consultation process, the State Historic Preservation Officer was not able to concur with the findings of the work performed by another consultant. ECORP was tasked with filling data gaps through archaeological test excavations and resolving those outstanding issues, in coordination with the former consultant, to assist the Corps in concluding consultation.

Gregory Canyon Landfill, San Diego County – Cox, Castle and Nicholson, LLC (2016–2017). Tribal liaison between the applicants for a proposed landfill, the Los Angeles District of the US Army Corps of Engineers, and the Pala Tribe regarding impacts (and alternatives) to a Traditional Cultural Property. Also responsible for authoring the updated determination of effect, Historic Property Treatment Plan, and Memorandum of Agreement under Section 106 of the NHPA. Recently assisted in the negotiation of the sale of the mountain to the Pala Tribe, which ended decades of controversy.

The Farm at Alamo Creek, Vacaville, Solano County (2017-present). Principal investigator for a cultural resources inventory and subsequent evaluation of eligibility for a proposed development project near Vacaville, which also required AB 52 and SB 18 consultation technical support to the City. Subsequently served as a tribal liaison to negotiate a tribal monitoring agreement between the Native American tribe and developer.

Green Valley II Apartments, Fairfield, Solano County (2020-present). Tribal liaison in the negotiation and execution of a tribal monitoring agreement between a Native American tribe and developer.

Feather River West Reaches 14-16 Emergency Levee Repairs Project, Sutter County - Sutter Butte Flood Control Agency (2016-2018). Project Manager and Principal Investigator for the emergency permitting and cultural resources compliance under Section 106 NHPA. Responsible for the cultural resources survey, evaluations of eligibility of historic and prehistoric archaeological sites, and preparation of technical reports.

Sutter Basin Flood Management Risk Project, Sutter County - Sutter Butte Flood Control Agency and US Army Corps of Engineers (2017-Ongoing). Project Manager and Principal Investigator for the permitting and cultural resources compliance under Section 106 NHPA. Responsible for the cultural resources survey, evaluations of eligibility of historic and prehistoric archaeological sites, and preparation of technical reports.

Oroville Wildlife Area Flood Stage Reduction Project, Butte County - Sutter Butte Flood Control Agency (2018-Ongoing). Project Manager and Principal Investigator for the cultural resources compliance under Section 106 NHPA and CEQA, after taking over for the previous consultant. Responsible for implementing the mitigation measures for cultural resources and coordinating with SBFCA and engineers on implementation through construction.

Laurel Avenue Critical Repair Project, Sutter County - Sutter Butte Flood Control Agency (2017). Project Manager and Principal Investigator for the cultural resources compliance under Section 106 NHPA and CEQA, after taking over for the previous consultant. Responsible for cultural and tribal monitoring, compliance with the mitigation measures for cultural resources, and coordinating with SBFCA and engineers on implementation through construction.

Feather River West Levee Project, Sutter County - Sutter Butte Flood Control Agency (2015-Ongoing). Tribal liaison between the Sutter Butte Flood Control Agency and the United Auburn Indian Community, and federal and state agencies as it relates to a legal dispute over impacts to sacred lands associated with a critical levee repair project in Butte and Sutter counties. The dispute stemmed from a discovery of tribal cultural materials during project construction in 2014. For over 15 months, ECORP mediated a comprehensive Settlement Agreement to resolve the dispute and assisted in the preparation of a Supplemental EIR for the project. ECORP is currently serving as the Cultural Compliance Officer for the project in meeting the obligations under the Settlement Agreement as the Agency resumes construction.

Stonegate Subdivision Project, City of Chico (2017). Principal investigator of a revised and updated cultural resources investigation for a proposed housing development in Chico. Tasks included evaluating the significance of historic-era cultural resources through test excavation and archival research, preparation of an impact assessment, peer review of the CEQA document, and coordination with the City and US Army Corps of Engineers.

Alamo Creek Detention Basin, City of Vacaville (2016-present). ECORP was retained by the Department of Public Works for the City of Vacaville to assist in the development and implementation of a compliance strategy to meet the requirements of Section 106 NHPA under a 404 Clean Water Act permit from the USACE. The project had been previously subject to FEMA funding, which was withdrawn by FEMA after objections from the Yocha Dehe tribe when human remains were encountered during archaeological

investigations being carried out by another firm. ECORP has been assisting as an agency liaison, compliance specialist, and technical advisor to the City.

Sugar Pine Reservoir Project, Placer County - Foresthill Public Utilities District (2015-Ongoing). Principal Investigator for the cultural resources compliance under Section 106 NHPA and CEQA. Responsible for the cultural resources survey, evaluations of eligibility of historic and prehistoric archaeological sites, and preparation of technical reports.

Capital Southeast Connector Project Segment D2, Sacramento County – CH2M Hill (2016-2017). Principal Investigator for the preparation of the IS/MND/EA for Segment D2 of the Capital Southeast Connector Project. The Capital Southeast Connector Joint Powers Authority (JPA) led the effort to develop an expanded expressway serving as a 34-mile connector between Interstate 5, California State Route (SR) 99, and U.S. Highway 50 that will serve as a bypass of the City of Sacramento connecting the City of Elk Grove and El Dorado Hills. The JPA is the CEQA lead agency and Caltrans is the NEPA lead agency.

2035 General Plan Update, Sacramento County - City of Folsom (2018). Under the direction of the City, responsible for all tribal consultation under AB 52 and SB 18 for the General Plan Update. Carried out peer review and editing of the cultural and tribal cultural resources sections of the General Plan EIR, and peer reviewed the General Plan.

Tribal Consultation and Policy Support, Sutter County - City of Yuba City (2017-Ongoing). Authored standard operating procedures for the City in complying with cultural and tribal cultural resources. Providing technical support to the City's planning division to track and manage all tribal consultation requirements under AB 52 and SB 18, including the specific Plans and several developments.

Tribal Consultation Guidelines, Placer County - City of Roseville (2018 – Ongoing). Developed and authored new tribal consultation guidelines for the City of Roseville to address changing dynamics between the City and culturally-affiliated tribes in light of AB 52. Guidelines include the development of standard mitigation measures, procedures, and thresholds for tribal engagement in private and public-sector projects under the jurisdiction of the City.

Cultural Resources Guidelines, San Diego County - City of Carlsbad (2016-2017). Developed and primary author of the updated cultural resources guidelines and procedures for the City of Carlsbad to reflect recent changes in state law and local policy as it relates to cultural, tribal, and paleontological resources. Subsequently contracted to carry out a city-wide cultural resources records search and development of a GIS-based sensitivity model for archaeological and architectural history resources for use by the City in long-range planning efforts.

Placer County Conservation Plan, Placer County – Placer County Planning Department (2016-Ongoing). Responsible for negotiating and developing a highly complex programmatic approach to guide multi-agency compliance with Section 106 NHPA and CEQA for this 50-year, 209,000-acre habitat conservation plan. The resulting Programmatic Agreement and Cultural Resources Management Plan, currently in agency review, will support an EIR/EIS and guide compliance for the US Army Corps of Engineers, US Fish and Wildlife, County of Placer, California Department of Fish and Wildlife, City of Lincoln,

and the Office of Historic Preservation, and will incorporate stakeholder involvement from tribes, developers, historical societies, and the public. When complete, it will be the first HCP in California to incorporate US Army Corps of Engineers' compliance and will result in a phased delegation of authority to non-federal agencies.

Placer County Code Update, Placer County – County of Placer (2017). Revised the Placer County codes regarding cultural resources and historical architecture within the County and authored new code for the management of tribal cultural resources. Included considerations for the nexus with the Placer County Conservation Plan.

Centennial Reservoir Project, Nevada Irrigation District, Nevada County – HDR Engineering, Inc. (2015-Ongoing). Principal Investigator for the cultural resources compliance under Section 106 NHPA and CEQA. Responsible for the cultural resources survey, tribal consultation under AB 52, evaluations of eligibility of historic and prehistoric archaeological sites, and preparation of technical reports.

Assembly Bill 52 Compliance, Statewide (2015-Ongoing). Contributed to the negotiation of the bill language by providing technical input to the attorneys representing the California Building Industry Association and California Chamber of Commerce in their negotiation with the governor's office and Assemblyman Gatto's office regarding the amendment to CEQA for tribal cultural resources. Subsequently, developed an agency and planner training workshop that has been delivered and presented nearly 90 times. Developed formal Standard Operating Procedures for the County of San Bernardino, County of Contra Costa, City of Folsom, City of Belvedere, County of Placer, City of Carlsbad, City of Yuba City, and City of Roseville to assist them in developing a standardized and more legally defensible program of compliance with the new tribal consultation requirement under CEQA. In addition, responsible for guiding agency clients through project-specific tribal consultation under AB 52 and SB 18, often for the City of Folsom and City of Yuba City.

Millerton New Town Specific Plan, Fresno County – The Ewell Group of Companies (2014-2016). Project manager and principal investigator responsible for developing and implementing a Section 106 compliance strategy in coordination with the US Bureau of Reclamation (long term water transfer and inclusion), and for serving as a liaison and third-party negotiator between the developers and the local tribes in working out a settlement agreement regarding impacts to tribal resources. Also carried out an Extended Phase 1 study and geoarchaeological assessment, prepared a cultural resources management plan that redesigned the project to avoid tribal cultural resources and resulted in no historic properties affected.

Tesoro Viejo Specific Plan, Madera County – Tesoro Viejo Development, Inc. (2014-Ongoing). Principal Investigator responsible for coordinating the Section 106 consultation on behalf of the developer, in collaboration with the US Army Corps of Engineers and US Bureau of Reclamation. This includes ensuring no conflicts between the Section 106 process and the outcomes of the CEQA process, including its subsequent legal proceedings, which resulted in a Settlement Agreement when the EIR was challenged

(ECORP was not involved in the CEQA process or the legal challenges to the project). Also responsible for a Cultural Resources Management Plan.

Marble Valley Specific Plan Project, El Dorado County - Marble Valley Company (2012-Ongoing). Principal investigator and cultural resources task manager responsible for the cultural resources survey and evaluations of the specific plan area, and co-author of technical reports. Served as liaison between the US Army Corps of Engineers, County of El Dorado, project proponent, EIR preparer (ICF) and Native American tribes (Shingle Springs Band of Miwok Indians, United Auburn Indian Community, and Wilton Rancheria) in the negotiation of avoidance/impact plans for cultural resources and coordinated and managed overall cultural resources compliance for the project area.

Central El Dorado Hills Specific Plan Project and Pedregal Project, El Dorado County – Serrano Associates, LLC (2007-Ongoing). Principal investigator and cultural resources task manager responsible for the cultural resources compliance work and completion of the cultural resources inventories and evaluations of significance for the Pedregal and Executive Golf Course projects, which later joined and became the Central El Dorado Hills Specific Plan Project. Served as liaison between the US Army Corps of Engineers, County of El Dorado, project proponent, EIR preparer (ICF) and Native American tribes (Shingle Springs Band of Miwok Indians, United Auburn Indian Community, and Wilton Rancheria) in the negotiation of avoidance/impact plans for cultural resources and coordinated and managed overall cultural resources compliance for the project area.

Folsom Plan Area Specific Plan, Sacramento County (2008-Ongoing). Principal Investigator, responsible for overseeing and directing the entire Section 106 NHPA compliance process for the 3,500-acre Specific Plan Area, which will affect several gold mining districts and prehistoric sites. She was responsible for negotiating and designing a complex compliance strategy that allowed for projects within the specific plan area to proceed independently of one another, through the preparation of a Programmatic Agreement with a Historic Properties Management Plan and Synthesis. Under her direction, ECORP has completed, or is in the process of completing, inventory, evaluation, and effect determinations for properties within the specific plan area, in compliance with the Programmatic Agreement. Also serving as a liaison between the US Army Corps of Engineers, State Historic Preservation Officer, and the applicants.

Department of Water Resources Sites Reservoir Project, Colusa County – Joint Powers Authority (2001). Senior Staff Archaeologist; provided field coordination, technical editing, and quality control services for site records and documentation compiled during field surveys as part of a proposed reservoir project.

Professional Development Courses/Training

2020 Resolving Disputes in Section 106, Advisory Council on Historic Preservation

2017 Conflict Management and Negotiation Skills for Cultural and Natural Resource Managers, National Preservation Institute

Selected Professional Publications/Papers/Presentations

2017 **L. Westwood**, B.L. O'Leary, and M. Wayne Donaldson *The Final Mission: Preserving NASA's Apollo Sites*. University Press of Florida. ISBN 978-0-813-06246-4.

2015 **L. Westwood** *Assembly Bill 52 Tribal Consultation Workshops* – 95+ workshops presented since 2015 to agency staff, attorneys, planners, environmental professionals, tribes, and cultural resources management professionals statewide.

2015 **L. Westwood** "Historic Preservation on the Fringe: A Human Lunar Exploration Heritage Cultural Landscape." In *Archaeology and Heritage of the Human Movement into Space*. Edited by B.L. O'Leary and P.J. Capelotti. Springer Press. ISBN 978-3-319-07865-6.

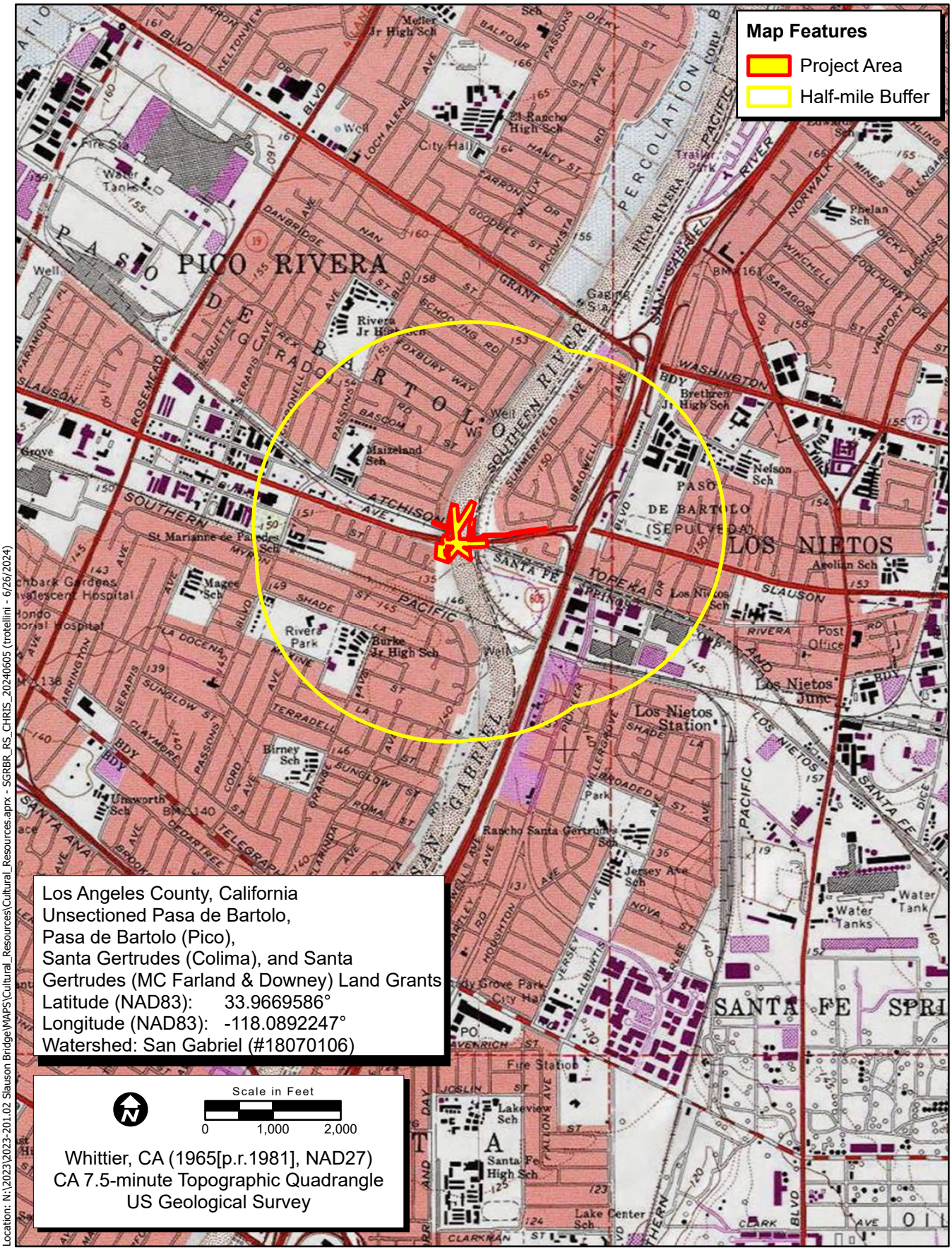
2012 **L. Westwood** and B.L. O'Leary "The Archaeology of Tranquility Base." *Space Times Magazine*. July / August 2012, Issue 4, Volume 51.

2012 B.L. O'Leary, **L. Westwood**, and R. Kelso "Stepping lightly on the moon: Anticipating tourists, researchers want to preserve Apollo 11 sites." *Washington Post*, Opinion Section, July 17, 2012.

2011 **L. Westwood** Future Research Themes in Space Roundtable, 1961-1981 Key Moments in Human Spaceflight Conference, NASA Headquarters, Washington DC. NASA History Program Office and Smithsonian Air and Space Museum, April 27, 2011.

2011 **L. Westwood** and B.L. O'Leary: "Safeguarding Our Lunar Heritage" op-ed in *Space News*, December 7, 2011.

Appendix B: SCCIC Records Search Results



Map Date: 6/26/2024
Sources: ESRI, USGS

Records Search

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

P21-096.02 LACPW San Gabriel River Bridge Retrofit

Report List

2023-201.02 Slauson Bridge

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
LA-03408		1994	Stickel, Gary E.	Draft Report: a Cultural Resources Literature Search for the Rio Hondo Water Reclamation Program	Environmental Research Archaeologists	
LA-03866		1998	McLean, Deborah K.	Cultural Resources Survey Report for Pacific Bell Mobile Services Telecommunications Facility, La 006-14, City of Santa Fe Springs, Los Angeles County, Ca.	LSA Associates, Inc.	
LA-04880		2000	Smith, Philomene and Sriro, Adam	Pavement Rehabilitation Along Route 605 Within the Cities of Long Beach, Lakewood, Cerritos, Downey, Pico Rivera, Santa Fe Springs, Whittier, City of Industry, Baldwin Park and Irwindale.	Caltrans	
LA-05549		2000	Ferraro, David D.	Archaeological Monitoring of Brushing at 8448 and 8508 Millergrove Drive, Whittier, Los Angeles County, California	RMW Paleo Associates, Inc.	
LA-07834		2003	Gust, Sherri	Archaeological Assessment and Mitigation Plan for the San Gabriel River Bike Trail Rehabilitation Project Los Angeles County, California	Cogstone Resource Management, Inc.	19-000182, 19-001179, 19-186112
LA-07871		2003	Tang, Bai "Tom" and Teresa Woodard	Historical Resource Compliance Report - Third Main Track and Grade Seperation Project Hobart (mp 148.9) to Basta (mp 163.3), Bnsf/metrolink East-west Main Line Railroad Track, Vernon to Fullerton, Los Angeles and Orange Counties, California	CRM Tech	19-186753, 19-186754, 19-186755, 19-186756, 19-186757, 19-186758, 19-186759, 19-186760, 19-186761, 19-186762, 19-186763, 19-186764, 19-186765, 19-186766, 19-186767, 19-186768, 19-186769, 19-186770, 19-186771, 19-186772, 19-186773, 19-186774, 19-186775, 19-186776, 19-186777, 19-186778, 19-186779, 19-186780, 19-186781, 19-186782, 19-186783, 19-186784, 19-186785, 19-186786, 19-186787, 19-186788, 19-186789, 19-186790, 19-186791, 19-186792, 19-186793, 19-186794, 19-186795, 19-186796, 19-186797, 19-186798, 19-186799, 19-186800, 19-186801, 19-186804, 30-176663
LA-08158		2006	Tang, Bai "Tom", Michael Hogan, and Deirdre Encarnacion	Archaeological Survey Report / Historical Resources Evaluation Report: Passons Boulevard Grade Separation Project BNSF / Metrolink East-west Main Line Railroad Track (MP 151.45) City of Pico Rivera, Los Angeles County, California 07-la-0-prv	CRM Tech	19-186753, 19-186754, 19-186755, 19-186756, 19-186757, 19-186758, 19-186759, 19-186760, 19-186761, 19-186762, 19-186804, 30-176663

Report List

2023-201.02 Slauson Bridge

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
LA-09444		2008	Tang, Bai "Tom", Michael Hogan, Deirdre Encarnacion, and Josh Smallwood	Passons Boulevard Grade Seperation Project BNSF/Metrolink East-West Main Line Railroad Track (MP 151.45) Sity of Pico Rivera, Los Angeles County, CA 07-LA-0-PRV	CRM Tech	19-186753, 19-186754, 19-186755, 19-186756, 19-186757, 19-186758, 19-186759, 19-186760, 19-186761, 19-186762, 19-186804
LA-10189	Paleo -	2003	Gust, Sherri and Sara Alarcon	Archaeological and Paleontological Evaluation Report and Mitigation Plan for the Interstate 605 Soundwall Project, from Whittier to Baldwin Park, Los Angeles County, CA	Cogstone Resource Management Inc.	19-000136, 19-000182, 19-178611, 19-186112, 19-186571, 19-186804
LA-10391		2009	Tang, Bai and Smallwood, Josh	Historical Resources Evaluation Report, Third Main Track Project, Segments 6, 7, and 8. Pico Rivera (MP) 150. to La Mirada (MP) 158.8, BNSF/Metrolink East- West Mainline Los Angeles County, California Caltrans District 7	CRM Tech	19-000182, 19-186804
LA-11106		2010	Sims, Douglas B.	CA-LOS4155 9601 Slauson Avenue, Pico Rivera, CA 90660	Sims & Associates	
LA-12962	Paleo -	2015	Campbell, Breana, Christopher Duran, and Duane Vander Pluym	Archaeological and Paleontological Monitoring Conducted for the Water Replenishment District's 001B Turn-out Structure and Basin No. 2 Inlet/Turn-out Structure Projects, City of Pico Rivera, Los Angeles County, California	Rincon Consultants, Inc.	19-101352, 19-101353, 19-101354, 19-101355

Resource List

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Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-19-101354		Resource Name - ISO-3 7-UP Bottle	Other	Historic	AH04; AH16	2015	LA-12962
P-19-101355		Resource Name - ISO-4 Ben Hur Seasoning Bottle	Other	Historic	AH04; AH16	2015	LA-12962
P-19-178666		OHP Property Number - 029346; Resource Name - Osburn Burke House; Other - Burke	Building	Historic	HP02	1977 (Tom Sitton, NHM)	
P-19-186753		OHP Property Number - 173064; Resource Name - CRM Tech 789-1H; Other - CRM Tech 789-1H	Building	Historic	HP02	2002 (B. Tang, CRM Tech); 2008 (Bai "Tom" Tang)	LA-07871, LA-08158, LA-09444, LA-12321
P-19-186754		OHP Property Number - 173065; Resource Name - CRM Tech 789-H2; Other - CRM Tech 789-H2	Building	Historic	HP02	2002 (B. Tang, CRM Tech); 2008 (Bai "Tom" Tang)	LA-07871, LA-08158, LA-09444, LA-12321
P-19-186755		OHP Property Number - 173066; Resource Name - CRM Tech 789-3H; Other - CRM Tech 789-3H	Building	Historic	HP02	2002 (B. Tang, CRM Tech); 2008 (Bai "Tom" Tang)	LA-07871, LA-08158, LA-09444, LA-12321
P-19-186756		OHP Property Number - 173067; Resource Name - CRM Tech 789-4H; Other - CRM Tech 789-4H	Building	Historic	HP02	2002 (B. Tang, CRM Tech); 2008 (Bai "Tom" Tang)	LA-07871, LA-08158, LA-09444, LA-11908, LA-12321
P-19-186757		OHP Property Number - 173068; Resource Name - CRM Tech 789-5H	Building	Historic	HP02	2002 (B. Tang, CRM Tech); 2008 (Bai "Tom"Tang)	LA-07871, LA-08158, LA-09444, LA-12321
P-19-186758		OHP Property Number - 173069; Resource Name - CRM Tech 789-6H	Building	Historic	HP02; HP04; HP46	2002 (Tang, Bai "Tom" and Teresa Woodard, CRM Tech); 2006 (Tang, Bai "Tom", CRM Tech); 2008 (Tang, Bai "Tom" and Teresa Woodard, CRM Tech)	LA-07871, LA-08158, LA-09444, LA-12321
P-19-186759		OHP Property Number - 173070; Resource Name - CRM Tech 789-7H	Building	Historic	HP02	2002 (B, Tang, CRM Tech); 2008 (Bai "Tom" Tang)	LA-07871, LA-08158, LA-09444, LA-12321
P-19-186760		OHP Property Number - 173071; Resource Name - CRM Tech 789-8H	Building	Historic	HP02	2002 (B. Tang, CRM Tech); 2008 (Bai "Tom" Tang)	LA-07871, LA-08158, LA-09444, LA-12321

Resource List

2023-201.02 Slauson Bridge

Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-19-186761		OHP Property Number - 173072; Resource Name - CRM Tech 789-9H	Building	Historic	HP02	2002 (B. Tang, CRM Tech); 2008 (Bai "Tom" Tang)	LA-07871, LA-08158, LA-09444, LA-12321
P-19-186762		OHP Property Number - 173073; Resource Name - CRM Tech 789-10H	Building	Historic	HP02	2002 (B. Tang, CRM Tech); 2008 (Bai "Tom" Tang)	LA-07871, LA-08158, LA-09444, LA-12321
P-19-186763		Resource Name - CRM Tech 789-11H	Building	Historic	HP02	2002 (B. Tang, CRM Tech)	LA-07871, LA-12321
P-19-186764		Resource Name - CRM Tech 789-12H	Building	Historic	HP02	2002 (B. Tang, CRM Tech)	LA-07871, LA-12321
P-19-186765		Resource Name - CRM Tech 789-13H	Building	Historic	HP02	2002 (B. Tang, CRM Tech)	LA-07871, LA-12321
P-19-186766		Resource Name - CRM Tech 789-14H	Building	Historic	HP02	2002 (B. Tang, CRM Tech)	LA-07871, LA-12321
P-19-186767		Resource Name - CRM Tech 789-15H	Building	Historic	HP02	2002 (B. Tang, CRM Tech)	LA-07871, LA-12321
P-19-186768		Resource Name - CRM Tech 789-16H	Building	Historic	HP02	2002 (B. Tang, CRM Tech)	LA-07871, LA-12321
P-19-186769		Resource Name - CRM Tech 789-17H	Building	Historic	HP02	2002 (B. Tang, CRM Tech)	LA-07871, LA-12321
P-19-186770		Resource Name - CRM Tech 789-18H	Building	Historic	HP02	2002 (B. Tang, CRM Tech)	LA-07871, LA-12321
P-19-186771		Resource Name - CRM Tech 789-19H	Building	Historic	HP02	2002 (B. Tang, CRM Tech)	LA-07871, LA-12321
P-19-186772		Resource Name - CRM Tech 789-20H	Building	Historic	HP02	2002 (B. Tang, CRM Tech)	LA-07871, LA-12321
P-19-186773		Resource Name - CRM Tech 789-21H	Building	Historic	HP02	2002 (B. Tang, CRM Tech)	LA-07871, LA-12321
P-19-186774		Resource Name - CRM Tech 789-22H	Building	Historic	HP02	2002 (B. Tang, CRM Tech)	LA-07871, LA-12321
P-19-186775		Resource Name - CRM Tech 789-23H	Building	Historic	HP02	2002 (B. Tang, CRM Tech)	LA-07871, LA-12321
P-19-186776		Resource Name - CRM Tech 789-24H	Building	Historic	HP02	2020 (B. Tang, CRM Tech)	LA-07871, LA-12321
P-19-186777		Resource Name - CRM Tech 789-25H	Building	Historic	HP02	2002 (B. Tang, CRM Tech)	LA-07871, LA-12321

Resource List

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Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-19-186779		Resource Name - CRM Tech 789-27H	Building	Historic	HP02	2002 (B. Tang, CRM Tech)	LA-07871, LA-12321
P-19-186780		Resource Name - CRM Tech 789-28H	Building	Historic	HP02	2002 (B. Tang, CRM Tech)	LA-07871, LA-12321
P-19-186781		Resource Name - CRM Tech 789-29H	Building	Historic	HP02	2002 (B. Tang, CRM Tech)	LA-07871, LA-12321
P-19-186782		Resource Name - CRM Tech 789-30H	Building	Historic	HP02	2002 (B. Tang, CRM Tech)	LA-07871, LA-12321
P-19-186783		Resource Name - CRM Tech 789-31H	Building	Historic	HP02	2002 (B. Tang, CRM Tech)	LA-07871, LA-12321
P-19-188232		OHP Property Number - 139439	Building	Historic	HP02	2003	LA-12321
P-19-188233		OHP Property Number - 142443	Building	Historic	HP02	2003	LA-12321
P-19-188235		OHP Property Number - 146933	Building	Historic	HP02	2004	LA-12321
P-19-188238		OHP Property Number - 150337	Building	Historic	HP02	2004	
P-19-188239		OHP Property Number - 150597	Building	Historic	HP02	2004	
P-19-188245		OHP Property Number - 162770	Building	Historic	HP02	2006	LA-12321
P-19-188252		OHP Property Number - 167214	Building	Historic	HP02	2007	LA-12321
P-19-188253		OHP Property Number - 167941	Building	Historic	HP02	2007	LA-12321
P-19-190511		Resource Name - San Gabriel Coastal Spreading Grounds	Structure, Element of district	Historic	HP22	2012 (Jill Gibson, AECOM); 2017	LA-12320, LA-12321, LA-13364
P-19-191707		Resource Name - 10543 Ben Avon St	Building	Historic	HP02	2010 (Elizabeth Hilton, ICF)	LA-12894
P-19-191708		Resource Name - 7735 Bradwell Ave	Building	Historic	HP02	2010 (Elizabeth Hilton, ICF)	LA-12894
P-19-191767		Resource Name - 10600 Lochinvar St	Building	Historic	HP02	2010 (Peter Moruzzi, ICF)	LA-12894
P-19-191768		Resource Name - 10601 Lochinvar St	Building	Historic	HP02	2010 (Peter Moruzzi, ICF); 2020 (M. Wilson, AECOM)	LA-12894
P-19-191770		Resource Name - 10604 Lochinvar St	Building	Historic	HP02	2010 (Peter Moruzzi, ICF)	LA-12894
P-19-192919		Resource Name - 9748 Lochinvar Drive	Building	Historic	HP02	2020 (M. Wilson, AECOM)	

Resource List

2023-201.02 Slauson Bridge

Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-19-192934		Resource Name - 7040 Pico Vista Road	Building	Historic	HP02	2020 (M. Wilson, AECOM)	

Appendix C: Sacred Lands File Search and Tribal Coordination Correspondence

Steven Wintergerst

From: Steven Wintergerst
Sent: Wednesday, July 10, 2024 11:25 AM
To: NAHC@NAHC
Cc: Robert Cunningham
Subject: 2023-201.02 San Gabriel Bridge Retrofit project, Los Angeles County, CA.
Attachments: SGRBR_RS_NAHC_20240605(draft02).pdf; 2023-201.02 Santa Ana Bridge SLF request.pdf

Dear NAHC,

ECORP is requesting a Sacred Lands File search for San Gabriel River Bridge Retrofit Project in Pico Rivera, Los Angeles County. Los Angeles County DPW proposes to retrofit the Slauson Avenue Bridge over the San Gabriel River. I have attached a copy of the Sacred Lands File contact form above along with a map showing the project area. The results of this search can be sent to me or to my colleague at rjcunningham@ecorpconsulting.com. They can also be faxed to my attention at (909) 307-0056. Please reference the project number 2023-201.02 on all correspondence.

Please let me know if you have any questions or need any additional information.

Thanks,

Sacred Lands File & Native American Contacts List Request

Native American Heritage Commission
1550 Harbor Blvd, Suite 100
West Sacramento, CA 95691
916-373-3710
916-373-5471 – Fax
nahc@nahc.ca.gov

Information Below is Required for a Sacred Lands File Search

Project: 2023-201.02 LACPW San Gabriel River Bridge Retrofit

County: Los Angeles

USGS Quadrangle Name: Whittier, CA (1965[p.r.1981], NAD27)

Township: 2 South **Range:** 12 West **Section(s):** Unsectioned Paso de Bartolo and Santa Gertrudes land grants

Company/Firm/Agency: ECORP Consulting, Inc.

Street Address: 215 North Fifth Street

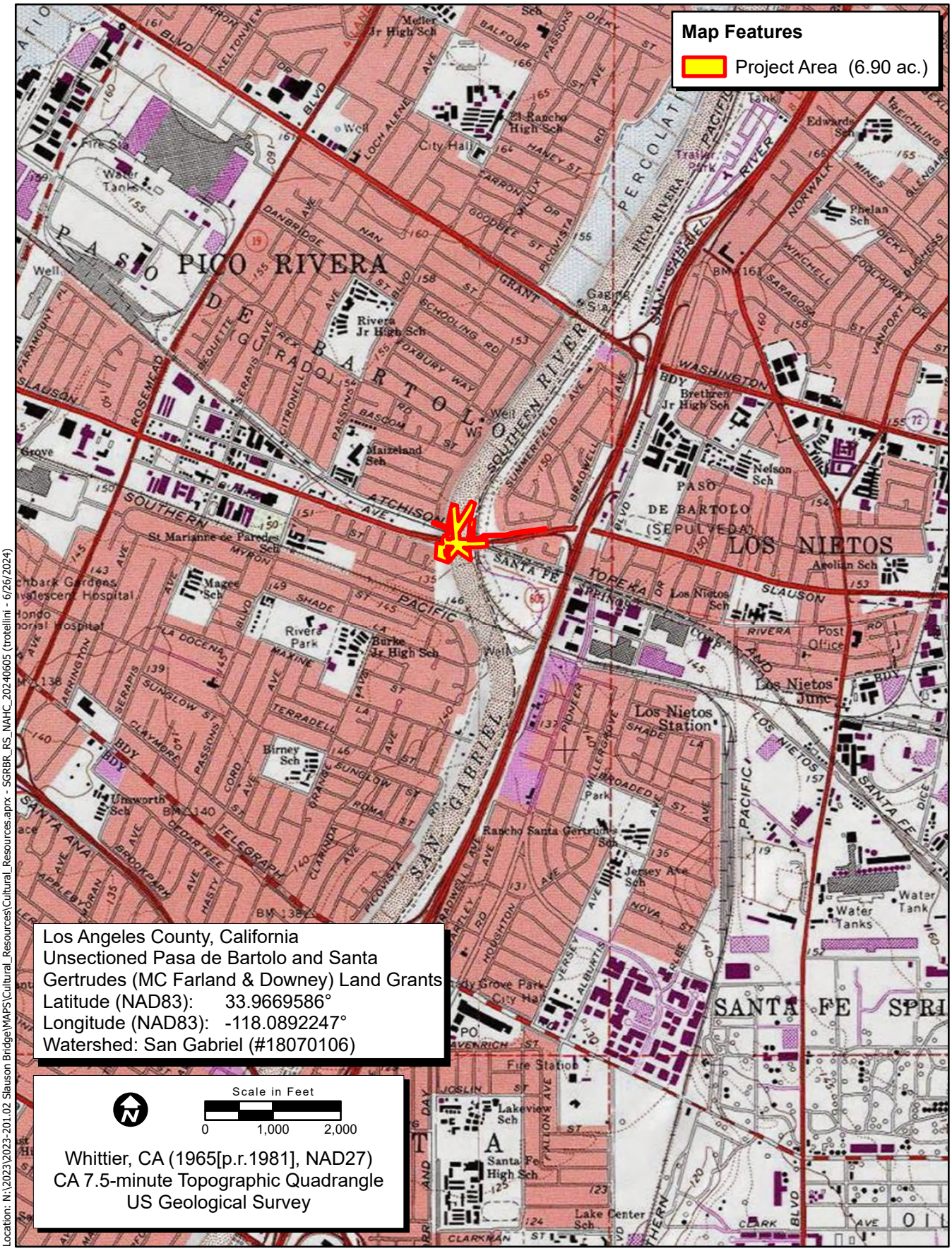
City: Redlands **Zip:** 92374

Phone: (909) 307-0046

Fax: (909) 307-0056

Email: rjcunningham@ecorpconsulting.com

Project Description: Los Angeles County DPW proposes to retrofit the Slauson Avenue Bridge over the San Gabriel River in Pico Rivera, Los Angeles County. The planned seismic retrofit activities would be confined to strengthening the abutment backwalls, providing abutment and pier shear keys, pier infill walls (between the piers supporting each girder), hinge seat extenders, and cable restrainers. Existing concrete shall be removed where needed, drilling/anchoring through existing concrete and steel will be required, and rebar will be installed.



Location: N:\2023\2023-201.02 Slauson Bridge\MAPS\Cultural_Resources\Cultural_Resources.aprx - SGRBR_RS_NAHC_20240605 (trotellini - 6/26/2024)

Map Date: 6/26/2024
Sources: ESRI, USGS

Records Search

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

P21-096.02 LACPW San Gabriel River Bridge Retrofit

From: Green, Andrew@NAHC
To: Robert Cunningham
Cc: Steven Wintergerst
Subject: 2023-201.02 LACPW San Gabriel River Bridge Retrofit Project
Date: Tuesday, July 23, 2024 3:11:03 PM
Attachments: SLF No 2023-201.02 LACPW San Gabriel River Bridge Retrofit Project 7.23.2024.pdf
2023-201.02 LACPW San Gabriel River Bridge Retrofit Project 7.23.2024.xlsx

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Good Afternoon,

Attached is the response to the project referenced above. If you have any additional questions, please feel free to contact our office email at nahc@nahc.ca.gov.

In our ongoing effort to enhance your user experience and increase functionality, we have transitioned from distributing data in PDF Format to Excel Format. This change allows you to take full advantage of features such as searching, filtering, and mail-merging, making it easier for you to handle and utilize the data provided. If you encounter any technical difficulties, or if you have any questions regarding this new format, please do not hesitate to reach out to me directly.

Regards,

Andrew Green
Native American Heritage Commission
1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691
Andrew.Green@nahc.ca.gov
Direct Line: (916) 573-1072
Office: (916) 373-3710

NATIVE AMERICAN HERITAGE COMMISSION

CHAIRPERSON
Reginald Pagaling
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Cahuilla

COMMISSIONER
Bennae Calac
Pauma-Yuima Band of Luiseño Indians

EXECUTIVE SECRETARY
Raymond C. Hitchcock
Miwok, Nisenan

NAHC HEADQUARTERS
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov

July 23, 2024

Robert Cunningham
ECORP Consulting, Inc.

Via Email to: rjcunningham@ecorpconsulting.com

Re: 2023-201.02 LACPW San Gabriel River Bridge Retrofit Project, Los Angeles County

To Whom It May Concern:

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project. The results were negative. However, the absence of specific site information in the SLF does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated; if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call or email to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from tribes, please notify me. With your assistance, we can assure that our lists contain current information.

If you have any questions or need additional information, please contact me at my email address: Andrew.Green@nahc.ca.gov.

Sincerely,

Andrew Green

Andrew Green
Cultural Resources Analyst

Attachment

Native American Heritage Commission
Native American Contact List
Los Angeles County
7/23/2024

Tribe Name	Fed (F) Non-Fed (N)	Contact Person	Contact Address	Phone #	Fax #	Email Address	Cultural Affiliation	Counties	Last Updated
Cahuilla Band of Indians	F	Erica Schenk, Chairperson	52701 CA Highway 371 Anza, CA, 92539	(951) 590-0942	(951) 763-2808	chair@cahuilla-nsn.gov	Cahuilla	Imperial,Los Angeles,Orange,Riverside,San Bernardino,San Diego	2/1/2024
Cahuilla Band of Indians	F	BobbyRay Esparza, Cultural Director	52701 CA Highway 371 Anza, CA, 92539	(951) 763-5549		besparza@cahuilla-nsn.gov	Cahuilla	Imperial,Los Angeles,Orange,Riverside,San Bernardino,San Diego	6/28/2023
Cahuilla Band of Indians	F	Anthony Madrigal, Tribal Historic Preservation Officer	52701 CA Highway 371 Anza, CA, 92539	(951) 763-5549		anthonymad2002@gmail.com	Cahuilla	Imperial,Los Angeles,Orange,Riverside,San Bernardino,San Diego	6/28/2023
Gabrieleno Band of Mission Indians - Kizh Nation	N	Andrew Salas, Chairperson	P.O. Box 393 Covina, CA, 91723	(844) 390-0787		admin@gabrielenoindians.org	Gabrieleno	Los Angeles,Orange,Riverside,San Bernardino,Santa Barbara,Ventura	8/18/2023
Gabrieleno Band of Mission Indians - Kizh Nation	N	Christina Swindall Martinez, Secretary	P.O. Box 393 Covina, CA, 91723	(844) 390-0787		admin@gabrielenoindians.org	Gabrieleno	Los Angeles,Orange,Riverside,San Bernardino,Santa Barbara,Ventura	8/18/2023
Gabrieleno/Tongva San Gabriel Band of Mission Indians	N	Anthony Morales, Chairperson	P.O. Box 693 San Gabriel, CA, 91778	(626) 483-3564	(626) 286-1262	GTTribalcouncil@aol.com	Gabrieleno	Los Angeles,Orange,Riverside,San Bernardino,Santa Barbara,Ventura	12/4/2023
Gabrielino Tongva Indians of California Tribal Council	N	Christina Conley, Cultural Resource Administrator	P.O. Box 941078 Simi Valley, CA, 93094	(626) 407-8761		christina.marsden@alumni.usc.edu	Gabrielino	Los Angeles,Orange,Riverside,San Bernardino,Santa Barbara,Ventura	3/16/2023
Gabrielino Tongva Indians of California Tribal Council	N	Robert Dorame, Chairperson	P.O. Box 490 Bellflower, CA, 90707	(562) 761-6417	(562) 761-6417	gtongva@gmail.com	Gabrielino	Los Angeles,Orange,Riverside,San Bernardino,Santa Barbara,Ventura	3/16/2023
Gabrielino/Tongva Nation	N	Sandonne Goad, Chairperson	106 1/2 Judge John Aiso St., #231 Los Angeles, CA, 90012	(951) 807-0479		sgoad@gabrielino-tongva.com	Gabrielino	Los Angeles,Orange,Riverside,San Bernardino,Santa Barbara,Ventura	3/28/2023
Gabrielino-Tongva Tribe	N	Sam Dunlap, Cultural Resource Director	P.O. Box 3919 Seal Beach, CA, 90740	(909) 262-9351		tongvatcr@gmail.com	Gabrielino	Los Angeles,Orange,Riverside,San Bernardino,Santa Barbara,Ventura	5/30/2023
Gabrielino-Tongva Tribe	N	Charles Alvarez, Chairperson	23454 Vanowen Street West Hills, CA, 91307	(310) 403-6048		Chavez1956metro@gmail.com	Gabrielino	Los Angeles,Orange,Riverside,San Bernardino,Santa Barbara,Ventura	5/30/2023
Santa Rosa Band of Cahuilla Indians	F	Vanessa Minott, Tribal Administrator	P.O. Box 391820 Anza, CA, 92539	(951) 659-2700	(951) 659-2228	vminott@santarosa-nsn.gov	Cahuilla	Imperial,Los Angeles,Orange,Riverside,San Bernardino,San Diego	4/8/2024
Santa Rosa Band of Cahuilla Indians	F	Steven Estrada, Tribal Chairman	P.O. Box 391820 Anza, CA, 92539	(951) 659-2700	(951) 659-2228	sestrada@santarosa-nsn.gov	Cahuilla	Imperial,Los Angeles,Orange,Riverside,San Bernardino,San Diego	4/8/2024

Native American Heritage Commission
Native American Contact List
Los Angeles County
7/23/2024

Soboba Band of Luiseno Indians	F	Jessica Valdez, Cultural Resource Specialist	P.O. Box 487 San Jacinto, CA, 92581	(951) 663-6261	(951) 654-4198	jvaldez@soboba-nsn.gov	Cahuilla Luiseno	Imperial,Los Angeles,Orange,Riverside,San Bernardino,San Diego	7/14/2023
Soboba Band of Luiseno Indians	F	Joseph Ontiveros, Tribal Historic Preservation Officer	P.O. Box 487 San Jacinto, CA, 92581	(951) 663-5279	(951) 654-4198	jontiveros@soboba-nsn.gov	Cahuilla Luiseno	Imperial,Los Angeles,Orange,Riverside,San Bernardino,San Diego	7/14/2023
Soboba Band of Luiseno Indians	F	Isaiah Vivanco, Chairperson	P.O. Box 487 San Jacinto, CA, 92581	(951) 654-5544	(951) 654-4198	ivivanco@soboba-nsn.com	Cahuilla Luiseno	Imperial,Los Angeles,Orange,Riverside,San Bernardino,San Diego	7/14/2023

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resource Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed 2023-201.02 LACPW San Gabriel River Bridge Retrofit Project, Los Angeles County.

Record: PROJ-2024-003745
Report Type: List of Tribes
Counties: Los Angeles
NAHC Group: All

AB 52 Correspondence Log Between County Public Works and Consulting Tribes

Entity Name and Contact	Dates		Comments
	Contact	Response	
Gabrielino Tongva Indians of California Robert Dorame, Chairperson Christina Conley, Admin	7/8/2024	7/8/2024	“As long as there is no ground disturbances, we have no concerns. However, if that should change, we request you notify us.”
		7/15/2024	"With respect to this project, on further inspection we need to know if there will be ground disturbances as the APE is within recoded tribal findings and considered sensitive."
Gabrieleno Band of Mission Indians - Kizh Nation Andrew Salas, Chairperson	7/8/2024	7/15/2024	Requested consultation and meeting was scheduled on 8/22/2024.
		8/22/2024	“We are sorry for the late notice, after further review of the project activities we no longer have concerns with the project. We will go ahead and cancel our meeting.”
San Gabriel Band of Mission Indians Anthony Morales, Chairperson	7/8/2024	None	None

COUNTY OF LOS ANGELES

DEPARTMENT OF PUBLIC WORKS

"To Enrich Lives Through Effective and Caring Service"

MARK PESTRELLA, Director

900 SOUTH FREMONT AVENUE
ALHAMBRA, CALIFORNIA 91803-1331
Telephone: (626) 458-5100
http://dpw.lacounty.gov

ADDRESS ALL CORRESPONDENCE TO:
P.O. BOX 1460
ALHAMBRA, CALIFORNIA 91802-1460

IN REPLY PLEASE
REFER TO FILE: TPP-3

July 8, 2024

Mr. Robert Dorame, Chairman
The Gabrielino Tongva Indians of California
P.O. Box 941078
Simi Valley, CA 93094

Dear Mr. Dorame:

COUNTY OF LOS ANGELES ASSEMBLY BILL 52
FORMAL NOTIFICATION OF DEADLINE
REQUEST CONSULTATION ON TRIBAL CULTURAL RESOURCES
FOR THE SLAUSON AVENUE OVER SAN GABRIEL RIVER BRIDGE SEISMIC RETROFIT PROJECT

Public Works is contacting you in compliance with the California Assembly Bill 52 (AB 52), including the California Public Resources Code Section 21080.3.1 because you are listed as the tribal contact person in a tribal request for notice of proposed projects in this geographic area that the County is the lead agency for compliance with the California Environmental Quality Act. In compliance with formal notification requirements we are issuing the following proposed project notification:

Project Name: Slauson Avenue Over San Gabriel River Bridge Seismic Retrofit Project

Proposed Project: The project consists of upgrading the existing bridge at Slauson Avenue over the San Gabriel River to meet current seismic requirements for highway bridges. The Slauson Avenue Over San Gabriel River Bridge is composed of seven spans and contains two abutments. The bridge is approximately 655 feet long and 63 feet wide. Construction activities include strengthening the abutment backwall, providing abutment and pier shear keys, pier infill walls, hinge seat extenders and cable restrainers. Existing concrete shall be removed where needed, drilling/anchoring through existing concrete and steel will be required, and rebar will be installed.

Retrofit work at the piers and abutments will occur under the existing bridge and above ground. Work will be conducted utilizing equipment from the bridge deck, bike path, extended platform attached to the existing structure or scaffolding. Work will not involve excavation or grading.

Location: The project is located in the Cities of Pico Rivera, Santa Fe Springs, and unincorporated Los Angeles County territory. It is located about 0.3 miles west of Interstate 605 and about 1.75 miles north of the Interstate 605/Interstate 5 interchange. Please see enclosed location map.

If you wish to begin processing a formal consultation under AB 52, your deadline to request consultation with the County is set by State law California Public Resources Code Section 21080.3.1(d) and requires that you send a written request for consultation to the address below within 30 days of the receipt of this notice.

If you do not wish to initiate formal consultation on this proposed project, no response to this notice is needed. If you do not wish to formally consult under AB 52 on this proposed project, you may participate in the California Environmental Quality Act process for this project on any issue of concern as an interested California Native American tribe, person, citizen, or member of the public.

Please send written responses for the proposed project to:

Mr. Dinh (Michael) Mai
Los Angeles County Public Works
Transportation Planning and Programs Division
P.O. Box 1460
Alhambra, CA 91802-1460

If you have any questions, please contact Mr. Dinh (Michael) Mai, Transportation Planning and Programs Division, at (626) 458-3498 or dmai@pw.lacounty.gov.

Very truly yours,

MARK PESTRELLA, PE
Director of Public Works

Andrew Ross
for
MARY E. REYES
Assistant Deputy Director
Transportation Planning and Programs Division

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C240252
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Enc.

COUNTY OF LOS ANGELES

DEPARTMENT OF PUBLIC WORKS

"To Enrich Lives Through Effective and Caring Service"

MARK PESTRELLA, Director

900 SOUTH FREMONT AVENUE
ALHAMBRA, CALIFORNIA 91803-1331
Telephone: (626) 458-5100
http://dpw.lacounty.gov

ADDRESS ALL CORRESPONDENCE TO:
P.O. BOX 1460
ALHAMBRA, CALIFORNIA 91802-1460

IN REPLY PLEASE
REFER TO FILE: TPP-3

July 8, 2024

Mr. Andrew Salas, Chairman
Gabrieleno Band of Mission Indians – Kizh Nation
P.O. Box 393
Covina, CA 91723

Dear Mr. Salas:

COUNTY OF LOS ANGELES ASSEMBLY BILL 52
FORMAL NOTIFICATION OF DEADLINE
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FOR THE SLAUSON AVENUE OVER SAN GABRIEL RIVER BRIDGE SEISMIC RETROFIT PROJECT

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Proposed Project: The project consists of upgrading the existing bridge at Slauson Avenue over the San Gabriel River to meet current seismic requirements for highway bridges. The Slauson Avenue over San Gabriel River Bridge is composed of seven spans and contains two abutments. The bridge is approximately 655 feet long and 63 feet wide. Construction activities include strengthening the abutment backwall, providing abutment and pier shear keys, pier infill walls, hinge seat extenders, and cable restrainers. Existing concrete shall

be removed where needed, drilling/anchoring through existing concrete and steel will be required, and rebar will be installed. Retrofit work at the piers and abutments will occur under the existing bridge and above ground. Work will be conducted utilizing equipment from the bridge deck, bike path, extended platform attached to the existing structure or scaffolding. Work will not involve excavation or grading.

Location: The project is located in the Cities of Pico Rivera, Santa Fe Springs, and the unincorporated County territory. It is located about 0.3 miles west of Interstate 605 and about 1.75 miles north of the Interstate 605/Interstate 5 interchange. Please see enclosed location map.

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Mr. Dinh (Michael) Mai
Los Angeles County Public Works
Transportation Planning and Programs Division
P.O. Box 1460
Alhambra, CA 91802-1460

If you have any questions, please contact Mr. Dinh (Michael) Mai, Transportation Planning and Programs Division, at (626) 458-3498 or dmai@pw.lacounty.gov.

Very truly yours,

MARK PESTRELLA, PE
Director of Public Works

Andrew Ross
for

MARY E. REYES
Assistant Deputy Director
Transportation Planning and Programs Division

DM:am
C240251
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Enc.

COUNTY OF LOS ANGELES

DEPARTMENT OF PUBLIC WORKS

"To Enrich Lives Through Effective and Caring Service"

MARK PESTRELLA, Director

900 SOUTH FREMONT AVENUE
ALHAMBRA, CALIFORNIA 91803-1331
Telephone: (626) 458-5100
http://dpw.lacounty.gov

ADDRESS ALL CORRESPONDENCE TO:
P.O. BOX 1460
ALHAMBRA, CALIFORNIA 91802-1460

IN REPLY PLEASE
REFER TO FILE: TPP-3

July 8, 2024

Mr. Anthony Morales, Chief
San Gabriel Band of Mission Indians
P.O. Box 693
San Gabriel, CA 91778

Dear Mr. Morales:

COUNTY OF LOS ANGELES ASSEMBLY BILL 52
FORMAL NOTIFICATION OF DEADLINE
REQUEST CONSULTATION ON TRIBAL CULTURAL RESOURCES
FOR THE SLAUSON AVENUE OVER SAN GABRIEL RIVER BRIDGE SEISMIC RETROFIT PROJECT

Public Works is contacting you in compliance with the California Assembly Bill 52 (AB 52), including the California Public Resources Code Section 21080.3.1 because you are listed as the tribal contact person in a tribal request for notice of proposed projects in this geographic area that the County is the lead agency for compliance with the California Environmental Quality Act. In compliance with formal notification requirements we are issuing the following proposed project notification:

Project Name: Slauson Avenue Over San Gabriel River Bridge Seismic Retrofit Project

Proposed Project: The project consists of upgrading the existing bridge at Slauson Avenue over the San Gabriel River to meet current seismic requirements for highway bridges. The Slauson Avenue over San Gabriel River Bridge is composed of seven spans and contains two abutments. The bridge is approximately 655 feet long and 63 feet wide. Construction activities include strengthening the abutment backwall, providing abutment and pier shear keys, pier infill walls,

hinge seat extenders and cable restrainers. Existing concrete shall be removed where needed, drilling/anchoring through existing concrete and steel will be required, and rebar will be installed. Retrofit work at the piers and abutments will occur under the existing bridge and above ground. Work will be conducted utilizing equipment from the bridge deck, bike path, extended platform attached to the existing structure or scaffolding. Work will not involve excavation or grading.

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If you wish to begin processing a formal consultation under AB 52, your deadline to request consultation with the County is set by State law California Public Resources Code Section 21080.3.1(d) and requires that you send a written request for consultation to the address below within 30 days of the receipt of this notice.

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Please send written responses for the proposed project to:

Mr. Dinh (Michael) Mai
Los Angeles County Public Works
Transportation Planning and Programs Division
P.O. Box 1460
Alhambra, CA 91802-1460

If you have any questions, please contact Mr. Dinh (Michael) Mai, Transportation Planning and Programs Division, at (626) 458-3498 or dmai@pw.lacounty.gov.

Very truly yours,

MARK PESTRELLA, PE
Director of Public Works

Andrew Ross
for
MARY E. REYES
Assistant Deputy Director
Transportation Planning and Programs Division

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Enc.

From:	Christina Marsden Conley
To:	Dinh (Michael) Mai
Subject:	Re: County of Los Angeles Assembly Bill 52 (AB52) - Notification of Proposed Project: Slauson Avenue over San Gabriel River Bridge Seismic Retrofit Project
Date:	Monday, July 8, 2024 11:09:34 PM
Attachments:	GTIOC.png

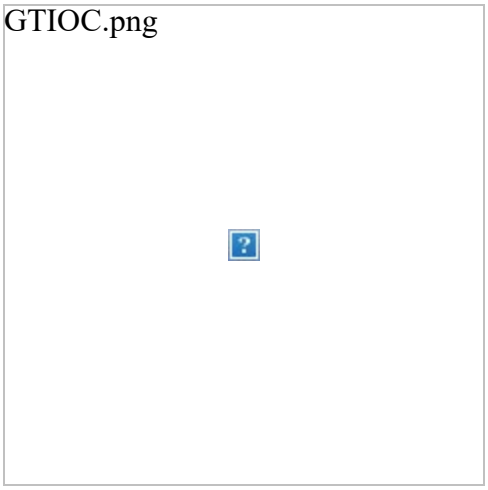
CAUTION: External Email. Proceed Responsibly.

Thank you for your notification. As long as there is no ground disturbances, we have no concerns. However, if that should change, we request you notify us.

Thank you,
Christina

tehoovet taamet
C H R I S T I N A C O N L E Y
•Tribal Cultural Resource Administrator Under Tribal Chair, Robert Dorame
•Catalina Tribal Coalition
•California Coalition of State Tribes, Executive Board
•HAZWOPER Certified
https://file.lacounty.gov/SDSInter/lac/1137966_AREPORTONHARMSCountyofLosAngeles.pdf
_____
G A B R I E L I N O T O N G V A I N D I A N S O F C A L I F O R N I A
The Gabrielino Tongva Indians of California tribe is traditionally and culturally recognized in the State of California Bill AJR96 as the aboriginal tribe to encompass the entire Los Angeles Basin area to Laguna Beach, extending to the Channel Islands of Santa Catalina, San Nicholas and San Clemente Islands

GTIOC.png



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> On Jul 8, 2024, at 10:50 AM, Dinh (Michael) Mai <DMai@dpw.lacounty.gov> wrote:

From:	Christina Marsden Conley
To:	Dinh (Michael) Mai
Subject:	UPDATE: Re: County of Los Angeles Assembly Bill 52 (AB52) - Notification of Proposed Project: Slauson Avenue over San Gabriel River Bridge Seismic Retrofit Project
Date:	Friday, July 12, 2024 7:44:38 PM
Attachments:	GTIOC.png

CAUTION: External Email. Proceed Responsibly.

With respect to this project, on further inspection we need to know if there will be ground disturbances as the APE is within recoded tribal findings and considered sensitive.

We anticipate your reply.
Thank you,
Christina

tehoovet taamet
C H R I S T I N A C O N L E Y
•Tribal Cultural Resource Administrator Under Tribal Chair, Robert Dorame
•UCLA Scholar-in-Residence
•Catalina Tribal Coalition
•California Coalition of State Tribes, Executive Board
https://file.lacounty.gov/SDSInter/lac/1137966_AREPORTONHARMSCountyofLosAngeles.pdf

G A B R I E L I N O T O N G V A I N D I A N S O F C A L I F O R N I A
The Gabrielino Tongva Indians of California tribe is traditionally and culturally recognized in the State of California Bill AJR96 as the aboriginal tribe to encompass the entire Los Angeles Basin area to Laguna Beach, extending to the Channel Islands of Santa Catalina, San Nicholas and San Clemente Islands

This e-mail transmission and any documents, files or previous e-mail messages attached to it, maybe privileged and confidential and is intended only for the use of the intended recipient of this message. If you are not the intended recipient, or a person responsible for delivering it to the intended recipient, you are hereby notified that any review, disclosure, retention, copying, dissemination, distribution or use of any of the information contained in, or attached to this e-mail transmission is STRICTLY PROHIBITED. If you have received this transmission in error, please immediately notify me by return email or by telephone at the above number and delete the message and its attachments.

> On Jul 8, 2024, at 7:32 PM, Christina Marsden Conley <christina.marsden@alumni.usc.edu> wrote:
>
> Thank you for your notification. As long as there is no ground disturbances, we have no concerns. However, if that should change, we request you notify us.
>
> Thank you,
> Christina
>
> tehoovet taamet
> C H R I S T I N A C O N L E Y
> •Tribal Cultural Resource Administrator Under Tribal Chair, Robert Dorame

GABRIELENO BAND OF MISSION INDIANS - KIZH NATION
Historically known as The Gabrielino Tribal Council - San Gabriel Band of Mission Indians
recognized by the State of California as the aboriginal tribe of the Los Angeles basin

July 15, 2024

Project Name: Slauson Ave over San Gabriel River Bridge Seismic Retrofit Project

Dear Mark Pestrella,

Thank you for your letter dated July 8, 2024 regarding AB52 consultation. The above proposed project location is within our Ancestral Tribal Territory; therefore, our Tribal Government requests to schedule a consultation with you as the lead agency, to discuss the project and the surrounding location in further detail.

Please contact us at your earliest convenience. ***Please Note:AB 52, "consultation" shall have the same meaning as provided in SB 18 (Govt. Code Section 65352.4).***

Thank you for your time,

Andrew Salas, Chairman
Gabrieleno Band of Mission Indians – Kizh Nation
1(844)390-0787

Andrew Salas, Chairman | Nadine Salas, Vice-Chairman | Dr. Christina Swindall Martinez, secretary
Albert Perez, treasurer I | Martha Gonzalez Lemos, treasurer II | Richard Gradias, Chairman of the council of Elders

PO Box 393 Covina, CA 91723 admin@gabrielenoindians.org

From: Gabrieleno Administration
To: Dinh (Michael) Mai
Subject: Re: Slauson Ave over San Gabriel River Bridge Seismic Retrofit Project - AB52 Consultation meeting confirmation
Date: Thursday, August 22, 2024 1:50:49 PM

CAUTION: External Email. Proceed Responsibly.

Hello Dinh

We are sorry for the late notice, after further review of the project activities we no longer have concerns with the project. We will go ahead and cancel our meeting.

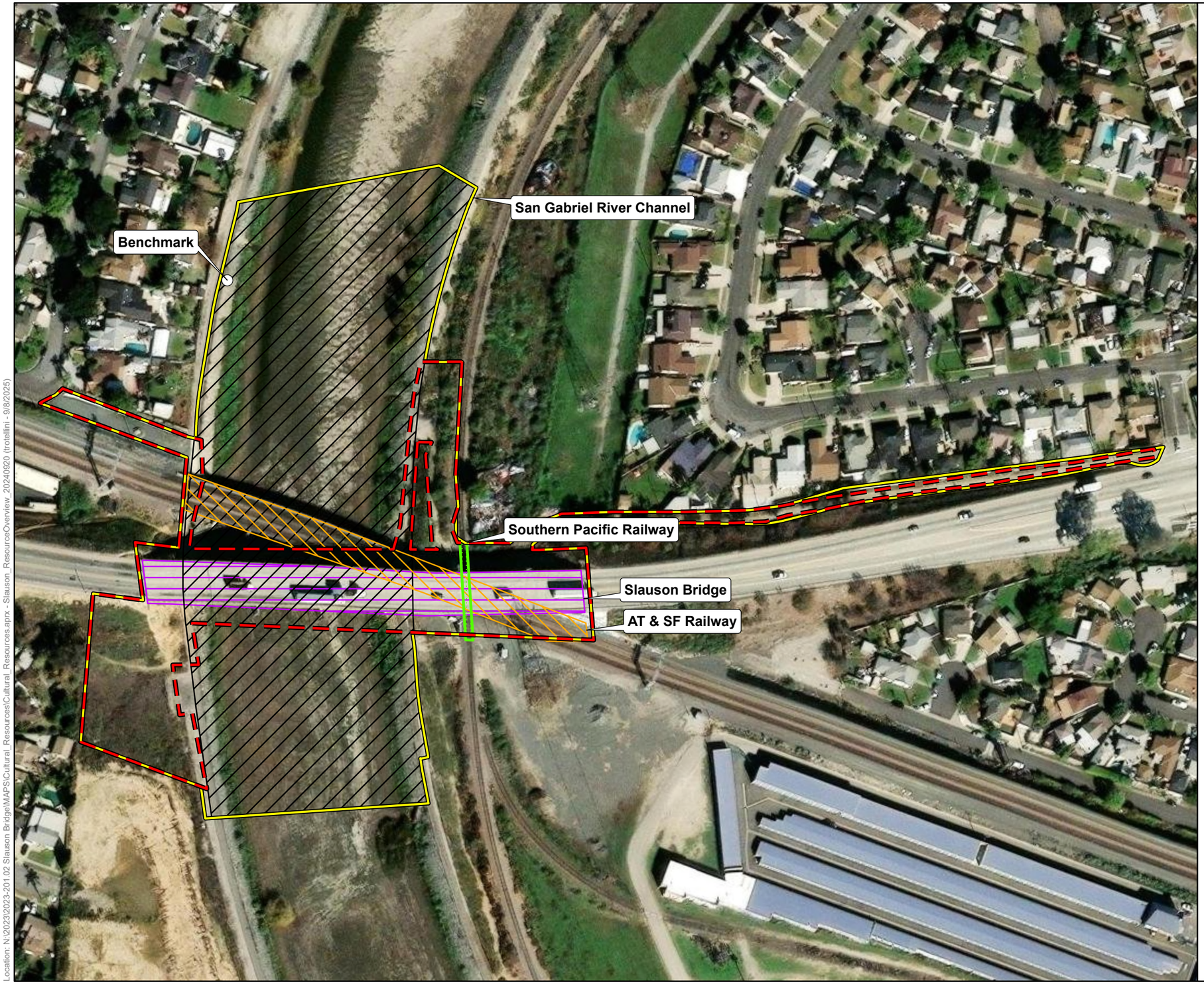
Admin Specialist
Gabrieleno Band of Mission Indians - Kizh Nation
PO Box 393
Covina, CA 91723
Office: 844-390-0787
website: www.gabrielenoindians.org [secure-web.cisco.com]

The region where Gabrieleño culture thrived for more than eight centuries encompassed most of Los Angeles County, more than half of Orange County and portions of Riverside and San Bernardino counties. It was the labor of the Gabrieleño who built the missions, ranchos and the pueblos of Los Angeles. They were trained in the trades, and they did the construction and maintenance, as well as the farming and managing of herds of livestock. "The Gabrieleño are the ones who did all this work, and they really are the foundation of the early economy of the Los Angeles area ". "That's a contribution that Los Angeles has not recognized--the fact that in its early decades, without the Gabrieleño, the community simply would not have survived."

On Wed, Aug 21, 2024 at 10:30 AM Gabrieleno Administration <admin@gabrielenoindians.org> wrote:

> Hello Dinh
>
> Thank you for your email. You are confirmed. We look forward to speaking with you
>
> Thank you
>
> Brandy Salas
> Admin Specialist
> Gabrieleno Band of Mission Indians - Kizh Nation
> PO Box 393
> Covina, CA 91723
> Office: 844-390-0787
> website: www.gabrielenoindians.org [secure-web.cisco.com]

Appendix D: Confidential Cultural Resource Site Locations and Site Records



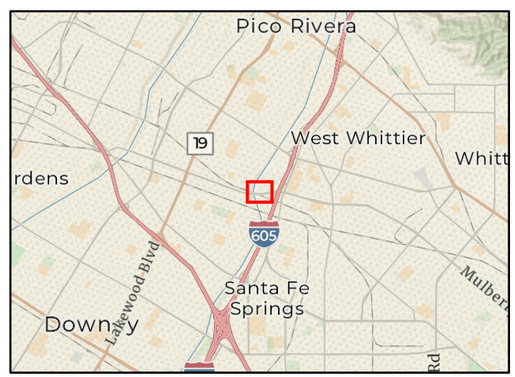
Map Contents

- APE (3.70 Acres)
- Study Area (10.11 Acres)

Cultural Resources

- Slauson Bridge
- San Gabriel River Channel
- AT & SF Railway
- Southern Pacific Railway
- Flood Control Benchmark

Sources: ESRI, Maxar (2023)
Other Related Info if Needed



Location: N:\2023\2023-201.02 Slauson Bridge\MAPS\Cultural_Resources\Cultural_Resources.aprx - Slauson_ResourceOverview_20240920 (trotellini - 9/8/2025)

Map Date: 9/8/2025

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

Scale in Feet
0 150

Resource Overview

2023-201.02 Slauson Bridge

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary #
HRI #
Trinomial
NRHP Status Code 3S, 3CS

Other Listings
Review Code Reviewer Date

 Resource Name or #: San Gabriel River Channel

P1. Other Identifier: San Gabriel River Channel

***P2. Location:** ☐ **Not for Publication** ☒ **Unrestricted** ***a. County:** Los Angeles

and (P2b and P2c or P2d. Attach a Location Map as necessary.)

***b. USGS 7.5' Quad:** Whittier **Date:** 1965 **T**2S; **R**12W; Section 3 S.B.**B.M.**

c. Address: N/A City: Unincorporated LA County Zip: 90606

d. UTM: 10S 584246 mE 4232954 mN

e. Other Locational Data: APN 8177-029-820, 6384-004-800, 8177-003-804, and 6383-039-901

***P3a. Description:**

This 994-foot-long stretch of the San Gabriel River Channel, which runs north-south, is located at the intersection of the Slauson Avenue bridge and the BNSF railroad bridge. Built circa 1940s, the canal is roughly 320 feet wide and has a trapezoidal cross section with an earthen bottom to aid water movement. To the east and west sides of the channel, dry-laid stones line levees at their top, transitioning to earthen slopes covered with flora as they touch the river's banks. The vegetation in the channel is mostly grass, with patches of heavier growth that might suggest changes in moisture levels or soil composition. The channel has no notable constructions inside the waterway, allowing for free flow. There is one associated feature to the channel, a Los Angeles County Flood Control benchmark with a 1968 date mark. Gravel walkways run along the tops of the levees on both sides, functioning as maintenance access routes. The surrounding area consists of suburban development, with roads, residences, and industrial facilities all near to the canal.

***P3b. Resource Attributes:** HP11. Engineering structure

***P4. Resources Present:** ☐ Building ☒ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ Other (Isolates, etc.)

P5a. Photo or Drawing

P5b. Description of Photo:
Top of levee
View south, August 29, 2024

***P6. Date Constructed/Age and Sources:**
☒ Historic ☐ Prehistoric ☐ Both
c. 1940s (topographic maps)

***P7. Owner and Address:**
Los Angeles County Flood Control
10179 Glenoaks Blvd
Sun Valley, CA 91352

***P8. Recorded by:**
Andrew Buran
ECORP Consulting, Inc.
111 Academy Way, Suite 210
Irvine, CA 92617

***P9. Date Recorded:**
August 29, 2024

***P10. Survey Type:**
Intensive

***P11. Report Citation:**

ECORP Consulting, Inc. 2024. CULTURAL RESOURCES ASSESSMENT REPORT for the Slauson Avenue Over San Gabriel River Bridge Seismic Retrofit Project, Los Angeles County, California.

***Attachments:** ☐ NONE ☒ Location Map ☐ Sketch Map ☒ Continuation Sheet ☒ Building, Structure, and Object Record ☐ Archaeological Record ☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record ☐ Artifact Record ☐ Photograph Record ☐ Other (List):

BUILDING, STRUCTURE, AND OBJECT RECORD

***NRHP Status Code** 3S, 3CS

***Resource Name or #** San Gabriel River Channel

B1. Historic Name: San Gabriel River Channel
B2. Common Name: San Gabriel River Channel
B3. Original Use: Flood Control
B4. Present Use: Flood Control

***B5. Architectural Style:** N/A

***B6. Construction History:**
c. 1940s.

***B7. Moved?** ☒ **No** ☐ **Yes** ☐ **Unknown** **Date:** N/A **Original Location:** N/A

***B8. Related Features:** A Los Angeles County Flood Control benchmark with a 1968 date mark. The benchmark is a brass marker measuring 2.25 inches in diameter. The marker is stamped L.A. COUNTY FLOOD CONTROL DIST. \ B.M. 077 •• 01065 \ 1968. The marker is embedded in a concrete and boulder encased section of the western embankment of the San Gabriel River Channel, north of Slauson Avenue.

B9a. Architect: N/A
b. Builder: Los Angeles Flood Control District

***B10. Significance: Theme:** Flood Control **Area:** LA County
Period of Significance: c. 1940s **Property Type:** Levee **Applicable Criteria:** N/A

The following Significance Statement provides historic contexts to support an evaluation of the San Gabriel River Channel using National Register of Historic Places (NRHP) and California Register of Historic Resources (CRHR) criteria. (See continuation sheet)

B11. Additional Resource Attributes: N/A

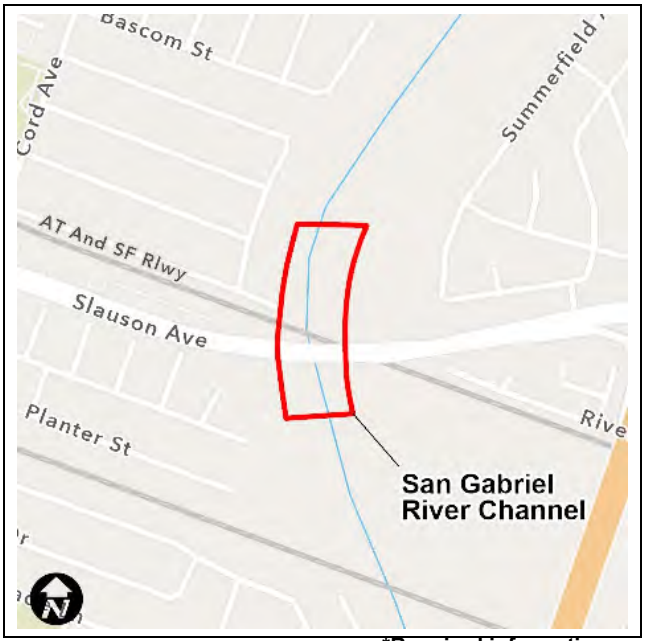
***B12. References:**

(See continuation sheet)

B13. Remarks: None

***B14. Evaluator:**
Andrew Bursan
ECORP Consulting, Inc.
10179 Glenoaks Blvd
111 Academy Way, Suite 210
Irvine, CA 92617

***Date of Evaluation:** August 29, 2024



(This space reserved for official comments.)

B10. Significance (continued):

HISTORIC CONTEXT

WEST WHITTIER-LOS NIETOS

Located in eastern Los Angeles County, the West Whittier-Los Nietos neighborhood consists of a 2.5 square mile area of the unincorporated communities of West Whittier and Los Nietos. Los Nietos is Spanish for "the grandchildren". The name recalls the five heirs of Manuel Nieto, who were granted the lands that the elder Nieto received in 1784 (Durham 1998). West Whittier as well as the neighboring City of Whittier were named in honor of the 19th-century Quaker poet John Greenleaf Whittier due to the large Quaker community that settled in the area (City of Whittier 2024). Following the incorporation of the City of Whittier in 1898, unincorporated areas in Los Angeles County that surrounded the City were also identified by the name "Whittier," such as West Whittier.
Los Nietos is a long-established community in southern California. In the year of 1800, shortly before Manuel Nieto's death, a major settlement already existed in the area. By 1860, 2,000 people were living in the area (La Miranda Review 1976). The area flourished, with a school district that was established in 1861 and a Methodist church in 1867 (Holland 1974). In the early 1870s, the Los Nietos railroad and depot was completed, establishing Los Nietos as one of the more prominent transportation hubs within the region (Los Angeles Herald 1874). The Southern Pacific and Atchison, Topeka and Santa Fe Railroads both intersected the Los Nietos Depot. As one of the largest communities in the region, other neighboring communities relied on Los Nietos, such as West Whittier. Children in West Whittier attended school in Los Nietos, until a schoolhouse was built in West Whittier in 1887 (The Whittier News 1958). The area that comprised West Whitter-Los Nietos was also well-suited for agriculture, with vineyards, orchards, and small farms dotting the landscape. Agriculture dominated the area well into the twentieth century.
As cities, towns, and communities in the region began to grow, Los Nietos began to fade. Once a prosperous area, Los Nietos was overshadowed by the growing communities which surrounded it. The expansive suburbanization following World War II resulted in the disappearance of farms and orchards in favor of tract housing. At an unknown period, the unincorporated areas of West Whittier and Los Nietos were merged to form the Census-Designated neighborhood of West Whittier-Los Nietos, in what is now a residential area of single-family tract homes. Around 80% of the current homes in West Whittier-Los Nietos were built from the 1940s-1960s during the post World War II population boom that led to extensive suburbanization across the country (Los Angeles County 2019). Most of the streets in West Whittier-Los Nietos were built without sidewalks due to there being no requirement for sidewalk construction in unincorporated areas at the time (Los Angeles County 2019). The West Whittier-Los Nietos area has historically been one of the major traditional centers of Mexican-American population in Los Angeles County (Holland 1974).

FORMATION OF THE LOS ANGELES COUNTY FLOOD CONTROL DISTRICT

Prior to the widespread flood control projects in Los Angeles County during the first quarter of the twentieth century, drainage of local rivers and streams during winter rains often resulted in destructive flooding that cost millions in property damage and deaths to hundreds of individuals. Since the topography of the region was characterized by streams and washes flowing from steep mountainsides into flat areas such as the LA Basin or San Fernando Valley, Los Angeles County was believed to be subject to greater potential flood hazards than anywhere in the United States prior to the installation of flood control works. Although flooding issues had been well documented in Los Angeles since at least the early 1800s, there had been little general demand for major flood control efforts before the 1880s because the county had such limited development, low population, and subsequent low property values.

As the county development and population accelerated between the late 1880s and the 1920s, flooding in the region became more of a hazard since it could impact a great number of people, harm property values, and threaten the continued existence of growing Los Angeles. Perhaps the biggest motivation for a more comprehensive flood control program came from the destructive flooding in the winter of 1914 which was the costliest flood to ravage Los Angeles to that point with an estimated $10 million dollars (not inflation adjusted) in damages and 1,094 acres of farmland destroyed. During the early 1910s, residents of communities with major drainages formed local flood-control protection districts, including the San Fernando Protection District, to undertake channel improvements and other flood control measures. However, the devastating floods of 1914 laid bare the inadequacy of local protection districts' efforts. In response to the 1914 floods, the state legislature authorized creation of the Los Angeles County Flood Control District (LACFCD) to undertake construction of upstream mountain flood-control dams as well as levees and dams nearer to population centers. In June of 1915, the California State Legislature created the LACFCD to encompass all of Los Angeles County except the northern portion of the county within the Mojave Desert.

The agency aimed to not only control flooding but also provide water conservation and storage. Based on a series of reports from 1914 documenting the flooding problems in the county and the suggestion of LACFCD Engineer Frank Olmstead, the Flood Control District adopted a plan with the following elements (Van Wormer 1991):

1) Conservation of storm waters through reforestation to prevent erosion
2) Containment of storm waters with dams in the mountains
3) The spreading of storm waters on gravel deposits at the mouth of canyons to replenish the water table
4) Diversion of the San Gabriel and the Los Angeles Rivers to prevent siltation of the harbors at San Pedro and Long Beach
5) Acquiring official channels and streams within the Los Angeles basin for the permanent alignment and protection of those channels (Van Wormer 1991: 55-69).

After the creation of the LACFCD, James W. Reagan was named Chief Engineer. He formulated programs that incorporated the five stated elements of the flood control plan to guide the agencies' works over a 12-year period, from 1915 to 1927. In 1917, he presented a report calling for the construction of dams at Pacoima Canyon, Devil's Gate, San Dimas Canyon, and Puddingstone. Money from a 1917 bond measure was used to build the first three dams cited in the flood control program: Devil's Gate, San Dimas Canyon, and Live Oaks Canyon (not cited in the original report). Nevertheless, major upstream flood control projects did not occur on the Tujunga or Pacoima watersheds for over a decade. Tujunga and Pacoima Washes continued to flood into the 1920s, repeatedly washing out Southern Pacific and San Fernando Road bridges. Present today, although altered, a new concrete bridge was constructed to carry San Fernando Road traffic over Pacoima Wash in 1926 (Ehringer 2012).

By that time, plans were in place for new upstream flood-control measures involving the Pacoima and Tujunga Washes. In a 1924 report, LACFCD Chief Engineer James W. Reagan recommended flood-control dams at Tujunga and Pacoima Canyons. Before the end of that year, Los Angeles County voters approved a $35 million bond measure for implementation of Reagan's flood control program, the district's most ambition set of undertakings to date. LACFCD contracted Bent Brothers to construct the Pacoima Dam, which was completed in 1929. Creating the Pacoima Reservoir, Pacoima Dam was the world's tallest concrete arch dam at the time of its construction, reaching a height of 375 feet from the stream bed. Although the plan for a major concrete arch dam at Big Tujunga Creek was temporarily shelved in favor of a plan for four smaller dams, the district ultimately opted to move forward with the former plan in 1929. The district contracted the construction to L.W. Dixon Company, which completed the 200-foot high, 505-foot-long (at crest), and 73-foot-thick (at base) Big Tujunga Dam in the summer of 1931.

Los Angeles County voters failed to approve two additional bond measures for flood control development during the latter 1920s and during the early Great Depression decade of the 1930s. However, continued disastrous flooding and the growing role of the federal government in public works development as a result of the Franklin Delano Roosevelt administration's New Deal reversed this trend. Devastating floods in 1934 led the LACFCD to seek assistance from the federal government, which garnered nearly $14 million in appropriations for flood control work in Los Angeles County. Funded by the Public Works Administration, a new and wider concrete San Fernando Road bridge over the Tujunga Wash was completed in 1935 (Ehringer 2012). Federal commitments to Los Angeles-area flood control dramatically increased the role of the U.S. Army Corps of Engineers (USACE) in such development. During the latter 1930s, the LACFCD and the USACE partnered in the Works Progress Administration–funded development of Hansen Dam to control Tujunga Wash floodwaters. The $11 million project was completed in 1940 and created Hansen Dam. The massive earthen dam incorporated a highly visible concrete spillway, bridge, and tower, and it became an iconic feature of the eastern San Fernando Valley landscape. The expansive basin to the north and east of the dam, including borrow pits created by the dam's construction, provided a new water-oriented recreational area for Los Angeles-area residents. Despite these measures, the threat of flooding from the Pacoima and Tujunga Washes remained a problem after World War II. Beginning in 1950, the USACE and the LACFCD undertook extensive flood control work that included concrete channelization of Tujunga Wash west of Hansen Dam and construction of a diversion channel from Pacoima Wash to Tujunga Wash (The Van Nuys News 1950, 1955; USACE 2011).

THE SAN GABRIEL RIVER AND FLOOD CONTROL CHANNEL

The San Gabriel River has had a considerable impact on flood control in Los Angeles County, reflecting greater regional patterns and issues. The river, which originates in the San Gabriel Mountains, has been prone to catastrophic floods because of the Los Angeles Basin's steep terrain and abrupt elevation fluctuations. These characteristics, along with increased urbanization, have made flood management an urgent concern.

Flooding in the San Gabriel River was first reported in 1771, and large episodes continued throughout the nineteenth century. Notably, during the winter of 1867-1868, the river dramatically changed course, spilling into Alamitos Bay rather than its original exit in San Pedro Bay. The regular floods caused enormous damage, but it wasn't until the early twentieth century that large-scale flood control operations really began. The floods of 1910–1911 were extremely catastrophic, destroying bridges and crops. These incidents prompted the development of local protection districts, such as the San Antonio Protection District, which built basic flood control infrastructure along the San Gabriel River. These initiatives, while initially beneficial, highlighted the need for a more comprehensive, countywide strategy to flood prevention. This need became even more obvious during the devastating floods of 1914, prompting the establishment of the Los Angeles County Flood Control District in 1915 (Van Wormer 1991).

One of the earliest comprehensive flood management schemes, suggested in 1913, called for the building of reservoirs, artificial spreading grounds to refill the water table, and strengthened river channels. These factors laid the groundwork for subsequent flood control operations along the San Gabriel River and across Los Angeles County. The emphasis on integrating flood control and water conservation became a common feature in later designs (Van Wormer 1991).

In the 1920s, plans for a "great dam" in the San Gabriel Canyon were conceived as a key component of flood control operations. This dam was supposed to be the largest of its type, storing massive volumes of water for flood control and conservation. However, due to geological problems, including the finding of fault lines at the intended location, this ambitious project was abandoned. Instead, smaller dams were built throughout the San Gabriel River watershed, notably San Gabriel Dam Number One and Cogswell Dam (formerly San Gabriel Dam Number Two). These constructions were part of a larger network of dams, spreading grounds, and channel upgrades that were eventually built to reduce flood danger (Covina Argus 1929).

By the mid-twentieth century, flood management along the San Gabriel River had turned to larger-scale government programs, notably following the 1934 and 1938 floods. As part of these efforts, the Santa Fe and Whittier Narrows dams were built, transferring flood management responsibility from municipal to federal authority. The completion of these projects in the 1940s and 1950s marked the conclusion of decades of flood control work, dramatically lowering the risk of catastrophic flooding in the Los Angeles Basin (The Whittier News 1955).

Historic aerial images suggest that the subject 994-foot-long stretch of the San Gabriel River Channel was most likely constructed into its current configuration sometime in the 1940s as the channel appears in its current shape as early as 1952 on aerial images. At the time of the 1952 aerial, the surrounding neighborhoods to the east and west of the river had the same single-family residential layout as currently seen but Slauson Avenue had yet to be realigned. By the 1963 aerial image, Slauson Avenue appears in its modern route.

Overall, the history of flood management along the San Gabriel River has been shaped by a mix of local effort, improving engineering methods, and increased government participation. The shift from small, local efforts to larger, federally supported projects demonstrates the region's rising complexity and size of flood control concerns. The dramatic reduction in flood-related damage seen in the later part of the twentieth century demonstrates the efficacy of these initiatives (Van Wormer 1991).

Evaluation

ECORP evaluated the significance of the San Gabriel River Channel using the context of Los Angeles County Flood Control. Prior to channelization, the San Gabriel River had a course that changed within its alluvial flood plain seasonally and over time. The period of significance for the San Gabriel River Channel is circa 1940s, when the channel is believed to have been constructed.

The Los Angeles County Flood Control system, including the San Gabriel River Channel, represents a flood control program that protected the rapidly growing Los Angeles region from frequent floods, promoted sustainable urban expansion, and assured water conservation and management in a semi-arid environment. The San Gabriel River Channel appears to have played an important part within the wider county-wide system, allowing for and promoting Los Angeles' expansion through constant, effective flood protection. The San Gabriel River Channel is a vital feature of the Los Angeles County Flood Control District and has directly resulted in the formation of the flood plain adjacent to the previously unpredictable San Gabriel River. It embodies the historical management of flood control in Los Angeles County. Therefore, as a critical component of the greater Los Angeles County Flood Control system, ECORP found the San Gabriel River Channel individually eligible for the NRHP/CRHR under Criterion A/1.

To be eligible under NRHP/CRHR Criterion B/2, the subject channel would need to be directly associated with a person considered historically significant at the local, state, or national level. Archival research failed to indicate any such direct association between individuals that are known to be historic figures at the national, state, or local level. The channel was likely constructed by Los Angeles County Flood Control District workers and research did not uncover a specific individual directly associated with the work. There is no information in the archival record to suggest that the San Gabriel River Channel is associated with the lives of persons significant in our past and ECORP found the channel not eligible for the NRHP/CRHR under Criterion B/2.

Although the Los Angeles County Flood Control system is a major engineering feat, the s ubject section of the San Gabriel River Channel represents a modestly designed flood control channel with an earthen bottom flanked by rock lined levees to the west and east. The simplistic design contrasts with more costly and substantial channelization efforts seen in other components of the larger flood control system, like the vast concrete lined sections of the Los Angeles River. The basic design features of the San Gabriel River Channel suggest it was not the sophisticated work of a master engineer but a conventional and cost-effective approach to flood control. It is not the first or last of its type, and levee designs like this were well established at the time of the circa 1940s channelization. It does not represent a unique design or innovative approach to flood control. The channel does not embody the distinctive characteristics of a type, period, or method of construction, or represent a significant and distinguishable entity whose components may lack individual distinction. Therefore, due to commonplace channel construction and limited character defining features, ECORP found the San Gabriel River Channel not eligible for the NRHP/CRHR under Criterion C/3.

The information potential of the San Gabriel River Channel is expressed in its built form and in the historical record. It has not yielded, nor is it likely to yield, information important in history or prehistory. ECORP found the San Gabriel River Channel not eligible for the NRHP/CRHR under Criterion D/4.

Integrity

The segment retains integrity of location as it has not been moved since its circa 1940s construction. The integrity of setting and feeling are not required for the channel to express its significance, as the creation of this channel has accelerated the development of the neighboring districts. The integrity of design, materials, and workmanship are intact, as this portion of the canal does not appear to have undergone any significant changes since its initial construction in the 1940s. As such, the integrity of association is intact, as the segment still conveys the sense of a large, flood-control, infrastructure project.

B12. References (continued):

Caltrans and Los Angeles County Metropolitan Transportation Authority. "Historical Resources Evaluation Report: I-605 Corridor Improvement Project PA/ED." Jan. 16, 2019. Appendix C: Caltrans Cultural Studies Office Correspondence.

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Van Nuys News. 1955. Bids Studied on Pacoima Storm Drain. December 8, 1955:35.

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Figure 1. Top of channel level. (view northeast; 8/23/24)

Figure 2. Bottom portion of channel (view southwest; 8/23/24)

Figure 3. Close-up of Los Angeles County Flood Control benchmark (Plan view; 8/23/24)

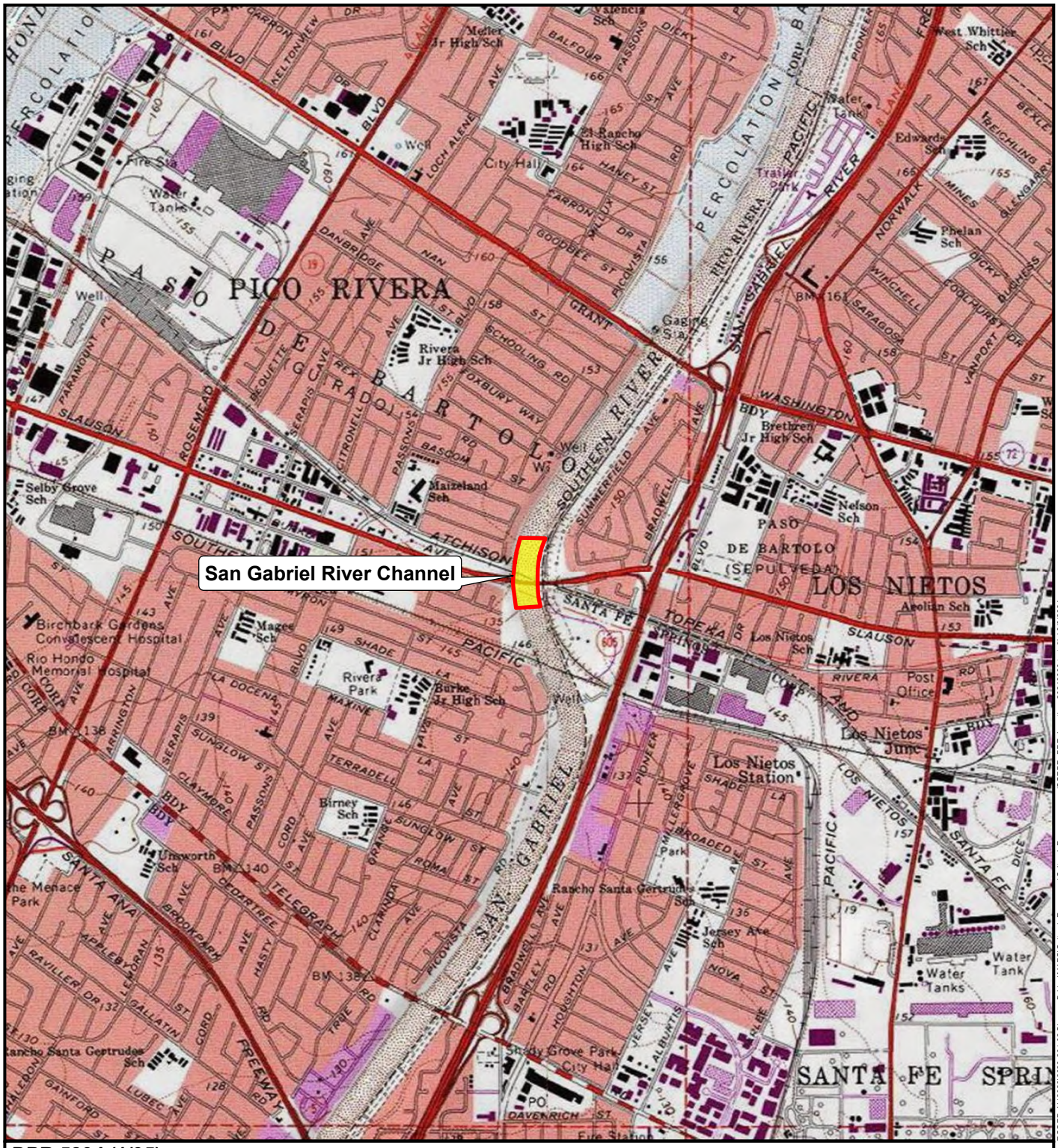
State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary #
HRI #
Trinomial

Page 10 **of** 10 ***Resource Name or #:** San Gabriel River Channel

***Map Name:** Whittier, CA 1965[p.r.1981] ***Scale:** 1:24,000 ***Date of Map:** 1965[p.r.1981]



ECORP: N:\2023\2023-201.02 Slauson Bridge\MAPS\Cultural_Resources\Cultural_Resources.aprx\SGRBR_DPR_Location_20240909-trotellini 9/9/2024

DPR 523J (1/95) ***Required Information**

0 1,000 2,000 4,000 Feet
0 250 500 1,000 Meters

Appendix E: APE Photographs

State of California — The Resources Agency **Primary #**
DEPARTMENT OF PARKS AND RECREATION **HRI#**

PHOTOGRAPH RECORD

Trinomial

Page of **Resource/Project Name: Slauson Bridge** **Year** 2024
Camera: iphone Lens Size: 35mm
Film Type and Speed: Digital Negatives Kept at: ECORP Consulting, Inc.

Mo.	Day	Subject/Description	View Toward	Accession #
8	29	Laydown Yard Overview	N	5438
8	29	Laydown yard/ Pipe end	W	5440
8	29	Laydown yard/ Ground cover	N	5442
8	29	Trail in Laydown Yard	W	5444
8	29	SW Slauson Bridge Footing	NE	5446
8	29	SW Slauson Bridge Footing	N	5448
8	29	SW Slauson Bridge Footing	E	5450
8	29	Access Road	S	5452
8	29	Access Road	N	5454
8	29	Slauson Bridge underside	W	5456
8	29	West end of Railroad Bridge	N	5458
8	29	Railroad tracks	E	5460
8	29	Railroad tracks	E	5462
8	29	Vegetation around bridge footings	S	5464
8	29	Ground cover west bank just south of bridge	Plan	5466
8	29	Ground cover west bank just south of bridge	Plan	5467
8	29	Ground under west side of bridge	N	5468
8	29	Spillway along east bank	E	5470
8	29	Access road and encased berm	SE	5472
8	29	Visibility just south of railway bridge east bank	E	5474
8	29	Visibility just south of railway bridge east bank	N	5476
8	29	From NW corner of APE	NE	5478
8	29	From NW corner of APE	S	5480
8	29	SLA-01 Survey Benchmark	plan	5482
8	29	SLA-01 Survey Benchmark	plan	5484
8	29	East Bridge footings	E	5486
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Appendix E
Hazardous Materials and Wastes Screening Investigation Technical Memorandum

100 West Walnut Street, Pasadena, CA 91124
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PARSONS

Technical Memorandum

To: Project File
From: Brian Upchurch and Anne Kochaon, Parsons
Date: August 13, 2025
Project: Slauson Avenue Bridge over San Gabriel River Retrofit Project
Subject: Hazardous Materials and Wastes Screening Investigation

The purpose of this Hazardous Materials Memorandum is to document the results of a database search and site survey for the Slauson Avenue over San Gabriel River Bridge Retrofit Project (project). This memorandum will be used in support of the environmental clearance for the project, as required under the California Environmental Quality Act (CEQA). The database search is intended to identify hazardous material sites and waste generators within approximately 1.0 mile of the project site and a field survey of the area within 25 feet of the project footprint to determine the presence of potential hazardous materials and signs of potential ground and soil contamination within the disturbance area for the project.

A. Project Location and Setting

Location

Slauson Avenue is a four-lane major east–west arterial roadway located in the San Gabriel Valley region of Los Angeles County. The Slauson Avenue Bridge spans the San Gabriel River approximately 0.3 mile west of Interstate 605 (I-605) and approximately 1.75 miles north of the I-605/Interstate 5 (I-5) interchange. At this location, the San Gabriel River is confined within a flood control channel. Most of the bridge structure lies within the city of Pico Rivera, whose eastern jurisdictional boundary generally follows the eastern bank of the channel. The easternmost end of the bridge is within the unincorporated community of West Whittier and the city of Santa Fe Springs, where Rivera Road forms the boundary between these two jurisdictions near the bridge. (*See Figure 1: Project Location Map.*)

Setting

The Slauson Avenue Bridge was originally constructed in 1958 by the Los Angeles County Department of Public Works (Public Works) and underwent modifications in 1964. The bridge is approximately 655 feet long and 63 feet, 8 inches wide. The bridge deck contains undivided 12-foot-wide travel lanes, 4-foot, 10-inch-wide sidewalks on both sides, and steel railings along the edges. The deck, which is 7 inches thick, consists of seven spans supported by 5-foot-deep steel plate girders. These spans rest on abutments at each end (Abutments 1 and 8) and on six intermediate piers (Piers 2 through 7). Additionally, the spans are connected by two expansion and five deflection hinges. (*See Figure 2: Existing Slauson Bridge Configuration).*

The abutments are located outside of the flood control channel, while three of the piers (Piers 3, 4, and 5) have foundations located within the channel bottom. Pier 2 is supported by a foundation on the channel's western levee wall. Piers 2 through 5 each consist of elongated concrete footings and caps that span the width of the bridge deck and are supported by double concrete columns.

Adjacent to and beneath the Slauson Avenue Bridge, two freight rail lines operate in close proximity. The Union Pacific Railroad (UPRR) owns and operates a single-track, north–south rail line located along the eastern side of the channel. The Burlington Northern Santa Fe Railway (BNSF) owns and operates a rail line with three tracks that cross the San Gabriel River via a bridge that runs roughly parallel—though skewed—to the Slauson Avenue Bridge. The BNSF bridge, which is lower in elevation, crosses underneath the Slauson Avenue Bridge at an angle immediately east of the channel, between Pier 6's straddle-type foundations (i.e., two sets of columns and foundations). At this crossing, both the BNSF and UPRR rail lines are at-grade. BNSF leases track usage rights to Metrolink, operated by the Southern California Regional Rail Authority (SCRRA). *(Refer to Figure 2: Existing Bridge Configuration and Figure 3: Aerial View of the Project Area.)*

Surrounding Land Uses

In addition to the flood control channel, railroad facilities, and the San Gabriel River Trail, the area surrounding the Slauson Avenue Bridge includes primarily vacant parcels located to the northeast, southwest, and southeast of the bridge. Beyond these vacant areas, single-family residential subdivisions are located farther northeast and southwest. On the southeastern side, a self-storage facility occupies the area beyond the adjacent vacant parcel. To the northwest of the bridge, land uses include additional single-family residences and another self-storage facility located between Slauson Avenue and the BNSF rail corridor. *(See Figure 3: Aerial View of the Project Area.)*

B. Project Description

In 1995, the County Public Works inspected the Slauson Avenue Bridge and found no visible signs of structural distress. At that time, the bridge was considered to be in good condition. However, the inspection concluded that during a major earthquake, the bridge could sustain severe damage, including partial collapse, due to many of its components not conforming to current seismic design standards. A retrofit strategy was developed and proposed by Public Works following that evaluation.

A subsequent inspection was conducted in 2022. This inspection documented the accumulation of debris around the pier columns and bent areas, as well as evidence of past fires near the abutments. The report also assessed the condition of various bridge elements and included recommendations for repair. The purpose of the current project is to seismically retrofit the Slauson Avenue Bridge to meet Caltrans Bridge Design Specifications and Seismic Design Criteria.

The proposed seismic retrofit includes the following components:

- Strengthening the abutment backwalls;

- Strengthening Piers 2 through 5 by infilling the space between the double columns with concrete, thereby converting each pair of columns into a single elongated column;

- Installing shear keys between the girders and the caps of Piers 2 through 5 and on top of the abutment walls;

- Installing hinge seat extenders between all deck spans, except at Pier 6; and

- Installing cable restrainers between Spans 1 and 2 near Pier 2.

No modifications are proposed for Piers 6 and 7, as retrofit work on these piers was completed in 2017. The project would not alter the bridge deck or the configuration of the San Gabriel River flood control channel. Additionally, the pier foundations, including those located within the channel, would not be modified. Existing adjacent railroads and utilities, including overhead electrical transmission lines along the eastern side of the channel, would remain in place and be protected during construction. A portion of the San Gabriel River Trail would be temporarily closed during construction, with detours provided to maintain trail connectivity. A description of the project's construction activities is provided below.

Construction Footprint

The construction footprint includes the bridge working area, existing paved access roads along both sides of the river, and nearby vacant parcels that would accommodate temporary field offices, equipment staging, and materials storage. (*See Figure 4: Construction Footprint*.)

Construction Method

Construction of the seismic retrofit would be carried out with minimal disturbance to the San Gabriel River and flood control channel, as no pier foundation work is proposed. Handheld equipment would be used to break existing concrete, followed by drilling and anchoring through existing concrete and steel to install rebar. Concrete infill walls and seat extenders would be framed using wood or metal forms and placed with a concrete pump and boom truck, operating from the bridge deck, trail, or staging area. Forms would remain in place for curing, typically up to seven days.

All work would comply with applicable stormwater regulations, including:

- MS4 Permit Compliance: Order No. R4-2021-0105 (or subsequent orders) for discharges within the Coastal Watersheds of Los Angeles and Ventura Counties.

- Construction General Permit: If applicable, the project would enroll under Order No. 2022-0057-DWQ (Permit No. CAS000002), with development and implementation of a project-specific Storm Water Pollution Prevention Plan (SWPPP).

Construction debris would be contained in accordance with a Debris Containment Plan to be prepared by the contractor and approved by Public Works. No debris would be allowed to fall into the streambed.

The concrete footprint would not increase. All new concrete would be delivered by mixer trucks and temporarily staged on the bridge deck prior to its use. Retrofit work at the piers would occur above ground, while limited abutment work would take place at ground level, more than 15 feet above the river bottom. Vegetation removal is not anticipated.

Staging Areas

Three vacant parcels adjacent to the bridge, all located outside of the river channel and currently non-vegetated, may be used for equipment and materials staging during construction. (*Refer again to Figure 4: Construction Footprint.)*

Access and Scaffolding Platform

The San Gabriel River at the project location has a natural earthen bottom. To install and remove scaffolding platforms, construction workers and rubber-tired equipment (e.g., telescopic manlifts and forklifts) would access the channel using existing paved roads along both riverbanks. Equipment may be brought to the channel floor using the natural slopes on either side of the river or lowered directly from the bridge deck using a crane. No placement of gravel or other materials on the existing riprap would be required. (*See Figure 5: Existing Paved Access Roads on Each Side of the Bridge*).

Only rubber-tired vehicles and construction workers would be permitted in the channel. No equipment would be parked overnight within the streambed; all equipment must be removed from the channel at the end of each workday.

Scaffolding platforms would be suspended above the riverbed, supported by the existing bridge piers. Workers would use rubber-tired basket trucks to reach the riverbed and construct the scaffolding, and to elevate themselves to the platform to perform retrofit work. Once installed, the platforms would allow all remaining work to occur above the waterline.

Construction equipment and materials would be lowered from the bridge deck using a crane. While they may be temporarily placed on the channel bottom before use, no overnight storage in the channel would be allowed.

Use of suspended scaffolding platforms during the dry season eliminates the need for in-channel water diversion. No work would be scheduled during rainy conditions, forecasted precipitation, or when water is present in the channel.

Vehicle, Equipment and Materials

Construction would involve various vehicles and equipment, including hydraulic cranes, telescopic boom forklifts, core drilling machines, jackhammers, air compressors, manlifts, welding machines, and concrete boom pumps. Rebar and materials for column infills would be delivered via tractor-trailers. Concrete would be delivered by mixer trucks, which may be temporarily staged on the bridge deck. Dump trucks would be used to haul waste and debris from the site.

Traffic Control

Although the retrofit work would occur beneath the bridge deck, traffic control would be necessary to remove live loads during construction on the girders. Concrete pump trucks

may be temporarily stationed on the bridge deck, and materials may be lowered from the deck, both requiring temporary traffic control measures. In addition, the adjacent San Gabriel River Trail would require a detour during construction hours, with access restored during non-working hours.

A Traffic Control Plan (TCP) has been prepared and includes signage, flaggers, signal boards, and speed reduction measures. Pedestrian access across the bridge would be maintained, with temporary detours to one side of the bridge when necessary. A portion of the San Gabriel River Trail beneath the bridge would be closed for at least part of the construction period. Trail users would be redirected to parallel streets east of the river, with detour connections at Washington Boulevard to the north and Telegraph Road to the south.

Schedule

Construction is expected to take approximately six months. In-channel activities would be limited to a single dry-season window, from April through October. Work would be conducted during regular daytime weekday hours, in accordance with applicable local regulations. No nighttime or weekend work is anticipated.

C. Government Agency Database Search

A government agency database search was performed to identify historic and current hazardous material users and hazardous waste generators in the project area.

EDR Record Search

Environmental databases were reviewed using an Environmental Data Resources, Inc. (EDR) database search dated June 27, 2024. The purpose of the database review was to identify sites or areas that may be a concern based on the database listing and their distance from the site. The search covered various federal, State, and local, tribal, and EDR proprietary environmental databases relevant to hazardous waste and materials within the site and its surroundings. The search distances followed American Society for Testing Materials (ASTM) Standard Practice for Environmental Site Assessments guidelines and ranged from 0 to 1.0 mile from the project footprint. (Note that sites appear in these databases only if proper reports are made and recorded.)

Table 1 lists the hazardous waste sites found by EDR, and Attachment C contains the EDR Database Search Results. Several sites had violations that are administrative in nature and have been returned to compliance or cleared; these would not necessarily pose hazardous material or hazardous waste concerns to the project. Two facilities were listed with open cases, investigations, or violation notations, including.

- Circle K Stores Inc., located at 8441 South Pioneer Boulevard, approximately 833 feet east of the project footprint. Open leaking underground storage tank (LUST) case under remediation.

- Former Burke Street, located at Burke Street Terminus, approximately 310 feet west of the project footprint. Open Cleanup Program Site – Spills, Leaks, Investigation, and Clean (CPS-SLIC).

None of these facilities have the potential for hazardous material/waste impacts to the project as they are not located within the project footprint and the groundwater is not flowing in the direction toward the project site. The project would not affect these sites because the proposed improvements would be largely confined to the bridge deck.

Table 1: EDR Database-Identified Hazardous Waste Sites within 1.0 Mile Radius from the Project Site

Property Name/Address	Distance from Site (feet)	Database Listing	Database Information	Notes
Omega Chemical Site 12504-12512 East Whittier Boulevard	5,087	NPL, SEMS, CORRACTS, RCRA-TSDF, RCRA-LQG, US ENG CONTROLS, US INST CONTROLS, SWEEPS UST, HIST UST, ROD, RAATS, PRP, EMI	Violations related to reporting, business plan, labeling, and timely disposal.	Violations are administrative in nature and have been cleared.
Burke Street Dump 9799 Burke Street	157	SWF/LF, LA CO LF METHANE	Not reported.	No violations found.
Pedro Torres 10505 Poinciana Street	220	RCRA NonGen/NLR	Not a generator.	No violations found.
Former Burke Street Burke Street Terminus	310	CPS-SLIC	Cleanup Program Site.	Open – Site Assessment.
Steve Martinez 7514 Pico Vista Road	397	RCRA NonGen/NLR	Not a generator.	No violations found.
Lilia Ramos 9733 Planter Street	398	RCRA NonGen/NLR	Not a generator.	No violations found.
Extra Space Storage 9601 Slauson Avenue	478	RCRA NonGen/NLR, E MANIFEST	Universal Waste Destination Facility.	No violations found.
M&M Janitorial Services 10406 Woodhue Street	479	EDR Hist Cleaner	Not reported.	No violations found.
Nancy & Gabriel Rous 9732 Planter Street	529	RCRA NonGen/NLR	Not a generator.	No violations found.
Douglas Jimenez 7804 Sideview Drive	678	RCRA NonGen/NLR	Not a generator.	No violations found.
David Hernandez 8402 Shadyside Avenue	732	RCRA NonGen/NLR, E MANIFEST	Not a generator.	No violations found.
David Santos 9674 Bascom Street	741	RCRA NonGen/NLR, E MANIFEST	Not a generator.	No violations found.
90913 8505 Pioneer Boulevard	773	HIST UST	Not reported.	No violations found.
Trinity Petroleum GR 8505 South Pioneer Boulevard	773	CERS HAZ WASTE, SWEEPS UST, HIST UST, CERS TANKS, UST, RCRA NonGen/ NLR, UST FINDER	Violations related to reporting, business plan, labeling, and timely disposal.	Violations are administrative in nature and have been cleared.

Table 1: EDR Database-Identified Hazardous Waste Sites within 1.0 Mile Radius from the Project Site

Property Name/Address	Distance from Site (feet)	Database Listing	Database Information	Notes
Chevron #9-0913 8505 Pioneer Boulevard	773	LUST, Cortese, HIST CORTESE, CERS, UST FINDER RELEASE	LUST leak reported in 1994.	Case closed in 1996.
Circle K Stores Inc. 8441 South Pioneer Boulevard	833	UST, UST Finder, UST FINDER RELEASE, RCRA NonGen/NLR, E MANIFEST, LUST, Cortese, HWTS, HAZNET, CERS	Universal waste destination facility. LUST leak reported in 2005.	LUST case open for remediation.
Mobil #18-E50 (Former #11-E50) 8441 Pioneer Boulevard South	833	UST FINDER RELEASE, UST, HIST CORTESE, CERS HAZ WASTE, SWEEPS UST, HIST UST, CERS TANKS, LUST, Cortese, CERS, RCRA-SQG	Hazardous waste generator. Violations related to reporting, business plan, labeling, and timely disposal. LUST leak reported in 1987.	Violations are administrative in nature and have been cleared. Case closed in 1999.
Parks Mobil 8441 Pioneer Boulevard	833	RCRA NonGen/NLR	Not a generator.	No violations found.
J. Keraler 8441 Pioneer Boulevard	833	HIST UST	Not reported.	No violations found.
RCH Trucking 9837 Myron Street	1,002	RCRA NonGen/NLR, FINDS, ECHO, PFAS ECHO	Not a generator.	No violations found.
Steve & Yvonne Duran 8015 Clarinda Avenue	1,048	RCRA NonGen/NLR, E MANIFEST	Not a generator.	No violations found.
Donald Maher 8309 Shadyside Avenue	1,048	RCRA NonGen/NLR, E MANIFEST	Not a generator.	No violations found.
Western Corrugated D 8731 Pioneer Boulevard	1,078	RCRA NonGen/NLR, E MANIFEST	Universal waste destination facility.	No violations found.
Alfred Martinez 9632 Myron Street	1,100	RCRA NonGen/NLR	Not a generator.	No violations found.
Well W12	1,158	PFAS	Not reported.	No violations found.
002S012W25G001S	1,165	PFAS WQP	Not reported.	No violations found.
Donna Garcia 9637 Aero Drive	1,181	RCRA NonGen/NLR	Not a generator.	No violations found.
Well W11	1,210	PFAS	Not reported.	No violations found.
Plant No 3 Wells No 9732 Lundahl Drive	1,244	RCRA NonGen/NLR, HWTS, HAZNET	Not a generator.	No violations found.
Woody Rodelo 8603 Danby Avenue	1,245	RCRA NonGen/NLR, E MANIFEST	Not a generator.	No violations found.
Karen Toyoshida 9559 Myron Street	1,252	RCRA NonGen/NLR	Not a generator.	No violations found.
Ros Electrical	1,262	RCRA NonGen/NLR, PFAS ECHO	Universal waste destination facility.	No violations found.

Table 1: EDR Database-Identified Hazardous Waste Sites within 1.0 Mile Radius from the Project Site

Property Name/Address	Distance from Site (feet)	Database Listing	Database Information	Notes
9529 Slauson Avenue				
Crystal Solis 9723 Shade Lane	1,291	RCRA NonGen/NLR, E MANIFEST	Universal Waste Destination Facility	No violations found.
Cubework 8741 Pioneer Boulevard	1,312	RCRA NonGen/NLR	Not a generator.	No violations found.
Rivera Road 345	1,722	LA CO LF METHANE	Not reported.	No violations found.
Rivera Road 9400 East Rivera Road	1,751	WMUDS/SWAT, ENVIROSTOR, SWF/LF	Not reported.	No violations found.
ACE Industries 8839 Pioneer Boulevard South	1,838	UST FINDER RELEASE, LUST, Cortese, CERS	LUST leak reported in 1989	Case closed in 1997.
Turbine Engines Components Tech 8839 Pioneer Boulevard	1,838	HIST UST, HIST CORTESE, NPDES, WDS, CIWQS, CERS	Not reported.	No violations found.
Agricultural Property Slauson Avenue	1,903	LUST, Cortese, HIST CORTESE	LUST leak reported in 1989.	Case closed in 1990.
Miller Family Estate 8448 Millergrove Drive	1,903	UST FINDER RELEASE	Not reported.	No violations found.
Custom Chemical Form 8707 Millergrove Drive	1,979	ENVIROSTOR, HWTS, HAZNET	Not reported.	No violations found.
Morgan Gallacher Inc. 8707 Millergrove Drive	1,979	CPS-SLIC, HIST CORTESE, NPDES, CIWQS, CERS	CPIS-SLIC leak reported in 1990.	Case closed in 1997.
USG CORP. & DAP/WILH 8707 Millergrove Drive	1,979	LUST, CERS, CPS-SLIC	LUST leak reported in 1990.	Case closed in 1996.
Los Nietos and San Gabriel River	2,101	WMUDS/SWAT	Not reported.	No violations found.
Gabriel Container Co. 8844 Millergrove Drive	2,317	LUST, Cortese, HIST CORTESE, CERS, UST FINDER RELEASE	LUST leak reported in 1990.	Case closed in 1993.
Pico Rivera Plating Inc. 9307 Bermudez Street	2,445	RCRA-LQG, ENVIROSTOR, HIST UST, EMI, WDS, CERS, E MANIFEST	Large quantity generator	Compliance evaluation inspection and records/reporting violations found but are administrative in nature.
Former Shell Station 10800 Benavon Street	2,461	HIST CORTESE	Not reported.	No violations found.
Pioneer High School 10800 Benavon Street	2,461	ENVIROSTOR, SCH, CIWQS, CERS	Not reported.	No violations found.
Jersey Avenue Elementary 9400 Jersey Avenue	4,668	ENVIROSTOR, SCH	Not reported.	No violations found.
All Pure Chemical Co	4,678	ENVIROSTOR, WDS	Not reported.	No violations found.

Table 1: EDR Database-Identified Hazardous Waste Sites within 1.0 Mile Radius from the Project Site

Property Name/Address	Distance from Site (feet)	Database Listing	Database Information	Notes
11600 Pike Street				
The Atchison, Topeka & Santa Fe Railway Near 7427 Rosemead Boulevard	4,792	ENVIROSTOR	Not reported.	No violations found.

Source: EDR, 2024

Notes: CERS – California Environmental Reporting System; CHMIRS – California Hazardous Material Incident Report System; CIWQS – California Integrated Water Quality System; Cortese – "Cortese" Hazardous Waste & Substances Sites List; DRYCLEANERS – Cleaner Facilities; ECHO – Enforcement and Compliance History Information; EDR Hist Cleaner – EDR Exclusive Historic Cleaners; EMI – Emissions Inventory Data; EnviroStor – Site Mitigation and Brownfields Reuse Program's EnviroStor database; FINDS – Facility Index System/Facility Registry System; Haznet – Facility and Manifest Data; Haz Waste – Hazardous Waste; HIST Cortese – Hazardous Waste & Substance Site List; HMS – Street Number List; HWTS – Hazardous Waste Tracking System; LA Co – Los Angeles County; LQG – Large Quantity Generator; LUST – Leaking Underground Storage Tank; NonGen – Non-Generator; NLR – No Longer Regulated;, NPDES – National Pollutant Discharge Elimination System; PFAS – per- and polyfluoroalkyl substances; RCRA – Resource Conservation and Recovery Act; SQG – Small Quantity Generator; SWEEPS – Statewide Environmental Evaluation and Planning System; UST – Underground Storage Tank

GeoTracker and EnviroStor Databases

Review of the GeoTracker database has identified several cases of LUST and cleanup program sites within 1.0 mile of the site, as shown in Table 2, but most of which have their cases closed, except for Circle K#2211211/Former Mobil Oil #18-E50 and Former Burke Street Landfill Site. These two open cases are located within 0.5 mile of the project site, but soil and/or groundwater contamination from these sites are not expected to have migrated to the site because they are located downstream of the project site and the project would involve retrofitting of the bridge deck. Thus, these sites would not have the potential to pose any hazards to the project.

A review of the EnviroStor list revealed seven results within 1.0 mile of the project site (see Table 3). Five out of the seven sites, including Rivera Road Indiscrimnant Dump, Custom Chemical Formulators Inc, Pioneer High School, Jersey Avenue Elementary School, and All Pure Chemical Company, require no further investigation.

The Pico Rivera Plating, Inc. (9307 Bermudez Street, Pico Rivera) record reveals the site has been under investigation since 1996. Elevated levels of copper, lead, zinc, and total petroleum hydrocarbons were reported. The current cleanup status states inactive and needs evaluation as of December 2, 2023. This site is located about 0.46 mile west of the project site. The Atchison, Topeka & Santa Fe Railway (near 7427 Rosemead Boulevard, Pico Rivera) was listed as having potential concern of lead contamination. The nonemergency Hazardous Substance Release Report was reported on March 14, 1994. This site is located approximately 0.91 mile northwest of the project site. These facilities do not have the potential for hazardous material/waste impacts to the project as they are not located within the project footprint and the groundwater is not flowing in the direction toward the project site. The project would not affect these sites because the proposed improvements would be largely confined to the bridge deck.

Table 2: GeoTracker Sites within 1.0 Mile of the Site

Site Name (Case No.)	Address/Location	Program Listing	Potential Contaminants of Concern	Potential Media of Concern	Case Status
ACE Industries (T0603703119)	8839 Pioneer Boulevard South, Santa Fe Springs	LUST Cleanup Site	Waste Oil/Motor/ Hydraulic/Lubricating	Aquifer used for drinking water supply	Completed – Case Closed as of 4/25/1997
AT & SF Railway CO. (T0603704429)	7600 Rosemead Boulevard, Pico Rivera	LUST Cleanup Site	Waste Oil/Motor/ Hydraulic/Lubricating	Soil	Completed – Case Closed as of 9/14/1994
Chevron #9-0913 (Former) (T0603702809)	8505 Pioneer Boulevard South, Whittier	LUST Cleanup Site	Gasoline	Soil	Completed – Case Closed as of 8/26/1996
Chevron #9-7799 (Former) (T0603703242)	9337 Washington Boulevard East, Pico Rivera	LUST Cleanup Site	Gasoline	Soil	Completed – Case Closed as of 7/19/1996
Circle K #2211211/ Former Mobil Oil #18-E50 (T0603782444)	8441 Pioneer Boulevard. South, Whittier	LUST Cleanup Site	Gasoline	Aquifer used for drinking water supply	Open – Remediation as of 2/15/2013
Econo Lube N Tune (T0603766674)	7801 Rosemead Boulevard South, Pico Rivera	LUST Cleanup Site	Waste Oil/Motor/ Hydraulic/Lubricating	Soil	Completed – Case Closed as of 4/10/2018
Former Burke Street Landfill Site (T10000012553)	Burke Street Terminus at San Gabriel River	Cleanup Program Site	Lead, Total Petroleum Hydrocarbons (TPH)	Aquifer used for drinking water supply, soil, soil vapor	Open – Site Assessment as of 1/10/2019
G & M Oil #58 (T0603793016)	9157 Slauson Avenue East, Pico Rivera	LUST Cleanup Site	7664417	Aquifer used for drinking water supply	Completed – Case Closed as of 8/25/2016
Gabriel Container Co. (T0603703319)	8844 Millergrove Drive South, Santa Fe Springs	LUST Cleanup Site	Diesel	Soil	Completed – Case Closed as of 6/30/1993
Goodyear Tire Center (T0603702729)	9234 Slauson Avenue East, Pico Rivera	LUST Cleanup Site	Waste Oil/Motor/ Hydraulic/Lubricating	Soil	Completed – Case Closed as of 10/15/1992
GTE (T0603705116)	9317 Washington Boulevard, Pico Rivera	LUST Cleanup Site	Aviation	Soil	Completed – Case Closed as of 10/20/1997
Lee's Car Wash (T0603774981)	9411 Washington Boulevard East, Pico Rivera	LUST Cleanup Site	Gasoline	Soil	Completed – Case Closed as of 2/6/2007

Site Name (Case No.)	Address/Location	Program Listing	Potential Contaminants of Concern	Potential Media of Concern	Case Status
Mobil #18-E50 (Former #11-E50) (T0603702748)	8441 Pioneer Boulevard South, Whittier	LUST Cleanup Site	Gasoline	Aquifer used for drinking water supply	Completed – Case Closed as of 6/30/1999
Mobil #18-FDR (Former) (T0603704568)	9332 Washington Boulevard East, Pico Rivera	LUST Cleanup Site	Waste Oil/Motor/ Hydraulic/Lubricating	Soil	Completed – Case Closed as of 11/5/2004
Northwest Transport Service (T0603704238)	7925 Rosemead Boulevard, Pico Rivera	LUST Cleanup Site	Gasoline	Soil	Completed – Case Closed as of 11/17/1994
Southern Ca Gas Co (T0603702939)	8101 Rosemead Boulevard South, Pico Rivera	LUST Cleanup Site	Waste Oil/Motor/ Hydraulic/Lubricating	Soil	Completed – Case Closed as of 7/31/1991
USG Corp (SL204721662)	8707 South Millergrove Drive, Santa Fe Springs	Cleanup Program Site	None specified	None specified	Completed – Case Closed as of 12/1/1998
USG Corp. & DAP/Wilhold (T0603703222)	8707 Millergrove Drive South, Santa Fe Springs	Cleanup Program Site	Acetone	Soil	Completed – Case Closed as of 7/31/1997
Vic's Arco (T0603703956)	9451 Telegraph Road East, Pico Rivera	LUST Cleanup Site	Waste Oil/Motor/ Hydraulic/Lubricating	Soil	Completed – Case Closed as of 9/28/1993
Econo Lube N Tune (T0603766674)	7801 Rosemead Boulevard South, Pico Rivera	LUST Cleanup Site	Waste Oil/Motor/ Hydraulic/Lubricating	Soil	Completed – Case Closed as of 4/10/2018

Source: GeoTracker, 2024.
Notes: LUST – Leaking Underground Storage Tank

Table 3: EnviroStor Sites within 1.0 Mile Radius from the Project Site

Property Name/Address	Distance from Site (feet)	Cleanup Status	Potential Contaminants of Concern
Rivera Road Indiscrimnant Dump 9400 East Rivera Road, Pico Rivera	1,751	No action required as of 5/18/2009	Under investigation
Custom Chemical Formulators Inc. 8707 Millergrove Drive, Santa Fe Springs	1,979	No action required as of 11/13/2000	None specified
Pioneer High School 10800 Benavon Street, Whittier	2,461	No further action as of 2/20/2014	Arsenic lead, organic (tetraethyl lead) organochlorine pesticides
Jersey Avenue Elementary School 9400 Jersey Avenue, Santa Fe Springs	4,668	No further action as of 1/19/2017	Lead, TPH-diesel
All Pure Chemical Co 11600 Pike Street, Santa Fe Springs	4,678	Refer: other agency as of 3/1/1984	None specified
Pico Rivera Plating Inc. 9307 Bermudez Street, Pico Rivera	2,445	Inactive – needs evaluation as of 12/27/2023	None specified
The Atchison, Topeka & Santa Fe Railway Near 7427 Rosemead Boulevard, Pico Rivera	4,792	Refer: RCRA as of 4/18/1994	Lead, uncategorized
Source: EnviroStor, 2024			

Oil and Gas Wells

Review of the California Department of Conservation, Geologic Energy Management Division's (CalGem) Well Finder shows that the nearest oil or gas well is a plugged dry hole oil and gas well of the Union Oil Company of California, which is located approximately 0.65 mile southeast of the project site. The project would not affect this well, and the well would not pose hazards to the project.

Pipelines

Review of the National Pipeline Mapping System shows no hazardous material pipeline passing through Slauson Avenue. The nearest pipeline is the natural gas distribution line that runs along the UPRR track, located approximately 0.1 mile south of the project site. The Southern California Gas (SCG) Company's Gas Transmission Pipeline Interactive Map confirms this information. The project would not affect this pipeline, and the pipeline would not pose hazards to the project.

D. Review of Historical Land Uses

Historic aerial photographs, historic topographic maps, and historic City directory files were reviewed to identify historic land use information pertinent to the site (Sanborn Fire Insurance Map files are not available for the project area). These identified structures, land alterations, and activities present on and near the site in the past and infer past land uses on and near the site. The purpose of these reviews was to identify potential historical contaminant sources that could have adversely affected the project site.

Historic Aerial Photographs

Review of the historic aerial photographs from 1928 to 2020 shows that from1928 to 1947, the project area was mostly undeveloped with Slauson Avenue and BNSF railroad tracks over the San Gabriel River present. There were agricultural fields present north and south of Slauson Avenue. By 1953, the residential tracts near the project site had been constructed, and additional scattered structures were present in the surrounding area. In 1963, the alignment of Slauson Avenue roadway was modified and became more defined over the San Gabriel River, and additional residential tracts and structures appeared farther south of the site.

By 1970, I-605 was developed to the east, as well as a UPRR loop. The surrounding area remained relatively unchanged in 1977. By 1981, additional structures appeared in the UPRR loop just southeast of the project site. In 1989, a storage facility and industrial warehouses were constructed south of the BNSF tracks and east of the project site. By 1994, the structures within the UPRR loop had been removed. In 2002, a storage facility was constructed southeast of the project site. The project area remained relatively the same from 2002 to 2020.

Historic Topographic Maps

Review of the historic topographic maps of the project area from 1896 to 2021 shows that a roadway and Santa Fe railroad had been built and intersected/ran perpendicular to the San Gabriel River in 1896. By 1923, the Pacific Electric railroad had been built south of the project site, and the Santa Fe railroad had been renamed as Atchison Topeka Santa Fe railroad. By 1942, surrounding roadways became more defined, and new residential tracts and agricultural lands appeared in every direction from the project site. From 1949 to 1951, additional residential properties started to appear in the surrounding area. by 1965, multiple residential tracts and structures appeared in the surrounding area. Slauson Avenue had been modified, and I-605 had been constructed to the east of the project site. In 1972, the UPRR loop was constructed southeast of the project site. The surrounding area remained relatively unchanged from 1974 to 2021; as only the developing street network in the area are shown in the maps.

City Directories

Twelve (12) directories by Cole Information, Haines Criss-Cross Directory, InfoUSA, Polk, Bresser, Stewart, General Telephone Company, and the EDR Digital Archive covering a 54-year period from 1966 to 2020 were reviewed. Adjacent and nearby properties were not extensively listed in the directories, with several listings as individual names (i.e., providing no information of the development or land use). Past uses of concern in these directories include auto service and repair shops, medical services, chemical suppliers, and small-scale machining and manufacturing uses (Table 4).

Table 4: Properties of Concern Listed in City Directories

Business	Address	Years of Occupation
Southern CA Material Handling	8314 Slauson Avenue	2005–2020
Sunbelt Rentals Aerial Work	8314 Slauson Avenue	2020
Amerigas Propane Exchange	8451 Slauson Avenue	2020

Table 4: Properties of Concern Listed in City Directories

Business	Address	Years of Occupation
Gava's Rooter & Plumbing Inc	9024 Slauson Avenue	2020
Cheap Heating & Air Conditioning	9118 Slauson Avenue	2020
Pico Rivera Animal Hospital	9221 Slauson Avenue	1982–2020
Alta Medical Health Service Corp.	9414 Slauson Avenue	2005–2020
Alta Med Medical Group	9436 Slauson Avenue	2020
Ros Electrical Supply & Equipment Co.	9529 Slauson Avenue	2010–2020
Lulu Electrical Supplies	9541 Slauson Avenue	2020
Auto Glass Repair Pico Rivera	9587 Slauson Avenue	2020
Great Western Building	8542 Slauson Avenue	2010–2014
AL American Asphalt	9101 Slauson Avenue	2014
Chevron Station Extra Mile Pico Rivera	9157 Slauson Avenue	2014
Goodyear Tire Center	9234 Slauson Avenue	1976–1995
Radiographic Imaging	9435 Slauson Avenue	1992–2014
Cobe Chem Labs	8616 Slauson Avenue	2005–2010
A&H Freight Distribution	8640 Slauson Avenue	2010
Southern California Gas Co	8730 Slauson Avenue	2005–2010
Rose Slauson Animal Hospital	9024 Slauson Avenue	2005–2010
ALS Complete Auto Repair	9133 Slauson Avenue	2010
76 Circle K	8451 Slauson Avenue	2005
Consolidated Welding School Inc	8510 Slauson Avenue	2005
Withrow Pharm & Health Spc Lab	8616 Slauson Avenue	2005
Ernies Swimming Pool Supplies	9050 Slauson Avenue	1992–2005
Campbell Motor Supply	9123 Slauson Avenue	2005
Auto Shift & Engine Corp	9133 Slauson Avenue	2005
Top Bear Transmission & Engine Rebuild	9133 Slauson Avenue	2005
Bay Engine & Parts Co	8830 Slauson Avenue	1976–2000
Duke Schneider Truck Washing	8830 Slauson Avenue	1995–2000
Engs Motor Truck Co	8830 Slauson Avenue	1972–2000
Hercules Engine & Parts Co	8830 Slauson Avenue	1976–2000
Campbell Motor Supply	9123 Slauson Avenue	1992–1995
Santo Tomas Medical Clinic	9325 Slauson Avenue	1995
Chief Auto Parts	9448 Slauson Avenue	1972–1995
Los Nietos Auto Parts	11528 Slauson Avenue	1995
VIP Mortuary Service	8510 Slauson Avenue	1995
Spring Auto Care	11515 Slauson Avenue	1987–1992
General Medical Clinic	11910 Slauson Avenue	1987
Weiner Steel Corp	5200 Slauson Avenue	1966–1987
Express Auto Parts	9025 Slauson Avenue	1987
N A P A Auto Parts	11720 Slauson Avenue	1982–1987
Mr Iron & Welding Workshop	11505 Slauson Avenue	1987
Republic Geothermal	11923 Slauson Avenue	1987

Table 4: Properties of Concern Listed in City Directories

Business	Address	Years of Occupation
RLG Construction	11921 Slauson Avenue	1987
Sissells Automotive	10829 Slack Rd	1982
Alphe Steel Tube	5333 Slauson Avenue	1982
Saxony Metals Inc	5333 Slauson Avenue	1982
Republic Steel	5424 Slauson Avenue	1976–1982
Greer Machinery	5523 Slauson Avenue	1982
Ditto Freight Lines	5568 Slauson Avenue	1982
Cold Metal Products	6729 Slauson Avenue	1982
TowMotor Sales & Service	6403 Slauson Avenue	1976–1982
CA Metal Enameling	6904 Slauson Avenue	1976–1982
Atlas Testing Labs	6929 Slauson Avenue	1976–1982
Hydrocoil Inc	7020 Slauson Avenue	1982
Aquila Aluminum Corp	7421 Slauson Avenue	1982
Raymond Aluminum	7421 Slauson Avenue	1982
Donley Battery Corp	7521 Slauson Avenue	1976–1982
Weiner Steel Corp	8200 Slauson Avenue	1982
Morton Chemical Co	11733 Slauson Avenue	1966–1982
All Alloy Cutting	11803 Slauson Avenue	1982
Longo Engineering	11805 Slauson Avenue	1982
Montgomery Engineering & MFG	11805 Slauson Avenue	1982
Gregg Manufacturing	11809 Slauson Avenue	1982
Impact Manufacturing	11809 Slauson Avenue	1976–1982
Roma Engineering	11809 Slauson Avenue	1982
Beaver Machine Engineering	11809 Slauson Avenue	1976–1982
Oelke Machine Works	11813 Slauson Avenue	1982
Fergusons Machine	11823 Slauson Avenue	1982
AM Pacific Electric	12015 Slauson Avenue	1982
KEM Electric Inc	12015 Slauson Avenue	1982
Metal Consultants International	12345 Slauson Avenue	1976
Good Steel Service	5333 Slauson Avenue	1976
Hitachi Metals America	5900 Slauson Avenue	1976
Harshaw Chemical	6729 Slauson Avenue	1976
Baker Oil Tools	7400 Slauson Avenue	1976
Blastcrete Equip Co	7457 Slauson Avenue	1976
A&R Diesel Service	7515 Slauson Avenue	1976
Golden West Steel	90640 Slauson Avenue	1976
Machine Arts MFG	11705 Slauson Avenue	1966–1976
Abar Grinding Co	11709 Slauson Avenue	1976
So Calif Salvage	11726 Slauson Avenue	1976
Thrifty Pool Mart	11524 Slauson Avenue	1972
Payless Oil Co	9157 Slauson Avenue	1966

Table 4: Properties of Concern Listed in City Directories

Business	Address	Years of Occupation
Source: EDR-City Directory Abstract, 2024.		

The City directories show that there were no potential hazardous material users and hazardous waste generators that occupied the parcels along Slauson Avenue near the San Gabriel River Bridge. Goodyear Tire Center, which the GeoTracker database identifies as a closed case LUST site, was listed in City directories from 1976 to 1995, and is approximately 0.5 mile from the project site. All other City Directory listings are not included in the GeoTracker database or EDR database search. However, when considered with the historic aerial photographs, these potential hazardous material users/generators appear to have been operating within enclosed buildings. Also, none of these users (some of which are listed in government databases) are under investigation or remediation, nor are they known to have resulted in any soil or groundwater contamination in the project area. The project would not affect these uses, and these uses would not pose hazards to the project.

E. Field Survey

A reconnaissance survey was conducted to determine if hazardous material containers, storage areas, structures, pipelines, and other hazardous wastes are present within and near the project footprint and for signs of potential contamination (e.g., spills, leaks, oil sheen, surface staining, odors, and vegetation damage). The survey was completed on July 12, 2024, by Brian Upchurch, Parsons Environmental Planner.

Slauson Avenue is a four-lane bridge that is composed of seven spans and contains two abutments, and six piers spanning across the San Gabriel River. Aside from the San Gabriel River, two railroad companies own and operate the railroad tracks located adjacent to the Slauson Avenue Bridge. UPRR owns and operates the tracks located on the east side of the river, which runs in the north-south direction underneath the bridge. BNSF owns the tracks that run in the east-west direction underneath the bridge crossing the river just immediately north of the Slauson Avenue Bridge. These railroad tracks have been leased to Metrolink/SCRRA and used by Metrolink trains.

Along the east side of the San Gabriel River west of the UPRR tracks, a recreational trail/bike path is located underneath the bridge. A paved access road also runs along the west side of the river.

Areas to the northeast, southeast, and southwest of Slauson Bridge consist of vacant land, with single-family residential tracts farther northeast and southwest and a self-storage facility farther southeast. To the northwest is also a self-storage facility between Slauson Avenue and the BNSF railroad tracks and a single-family residential tract north of the railroad tracks.

Site photos that document potential hazardous material concerns in the area are presented in Attachment B. Several wooden utility poles appear near the access path east of the project site, some with transformers that are mounted on top of the wooden

poles (see Photos 1 and 2). In addition, there are transmission towers along the eastern edge of the San Gabriel River, both north and south of Slauson Avenue (see Photos 1, 2, and 8). Some oil staining along the Slauson Avenue Bridge was observed (see Photo 3). Piles of trash and concrete debris were observed east of the San Gabriel River (see Photo 4). Several aboveground and underground utility boxes are located within and adjacent to the project footprint, including traffic signal, railroad tracks, stormwater and sewage manholes, and other unmarked utility cabinets (see Photos 5, 6, 7, 8, and 9).

F. Conclusions and Recommendations

Historic and existing hazardous material users or hazardous waste generators located near the Slauson Avenue Bridge over San Gabriel River and BNSF railroad crossing do not pose hazards to the project, and these uses would not be affected by the project. In addition, no significant soil staining was observed in the project area, except for minor spots on the Slauson Avenue Bridge. The following hazardous material concerns are determined to have the potential to affect the project or be affected by the project.

- *Heavy metals in soils near railroad tracks* – Railroad tracks are generally associated with the presence of heavy metals in the surrounding soils that may pose hazards to the construction crew. Soil disturbance within the railroad right-of-way shall comply with California Division of Occupational Safety and Health (CalOSHA) regulations to prevent safety hazards to the crew. However, no soil disturbance near the railroad tracks is proposed by the project.

- *Creosote treated wooden poles and wooden railroad ties* – The wooden utility poles and wooden railroad ties may be coated with creosote and, if planned for removal or relocation, would need to be tested and properly disposed if determined to be treated wood waste (TWW). At the same time, no wooden utility poles are proposed for alteration, removal, or relocation.

- *Pole-mounted transformers* – Transformers may contain polychlorinated biphenyls (PCBs) and, if transformer-bearing poles would be relocated or removed, the presence of PCBs would have to be confirmed to determine proper handling, removal, and disposal measures. Also, no pole-mounted transformers on wooden utility poles are proposed for alteration, removal, or relocation.

- *Utility boxes and vaults* – The utility boxes and vaults may contain hazardous materials, such as PCB ballasts, fluorescent or mercury lamps, mercury timers, switches, and sensors, and disturbance of the boxes/vaults may lead to the unintended release of hazardous materials. If any are planned for relocation or removal, the presence of hazardous materials would have to be confirmed to determine proper handling, removal, and disposal measures. However, no disturbance of utility boxes or vaults is proposed by the project.

Based on the nature of the project, which only involves retrofitting work on the bridge deck, no disturbance to the soils near the railroad track is anticipated. In addition, no removal or relocation of wooden utility poles and wooden railroad ties would be required.

Should any of the above-mentioned facilities with hazardous materials be disturbed, removed, or replaced as part of the project, compliance with existing regulations regarding the handling, storage, transport, and disposal of specific hazardous materials would have to be implemented. To avoid and/or reduce impacts related to hazardous materials and hazardous wastes, compliance with existing regulations through the following standard conditions are recommended:

- In compliance with the California Government Code Title 1, Division 5, Chapter 3.1, Protection of Underground Infrastructure, prior to any ground disturbance, the contractor shall notify the Underground Service Alert center to identify underground lines in and near the construction site and subsequently coordinate with affected local utility agencies and companies to delineate their utility lines in the field and provide measures to be followed to avoid any disturbance or destruction of the lines.

- All hazardous materials and wastes shall be handled and disposed of in accordance with applicable federal, state, and local regulations, including South Coast Air Quality Management District (SCAQMD) Regulations.

- Any contaminated material (i.e., soil, asphalt, concrete, railroad ballast, trash fill, or debris) that is to be hauled off the site is considered a "waste product" and must be classified as hazardous or nonhazardous waste under all criteria by both California and Federal Codes before disposal. If the waste soil or other material is determined hazardous, a hazardous waste manifest will be prepared by the Contractor or its qualified representative, and the material will be transported to an appropriate class of facility for recycling or landfill disposal by a registered hazardous material transporter. If the soil is nonhazardous but still exceeds levels that can be returned to the excavation or is not needed on the site, a less costly nonhazardous transporter and soil recycling facility shall be used if no hazardous constituents are present above their respective action levels.

- Should soil excavation be necessary and stained, discolored, or odorous soils are encountered, these soils shall be tested in the field by the Contractor or qualified environmental subcontractor with an organic vapor analyzer (OVA) for volatile components, which require additional considerations in their handling and disposal. Soil with OVA readings exceeding 50 parts per million (ppm) volatile organic compounds (probe held 3 inches from the excavated soil face), or which is visibly stained or has a detectable petrochemical odor shall be stockpiled by the Contractor separately from non-contaminated soils. If volatile compounds are present at concentrations exceeding 50 ppm, the AVAQMD Rule 1166 permit will be required and followed, which may require control of vapor, such as covering the stockpiles with plastic sheeting or wetting with water or a soap solution.

Implementation of these measures for compliance with existing regulations would avoid hazardous material and hazardous waste impacts from project construction.

G. Preparers

Anne Kochaon, Program Manager/QA/QC Manager

Josephine Alido, Principal Planner

Brian Upchurch, Environmental Planner

ATTACHMENT A: FIGURES

Figure 1 – Project Location Map

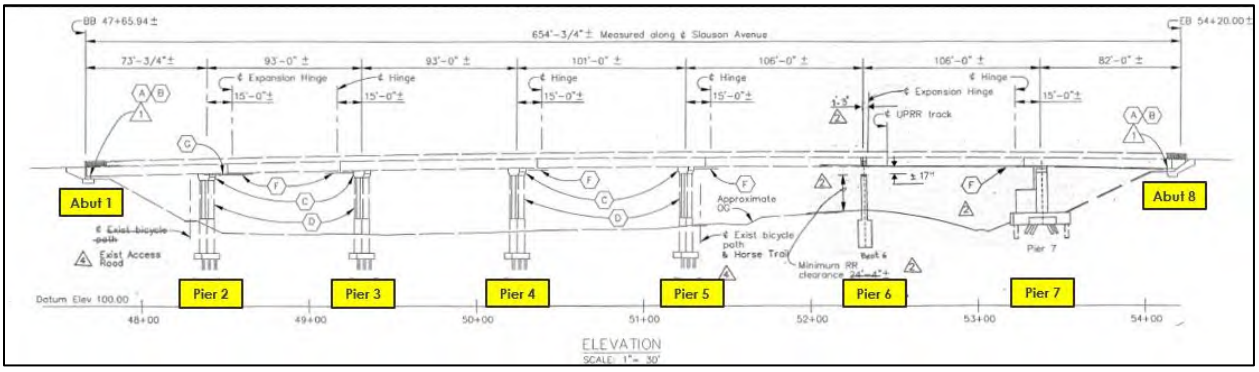

Figure 2 – Existing Slauson Bridge Configuration

Figure 3 – Aerial View of the Project Area

Figure 4 – Construction Footprint

(East Side)

(West Side)

Figure 5 – Existing Paved Access Roads on Each Side of the Bridge

ATTACHMENT B: SITE PHOTOS

Photo 1: Transformer on wooden pole adjacent to access path
on eastern side of the project, facing west.

Photo 2: Transmission tower and wooden poles
adjacent to access path on eastern side of project site, facing north.

Photo 3: Light oil staining along western side of Slauson Avenue, facing east.

Photo 4: Pile of waste along eastern edge of San Gabriel River, facing west.

Photo 5: Storm drain manhole along western edge of San Gabriel River, facing southwest.

Photo 6: Sewage manhole on western edge of project site near staging area, facing north.

Photo 7: Utility cabinets east of the project site adjacent to I-605 on-ramp.

Photo 8: Transmission tower and Metrolink/SCRRA equipment cabinet south of the project site, facing west.

Photo 9: Metrolink/SCRRA equipment cabinet west of the project site, facing northeast.

Photo 10: View of San Gabriel River facing east

Photo 11: View of Slauson Avenue, facing east.

ATTACHMENT C: EDR DATABASE SEARCH RESULTS

Available Upon Request.

Appendix F
Noise Measurement Data

FIELD SURVEY FORM

PROJECT: Slauson Ave. over SGR Retrofit Project	ENGINEER: G. Berg	DATE: 9/12/24
MEASUREMENT ADDRESS: 7646 Pico Vista Rd	CITY: Pico Rivera	☒ Single-Family ☐ Multi-Family ☐ School ☐ Recreational ☐ Commercial ☐ Church
		SITE NO.: ST1

SOUND LEVEL METER: ☐ LD-870 ☐ LD-820 ☐ LD-LxT ☒ LD-824 ☐ LD-812 ☐ B&K-2250 ☐ LD-2900 ☐ _____
SERIAL #: 0824

MICROPHONE: ☐ NON-POLAR ☒ POLARIZED ☒ 1/2-INCH ☐ FREEFIELD ☐ 1-INCH ☐ RANDOM ☒ WIND SCREEN
SERIAL #: 52820

PRE AMP: ☐ LD-900 ☐ LD-LxT ☐ LD-828 ☐ ZC-0032 ☒ LD-902 ☐ _____
SERIAL #: 3274

CALIBRATOR: ☒ LD CA250 ☐ LD CA200 ☐ B&K 4231 ☐ _____
S/N 2127
Freq, Hz. ☒ 250 ☐ 1000 ☐ 84 ☐ _____

CALIBRATION RECORD: Input, dB / Reading, dB / Offset, dB / Time
Before 114.0, 114.0, –, 7:24
After 114.0, 113.9, –, 11:42

METER SETTINGS: ☒ A-WTD ☐ C-WTD ☐ LINEAR ☐ IMPULSE ☒ SLOW ☐ FAST ☐ 1/1 OCT ☐ 1/3 OCT ☒ INTERVALS 15 - MINUTE ☒ L_N PERCENTILE VALUES

NOTES:
SYSTEM PWR: ☒ BAT ☐ AC
(observations during measurement)
TEMP: 64 °F R.H.: 77 %
WIND SPEED: 2 MPH
TOWARD (DIR): _____
SKIES: Cloudy
CAMERA Phone
☐ VIDEO ☐ RADAR

NOTES:
8:03 Metro 11:22 – 11:24 Freight
8:09 Metro 11:39 Metro

MEASUREMENT TYPE: ☐ Long Term ☒ Short Term

DATE	START TIME	STOP TIME	L_{MIN}	L_{99}	L_{90}	L_{50}	L_{25}	L_{10}	L_{01}	L_{MAX}	L_{EQ}	NOTES:
9/12	8:00	8:15	52.8	54.9	57.7	60.9	–	65.6	75.2	84.4	65.3	#172
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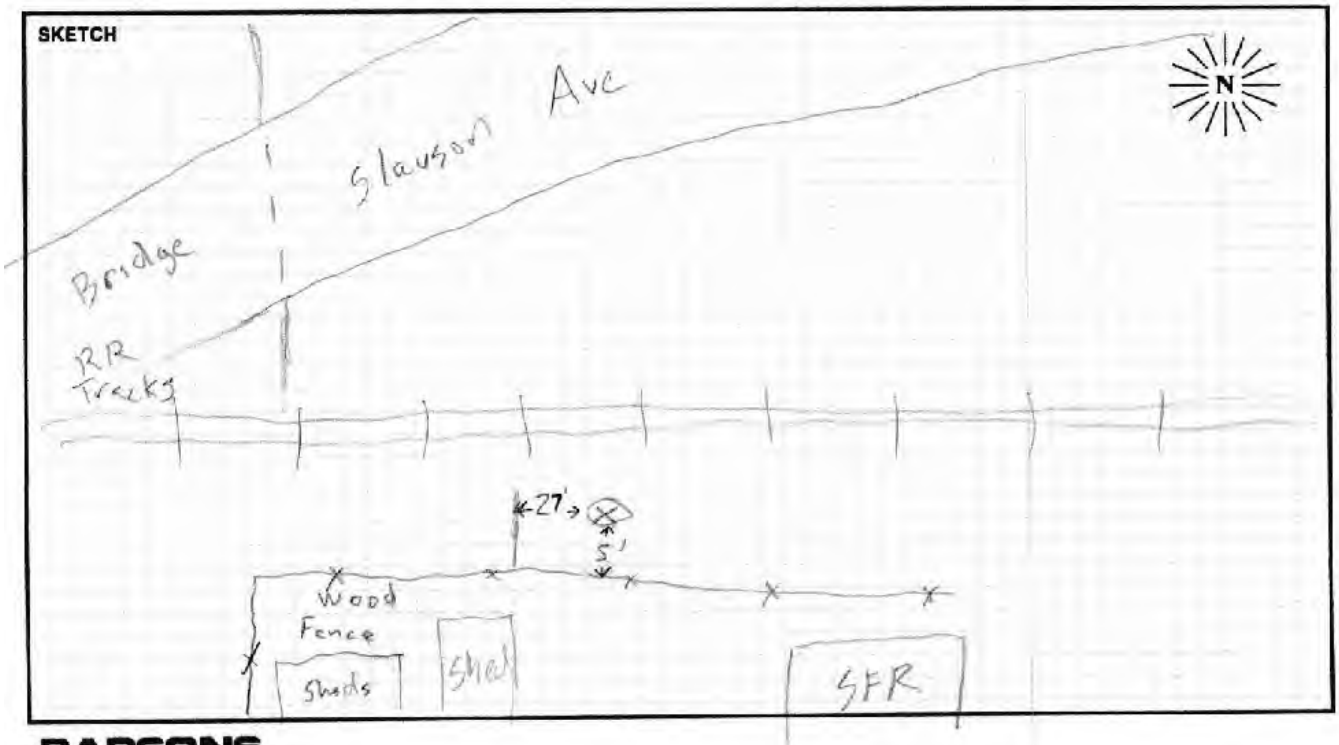

PARSONS

SHORT-TERM MEASUREMENT SITE 1

FIELD SURVEY FORM

PROJECT: Slauson Ave. over SGR Retrofit Project		ENGINEER: G. Berg	DATE: 9/12/24
MEASUREMENT ADDRESS: 8491 Shadyside Ave	CITY: Whittier	☒ Single-Family ☐ Multi-Family ☐ School ☐ Recreational ☐ Commercial ☐ Church	SITE NO.: ST2

SOUND LEVEL METER:
☐ LD-870 ☐ LD-820 ☐ LD-LxT
☒ LD-824 ☐ LD-812 ☐ B&K-2250
☐ LD-2900 ☐ _____
SERIAL #: 0824

MICROPHONE:
☐ NON-POLAR ☒ POLARIZED
☒ 1/2-INCH ☐ FREEFIELD
☐ 1-INCH ☐ RANDOM
☒ WIND SCREEN
SERIAL #: 52820

PRE AMP:
☐ LD-900 ☐ LD-LxT
☐ LD-828 ☐ ZC-0032
☒ LD-902 ☐ _____
SERIAL #: 3274

NOTES:
SYSTEM PWR: ☒ BAT ☐ AC
(observations during measurement)
TEMP: 71 °F R.H.: 62 %
WIND SPEED: 2 MPH
TOWARD (DIR): _____
SKIES: _____
CAMERA _____
☐ VIDEO ☐ RADAR

CALIBRATOR:
☒ LD CA250 ☐ LD CA200
☐ B&K 4231 ☐ _____
S/N 2127
Freq, Hz.
☒ 250
☐ 1000
☐ 84
☐ _____

CALIBRATION RECORD:
Input, dB / Reading, dB / Offset, dB / Time
Before 114.0, 114.1, –, 10:34
After 114.0, 104.1, –, 11:42

METER SETTINGS:
☒ A-WTD ☐ LINEAR ☒ SLOW ☐ 1/1 OCT ☒ INTERVALS 15 - MINUTE
☐ C-WTD ☐ IMPULSE ☐ FAST ☐ 1/3 OCT ☒ L_N PERCENTILE VALUES

NOTES:
9:48 Metro

MEASUREMENT TYPE:
☐ Long Term
☐ Short Term

DATE	START TIME	STOP TIME	L_{MIN}	L_{99}	L_{90}	L_{50}	L_{25}	L_{10}	L_{01}	L_{MAX}	L_{EQ}	NOTES:
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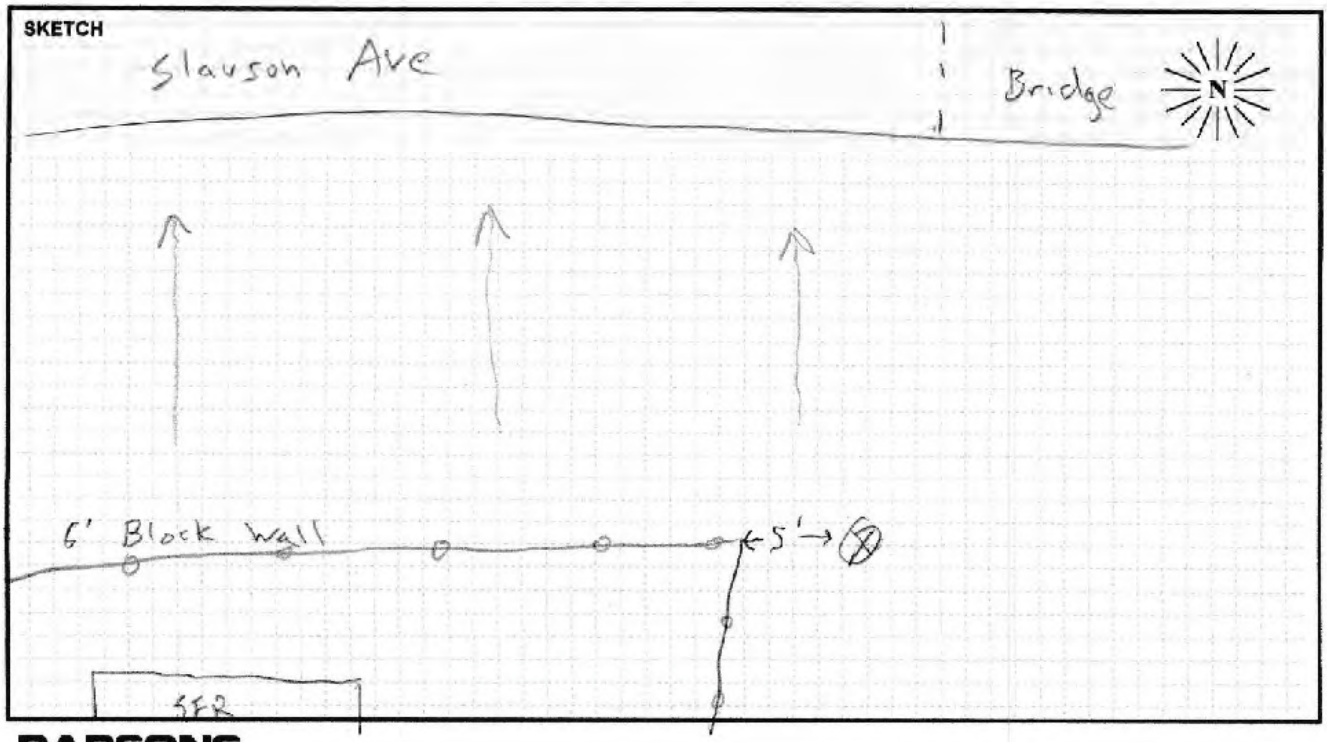


PARSONS

SHORT-TERM MEASUREMENT SITE 2

FIELD SURVEY FORM

PROJECT: Slauson Ave. over SGR Retrofit Project	ENGINEER: G. Berg	DATE: 9/12/24
MEASUREMENT ADDRESS: 7804 Farmland Ave	CITY: Pico Rivera	☒ Single-Family ☐ Multi-Family ☐ School ☐ Recreational ☐ Commercial ☐ Church — SITE NO.: ST3

SOUND LEVEL METER: ☐ LD-870 ☐ LD-820 ☐ LD-LxT ☒ LD-824 ☐ LD-812 ☐ B&K-2250 ☐ LD-2900 ☐ _____
SERIAL #: 0824

MICROPHONE: ☐ NON-POLAR ☒ POLARIZED ☒ 1/2-INCH ☐ FREEFIELD ☐ 1-INCH ☐ RANDOM ☒ WIND SCREEN
SERIAL #: 52820

PRE AMP: ☐ LD-900 ☐ LD-LxT ☐ LD-828 ☐ ZC-0032 ☒ LD-902 ☐ _____
SERIAL #: 3274

CALIBRATOR: ☒ LD CA250 ☐ LD CA200 ☐ B&K 4231 ☐ _____ S/N _____
Freq, Hz: ☒ 250 ☐ 1000 ☐ 84 ☐ _____

CALIBRATION RECORD: Input, dB / Reading, dB / Offset, dB / Time
Before 114.0, 114.0, –, 7:24
After 114.0, 114.1, –, 10:34

METER SETTINGS: ☒ A-WTD ☐ C-WTD ☐ LINEAR ☐ IMPULSE ☒ SLOW ☐ FAST ☐ 1/1 OCT ☐ 1/3 OCT ☒ INTERVALS 15 - MINUTE ☒ L_N PERCENTILE VALUES

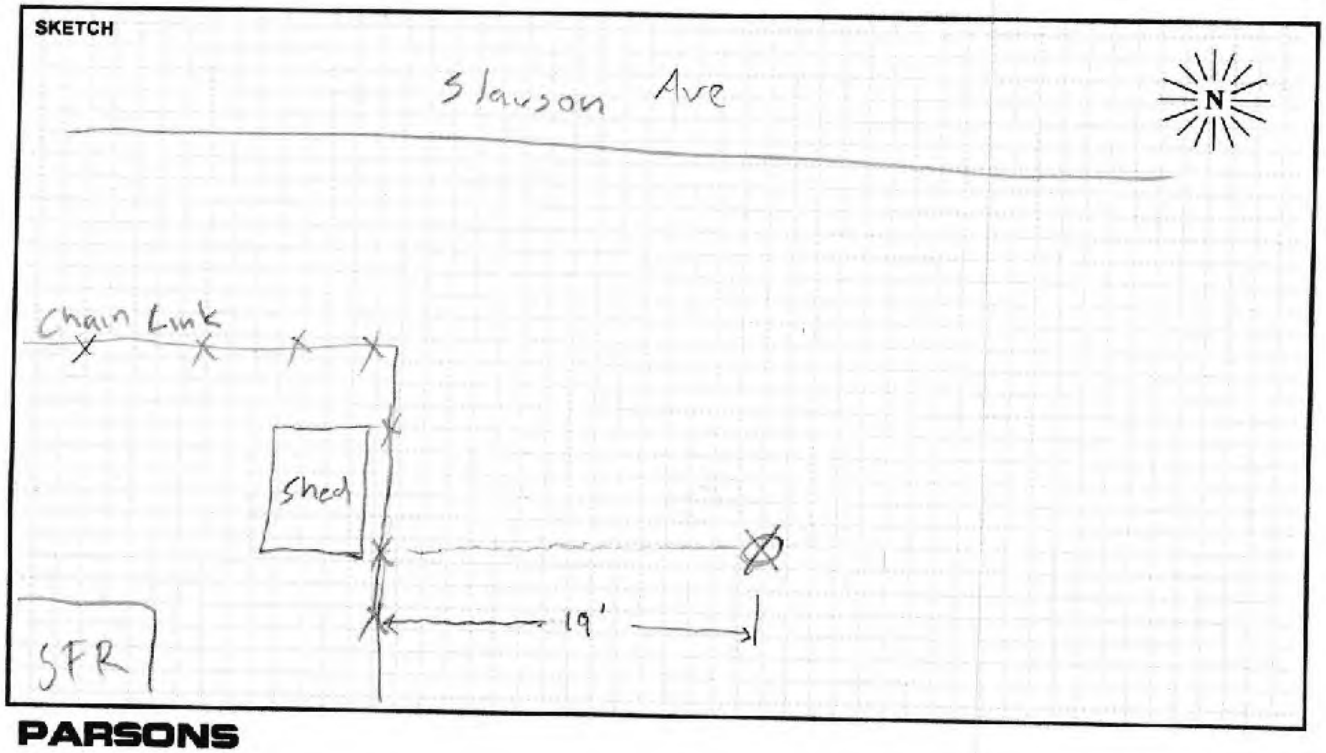
NOTES: SYSTEM PWR: ☒ BAT ☐ AC
(observations during measurement)
TEMP: 70 °F R.H.: 71 %
WIND SPEED: 2 MPH
TOWARD (DIR): _____
SKIES: _____
CAMERA _____ ☐ VIDEO ☐ RADAR

NOTES: can hear I-605 in distance-

MEASUREMENT TYPE: ☐ Long Term ☒ Short Term

DATE	START TIME	STOP TIME	L_{MIN}	L_{99}	L_{90}	L_{50}	L_{25}	L_{10}	L_{01}	L_{MAX}	L_{EQ}	NOTES:
9/12	10:15	10:30	51.3	52.9	55.3	58.5	–	62.6	65.1	70.0	59.4	#173

SKETCH



PARSONS

SHORT-TERM MEASUREMENT SITE 3

Appendix G
Responses to Comments Received During the Public Review Period

Responses to Comments Received During the Public Review Period

This appendix presents the written comments received during the 30-day public review period for the Draft Initial Study/Mitigated Negative Declaration (IS/MND) for the Slauson Avenue Bridge over the San Gabriel River Seismic Retrofit Project. The public review period was conducted from October 20, 2025, to November 20, 2025, consistent with the requirements of the California Environmental Quality Act (CEQA). During this period, Los Angeles County Public Works received two comment letters—one from the California Department of Transportation (Caltrans) and one from the Los Angeles County Department of Parks and Recreation. Each comment letter is reproduced below, followed by Public Works' responses. The comments received do not identify new significant environmental impacts, new feasible mitigation measures, or new project alternatives that would warrant recirculation of the IS/MND pursuant to CEQA Guidelines Section 15073.5. Minor clarifications have been incorporated into the Final IS/MND where appropriate.

Letter No. 1: California Department of Transportation (Caltrans), District 7

STATE OF CALIFORNIA—CALIFORNIA STATE TRANSPORTATION AGENCY GAVIN NEWSOM, Governor

DEPARTMENT OF TRANSPORTATION
DISTRICT 7
100 S. MAIN STREET, MS 16
LOS ANGELES, CA 90012
PHONE (213) 269-1124
FAX (213) 897-1337
TTY 711
www.dot.ca.gov

Making Conservation a California Way of Life

November 12, 2025

Mr. Dinh (Michael) Mai, PE, Associate Civil Engineer
Transportation Planning and Programs Division, 11th Floor
Los Angeles Department of Public Works
P.O. Box 1460
Alhambra, CA 91802-1460

RE: Slauson Avenue Bridge Over San Gabriel River Seismic Retrofit Project
SCH # 2025100955
Vic. LA-605/PM R11.483
GTS # LA-2025-04932-MND

Dear Mr. Dinh (Michael) Mai:

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the above-referenced environmental document. The project would involve the seismic retrofitting of the bridge to bring it into conformance with current California Department of Transportation Bridge Design Specifications and Seismic Design Criteria. Retrofit measures include strengthening the abutment backwalls; infilling the double columns of Piers 2 through 5 with concrete; installing shear keys between girders and pier caps and on abutment walls; adding hinge seat extenders between deck spans (except Pier 6); and installing cable restrainers near Pier 2. No retrofit work is proposed at Piers 6 and 7, which were previously upgraded in 2017. Temporary detours would be required along the San Gabriel River Trail during construction, but the project would not alter the existing bridge deck or channel configuration.

The mission of Caltrans is to provide a safe and reliable transportation network that serves all people and respects the environment. Senate Bill 743 (2013) has codified into CEQA law and mandated that CEQA review of transportation impacts of proposed development be modified by using Vehicle Miles Traveled (VMT) as the primary metric in identifying transportation impacts for all future development projects. As a reminder, all environmental document should include Vehicle Miles Traveled. You may reference the Governor's Office of Planning and Research (OPR) for more information:

https://opr.ca.gov/ceqa/#guidelines-updates

Construction activities would occur over approximately six months, with short-term lane closures on the Slauson Avenue Bridge managed through a Traffic Control Plan to maintain safe vehicle, pedestrian, and emergency access. The retrofit would not alter the bridge's configuration, capacity, or alignment, and the roadway would continue to function as a four-lane arterial with sidewalks after construction. Based on the construction plan, daily trips including approximately 15 worker commutes and fewer than 10 truck trips would remain well below the 110-trip screening threshold established by OPR and adopted by Los Angeles County Public Works (2020). Therefore, Caltrans concurs that the project qualifies VMT screening under CEQA Guidelines Section 15064.3(b), and a detailed VMT analysis is not required. 1-1

Any transportation of heavy construction equipment and/or materials that require the use of oversized transport vehicles on State highways will need a Caltrans transportation permit. Any large-size truck trips be limited to off-peak commute periods for the construction phase and operation phase. Construction truck loads should be covered with a tarpaulin cover. 1-2

Storm water run-off is a sensitive issue for Los Angeles County. Please be mindful that projects should be designed to discharge clean run-off water. Additionally, discharge of storm water run-off is not permitted onto State highway facilities without any storm water management plan. 1-3

In addition, a truck/traffic construction management plan may be needed for this project because the project is close to Caltrans on/off-ramps. Traffic Management Plans involving lane closures or street detours which will impact the circulation system affecting traffic to and from freeway on/off-ramps should be coordinated with Caltrans. 1-4

If you have any questions, please feel free to contact Mr. Alan Lin, the project coordinator, at (213) 269-1124 and refer to GTS # LA-2025-04932-MND.

Sincerely,

Miya Edmonson

MIYA EDMONSON
LDR/CEQA Branch Chief

email: State Clearinghouse

"Provide a safe and reliable transportation network that serves all people and respects the environment"

Comment 1-1:

Caltrans notes that construction would generate approximately 15 worker trips and fewer than 10 truck trips per day, which is below the 110-trip screening threshold adopted by Los Angeles County Public Works. Caltrans concurs that the project qualifies for VMT screening under CEQA Guidelines Section 15064.3(b), and therefore a detailed VMT analysis is not required.

Response 1-1:

Public Works acknowledges Caltrans' concurrence. As described in Section 2.2.7 of the IS/MND, construction-related trips fall below the 110 daily-trip screening threshold, and the project is appropriately screened from detailed VMT analysis under CEQA Guidelines Section 15064.3(b). No further analysis or revisions to the IS/MND are required.

Comment 1-2:

Caltrans states that any transportation of heavy construction equipment and/or materials that require the use of oversized transport vehicles on State highways will need a Caltrans transportation permit. Large-size truck trips should be limited to off-peak commute periods during the construction and operation phases. Construction truck loads should be covered with a tarpaulin cover.

Response 1-2:

Public Works acknowledges this comment. Based on the construction approach described in Section 2.4 (Project Construction) of the IS/MND, construction activities would utilize typical construction vehicles and equipment, such as tractor-trailers, concrete mixer trucks, and dump trucks, and are not anticipated to require oversized transport vehicles. However, if oversized or overweight vehicles are required during construction, the contractor will obtain the appropriate permits from Caltrans. Construction truck trips will be scheduled to minimize potential traffic disruption, including limiting large-size truck trips to off-peak periods to the extent feasible, and all loads will be secured and covered in accordance with applicable regulations. These requirements are consistent with regulatory requirements and do not result in new or more severe impacts than those analyzed in the IS/MND.

Comment 1-3:

Caltrans notes that stormwater runoff must not discharge to State highway facilities without a stormwater management plan. Caltrans also states that a truck/traffic construction management plan may be required due to proximity to Caltrans ramps, and that any lane closures or detours affecting ramp access must be coordinated with Caltrans.

Response 1-3:

Public Works acknowledges this comment. As described in Section 3.10 (Hydrology and Water Quality) of the IS/MND, the project will comply with applicable stormwater regulations, including the Municipal Separate Storm Sewer System (MS4) Permit requirements, and will implement appropriate best management practices (BMPs) to prevent runoff from discharging onto State highway facilities.

In addition, as updated in Section 2.7 (Approvals Required for the Proposed Project) of the IS/MND, Public Works will obtain an encroachment permit from Caltrans for any work affecting State highway right-of-way, including potential lane closures or ramp access restriction. Coordination related to traffic management plans is addressed in Response 1-4. These commitments are consistent with the IS/MND and do not require changes to the document.

Comment 1-4:

Caltrans states that a truck/traffic construction management plan may be needed for this project because the project is close to Caltrans on/off-ramps. Traffic Management Plans involving lane closures or street detours that could affect traffic circulation to and from freeway ramps should be coordinated with Caltrans.

Response 1-4:

Public Works acknowledges this comment. As described in Section 2.4 (Project Construction – Traffic Control) of the IS/MND, a Traffic Control Plan (TCP) will be implemented for the project, to manage traffic during construction. The following activities will also be implemented to support traffic management during construction :

- Designated lane closure hours to minimize impacts to peak-hour traffic volumes.
- Changeable Message Signs will be placed approximately two weeks in advance of construction and maintained throughout the construction period to provide advance notice to motorists.
- Public notifications, including Nextdoor posts and mailed fact sheets, will be distributed to residents in affected areas in accordance with Traffic Management Plan requirements.
- A project website will be established to provide information regarding the project scope and construction schedule.

These procedures are consistent with standard construction practices and with the commitments identified in the IS/MND. No revisions to the IS/MND are required.

Letter No. 2: Los Angeles County Department of Parks and Recreation

COUNTY OF LOS ANGELES
DEPARTMENT OF PARKS AND RECREATION
"Parks Make Life Better!"
Norma E. García-González, Director — Alina Bokde, Chief Deputy Director

November 20, 2025

TO: Mr. Dinh(Michael) Mai
Department of Public Works

FROM: Jui Ing Chien
Land Management Section

SUBJECT: **NOTICE OF INTENT TO ADOPT A MITIGATED NEGATIVE DECLARATION SLAUSON AVENUE BRIDGE OVER SAN GABRIEL RIVER SEISMIC RETROFIT PROJECT**

The Notice of Intent to adopt an Initial Study/Mitigated Negative Declaration (IS/MND) for the Slauson Avenue Bridge over the San Gabriel River Seismic Retrofit Project has been reviewed for potential impacts on facilities of the Los Angeles County Department of Parks and Recreation (LA County Parks). We offer the following comments:

- **Section 3.16.3 Standard Conditions, Project Design Features, and Mitigation Measures**
  LA County Parks staff previously conducted a site visit to the project area and understand that phased construction and intermittent hard closures would be required, which may further restrict access for equestrian users. Given these conditions, we recommend that the mitigation measures specifically include clear communication protocols for announcing phased closures in advance. 2-1

- **Section 4.2 Coordination and Consultation:**
  Please update the contact name for the Los Angeles County Department of Parks and Recreation to Chester Kano, Deputy Director, Planning and Development Agency. 2-2

Thank you for including LA County Parks in this environmental review process. If we may be of further assistance, please contact Ms. Jui Ing Chien, Park Planner, at (626) 588-5317 or by email at jchien@parks.lacounty.gov.

Planning and Development Agency • 1000 S. Fremont Avenue, Unit #40, Alhambra, CA 91803 • (626) 588-5322

Comment 2-1:

LA County Parks staff conducted a site visit and noted that phased construction and intermittent hard closures may restrict access for equestrian users. Parks recommends that the mitigation measures or project commitments specifically include clear communication protocols for announcing phased closures in advance.

Response 2-1:

Public Works acknowledges this comment. As described in Section 2.4 (Project Construction) of the IS/MND, a portion of the San Gabriel River Trail beneath the bridge will be closed during construction hours, and trail users will be redirected to designated detour routes along adjacent surface streets. In response to this comment, Project Design Feature PDF-REC-1 has been revised to include clear communication protocols for trail users, including advance notification of trail closures and detours. Notification methods will include onsite signage, project website updates, and direct coordination with the Los Angeles County Department of Parks and Recreation. This clarification is consistent with the project's construction approach and does not alter the impact conclusions of the IS/MND.

Comment 2-2:

LA County Parks requests that Section 4.2 of the IS/MND be updated to reflect the current Parks Department contact name: Chester Kano, Deputy Director, Planning and Development Agency.

Response 2-2:

Public Works acknowledges this update. Section 4.2 of the IS/MND has been revised to list Chester Kano, Deputy Director, Planning and Development Agency, as the appropriate contact for the Los Angeles County Department of Parks and Recreation. This correction does not affect the analysis or conclusions of the IS/MND.

Appendix H
Mitigation Monitoring and Reporting Program (MMRP)

Mitigation Monitoring and Reporting Program For the Slauson Avenue Bridge over San Gabriel River Seismic Retrofit Project

SCH Number 2025100955

Prepared for:
Los Angeles County Public Works

Prepared by:

PARSONS®

May 2026

Mitigation Monitoring and Reporting Program

for the

Slauson Avenue Bridge Seismic Retrofit Project

Introduction

The Los Angeles County Department of Public Works (Public Works) proposes to retrofit the existing Slauson Avenue Bridge over the San Gabriel River to improve the bridge's structural performance during seismic events and to meet current Caltrans seismic design criteria. The bridge currently carries four lanes of vehicular traffic and sidewalks across the San Gabriel River flood control channel.

The proposed project would involve seismic retrofit improvements to the existing bridge structure, including installation of reinforced concrete infill walls and seat extenders at bridge piers and abutments. The retrofit work would occur primarily above the river channel using suspended scaffolding platforms supported by the existing bridge piers. Construction workers and rubber-tired equipment would access the channel using existing paved roads along both sides of the river, and equipment may be lowered to the channel bottom using natural slopes or cranes. No gravel or other materials would be placed on existing riprap within the channel.

In accordance with the California Environmental Quality Act (CEQA) (Public Resources Code Section 21000 et seq.) and the State CEQA Guidelines (Title 14, California Code of Regulations Section 15000 et seq.), an Initial Study/Mitigated Negative Declaration (IS/MND) has been prepared for the proposed project with the Los Angeles County Department of Public Works serving as the CEQA Lead Agency.

Based on the analysis presented in the Final IS/MND, the project would not result in significant environmental impacts with the incorporation of project design features, compliance with existing regulations and standard conditions, and implementation of mitigation measures.

Mitigation Monitoring

Public Resources Code Section 21081.6 requires the Lead Agency to adopt a Mitigation Monitoring and Reporting Program (MMRP) to ensure that mitigation measures identified in the environmental document are implemented as part of the project. CEQA Guidelines Section 15097 provides general guidance for the implementation of mitigation monitoring programs.

The MMRP for the Slauson Avenue Bridge Seismic Retrofit Project identifies the mitigation measures, project design features, and standard control measures required to reduce potential environmental impacts to less-than-significant levels. The MMRP also specifies the timing and responsibility for implementation and monitoring of each measure.

Each mitigation or control measure listed in this MMRP identifies the following:

- Action Required
- Implementation Timing
- Responsible Party
- Monitoring Party

- Verification of Compliance (This column is intended to be completed by the responsible monitoring party during project implementation to document compliance with each mitigation measure.)

Public Works or its designated Construction Manager will oversee implementation of this MMRP and ensure that all applicable mitigation measures and environmental commitments are implemented during project construction.

Table 1 presents the Mitigation Monitoring and Reporting Program for the proposed project.

Table 1 - Mitigation Monitoring and Reporting Program

Measures	Type	Action Required	Mitigation Timing	Responsible Party	Monitoring Party	Verification
Air Quality						
SC-AQ-1: All construction equipment and vehicles shall be properly maintained and tuned to operate in accordance with manufacturers' specifications. Low-sulfur diesel fuel shall be used as required by the California Code of Regulations, Title 17, Section 93114.	SC	Maintain construction equipment with proper tuning and low-sulfur fuel.	During Construction	LACPW	Construction Manager; LACPW	
SC-AQ-2: The construction contractor shall comply with SCAQMD rules applicable to construction activities, including Rule 401 (Visible Emissions), Rule 402 (Nuisance), and Rule 403 (Fugitive Dust) which would prohibit visible emissions and odors that may cause a public nuisance.	SC	Comply with SCAQMD Rules 401, 402, and 403.	During Construction	LACPW/Construction Unit	Construction Manager; LACPW	
SC-AQ-3: Idling of diesel-powered equipment and trucks shall be limited in accordance with CARB requirements: • Title 13, CCR, Section 2449(d)(3) for off-road construction equipment. • Title 13, CCR, Section 2485 for on-road heavy-duty vehicles.	SC	Limit idling of diesel-powered off-road equipment per CARB regulations.	During Construction	LACPW/Construction Unit	Construction Manager; LACPW	
SC-AQ-4: Lead-based paint (LBP) or lead-containing paint (LCP) may be present on the existing bridge structure. The construction contractor shall comply with all applicable health and safety regulations for lead abatement during construction, including the requirements set forth in California Code of Regulations, Title 8, Section 1532.1 ("Lead") to protect worker safety and prevent airborne lead exposure.	SC	Comply with all applicable health and safety regulations for lead abatement during construction, including the requirements.	During Construction	LACPW/Construction Unit	Construction Manager; LACPW	
Biological Resources						
MM-BIO-1: Worker Environmental Awareness Program. Before construction begins, a Worker Environmental Awareness Program (WEAP) shall be developed. A qualified biologist experienced with the region's special-status biological resources shall present the WEAP to all personnel working in the Survey Area, whether temporarily or permanently, prior to the start of project activities. The WEAP shall cover topics including, but not limited to, the sensitive and special-status biological resources associated with the project (such as nesting birds and bats), project-specific measures to avoid or minimize impacts to these resources, consequences of noncompliance with project permits and agreements, and contact information for the lead biologist. Records of personnel who have completed the training shall be maintained.	MM	Prepare a WEAP and present to all personnel working in the construction area.	Before construction commencement	LACPW	Qualified biologist assigned by LACPW	
MM-BIO-2: Biological Monitoring. Although the potential for special-status species to occur on the project site is low, there remains a possibility that such species could be present on or adjacent to the site before project activities begin. To address this, a qualified biologist experienced in monitoring and identifying special-status biological resources known to occur in the area shall be present daily during fence removal and installation activities and vegetation removal activities including site clearing and grubbing. If no fence removal or installation, vegetation removal, or site clearing and grubbing occurs, no monitoring will be required. The biological monitor's responsibilities shall include: • Conducting worker education training to inform project personnel about special-status species and associated compliance measures. • Verifying compliance with project permits. • Ensuring that project activities remain confined to designated work areas. The biological monitor shall maintain a daily log documenting general project activities, compliance with permit conditions, and any observed	MM	Biological monitor shall conduct the following during monitoring duties 1. present a WEAP to all project personnel about special-status species and associated compliance measures; 2. perform daily biological clearance surveys; 3. halt the work if special-status species is identified in the work area, recommend appropriate action, and resume the work after the risk to special-status species has been mitigated; 4. maintain daily log of activities; 5. report any non-compliance incidents	Daily when fence removal/ installation, vegetation removal, or site clearing and grubbing is scheduled to take place.	LACPW	Qualified biologist selected by LACPW	

Note: MM = Mitigation Measure SC = Standard Control Measure PDF = Project Control Measure
LACPW = Los Angeles County Department of Public Works SCAQMD = South Coast Air Quality Management District CDFW = California Department of Fish and Wildlife RWQCB = Regional Water Quality Control Board

Table 1 - Mitigation Monitoring and Reporting Program

Measures	Type	Action Required	Mitigation Timing	Responsible Party	Monitoring Party	Verification
non-compliances. Non-compliance incidents will be recorded in the daily log, along with corrective measures taken. Representative photographs of daily activities will also be included in the documentation. Additionally, the biological monitor shall perform daily biological clearance surveys ("sweeps") at the start of each workday during fence installation and vegetation removal. These surveys will confirm the absence of special-status species in the work areas before activities commence. If no special-status species are observed during these sweeps, work activities may proceed. If a special-status species is identified in the work area during a daily sweep or during monitoring duties, the biological monitor shall have the authority to halt project activities in the affected area to prevent injury or mortality to the species. Work may only resume once the risk to the individual has been mitigated and it is confirmed that the area is safe for project activities to continue.						
MM-BIO-3: Preconstruction Surveys for Crotch's Bumble Bee. Due to the presence of suitable nesting habitat within disturbed areas and minimal foraging resources, a single preconstruction survey for Crotch's bumble bee shall be conducted prior to initial vegetation removal, fence removal and installation, and clearing and grubbing activities scheduled during the species' flight season (February-October). This survey is only required if Crotch's bumble bee remains a candidate species or becomes listed by the time of project implementation. The preconstruction survey shall follow CDFW survey recommendations (CDFW 2023) or the most recent CDFW-approved survey protocol, including the avoidance and minimization measures outlined below: • <u>Preconstruction Crotch's Bumble Bee Survey during Flight Season.</u> Prior to ground disturbances during the Crotch's bumble bee flight season (February – October) that would impact potentially suitable nectaring and nesting habitat for Crotch's bumble bee, a flight/forage and nest search survey shall be conducted no more than 48 hours prior to initial vegetation removal and/or initial ground-disturbing activities by the Crotch's bumble bee-qualified lead biologist and survey team. The 48-hour preconstruction surveys shall be repeated as necessary if the Project does not begin within 48 hours of completion of the preconstruction survey.	MM	Conduct a preconstruction survey for Crotch's bumble bee if ground-disturbing activities (e.g., vegetation removal, fence removal/installation, or clearing and grubbing) are scheduled during the species' flight season (February–October).	Within 48 hours prior to construction when fence removal/ installation, vegetation removal, or site clearing and grubbing is scheduled to take place during the February-October period.	LACPW/CDFW	Qualified biologist hired by LACPW	
• <u>Protection of Occupied Crotch's Bumble Bee Habitat.</u> Occupied Crotch's bumble bee habitat shall be defined as an active Crotch's bumble bee nest and its 50-foot buffer including any obvious foraging/flight corridors that provide connectivity to other onsite foraging patches or connectivity to offsite foraging areas that are necessary to support the nest colony. The outer limits of the occupied habitat shall be visibly flagged by the Crotch's bumble bee qualified biologist upon discovery and protected in place as an Environmentally Sensitive Area (ESA). The qualified Crotch's bumble bee biologist shall provide a notification with a map of the ESA to be protected in place to the Applicant/Contractor and CDFW within 24 hours of nest detection. The ESA shall be protected in place until the Crotch's bumble bee nest colony is no longer active.		If Crotch's bumble bee is detected, notify CDFW and create an ESA to protect the species in place.	Within 24 hours of nest detection.	LACPW/CDFW	Qualified biologist hired by LACPW	
• <u>Biological Monitoring.</u> A biological monitor shall be present during initial vegetation removal and fence installation activities that are scheduled to occur during the Crotch's bumble bee flight season (February – October) as stipulated in MM BIO-2. The biological monitor shall have the authority to temporarily stop work if impacts to a Crotch's bumble bee individual or Crotch's bumble bee active nest are likely to occur.		If Crotch's bumble bee is detected, conduct biological monitoring as outlined in BIO-2.	See timeline in BIO-2.	LACPW/CDFW	Qualified biologist hired by LACPW	

Note: MM = Mitigation Measure SC = Standard Control Measure PDF = Project Control Measure
LACPW = Los Angeles County Department of Public Works SCAQMD = South Coast Air Quality Management District CDFW = California Department of Fish and Wildlife RWQCB = Regional Water Quality Control Board

Table 1 - Mitigation Monitoring and Reporting Program

Measures	Type	Action Required	Mitigation Timing	Responsible Party	Monitoring Party	Verification
• CDFW Reporting and Coordination. If a CBB individual (alive or dead) is detected during preconstruction surveys or monitoring and the species is still legally protected under the California Endangered Species Act (CESA), CDFW shall be notified within 24 hours of detection as further coordination may be required to avoid or mitigate certain impacts and an Incidental Take Permit may be required.		If Crotch's bumble bee is detected (alive or dead), during preconstruction surveys or monitoring, notify CDFW for further coordination and direction.	Within 24 hours of detection.	LACPW/CDFW	Qualified biologist hired by LACPW	
MM-BIO-4: Preconstruction Surveys for Burrowing Owl. Preconstruction surveys for burrowing owls shall be conducted before initiating any ground-disturbing activities (e.g., vegetation removal, fence installation). Surveys shall follow the protocols outlined in the *Staff Report on Burrowing Owl Mitigation* (California Department of Fish and Game, 2012). Two surveys are required: the first survey must occur 14 to 30 days prior to ground disturbance, and the second survey must be conducted within 24 hours of the start of ground disturbance.	MM	Conduct a preconstruction survey for burrowing owls within the work area prior to the start of ground disturbance.	Within 14 to 30 days prior to fence removal/installation, vegetation removal, or site clearing and grubbing. Within 24 hours prior to fence removal/ installation, vegetation removal, or site clearing and grubbing.	LACPW/	Qualified biologist hired by LACPW	
If no burrowing owls or signs of active burrow occupancy (e.g., whitewash, pellets, feathers, prey remains) are detected, project activities may proceed without restriction. However, if burrowing owls or active burrows are identified within the project work zone, a qualified burrowing owl biologist shall prepare a Burrowing Owl Management Plan in accordance with CDFW guidelines. This plan would specify additional protection measures, which may include: • Coordination with CDFW if Candidate or listed species under the California Endangered Species Act are present; • Additional surveys and monitoring of burrows within the project area using methods such as remote cameras; • Establishment of non-disturbance buffers; and • Biological monitoring during construction activities. These measures aim to ensure compliance with applicable regulations and the protection of burrowing owls and their habitat.		If no burrowing owls are detected, no further mitigation activities are required. If burrowing owls are detected, prepare the Burrowing Owl Management Plan and coordinate with CDFW. Implement the Burrowing Owl mitigation and protective measures as prescribed in the Management Plan.	None required. Prior to construction commencement. Prior to and during construction.	LACPW/CDFW LACPW/CDFW	Qualified biologist hired by LACPW Qualified biologist hired by LACPW	
MM-BIO-5: Bat Mitigation. The Project is scheduled to begin during the bat maternity season, which typically runs from April through August. Day-roosting bats (observed during the bat maternity season) and suitable bat roosting habitat are present on the Project site (Ultrasystems 2015; Rahn 2016, 2017; Watearth 2024a). Implementation of the following measures would minimize potential impacts to special-status bat species and bat maternity colonies: • A focused bat emergence survey shall be conducted by a qualified bat biologist at the bridge structure during the peak of bat maternity season in southern California (May through July). The focused bat emergence survey shall be conducted during the maternity season (May through July) the year prior to the start of construction activities. The purpose of the focused bat emergence survey is to assess the current site conditions to adequately prepare a Bat Management Plan that includes a Bat Exclusion and Monitoring Plan. At a minimum, the focused bat emergence survey will assess the presence and type of bat roosting, size of the colony (colonies), species present, and the features of the bridge used for bat roosting. The focused bat emergence survey shall adhere to industry-standard protocols and survey methods for bat emergence surveys.	MM	Conduct a focused bat emergence survey following the industry-standard protocols to assess the presence and type of bat roosting, size of the colony (colonies), species present, and the features of the bridge used for bat roosting.	During the peak of the bat maternity season in southern California (May through July) typically conducted within one year prior to the start of construction activities.	LACPW	Qualified bat biologist hired by LACPW	
• A qualified bat biologist shall prepare a Bat Management Plan that includes a Bat Exclusion and Monitoring Plan. The Bat Management Plan shall be prepared after the focused bat		Prepare a Bat Management Plan that includes but not limited to cliff swallow nest removal, identification of	After the emergence bat survey is completed (one year prior to the start of construction	LACPW/CDFW	Qualified bat biologist hired by LACPW	

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Table 1 - Mitigation Monitoring and Reporting Program

Measures	Type	Action Required	Mitigation Timing	Responsible Party	Monitoring Party	Verification
emergence survey is complete and finalized before the start of Project activities. To reduce impacts to maternity colonies and special-status bat species, the Bat Management Plan shall include project-specific avoidance and minimization measures, including, but not limited to, a summary of previous surveys, current site conditions, bat emergence and pre-construction surveys (including acoustic monitoring), cliff swallow nest removal protocols, tree removal protocols, non-disturbance buffers, and timing and methodology for humane bat exclusion (including appropriate timing and details ensuring safety for bats and other wildlife). Additionally, if permanent impacts to maternity roosting habitat are expected, then species-specific replacement roosting habitat may be recommended in the Bat Management Plan to ensure no net loss of bat roosting habitat. If temporary impacts to maternity roosting habitat are expected, then temporary exclusion measures, a phased approach to bat exclusion and the establishment of non-disturbance buffers and biological monitoring may be appropriate. If impacts are determined to be temporary, additional buffer zones for specific construction activities may be warranted and implemented, as recommended by the qualified bat biologist depending on the species documented during the focused bat emergence survey(s). The Caltrans Bat Mitigation Guide (Johnston et al. 2019) details additional buffer zones that can be used as guidelines during project activities. The Bat Management Plan and Bat Exclusion and Monitoring Plan shall be submitted to CDFW for review prior to the start of any bat exclusion activities. The Bat Management Plan will also include guidance from *Bat Mitigation: A Guide to Developing Feasible and Effective Solutions* (Johnston et al. 2019), established by Caltrans in 2019, as appropriate.		trees subject to removal or trimming for their suitability as bat-roosting habitat, non-disturbance buffers, timing and methodology for humane bat exclusion, and (if permanent impacts to maternity roosting habitat are expected) recommendations for species-specific replacement roosting habitat. Submit the Bat Management Plan for CDFW review and approval. Update the Bat Management Plan if construction is delayed beyond one year from completion of the focused bat emergence survey or if site conditions change such that survey results are no longer representative.	activities). Prior to the start of any bat exclusion activities. Prior to construction, if delay or site condition changes occur.			
• Cliff swallow nest removal for bats: Bats are known to roost inside inactive cliff swallow mud nests. Therefore, if cliff swallow nest removal will be performed as part of the Project, nest removal shall be conducted outside of the bat maternity season but before the onset of seasonal torpor; this timeframe is typically September to October or when evening temperatures are not below 45 degrees Fahrenheit (°F) and rain is not over 0.5 inch in 24 hours, or between mid-February and March with the same parameters. Cliff swallow nest removal shall be performed under the direct supervision of a biologist with a Specific Use Permit from CDFW to handle bats and in such a way that the nest is kept intact and not dropped to the ground until it can be inspected by the biologist. Swallow nest removal shall follow the guidance provided by the California Bat Working Group Bats in Swallow Nests resource (CBWG 2022).		Implement Cliff Swallow nest removal prescribed in the approved Bat Management Plan	Follow the timeframe prescribed in the Bat Management Plan, typically outside of the bat maternity season when appropriate weather conditions are present.	LACPW/CDFW	Qualified bat biologist hired by LACPW	
• If trees are scheduled to be removed or modified (i.e., trimming) they shall be evaluated for their suitability as bat-roosting habitat by a qualified bat biologist. Trees that were determined to be suitable for bat roosting shall only be trimmed during seasonal periods of bat activity (September to October) or when evening temperatures are not below 45 °F and rain is not over 0.5 inch in 24 hours; or between mid-February and March with the same parameters. Additional details of the two-step tree removal process shall be outlined in the Bat Management Plan.		Evaluate trees subject to be removal or trimming for their suitability as bat-roosting habitat. Follow the two-step tree removal process and trimming activities outlined in the approved Bat Management Plan.	Prior to construction activities and only if tree removal or trimming is required. Follow the timeline prescribed in the approved Bat Management Plan	LACPW	Qualified bat biologist hired by LACPW	

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Table 1 - Mitigation Monitoring and Reporting Program

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• If bat exclusion from the bridge is necessary, then, following CDFW's review of the Bat Management Plan and Bat Exclusion and Monitoring Plan, a qualified bat biologist will directly oversee the contractor's implementation of the bat exclusion process from the bridge. Exclusion can be overseen by a qualified bat biologist; however, a permitted bat biologist should be retained in the event that handling of bats is required during the exclusion effort. Ideally exclusion will occur in the fall the year prior to the anticipated start of construction. The precise methods and materials for exclusion will be outlined in the Bat Exclusion and Monitoring Plan, but exclusion will generally involve the installation of one-way doors and the sealing of roosting habitat that has been determined to be unoccupied by the qualified bat biologist in order to humanely exclude bats from the bridge prior to construction. To reduce impacts to roosting bats and avoid direct mortality of bats, bat exclusion shall not occur during the bat maternity season (April-August) or during the bat inactive/hibernation season (typically between November–February; however, bat inactive/hibernation season is contingent upon weather conditions during this time period (when forecast nighttime temperatures reach 45°F or lower and rain is not over 0.5 inch in 24 hours).		Implement the Bat Exclusion Program prescribed in the approved Bat Management Plan.	Outside of bat maternity season of the year prior to construction or the timeline prescribed in the approved Bat Management Plan.	LACPW/CDFW	Qualified bat biologist hired by LACPW	
• Immediately prior to exclusion, a qualified bat biologist will conduct a pre-construction emergence survey with acoustic monitoring, following industry-standard protocols and survey methods. The emergence survey will determine if there are any changes in bat usage at the bridge prior to the start of exclusion activities.		Conduct a pre-construction bat emergence survey.	Immediately prior to bat exclusion activities.	LACPW	Qualified bat biologist hired by LACPW	
• Following the implementation of all avoidance, minimization, and exclusionary measures in the project-specific Bat Management Plan and Bat Exclusion and Monitoring Plan, a qualified bat biologist shall conduct a final inspection of the bridge. This inspection will confirm that bats have been successfully excluded in accordance with the timing and methods outlined in the plans. Project activities may commence only after the biologist confirms the exclusion process has successfully been completed. A qualified biologist will conduct regular inspection of bat exclusion materials to ensure they are intact, particularly following storm events.		Inspect the bridge to confirm all bats have been excluded. Conduct regular inspection of bat exclusion materials to ensure they are intact.	Following the completion of the bat exclusion activities Regularly as prescribed in the Bat Management Plan, particularly following storm events.	LACPW LACPW	Qualified bat biologist hired by LACPW Qualified bat biologist hired by LACPW	
• If permanent impacts to maternity roosting habitat are expected, then species-specific replacement roosting habitat or alternate roosting habitat may be recommended in the Bat Management Plan. Impacts to bat roosting sites are considered temporary when it is less than one year before ambient or baseline conditions (available roosting space) are restored following project completion. In this case, replacement roosting habitat may not be necessary. A loss of bat roosting habitat for a period of one year or greater is generally considered a permanent impact to a bat roost (Johnston et al. 2019).		No additional action required.				
• If permanent impacts to maternity roosting habitat are expected, installation of species-specific replacement roosting habitat would be required to ensure no net loss of bat roosting habitat occurs as a result of the project. Replacement or alternative roosting habitat will be installed as far in advance of the bat maternity season as possible, but no less than 90 days prior to the implementation of exclusion activities. If found necessary, replacement roosting habitat shall be installed before impacts to maternity roosting		If permanent impacts to maternity roosting habitat occur, install species-specific replacement roosting habitat as recommended in the approved Bat Management Plan to ensure no net loss of bat roosting habitat occurs as a result of the project.	Prior to the exclusion of bats from the bridge as prescribed in the Bat Management Plan. As far in advance of the bat maternity season as possible, but no less than 90 days prior to the implementation of exclusion activities.	LACPW/CDFW	Qualified bat biologist hired by LACPW	

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habitat on the bridge would occur so the excluded bats have an alternate roosting location to utilize. In the event that replacement roosting habitat is installed, the replacement roosting habitat shall be monitored for success and reports submitted annually to CDFW for a period of performance standards established in the Bat Management Plan.						
MM-BIO-6: Nesting Bird Management Plan. The Project is scheduled to begin during the bird and raptor nesting season, which typically runs from February 1 through August 31. Additionally, cliff swallow mud nests were identified on the underside of the bridge structure, and because of their strong site fidelity, cliff swallows will return year after year to nest in existing mud nests they built during previous nesting seasons. Because the Project is scheduled to begin during the bird and raptor nesting season, nest exclusion methods and devices may need to be implemented during the non-nesting season for the Project to comply with the federal MBTA and California Fish and Game Code (Sections 3503, 3503.5, 3800, and 3513) and to prevent Project schedule delays due to nesting activity, Therefore, a Nesting Bird Management Plan shall be prepared by a qualified biologist no more than 1 year before the start of construction activities. The Nesting Bird Management Plan shall include, but not be limited to: • Recommendations and guidance on implementing nest exclusion methods or devices to discourage or prevent nesting activity on the bridge prior to the start of project activities. Exclusion methods or devices shall be implemented during the non-nesting season (September 1 through January 31). Exclusion methods and devices shall be identified based on current site conditions as well as on industry standards for bird and raptor safety at the time the Nesting Bird Management Plan is developed. Detailed protocols for cliff swallow nest removal shall be included as part of the nest exclusion section of the Nesting Bird Management Plan. • The timing and methods of preconstruction nesting bird and raptor surveys, A preconstruction nesting bird and raptor survey would need to be conducted within the Project work areas and adjacent areas containing suitable nesting habitat no more than three days prior to the start of initial Project activities conducted during the nesting bird season (typically February 1 through August 31). The preconstruction nesting bird and raptor survey would need to be repeated if work ceases in an area for more than two weeks or before moving into a new portion of the Project area that has not yet been disturbed by Project activities. • Nest monitoring methods and timing. Should an active bird or raptor nest be identified within or adjacent to the Project area during preconstruction surveys, the Nesting Bird Management Plan would outline the frequency that nest monitoring would need to be performed in order determine nest status and success or failure. Minimum qualifications of the monitoring biologist shall be included in the Nesting Bird Management Plan. The section discussing nest monitoring methods and timing in the Bird Management Plan shall also include discussion on methods and timing for removal of any nondisturbance buffers based on nest monitoring results. • Project-specific recommendations to minimize impacts to nesting birds and raptors, should any active nests be identified during preconstruction surveys, such as the implementation of appropriate nondisturbance buffers. Nondisturbance buffer size would be	MM	Prepare a Nesting Bird Management Plan Implement the nesting bird preconstruction surveys as outlined in the Nesting Bird Management Plan that includes timing and methods of preconstruction nesting bird and raptor surveys. Implement minimization measures and nesting bird monitoring as recommended in the Nesting Bird Management Plan	Within one year before the start of construction activities No more than three days prior to construction activities conducted during the nesting bird season (February 1 through August 31). If nesting birds are detected.	LACPW LACPW LACPW	Qualified biologist hired by LACPW Qualified biologist hired by LACPW Qualified biologist hired by LACPW	

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determined by the Project biologist based on nest location, proposed work activities, and species' tolerance of anthropogenic influences. • A reporting schedule, including an outline that establishes the appropriate situations and requirements for coordination with relevant wildlife agencies.						
Hydrology and Water Quality						
SC-HYD-1: The following standard conditions will be adhered to throughout the construction period. 1. Construction General Permit Compliance: If applicable, the project will enroll under the Construction General Permit issued by the SWRCB (Order No. 2022-0057-DWQ; National Pollutant Discharge Elimination System (NPDES) No. CAS000002). A project-specific SWPPP will be prepared and implemented by a Qualified SWPPP Developer (QSD). The SWPPP will identify and incorporate appropriate BMPs to reduce erosion, control sediment, manage stormwater runoff, and prevent discharge of pollutants into the San Gabriel River. 2. Municipal Separate Storm Sewer System (MS4) Permit Compliance: All construction activities will comply with Order No. R4-2021-0105, the MS4 Permit for the Coastal Watersheds of Los Angeles and Ventura Counties, administered by the Los Angeles RWQCB. The MS4 Permit requires implementation of BMPs and site management controls that are protective of water quality.	SC	Comply with Construction General Permit and MS4 Permit conditions.	Prior to, during, and post construction	LACPW/Construction Unit	LACPW	
Noise						
SC-NOI-1: The construction contractor shall prepare and implement standard noise control BMPs, which would include the following: 1. Restricted Hours: Construction activities would not occur between 7:00 p.m. and 7:00 a.m., Monday through Saturday, and no construction would take place on Sundays or federal holidays. 2. Distance from Sensitive Uses: Construction, including the staging of equipment, would occur as far as practicable from noise-sensitive land uses. 3. Mufflers and Noise Control: All noise-producing equipment and vehicles with internal combustion engines would be equipped with mufflers, air-inlet silencers where appropriate, and other noise-reducing features in good operating condition, meeting or exceeding original factory specifications. Fixed or mobile "package" equipment (e.g., arc-welders, air compressors) would be equipped with available noise control features. 4. Compliance with Regulations: All mobile or fixed noise-producing equipment regulated for noise output by local, state, or federal agencies would comply with applicable noise regulations. 5. Limit Equipment Idling: Idling of equipment would be minimized, and such equipment would be kept as far as practicable from noise-sensitive land uses. 6. Staging Areas: Mobile equipment staging, parking, and maintenance areas would be located as far as practicable from noise-sensitive receptors. 7. Use of Audible Signals: Audible signals such as horns, whistles, alarms, and bells would only be used for safety warning purposes.	SC	Prepare and implement standard noise control BMPs	During construction	LACPW/Construction Unit	LACPW	
PDF-NOI-1: Public Works shall maintain effective communication with local residents prior to and throughout construction activities by providing advance notice of the construction schedule, anticipated duration, and key milestones. Contact information for a designated project representative shall be provided to nearby noise-sensitive receptors, including the first row of residences adjacent to the project site, to respond to any noise- or vibration-related inquiries or concerns.	PDF	Provide notice of project construction schedule and Public Works contact information to nearby noise-sensitive receptors, including the first row of residences adjacent to the work area.	At least two weeks before the start of construction activities. Immediately take appropriate actions to minimize noise and vibration effects during the construction if complaints are received.	LACPW/Construction Unit	LACPW	

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Public Services						
PDF-PUB-1: Public Works has developed the Traffic Control Plan (TCP) to be implemented during project construction to ensure public and worker safety and that emergency access to all nearby streets and parcels is maintained. The TCP will be provided to local emergency service providers, including the County Fire Department and local law enforcement agencies, for coordination prior to construction.	PDF	Notify local emergency service providers of the construction schedule and the TCP prior to the start of construction activities. Implement the TCP to minimize traffic impacts.	At least two weeks before the start of construction activities. During construction	LACPW/Construction Unit; Contractor	Construction Manager; LACPW	
Recreation						
PDF-REC-1: In coordination with the Los Angeles County Department of Parks and Recreation, Public Works has developed a detour plan to redirect San Gabriel River Trail users to surface streets running east of and parallel to the river channel between Telegraph Road and Washington Boulevard during construction. The detour would be clearly marked and access to the trail would be restored once construction is complete.	PDF	Implement the detour plan to redirect San Gabriel River Trail users to surface streets running east of and parallel to the river channel between Telegraph Road and Washington Boulevard during construction.	During construction	LACPW/Construction Unit; Contractor	Construction Manager; LACPW	

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