State Route 71/State Route 91 Interchange Improvement Project

Riverside County, California

Draft Supplemental Environmental Assessment

Prepared for

United States Army Corps of Engineers –

Los Angeles District

and

Riverside County Transportation Commission

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Abbreviations and Acronyms

ACMs	asbestos-containing materials
ADL	aerially deposited lead
APE	area of potential effects
APN	Assessor's Parcel Number
ARB	California Air Resources Board
ARPA	Archaeological Resources Protection Act
BMP	Best Management Practice
BNSF	Burlington Northern Santa Fe
BO	Biological Opinion
BSA	Biological Study Area
BUOW	burrowing owl
CAA	Clean Air Act
CAAA	Clean Air Act Amendments
CAGN	California gnatcatcher
Cal-EPA	California Environmental Protection Agency
Caltrans	California Department of Transportation
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CE	Categorical Exclusion
CEQ	Council on Environmental Quality
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	*Code of Federal Regulations*
cfs	cubic feet per second
CH_4	methane
CHRIS	California Historic Resources Information System
CHSP	Chino Hills State Park
CIDH	cast-in-drilled-hole
CIP	Corridor Improvement Project
CNDDB	California Natural Diversity Database
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent
COZEEP	Construction Zone Enhanced Enforcement Program
CRHR	California Register of Historic Resources
CSCS	coastal sage-chaparral scrub
CSS	coastal sage scrub
CWA	Clean Water Act
dBA	A-weighted decibel
DBESP	Determination of Biological Equivalent or Superior Preservation
DH	disturbed habitat
DHS	Department of Health Services
DPR	Department of Parks and Recreation
DTSC	Department of Toxic Substances Control
EA	Environmental Assessment
EB	eastbound
EIC	Eastern Information Center
EIR	Environmental Impact Report
EIS	Environmental Impact Statement

EO	Executive Order
EOW	eucalyptus/ornamental woodland
EPA	United States Environmental Protection Agency
ERNS	Emergency Response Notification System
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FONSI	Finding of No Significant Impact
FTIP	Federal Transportation Improvement Program
GHG	greenhouse gas
GP	general purpose
GSRDs	gross solids removal devices
HAPs	hazardous air pollutants
HEC-RAS	Hydraulic Engineering Centers River Analysis System
HOT	high-occupancy toll
HOV	high-occupancy vehicle
HWCL	Hazardous Waste Control Law
I-15	Interstate 15
IS	Initial Study
ISA	Initial Site Assessment
JPR	Joint Project Review
LBP	lead-based paint
LBV	least Bell's vireo
LUST	leaking underground storage tank
LWCF	Land and Water Conservation Fund
MBTA	Migratory Bird Treaty Act
MEP	Maximum Extent Practicable
MFS	mule fat scrub
MLD	Most Likely Descendent
MND	Mitigated Negative Declaration
mph	miles per hour
MS	mixed scrub
MSHCP	Multiple Species Habitat Conservation Plan
N_2O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NB	northbound
NCCP	Natural Communities Conservation Plan
NEPA	National Environmental Policy Act of 1969
NES	Natural Environment Study
NESHAP	National Emission Standards for Hazardous Air Pollutants
NFIP	National Flood Insurance Program
NHPA	National Historic Preservation Act
NNG	non-native grassland
NOI	Notice of Intent
NO_x	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NPS	non-point source
NRHP	National Register of Historic Places
NWP	Nationwide Permit
O_3	ozone

OCFCD	Orange County Flood Control District
OCPW	Orange County Public Works
OCTA	Orange County Transportation Authority
OCWD	Orange County Water District
O&M	operation and maintenance
OW	oak woodland
PA	Programmatic Agreement
PCB	polychlorinated biphenyl
PCL	Proposed Constrained Linkage
PIR/PER	Paleontological Identification Report/Paleontological Evaluation Report
PM_{10}	particulate matter less than 10 microns in diameter
$PM_{2.5}$	particulate matter less than 2.5 microns in diameter
PMP	Paleontological Mitigation Plan
PMR	Paleontological Mitigation Report
POAQC	Project of Air Quality Concern
ppb	parts per billion
PQP	public, quasi-public
PRC	Public Resources Code
PS&E	Plans, Specifications, and Estimate
RCA	Regional Conservation Authority
RCEM	Road Construction Emissions Model
RCP	reinforced concrete pipe
RCRA	Resource Conservation and Recovery Act
RCTC	Riverside County Transportation Commission
RECs	recognized environmental conditions
RF	riparian forest
ROG	reactive organic gas
ROW	right-of-way
RTP	Regional Transportation Plan
RWQCB	Regional Water Quality Control Board
SARP	Santa Ana River Mainstem Flood Control Project
SAS	Santa Ana sucker
SAWA	Santa Ana Watershed Association
SAWPA	Santa Ana Watershed Project Authority
SB	southbound
SBCM	San Bernardino County Museum
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
SCG	Southern California Gas
SCRF	southern cottonwood riparian forest
SCS	Sustainable Communities Strategy
SCWRF	southern cottonwood willow riparian forest
SER	Standard Environmental Reference
SHPO	State Historic Preservation Officer
SIP	State Implementation Plan
SO_X	sulfur oxides
SR	State Route
SS	saltbush scrub

SWMP	Storm Water Management Plan
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TACs	toxic air contaminants
TCE	Temporary Construction Easement
TCWG	Transportation Conformity Working Group
TMP	Transportation Management Plan
U/D	urban/developed
U.S.C.	United States Code
USACE	United States Army Corps of Engineers
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
UST	underground storage tank
WB	westbound
WOTS	waters of the State
WOTUS	waters of the United States

1.0 INTRODUCTION

This draft Supplemental Environmental Assessment (EA) has been prepared for the proposed State Route (SR) 71/SR-91 Interchange Improvement Project (Interchange Project or project) for use by the United States Army Corps of Engineers (USACE) to supplement the EA that was prepared for the Interchange Project in 2014. This current draft Supplemental EA includes the Onsite Alternative (or the Riverside County Transportation Commission (RCTC) Preferred Alternative) described in the 2014 EA, which is now considered the "No Action" Alternative, and proposed modifications (the Proposed Action). This Supplemental EA discusses and discloses any new or more severe environmental effects, beneficial or adverse, that may result from proposed changes to the project, in compliance with the National Environmental Policy Act of 1969 (NEPA) (42 United States Code [U.S.C.] Section 4321 *et seq.);* the Council on Environmental Quality (CEQ) regulations published in 40 *Code of Federal Regulations* [CFR] Part 1500 *et seq.;* and USACE procedures for implementing NEPA published in 33 CFR Part 230. This Supplemental EA also documents project compliance with other applicable Federal environmental laws, regulations, and requirements.

The Prado Dam and Flood Control Basin is operated for flood risk management along the Santa Ana River by USACE. The Interchange Project proposes the construction of a new flyover connector from SR-91 to SR-71 over the Santa Ana River, including bridge columns on the overbanks of the Santa Ana River Channel Spillway, and west of and downstream of the Prado Dam and Flood Control Basin. Realignment and widening of SR-71, changes to existing access driveways on SR-71, maintenance easements, and other improvements are proposed as part of the Interchange Project.

While the EA that was prepared and approved in 2014 addressed the potential environmental impacts of the Interchange Project on Federal land under the control of USACE, several changes to project features have since been proposed as part of the Interchange Project's final engineering design. This draft Supplemental EA documents the changed conditions in the project area since approval of the EA and evaluates the impacts of design changes on environmental resources that are present at and near the Prado Dam and Flood Control Basin and the Santa Ana River.

1.1 Project Authority

USACE is the federal agency responsible for the Santa Ana River Mainstem Flood Control Project (SARP), which is located along a 75-mile-long reach of the Santa Ana River in Orange, Riverside, and San Bernardino counties. The Prado Dam and Flood Control Basin was constructed along the Santa Ana River pursuant to the Flood Control Act of June 22, 1936, for flood risk management purposes. Dam construction was completed in May 1941, and various components of the SARP, which would raise the flooding elevation in Prado Dam from 543 feet to 563 feet, have been completed (e.g., raised embankment and outlet works reconstruction) or are currently under construction (e.g., protective dikes at lower Norco bluffs, Alcoa and River Road and raised spillway).

Pursuant to 10 U.S.C. 2668, USACE is authorized to issue easements to non-Federal agencies for the right to use Federal land if the proposed use is determined to be compatible with the Federal project, complies with Federal laws and regulations, and will not be against the public interest. As part of the Interchange Project, the RCTC and the California Department of Transportation (Caltrans) are requesting to use additional Federal land west of and downstream of the Prado Dam and Flood Control Basin and along the Santa Ana River for construction and operation and maintenance (O&M) activities associated with the new flyover connector from eastbound (EB) SR-91 to northbound (NB) SR-71, along with proposed changes to the SR-71 alignment, SR-71 access driveways, maintenance easements, and other project components that would be located near the Prado Dam and Flood Control Basin and the Santa Ana River.

The project would alter/modify a completed USACE flood risk management project, occupy Federal land, and result in the discharge of dredged or fill materials into waters of the United States (WOTUS). Per USACE policy, a non-recreational Outgrant would be required to allow for the alteration or modification of a completed USACE flood risk management project, provided the proposed alteration or permanent occupation or use of a Federal project is not injurious to the public interest and will not impair the usefulness of the Federal project. As such, USACE is serving as the Federal lead agency for NEPA review and compliance prior to their issuance of the Outgrant for the Interchange Project. The Outgrant will allow the use of a portion of Federal land for construction and maintenance activities and access for the Interchange Project.

1.2 Background

1.2.1 Location

The project area for the Interchange Project is generally located in the inland region of southern California, north of the Cleveland National Forest, south of SR-60, northeast of SR-241, and west of Interstate 15 (I-15) in an unincorporated area of Riverside County, California. More specifically, the project would be located along SR-71 and SR-91 and at the existing SR-71/SR-91 interchange at the western edge of Riverside County. A regional location map is provided in Figure 1-1. The project area is within the United States Geological Survey (USGS) 7.5-minute topographic quadrangle for Prado Dam, California and is partly within Sections 19, 20, and 29 and unsectioned areas in Township 3 South, Range 7 West.

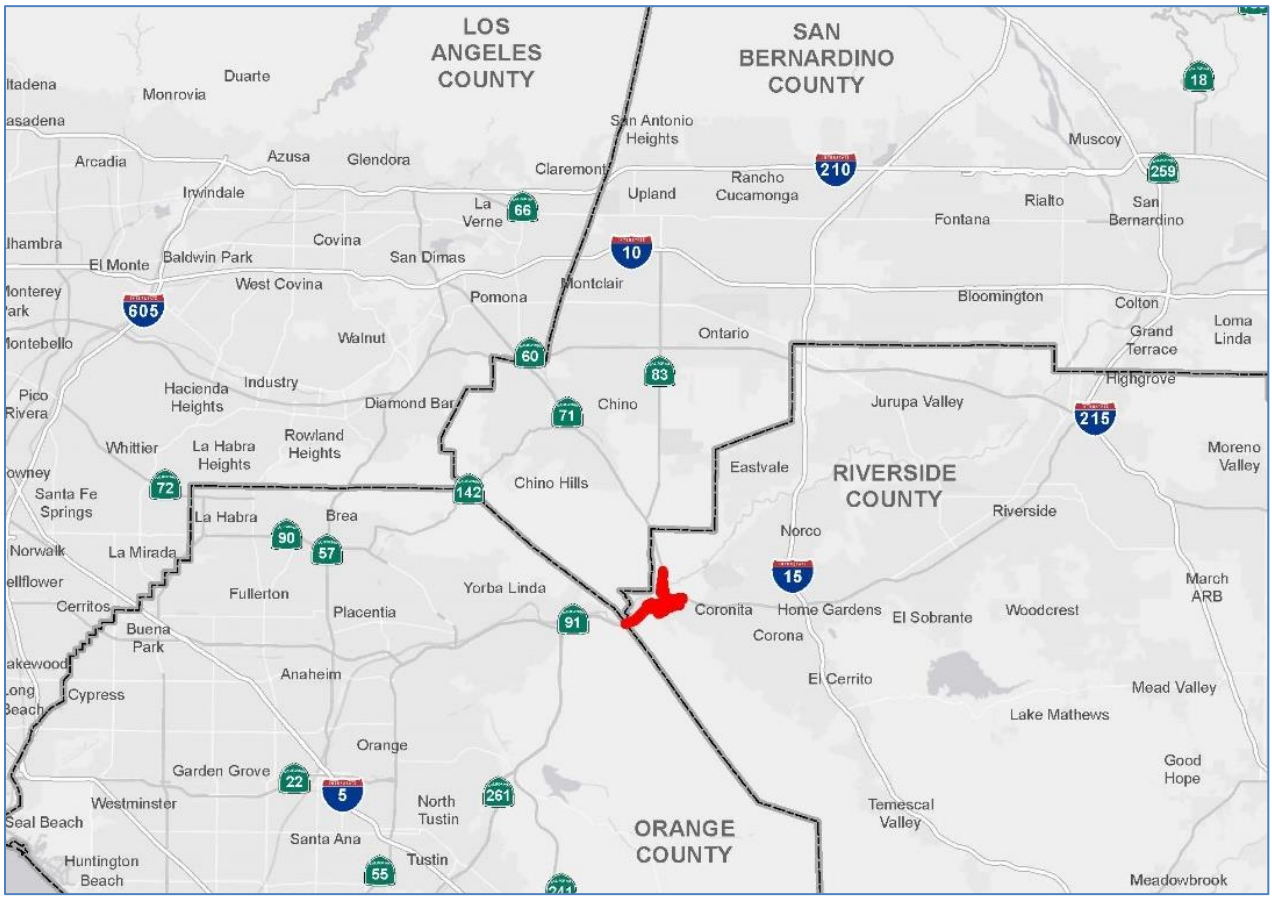


Figure 1-1: Regional Location

RCTC and Caltrans require access to Federal land west of and downstream of the Prado Dam and Flood Control Basin and along the Santa Ana River to construct and maintain components of the Interchange Project, which is a Federal Highway Administration (FHWA)-authorized project. The Prado Dam and Flood Control Basin and the Santa Ana River are on Federal land managed by USACE and identified as Riverside County Assessor's Parcel Numbers (APN) 101-140-006, 101-040-004, and 101-040-010. A local vicinity map is provided in Figure 1-2.

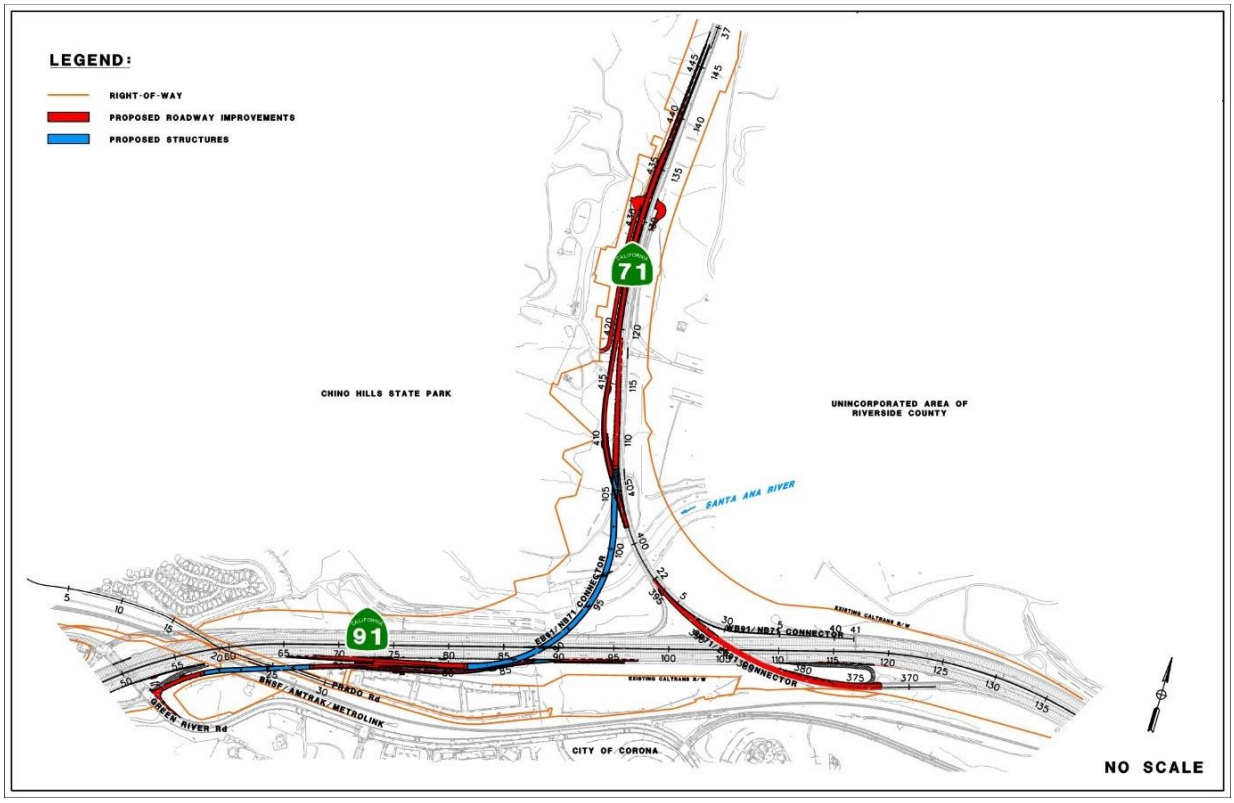


Figure 1-2: Project Location

1.2.2 Previously Approved Project

As addressed in the 2014 EA, the Interchange Project would improve the SR-71/SR-91 interchange by constructing a new direct flyover connector from EB SR-91 to NB SR-71. The project also includes bridge widening and restriping of SR-91 EB lanes, modification or construction of new drainage facilities, grading of hillside slopes, construction of retaining walls, SR-71 realignment and widening, and modification of access driveways. Some components of the project are proposed on Federal land west of and downstream of the Prado Dam and Flood Control Basin and along the Santa Ana River, which is part of the Federal levee system. While Caltrans currently holds an easement on a portion of Federal land in this area as part of the existing SR-71 and SR-71/SR-91 interchange, additional easements are needed for the Interchange Project. Based on final design plans for the Interchange Project, it is anticipated that modifications and alterations to the Santa Ana River Channel Spillway, which is part of the Prado Dam flood risk management facility, would also be required.

As per USACE policy, the siting of project components on Federal land must be compatible with the purposes of the Prado Dam and Flood Control Basin and the Santa Ana River. Furthermore, any alteration or modification of the Prado Dam and Flood Control Basin and the Santa Ana River would

require approvals and permits from USACE. The proposed alterations associated with the Interchange Project to areas west of and downstream of the Prado Dam and Flood Control Basin and along the Santa Ana River are considered relatively minor and would not adversely impact the SARP's performance. Thus, an EA was previously prepared to support the Initial Minor Section 408 determination issued by USACE. The EA was prepared to comply with USACE requirements for implementing NEPA and evaluated impacts to the human environment of allowing access to Federal land and that involve potential modifications to USACE facilities.

1.2.3 Project Refinements Since the Final EA

The Proposed Action discussed in this Supplemental EA remains largely the same as that analyzed in the previous EA, except for minor project design refinements. This Supplemental EA specifically analyzes the environmental effects of changes to the Interchange Project's proposed improvements on Federal land. Proposed design changes, which were not previously considered as part of the project, include:

- Sukut property driveway redesign and associated changes to USACE easements
- Chino Hills State Park (CHSP) right-of-entry permit
- Culvert modifications
- Bridge column footing redesign
- Additional rock slope protection along the Wardlow Wash channel
- Grading changes
- Utility line relocations
- Right-turn pocket on Green River Road
- SR-71 median barrier gap closure

Figure 1-3 shows an overview of the previously proposed project features and the general locations of the proposed project changes are shown in Figure 1-4. Of these project changes, the CHSP right-of-entry permit, right-turn pocket on Green River Road, culvert modifications, and drainage, utility, and retaining wall changes at Green River Properties would not occur on Federal land; therefore, they are not addressed in this Supplemental EA. Rather, this Supplemental EA focuses on potential impacts associated with changes to the following project features that are proposed on Federal land:

- Sukut driveway redesign
- Bridge column footing redesign
- Additional rock slope protection along the Wardlow Wash channel
- Grading changes
- Utility line relocations
- SR-71 median barrier gap closure
- Associated changes to USACE easements

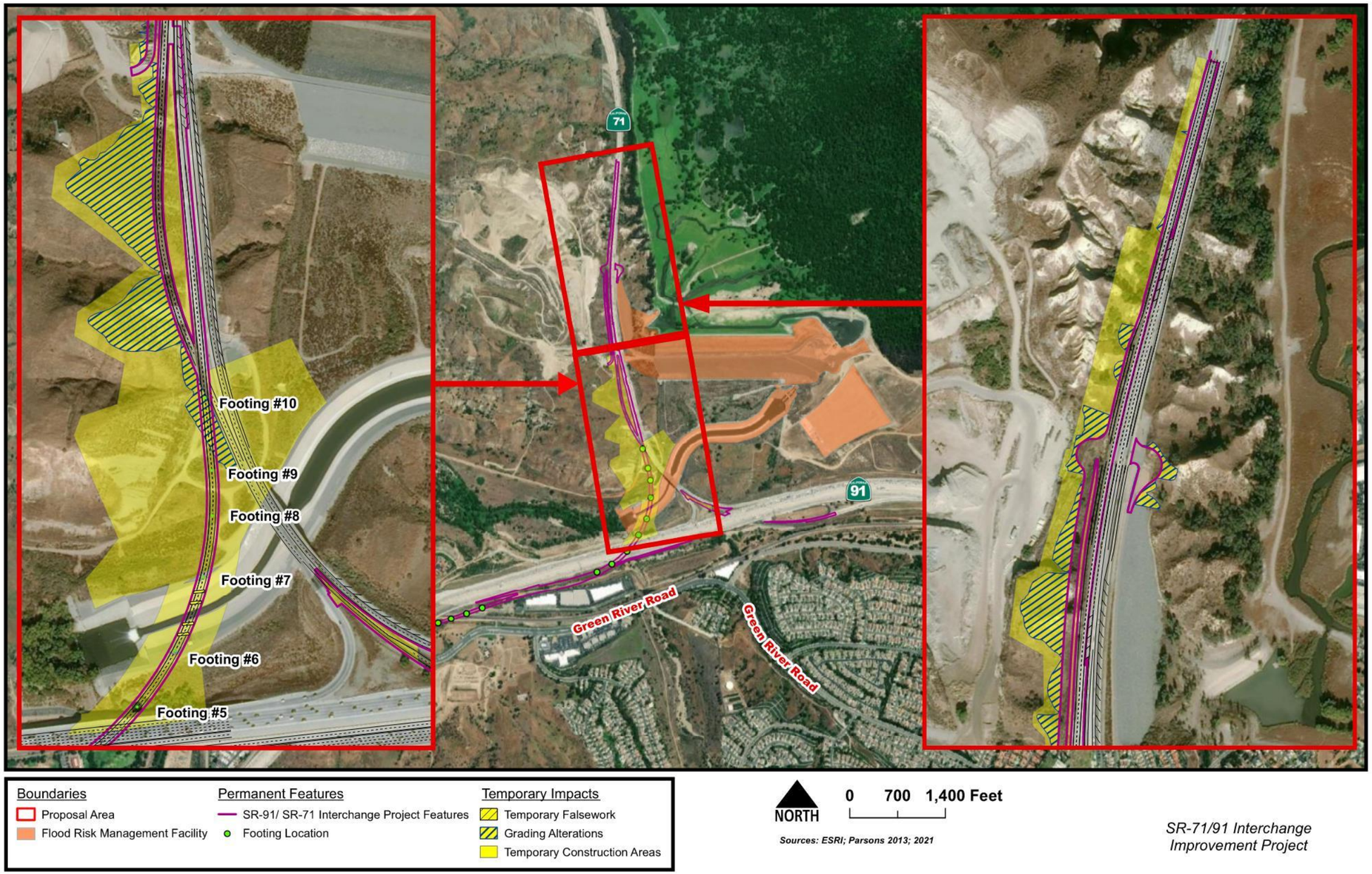


Figure 1-3: Overview of Previously Proposed Project

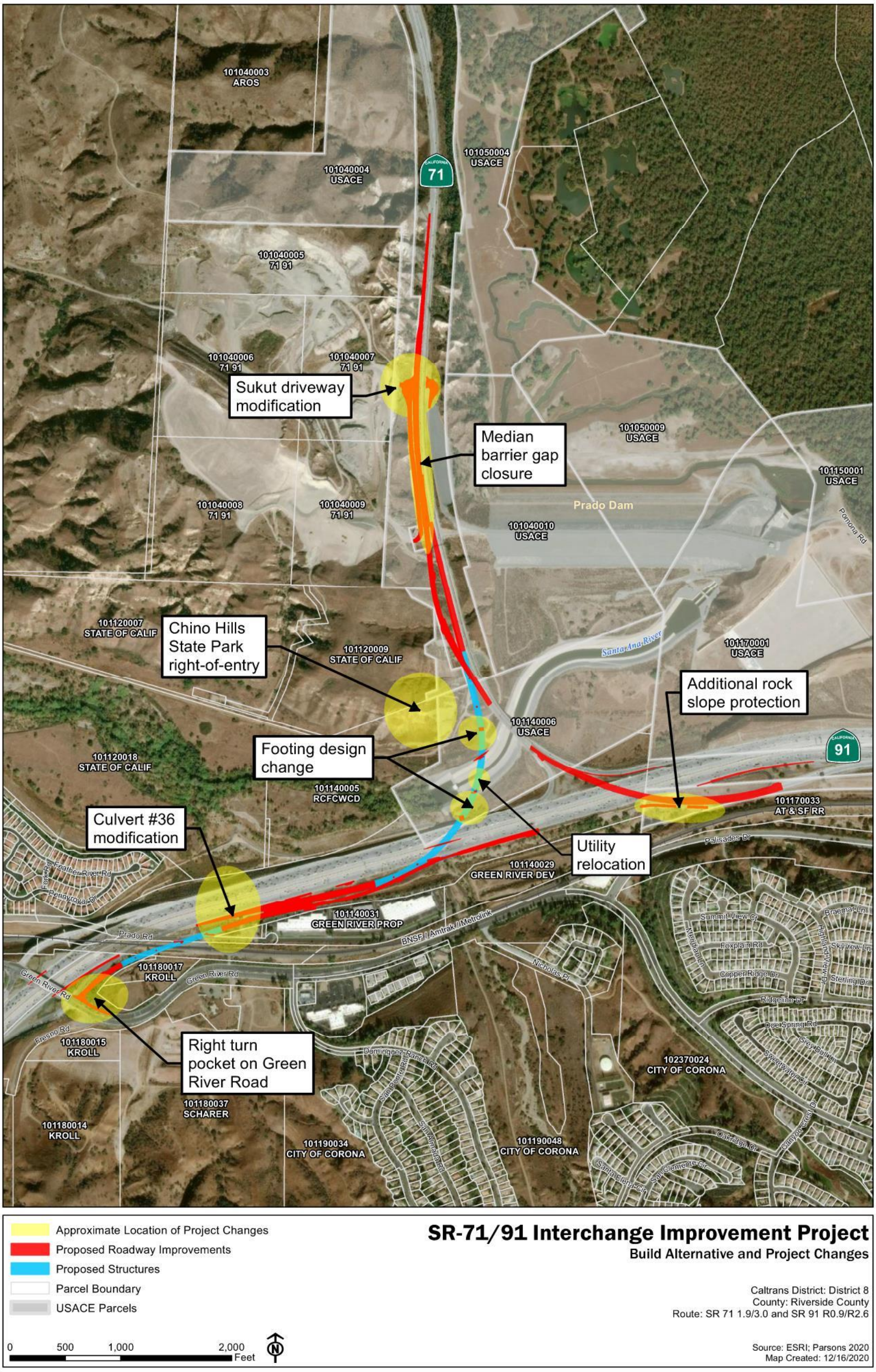


Figure 1-4: Proposed Project Changes

1.3 Purpose and Need

The Interchange Project will address current and future traffic operational deficiencies at the existing EB SR-91 to the NB SR-71 connector. The ramp is currently designed as a nonstandard tight-loop ramp with a posted speed limit of 20 miles per hour (mph), which restricts the speed of vehicles and causes a backup on the EB SR-91 mainline during periods of high transportation demand. The constricting configuration of the SR-71 NB ramp, compounded with the current transportation demand, necessitates the proposed improvements. The current configuration provides inadequate capacity during peak hours which results in segments having failing level of service (LOS).

As discussed in the 2014 EA, all SR-91 mainline segments in the traffic study area operated at acceptable levels of service (LOS) D or better in the existing condition. The SR-71 mainline is also operating at acceptable LOS during the peak hours. However, the existing SR-91/SR-71 interchange configuration is causing a backup of SR-91 EB to SR-71 NB traffic. Future regional growth is anticipated to further degrade traffic operations along the SR-91 and SR-71 ramp junction facilities. Under the Year 2035 no-build condition, which assumes the completion of various SR-91 and SR-71 freeway improvements in the area, the EB SR-91 connector to SR-71 would still be operating over capacity and result in congested traffic operations.

The Interchange Project would be part of the overall regional transportation strategy for reducing congestion and enhancing traffic operations along the SR-71 and SR-91 corridors. Specifically, the project aims to improve traffic operations at the SR-71/SR-91 junction, enhancing travel north via SR-71 towards San Bernardino County and east on SR-91 to nearby I-15 and west to SR-241. With improved operations, enhanced mobility to and from other modal facilities (e.g., airports and Metrolink stations), lower potential for rear-end and sideswipe type accidents, and reduced vehicle emissions for improved air quality would also be realized. In addition, the increased capacity of the connector ramp would eliminate backups onto the EB SR 91 mainline, thereby improving mainline operations and reducing lane changes that may lead to rear-end and sideswipe accidents.

1.3.1 Need for the Proposed Action

Based on the SR-71/SR-91 Interchange Improvement Project Traffic Study (2010), which considered peak hour backup of vehicles travelling eastbound on SR-91 to northbound SR-71 and regional growth projections in the Southern California Association of Governments (SCAG) Regional Transportation Plan (RTP) and RCTC's long-range traffic model, existing and future traffic congestion is anticipated to occur at the SR-71/SR-91 interchange because of projected increases in traffic volumes and the existing configuration of the nonstandard tight-loop ramp. To address traffic operational deficiencies, the existing interchange needs to be improved through construction of a direct flyover connector linking SR-91 and SR-71 and associated SR-71 realignment and widening. Improvements to this freeway interchange would require alterations/modifications to Federal land and temporary construction activities within Federal land managed by USACE. Additional easements and permits from USACE to construct roadway features and structures would also be required.

USACE's need for the Proposed Action is to provide a determination regarding the impacts on Federal land from the Interchange Project per USACE's delegated authority under 33 U.S.C. 408, as the project would permanently alter/modify areas west of and downstream of the Prado Dam and Flood Control Basin and along the Santa Ana River from their original design. USACE's determination would be based on whether temporary or permanent occupation and/or use of any component of the flood risk management facility by the Interchange Project would adversely impact the Prado Dam and Flood Control Basin and the Santa Ana River operations and maintenance activities.

In addition to approval of the flyover connector, USACE must determine whether there is a justified need for expanded permanent and temporary easements to accommodate the realignment/widening of SR-71, grading of hillside slopes, modification of existing access driveways, and maintenance easements to allow Caltrans to maintain the various components of the project. USACE must also assess the environmental impacts of such an approval before a non-recreational Outgrant and Section 404 permit could be issued.

1.3.2 Purpose of the Proposed Action

The purpose of the Proposed Action is to improve the operational efficiency of the EB SR-91 to NB SR-71 connector and minimize future congestion and delay in the EB direction of SR-91 between Green River Road and the SR-71/SR-91 interchange through construction of an expanded freeway interchange. The purpose for requesting the occupation of Federal land to construct, operate, and maintain the Interchange Project is to improve vehicle circulation and provide the general public with an efficient and safe flyover bridge structure that satisfies seismic and roadway design standards.

USACE's purpose is to ensure that the Proposed Action:

- Is not adverse to the public interest
- Is compatible with Federal flood risk management projects
- Avoids adverse effects to the Federal flood risk management project, including changes associated with increased water surface elevation and hydrology
- Does not interfere with O&M or reduce accessibility to the Prado Dam and Flood Control Basin and the Santa Ana River
- Assesses whether the request to occupy Federal land is justified and, if so, whether the use of Federal lands is necessary for the requested use
- Is the least environmentally damaging practicable alternative to accomplish Caltrans' and RCTC's objectives

1.4 Previous EA

In 2011, Caltrans and RCTC completed the environmental documentation requirements of the California Environmental Quality Act (CEQA) and NEPA for the Interchange Project. A CEQA Initial Study (IS) was prepared and circulated for public review, culminating in approval of the Mitigated Negative Declaration (MND) on June 29, 2011, by Caltrans. Subsequent to that action, Caltrans, as delegated by FHWA, prepared a NEPA Categorical Exclusion (CE) for the proposed Interchange Project and received a CE determination on the same date (see Appendix A). While Caltrans may have identified a CE for the project, there is no applicable CE contained in USACE's Civil Works NEPA implementation regulations (33 CFR Part 230). As such, USACE did not recognize the CE for the Proposed Action; and an EA was prepared to comply with NEPA, prior to USACE issuing permits for the project.

In compliance with CEQ regulations (40 CFR § 0502.16), the EA for the Interchange Project addressed the potential impacts on the affected environment within the project area for two alternatives: No Action Alternative and Onsite Alternative. The EA analyzed temporary impacts (e.g., lasting the duration of construction activities [approximately 2 years]) and permanent impacts for the near term and the foreseeable future, up to a period of 15 years after construction of the Interchange Project (2035). The EA was approved by USACE in August 2014 and a Finding of No Significant Impact (FONSI) was issued in September 2014.

The southern end of SR-71 and a portion of the existing SR-71/SR-91 interchange are located on Federal land by virtue of an existing easement from USACE to Caltrans; however, the existing easement is insufficient to construct the Proposed Action. The real estate instrument associated with the Proposed Action is an amended easement. An amended and expanded easement for an additional 21 years and/or in perpetuity from USACE would be necessary along the west side of SR-71 on Federal land (identified as Riverside County Assessor's Office APN 101-040-004) for the purpose of providing access to Caltrans for maintenance of the drainage and hillside slopes that would be constructed as part of the project. At the same time, Caltrans is also requesting to relinquish a portion of its current roadway easement, which would provide access to the adjacent Sukut property and is not needed for SR-71 O&M, back to USACE. A discussion of easements is provided in Section 2.2.1, Previously Approved Design for Onsite Alternative.

The EA for the Interchange Project analyzed the effects of two bridge columns proposed on the Santa Ana River Channel, four other bridge columns within Federal lands, realignment and widening of SR-71, enhancement of an existing wildlife crossing, hillside slope grading, access driveway modifications, construction activities and mobilization of equipment, and construction of a bridge spanning over the Santa Ana River Channel. Operational effects on the SR-91 freeway mainline, SR-71 mainline, and the freeway interchange facility are outside the scope of the analysis provided in the EA because the analysis in the EA was limited to the area within USACE property (Federal land) in the vicinity of SR-71 and SR-91 where physical alterations and/or modifications to the existing flood risk management facility are proposed. Operations and maintenance activities for the freeways and interchange will continue to be Caltrans' responsibility and would occur within public right-of-way and the easements granted by USACE and other stakeholders (e.g., State Parks and Recreation, Riverside County Flood Control District, AT&SF, and Green River Properties) to Caltrans.

Similarly, the Supplemental EA analysis in this document is focused on proposed alterations and modifications to the project components that would be located on Federal land.

1.5 Purpose of Supplemental EA

1.5.1 Purpose

This Supplemental EA analyzes the environmental impacts of design refinements and their associated changes to the previously proposed modifications to Federal land that would accompany the Interchange Project. This Supplemental EA fulfills USACE's commitment to comply with NEPA through the analysis of the potential effects of implementing the Interchange Project, as revised, prior to any approval or permit for the project. It also includes any new or revised avoidance, minimization, or mitigation measures to reduce new or more severe impacts associated with project changes, as necessary.

1.5.2 Scope and Organization

This Supplemental EA is tiered from the previously approved EA and updates the analysis in that document, where needed, with a focus on the impacts of proposed project design changes. This Supplemental EA incorporates the analysis and avoidance, minimization, and mitigation measures (environmental commitments) from the previous EA to address impacts associated with the Interchange Project that do not change and remain applicable to the project. This Supplemental EA has also been formatted to reflect the organization of the previous EA. As such, throughout this document, information and analyses that have not changed since the EA was approved are referenced back to that previous document.

The 2014 EA and this Supplemental EA are available online at the USACE website: https://www.spl.usace.army.mil/Media/Public-Notices/. Copies of the EA and Supplemental EA may also be obtained by contacting the USACE Los Angeles District Public Affairs Office at 915 Wilshire Boulevard, Los Angeles, California 90017; by phone at 213-452-3333 and by e-mail at publicaffairs.spl@usace.army.mil. The Supplemental EA will be subject to a 30-day public review period from April 16 to May 16, 2021, during which USACE will accept comments and questions regarding the project and the Supplemental EA. Following the 30-day review period, public comments received will be reviewed, and the USACE Asset Management Division will determine if an Environmental Impact Statement (EIS) would be required or a FONSI remains the appropriate environmental determination for the Proposed Action.

1.6 USACE Non-Recreational Outgrant Policy Compliance

In executing the USACE mission, USACE Districts receive numerous and diverse proposals for the use of Federal lands and waters at Civil Works water resources projects, including the SARP. In evaluating these non-recreational and use development requests on USACE-managed lands and waters, it is USACE's policy to meet legitimate needs for the use of Federal lands and waters, while sustaining natural resources and protecting authorized USACE project purposes.

In accordance with USACE's Non-Recreational Outgrant Development Policy, the primary rationale for justifying any future non-recreational Outgrant request for the use of Federal lands or waters will be one of two reasons:

- There is no viable alternative to the activity or structure being located on Civil Works land or waters; or
- There is a direct benefit to the government.

If a proposal meets one of these two criteria, it must be evaluated in light of compatibility with authorized project purposes; compliance with statutory and regulatory requirements, including environmental and cultural resource laws; cumulative impacts; and overall long-term public interest factors.

In terms of the Proposed Action, SR-91 and SR-71 are existing highway corridors connecting Riverside, San Bernardino, and Orange counties, with an existing nonstandard, constrained interchange at their junction. The SR-71/SR-91 interchange crosses Federal land southwest of the Prado Dam and Flood Control Basin. Under the Interchange Project, SR-71 and SR-91 are proposed to be modified to increase the safety of the SR-71/SR-91 interchange and improve traffic flow through the area. Portions of the existing structure currently occupy Federal land through an easement to Caltrans.

Caltrans has determined that expansion of another freeway structure or connection to a roadway located outside Federal land and not occupied by the Prado Dam and Flood Control Basin and the Santa Ana River is not feasible for the project; therefore, Caltrans has eliminated the possibility of any other viable location for the Interchange Project. Given these geographic constraints and the need for improvements at the existing highway junction, no viable alternative site to the Proposed Action exists. The project would also result in a direct benefit to the government by allowing for the improvement of an existing government facility that serves the public and for the continued shared use of Federal land for two separate but nonconflicting purposes (i.e., transportation and flood risk management).

The Interchange Project requires a non-recreational Outgrant from USACE prior to construction. In accordance with USACE's Non-Recreational Development Outgrant Policy, the Interchange Project was analyzed in a previous EA and is analyzed in this Supplemental EA within the context of project

compatibility with the Prado Dam and Flood Control Basin and the Santa Ana River's flood risk management purposes for project compliance with statutory and regulatory requirements, including environmental and cultural resource laws; cumulative impacts; and its overall long-term public interest factors.

2.0 ALTERNATIVES

2.1 No Action Alternative

The 2014 EA analyzed the impacts associated with implementation of the Onsite Alternative (or RCTC's Preferred Alternative), which has since obtained environmental clearances from RCTC, Caltrans, FHWA, and USACE. Thus, at this time, a No Action Alternative would mean constructing the SR-71/SR-91 Improvement Project with the design specifications discussed in the previous EA. Therefore, the Onsite Alternative that proposed the improvements identified in the previous EA, with no changes to the project design, could be built and is considered as a No Action Alternative in this Supplemental EA.

This alternative requires access to and use of Federal land to construct the direct flyover bridge connector from EB SR-91 to NB SR-71, including construction of six bridge columns, hillside slope grading west of SR-71, enhancement of an existing wildlife crossing, SR-71 realignment and widening, and modification of existing USACE access roads off southbound (SB) SR-71 (for USACE access to the Prado Dam and Flood Control basin and for access to the adjacent Sukut property). Temporary access to Federal lands, identified as APNs 101-140-006, 101-140-004, and 101-040-010, would be required to implement the No Action Alternative and mobilize the necessary construction equipment to and from the construction areas. This alternative requires an amended long-term easement on approximately 7.01 acres to construct portions of the Interchange Project and grade hillside slopes to accommodate the realignment and widening of SR-71. As determined by USACE's Chief of Engineers, siting of components of the project on Federal land used for flood risk management purposes is compatible with this purpose. This alternative was reviewed by USACE and issued an Initial Minor Section 408 Action Determination in April 2013.

2.1.1 Previously Approved Design in 2014 EA

Many of the project features discussed and analyzed in the 2014 EA have not changed and are now part of the No Action Alternative. Figure 2-1 shows the major project features of the No Action Alternative, which would include:

- **Bridge Columns.** Six bridge columns and footings are proposed on Federal land (west of SR-71), encompassing a total area of 675 square feet or 0.015 acre. Two of the footings would be located on the levee of the Santa Ana River Channel Spillway, and four footings would be located outside the spillway. Four other footings would be constructed outside of Federal land (south of SR-91). Permanent and temporary measures have been incorporated into the bridge column design and construction methods to minimize potential impacts to the existing channel levee.
- **Realignment of SR-71.** The existing SB SR-71 lanes would be realigned to the west to provide adequate spacing for the flyover bridge structure to touch down and form the inside lanes of NB SR-71. This would require an amended easement from USACE. Approximately 4.5 acres of new pavement would be constructed within the amended easement on the western edge of SB SR-71.
- **Hillside Slope Grading.** Grading of hillside slopes generally located north of SR-91 and west of SR-71 would be required to accommodate the flyover bridge structure and realignment of the SR-71 SB connector to EB SR-91. Most of the SR-71 realignment would be constructed within an existing Caltrans easement; however, hillside slope grading would be required to construct a maximum 2:1 gradient and provide a long-term roadway/slope/drainage easement west of the SR-71 travel lanes. Preliminary design plans indicate that an additional 7.01 acres of long-term easement would be required from USACE to construct and maintain the hillside slopes.

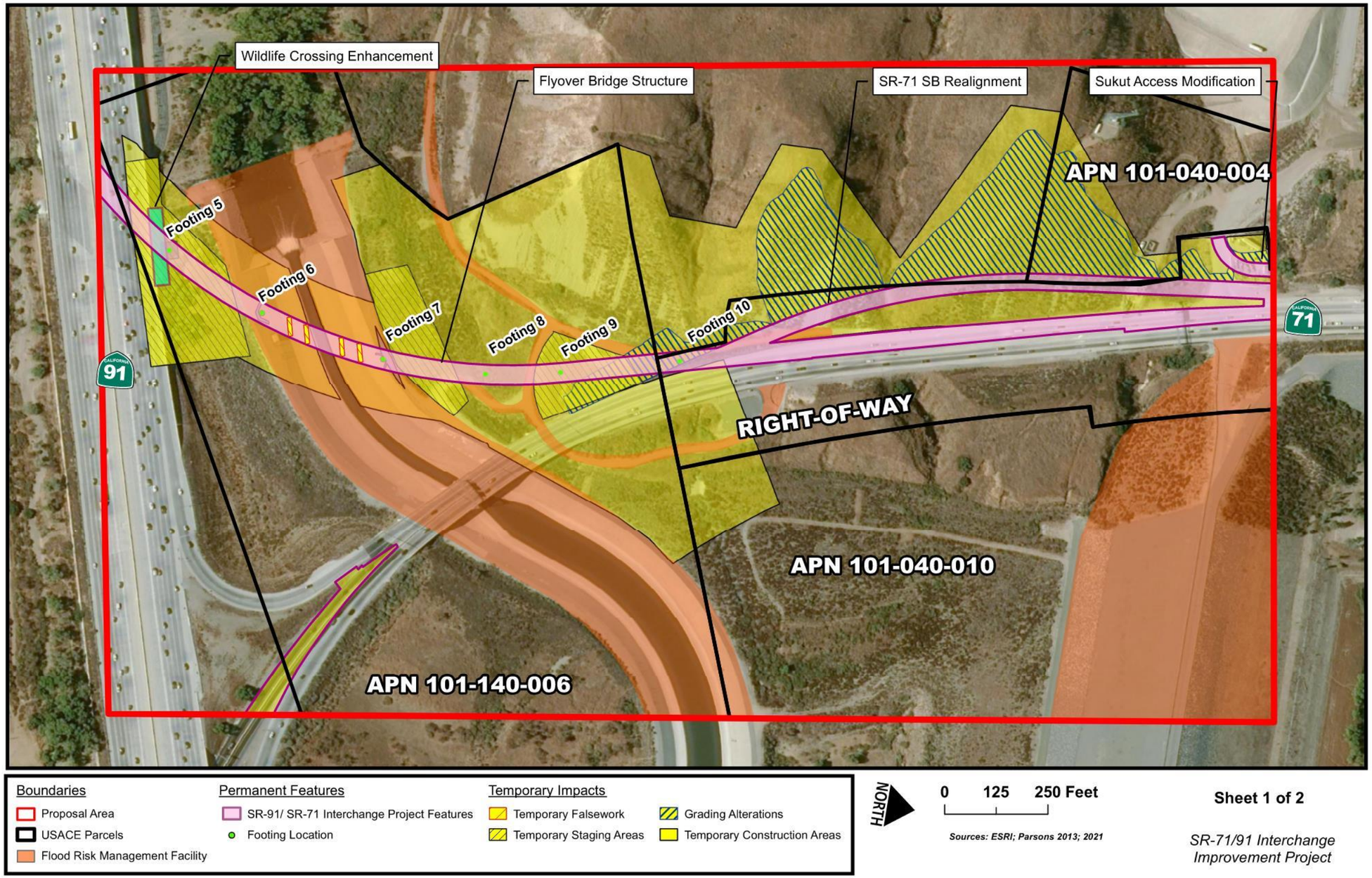


Figure 2-1: Previously Approved Design (Sheet 1 of 2)

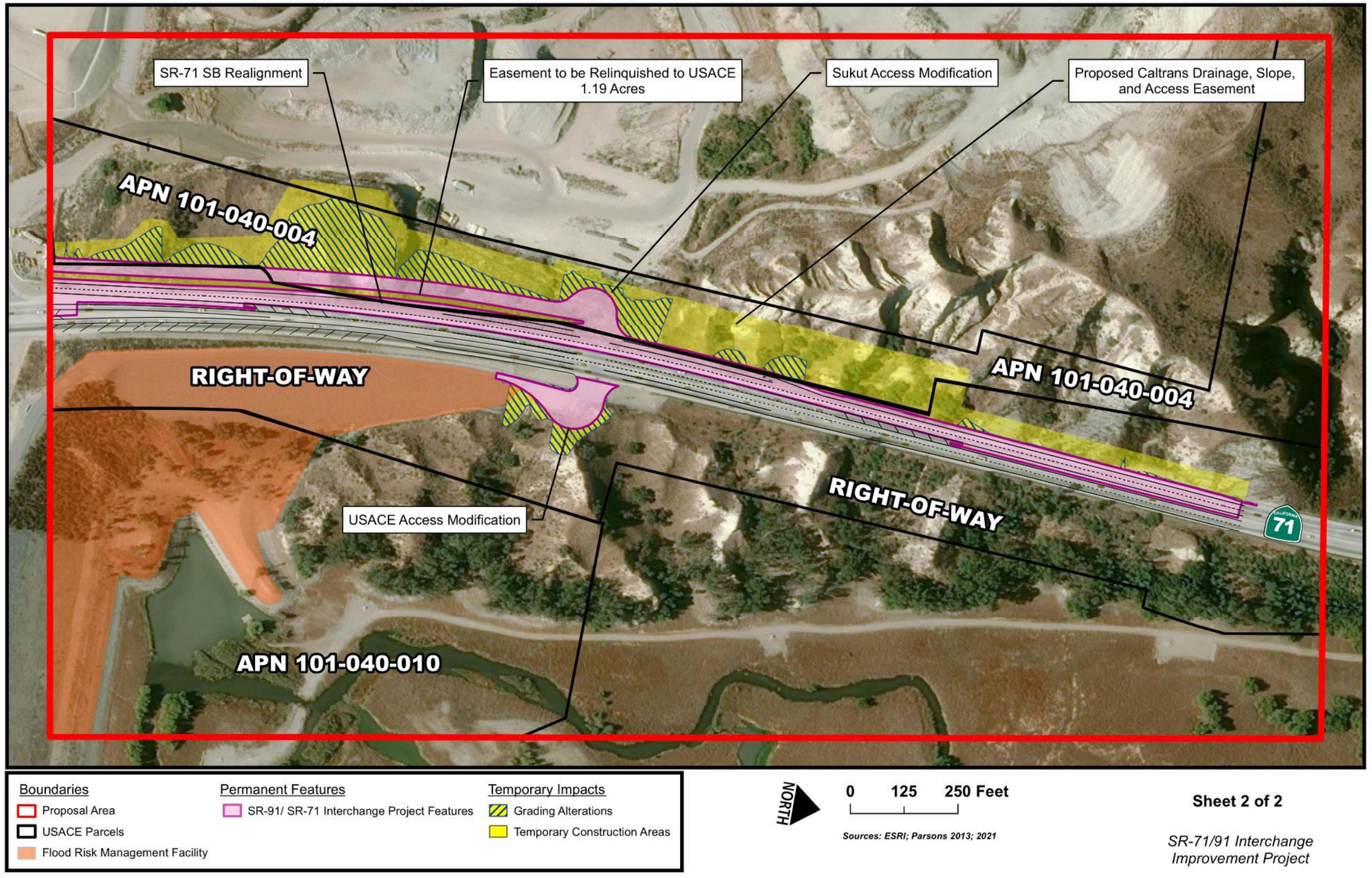


Figure 2-1: Previously Approved Design (Sheet 2 of 2)

- **Access Modification/Improvements.** Four existing access driveways along SR-71 are located within the jurisdiction of USACE and provide access to areas within the Prado Dam, Santa Ana River, and the surrounding area.

  - Access Point #1 is located approximately 0.28 mile north of SR-91 and provides access east of SR-71 to the general area of the Santa Ana River Channel and the Prado Dam. This access point would be maintained in its current location.
  - Access Point #2 is located approximately 0.33 mile north of SR-91 and provides access to areas west of SR-71, the Santa Ana River, and channel spillway. This access would be vacated to accommodate the proposed roadway geometrics and structural features of the flyover structure.
  - Access Point #3 is located approximately 0.5 mile north of SR-91 and provides access to the west and east of SR-71 and to the Sukut property, which is a rock crushing and mining company west of SR-71. The existing eastern access provides access directly to the Prado Dam. Access to the Prado Dam would be maintained at this location, but access to the Sukut property would be relocated 0.25 mile to the north at Access Point #4.
  - Access Point #4 is located approximately 0.75 mile north of SR-91 and provides access to the east of SR-71 to the Prado Flood Control Basin and the Prado Dam. The Onsite Alternative would construct a western access driveway at this location and provide a roadway parallel to SB SR-71 from Access Point #4 to the existing Sukut property entrance (located 0.25 mile south at modified Access Point #3). This would require an additional 1.19 acres to construct. Access Point #4 would also be modified by providing the eastern driveway an exclusive right-turn lane into the Prado Flood Control Basin and an acceleration lane out of the driveway. Approximately 0.36 acre within Federal land would be required to construct the modified eastern driveway.

- **Proposed Relinquishment and Additional Easements.** Since 1950, Caltrans has been granted an 8.19-acre roadway easement for SR-91 and SR-71 within Federal land by USACE. The proposed Sukut property access driveway would be partially constructed outside of the existing Caltrans roadway easement along SR-71. The owner of the Sukut property agreed that Caltrans would relinquish its current roadway easement within the limits of the proposed Sukut driveway and roadway to USACE after construction of the modified Sukut property access driveway and roadway. The easement to be relinquished to USACE is approximately 0.53 acre and is located along the western side of SB SR-71. Sukut would then obtain a new easement from USACE to include the area of the proposed Sukut driveway and roadway of approximately 1.19 acres for access to and from their property. Maintenance and access easements located within the same 1.19-acre easement would also be requested from USACE by the following existing utilities: Southern California Edison (SCE), Riverside County (Cell Tower), Southern California Gas Company (SCG), and AT&T.

- **Removal of Concrete Revetment and Wildlife Crossing Enhancement.** The existing undercrossing bridge[1] generally located south of the Santa Ana River Spillway and north of SR-91 would be improved to better accommodate wildlife crossings across SR-91 per the United States Fish and Wildlife Service (USFWS). The improvements include removal of the existing concrete revetment and re-grading the existing 2:1 slope to a flatter 4:1 slope to facilitate north–south wildlife movement across SR-91. Native vegetation would also be planted within the area for habitat continuity.

- **Construction Activities and Mobilization of Equipment.** During construction of the project, the proposed bridge columns, construction of the flyover bridge structure, and hillside slope

[1] This undercrossing is identified by the Western Riverside County Multiple Species Habitat Conservation Plan as Proposed Constrained Linkage (PCL) – 2.

grading within Federal land would be accessed via USACE-approved access points, routes, and staging areas. Four access points would be used by construction equipment to reach various construction areas to minimize ground disturbance of other areas on Federal land. Construction Access Point #1 is located along SR-91 at the existing wildlife crossing near the Santa Ana River Channel Spillway. This access point would provide access to construction areas south of the Santa Ana River Channel. Construction Access Point #2, located west of SR-71, would provide access to construction areas west of SR-71 and north of the Santa Ana River Channel, to the hillside slope grading areas, and to the new Sukut access driveway and roadway. Construction Access Point #3 would provide access for construction areas located east of SR-71 and north of the Santa Ana River Channel. The existing roadway access to Prado Dam (Construction Access Point #4), located east of SR-71 and 0.5 mile north of SR-91, would be used for construction equipment to travel on the road on top of the dam structure towards the Santa Ana River Channel. An existing bridge spans across both sides of the levee, which would be utilized to bring construction equipment downstream on either side of the levee near the proposed construction areas where the two bridge columns, temporary falsework, and flyover bridge structure would be constructed. Figure 2-2 shows the location of proposed construction access points.

Existing access roads (USACE access roads on Federal lands) and/or previously disturbed areas would be utilized to the greatest extent feasible during construction; thereby, reducing potential effects to undisturbed resources on Federal land, such as native vegetation. Most of the areas near these proposed access points and routes have been previously disturbed as a result of past and ongoing USACE projects and maintenance activities. Additionally, temporary construction staging areas are proposed near the locations of the proposed bridge columns and flyover bridge structure on both sides of the Santa Ana River Channel Spillway and west of SR-71. Staging areas and access paths would be temporarily graded to flatten the areas to allow mobilization of construction equipment. These areas would be covered with crushed gravel to accommodate the use of heavy construction equipment. All disturbed areas would be restored to preconstruction conditions after project construction is completed.

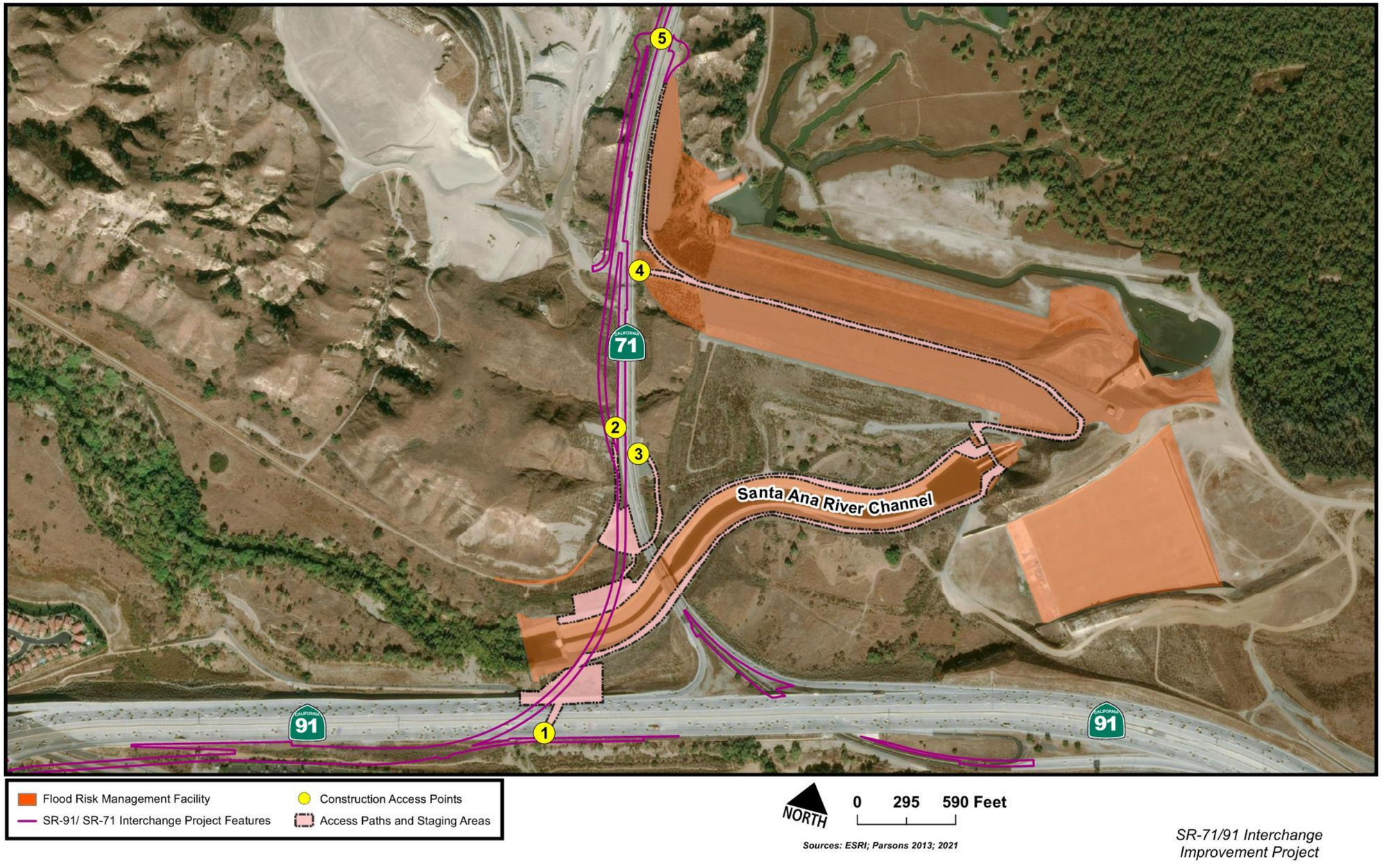


Figure 2-2: Construction Access Points

2.2 Revised Project Alternative

While the No Action Alternative in this Supplemental EA was the Proposed Action and Preferred Alternative in the 2014 EA, design refinements have been identified based on the preparation of final engineering plans for the project. Thus, the Revised Project Alternative incorporates several changes to project features and is now identified as the Proposed Action and Preferred Alternative in this Supplemental EA.

2.2.1 Proposed Project Changes

Under the Revised Project Alternative, the major features of the Interchange Project remain the same as described in the previous EA and summarized in Section 2.2.1, Previously Approved Design for Onsite Alternative, except for some project features that have been redesigned. Design refinements to project features that have been proposed since approval of the 2014 EA and that would be located within Federal land west of and downstream of the Prado Dam and Flood Control Basin and along the Santa Ana River include:

- **Sukut Driveway Redesign.** The Sukut driveway has been redesigned to accommodate simultaneous turning movements based on a WB-50 design vehicle, which required the driveway knuckle to be widened to provide adequate turning movements. A secondary access opening on the knuckle has also been added to satisfy emergency vehicle access concerns. Approximately 4,968 square feet (0.11 acre) of additional area would be paved due to this project change. See Figure 2-3 for the proposed Sukut Driveway redesign.
- **Permanent Easement at USACE Property.** Design modifications to the Sukut driveway and associated grading changes on USACE property (APN 101-040-004) have increased the permanent easement requirements from 305,300 square feet (7.01 acres) to 305,352 square feet (7.01 acres). This includes the roadway/highway easement needed for the realigned and widened SR-71 and the additional areas for drainage, slope, and access easements west of SR-71 and to access and maintain the proposed improvements. Approximately 4.61 acres of new pavement would be constructed within the amended easement on the western edge of SB SR-71. In addition, approximately 0.53 acre of Caltrans' existing 8.19-acre easement that is partly within the proposed Sukut driveway would be relinquished back to USACE (for transfer of a 1.30-acre easement to Sukut). This modification changes the areas subject to USACE property easements. See Figure 2-4 for the existing and proposed easements.
- **Footing #5 and Footing #8 Design Change.** Two of the footings that would support the columns of the proposed flyover bridge and that would be located near the Santa Ana River channel have been redesigned from cast-in-drilled-hole (CIDH) piles to spread footings with multiple CIDH shafts. This is primarily due to structural design requirements and site geologic conditions. The 144-inch-diameter pile shafts at Footings #5 and #8 would be replaced by 37-foot by 42.25-foot and 26.5-foot by 40-foot concrete footings respectively with multiple 42-inch-diameter CIDH shafts. The two spread footings would be constructed a few feet beneath the ground surface, over an area of approximately 2,624 square feet. These footings would be located on Federal land just north of SR-91 but outside the Santa Ana River Channel levee. As shown in Figure 2-5, the proposed spread footings would involve excavation over a wider area but at shallower depths.
- **Utility Relocations.** While the relocations of the SCE, SCG, water, fiber-optic, and communications lines have been completed, the Santa Ana Watershed Project Authority's (SAWPA) abandoned 48-inch-diameter reinforced concrete pipe (RCP) that crosses the Santa Ana River channel and the USGS' 1.5-inch transducer conduit north of SR-91 remain in place.

The RCP would remain in place (but a small portion of the pipe at the proposed column location will be removed and a concrete plug placed on each end of the cut pipe) while the transducer conduit would be relocated as part of project construction to move the conduit away from the proposed bridge column (Footing #6). See Figure 2-6 for these existing utilities and their proposed relocations.

- **SR-71 Median Barrier Gap Closure.** Based on current Traffic Collision Data, Caltrans has directed closure of the barrier gap along SR-71 through removal of the left-turn pockets at the Sukut and USACE driveway locations. To maintain emergency vehicle access for USACE, the project would install a slide barrier to allow vehicles to turn from SB SR-71 into the northernmost USACE driveway during an emergency situation. Figure 2-7 shows the location of the proposed median barrier and slide barrier.
- **Additional Rock Slope Protection.** Approximately 420 feet of new rock slope protection would be added to the southern side of the SB SR-71 to EB SR-91 connector ramp along the Wardlow Wash channel. Caltrans placed approximately 120 feet of rock slope protection in 2019 as an emergency response to erosion along the wash near the SB SR-71 connector. RCTC has agreed to place additional rock slope protection along 420 feet of the wash (covering a total of 10,019 square feet) to stabilize the embankment and protect the SB SR-71 connector. Figure 2-8 shows the additional rock slope protection along Wardlow Wash.
- **Grading Modifications.** Grading modifications are proposed to accommodate the project design changes described above. Within Federal land west of and downstream of the Prado Dam and Flood Control Basin and along the Santa Ana River, approximately 14.69 acres of existing unpaved areas would be subject to grading, which includes refinements to the grading design and the widened Sukut driveway along the west side of SB SR-71. Figure 2-9 shows the general extent of proposed grading.

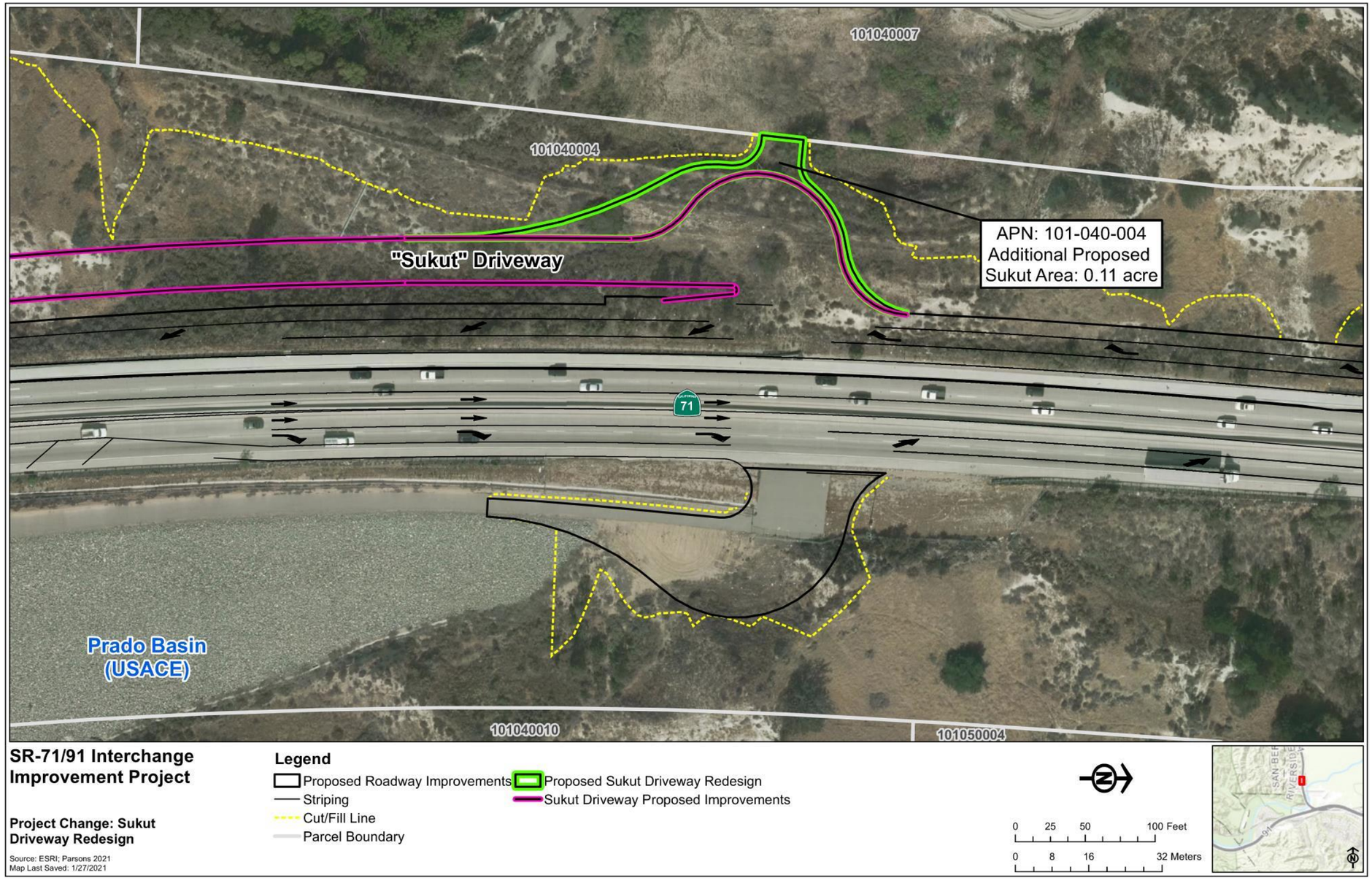


Figure 2-3: Sukut Driveway Design

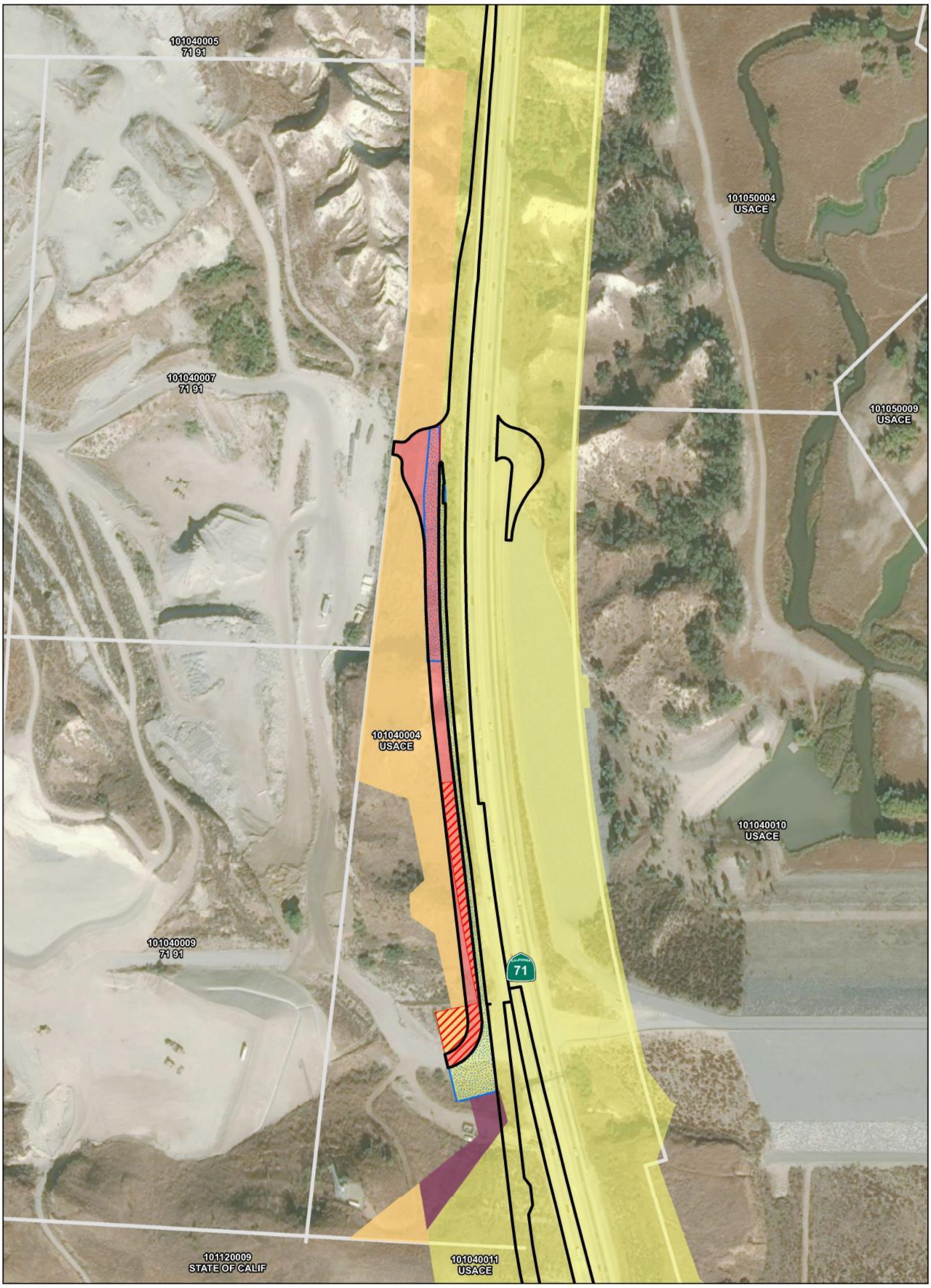


Figure 2.4: Easements

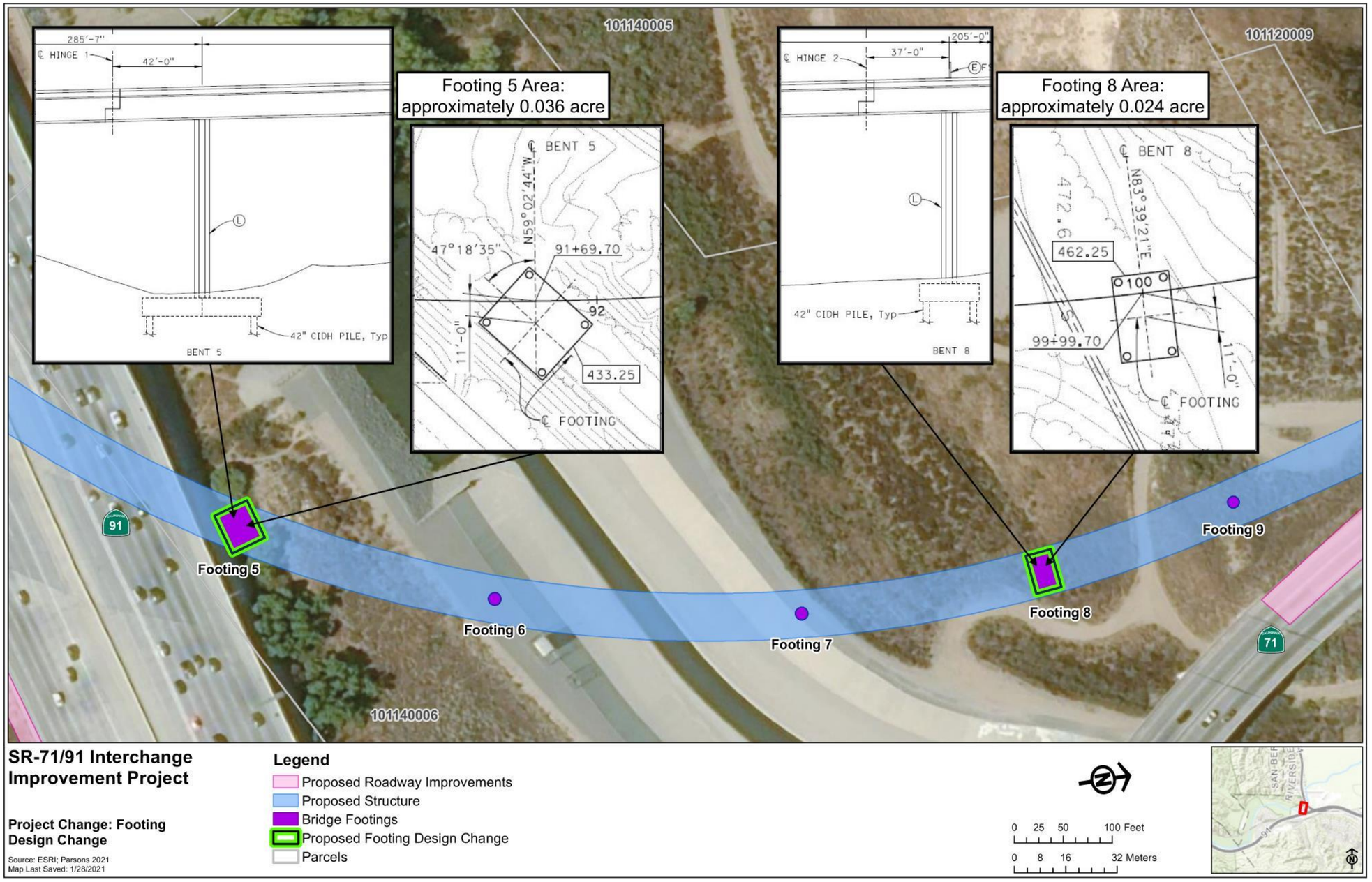


Figure 2-5: Footing Design Change

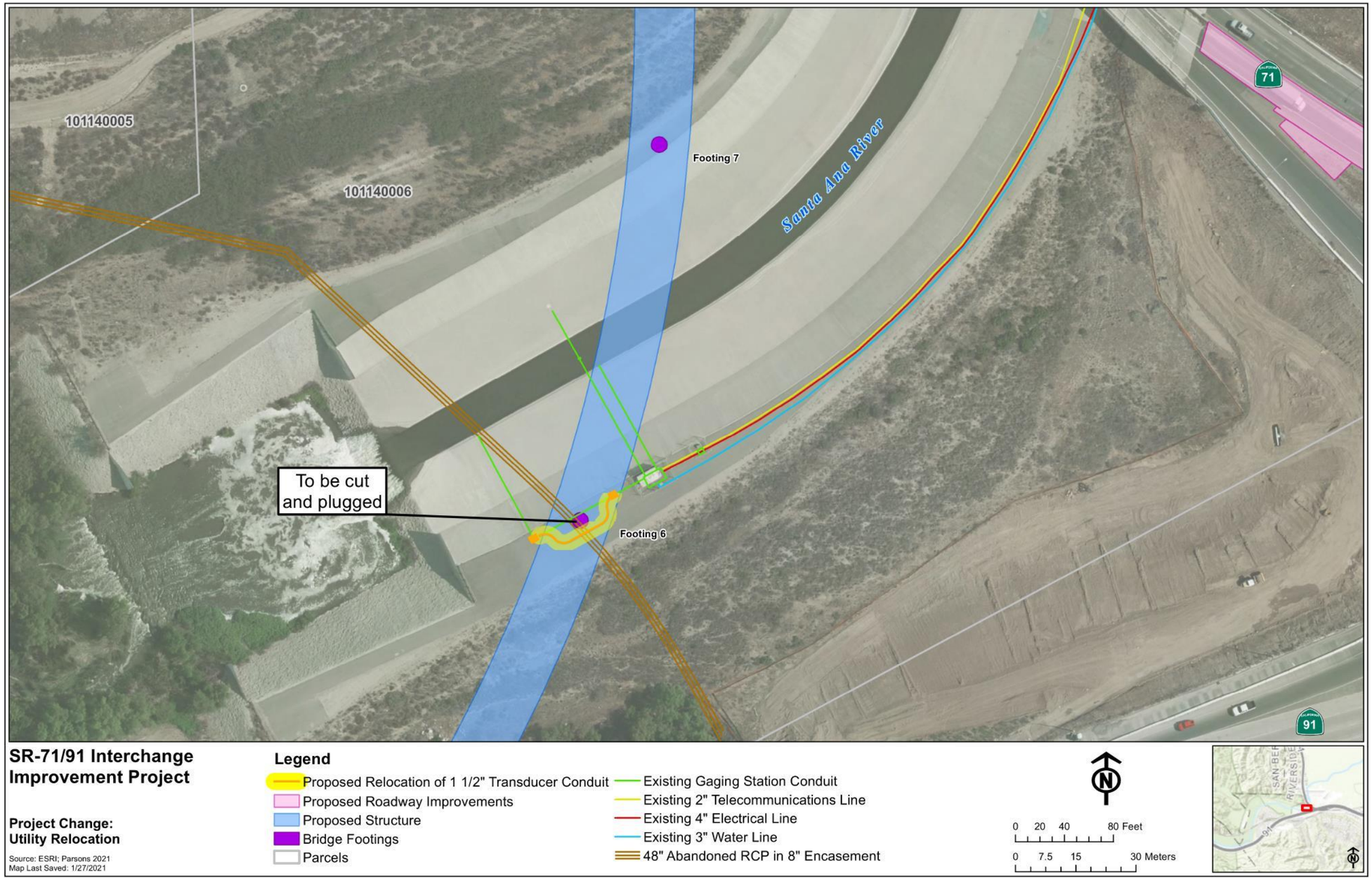


Figure 2-6: Utility Relocation

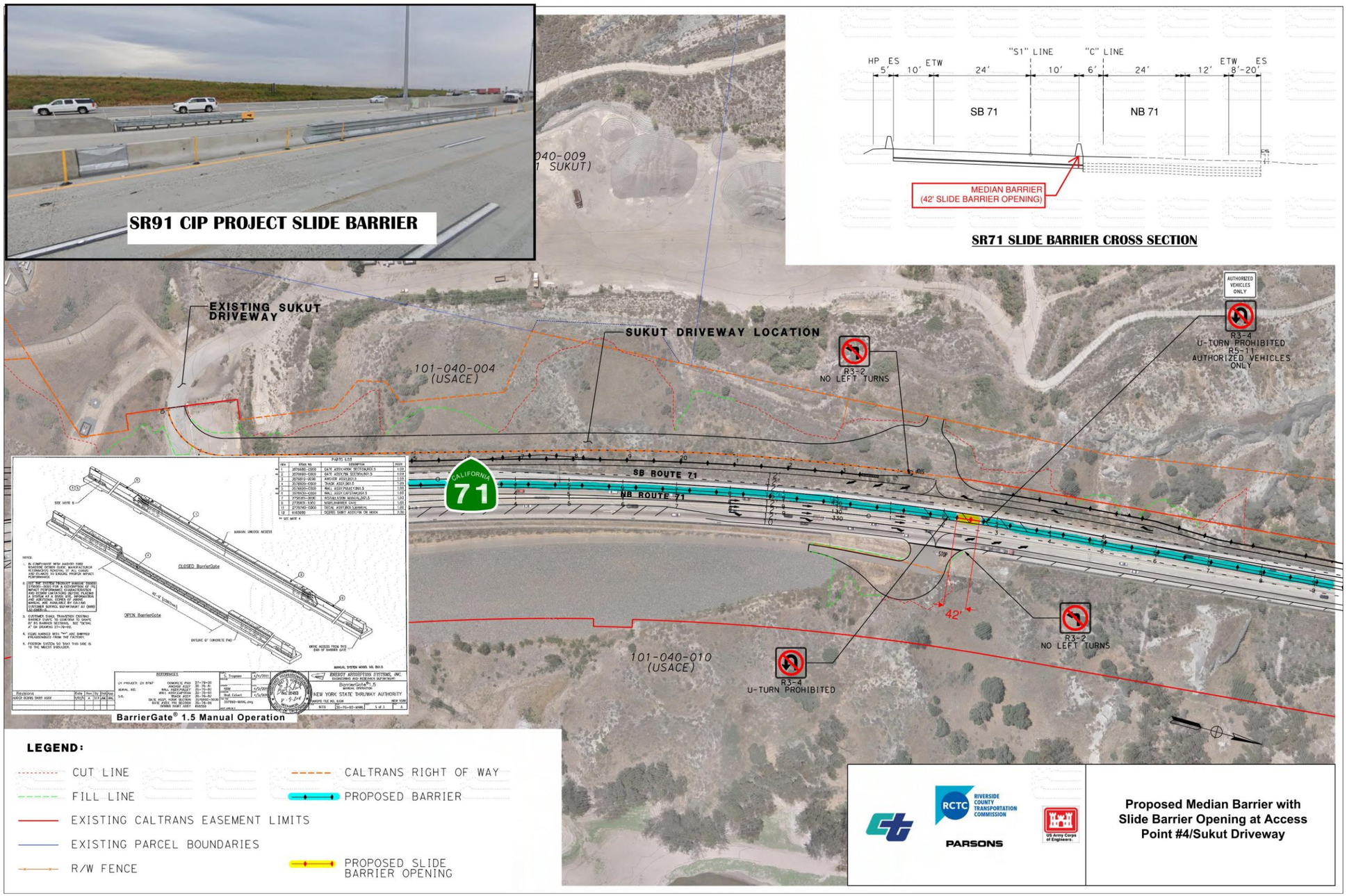


Figure 2-7: USACE Driveway Emergency Access Slide Barrier Option

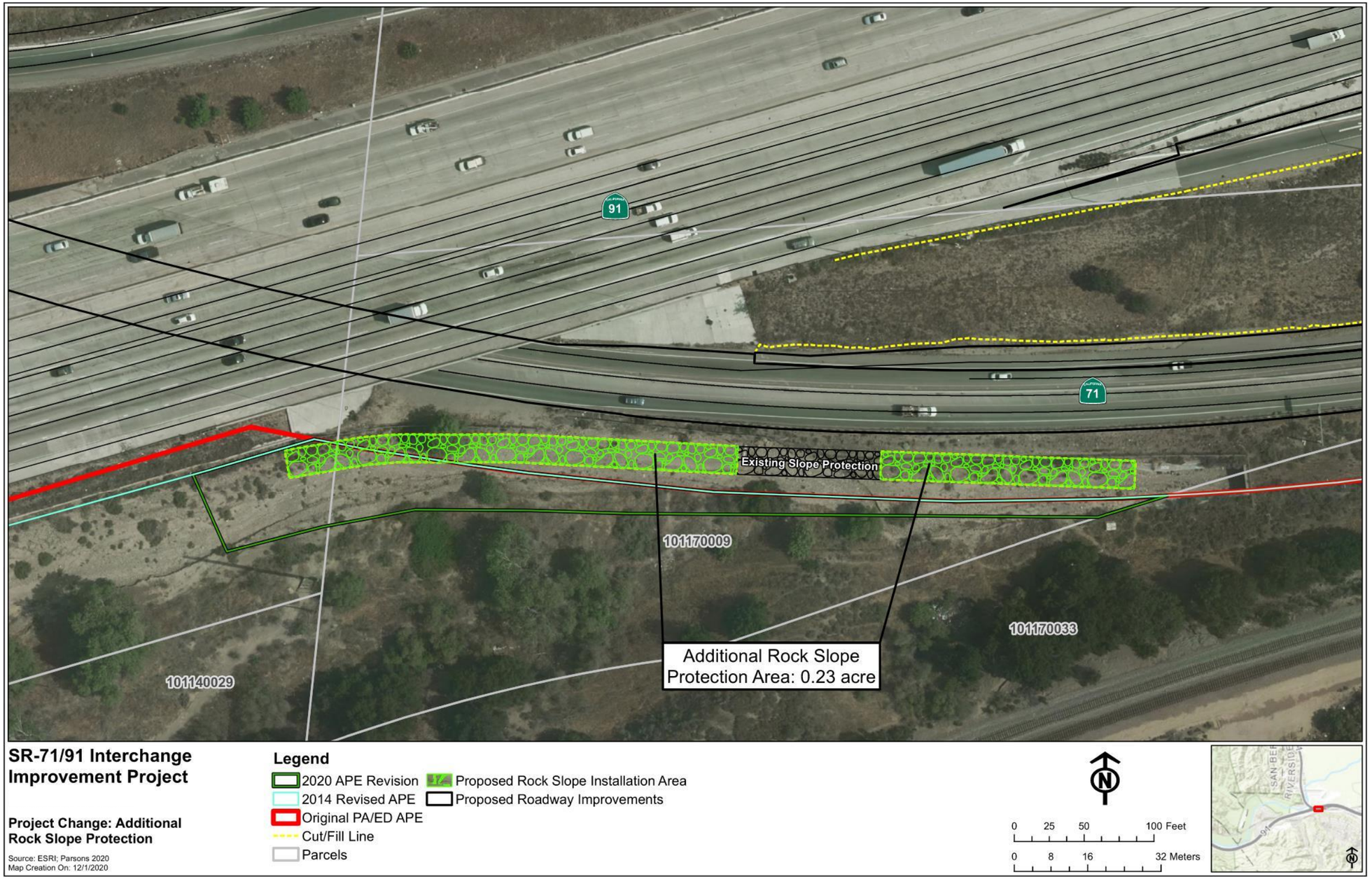


Figure 2-8: Additional Rock Slope Protection



Figure 2-9: Grading Alterations

Table 2-1 provides a summary of major project features and proposed changes to the previously approved design.

Table 2-1: Differences between Previously Approved Design and Proposed Action

Design Features Proposed on Federal Land	Previously Approved Design (2014 EA)	Proposed Action (Revised Project Alternative)
Flyover connector bridge	Bridge from EB SR-91 to NB SR-71	Bridge from EB SR-91 to NB SR-71
Columns and Footings	Total of 9 bridge columns/footings with 6 columns on Federal land	Total of 9 bridge columns/footings with 6 columns on Federal land **Footing #5 and Footing #8 changed from CIDH piles to spread footings**
SR-71 Realignment and Widening	Realignment and widening of SR-71 to west	Realignment and widening of SR-71 to west
Slope Grading	Hillside slope grading north of SR-91 and west of SR-71	Hillside slope grading north of SR-91 and west of SR-71; **increase in graded area by 0.52 acre**
Access Modifications	Vacate Access Point #2; relocate western entry of Access Point #3; modify Access Point #4 with Sukut driveway and improve eastern driveway	Vacate Access Point #2; relocate western entry of Access Point #3; **modify Access Point #4 with widened knuckle and secondary access opening for Sukut driveway (0.11 acre of additional pavement)** and improve eastern driveway
SR-71 Median Barrier Gap Closure	Maintain two-way left turn lane	Median barrier gap closure, **with slide barrier at Access Point #4**
Relinquished Easement	0.53 acre of roadway easement on west side of SR-71	0.53 acre of roadway easement on west side of SR-71
Additional USACE Easements	7.01 acres of drainage, slope, and access easements and 1.19 acres of access easement along Sukut driveway	**7.01 acres of drainage, slope, and access easements and 1.30 acres of access easement on Sukut driveway**
Wildlife Crossing Enhancement	Remove existing concrete revetment, regrade, and plant with native vegetation	Remove existing concrete revetment, regrade, and plant with native vegetation
Construction Access and Mobilization	Use of 4 construction access points and existing USACE access roads	Use of 4 construction access points and existing USACE access roads
Staging Areas	Near proposed bridge columns and flyover bridge, both sides of the Santa Ana River Channel Spillway and west of SR-71	Near proposed bridge columns and flyover bridge, both sides of the Santa Ana River Channel Spillway and west of SR-71

Table 2-2 provides a comparison in areas subject to permanent easements, TCEs, temporary disturbance areas, and permanent disturbance areas between the No Action Alternative and Revised Project Alternative.

Table 2-2: Changes in Easements and Disturbance Areas between Previously Approved Design and Proposed Action

	Previously Approved Design (2014 EA)		Proposed Action (Revised Project Alternative)	
	Total Project	Federal Land	Total Project	Federal Land
Permanent Easements	8.19	7.01	8.17	7.01
Temporary Construction Easements	2.35	0.00	1.61	0.00
Partial Acquisition	3.35	0.00	0.13	0.00
Permanent Disturbance Areas[1]	8.15	4.20	11.01	4.78
Temporary Disturbance Areas[2]	37.22	24.95	51.96	30.08

Notes:

1 – These areas involve sections of the flyover and auxiliary lane west of Wardlow Wash, footing and column locations to support the flyover, and realigning of SR-71.

2- These areas include construction staging and operating areas, cut and fill areas, and sections of the flyover that do not result in the change in ground cover.

2.2.2 Duration of Construction Activities

Construction activities within Federal land were originally anticipated to begin in January 2018 and would last for 24 months. Construction is now anticipated to begin in mid-2022 and would last 28 months. The proposed flyover bridge structure would require construction of temporary falsework near the Santa Ana River during the dry season between March 10 and October 1 of each year. Construction activities may restart during the next dry season if construction of the bridge columns and superstructure is delayed beyond the first year.

2.3 Identification of Preferred Alternative

The proposed design refinements are the result of the development of the final engineering design for the project, as part of the Plans, Specifications, and Estimate (PS&E) phase. Thus, the Revised Project Alternative is now the Preferred Alternative.

2.4 Alternatives Eliminated from Further Consideration

During the project planning, alternatives development, and subsequent screening process, various design alternatives that were consistent with RCTC and USACE's purpose for the Proposed Action were evaluated to determine practicability, constructability, and constraints/limitations. Three alternatives were previously considered but eliminated from further consideration in the EA:

- Alternative 1A: Direct Connector with Two-Span Section Crossing the Santa Ana River Channel (One Column within Channel)
- Alternative 1B: Direct Connector with Two-Span Section Crossing the Santa Ana River Channel (One Column on Channel Levee)
- Alternative 1C: Direct Connector with Single-Span Section Crossing the Santa Ana River Channel (No Columns within Channel)

The discussion of these alternatives and the reasons they were eliminated from further consideration are provided in the previous 2014 EA. No new alternatives were considered during the PS&E phase.

3.0 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

Section 3.0 of the 2014 EA described the environmental resources in the project area, as well as the effects of the Proposed Action on those resources. Each resource section presented the existing resource conditions, environmental effects, and, when necessary, avoidance, minimization, and/or mitigation measures to avoid, reduce, minimize, or compensate for any significant effects. In determining the effects, the consequences of the Proposed Action were compared to the consequences of taking the no action alternative, which is defined as being the project described in the 2014 EA. Impacts were identified as direct or indirect, temporary and permanent, with cumulative impacts analyzed in Section 3.14. Effects are assessed for significance based on significance criteria, which were established for each resource.

In this Supplemental EA, where baseline conditions and potential impacts on certain resources remain the same and were addressed adequately in the previous EA (where the Onsite Alternative in the 2014 EA is now considered the No Action Alternative in this Supplemental EA), these are noted, and no further analysis in this Supplemental EA is provided. Otherwise, a discussion of changes to the environmental setting and in regulations, statutes and/or permitting requirements, and an analysis of impacts associated with project changes are provided and a statement made under each resource area if the project changes would result in any new or substantially more severe significant direct and indirect effects, including short- and long-term effects, than were initially evaluated in the previous EA. Any new or additional avoidance, minimization, and mitigation measures are also noted. A complete list of the project's environmental commitments is provided in Appendix J.

3.1 Geology and Soil Quality, Stability, and Moisture

3.1.1 Description of Resource and Baseline Conditions

The project is still proposed on the same area west of and downstream of the Prado Dam and Flood Control Basin and along the Santa Ana River as the river passes through the Santa Ana Canyon, just southeast of the Chino Hills at the northern end of the Santa Ana Mountains. The local geology of the project area remains similar to what was described in the previous 2014 EA.

3.1.2 Potential Geological Impacts

3.1.2.1 Significance Criteria

Impacts of an alternative would be considered significant if it would:

GEO-1: Expose people or structures to significant adverse effects involving ground rupture, strong seismic shaking, liquefaction, or unstable geologic conditions.

GEO-2: Substantially increase wind or water erosion of soils or loss of topsoil, either onsite or offsite.

3.1.2.2 Revised Project Alternative (Proposed Action)

Impacts of the Revised Project Alternative associated with proposed excavation and fill activities within Federal land will generally remain the same as analyzed in the previous EA. The proposed changes to the Sukut driveway, additional rock slope protection, bridge column footing redesign, and grading changes would result in minor changes to the limits of planned excavation and grading activities (covering approximately 0.58 acres of additional ground disturbance), but they would not lead to any new or more severe impacts on geology and soils.

GEO-1 Geologic Hazards

Surface Rupture and Groundshaking

The project area is not located in a designated Fault Rupture Hazard Zone; therefore, impacts related to ground surface rupture are not anticipated with the Revised Project Alternative. Groundshaking hazards from earthquake events in the region would remain the same. Compliance with current seismic design parameters and the recommendations of the geotechnical investigation (measures GEO-1, GEO-4, GEO-5, GEO-7 and GEO-9) would ensure the structural stability of the project against potential surface rupture and groundshaking hazards. Thus, impacts related to ground rupture and strong seismic shaking would be less than significant.

Liquefaction

The Preliminary Foundation Report for the project indicate that the subsurface soils consist of medium-dense and dense coarse-grained soils below the historic high groundwater elevations and have a low and unlikely potential for liquefaction. Thus, no impacts related to liquefaction would occur with the Revised Project Alternative.

Seiches, Tsunamis, and Mudflows

There are no tsunami hazards in the area, and seiche hazards from the Prado Basin and mudflow hazards from nearby slopes remain the same. No changes in the potential for hazards associated with seiches, tsunamis, and mudflows would occur over those discussed in the previous EA. Impacts related to these geologic hazards would be less than significant because there are no tsunami hazards at the site; seiche hazards have been reduced by upstream flood risk management projects on the Santa Ana River; and drainage improvements would be implemented to contain stormwater within the river, drainage channels, and storm drain system and implementation of measure GEO-5.

Slope Instability

No known fragile, compactable, or unstable soils, or unusual geologic features are present within the project area, nor are special reclamation considerations required. The proposed Sukut driveway redesign, additional rock slope protection, footing redesign, and revised slope grading to accommodate realignment of the SB lanes of SR-71 and other improvements west of SR-71 would result in graded embankments (i.e., retaining walls and fill slopes) that would have a maximum 2:1 slope. With compliance with the recommendations of the geotechnical investigation (measures GEO-3, GEO-6 and GEO-8), potential slope instability effects would be avoided and impacts related to unstable geologic conditions are not anticipated to be significant.

GEO-2 Erosion

Erosion is anticipated to occur in areas that would be disturbed by the Revised Project Alternative, which is estimated at a total of approximately 62.97 acres (with 34.86 acres on Federal land). However, erosion control measures would be implemented during construction (measures WQ-1, WQ-2, WQ-4, WQ-5, and BIO-4) and 11.01 acres of this area (4.78 acres on Federal land) would be eventually paved as part of the project. Remaining areas that would remain unpaved would be restored to preconstruction conditions through revegetation with native plants (measures BIO-18 to BIO-20, PR-2), sediment and erosion control measures (measures BIO-21, GEO-3), and landscape/revegetation and erosion control plans (measures GEO-2, BIO-35 to BIO-37). Erosion impacts would be temporary and would be reduced by avoidance and minimization measures that would be implemented by the project and thus, are not anticipated to be significant. No long-term erosion would occur within the project area.

No new or substantially more severe significant direct and indirect effects would occur with the Revised Project Alternative over those addressed in the previous EA. The proposed action would not expose

people or structures to ground rupture, seismic shaking, liquefaction or unstable geological conditions. The Project would not have any significant effects on geology, soil quality or soil stability.

3.1.2.3 No Action Alternative (Previously Approved Design)

Under the previously approved design, project modifications included under the Proposed Action would not be implemented, and the project would be constructed as described in the 2014 EA. Effects of the previously approved design were analyzed and disclosed in the 2014 EA and include minor excavation for the proposed bridge columns and grading that are not expected to be significant for onsite geological conditions. Specifically, engineering design in compliance with current Seismic Design Parameters would minimize hazards associated with potential surface rupture and ground shaking. Also, impacts related to liquefaction and tsunamis are not anticipated and the Santa Ana River no longer poses a major flood risk due to upstream flood risk management projects which have been implemented. The potential for mudflow exists but drainage improvements would be implemented to ensure mudflows would be negligible. Graded embankments would have 2:1 slopes or flatter and would be stable. Thus, the No Action alternative would not expose people or structures to ground rupture, seismic shaking, liquefaction or unstable geological conditions. No significant impacts would occur from this alternative to site geology or soil quality. Potential impacts of the No Action Alternative on earth resources would be less than significant, as described in the 2014 EA.

3.1.3 Avoidance/Minimization Measures

While no significant or substantial impacts are anticipated with the Revised Project Alternative or the No Action Alternative, the avoidance and minimization measures in the previous EA would be implemented as part of the Revised Project Alternative to avoid or reduce potential impacts on geology and soils. These measures include:

GEO-1 A site-specific geotechnical investigation will be completed to ensure that piles, retaining walls, and other structures will not impact geology and topography in the area. The final design will address any geotechnical hazards that are identified in the investigation. *(Completed)*

GEO-2 An erosion control plan will be prepared prior to construction of the project. The erosion control plan must specify measures such as soil stabilization. As described in the Caltrans Plans Preparation Manual: "The locations and details of the erosion control materials shall be shown on the erosion control plans. Erosion control materials may include, but are not limited to, compost, straw, fiber, stabilizing emulsion, and erosion control blankets/mats."

GEO-3 If slopes are going to be constructed steeper than 2:1 (H:V), then stability analyses shall be performed during the final design phase.

GEO-4 During final design, the most suitable pile type shall be used based on the geotechnical data, site-specific investigation, cost considerations, and the latest Caltrans requirements by using Working Stress Design or Load and Resistance Factor Design methods for abutment and bent. *(Completed)*

GEO-5 Earthwork shall conform to requirements of the Caltrans Standard Specifications, Section 19. Soil compaction shall be accomplished in accordance with Section 19-5 of the Standard Specifications. The subgrade shall be compacted to at least 95 percent of the laboratory maximum dry density. Fill placed during widening of the embankments shall be benched into the existing slopes as described in Section

19-6.1 of the Standard Specifications. Actual depths and extend of toe-of-fill keyways will be determined during site-specific investigations.

GEO-6 Import soils shall have the minimum characteristics:

- Non-reactive to Portland cement concrete, or cement type shall reflect corrosivity test results.
- Have shear values of a minimum cohesion equal to 100 pounds per square inch and friction angle of 30 degrees or a combination of strength parameters that will provide a safety factor of at least 1.5 static and 1.1 pseudostatic stability analysis results.
- Expansion index shall be equal to or less than 20.

GEO-7 A minimum over-excavation shall be performed within all areas to receive compacted fill. The over-excavation should extend horizontally a minimum distance equal to the depth of excavation from the edges of new fill.

GEO-8 If soundwalls are determined feasible and reasonable on the hillside homes south of SR-91, then a geotechnical engineer will review the plans to ensure the stability of these soundwalls.

GEO-9 To address seismic concerns associated with placement of bridge columns on top of the Santa River Channel levees, a permanent steel isolation casing through the levee will be incorporated into the column design. A permanent steel isolation casing will isolate the levee from potential column movement during a seismic event.

No new or additional avoidance, minimization, and mitigation measures would be required with the proposed project changes.

3.2 Water Resources

Hydrology and Floodplain

The project area is located in the Santa Ana River Watershed, within the Lower Santa Ana River Hydrological Area and within the Santa Ana Narrows hydrologic subarea (801.11 and 801.12). Prado Dam is located approximately 950 feet to the northeast of the SR-71/SR-91 junction and regulates the flow between the upper and lower Santa Ana River watersheds, reducing the chance of floods by storing and controlling the release of water in the river over a longer period of time. The Santa Ana River and adjacent areas are within the 100-year floodplain that is controlled by Prado Dam. The hydrology of the project area remains the same as discussed in the previous EA, although ongoing construction of the Santa Ana River Mainstem Project includes major modifications to flows in the Santa Ana River and the impoundment of water behind the Prado Dam for increased flood control protection.

Wetlands and Other Waters

Due to the lapse in time since the previous jurisdictional delineation was prepared in December 2013, an update to the jurisdictional delineation (JD) was completed in June 2020 and approved by USACE in July 2020. Like the previous EA, potentially jurisdictional non-wetland or wetland waters were identified in the 2020 JD. Since 2013, the boundaries of some features were updated due to recent or current construction and restoration activities occurring near the Santa Ana River and Prado Dam. Also, with the revised legislation in the 2020 Navigable Waters Protection Rule, some drainages in the project area are no longer considered jurisdictional resources as "Waters of the United States" (WOTUS) under the Clean Water Act; however, these remain as jurisdictional resources under the California Porter-Cologne Act as "Waters of the State" (WOTS) and were evaluated in the 2020 JD.

Based on the June 2020 JD, Table 3-1 summarizes the acreages of potential non-wetland and wetland WOTUS and waters of the States (WOTS) within the overall footprint of the Interchange Project and that may be classified as Streams (Ephemeral, Intermittent, and Perennial), Wetlands, and Riparian Vegetation. These non-wetland and wetland features are shown in Figure 3-1.

Table 3-1: Wetlands and Non-wetland Waters

Feature ID	Classification (i.e., WOTUS/WOTS)	Within Federal Land?	Acres	Square Feet	Potential for Impacts?
A.1 (Ephemeral Stream)	WOTS/WOTUS Non-Wetland	No	0.17	7,411	Yes
A.2 (Riparian Vegetation)	WOTS	No	3.24	141,152	Yes
B.1 (Ephemeral Stream)	WOTS/WOTUS Non-Wetland	No	0.12	5,379	Yes
B.2 (Riparian Vegetation)	WOTS	No	1.84	80,175	Yes
C.1 (Ephemeral Stream)	WOTS/WOTUS Non-Wetland	No	0.20	8,496	Yes
C.2 (Riparian Vegetation)	WOTS	No	0.74	32,080	Yes
C.3 (Wetland)	WOTS/WOTUS Wetland	No	0.01	338	Yes
D.1 (Wetland)	WOTS/WOTUS Wetland	No	1.35	58,720	No
D.2 (Ephemeral Stream)	WOTS/WOTUS Non-Wetland	No	0.25	10,793	No
D.3 (Intermittent Stream)	WOTS/WOTUS Non-Wetland	Yes	8.35	363,553	Yes
D.4 (Wetland)	WOTS/WOTUS Wetland	Yes	0.39	17,075	No
D.5 (Ephemeral Stream)	WOTS/WOTUS Non-Wetland	Yes	0.12	5,215	No
D.6 (Riparian Vegetation)	WOTS	Yes	11.46	499,326	Yes
E (Wetland)	WOTS/WOTUS Wetland	Yes	0.40	17,392	Yes
F.1 (Intermittent Stream)	WOTS/WOTUS Non-Wetland	Part	1.46	63,743	Yes
F.2 (Riparian Vegetation)	WOTS	Part	10.46	455,648	Yes
G.1 (Wetland)	WOTS/WOTUS Wetland	No	0.09	3,831	Yes
G.2 (Intermittent Stream)	WOTS/WOTUS Non-Wetland	No	0.11	4,759	No
G.3 (Riparian Vegetation)	WOTS	No	1.93	84,062	Yes
H.1 (Wetland)	WOTS/WOTUS Wetland	No	0.22	9,617	No
H.2 (Riparian Vegetation)	WOTS	No	0.10	4,516	No
I (Ephemeral Stream)	WOTS/WOTUS Non-Wetland	Yes	0.12	5,258	Yes
J.1 (Ephemeral Stream)	WOTS/WOTUS Non-Wetland	Yes	0.14	5,881	Yes
J.2 (Riparian Vegetation)	WOTS	Yes	0.14	6,017	Yes
K.1 (Ephemeral Stream)	WOTS/WOTUS Non-Wetland	Yes	0.12	5,294	Yes
K.2 (Riparian Vegetation)	WOTS	Yes	0.21	9,057	Yes
L (Ephemeral Stream)	WOTS/WOTUS Non-Wetland	Yes	0.03	1,108	Yes
M.1 (Wetland)	WOTS/WOTUS Wetland	Yes	2.97	129,545	No
M.2 (Riparian Vegetation)	WOTS	Yes	4.98	216,934	No
N (Ephemeral Stream)	WOTS/WOTUS Non-Wetland	Yes	0.13	5,642	Yes
O.1 (Ephemeral Stream)	WOTS/WOTUS Non-Wetland	Yes	0.14	6,045	Yes
O.2 (Riparian Vegetation)	WOTS	Yes	0.70	30,385	Yes
P.1 (Ephemeral Stream)	WOTS/WOTUS Non-Wetland	Yes	0.30	12,859	Yes
P.2 (Riparian Vegetation)	WOTS	Yes	1.40	60,991	Yes
Q (Ephemeral Stream)	WOTS/WOTUS Non-Wetland	Yes	0.03	1,260	Yes
R (Ephemeral Stream)	WOTS/WOTUS Non-Wetland	Yes	0.06	2,508	Yes
S (Ephemeral Stream)	WOTS/WOTUS Non-Wetland	Yes	0.15	6,508	No
T.1 (Ephemeral Stream)	WOTS/WOTUS Non-Wetland	No	0.07	2,892	No
T.2 (Riparian Vegetation)	WOTS	No	1.14	49,710	No
U.1 (Ephemeral Stream)	WOTS/WOTUS Non-Wetland	No	0.05	2,236	No
U.2 (Riparian Vegetation)	WOTS	No	2.31	100,443	No
V (Ephemeral Stream)	WOTS/WOTUS Non-Wetland	No	0.17	7,369	No

Table 3-1: Wetlands and Non-wetland Waters

Feature ID	Classification (i.e., WOTUS/WOTS)	Within Federal Land?	Acres	Square Feet	Potential for Impacts?
W.1 (Ephemeral Stream)	WOTS/WOTUS Non-Wetland	No	0.15	6,506	No
W.2 (Riparian Vegetation)	WOTS	No	0.48	20,859	No
X (Riparian Vegetation)	WOTS	No	0.39	17,089	No
Y (Intermittent Stream)	WOTS/WOTUS Non-Wetland	No	0.06	2,706	No
TOTALS	WOTS/WOTUS Wetland (including Wetlands only)		5.43	236,517	
	WOTS/WOTUS Non-Wetland (including Ephemeral, Intermittent and Perennial Streams)		12.50	543,421	
	WOTS Only (including Riparian Vegetation)		41.52	1,808,444	

Note: Nineteen (19) features (comprising 2.49 acres / 108,660 square feet) identified as "Ephemeral Streams" may be subject to changes of jurisdiction if the recently proposed definition of WOTUS becomes effective.

Source: Parsons, 2020b, 2020f

There are a total of approximately 5.43 acres (236,517 square feet) of potential WOTS/WOTUS Wetlands (includes Wetlands only), 12.50 acres (543,421 square feet) WOTS/WOTUS Non-Wetland (includes Streams only), and 41.52 acres (1,808,443 square feet) of potential WOTS (includes Riparian Vegetation only) within the BSA. Twenty-three (23) features covering approximately 44.26 acres are on Federal land. Eighteen (18) of these 23 features would be subject to disturbance by the project.



SR-71/91 Interchange Project

Figure 2. Exhibits Sheet 1 of 12

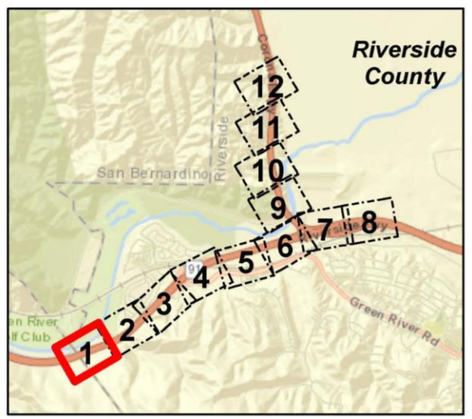
Jurisdictional Delineation of Waters of the United States (WOTUS) and Waters of the State (WOTS)

Legend

- JD Reconnaissance Survey Area
- Waters of the US (WOTUS) Non-Wetland
- WOTUS Wetland
- Waters of the State (WOTS)

0 75 150 300 Feet

1 inch = 167 feet



Sources: ESRI; Cal-Atlas (2011); Parsons 2020

Figure 3-1: USACE – Jurisdictional Delineation Exhibits (Sheet 1 of 12)



SR-71/91 Interchange Project

Figure 2. Exhibits Sheet 2 of 12

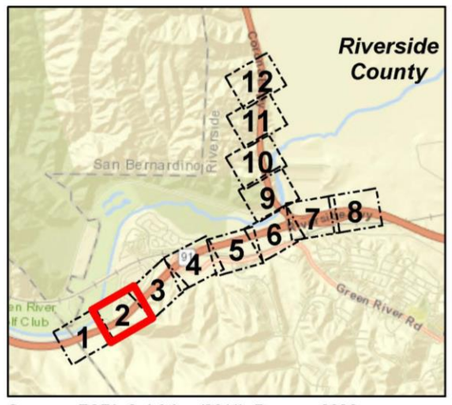
Jurisdictional Delineation of Waters of the United States (WOTUS) and Waters of the State (WOTS)

Legend

- JD Reconnaissance Survey Area
- Waters of the US (WOTUS) Non-Wetland
- WOTUS Wetland
- Waters of the State (WOTS)

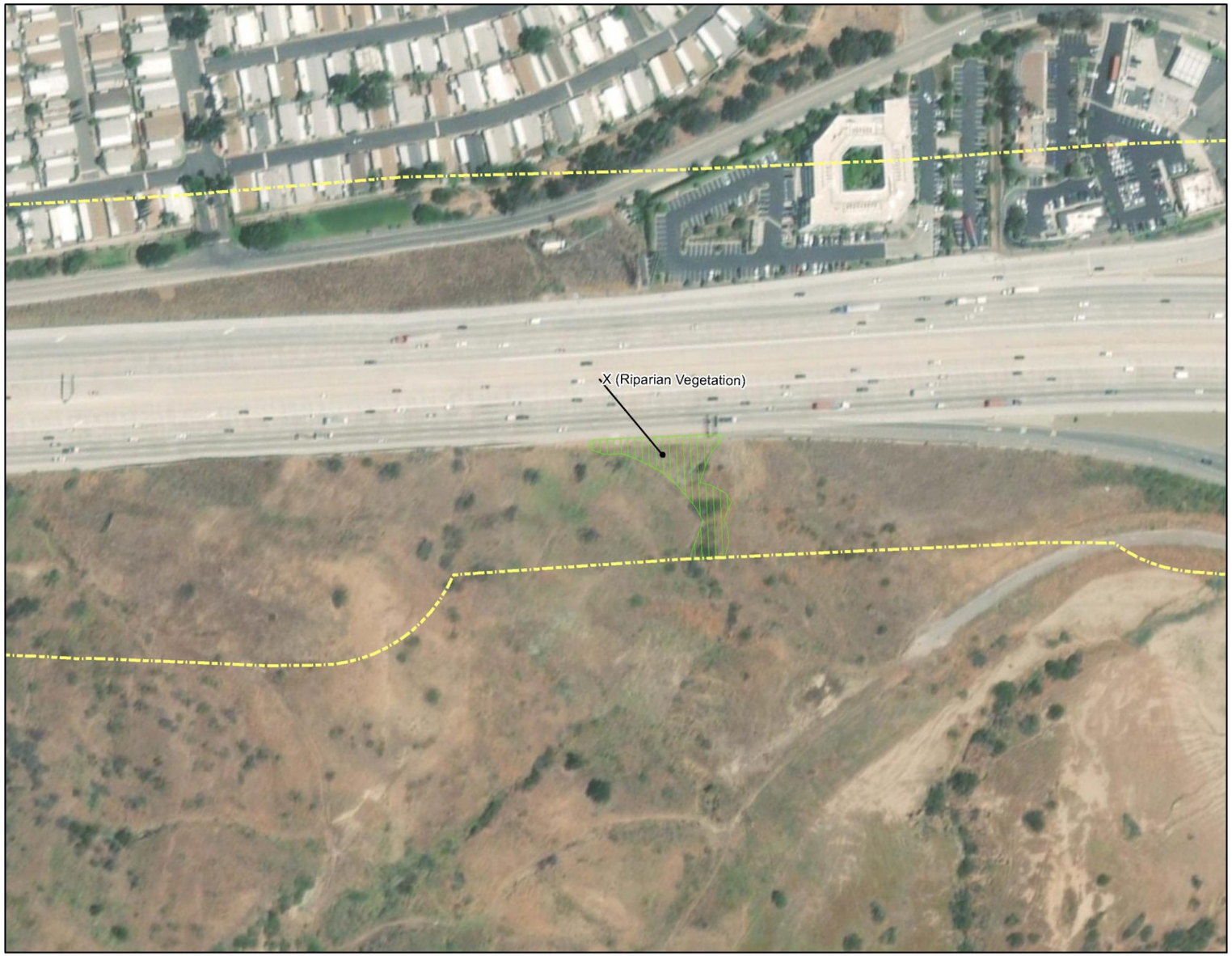
0 75 150 300 Feet

1 inch = 167 feet



Sources: ESRI; Cal-Atlas (2011); Parsons 2020

Figure 3-1: USACE – Jurisdictional Delineation Exhibits (Sheet 2 of 12)



SR-71/91 Interchange Project

Figure 2. Exhibits Sheet 3 of 12

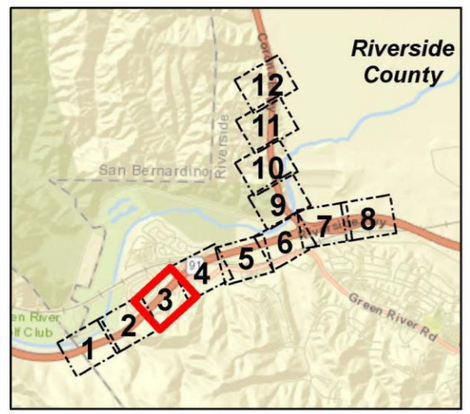
Jurisdictional Delineation of Waters of the United States (WOTUS) and Waters of the State (WOTS)

Legend

- JD Reconnaissance Survey Area
- Waters of the US (WOTUS) Non-Wetland
- WOTUS Wetland
- Waters of the State (WOTS)

0 75 150 300 Feet

1 inch = 167 feet



Sources: ESRI; Cal-Atlas (2011); Parsons 2020

Figure 3-1: USACE – Jurisdictional Delineation Exhibits (Sheet 3 of 12)



SR-71/91 Interchange Project

Figure 2. Exhibits Sheet 4 of 12

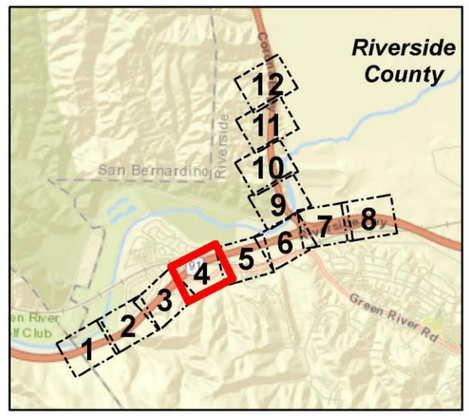
Jurisdictional Delineation of Waters of the United States (WOTUS) and Waters of the State (WOTS)

Legend

- JD Reconnaissance Survey Area
- Waters of the US (WOTUS) Non-Wetland
- WOTUS Wetland
- Waters of the State (WOTS)

0 75 150 300 Feet

1 inch = 167 feet



Sources: ESRI; Cal-Atlas (2011); Parsons 2020

Figure 3-1: USACE – Jurisdictional Delineation Exhibits (Sheet 4 of 12)



SR-71/91 Interchange Project

Figure 2. Exhibits Sheet 5 of 12

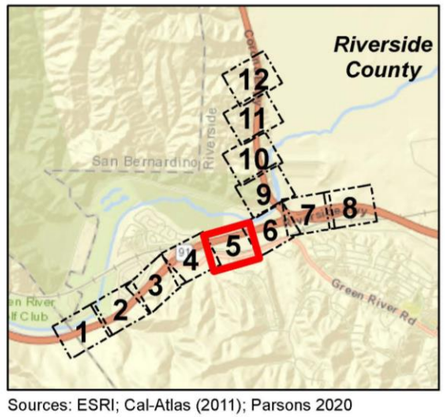
Jurisdictional Delineation of Waters of the United States (WOTUS) and Waters of the State (WOTS)

Legend

- JD Reconnaissance Survey Area
- Waters of the US (WOTUS) Non-Wetland
- WOTUS Wetland
- Waters of the State (WOTS)

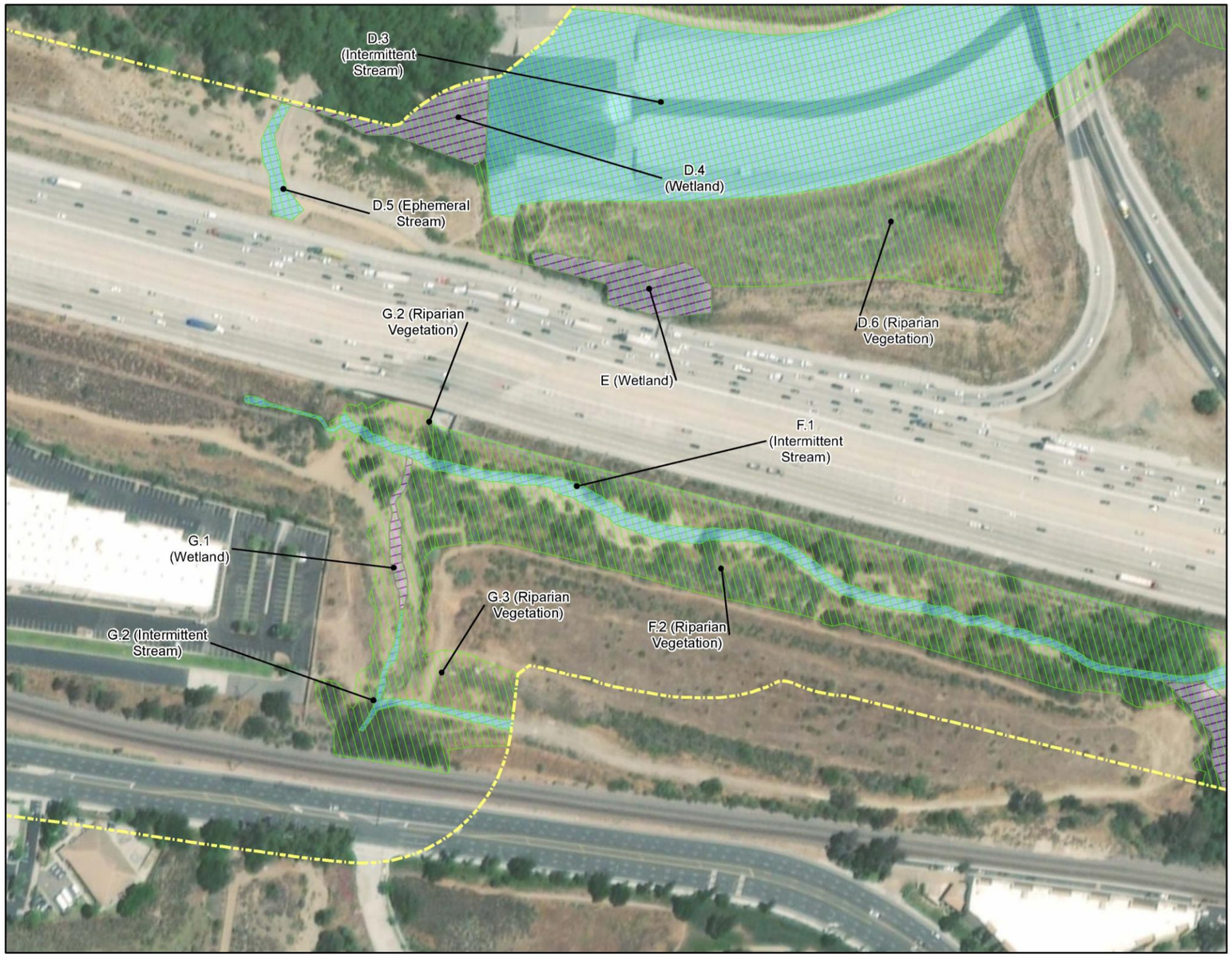
0 75 150 300 Feet

1 inch = 167 feet



Sources: ESRI; Cal-Atlas (2011); Parsons 2020

Figure 3-1: USACE – Jurisdictional Delineation Exhibits (Sheet 5 of 12)



SR-71/91 Interchange Project

Figure 2. Exhibits Sheet 6 of 12

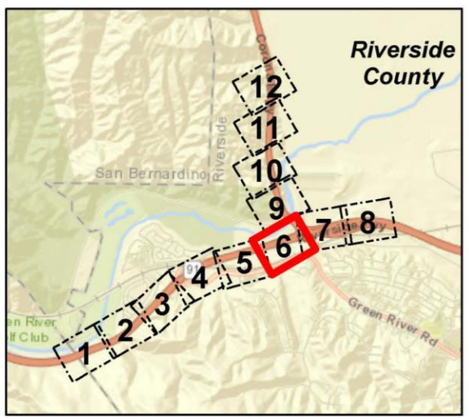
Jurisdictional Delineation of Waters of the United States (WOTUS) and Waters of the State (WOTS)

Legend

- JD Reconnaissance Survey Area
- Waters of the US (WOTUS) Non-Wetland
- WOTUS Wetland
- Waters of the State (WOTS)

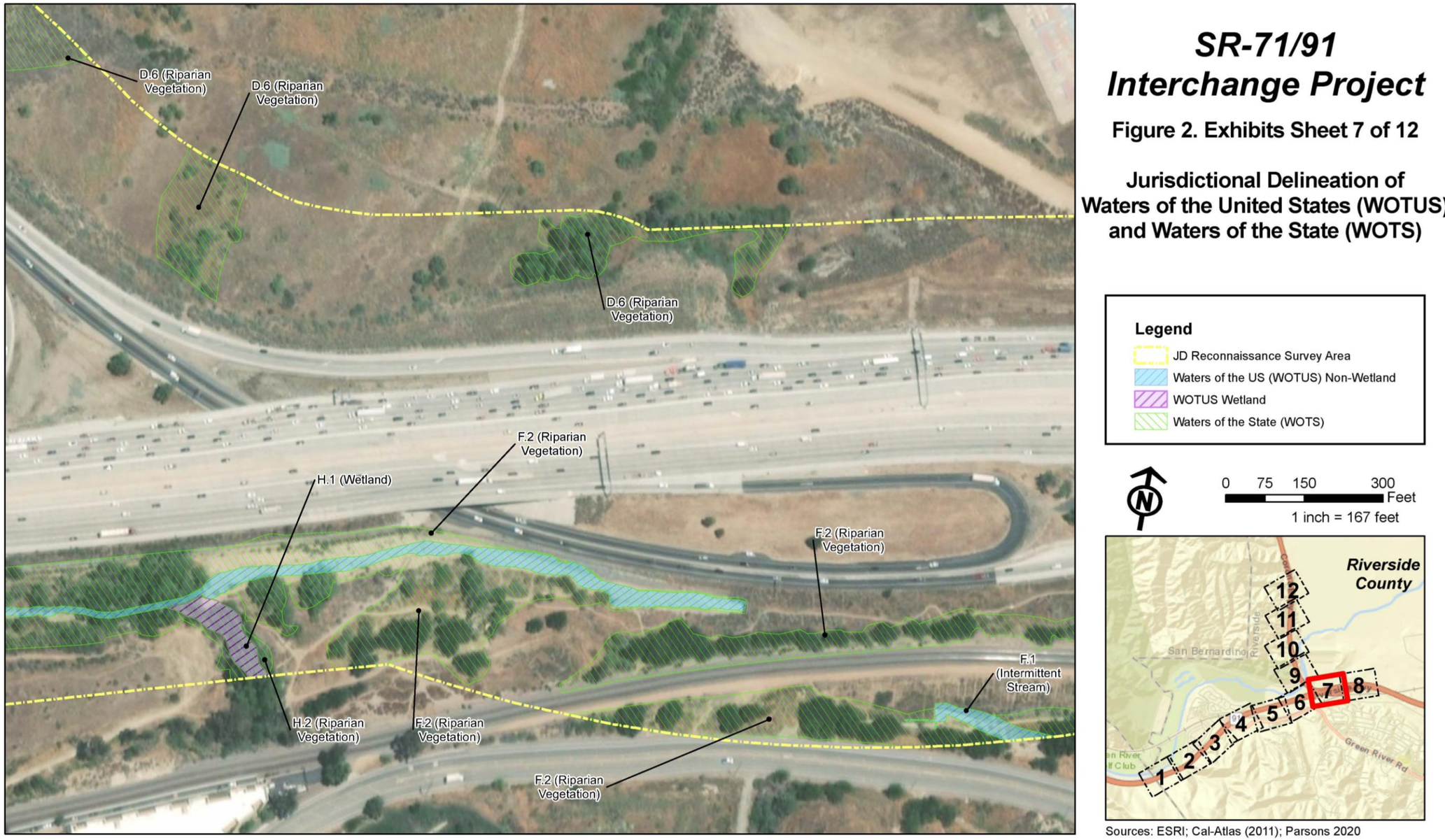
0 75 150 300 Feet

1 inch = 167 feet



Sources: ESRI; Cal-Atlas (2011); Parsons 2020

Figure 3-1: USACE – Jurisdictional Delineation Exhibits (Sheet 6 of 12)



SR-71/91 Interchange Project

Figure 2. Exhibits Sheet 7 of 12

Jurisdictional Delineation of Waters of the United States (WOTUS) and Waters of the State (WOTS)

Legend

- JD Reconnaissance Survey Area
- Waters of the US (WOTUS) Non-Wetland
- WOTUS Wetland
- Waters of the State (WOTS)

0 75 150 300 Feet

1 inch = 167 feet

Sources: ESRI; Cal-Atlas (2011); Parsons 2020

Figure 3-1: USACE – Jurisdictional Delineation Exhibits (Sheet 7 of 12)



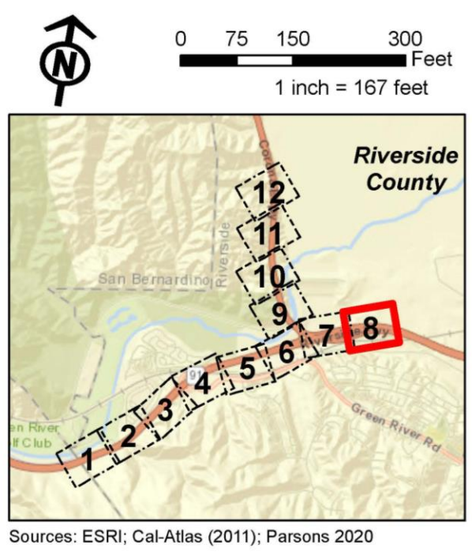
SR-71/91 Interchange Project

Figure 2. Exhibits Sheet 8 of 12

Jurisdictional Delineation of Waters of the United States (WOTUS) and Waters of the State (WOTS)

Legend

- JD Reconnaissance Survey Area
- Waters of the US (WOTUS) Non-Wetland
- WOTUS Wetland
- Waters of the State (WOTS)



Sources: ESRI; Cal-Atlas (2011); Parsons 2020

Figure 3-1: USACE – Jurisdictional Delineation Exhibits (Sheet 8 of 12)



SR-71/91 Interchange Project

Figure 2. Exhibits Sheet 9 of 12

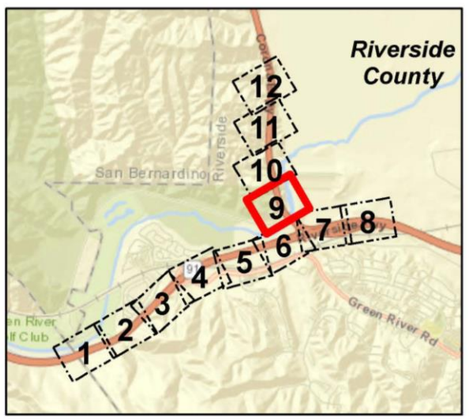
Jurisdictional Delineation of Waters of the United States (WOTUS) and Waters of the State (WOTS)

Legend

- JD Reconnaissance Survey Area
- Waters of the US (WOTUS) Non-Wetland
- WOTUS Wetland
- Waters of the State (WOTS)

0 75 150 300 Feet

1 inch = 167 feet



Sources: ESRI; Cal-Atlas (2011); Parsons 2020

Figure 3-1: USACE – Jurisdictional Delineation Exhibits (Sheet 9 of 12)



SR-71/91 Interchange Project

Figure 2. Exhibits Sheet 10 of 12

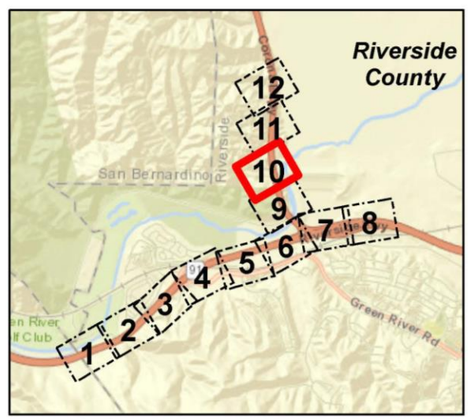
Jurisdictional Delineation of Waters of the United States (WOTUS) and Waters of the State (WOTS)

Legend

- JD Reconnaissance Survey Area
- Waters of the US (WOTUS) Non-Wetland
- WOTUS Wetland
- Waters of the State (WOTS)

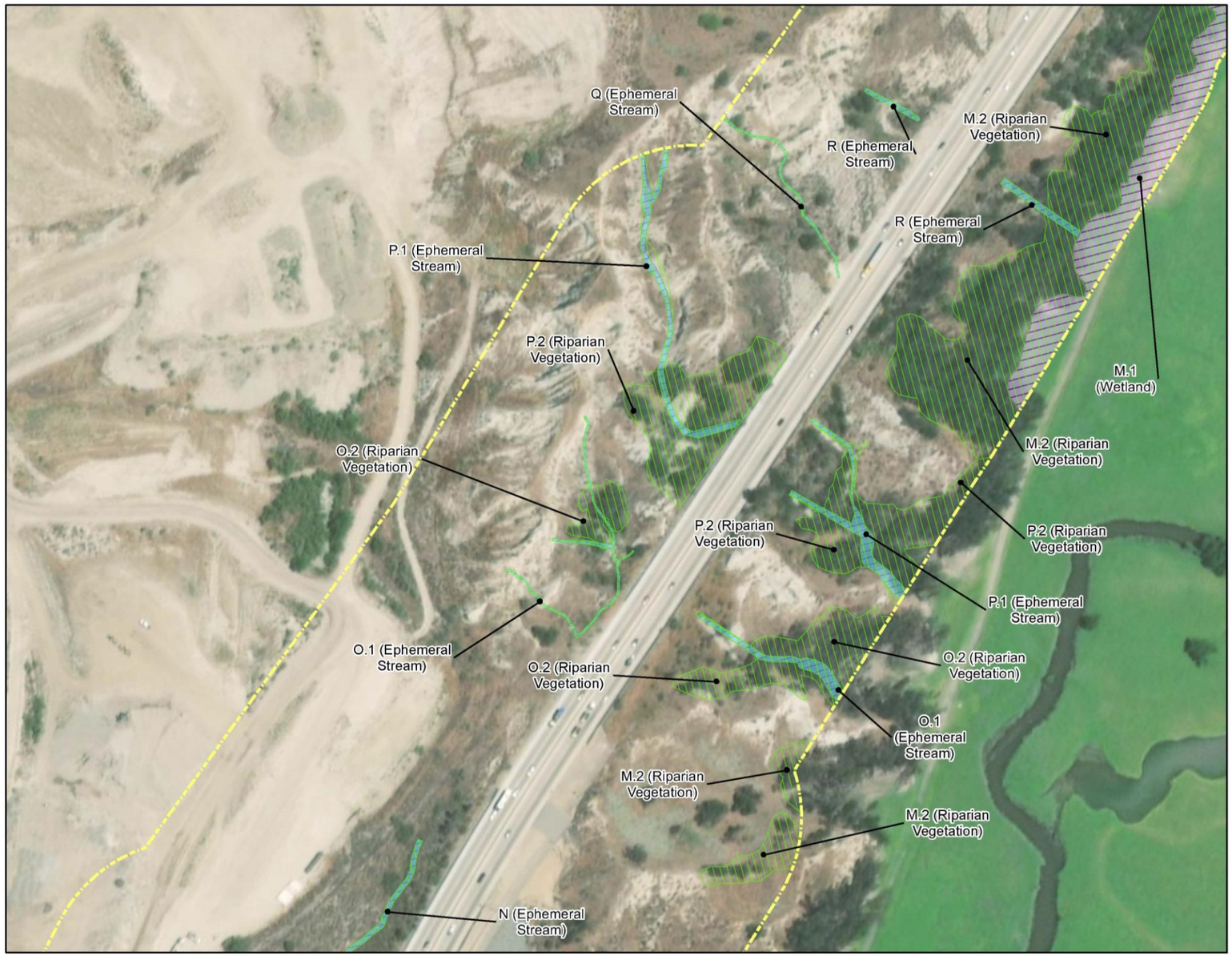
0 75 150 300 Feet

1 inch = 167 feet



Sources: ESRI; Cal-Atlas (2011); Parsons 2020

Figure 3-1: USACE – Jurisdictional Delineation Exhibits (Sheet 10 of 12)



SR-71/91 Interchange Project

Figure 2. Exhibits Sheet 11 of 12

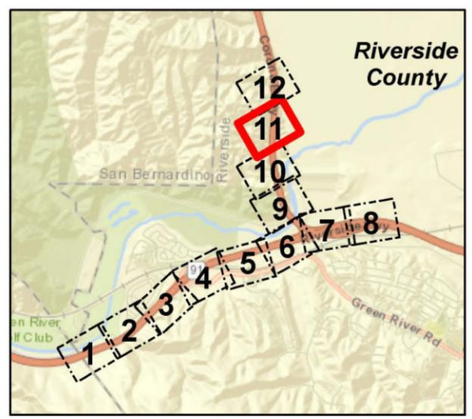
Jurisdictional Delineation of Waters of the United States (WOTUS) and Waters of the State (WOTS)

Legend

- JD Reconnaissance Survey Area
- Waters of the US (WOTUS) Non-Wetland
- WOTUS Wetland
- Waters of the State (WOTS)

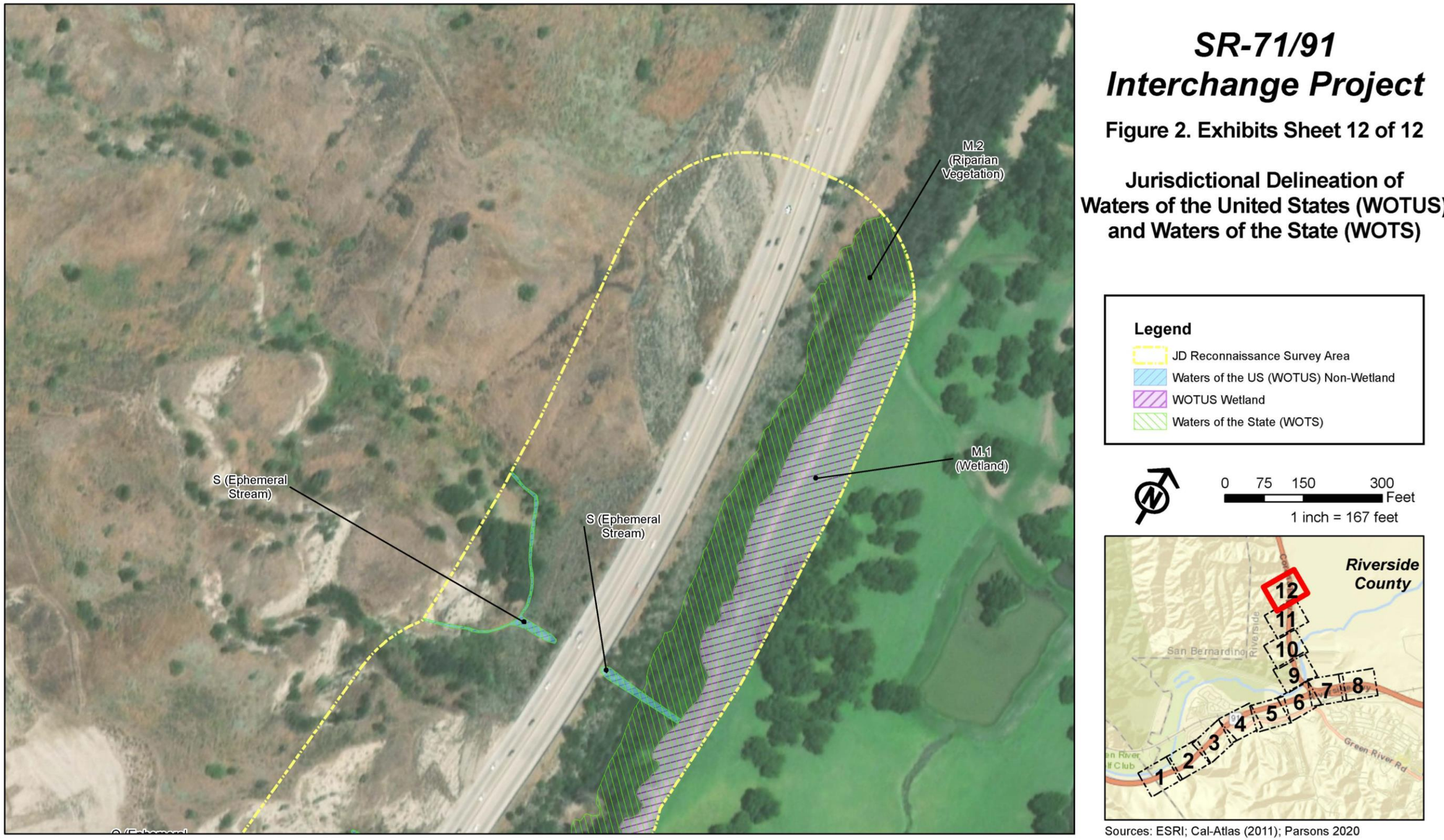
0 75 150 300 Feet

1 inch = 167 feet



Sources: ESRI; Cal-Atlas (2011); Parsons 2020

Figure 3-1: USACE – Jurisdictional Delineation Exhibits (Sheet 11 of 12)



SR-71/91 Interchange Project

Figure 2. Exhibits Sheet 12 of 12

Jurisdictional Delineation of Waters of the United States (WOTUS) and Waters of the State (WOTS)

Legend

- JD Reconnaissance Survey Area
- Waters of the US (WOTUS) Non-Wetland
- WOTUS Wetland
- Waters of the State (WOTS)

0 75 150 300 Feet

1 inch = 167 feet

Sources: ESRI; Cal-Atlas (2011); Parsons 2020

Figure 3-1: USACE – Jurisdictional Delineation Exhibits (Sheet 12 of 12)

Water Quality and Stormwater Runoff

Stormwater from SR-71 and SR-91 is discharged directly to Reach 2 of the Santa Ana River (downstream of Prado Dam). Under the 2014/2016 California Integrated Report that was prepared pursuant to Section 303(d) of the Clean Water Act (CWA), Reach 2 of the Santa Ana River is not an impaired water body, but the Prado Flood Control Basin is identified as an impaired water body for pH and Reach 3 of the Santa Ana River (upstream of Prado Dam) is impaired for indicator bacteria and lead. However, the Prado Flood Control Basin and Reach 3 of the Santa Ana River are located upstream of the project site. Pollutants causing impairments to these water bodies are coming from areas north and northeast of the site. Also, the project will not be impacting these upstream water bodies. Thus, the project will not be contributing to the impairments of the Prado Flood Control Basin or Reach 3 of the Santa Ana River.

Surface water quality in the Santa Ana River continues to be characterized by uncontrolled pollutants from various non-point sources (NPS), such as urban developments and agricultural land uses, as well as industrial, municipal, and other facilities that discharge directly to surface waters. These discharges are regulated by the Santa Ana Regional Water Quality Control Board (RWQCB), which implements the National Pollutant Discharge Elimination System (NPDES).

Groundwater

The project site and areas to the southeast are underlain by the Upper Santa Ana Valley Groundwater Basin – Temescal subbasin. The area upstream of Prado Dam is within the Chino subbasin, and the area west of Wardlow Wash is within the Coastal Plain of Orange County Groundwater Basin. Groundwater resources in the project area remain the same as what was described in the previous EA.

3.2.1 Potential Water Resources Impacts

3.2.1.1 Significance Criteria

Impacts of an alternative would be considered significant if it would:

WQ-1: Violate Regional Water Quality Control Board Water Quality standards, or otherwise degrade water quality.

WQ-2: Substantially depletes groundwater supplies or interferes with groundwater recharge, such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table.

WQ-3: Substantially alters the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on or offsite.

3.2.1.2 Revised Project Alternative (Proposed Action)

WQ-1 Water Quality

As discussed in the previous EA, project impacts associated with the permanent increase in impervious surface area and long-term potential for pollutants, such as sediment, debris, oil and grease, to enter receiving waters would occur and would not change over those discussed in the previous EA. Temporary impacts to water quality during construction would also remain the same and construction best management practices (BMPs) would be implemented to minimize pollutants in the surface waters and stormwater. Impacts to water quality would be avoided or reduced by implementation of measures

WQ-1 through WQ-7 during construction and would not be significant with regard to the violation of water quality standards or degradation of water quality.

Disturbed/graded areas will be replanted with native vegetation and, along with the additional rock slope protection, would reduce erosion and sediment that may affect stormwater water quality. The project would require a Section 401 Water Quality Certification from the RWQCB, and compliance with the conditions of this permit would avoid, minimize, and mitigate potential permanent and/or temporary effects to water quality. As discussed in the previous EA, stormwater treatment BMPs (i.e., a detention basin and three flow-based bio-filtration swales) would be implemented to minimize impacts to water quality from the project. With the permanent BMPs incorporated into the project design, effects related to water quality of stormwater runoff are not anticipated to be significant.

WQ-2 Groundwater Resources

The primary source of groundwater in the Proposal area is the Santa Ana River, with the Talbert Aquifer, which extends through Santa Ana Canyon, at a depth of approximately 100 feet below ground surface. Historic high groundwater in the SR-91 and SR-71 interchange area is approximately 40 feet below existing ground surface which could vary depending on seasonal precipitation and potential groundwater pumping in the vicinity. The Revised Project Alternative would mainly involve surface grading that would not use or affect groundwater resources, except for the piles for the bridge columns. As indicated, six of the nine bridge footings for the proposed flyover would be located on Federal land. The bottom of the piles would be approximately 334 to 399 feet above mean sea level (msl), where groundwater surface elevations were determined at 385 to 450 feet above msl. Thus, some of the piles could potentially affect the underlying groundwater, and will be constructed under slurry (such that dewatering may be necessary during construction). With the implementation of measure WQ-6, extracted watered would be tested and dewatering BMPs used to control sediments and pollutants prior to discharge back into the Santa Ana River for return to the groundwater. This would avoid adverse impacts associated with dewatering activities. Thus, this alternative would have temporary and less than significant impacts on groundwater resources and would not deplete groundwater supplies or interfere with groundwater recharge.

WQ-3 Drainage Patterns

Hydrology

The Revised Project Alternative is anticipated to result in minor permanent modifications to onsite hydrology and surface flows, and would increase the amount of impervious surface area within Federal land.

The bridge column redesign would create two spread footings but would be a few feet beneath the ground surface on2,624 square feet (0.06 acre). The widened Sukut driveway and secondary access would result in 4,968 square feet (0.11 acre) of additional pavement. The additional rock slope protection on Wardlow Wash would increase impervious areas by 10,019 square feet (0.23 acre). Refinements to the engineering plans also show an additional 0.18 acre of impervious surfaces. Overall, there is an increase of 0.58 acre (less than 14 percent) associated with the Revised Project Alternative over the 4.2 acres anticipated under the previously approved design. The grading changes, utility line relocations, SR-71 median barrier gap closure, and changes to USACE easements would not increase impervious areas on Federal land. A total of 4.78 acres of impervious area would be added by the Project to the 32.60 acres of existing impervious areas occupied by Caltrans facilities within Federal land.

Note that the total area of the Lower Santa Ana River Watershed is approximately 32,112 acres; therefore, an increase in impervious surfaces of 4.78 acres is not considered significant relative to the large size of the watershed. With the implementation of BMPs, outlined in the SWPPP for the project in compliance with WQ-1 through WQ-8, including a detention basin at the SR-71/EB 91 connector loop and three flow-based bio-filtration swales on the south side of SR 91 and east and west sides of SR 71, adequate onsite storage capacity for the treatment of runoff from impervious surfaces would be provided, and the change in flow velocity under existing and future conditions would be minimal. There would be no exceedance of the capacity of the Santa Ana River or other existing or planned stormwater drainage systems in the area. As such, changes in impacts to the stormwater drainage system and hydrology of the area are not anticipated to be significant. In addition, the existing drainage pattern of the area would not be altered in a manner that would result in substantial erosion, sedimentation, or flooding within or downstream of the project. Changes in hydrology would be minor due to relatively small areas that would be altered and with impacts minimized by implemented of measures WQ-1 through WQ-8; therefore, permanent effects associated with surface hydrology are not anticipated to be significant.

Temporary Falsework Construction

Temporary falsework construction would be required to construct a portion of the flyover bridge spanning over the Santa Ana River Channel. This impact was considered in the previous EA and would not change with the Revised Project Alternative. Two preliminary Hydraulic Engineering Centers River Analysis System (HEC-RAS) hydraulic analyses based on the preliminary layout using 4-foot-diameter temporary steel pipe bents were presented in the previous EA. The results of the hydrology analyses for the temporary falsework indicate that the structure could withstand flow rates up to 30,000 cubic feet per second (cfs). Once construction of the bridge structure spanning over the river is completed, the falsework would be removed, and the area would be restored to existing conditions. Thus, with only minor and temporary effects to the channel lining or channel itself, temporary effects to the hydrology of the Santa Ana River Channel are not anticipated to be significant.

Wetlands and Other Waters

USACE jurisdictional waters and wetlands would be temporarily and permanently impacted by the project. Based on the Supplemental Natural Environment Study (NES) prepared in 2020, construction of the Revised Project Alternative for the Interchange Project would result in temporary impacts to 3.04 acres of non-wetland waters and 0.42 acre of wetland waters. Permanent effects include 0.03 acre of wetland waters and 0.31 acre of non-wetland waters. Table 3-2 identifies these impacts by jurisdictional feature.

Table 3-2: Impacts to USACE Jurisdictional Features

Jurisdictional Feature Name	Permanent Impacts (acres)	Temporary Impacts (acres)	Total Impacts (acres)
Non-Wetland Waters			
Feature A*	0.00	0.03	0.03
Feature B*	0.02	0.02	0.04
Feature C*	0.04	0.01	0.05
Feature D	0.04	2.02	2.06
Feature F	0.11	0.76	0.87
Feature I	0.00	0.03	0.03

Table 3-2: Impacts to USACE Jurisdictional Features

Jurisdictional Feature Name	Permanent Impacts (acres)	Temporary Impacts (acres)	Total Impacts (acres)
Feature J	0.01	0.04	0.05
Feature K	0.00	0.04	0.04
Feature L	0.01	0.00	0.01
Feature N	0.07	0.01	0.08
Feature O	0.01	0.03	0.04
Feature P	0.00	0.05	0.05
Feature Q	0.00	0.00	0.00
Feature R	0.00	0.00	0.00
TOTAL	0.31	3.04	3.35
Wetland Waters			
Feature C*	0.01	0.00	0.01
Feature E	0.02	0.38	0.40
Feature G*	0.00	0.04	0.04
TOTAL	0.03	0.42	0.45

Notes: * outside Federal lands (APNs 101-140-006, 101-040-010, and 101-040-004)

Source: Parsons, 2020c.

The Revised Project Alternative is anticipated to include minor discharge of fill materials into WOTUS during construction, which requires a Notifying Nationwide Permit (NWP) from USACE pursuant to Section 404 of the CWA, a Section 401 Water Quality Certification from the RWQCB, and a Section 1600 Streambed Alteration Agreement from the California Department of Fish and Wildlife (CDFW) pursuant to Section 1600 of the California Fish and Game Code. As discussed in measure WQ-8, the Project would adhere to the conditions of the permit and implement the appropriate avoidance/minimization measures during construction activities, as well as provide the appropriate long-term mitigation to address permanent effects to wetlands and non-wetland waters.

To offset permanent impacts to riverine and riparian areas, the project will purchase mitigation bank credits at a 3:1 ratio from the Riverside Corona Resource Conservation District. To offset impacts to jurisdictional resources, Caltrans and RCTC would adhere to the conditions of the approved USACE Section 404 NWP permit (expected to be issued in late 2021), which would include onsite and/or offsite mitigation of impacts to wetland and non-wetland waters. This involves RCTC obtaining mitigation credits at a minimum ratio of 2:1 at three potential mitigation areas under consideration: (1) habitat restoration of lands within CHSP; (2) habitat restoration of lands within the Green River Golf Course; and (3) habitat restoration or creation of lands owned by the Regional Conservation Authority (RCA) (measure BIO-11).

Therefore, compliance with the permit conditions under measure WQ-8 and replacement riparian areas under measure BIO-11 and BIO-34, effects on wetlands and other waters are not anticipated to be significant.

Surface Hydrology

Under the Revised Project Alternative, the increase in impervious surface by a total of 4.78 acres would represent 0.015 percent of the total area of the Lower Santa Ana River Watershed (32,112 acres). With the implementation of treatment BMPs, adequate onsite storage capacity for runoff would be provided by the proposed detention basin and three flow-based bio-filtration swales, and the change in flow velocity between existing and future conditions would be minimal. No exceedance of the capacity of stormwater drainage systems would occur. In addition, with the implementation of various design pollution prevention BMPs, the existing drainage pattern of the area would not be altered in a manner that would result in substantial erosion, sedimentation, or flooding within or downstream of the project site. With these project design features, no substantial alteration of the existing drainage pattern or substantial erosion or siltation would occur and potential effects related to surface hydrology are not anticipated to be significant.

While changes in effects on water resources would occur with the Revised Project Alternative, these are not substantially more severe than the effects addressed in the previous EA.

3.2.2.3 No Action Alternative (Previously Approved Design)

The 2014 EA states that the Interchange Project were previously anticipated to result in a 4.2-acre increase of impervious surface on Federal lands. Under the previously approved design, project modifications included under the Proposed Action would not be implemented, and the project would be constructed as described in the 2014 EA. Effects of the previously approved design were analyzed and disclosed in the 2014 EA and include minor permanent modifications to onsite hydrology and surface flows and increases in impervious surfaces within Federal land. With the implementation of various design pollution prevention BMPs during construction and permanent treatment BMPs, this alternative would not result in substantial impacts on water quality, erosion, sedimentation, or flooding. Temporary falsework would redirect surface flows in the Santa Ana River during construction but would not overtop the levees. Impacts on wetlands and jurisdictional waters would affect less than 1.0 acre and would be offset by the mitigation conditions in resource agency permits. No significant impacts on water resources and water quality would occur. Potential impacts of the No Action Alternative on water resources would be less than significant, as described in the 2014 EA.

3.2.2 Avoidance/Minimization Measures

As stated in the previous EA, the RCTC contractor shall obtain and conform to current Federal, State, and local regulatory requirements to minimize potential impacts to water resources and water quality. While no significant or substantial impacts are anticipated with the Revised Project Alternative or the No Action Alternative, temporary and permanent effects on water quality would be minimized through the implementation of maintenance BMPs, pollution control BMPs, and treatment control BMPs. These avoidance and minimization measures are outlined in the previous EA and include:

WQ-1 Conform to the requirements of the Caltrans Statewide NPDES Storm Water Permit, Order No. 99-06- DWQ, NPDES No. CAS000003, adopted by the State Water Resources Control Board (SWRCB) on July 15, 1999, in addition to the BMPs specified in the Caltrans Storm Water Management Plan (SWMP) (Caltrans, 2016). When applicable, the Contractor shall also conform to the requirements of the General NPDES Permit for Construction Activities, Order No. 2009-0009-DWQ, NPDES No. CAS000002 and any subsequent General Permit in effect at the time of project construction.

WQ-2 Contractor will prepare and implement the Storm Water Pollution Prevention Plan (SWPPP). The SWPPP shall address all State and Federal water control requirements and regulations. The SWPPP shall address all construction-related activities, equipment, and materials that have the potential to impact water quality. The SWPPP shall include BMPs to control pollutants, sediment from erosion, stormwater runoff, and other construction-related impacts. In addition, the SWPPP shall include the provisions of SWRCB Resolution No. 2001-046, which requires implementation of specific Sampling Analysis Procedures to ensure that the implemented BMPs are effective in preventing the exceedance of any water quality standards. The results of the risk-level determination indicate that the project has a Risk Level of 1, which directs the project to implement the following Risk Level 1 requirements:

- Effluent Standards
- Good Site Management "Housekeeping"
- Non-Stormwater Management
- Sediment Controls
- Run-on and Runoff Controls
- Inspection, Maintenance, and Repair

Risk Level 1 Monitoring and Reporting Requirements specific implementation details regarding these requirements are found in Attachment C of the *NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities Order No. 2009-0009-DWQ* (September 2009).

WQ-3 Contractor will file a Notice of Intent (NOI) with the SWRCB at least 30 days prior to any soil-disturbing activities.

WQ-4 Conform all work to the Construction Site BMP (Category II) requirements specified in the latest edition of the Caltrans SWMP to control and minimize the impacts of construction and construction-related activities, materials, and pollutants on the watershed. These include, but are not limited to, temporary sediment control, temporary soil stabilization, scheduling, waste management, materials handling, and other non-stormwater BMPs. For a complete list, refer to Appendix F of the Caltrans SWMP (2016).

WQ-5 Contractor will give special attention to stormwater pollution control during the rainy season, which is defined by the SWRCB as year round. Appropriate soil stabilization and sediment controls will be implemented when rain is predicted. Water Pollution Control BMPs will be used to minimize impacts to receiving waters. Measures will be incorporated to contain all vehicle loads and avoid any tracking of materials that may fall or blow onto Caltrans right-of-way (ROW).

WQ-6 If dewatering is necessary, then the Contractor will fully conform to Order No. R8-2009-0003 (NPDES No. CAG998001), General Waste Discharge Requirements for Discharges to Surface Water which Pose an Insignificant *(De Minimis)* Threat to Water Quality, from the Santa Ana RWQCB. Dewatering BMPs will be used to control sediments and pollutants. A United States Environmental Protection Agency (EPA)-certified laboratory will test and monitor the discharge for compliance with the requirements of the RWQCB.

WQ-7 The Caltrans SWMP describes BMPs and practices to reduce the discharge of pollutants associated with the stormwater drainage systems of State highways, facilities, and activities. The completed project plans will incorporate all necessary Maintenance BMPs (Category IA), Design Pollution BMPs (Category IB), and Treatment BMPs (Category III) to meet the Maximum Extent Practicable (MEP) requirements. A combination of BMPs from the following categories will be implemented as part of the project:

- Maintenance BMPs – This category includes routine maintenance work, such as litter pickup, toxics control, street sweeping, drainage, and channel cleaning.
- Design Pollution Prevention BMPs – Permanent soil stabilization systems will be incorporated into project design, such as preservation of existing vegetation, concentrated flow conveyance systems (e.g., drainage ditches, dikes, berms, swales), and slope/surface protection systems that utilize either vegetated or hard surfaces. Determination of Design Pollution Prevention BMPs will occur during final design.
- Treatment BMPs – The applicability of all nine Caltrans-approved Treatment BMPs were analyzed as part of this project. This category of BMPs includes traction sand traps, infiltration devices, detention devices, biofiltration strips/ swales, dry weather flow diversion, media filters, multi-chamber treatment trains, wet basins, and gross solids removal devices (GSRDs).

Construction equipment will not be stored and/or remain within the Santa Ana River Channel after the conclusion of each workday throughout the duration of project construction.

WQ-8 Prior to the disturbance of all jurisdictional drainages, the Contractor is required to:

- Obtain and conform to CWA Section 404 permit issued by USACE prior to disturbance of all jurisdictional drainages.
- Obtain and conform to CWA Section 401 Water Quality Certificate issued by Santa Ana RWQCB prior to disturbance of all jurisdictional drainages.
- Obtain and conform to Streambed Alteration Agreement from CDFW prior to disturbance of all jurisdictional drainages.
- Compensatory mitigation measures for impacts to jurisdictional drainages shall adhere to requirements contained within Section 2.3 of the 2011 IS/MND.

No new or additional avoidance, minimization, and mitigation measures would be required with the proposed project changes.

3.3 Air Quality

3.3.1 Description of Resource and Baseline Conditions

Climate and air quality of the project area are characterized by the project's location in the northwestern portion of Riverside County within the South Coast Air Basin (SCAB). Air quality regulation in the SCAB is administered by the South Coast Air Quality Management District (SCAQMD). The climate

in the project area, air quality regulations, and nearby sensitive receptors remain similar to what was described in the previous EA.

Changes in Air Quality Standards

The Federal Clean Air Act (CAA) set National Ambient Air Quality Standards (NAAQS) for criteria air pollutants, hazardous air pollutants (HAPs) emissions standards, state attainment plans, motor vehicle emissions standards, stationary source emission standards and permits, acid rain control measures, stratospheric ozone (O_3) protection, and enforcement provisions. On October 1, 2015, EPA strengthened the 8-hour NAAQS for ground-level O_3, lowering the primary and secondary O_3 standard levels from 75 parts per billion (ppb) to 70 ppb. The area designation/classification based on the new standard passed Final rule on March 1, 2018, and attainment demonstration plans in the State Implementation Plan (SIP) were submitted in June 2019. The SCAB is classified as an "extreme" nonattainment area for this O_3 NAAQS. EPA revised the air quality standards for particle pollution in 2012 but the revisions only became effective on January 15, 2015. Specifically, the annual particulate matter less than 2.5 microns in diameter ($PM_{2.5}$) standard, for primary and secondary, was strengthened from the 2006 level of 15 micrograms per cubic meter ($\mu g/m^3$) to 12.0 $\mu g/m^3$ (primary) and 15.0 $\mu g/m^3$ (secondary); the 24-hour standard of 35 $\mu g/m^3$ was retained. All other NAAQS remained the same as provided in the previous EA. The current NAAQS are provided in Table 3-3.

Table 3-3: National Ambient Air Quality Standards

Pollutant	Primary/Secondary	Averaging Time	Level	Form
Carbon Monoxide (CO)	Primary	8 hours	9 ppm	Not to be exceeded more than once per year
		1 hour	35 ppm	
Lead (Pb)	Primary and Secondary	Rolling 3 month average	0.15 ug/m^3 (1)	Not to be exceeded
Nitrogen Dioxide (NO_2)	Primary	1 hour	100 ppb	98th percentile of 1-hour daily maximum concentrations, averaged over 3 years
	Primary and Secondary	1 year	53 ppb (2)	Annual Mean
Ozone (O_3)	Primary and Secondary	8 hours	0.070 ppm(3)	Annual fourth-highest daily maximum 8-hour concentration, averaged over 3 years
Particle Pollution ($PM_{2.5}$)	Primary	1 year	12.0 ug/m^3	annual mean, averaged over 3 years
	Secondary	1 year	15.0 ug/m^3	annual mean, averaged over 3 years
	Primary and Secondary	24 hours	35 ug/m^3	98th percentile, averaged over 3 years
Particle Pollution (PM_{10})	Primary and Secondary	24 hours	150 ug/m^3	Not to be exceeded more than once per year on average over 3 years
Sulfur Dioxide (SO_2)	Primary	1 hour	75 ppb(4)	99th percentile of 1-hour daily maximum concentrations, averaged over 3 years
	Secondary	3 hours	0.5 ppm	Not to be exceeded more than once per year

Notes:
(1) In areas designated nonattainment for the Pb standards prior to the promulgation of the current (2008) standards, and for which implementation plans to attain or maintain the current (2008) standards have not been submitted and approved, the previous standards (1.5 µg/m3 as a calendar quarter average) also remain in effect.

(2) The level of the annual NO2 standard is 0.053 ppm. It is shown here in terms of ppb for the purposes of clearer comparison to the 1-hour standard level.

(3) Final rule signed October 1, 2015, and effective December 28, 2015. The previous (2008) O3 standards additionally remain in effect in some areas. Revocation of the previous (2008) O3 standards and transitioning to the current (2015) standards will be addressed in the implementation rule for the current standards.

(4) The previous SO2 standards (0.14 ppm 24-hour and 0.03 ppm annual) will additionally remain in effect in certain areas: (1) any area for which it is not yet 1 year since the effective date of designation under the current (2010) standards, and (2)any area for which an implementation plan providing for attainment of the current (2010) standard has not been submitted and approved and which is designated nonattainment under the previous SO_2 standards or is not meeting the requirements of a SIP call under the previous SO2 standards (40 CFR 50.4(3)). A SIP call is an EPA action requiring a state to resubmit all or part of its State Implementation Plan to demonstrate attainment of the required NAAQS.

Source: USEPA 2021.

3.3.2 Potential Air Quality Impacts

3.3.2.1 Significance Criteria

Impacts of an alternative would be considered significant if it would:

AQ-1: Exceeds General Conformity Rule Applicability Rates

3.3.2.2 Revised Project Alternative (Proposed Action)

AQ-1 General Conformity Rule

Pollutant Emissions

As discussed in the previous EA, the primary source of air pollutant emissions that would be generated by the project would be from motor vehicles traveling on the SR-71/SR-91 junction and nearby freeway mainlines. Changes in long-term operational emissions due to the Revised Project Alternative would be the same as discussed in the previous EA. Specifically, the Interchange Project and revised project features would not generate operational emissions. Rather, the reconfiguration of the SR-71/SR-91 interchange is anticipated to reduce operational emissions by enhancing traffic operations and reducing vehicle idling along SR-91 and SR-71. Thus, air quality impacts are anticipated to be beneficial with regard to regional air quality. In addition, the proposed project changes would not change the operational emissions because no change to the configuration of the freeway junction or connector ramps are proposed. The same long-term air quality impacts discussed in the previous EA would occur with the Revised Project Alternative.

Construction activities would generate pollutant emissions, fugitive dust, and toxic air contaminants (TACs), as quantified in the previous EA. With proposed project changes, associated changes in pollutant emissions during construction are anticipated. Construction of the larger Sukut driveway, spread footings, additional rock slope protection, revised grading limits, and the rest of the project changes would generate temporary construction emissions. These emissions are estimated in Table 3-4 using the Road Construction Emissions Model (RCEM, version 9.0.0) and compared with SCAQMD significant thresholds. The estimates show that the Revised Project Alternative would not exceed SCAQMD significant thresholds; therefore, it would not violate any ambient air quality standards, contribute substantially to existing air quality violations, nor expose sensitive receptors to substantial pollutant concentrations.

Table 3-4: Construction Emissions of Criteria Air Pollutants

	Pollutant Emissions Average Pounds Per Day					
	NO_X	ROG	PM_{10}	$PM_{2.5}$	SO_X	CO
SCAQMD Significance Threshold	100	75	150	55	150	550
Predicted Emissions	27	5	21	5	0.2	96
Exceeds SCAQMD Significance Threshold?	No	No	No	No	No	No

NO_X – nitrogen oxides; ROG – reactive organic gas; PM_{10} – particulate matter less than 10 microns in diameter; $PM_{2.5}$ – particulate matter less than 2.5 microns in diameter; SO_X – sulfur oxides; CO – carbon monoxide

Source: Parsons, 2020a.

With compliance with pertinent federal, California Air Resources Board (ARB), and SCAQMD rules, regulations, ordinances, and statutes and with implementation of Caltrans' standard specifications for construction-related air pollution control, construction air quality effects from the project are not anticipated to be significant. Minimization measures AQ-1 and AQ-2 are provided below, along with measure BIO-25, to further reduce temporary construction emissions. No significant effects to air quality would occur.

Odors

Impacts related to odors would be the same as discussed in the previous EA. Effects on sensitive receptors due to odors are not anticipated to be significant because receptors are not located immediately adjacent to construction areas. Therefore, no significant impacts are anticipated. ***Toxic Air Contaminants***

Impacts related to TAC emissions from construction equipment would be the same as discussed in the previous EA. Given the construction schedule of 28 months, TAC emissions during construction would be temporary, and direct exposure to TACs would be limited to short time frames when travelers pass by the construction area because there are no sensitive receptors located beside this area; therefore, no significant impacts are anticipated.

Asbestos

As discussed in the previous EA, asbestos was identified at three bridge locations, but these bridges are not going to be disturbed during project construction activities; therefore, no significant impacts are anticipated.

Greenhouse Gas Emissions

Greenhouse gas (GHG) emissions are not currently subject to Federal standards. Thus, no thresholds of significance are established for GHG under NEPA. Rather, in compliance with the NEPA implementing regulations, estimates and anticipated impacts related to GHG emissions are discussed herein for the purpose of disclosure under NEPA without expressing a judgment as to their significance.

The proposed freeway improvements and other project components are not anticipated to produce any direct operational greenhouse gas (GHG) emissions. In addition, carbon dioxide (CO_2) emissions would decrease between the 2019 existing/baseline year and 2045 design year, despite an increase in the annual vehicle miles traveled from existing to design year, as the project by itself would not generate additional trips, but instead would improve speed distribution and decrease congestion, which would reduce associated GHG emissions from vehicles. Therefore, the project's GHG contribution would only occur within the construction window.

Construction of the project would temporarily contribute locally to GHG emissions from the use of construction equipment and vehicles, and indirect water and power production and waste disposal. Project construction would generate an estimated 24,340 pounds per day of carbon dioxide equivalent (CO_2e), including 23,796 pounds per day of CO_2, 4.73 pounds per day of methane (CH_4), and 1.43 pounds per day of nitrous oxide (N_2O). Overall project construction emissions of GHGs would be 4,356.5 metric tons of CO_2e over the approximately 28-month construction period (493 metric tons of CO_2e less than estimated in the previous EA). Construction GHG emissions would be temporary. The proposed project changes are not expected to have any long-term adverse effect on GHG emissions. In addition, implementation of the project would not conflict with applicable plans, policies, or regulations adopted for the purpose of reducing the emissions of GHGs.

General Conformity

Table 3-5 provides estimates of total construction emissions from the Revised Project Alternative. As shown, the project would not exceed the de minimis thresholds in 40 CFR 93.153 (b) and would not violate national or State air quality standards.

Table 3-5: Total Construction Emissions

	Total Pollutant Emissions (tons)					
	NO_X	ROG	PM_{10}	$PM_{2.5}$	SO_X	CO
De Minimis Threshold (tons/year)	100	25	70	70	100	100
Estimated Emissions	4.66	0.76	5.29	1.21	0.04	14.52
Exceeds De Minimis Threshold?	No	No	No	No	No	No

NO_X – nitrogen oxides; ROG – reactive organic gas; PM_{10} – particulate matter less than 10 microns in diameter; $PM_{2.5}$ – particulate matter less than 2.5 microns in diameter; SO_X – sulfur oxides; CO – carbon monoxide
Source: Parsons, 2020a.

On May 2020, FHWA sent a project-level conformity determination for the project that indicated the project-level transportation conformity requirements of 40 CFR Part 93 have been met.

The Interchange Project is in conformance with the SIP because it is included in the Southern California Association of Governments' (SCAG) 2020 Regional Transportation Plan (RTP)/Sustainable Communities Strategy (SCS) and 2019 Federal Transportation Improvement Program (FTIP). The design concept and scope of the preferred alternative have not changed significantly from those assumed in the regional emissions analysis. Thus, the project will not create any new violations of the standards or increase the severity or number of existing violations. Since the project is covered by transportation conformity, it is exempt from the General Conformity Regulations. As such, no significant impacts related to General Conformity Rule Applicability Rates would occur.

While minor changes in air quality would occur with the Revised Project Alternative, these are not substantially more severe than the effects addressed in the previous EA. Therefore, no significant adverse impacts are anticipated.

3.3.2.3 No Action Alternative (Previously Approved Design)

Under the previously approved design, project modifications included under the Proposed Action would not be implemented, and the project would be constructed as described in the 2014 EA. Effects of the previously approved design were analyzed and disclosed in the 2014 EA and include pollutant emissions from motor vehicles travelling along the SR-71/SR-91 interchange and connector ramps but the net change in emissions would be below SCAQMD thresholds and would not cause a violation of air quality standards. Also, the No Action Alternative would not expose people to significant impacts related to construction emissions, odors, toxic air contaminants, asbestos, or GHG. Potential impacts of the No Action Alternative on air quality would be less than significant, as described in the 2014 EA.

3.3.3 Avoidance/Minimization Measures

While no significant or substantial impacts are anticipated with the Revised Project Alternative or the No Action Alternative, implementation of the minimization measures in the previous EA would reduce any potential air quality impacts resulting from construction of the Revised Project Alternative. The measures include:

AQ-1 In addition to the SCAQMD rules, the following mitigation measures set forth a program of air pollution control strategies that will ensure that construction emissions will not exceed any applicable standard. Measures 1 and 2 include fugitive dust reduction strategies, in addition to Rule 403 requirements. Measures 3 through 5 provide reduction for other contaminants, including nitrogen oxide (NO_X) emissions.

1. In addition to SCAQMD Rule 403 requirements, apply water to all excavation/ grading activity areas as necessary to remain visibly moist during active operations.
2. Apply nontoxic soil stabilizers, as needed, to reduce offsite transport of fugitive dust from unpaved staging areas and unpaved road surfaces.
3. Properly tune and maintain construction equipment and vehicles in accordance with manufacturer's specifications. Low-sulfur fuel shall be used in construction equipment per California Code of Regulations (CCR) Title 17, Section 93114.
4. During construction, keep trucks and vehicles in loading/unloading queues with their engines off when not in use to reduce vehicle emissions. Phase construction activities to avoid emissions peaks, where feasible, and discontinue during second-stage smog alerts.
5. To the extent feasible, use construction equipment that is either equipped with diesel oxidation catalyst or is powered by alternative fuel sources (e.g., methanol, natural gas).
6. Active construction areas shall be watered regularly to control dust and minimize impacts to adjacent vegetation.

All measures provided above and included in SCAQMD Rules 403 and 1403 that are applicable to the project construction activities shall be implemented to the extent feasible to avoid adverse short-term air quality impacts.

AQ-2 Active construction areas shall be watered regularly to control dust and minimize impacts to control dust and minimize impacts to adjacent vegetation.

Compliance with applicable rules and regulations is considered part of the Interchange Project. In addition to the SCAQMD rules, measures AQ-1 and AQ-2 set forth a program of air pollution control strategies that would ensure construction emissions would be further reduced and would not exceed any applicable standard. No new or additional avoidance, minimization, and mitigation measures would be required with the proposed project changes.

3.4 Biological Resources

3.4.1 Description of Resource and Baseline Conditions

Baseline conditions and impact assessment to plant and wildlife species were updated recently as part of the Supplemental NES (December 2020, Parsons, 2020c). The findings of the Supplemental NES are summarized below.

The current conditions of biological resources within the Biological Study Area (BSA) remain relatively unchanged since the NES was completed in 2010, although minor changes in vegetation have

occurred due to natural growth of new vegetation, in habitat restoration areas associated with the SR 91 CIP project, and due to other construction projects in the area.

Vegetation

Vegetation communities in the project area consist of oak woodland (OW), coastal sage scrub (CSS), coastal sage-chaparral scrub (CSCS), mixed scrub (MS), mule fat scrub (MFS), saltbush scrub (SS), southern cottonwood willow riparian forest (SCWRF), southern cottonwood riparian forest (SCRF), eucalyptus/ornamental woodland (EOW), non-native grassland (NNG), disturbed habitat (DH), urban/developed (U/D) land, streambed, waters, and riparian forest (RF), as shown in Figure 3-2.

- OW occurs in three locations in the eastern portion of the BSA and on the east-facing cutback slopes along the west side of SR-71, often occurring in isolated slivers of habitat surrounded by NNG. This community is located immediately adjacent to developed areas of Palisades Drive, the Burlington Northern Santa Fe (BNSF) railroad line, and SR-71. Although located in areas of ongoing disturbances, the OW within the study area is considered moderate quality habitat for common bird and raptor species by providing cover, nesting, and perching opportunities.
- CSS occurs in relatively isolated stands along several east-facing slopes adjacent to SR-91, SR-71, and Green River Road. The areas along the east-facing slopes adjacent to SR-91 contain isolated slivers of CSS, often surrounded by NNG. The CSS within the BSA is considered low to moderate in habitat quality based on the communities' exposure to adjacent ongoing disturbances. It also provides very marginal nesting and foraging opportunities for sensitive wildlife species known to occur in the region, including California gnatcatcher *(Polioptila californica californica)* (CAGN).
- CSCS occurs within two relatively large isolated stands in the eastern portion of Wardlow Wash immediately south of SR-91 and within a wash on the west side of SR-71. This community contains a mix of CSS and chaparral species. CSCS provides suitable habitat for several common and sensitive wildlife species.
- MS is located immediately north and downslope from the BNSF railroad line, south of SR-91, in the eastern portion south of SR-91, and on east- and west-facing slopes along SR-71. This community is subject to ongoing disturbances associated with the adjacent railroad line and is considered relatively low in habitat quality for plant and wildlife species.
- MFS occurs at several isolated low-lying locales associated with hydrological features. MFS is primarily located in disturbed areas; therefore, it is considered low to moderate in quality. It is located in the Fresno Canyon/Wardlow Wash areas, south of SR-91, in addition to areas in the Prado Dam area. This community is largely dominated by mule fat and generally contains a disturbed understory of non-native grasses, including red brome *(Bromus rubens)*, ripgut brome *(Bromus diandrus)*, and wild oat (*Avena fatua*). Some of the stands of this community function as understory extensions and upland transition areas for the riparian forest habitats associated with the Santa Ana River and its tributary waters.
- SS occurs as an isolated linear patch, north of Green River Road and south of SR-91. The SS community occurs parallel with SR-91 and along the southern edge of an SCWRF.
- SCWRF is prevalent throughout the lowland areas and drainage features in the BSA. This community has remained relatively undisturbed despite previous construction activities in the area. SCWRF provides high-quality habitat for resident and migratory bird species, including the least Bell's vireo *(Vireo bellii pusillus)* (LBV).

- SCRF occurs in isolation, north of the westbound (WB) SR-91 to NB SR-71 on-ramp, associated with the Santa Ana River. The SCRF consists of tall-growing cottonwood trees, completely devoid of willow trees, with scattered ruderal forbs. The community is relatively undisturbed and provides moderate quality nesting habitat for common and riparian bird species. It is found south of SR-91 in Fresno Canyon/Wardlow Wash. SCRF is subject to ongoing disturbance by homeless and unauthorized vehicles, resulting in moderate quality nesting habitat.
- EOW occurs in disturbed and landscaped areas adjacent to existing residential and commercial developments, as well as areas within the Prado Basin, north of Prado Dam and adjacent to SR-71. It is found typically on flat terrain or east-facing slopes, often in sliver areas that are isolated and surrounded by NNG.
- NNG occurs throughout most of the BSA and has been introduced as a result of previous disturbances in the local area. NNG is found on the east-facing slopes along SR-71 in addition to areas of disturbance along the SR-71 and SR-91 shoulder areas. NNG that occurs on and within 500 feet of the project site provides marginal nesting and foraging habitat for burrowing owl *(Athene cunicularia)* (BUOW).
- DH is prevalent throughout areas of previous or current ground disturbance associated with construction improvements on SR-91, Green River Road, shoulder areas along SR-71, and the SR-71 northernmost driveway. The vegetation within these areas consists of sparsely scattered non-native grasses and ruderal forbs, including red brome, ripgut brome, Russian thistle *(Kali tragus),* and shortpod mustard *(Hirschfeldia incana).*
- U/D land consists of areas containing commercial and residential developments, associated parking lots and roads, SR-71 and SR-91, and Prado Dam and its associated spillways. Vegetation within the U/D land consists only of ornamental landscape vegetation with little to no native species observed.
- Streambed is primarily found in the Fresno Canyon/Wardlow Wash area.
- Water includes the Prado Basin and Santa Ana River.
- RF was observed in a small area in the Fresno Canyon/Wardlow Wash area. Trees from this community are also found in slivers of habitat along east-facing slopes along SR-71.

Plant species that were observed during the 2020 habitat assessment surveys are compiled in the Supplemental NES which is included in Appendix B.

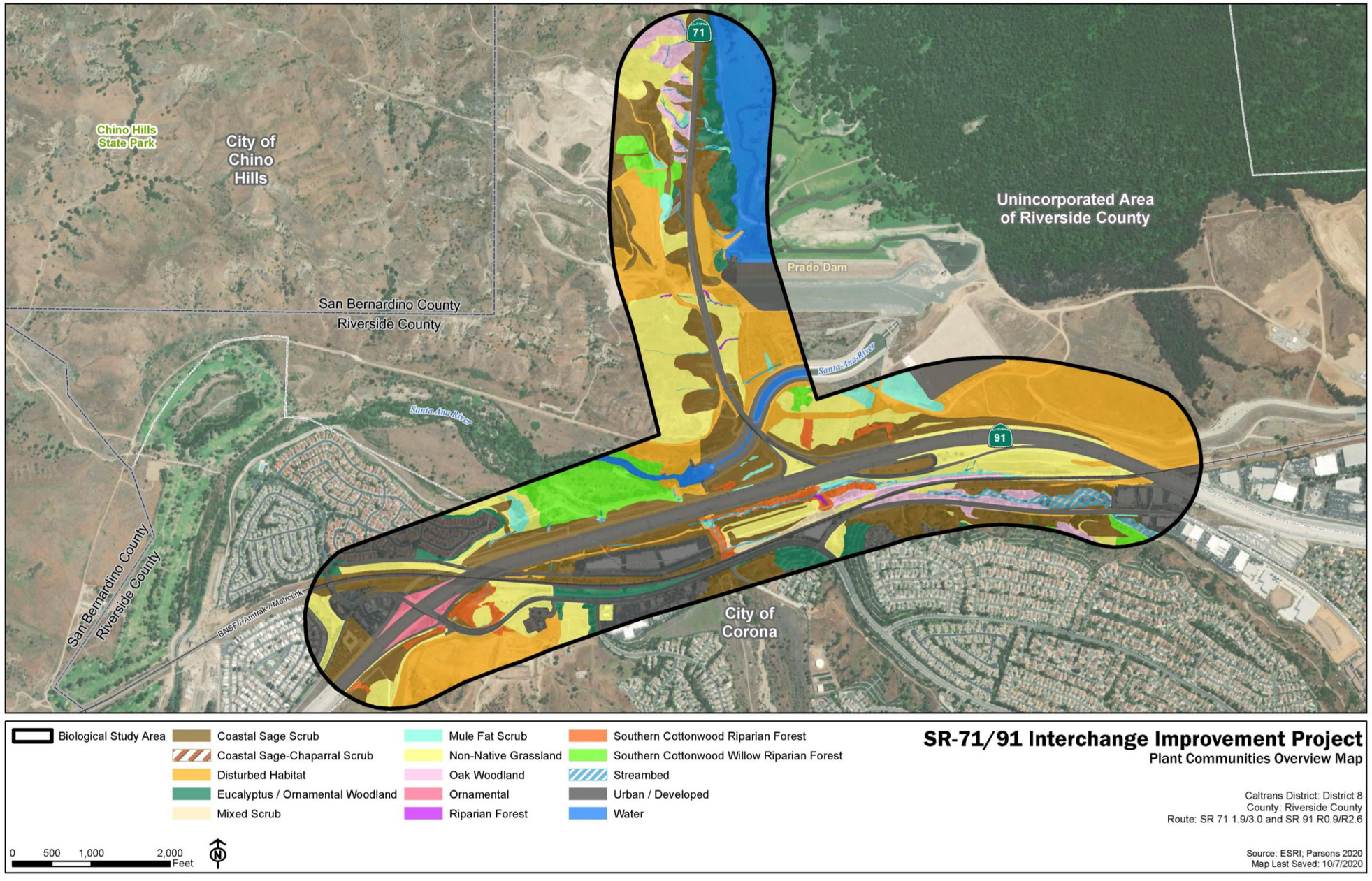


Figure 3-2: Vegetation Communities

Wildlife Species

The Santa Ana River Canyon and the surrounding area provide suitable habitat for several wildlife species that are known to occur in the region. The project area provides habitat for wildlife species that commonly occur in disturbed and developed communities, as well as in riparian and scrub habitats. Commonly found avian and mammalian species observed within the area include, but are not limited to:

- California towhee (*Pipilo crissalis*)
- Cliff swallow (*Petrochelidon*)
- House finch *(Carpodacus mexicanus)*
- Mourning dove (*Zenaida macroura*)
- Fence lizard *(Sceloporus occidentalis)*
- White-throated swift (*Aeronautes saxatalis*)
- Black phoebe *(Sayornis nigricans)*
- California ground squirrel (*Spermophilus beecheyi*)
- Desert cottontail (*Sylvilagus audubonii*)

A complete list of wildlife species observed during the habitat assessment survey is included in the Supplemental NES in Appendix B. Surveys completed for the Supplemental NES resulted in positive findings for LBV and CAGN.

Wildlife Crossing and Constrained Linkages

The project area is located within the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) Conservation Area, which is comprised of conservation cores (defined as blocks of habitat areas of appropriate size, configuration, and vegetation characteristics to generally support the life history requirements of one or more Covered Species) and extensions of existing cores. According to the MSHCP, two conservation cores are present within the project area. Existing Core A (Prado Basin/Santa Ana River) is located north of SR-91 within the general area of the Prado Dam and CHSP. Existing Core B (Cleveland National Forest) is located approximately 1.0 mile south of SR-91. Two linkages connect Core A with Core B: Proposed Constrained Linkage (PCL) 1 and PCL 2.

PCL 1 generally runs north-south from Core A at CHSP and the Santa Ana River, across SR-91 at the Green River Road interchange, and into the hillside areas and into Core B. PCL 2 is located just west of the SR-91/SR-71 junction. This corridor consists of an undercrossing located south of the Santa Ana River spillway that allows north-south wildlife movement across SR-91. It also provides a riparian connection from the Prado Basin and Santa Ana River to the Cleveland National Forest, thus allowing for the movement of species such as coast range newt *(Taricha torosa torosa)* and western pond turtle *(Actinemys marmorata).*

Based on previous studies, the project site supports a resident population of small to large mammal species, including coyote and mountain lion, that utilize the wildlife crossings and culverts for shelter, food, water, and mating on both sides of SR-91.

Threatened and Endangered Species

According to the Supplemental NES, which included reviews of the California Natural Diversity Database (CNDDB) and IPaC databases in October 2020 and February 2021, of the 42 sensitive wildlife species with the potential to occur in the area, the BSA provides habitat for 24 sensitive faunal species, of which 15 species have a moderate potential to occur, 7 species have a high potential to occur, and 4

species are present on the site. Table 3-6 lists these species and their designations based on their current distribution, habitat requirements, and information concerning land use in the vicinity of the site.

Of the 22 sensitive wildlife species that have high to moderate potential to occur, 3 of these, the Santa Ana sucker *(Catostomus santaanae)* (SAS), LBV, and CAGN are federally listed as threatened or endangered species and are present on the project site.

Santa Ana Sucker. The SAS is federally listed as threatened and a CDFW Species of Special Concern. It is endemic to the south coastal stream of the Los Angeles basin, including the Santa Ana River. The area for the Proposed Action provides suitable habitat for the SAS within portions of the Santa Ana River. The project area does not contain any critical habitat for the SAS, as designated by USFWS's 2009 Final Rule for SAS Critical Habitat because the site is within the MSHCP boundaries and is part of the MSHCP's SAS Conservation Program. Based on the CNDDB, there is a July 2000 recorded occurrence/observation of this species in the Santa Ana River immediately downstream of the SR-71/SR-91 interchange, which provides suitable riparian habitat for this species; therefore, this species is currently considered present onsite.

Least Bell's Vireo. The LBV is both federally and state listed as an endangered species. Suitable habitat for this species occurs within the riparian woodlands within the project area; however, USFWS-designated critical habitat does not exist within Federal lands. LBV was previously recorded as occurring within the area and was present during 2020 surveys. Because suitable habitat remains undisturbed within the area, the species is assumed to be present onsite.

Coastal California Gnatcatcher. The CAGN is federally listed as threatened and a CDFW Species of Special Concern. The CAGN is a species with restricted habitat requirements, being an obligate resident of CSS habitats that are dominated by coastal sagebrush. CSS communities dominated by California sagebrush *(Artemisia californica)*, California buckwheat *(Eriogonum fasciculatu)*, white sage *(Salvia apiana)*, and black sage *(Salvia mellifera)* are preferred by the species. CAGN was previously recorded as occurring within the vicinity and was present during 2020 surveys. Because suitable habitat remains undisturbed within the project area, the species is assumed to be present onsite.

Table 3-6: Listed, Proposed, and Special-Status Wildlife Species Potentially Occurring within the BSA

Scientific Name	Common Name	Status	MSHCP Covered Species	General Habitat Description	Rationale	Determination of Effect
Insects						
Rhaphiomidas terminates abdominalis	Delhi sands flower-loving fly	FE	Yes	Found only in areas of the Delhi sands formation in southwestern San Bernardino and northwestern Riverside Counties. Requires fine, sandy soils, often with wholly or partly consolidated dunes and sparse vegetation. Oviposition requires shade.	**No suitable habitat.** No Delhi soils present within the BSA. Recorded occurrences are greater than 5 miles. Not observed during 2020 site visit.	**No effect**
Fish Species						
Catostomus santaanae	Santa Ana sucker	FT SSC, CH	Yes	Endemic to Los Angeles basin south coastal streams. Habitat generalists, but prefer sand-rubble-boulder bottoms, cool, clear water, and algae.	**Present.** Suitable habitat occurs within the Santa Ana River located within the BSA. Recorded occurrences located immediately downstream (west) of the SR-71/SR-91 interchange as observed during preparation of the NES. Not observed during 2020 site visit for the Supplemental NES.	
Oncorhynchus mykiss irideus pop. 10	Steelhead southern California DPS	FE	No	Aquatic, south coast flowing waters.	**Moderate potential to occur.**. Not observed during 2020 site visit. No permanent improvements or construction activities are proposed within the riparian areas of the Santa Ana River and measures WQ-1, WQ-2, WQ-4, WQ-5 and WQ-8 would be implemented to reduce/avoid impacts.	**No effect**

Table 3-6: Listed, Proposed, and Special-Status Wildlife Species Potentially Occurring within the BSA

Scientific Name	Common Name	Status	MSHCP Covered Species	General Habitat Description	Rationale	Determination of Effect
Amphibians						
Anaxyrus californicus	Arroyo toad	FE SSC	Yes	Semi-arid regions near washes or intermittent streams, including valley-foothill and desert riparian, desert wash, etc. Rivers with sandy banks, willows, cottonwoods, and sycamores; loose, gravelly areas of streams in drier parts of range.	**Moderate potential to occur.** Minimal **s**uitable habitat occurs within the drainage features located within the BSA. Recorded occurrences are greater than 5 miles. Not observed during the Spring and Summer 2020 site visit. No permanent improvements or construction activities are proposed within the riparian areas of the Santa Ana River. Drainages outside the Santa Ana River lack suitable habitat.	Covered under the MSHCP. **No effect per FESA**
Taricha torosa torosa	Coast range newt	SSC	Yes	Found in coastal drainages from Mendocino County to San Diego County. Lives in terrestrial habitats and will migrate over 0.60 mile to breed in ponds, reservoirs, and slow-moving streams.	**Moderate potential to occur.** A minimal amount of suitable foraging habitat occurs within the BSA. Recorded occurrences are greater than 5 miles. Not observed during 2020 site visit. The Santa Ana River and Fresno Canyon/Wardlow Wash do not contain suitable flow conditions for Coast range newt.	**No effect**
Reptiles						
Aspidoscelis hyperythra	Orange-throated whiptail	WL	No	Inhabits low-elevation coastal scrub, chaparral, and valley-foothill hardwood habitats. Prefers washes and other sandy areas with patches of brush and rocks. Perennial plants necessary for its major food – termites.	**High potential to occur.** The BSA contains elements of suitable habitat within the CSCS. Recorded occurrences within approximately 2 miles. Not observed during 2020 site visit. CSCS occurs in small linear patches, next to disturbed areas, along SR-71 on steep slopes. Minimization measures for coastal sage scrub (e.g., BIO-2, BIO-6 to BIO-8, BIO-31, BIO-33) have been included for the project.	**No effect**

Table 3-6: Listed, Proposed, and Special-Status Wildlife Species Potentially Occurring within the BSA

Scientific Name	Common Name	Status	MSHCP Covered Species	General Habitat Description	Rationale	Determination of Effect
Aspidoscelis tigris stejnegeri	Coastal western whiptail	SSC	Yes	Found in deserts and semiarid areas with sparse vegetation and open areas. Also found in woodland and riparian areas. Ground may be firm soil, sandy, or rocky.	**Moderate potential to occur.** Suitable habitat occurs within the riparian woodland located within the BSA. Recorded occurrences are greater than 5 miles. Not observed during 2020 site visit. Minimization measures for riparian areas (BIO-10 to BIO-12) have been included for the project.	**No effect**
Coleonyx variegates abbotti	San Diego banded gecko	SSC	Yes	Coastal and cismontane habitat in southern California. Found in granite or rocky outcrops in coastal scrub and chaparral habitats.	**Low potential to occur.** The BSA contains elements of habitat within the CSCS; however, no rocky outcrops were observed. Recorded occurrences are greater than 5 miles. Not observed during 2020 site visit. Minimization measures for coastal sage scrub (e.g., BIO-2, BIO-6 to BIO-8, BIO-31, BIO-33) have been included for the project.	**No effect**
Crotalus ruber ruber	Northern red-diamond rattlesnake	SSC	Yes	May be found in chaparral, woodland, grassland, and desert areas from coastal San Diego County to the eastern slopes of the mountains. Occurs in rocky areas and dense vegetation. Needs rodent burrows, cracks in rocks, or surface cover objects.	**Low potential to occur.** The BSA contains elements of habitat within the CSCS; however, the low density of plants and lack of rocky areas reduces the habitat suitability. Recorded occurrences are greater than 5 miles. Not observed during 2020 site visit. Minimization measures for coastal sage scrub (e.g., BIO-2, BIO-6 to BIO-8, BIO-31, BIO-33) have been included for the project.	**No effect**
Emys marmorata	Western pond turtle	SSC	No	Aquatic, artificial flowing waters, south coast flowing waters, wetland.	**Moderate potential to occur.** The BSA contains aquatic areas in the Santa Ana River. Recorded occurrences are within approximately 0.67 mile. Not observed during 2020 site visit. No improvements or construction activities are proposed within the riparian areas of Santa Ana River.	**No effect**

Table 3-6: Listed, Proposed, and Special-Status Wildlife Species Potentially Occurring within the BSA

Scientific Name	Common Name	Status	MSHCP Covered Species	General Habitat Description	Rationale	Determination of Effect
Phrynosoma coronatum	Coast horned lizard	SSC	No	Inhabits CSS and chaparral in arid and semi-arid climate conditions, desert wash, pinon and juniper woodlands, riparian scrub and riparian woodland, Valley and foothill grassland. Prefers friable, rocky, or shallow sandy soils.	**High potential to occur.** The BSA contains elements of suitable habitat within the CSCS, in linear swaths along SR-71, on steep slopes. Recorded occurrences within approximately 3 miles. Not observed during 2020 site visit. Minimization measures for coastal sage scrub (e.g., BIO-2, BIO-6 to BIO-8, BIO-31, BIO-33) have been included for the project.	**No effect**
Salvadora hexalepis virgultea	Coast patch-nosed snake	SSC	No	Found in brushy or shrubby vegetation in coastal southern California. Requires small mammal burrows for refuge and overwintering sites.	**Low potential to occur.** A minimal amount of foraging habitat occurs within the BSA. Recorded occurrences are greater than 5 miles. Not observed during 2020 site visit. Minimization measures for coastal sage scrub (e.g., BIO-2, BIO-6 to BIO-8, BIO-31, BIO-33) have been included for the project.	**No effect**
Spea hammondii	Western spadefoot	SSC	Yes	Cismontane woodland, coastal scrub, Valley and foothill grassland, vernal pool, and wetland.	**Moderate potential to occur.** A minimal amount of marginal habitat occurs south of SR-91 in Fresno Canyon and Wardlow Wash. The area is subject to high levels of disturbance. Not observed during 2020 site visit. No improvements or construction activities are proposed within the riparian areas of Santa Ana River.	**No effect**
Thamnophis hammondii	Two-striped garter snake	SSC	No	Coastal California from vicinity of Salinas to northwest Baja California from sea to approximately 7,000 feet elevation. Highly aquatic, found in or near permanent fresh water. Often along streams with rocky beds and riparian growth.	**Moderate potential to occur.** Suitable habitat occurs within the riparian habitat located within the BSA. Recorded occurrences are greater than 5 miles. Not observed during 2020 site visit. No improvements or construction activities are proposed within the riparian areas of Santa Ana River.	**No effect**

Table 3-6: Listed, Proposed, and Special-Status Wildlife Species Potentially Occurring within the BSA

Scientific Name	Common Name	Status	MSHCP Covered Species	General Habitat Description	Rationale	Determination of Effect
Avian Species						
Accipiter cooperii	Cooper's hawk	WL	Yes	Nesting habitat in woodlands, chiefly of open, interrupted or marginal type. Nest sites mainly in riparian growths of deciduous trees, as in canyon bottoms on river floodplains; also, live oaks.	**Moderate potential to occur.** Suitable nesting habitat occurs within the riparian woodland located within the BSA. Recorded occurrences are greater than 5 miles. Not observed during 2020 site visit. No improvements or construction activities are proposed within the riparian areas of Santa Ana River. Minimization measures for riparian areas (BIO-10 to BIO-12) have been included for the project.	**No effect**
Agelaius tricolor	Tricolored blackbird	ST, SSC	Yes	Nesting colony habitat; highly colonial species, most numerous in central valley and vicinity. Largely endemic to California. Requires open water, protected nesting substrate, and foraging area with insect prey within a few kilometers of the colony.	**Moderate potential to occur.** Suitable nesting habitat occurs within the riparian woodland located within the BSA. Recorded occurrences within approximately 5 miles. Not observed during 2020 site visit. No improvements or construction activities are proposed within the riparian areas of Santa Ana River. Minimization measures for riparian areas (BIO-10 to BIO-12) have been included for the project.	**No effect**
Aimophila ruficeps canescens	Southern California rufous-crowned sparrow	WL	Yes	Resident in southern California CSS and sparse mixed chaparral. Frequents relatively steep, often rocky hillsides with grass and forb patches.	**High potential to occur.** Suitable habitat exists in the northern portion of the BSA, in linear swaths along SR-71, on steep slopes. Recorded occurrences within approximately 1 mile. Not observed during 2020 site visit. Minimization measures for coastal sage scrub (e.g., BIO-2, BIO-6 to BIO-8, BIO-31, BIO-33) have been included for the project.	**No effect**

Table 3-6: Listed, Proposed, and Special-Status Wildlife Species Potentially Occurring within the BSA

Scientific Name	Common Name	Status	MSHCP Covered Species	General Habitat Description	Rationale	Determination of Effect
Ammondramus savannarum	Grasshopper sparrow	SSC	Yes	Dense grasslands on rolling hills, lowland plains, in valleys and on hillsides on lower mountain slopes. Favors native grasslands with a mix of grasses, forbs, and scattered shrubs.	**Low potential to occur.** The BSA does not contain any annual or perennial grasslands. Recorded occurrences are greater than 5 miles. Not observed during 2020 site visit.	**No effect**
Amphispiza bellii bellii	Bell's sage sparrow	WL	Yes	Nests in chaparral dominated by fairly dense stands of chamise. Found in CSS in south of range. Nest located on the ground beneath a shrub or in a shrub 6 to 18 inches above ground.	**Low potential to occur.** The BSA does not contain the dense areas of chamise required for suitable habitat. Recorded occurrences are greater than 5 miles. Not observed during 2020 site visit.	**No effect**
Aquila chrysaetos	Golden eagle	FP, WL	Yes	Nesting and wintering habitat of rolling foothills, mountain areas, sage-juniper flats, and desert. Cliff-walled canyons provide nesting habitat in most parts of range; also, large trees in open areas.	**High potential to occur.** Rolling hills within the northern portion of the BSA may provide suitable habitat, in small, linear swath along SR-71. Recorded occurrences within approximately 1.5 miles. Not observed during 2020 site visit. The areas to be disturbed along SR-71 are subject to a high level of disturbance due to, but not limited to, roadway noise, dust, and transport of invasive species (typical for roadway shoulders). These slopes are also very steep and no nests were found along the roadway shoulders.	**No effect**
Asio otus	Long-eared owl	SSC	No	Nesting habitat of riparian bottomlands grown to tall willows and cottonwoods; also, belts of live oak paralleling stream courses. Require adjacent open land productive of mice and the presence of old nests of crows and hawks for breeding.	**Moderate potential to occur.** Suitable habitat occurs within the riparian woodland located within the BSA. Recorded occurrences are greater than 5 miles. Not observed during 2020 site visit. No improvements or construction activities are proposed within the riparian areas of Santa Ana River. Minimization measures for riparian areas (BIO-10 to BIO-12) have been included for the project.	**No effect**

Table 3-6: Listed, Proposed, and Special-Status Wildlife Species Potentially Occurring within the BSA

Scientific Name	Common Name	Status	MSHCP Covered Species	General Habitat Description	Rationale	Determination of Effect
Athene cunicularia	Burrowing owl	SSC	Yes	Burrow sites in open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Subterranean nester, dependent on burrowing mammals, most notably the California ground squirrel.	**High potential to occur.** Rolling hills within the northern portion of the BSA may provide suitable habitat in small, linear swaths along SR-71. Recorded occurrences within approximately 2 miles. Not observed during 2020 site visit and there were no suitable burrows observed. The areas along SR-71 are subject to a high level of disturbance due to, but not limited to, roadway noise, dust, and transport of invasive species (typical for roadway shoulders). These slopes are also very steep and no nests were found along the roadway shoulders. Measures BIO-30 and BIO-31 would be implemented to reduce/avoid impacts.	**No effect**
Buteo swainsoni	Swainson's hawk	ST	Yes	Great Basin grassland, riparian forest, riparian woodland, Valley and foothill grassland.	**Low potential to occur.** Riparian areas south of SR-91 and along the Sana Ana River may provide suitable habitat. Recorded occurrences within approximately 0.06 mile. Not observed during 2020 site visit. No improvements or construction activities are proposed within the riparian areas of Santa Ana River. Minimization measures for riparian areas (BIO-10 to BIO-12) have been included for the project.	**No effect**
Campylorhynchus brucceicapillus sandiegensis	Coastal cactus wren	SSC	Yes	Found in southern California CSS. Wrens require tall Opuntia cactus for nesting and roosting.	**Low potential to occur.** The BSA contains elements of suitable habitat within the CSCS; however, no Opuntia was observed. Recorded occurrences within approximately 5 miles. Not observed during 2020 site visit. Minimization measures for coastal sage scrub (e.g., BIO-2, BIO-6 to BIO-8, BIO-31, BIO-33) have been included for the project.	**No effect**

Table 3-6: Listed, Proposed, and Special-Status Wildlife Species Potentially Occurring within the BSA

Scientific Name	Common Name	Status	MSHCP Covered Species	General Habitat Description	Rationale	Determination of Effect
Coccyzus americanus occidentalis	Western yellow-billed cuckoo	FT, SE	Yes	Nesting habitat of riparian forest, along the broad, lower flood-bottoms of larger river systems. Nests in riparian jungles of willow, often mixed with cottonwoods, with lower story of blackberry, nettles, or wild grape.	**Moderate potential to occur.** Marginally suitable habitat occurs within the riparian woodland located within the BSA. Recorded occurrences within approximately 1 mile. Not observed during 2020 site visit. Riparian woodland in the BSA is within the Santa Ana River and Fresno Canyon/Wardlow Wash; these areas contain marginal understory of suitable habitat. Fresno Canyon/Wardlow Wash is subject to a high level of disturbance. No improvements or construction activities are proposed within the riparian areas of Santa Ana River. Minimization measures for riparian areas (BIO-10 to BIO-12) have been included for the project.	**No effect**
Cotumicops noveboracensis	Yellow rail	SSC	No	Freshwater marsh, meadow, and seep.	**Low potential to occur.** Habitat in the BSA lacks hydrological characteristics to be considered suitable. Not observed during 2020 site visit.	**No effect**
Dendroica petechia brewsteri	Yellow warbler	SSC	Yes	Nesting habitat of riparian plant associations. Prefers willows, cottonwoods, aspens, sycamores, and alders for nesting and foraging. Also nests in montane shrubbery in open conifer forests	**Moderate potential to occur.** Suitable habitat occurs within the riparian woodland located within the BSA. Recorded occurrences within approximately 4.5 miles. Not observed during 2020 site visit. No improvements or construction activities are proposed within the riparian areas of Santa Ana River. Minimization measures for riparian areas (BIO-10 to BIO-12) have been included for the project.	**No effect**

Table 3-6: Listed, Proposed, and Special-Status Wildlife Species Potentially Occurring within the BSA

Scientific Name	Common Name	Status	MSHCP Covered Species	General Habitat Description	Rationale	Determination of Effect
Elanus leucurus	White-tailed kite	FP (state)	Yes	Cismontane woodland, marsh and swamp, riparian woodland, Valley and foothill grassland, and wetland.	**Moderate potential to occur.** Marginally suitable habitat occurs south of SR-91 and on CHSP lands northwest of the BSA. Recorded occurrences within approximately 2.5 miles. Not observed during 2020 site visit. No improvements or construction activities are proposed within the riparian areas of Santa Ana River. Minimization measures for riparian areas (BIO-10 to BIO-12) have been included for the project.	**No effect**
Empidonax trailli extimus	Southwestern willow flycatcher	FE SE	Yes	Nesting habitat of riparian woodlands in southern California. State listing includes all subspecies.	**Moderate potential to occur.** Suitable habitat for this species occurs within the BSA. There are recorded observations of this species within 2 miles of the BSA. There are no documented territories for this species downstream of Prado Dam. Not observed during 2020 site visit. The suitable habitat within the BSA is in the Prado Basin; there are no project impacts in the Prado Basin. The habitat in the Santa Ana River lacks the understory preferred by the species. The project contains minimization measures for riparian habitat (BIO-10 to BIO-12).	**No effect**
Eremophila alpestris actia	California horned lark	WL	Yes	Found in coastal regions, chiefly from Sonoma County to San Diego County in short-grass prairie, “bald” hills, mountain meadows, open coastal plains, fallow grain fields, and alkali flats.	**Low potential to occur.** The BSA contains non-native grassland; however, this habitat does not provide the habitat elements found in prairie, meadows, and plains. Recorded occurrences are greater than 5 miles. Not observed during 2020 site visit.	**No effect**

Table 3-6: Listed, Proposed, and Special-Status Wildlife Species Potentially Occurring within the BSA

Scientific Name	Common Name	Status	MSHCP Covered Species	General Habitat Description	Rationale	Determination of Effect
Icteria virens	Yellow-breasted chat	SSC	Yes	Summer resident; nesting habitat of riparian thickets of willow and other brushy tangles near watercourses. Nests in low, dense riparian, consisting of willow, blackberry, wild grape; forage and nest within 10 feet of ground.	**Moderate potential to occur.** There are recorded observations of this species within the BSA. Not observed during 2020 site visit. No improvements or construction activities are proposed within the riparian areas of Santa Ana River. Minimization measures for riparian areas (BIO-10 to BIO-12) have been included for the project.	**No effect**
Laterallus jamicensis cotumiculus	California black rail	FT, FP	No	Nests in high portions of salt marshes, shallow freshwater marshes, wet meadows, and flooded greasy vegetation. Requires dense vegetation for nesting habitat. Diet includes small invertebrates and seeds.	**Low potential to occur.** The BSA lacks dense vegetation requirements for nesting opportunities. Not observed during 2020 site visit.	**No effect**

Table 3-6: Listed, Proposed, and Special-Status Wildlife Species Potentially Occurring within the BSA

Scientific Name	Common Name	Status	MSHCP Covered Species	General Habitat Description	Rationale	Determination of Effect
Polioptila californica californica	Coastal California gnatcatcher	FT SSC	Yes	Obligate, permanent resident of CSS below 2,500 feet in southern California. Low, CSS in arid washes, on mesas and slopes. Not all areas classified as CSS are occupied.	**Present.** There are recorded observations of this species within the BSA during preparation of the NES. Observed during 2020 surveys for preparation of the Supplemental NES. (The smaller 781-acre BSA of the Supplemental NES is within the larger 840-acre BSA of the NES.) A Biological Opinion has been issued for the project. While suitable habitat for CAGN has increased in the BSA and the project footprint has changed, a reduction in permanent impacts to CSS would occur over those identified in the NES. There is no expansion of the BSA and no increase to the project footprint within CSS and USFWS has indicated no further consultation is necessary with the Supplemental NES. Measures BIO-1 to BIO-6, and BIO-32 to BIO-33 would be implemented to reduce/avoid impacts.	**May Affect, likely to adversely affect (NES); No effect (SNES)**

Table 3-6: Listed, Proposed, and Special-Status Wildlife Species Potentially Occurring within the BSA

Scientific Name	Common Name	Status	MSHCP Covered Species	General Habitat Description	Rationale	Determination of Effect
Vireo bellii pusillus	Least Bell's vireo	FE SE, CH	Yes	Nesting summer resident of southern California in low riparian in vicinity of water or in dry river bottoms; below 2,000 feet. Nests placed along margins of bushes or on twigs projecting into pathways, usually willow, baccharis, or mesquite.	**Present.** There are recorded observations of this species within the BSA during preparation of the NES. Observed during 2020 surveys for preparation of the Supplemental NES. (The smaller 781-acre BSA of the Supplemental NES is within the larger 840-acre BSA of the NES.) A Biological Opinion has been issued for the project. While riparian areas have increased in the BSA and the project footprint has changed, a reduction in permanent impacts to riparian areas would occur over those identified in the NES. There is no expansion of the BSA and no increase to the project footprint within riparian areas and the USFWS has indicated no further consultation is necessary with the Supplemental NES. Measures BIO-1 to BIO-6, BIO-10 to BIO-12, BIO-23, and BIO-31, BIO-34 and WQ-2 would be implemented to reduce/avoid impacts.	**May Affect, likely to adversely affect (NES); No effect (SNES)**
Mammals						
Antrozous pallidus	Pallid bat	SSC	No	May be found in deserts, grasslands, shrublands, woodlands, and forests. Most common in open, dry habitats with rocky areas for roosting. Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	**Present.** This species was observed during bat surveys conducted for the SR-91 Eastbound Widening Project in 2008. Bat surveys of the BSA were not conducted in 2020, as directed by Caltrans District 8. Bat panels were placed on structures for the SR 91 Corridor Improvement Project. Measure BIO-29 would be implemented to reduce/avoid impacts.	**No effect**

Table 3-6: Listed, Proposed, and Special-Status Wildlife Species Potentially Occurring within the BSA

Scientific Name	Common Name	Status	MSHCP Covered Species	General Habitat Description	Rationale	Determination of Effect
Chaetodipus fallax fallax	Northwestern San Diego pocket mouse	SSC	Yes	May be found in coastal scrub, chaparral, grasslands, sagebrush, etc. in western San Diego County in sandy, herbaceous areas, usually in association with rocks or coarse gravel.	**Low potential to occur.** The BSA contains CSCS; however, it lacks vegetation and soil elements. Recorded occurrences within approximately 4 miles. Not observed during 2020 surveys. Minimization measures for coastal sage scrub (e.g., BIO-2, BIO-6 to BIO-8, BIO-31, BIO-33) have been included for the project.	**No effect**
Dipodomys stephensi	Stephens' kangaroo rat	FE ST	Yes	Found primarily in annual and perennial grasslands, but also occurs in coastal scrub and sagebrush with sparse canopy cover. Prefers buckwheat, chamise, brome grass, and filaree. Will burrow into firm soil.	**Low potential to occur.** The BSA does not contain any annual or perennial grasslands, limited elements of suitable habitat do occur within the CSCS. Recorded occurrences are greater than 5 miles. Not observed during 2020 surveys.	**No effect**
Eumops perotis californicus	Western mastiff bat	SSC	No	Many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, and chaparral. Roosts in crevices in cliff faces, high buildings, trees, and tunnels.	**High potential to occur.** Bridge overcrossings within the BSA may provide suitable habitat. Recorded occurrences within approximately 2.5 miles. Bat surveys of the BSA were not conducted in 2020, as directed by Caltrans District 8. Bat panels were placed on structures for the SR 91 Corridor Improvement Project. Measure BIO-29 would be implemented to reduce/avoid impacts.	**No effect**

Table 3-6: Listed, Proposed, and Special-Status Wildlife Species Potentially Occurring within the BSA

Scientific Name	Common Name	Status	MSHCP Covered Species	General Habitat Description	Rationale	Determination of Effect
Lasiurus xanthinus	Western yellow bat	SSC	No	Found in valley foothill riparian, desert riparian, desert wash, and palm oasis habitats. Roosts in trees, particularly palms. Forages over water and among trees.	**Low potential to occur.** Bridge overcrossings within the BSA may provide suitable habitat. Recorded occurrences within approximately 5 miles. This species was not observed during focused bat surveys conducted in the past. Bat surveys of the BSA were not conducted in 2020, as directed by Caltrans District 8. Bat panels were placed on structures for the SR 91 Corridor Improvement Project. Measure BIO-29 would be implemented to reduce/avoid impacts.	**No effect**
Nyctinomops femorosaccus	Pocketed free-tailed bat	SSC	No	Found in a variety of habitats, desert riparian, desert wash, and palm oasis habitats, Joshua tree woodland, and Sonoran desert scrub. Roosts in high cliffs.	**Low potential to occur.** Bridge overcrossings within the BSA may provide suitable habitat. Recorded occurrences within approximately 4 miles. This species was not observed during focused bat surveys conducted in the past. Bat surveys of the BSA were not conducted in 2020, as directed by Caltrans District 8. Bat panels were placed on structures for the SR 91 Corridor Improvement Project. Measure BIO-29 would be implemented to reduce/avoid impacts.	**No effect**

Table 3-6: Listed, Proposed, and Special-Status Wildlife Species Potentially Occurring within the BSA

Scientific Name	Common Name	Status	MSHCP Covered Species	General Habitat Description	Rationale	Determination of Effect
Puma concolor	Mountain lion	SC	Yes	Found typically in steep, rocky canyons or mountainous terrain. Can also be present in deserts as well as coastal areas or forests from sea level to 10,000 ft elevation.	**Moderate potential to occur.** Santa Ana Canyon may provide suitable habitat. The BSA contains bridge structures that facilitate wildlife movement in addition to fencing along SR-71 and SR-91 in the BSA. 2008 surveys by LSA indicated presence of species in Santa Ana Canyon; however, 2020 surveys indicated species absence. In addition, ongoing surveys for the SR-91 CIP have indicated species absence.	-

Federal – U.S. Fish and Wildlife Service

FE	Federal Endangered
FT	Federal Threatened
PE	Proposed Endangered
PT	Proposed Threatened
FC	Federal Candidate

State – California Department of Fish and Wildlife

FP	Fully Protected
SE	State Endangered
ST	State Threatened
SR	State Rare
SSC	California Species of Special Concern
WL	Delisted and currently on a Watch List

Not Likely to Occur – There are no present or historical records of the species occurring on or in the immediate vicinity (within 3 miles) of the project site, and the diagnostic habitats strongly associated with the species do not occur on or in the immediate vicinity of the site.

Low Potential to Occur – There is a historical record of the species in the vicinity of the project site and potentially suitable habitat onsite, but existing conditions, such as density of cover, prevalence of non-native species, evidence of disturbance, limited habitat area, and isolation, substantially reduce the possibility that the species may occur. The site is above or below the recognized elevation limits for this species.

Moderate Potential to Occur – The diagnostic habitats associated with the species occur on or in the immediate vicinity of the project site, but there is no recorded occurrence of the species within the immediate vicinity (within 3 miles). Some species that contain extremely limited distributions may be considered moderate, even if there is a recorded occurrence in the immediate vicinity.

High Potential to Occur – There is both suitable habitat associated with the species and a historical record of the species on or in the immediate vicinity of the project site (within 3 miles).

Species Present – The species was observed on the project site at the time of the survey or during a previous biological survey.

A total of 21 special-status plant species have the potential to occur in the BSA including 12 species that are covered under the MSHCP, with 16 of these species California Native Plant Society (CNPS) sensitive plants. No sensitive plant species were observed during the general habitat assessment surveys conducted on the site during the blooming period for these species.

3.4.2 Potential Biological Resources Impacts

3.4.2.1 Significance Criteria

Impacts of an alternative would be considered significant if it would:

BIO-1: Have a substantial adverse effect either directly or through habitat modifications on any Federally-listed species or designated critical habitat.

BIO-2: Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local, regional plans, policies or regulations by U.S. Fish and Wildlife Service.

BIO-3: 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.

BIO-4: Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

BIO-5: Interfere substantially with 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.

3.4.2.2 Revised Project Alternative (Proposed Action)

Vegetation

Activities associated with construction of the project may produce temporary impacts to vegetation on Federal lands (#101-140-006, #101-040-010, and #101-040-004) due to the mobilization of heavy machinery to construct the proposed bridge columns and flyover bridge structure spanning over the Santa Ana River Channel and during proposed grading activities on Federal lands. Existing vegetation may be uprooted and crushed during construction; however, these vegetation disturbances would be minimized through the use of designated access routes to and from the construction areas and that are located in the least environmentally sensitive locations feasible (measures BIO-2, BIO-3, BIO-12 to BIO-13, AES-5, and AES-6). This would avoid and/or minimize impacts to existing vegetation. All vegetation disturbed by construction activities would be restored to preconstruction conditions, which would include replanting or hydroseeding with native plant species. Furthermore, pre-construction surveys for sensitive plants would be conducted. All sensitive plants would be tagged and moved to appropriate offsite locations before grading begins. To the extent feasible, these sensitive plants would be salvaged, stored, and replanted within disturbed areas after construction.

Temporary and permanent impacts to vegetation communities due to construction of the Revised Project Alternative are provided in Table 3-7 and shown in Figure 3-3. A total of 51.96 acres of vegetation are anticipated to be temporarily affected during construction and 11.01 acres would be permanently impacted by the Interchange Project. Of these totals, 30.08 acres of Federal land would be temporarily impacted and 4.78 acres would be permanently impacted (see Figure 3-4).

Table 3-7: Impacts to Vegetation Communities

Vegetation Community	Total Area (acres)	Temporary Impacts (acres)	Permanent Impacts (acres)
Coastal Sage-Chaparral Scrub	149.17	0.39	0.14
Coastal Sage Scrub	0.54	22.36	6.72
Disturbed Habitat	148.02	3.02	1.23
Eucalyptus/Ornamental Woodland	27.68	0.30	0.06
Mixed Scrub	2.64	0.00	0.00
Mule Fat Scrub	14.14	0.77	0.07
Non-Native Grassland	119.09	10.08	0.70
Oak Woodland	20.62	0.98	0.30
Ornamental	4.00	0.64	0.11
Riparian Forest	0.57	0.12	0.00
Southern Cottonwood Riparian Forest	13.27	2.70	0.50
Southern Cottonwood Willow Riparian Forest	33.34	0.52	0.01
Streambed	9.77	1.05	0.27
Urban/Developed	193.61	8.83	0.90
Waters	44.79	0.20	0.01
TOTAL*	781.25	51.96	11.01

* Total may deviate slightly due to rounding off.

Source: Parsons 2020c

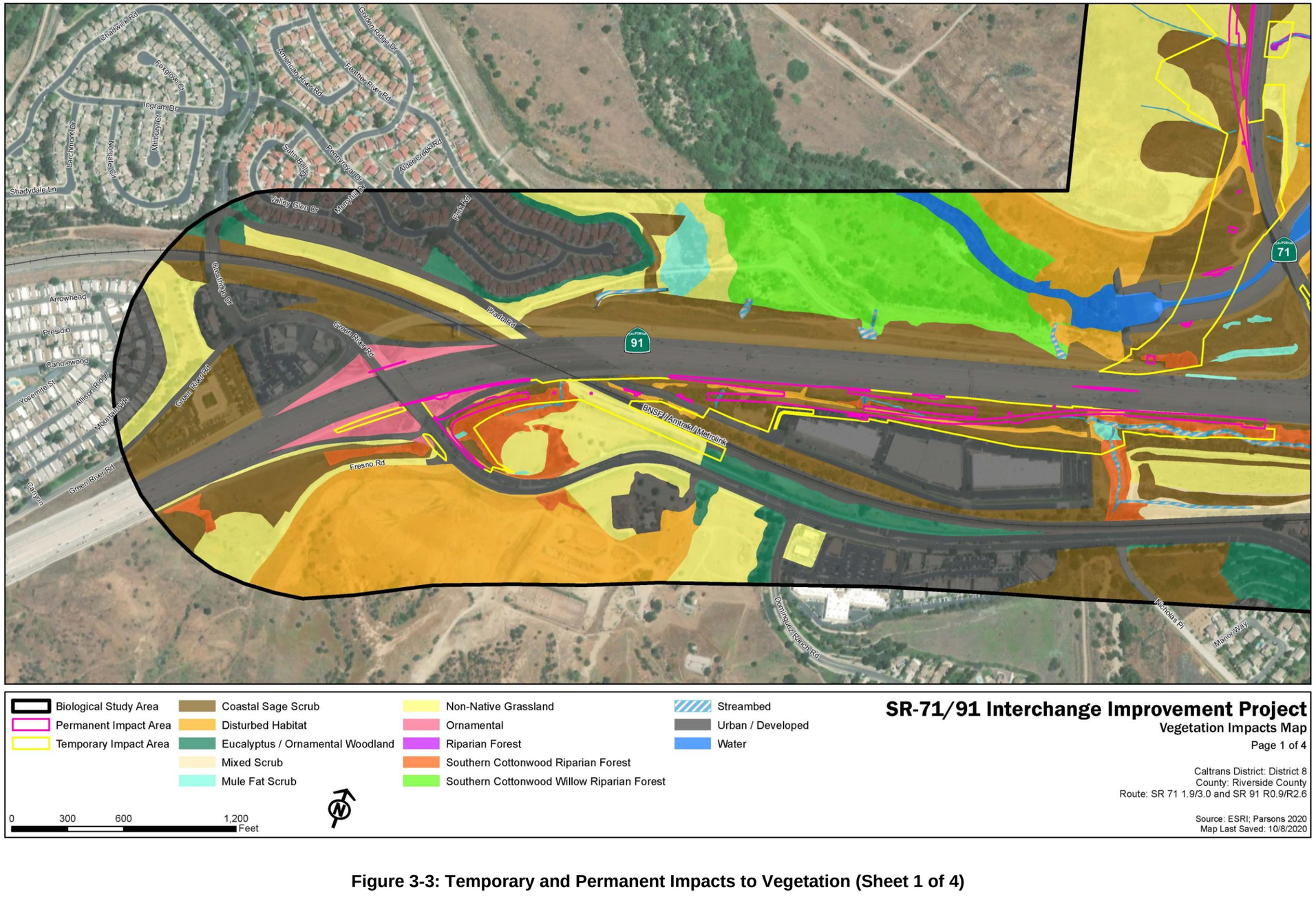


Figure 3-3: Temporary and Permanent Impacts to Vegetation (Sheet 1 of 4)

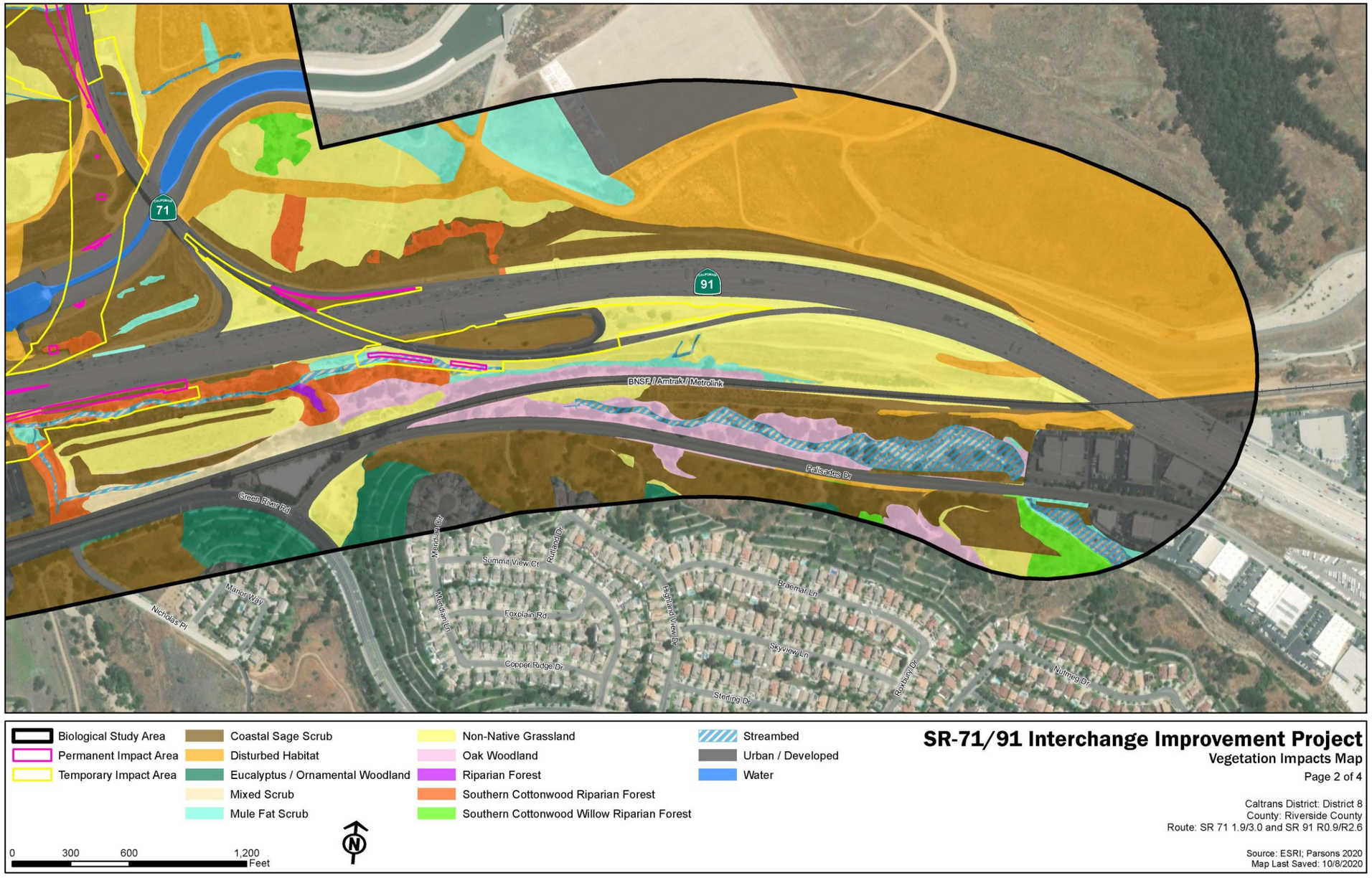


Figure 3-3: Temporary and Permanent Impacts to Vegetation (Sheet 2 of 4)

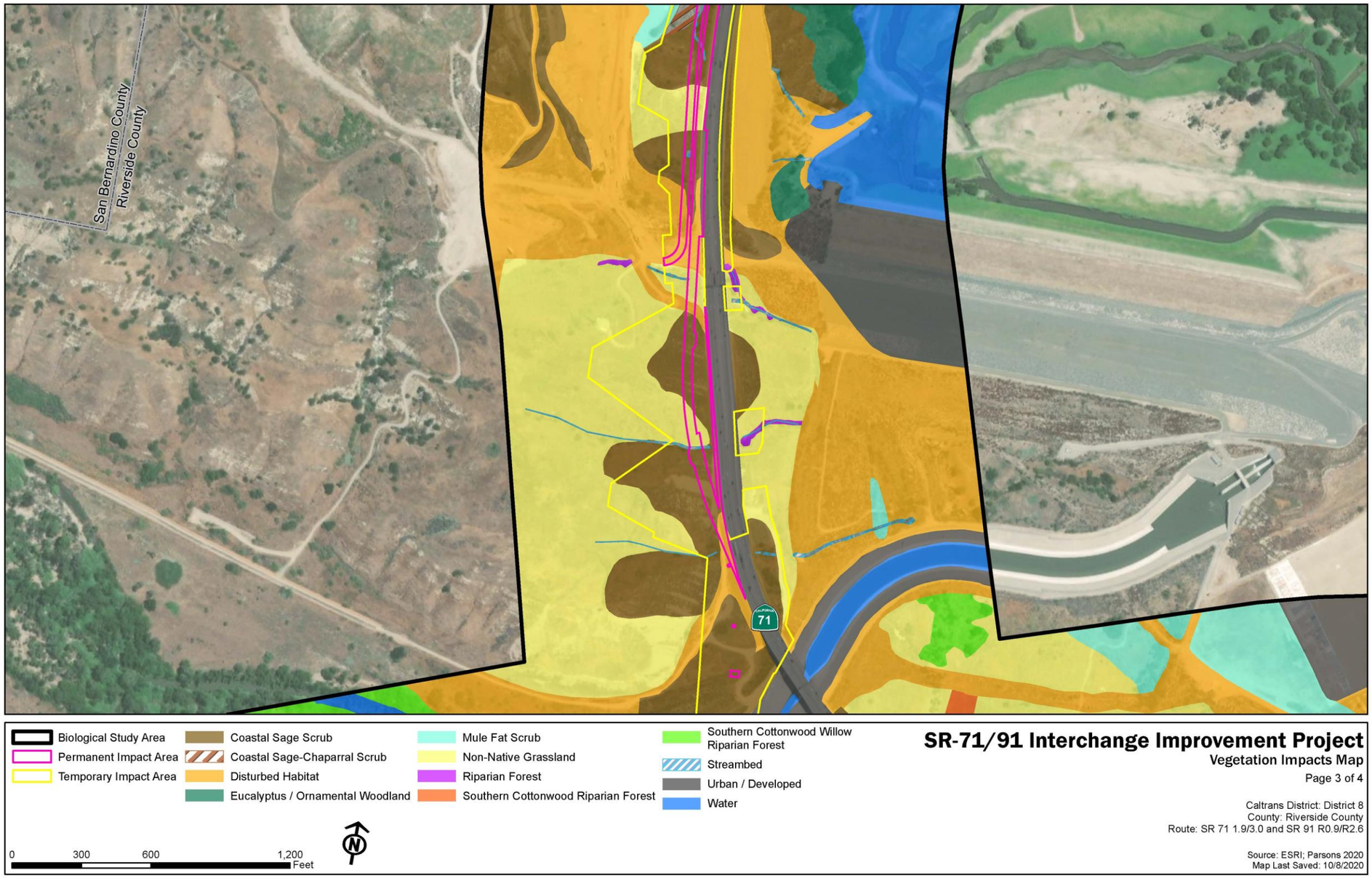


Figure 3-3: Temporary and Permanent Impacts to Vegetation (Sheet 3 of 4)

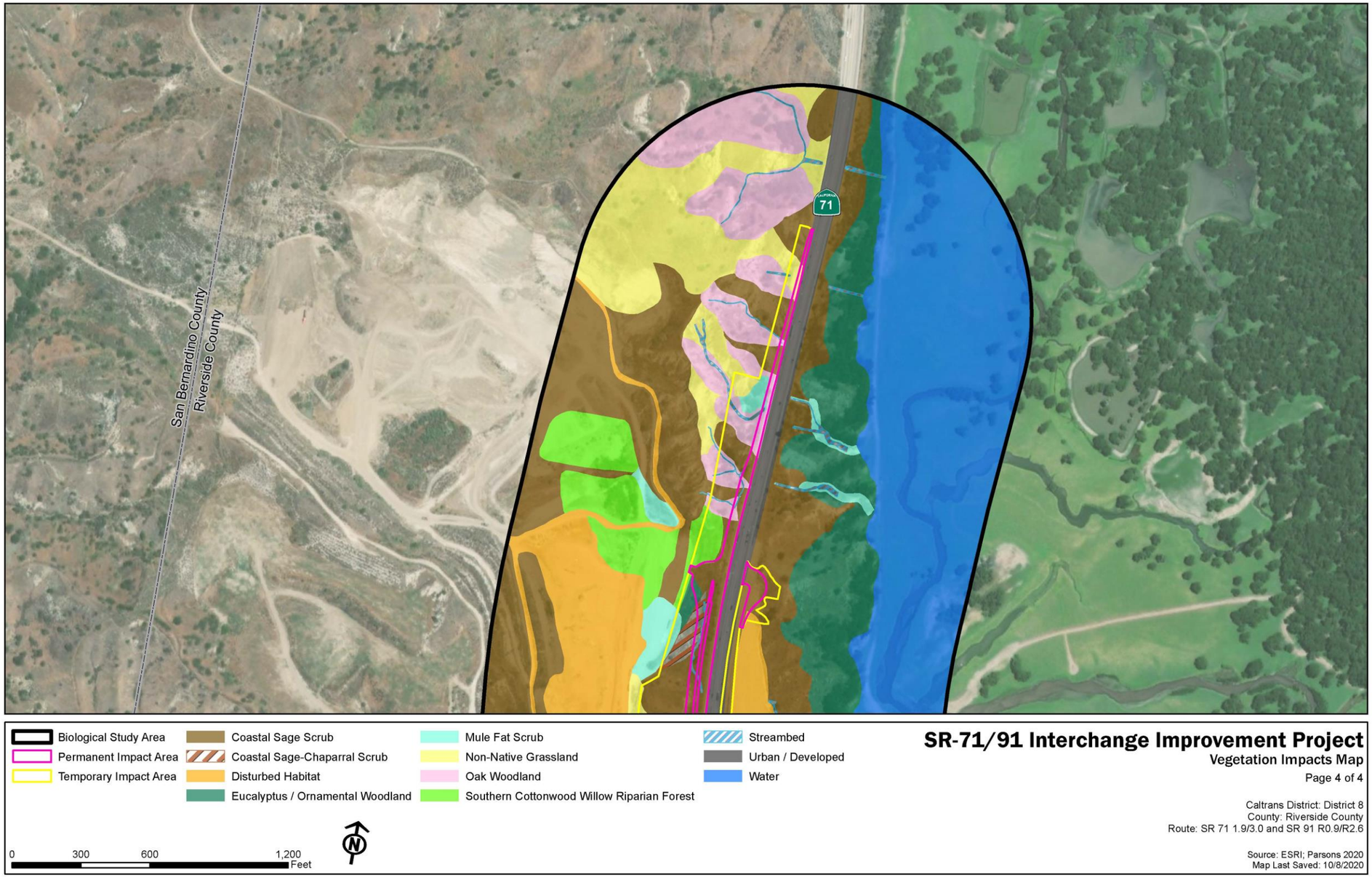


Figure 3-3: Temporary and Permanent Impacts to Vegetation (Sheet 4 of 4)

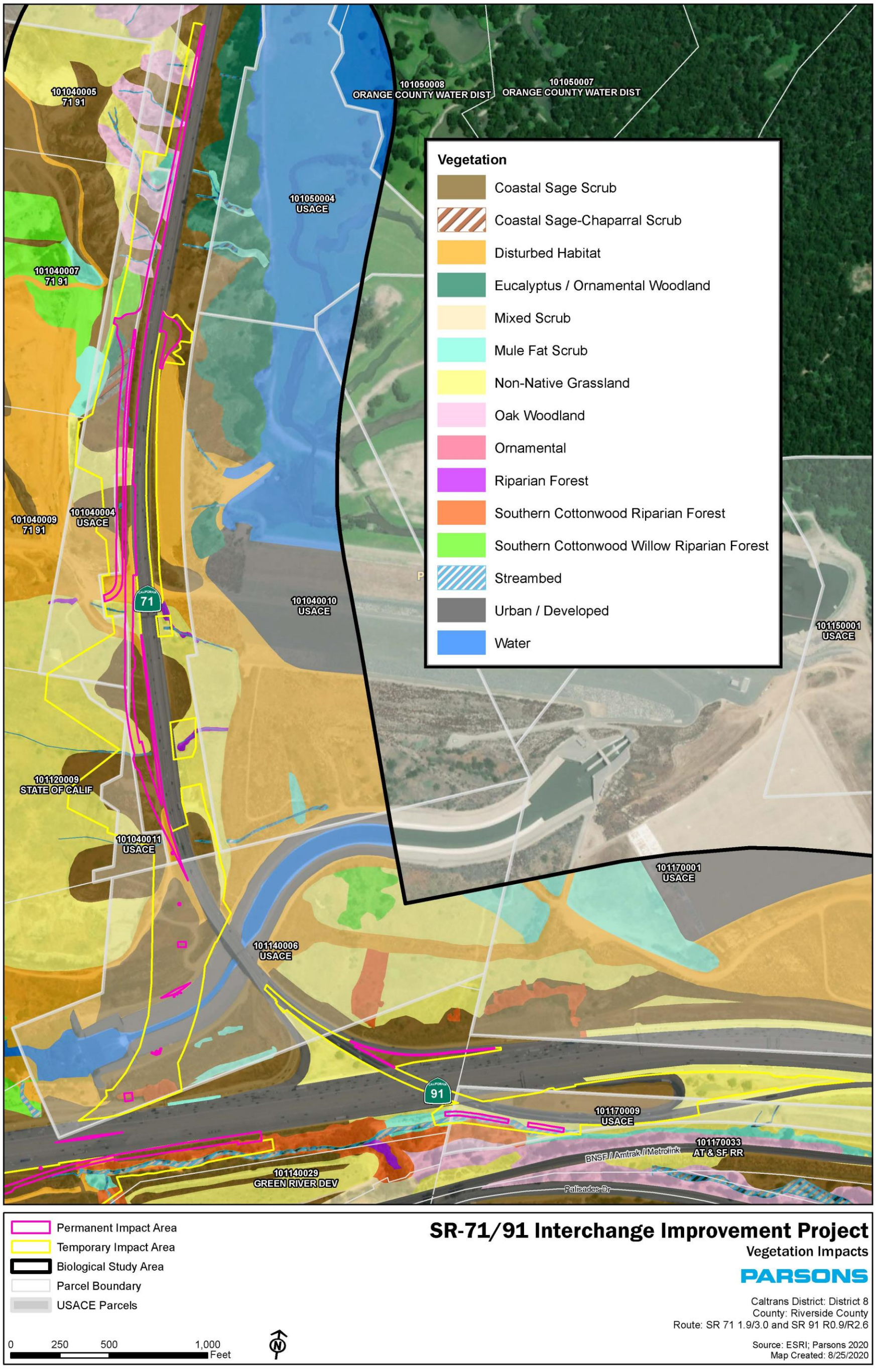


Figure 3-4: Vegetation Impacts

The flyover structure is not anticipated to result in permanent impacts to vegetation on Federal lands once constructed; however, permanent impacts to vegetation are anticipated to result from construction of the six bridge columns/footings, realignment and widening of SB SR-71, wildlife corridor enhancement, additional rock slope protection, and access driveway modifications. The proposed hillside grading activities are not anticipated to permanently affect vegetation within Federal lands, as these activities would be temporary, and vegetation would be restored to preconstruction conditions following grading and construction activities.

Due to the redesign of Footings #5 and #8, additional impacts to the USACE Restoration Project near the Santa Ana River Channel would also occur. As discussed in the previous EA, newly planted vegetation and hydroseeded areas within the USACE restoration areas could be potentially uprooted and crushed due to construction activities. However, these activities are short term, and by implementing minimization measures (i.e., hydroseeding disturbed areas with USACE-approved seed-mix, and restoring the area to preconstruction conditions after construction activities have been completed), potential construction effects on vegetation and hydroseeded areas are not anticipated to be significant.

Given the primarily temporary nature of construction activities and the lack of substantial permanent loss of vegetation within Federal land, effects on vegetation communities are not anticipated to be significant.

Wildlife Species

Temporary effects to wildlife species and their habitats are also expected with the Interchange Project. Aside from the permanent and temporary disturbance of wildlife habitats, noise during construction activities may intermittently exceed the existing noise levels and affect wildlife adjacent to the construction locations.

As outlined in the previous EA, avoidance/minimization measures would be implemented to avoid temporary effects (i.e., construction activities outside bird breeding season, sound-control devices on equipment, time limits on construction equipment use, night lighting away from the MSHCP Conservation Area, appropriate biological surveys prior to the start of construction, and species-specific avoidance/minimization measures). At PCL 1, the proposed drainage extension is no longer required. PCL 2 would be improved by removal of the existing concrete revetment, regrading the existing 2:1 slopes to a flatter 4:1 grade, installing wildlife fencing, and planting native vegetation. In addition, wildlife fencing on SR-91 and SR-71 would be replaced after construction. The project would not further fragment wildlife habitat or movement, because SR-91 and SR-71 are existing facilities.

With the implementation of minimization measures, potential effects to wildlife species are not anticipated to be significant.

BIO-1 Federally-listed Species

Threatened and Endangered Species

A Biological Opinion (BO) was issued by USFWS for LBV and CAGN in June 2011 for the overall SR-91/SR-71 Interchange Improvement Project (Appendix C). The BO covered the areas within the proposed construction activities on Federal land. According to the BO, USFWS does "not anticipate any adverse effects to vireo or gnatcatcher" as a result of the project with the implementation of avoidance and minimization measures.

As discussed earlier in this section and in the previous EA, vegetation found on Federal land includes riparian vegetation and CSS, which are suitable habitats for SAS (riparian), LBV (riparian), and CAGN (CSS). Construction activities may produce temporary impacts to threatened and endangered species due to equipment mobilization, staging, and excavation activities within Federal land. In addition, noise associated with construction activities may intermittently exceed the existing noise levels and affect sensitive wildlife species adjacent to the construction areas.

To avoid these temporary effects to the greatest extent practicable, avoidance and minimization measures for wildlife species would be implemented, including the minimization of disturbance areas (measures BIO-1 to BIO-3, BIO-7 to BIO-8, BIO-26, and PR-1); scheduling of construction activities outside of bird breeding season (measures BIO-17, BIO-31 to 32); conducting biological surveys (measures BIO-14 to 16, BIO-29, and BIO-30); avoiding sensitive habitat (measures BIO-1 to BIO-5, BIO-8, BIO-12 to BIO-13, BIO-16, BIO-18, BIO-22 to 28); restoring disturbed areas to preconstruction conditions through translocation of sensitive plant species (measure BIO-16), improvements to wildlife crossings and revegetation with native plants (measures BIO-18 to BIO-20, PR-2), sediment and erosion control measures (measure BIO-21), landscape/revegetation and erosion control plans measures (measures BIO-35 to BIO-37); redirecting night lighting from sensitive areas (measure BIO-6); and implementing noise control measures (measure BIO-7).

The Santa Ana Watershed Association (SAWA) and CNDDB records show occurrences of LBV outside Federal lands but within close proximity of the project area. None of these locations would be directly impacted by temporary construction activities or permanent interchange features associated with the project. Furthermore, no critical habitat for LBV, as designated by USFWS, would be compromised by construction or operation of the project.

Because construction activities are temporary and minimization measures would be implemented prior to and during construction, no direct or indirect effects to threatened and endangered species (i.e., SAS, LBV, or CAGN) are anticipated during project construction. Potential permanent effects to any Federally-listed Threatened and Endangered species or designated critical habitat would be minimized through the implementation of minimization measures.

The USFWS and RCA were notified that the overall project footprint was not expanding with the proposed project changes. These agencies concurred that the original consistency analysis and DBESP would not require updates (see Appendix C for the BO and associated correspondence).

No temporary or permanent impacts to any federally or state listed threatened or endangered plant species would occur. Impacts to commonly occurring species or species of special concern, although adverse, are not considered substantial. However, avoidance and minimization measures BIO-13 to BIO-16, and BIO-35 to BIO-37 would be implemented to avoid impacts to plants.

BIO-2 Riparian Habitat

Riparian vegetation occurs primarily south of SR-91 in the BSA, along the Fresno Canyon/Wardlow Wash. The southern cottonwood willow riparian forest occurs along the Santa Ana River, Fresno Canyon/Wardlow Wash, and a drainage west of SR-71. Areas of southern cottonwood riparian are found at the SR-91 westbound/SR-71 northbound connector on USACE land and south of SR-91 in the Fresno Canyon/Wardlow Wash. As shown in Table 3-8, the Revised Project Alternative would result in temporary impacts on 5.36 acres of riparian habitat and permanent impacts to 0.86 acre of riparian habitat.

Table 3-8: Impacts to Riparian Habitat

Vegetation Community	Total Area (acres)	Temporary Impacts (acres)	Permanent Impacts (acres)
Mule Fat Scrub	14.14	0.77	0.07
Riparian Forest	0.57	0.12	0.00
Southern Cottonwood Riparian Forest	13.27	2.70	0.50
Southern Cottonwood Willow Riparian Forest	33.34	0.52	0.01
Streambed	9.77	1.05	0.27
Waters	44.79	0.20	0.01
TOTAL	115.88	5.36	0.86

The majority of impacts would be temporary in nature (from construction activities) and restoration of disturbed areas to preconstruction conditions would be made, as well as the provision of replacement habitat for permanent impacts through implementation of measures BIO-11 and BIO-34. As such, effects on riparian habitats or other sensitive natural communities are not anticipated to be significant.

BIO-3 Wetlands

Project impacts on wetlands and jurisdictional resources are discussed under Water Resources in Section 3.2.1 to match the outline of the previous EA. As indicated in Section 3.2.1, the Revised Project Alternative would result in temporary impacts to 3.04 acres of non-wetland waters and 0.42 acre of wetland waters. Permanent effects include 0.03 acre of wetland waters and 0.31 acre of non-wetland waters. Compliance with the permit conditions of jurisdictional resource agencies and implementation of measures BIO-10 to BIO-12 and BIO-34 would avoid significant effects on wetlands and other waters.

BIO-4 Habitat Conservation Plan

The project is identified in the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) as a Planned Road and a Covered Activity. In addition, the project has been designed to comply with applicable guidelines of the MSHCP. According to the MSHCP, Conservation Core A (Prado Basin/Santa Ana River) is located north of SR-91 within the general area of the Prado Dam and CHSP and Conservation Core B (Cleveland National Forest) is located approximately 1.0 mile south of SR-91. Two linkages connect Core A with Core B, with PCL-1 from Core A at CHSP and the Santa Ana River, across SR-91 at the Green River Road interchange, and into the hillside areas and into the Cleveland National Forest and PCL-2 located west of the SR-91/SR-71 junction. No impacts to Core B and PCL-1 would occur with the project and impacts to Core A and PCL-2 would be minimal.

Specifically, disturbances and alterations to the Santa Ana River have been minimized through the design of bridge columns and footings and culvert modifications/extensions have been limited to avoid impacts and to enhance to wildlife crossings through removal of the existing concrete revetment, re-grading the existing 2:1 slopes to a flatter 4:1 grade, installing wildlife fencing, and planting native vegetation. Also, measure BIO-3 specifically calls for compliance with the MSHCP and measures BIO-4 to BIO-8 and BIO-33 would reduce impacts to MSHCP Conservation Areas. The project would mitigate for temporary impacts onsite and permanent impacts with offsite mitigation. No conflict with the MSHCP would occur with this alternative.

BIO-5 Wildlife Crossing and Constrained Linkages

As discussed in the previous EA, the 2011 USFWS BO identifies PCL 2 as an area that would benefit from enhancement and has conditioned RCTC to enhance this area as part of the Interchange Project. RCA has also acknowledged the need for wildlife corridor improvement as part of the MSHCP implementation.

While there are several existing wildlife corridors or culvert crossings under SR-91, which would remain in place, one crossing is proposed for extension (by the Green River Properties outside Federal land). Proposed improvements to wildlife linkages include enhancement of the wildlife crossing just west of the SR-71-/SR-91 junction (PCL 2). The improvements include removal of the concrete revetment located between the northern opening of the SR-91 undercrossing bridge structure and south of the Santa Ana River Spillway, and regrading the general area from its current 2:1 slope to a flatter slope of 4:1. Native vegetation would be planted within the general area of the opening to provide habitat continuity. The project changes would not affect the proposed improvements to enhance wildlife movement at PCL 2, where project impacts would be beneficial. Implementation of measure BIO-9 would require review and approval of culvert improvements by wildlife agencies. Measures BIO-8, BIO-17 to BIO-27 would also reduce impacts to the movement of any native resident or migratory fish or wildlife species.

Temporary Effects on Biological Resources

Construction of the project would result in temporary minor effects on vegetation, wildlife species, and threatened and endangered species, as discussed in the previous EA. These impacts may include effects to vegetation from construction equipment mobilization and construction noise from construction equipment affecting wildlife. These effects would be temporary and are not anticipated to be significant. Existing vegetation that would be temporarily affected during construction would be restored to preconstruction conditions to the greatest extent feasible. Additionally, avoidance and minimization measures for impacts to wildlife species and threatened and endangered species would be implemented during construction. Impacts would not be significant, and no new or additional avoidance, minimization, and mitigation measures would be required with the proposed project changes.

Minor Permanent Effects on Biological Resources

Six of the nine bridge columns for the proposed flyover would be constructed on Federal lands, which would require permanent removal of the existing vegetation; however, the bridge footings would be located in disturbed and U/D areas, and the total impact area of the bridge columns of the Revised Project Alternative is relatively minor (0.08 acre). In addition, to the west of SR-71, the realignment and widening of SB SR-71 and hillside slope grading would require the removal of various vegetation communities. Approximately 1.30 acres of CSS, CSCS, NNG, and DH would be permanently removed for modification of the access driveway to the Sukut property, of which 0.11 acre would be due to the widened knuckle and secondary access. In addition, 0.23 acre of MFS, NNG, and streambed would be removed for the additional rock scope protection. These impacts would occur within Federal land for which Caltrans is requesting an amended easement, and the condition of vegetation within areas adjacent to SR-71 are generally considered low to moderate quality habitat. Any vegetation removed within Federal lands would be replaced with native vegetation as required by USACE. With the implementation of avoidance and minimization measures, permanent or temporary effects on biological resources are not anticipated to be significant as a result of the Revised Project Alternative. No new or additional avoidance, minimization, and mitigation measures would be required with the proposed project changes.

While changes in effects on biological resources would occur with the Revised Project Alternative, these are not substantially more severe than the effects addressed in the previous EA.

3.4.2.3 No Action Alternative (Previously Approved Design)

Under the previously approved design, project modifications included under the Proposed Action would not be implemented, and the project would be constructed as described in the 2014 EA. Effects of the previously approved design were analyzed and disclosed in the 2014 EA and include temporary and permanent impacts to vegetation, disturbance of wildlife species, potential impacts to LBV and CAGN, and improvements to wildlife crossings. To avoid and minimize these impacts, BIO-1 to BIO-37 would be implemented as part of the project. As such, significant impacts to sensitive plant and animal species, Threatened and Endangered Species, and wildlife crossings, nor conflict with the Western Riverside County MSHCP would not occur under this alternative. Potential impacts of the No Action Alternative on biological resources would be less than significant, as described in the 2014 EA.

3.4.3 Avoidance/Minimization Measures

While no significant or substantial impacts are anticipated with the Revised Project Alternative or the No Action Alternative, minimization measures BIO-1 through BIO-37 from the previous EA would be implemented to avoid adverse effects to biological resources and natural communities, as listed below:

BIO-1 The limits of grading required for all aspects of the interchange and construction staging areas will be clearly marked, and all construction areas, including staging of construction equipment, will be surveyed.

BIO-2 Planned roads will be located in the least environmentally sensitive location feasible, including disturbed and developed areas or areas that have been previously altered.

BIO-3 Alignments will follow existing roads, easements, ROWs, and disturbed areas, as appropriate, to minimize habitat fragmentation. Implementation of BMPs, as discussed in Section 5.2.5 of the SR-91 and SR-71 Interchange Improvement Project Habitat Assessment and MSHCP Consistency Analysis Report (Parsons/MBA, 2009), preconstruction surveys, construction monitoring, and prescribed mitigation for impacts to riparian/riverine areas will reduce all potential impacts to sensitive species not considered adequately conserved under the MSHCP to less than substantial.

BIO-4 Incorporate measures to control the quantity and quality of runoff from the site entering the MSHCP Conservation Area. In particular, measures shall be put in place to avoid discharge of untreated surface runoff from developed and paved areas into MSHCP Conservation Areas. According to the *Water Resources and Water Quality Technical Report* (Parsons, 2010a), the construction of a new flyover connector will not generate any changes in existing runoff in the area, and an SWPPP will be prepared for construction on the site.

BIO-5 The use of chemicals or generation of bioproducts (i.e., manure) that are potentially toxic or may adversely affect wildlife species, habitat, or water quality shall not result in discharge to the MSHCP Conservation Area. The greatest risk is from landscaping fertilization overspray and runoff. Contractor shall avoid the discharge of chemicals, generation of bio products, and over spraying of landscaping fertilizer within the MSHCP Conservation Area.

BIO-6 Night lighting shall be directed away from the MSHCP Conservation Area to protect species within the MSHCP Conservation Area from direct night lighting. Shielding shall be incorporated in project designs to ensure that ambient lighting in the MSHCP Conservation Area is not increased.

BIO-7 Noise-generating land uses affecting the MSHCP Conservation Area shall incorporate setbacks, berms, or walls to minimize the effects of noise on MSHCP Conservation Area resources pursuant to applicable rules, regulations, and guidelines related to land use noise standards.

BIO-8 Land uses adjacent to the MSHCP Conservation Area shall incorporate barriers, where appropriate, in individual project designs to minimize unauthorized public access, domestic animal predation, illegal trespass, or dumping into the MSHCP Conservation Areas. Such barriers may include native landscaping, rocks/boulders, fencing, walls, signage, and/or appropriate mechanisms. Manufactured slopes associated with the site development shall not extend into the MSHCP Conservation Area.

BIO-9 To maintain the integrity of the wildlife corridor, the design plans of culvert improvements in the Fresno Canyon area will be submitted to the wildlife agencies for review and approval.

As provided in the previous EA, the following measures would avoid or reduce impacts on wetlands and other waters:

BIO-10 If jurisdiction is confirmed by USACE, RWQCB, and CDFW, then the following permits will be acquired: a Section 404 permit from USACE pursuant to Section 404 of the CWA; a Section 401 Water Quality Certification from the RWQCB; and a Section 1600 Streambed Alteration Agreement from CDFW pursuant to Section 1600 of the California Fish and Game Code.

BIO-11 To offset impacts to jurisdictional resources, RCTC will obtain mitigation credits at a minimum ratio of 2:1. Currently, there are three potential mitigation areas under consideration by RCTC for riparian/riverine and jurisdiction resources mitigation: (1) habitat restoration of lands within CHSP; (2) habitat restoration of lands within the Green River Golf Course; and (3) habitat restoration or creation of lands owned by the RCA.

BIO-12 Planned roads will avoid, to the greatest extent feasible, impacts to wetlands. If wetlands avoidance is not possible, then any impacts to wetlands will require issuance of and mitigation in accordance with a Federal Section 404 and/or State Section 1600 permit.

As provided in the previous EA, the following measures would avoid or reduce impacts on sensitive plant species:

BIO-13 To minimize direct impacts to special-status plant species, the limits of grading required for all aspects of the interchange and construction staging areas will occur entirely within Caltrans ROW or temporary construction easements (TCEs) and will be clearly marked.

BIO-14 Preconstruction surveys will be conducted by the Contractor for sensitive plants after the final construction ROW has been established. All appropriate plants will be tagged and moved to appropriate offsite locations prior to the start of grading. It may be possible that plants will be salvaged, stored, and replanted within disturbed areas subsequent to construction.

BIO-15 The Contractor will complete appropriate biological surveys based on field conditions and recommendations of the project manager in consultation with a qualified biologist. The results of the biological resources investigations will be mapped and documented. The documentation will include preliminary conclusions and recommendations regarding potential effects of facility construction on MSHCP Conservation Area resources and methods to avoid and minimize impacts to these resources in conjunction with project siting, design, construction, and operation. The project biologist will work with facility designers during the design and construction phase to ensure implementation of feasible recommendations.

BIO-16 During the Design Phase, a habitat assessment and, as required, focused surveys for the Brand's phacelia *(Phacelia stellaris)* (blooming period: March to June), San Diego ambrosia *(Ambrosia pumila)* (blooming period: April to October), and San Miguel savory *(Clinopodium chandleri)* (blooming period: March to May) will be conducted during the appropriate blooming season. Subsequent to surveys, RCTC will update the information in the Joint Project Review (JPR) and Determination of Biological Equivalent or Superior Preservation (DBESP) to address the additional surveys and, as necessary, presence of and impacts to these species. If the federally endangered San Diego ambrosia is identified onsite during the surveys, Caltrans will reinitiate Section 7 consultation with USFWS to amend the BO. Applicable mitigation will be determined through coordination with the resource agencies based on the survey results and project impacts. Potential mitigation measures listed below, or a combination of the two measures, could be implemented.

- Onsite conservation of existing Brand's phacelia, San Diego ambrosia, and San Miguel savory though avoidance and designation of environmentally sensitive areas.
- Translocation of Brand's phacelia, San Diego ambrosia, and San Miguel savory individuals outside of the project ROW to areas of suitable habitat, as identified by a contractor-supplied plant biologist with knowledge of and experience with translocation of local flora species of the region.

As provided in the previous EA, the following measures would avoid or reduce impacts on sensitive animal species:

BIO-17 Design of planned roads will consider wildlife movement requirements, as further outlined in Section 7.5.2, Guidelines for Construction of Wildlife Corridors, and any construction, maintenance, and operation activities that involve clearing of natural vegetation will be conducted outside the active breeding season (February 15 through August 31).

BIO-18 For the wildlife fencing on SR-91 and SR-71, consideration will be given during design to avoid disturbance of the fencing or movement of wildlife. If the project

requires removal of the fencing, then biological monitoring will be required, and replacement of any disturbed fencing will occur after construction.

For PCL 2, the following measures shall be implemented to improve wildlife connectivity:

- The project will improve the function of the Fresno Canyon/Wardlow Wash undercrossing bridge by removing most of the existing concrete revetment and re-grading the slopes of the crossing openings to a 4:1 slope. In addition, wildlife fencing will be installed to funnel the wildlife into the crossings, and native vegetation will be planted to provide habitat continuity.

Caltrans and RCTC will continue its commitment to work with the RCA and Wildlife Agencies on incorporating measures to improve PCL 2 after the completion of cumulative projects in the area (SR-91 Corridor Improvement Project [CIP]).

BIO-19 An appropriate openness ratio of at least 0.6 (calculated in meters as [opening width X height/length of crossing]) and height for crossings intended for use by medium- and large-sized wildlife will be maintained. The openness ratio, which is a function of a structure's length [(height x width)/length], is important for larger animals when using culverts and highway undercrossings. To maintain the integrity of the wildlife corridor, the design plans of culvert improvements in the Fresno Canyon area will be submitted to the wildlife agencies for review and approval.

BIO-20 Crossing facilities will be vegetated as naturally as possible to mimic the surrounding natural crossing area. In some instances, vegetation may need to be tailored to match the needs of the focused species. Natural objects, such as stumps, rocks, and other natural debris, will be used within the crossing facility to create cover for wildlife and to encourage the use of crossings. The landscaping plans near the wildlife corridor areas will be submitted to the wildlife agencies for review and approval.

BIO-21 Sediment and erosion-control measures will be implemented by the Contractor until such time soils are determined to be successfully stabilized. In addition, the following measures will be implemented to areas within the MSHCP Conservation Areas:

- Incorporate measures to control the quantity and quality of runoff from the site entering the MSHCP Conservation Area. In particular, measures shall be put in place to avoid discharge of untreated surface runoff from developed and paved areas into MSHCP Conservation Areas. According to the report, construction of a new flyover connector will not generate any changes in existing runoff in the area, and an SWPPP will be prepared for construction of the site.
- The use of chemicals or generation of bioproducts (i.e., manure) that are potentially toxic or may adversely affect wildlife species, habitat, or water quality shall not result in discharge to the MSHCP Conservation Area. The greatest risk is from landscaping fertilization overspray and runoff.

BIO-22 Contractor will ensure equipment storage, fueling, and staging areas will be sited on non-sensitive upland habitat types with minimal risk of direct discharge into riparian areas or other sensitive habitat types.

BIO-23 During construction, the placement of equipment within the stream or on adjacent banks or adjacent upland habitats occupied by Covered Species that are outside of the project footprint will be avoided by the Contractor.

BIO-24 When work is conducted during the fire season, as identified by the Riverside County Fire Department, adjacent to CSS or chaparral vegetation, appropriate fire-fighting equipment (e.g., extinguishers, shovels, water tankers) shall be available onsite during all phases of project construction to help minimize the chance of human-caused wildfires. Shields, protective mats, and/or other fire preventive methods shall be used during grinding, welding, and other spark-inducing activities. Personnel trained in fire hazards, preventive actions, and responses to fires shall advise contractors regarding fire risk from all construction-related activities.

BIO-25 Active construction areas shall be watered regularly to control dust and minimize impacts to adjacent vegetation.

BIO-26 All equipment maintenance, staging, and dispensing of fuel, oil, coolant, or any other toxic substances shall occur only in designated areas within the grading limits of the project site. These designated areas shall be clearly marked and located in such a manner as to contain runoff.

BIO-27 Waste, dirt, rubble, or trash shall not be deposited in the Conservation Area or on native habitat. No erodible materials will be deposited into water courses. Brush, loose soils, or other debris material will not be stockpiled within stream channels or on adjacent banks. Silt fencing or other sediment trapping materials will be installed at the downstream end of construction activities to minimize the transport of sediments offsite.

BIO-28 Impacts to Species of Special Concern, such as the coast horned lizard *(Phrynosoma coronatum),* although adverse, are not considered substantial; however, to avoid any impacts to the coast horned lizard, a qualified biological monitor supplied by the Contractor will be onsite during the construction phase of the project to ensure that direct take of this species does not occur.

BIO-29 To avoid impacts to bats and potentially suitable habitat for day, night, and maternity roosting, construction activities should avoid the maternity season (March through August). In addition, a qualified biologist supplied by the Contractor will conduct a preconstruction survey to determine if the construction area contains roosting or maternity colonies. If work must be conducted during the maternity period and roost locations are not occupied, exclusion devices will be installed in all potential roosting locations before March and maintained throughout construction. If work must be conducted during the maternity period and roost locations are found to be occupied, then a sufficient buffer, in consultation with CDFW, will be maintained around any bat roosting or maternity colony. In addition, a qualified biological monitor will be onsite during the construction phase of the project to ensure that no direct take occurs and there is no nest abandonment due to excessive disturbance. Any active nurseries found onsite and mitigation to offset impacts to bat species will

be coordinated with CDFW. To further address bat species protection, the following recommendations shall be implemented as part of the project:

Bat Surveys:

- A CDFW-approved biologist shall survey each structure and the surrounding area that may be impacted by the project for bats. A minimum of 30 days prior to performing bat surveys, Permittee shall submit qualifications of the bat biologist for CDFW approval. If bats are found using any bridges or culverts within the project area, the biologist shall identify the bats to the species level, evaluate the colony to determine its size and significance, and the type of roost. The results of the bat survey shall be submitted to CDFW no later than 60 days prior to the initiation of construction activities.

Seasonal/Nighttime Work Restrictions:

- Construction activities on, under, around, or within close proximity to bridges/ culverts will be limited to October 1 to March 1, unless all bats have been excluded from the structure and concurrence has been received from CDFW.
- If any structures house a maternity colony of bats, construction activities shall not occur during the recognized bat breeding season (March 1 to October 1).
- Night work is not permitted on or within 200 feet of any occupied structures housing bats without prior concurrence from CDFW.

Lighting and Noise Attenuation Plan:

- If night work is required adjacent to jurisdictional areas, no later than 60 days prior to construction, Permittee shall submit to CDFW for review and approval a Lighting and Noise Attenuation Plan.
- Night lighting should be used only on the portion of the structure actively being worked on, and focused on the direct area of work.
- Airspace access to and from the roost features of the structure should not be obstructed except in direct work areas.
- Construction personnel should not be present in non-active areas beneath the structure.

Installation of Alternate Bat Roosting Habitat:

- Alternate bat roosting habitat structures shall be installed in the vicinity of any bridge or culvert containing roosting habitat that will be subject to impacts at least 9 months prior to starting construction at those structures.
- The total length of the roosting structures shall be no less than one half the total length of the crevice habitat that will be subject to impacts from construction.
- Construction and installation of roosting structures shall be supervised by a CDFW-approved biologist.

- A plan on the construction, placement, and timing of installation of the alternative roosting structures shall be submitted to CDFW for review and concurrence prior to construction.

Integration of Bat Roosting Habitat into New Bridge Designs:

- Bridge widening designs shall contain and be constructed with similar structural features to encourage continued roosting by bats.
- Vegetation removal around structures shall be minimized.

Humane Eviction/Exclusion of Roosting Bats:

If bridge-dwelling wildlife is detected in bridges or culverts, the following bridge-dwelling wildlife protection measures shall be implemented:

- Bats will be temporarily and humanely excluded from the area of direct impacts, plus an additional buffer, for the duration of construction work at that structure.
- A CDFW-approved biologist shall design and direct implementation of exclusionary devices designed to prevent birds and bats from utilizing bridges/culverts before construction activities begin. Exclusionary devices shall be installed on all bridges prior to the initiation of nesting season.
- If bats are found using any bridge, roost entrances shall be fitted with one-way doors that allows exits but prevent entrance for a period of several days to encourage bats to relocate.

Unexpected Discovery of Roosting Bats during Construction:

- If any roosting bats are discovered during construction activities, all work shall stop on, under, around, or within 500 feet of the structure, and CDFW will be consulted.

BIO-30 During the Design Phase of the project, a habitat assessment will be completed in accordance with the BUOW Survey instructions for the Western Riverside MSHCP Survey Area. If suitable habitat is identified during the survey, additional focused surveys may be completed as applicable. To ensure that any BUOW that may occupy the project area in the future are not affected by construction activities, preconstruction surveys will be completed by the Contractor 30 days prior to construction, and a report will be prepared and submitted in accordance with the requirements of the MSHCP 30-day Preconstruction BUOW Survey Report Format identified. If preconstruction surveys determine that BUOW are present, one or more of the following mitigation measures may be required:

- Avoidance of active nests and surrounding buffer area during construction activities.
- Passive relocation of individual owls.
- Active relocation of individual owls.
- Preservation of onsite habitat with long-term conservation value for the owl.

The specifics of the required measures will be coordinated between the Caltrans District Biologist, RCTC, and the resource agencies.

BIO-31 In accordance with the Migratory Bird Treaty Act (MBTA), to avoid effects to nesting birds, any native or exotic vegetation removal or tree-trimming activities will occur outside of the nesting bird season (i.e., February to September). If vegetation clearing is necessary during the nesting season, a qualified biologist will conduct a preconstruction survey to identify the locations of nests. Should nesting birds be found, an exclusionary buffer will be established by the biologist. This buffer will be clearly marked in the field by construction personnel under guidance of the biologist, and construction or clearing will not be conducted within this zone until the biologist determines that the young have fledged or the nest is no longer active.

As provided in the previous EA, the following measures would avoid or reduce impacts on Threatened and Endangered species:

BIO-32 Timing of construction activities will consider seasonal requirements for breeding birds and migratory nonresident species. Habitat clearing will be avoided during species' active breeding season, which is generally defined as February to September.

BIO-33 To offset the permanent loss of 1.0 acre of the MSHCP public, quasi-public (PQP) lands, RCTC will commit to purchase 1.0 acre of land and relinquish it to a land conservation agency for long-term conservation, consistent with the requirements of the MSHCP.

BIO-34 To offset permanent impacts to 0.86 acre of riverine and riparian areas, the project will purchase mitigation bank credits at a 3:1 ratio from the Riverside Corona Resource Conservation District.

As provided in the previous EA, the following measures would avoid or reduce impacts related to invasive species:

BIO-35 The invasive, non-native plant species listed in the MSHCP will be considered in approving landscape plans to avoid the use of invasive species for portions of the project that are adjacent to the MSHCP Conservation Area. Considerations in reviewing the applicability of this list shall include proximity of planting areas to the MSHCP Conservation Areas, species considered in the planting plans, resources being protected within the MSHCP Conservation Area and their relative sensitivity to invasion, and barriers to plant and seed dispersal, such as walls, topography, and other features.

BIO-36 In compliance with the Executive Order on Invasive Species, EO 13112, and subsequent guidance from FHWA, the landscaping and erosion control included in the project will not use species listed as noxious weeds. In areas of particular sensitivity, extra precautions will be taken if invasive species are found in or adjacent to the construction areas. These include the inspection and cleaning of construction equipment and eradication strategies to be implemented should an invasion occur.

BIO-37 Implementation of the BMPs discussed in Section 5.2.5 of the *SR-91 and SR-71 Interchange Improvement Project Habitat Assessment and MSHCP Consistency Analysis Report* (Parsons/MBA, 2010) will limit the introduction of invasive species

into the Conservation Area and will reduce any potential impacts to adjacent sensitive communities to less than substantial.

With implementation of BIO-1 through BIO-37, impacts would be less than significant with the Revised Project Alternative. No new or additional avoidance, minimization, and mitigation measures would be required with the proposed project changes.

3.5 Cultural Resources

3.5.1 Description of Resource and Baseline Conditions

Baseline conditions and impact assessment to cultural resources were derived from the reports and resources used in the analysis for the previous EA and the cultural resources technical memorandum prepared to update the cultural resources assessment (see Appendix F).

Areas of Potential Effects

The area of potential affect (APE) includes areas of direct and indirect effects, covering all anticipated Interchange Project-related activities, including utility relocation, access driveways, construction easements, work areas, storage areas, and staging areas. The APE also includes all known boundaries of documented archaeological sites and potential historic properties indirectly or directly affected by the Interchange Project.

Project changes have required the expansion of the boundaries of the APE to include areas proposed for the right-turn pocket at Green River Road and the rock slope protection at Wardlow Wash channel. These expansion areas are outside Federal land. The revised APE still includes the same Federal land parcels APN #101-140-006, #101-040-010, and #101-040-004. These parcels were included in the previously conducted cultural reports and pedestrian archaeological surveys since 2008 and analyzed in the previous EA. The revised APE map for the Interchange Project (as approved by Caltrans under its assumption of FHWA responsibilities under NEPA in accordance with Section 106 Programmatic Agreement and the 2016 MOU between Caltrans and FHWA and other federal environmental laws) is provided in Appendix E.

Record Searches

An updated cultural resources literature and records search was conducted for a 1-mile radius of the APE, including Federal lands. The record searches of the California Historical Resources Information System (CHRIS) were conducted at the Eastern Information Center (EIC) and the South Central Coastal Information Center (SCCIC) on January 7 and February 12, 2020, respectively.

The EIC records search indicated there have been five new studies/reports that identified two newly recorded historic resources (P-33-019802 and P-33-24551/CA-RIV-12171H). These two historic resources are identified as a historic highway (P-33-019802) and foundations/water conveyance features (P-33-24551/ CA-RIV-12171H). Based on Department of Parks and Recreation (DPR) Forms for these resources, both do not appear to be eligible for listing in the National Register of Historic Places (NRHP) or the California Register of Historic Resources (CRHR). They are also located outside the revised APE and outside Federal land.

The SCCIC records search indicated there have been five new studies/reports that identified two previously recorded cultural resources (P-30-001073 and P-30-100301) located within a 1.0-mile radius of the APE. Cultural resource P-30-001073 (bedrock milling feature) was not evaluated for listing in the NRHP or the CRHR. Cultural resource P-30-100301 (prehistoric lithic scatter) is classified as an

isolate and is not eligible for listing in either the NRHP or the CRHR. These two resources are located outside Federal land and the project's revised APE, and they would not be impacted by the proposed project.

Two properties are located within a 0.5-mile radius of the revised APE that have surpassed the 45 years of age threshold but these properties are outside Federal land.

In 2015, the City of Corona added a segment of Palisades Drive to its historic resources inventory as an historic district. Designated as HD-010, the district extends along Palisades Drive from Green River Drive east to Wardlow Wash. This district is located approximately 1.2 miles east of the Green River Road exit on SR-91, south of the freeway corridor. This historic district is located outside Federal land, and outside the revised APE.

As discussed in the previous EA, the Prado Dam and its appurtenant features (CA-RIV-4730H) is within Federal land. The former location of a railroad at-grade crossing (CA-RIV-5522H) and the remains of the historical-period town of Alta Vista/Green River Camp (CA-RIV-6532H) are located immediately adjacent to, but not within, the revised APE or on Federal land.

Field Surveys

A pedestrian archaeological survey of the APE was performed in 2008. A Native American Monitor from the Soboba Band of Mission Indians participated in the archaeological survey. This survey included the areas of Prado Dam and Flood Control Basin and the Santa Ana River that would be disturbed by the project. In addition, a reconnaissance survey was conducted in 2020 on portions of the revised APE to verify the lack of potential for containing intact surficial archaeological deposits.

Native American Consultation

Native American consultation was conducted during preparation of the SR-71/SR-91 Interchange Improvement Project IS/MND. A detailed discussion can be found in the previous EA. As determined by Caltrans, under its assumption of FHWA responsibilities under NEPA and other federal environmental laws, the currently proposed design refinements are relatively minor when considered with the entire project and do not require reconsultation with local tribes.

Summary of Findings

As discussed in the previous EA, no prehistoric or historical-period archaeological resources were encountered in Federal land or the APE during the pedestrian and reconnaissance surveys.

3.5.2 Potential Cultural Resource Impacts

3.5.2.1 Significance Criteria

Impacts of an alternative would be considered significant if it would:

CR-1: Would the alternative have an adverse effect substantial enough that implementation of the alternative would result in the loss of a property's eligibility for the NRHP.

3.5.2.2 Revised Project Alternative (Proposed Action)

CR-1 NRHP Eligibility

As assigned by FHWA under its Memorandum of Understanding (MOU), Caltrans' Section 106 finding for the overall SR-71/SR-91 Interchange Improvement Project is "No Historic Properties Affected," which includes areas within Federal lands (see Appendix G for the Section 106 Programmatic Agreement and the 2016 MOU between Caltrans and FHWA for assumption of responsibilities for compliance with NEPA and other federal laws). No direct or indirect impacts on cultural resources were expected from construction of the project, as discussed in the 2014 EA. Because no new cultural resources are present on the project site or revised APE and no impacts to the Prado Dam and Flood Control Basin (which has been assumed to be a Historic Property under Section 106 of the NHPA) and other historic properties outside the revised APE and determined ineligible for the NRHP, the proposed project changes would not affect any new cultural resources. The expanded disturbance areas would occur on previously highly disturbed areas (e.g., Sukut driveway redesign, grading changes and SR-71 median barrier gap closure and slide barrier) or in areas that were already proposed for disturbance (e.g., bridge column footing redesign, additional rock slope protection along the Wardlow Wash channel, and utility line relocations).

No new impacts on cultural resources are expected from the proposed project changes or construction of the Revised Project Alternative. Thus, even with the changes to the project and expanded APE, the project will still qualify for the finding of No Historic Properties Affected under the Section 106 Programmatic Agreement between Caltrans and SHPO. No impacts on a historic property's eligibility for the NRHP would occur with the project.

With implementation of the same avoidance and minimization measures CR-1 and CR-2 for inadvertent discoveries of cultural resources and human remains during ground disturbance/construction, effects on cultural resources are not anticipated to be significant with the Revised Project Alternative.

No new or substantially more severe significant direct and indirect effects would occur with the Revised Project Alternative over those addressed in the previous EA.

3.5.2.3 No Action Alternative (Previously Approved Design)

Under the previously approved design, project modifications included under the Proposed Action would not be implemented, and the project would be constructed as described in the 2014 EA. No direct or indirect effects on cultural resources are expected from the previously approved design since there are no cultural resources on Federal land. The No Action Alternative would not result in significant impacts to cultural resources, , as analyzed and disclosed in the 2014 EA.

3.5.3 Avoidance/Minimization Measures

While no impacts are anticipated with the Revised Project Alternative or the No Action Alternative, the avoidance and minimization measures in the previous EA would be implemented as part of the Revised Project Alternative. These measures include:

CR-1 Though no archaeological resources are anticipated to be encountered during construction, if cultural materials are discovered during construction, all earth-moving activity within and around the immediate discovery area will be diverted until a qualified archaeologist can assess the nature and significance of the find.

CR-2 If human remains are discovered, State Health and Safety Code Section 7050.5 states that further disturbances and activities shall cease in any area or nearby area suspected to overlie remains, and the County Coroner contacted by the Contractor or Caltrans Resident Engineer. Pursuant to Public Resources Code (PRC) Section 5097.98, if the remains are thought to be Native American, the coroner will notify the Native American Heritage Commission (NAHC), who will then notify the Most Likely Descendent (MLD). At this time, the person who discovered the remains will contact the District Cultural Resources Environmental Branch so that they may work with the MLD on the respectful treatment and disposition of the remains. Further provisions of PRC 5097.98 are to be followed as applicable.

As stated in CR-1 , if unanticipated cultural resources are encountered during ground-disturbing activities, all such activities near the immediate discovery area would be diverted until a qualified archaeologist can assess the nature and significance of the find. If human remains are discovered, further disturbances and activities shall cease in any area suspected to overlie the remains, and the County Corner shall be contacted pursuant to State Health and Safety Code Section 7050.5. In accordance with PRC Section 5097.98, if the remains are thought to be Native American, notification protocols established in measure CR-2 would be followed.

3.6 Aesthetics

3.6.1 Description of Resource and Baseline Conditions

Existing views of the project area consist primarily of low-lying vegetation and trees within the Prado Dam and Flood Control Basin and the Santa Ana River. Prominent topographic features in the area include the Chino Hills to the northwest, Prado Dam and Basin along the Santa Ana River to the northeast, and the foothills of the Santa Ana Mountains to the south. The visual quality of the project area remains similar to what was described in the previous EA.

3.6.2 Potential Aesthetic Impacts

3.6.2.1 Significance Criteria

Impacts of an alternative would be considered significant if it would:

AES-1: Have a substantial adverse effect(s) on a scenic vista.

AES-2: Substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a State Scenic Highway.

AES-3: Substantially degrade the existing visual character or quality of the site and its surrounding area.

AES-4: Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

3.6.2.2 Revised Project Alternative (Proposed Action)

AES-1 Scenic Vista

While the project area does not provide views of scenic vistas, views of the adjacent hillside areas are present north and south of SR-91 and west of SR-71 and there are views of the Prado Dam spillway to

the northeast of the SR-71/SR-91 interchange. With implementation of the project, these views would continue to be available from SR-91, SR-71, and SR-71/SR-91 interchange. While grading of the slopes west of SR-71 would be expanded, the new slopes would be replanted with the same native vegetation as existing (AES-6). Thus, only minor changes of existing hillside views would occur and impacts related to scenic vistas would be less than significant.

AES-2 Scenic Highway

There are no officially designated Scenic Highways in the project area. The nearest officially designated Scenic Highway is the segment of SR-91 from SR-55 to east of the City of Anaheim. However, the segment of SR-71 from SR-91 to Route 83 (Euclid Avenue) and the segment of SR-91 from SR-55 to I-15 are eligible Scenic Highways. While improvements to SR-71 and SR-91 facilities are proposed under the Revised Project Alternative, these changes would have minimal impacts on views that are available from these freeway segments. Also, measures AES-1 through AES-8 would be implemented to minimize view changes from SR-71 and SR-91. Thus, the project is not expected to affect the eligibility of these freeway segments for Scenic Highway designation. Impacts related to scenic resources within a State Scenic Highway would be less than significant.

AES-3 Visual Character

The visual impacts that would occur during the construction phase include the presence of construction vehicles and equipment, temporarily degrading the visual quality of the area. Grading activities would also change the visual quality of the slope areas along SB SR-71. Construction activities are anticipated to last 28 months. These minor effects on aesthetics and visual quality would be temporary and minimized by implementation of AES-8 and COM-4.

The Interchange Project involves construction of a bridge structure that would be a prominent addition to the landscape. Long-term visual effects due to the bridge structure are not anticipated to be significant because the visual quality of the area is low and a substantial number of man-made structures are already present in the landscape. Thus, the addition of the bridge structure is unlikely to diverge significantly from the existing visual quality. On the other hand, travelers in vehicles that would use the flyover bridge would have expanded views of the Prado Dan Basin and surrounding open spaces.

The permanent adverse visual effects of the project were evaluated in a Visual Impact Assessment that analyzed changes in views from two viewpoints on Federal land that would provide the most prominent public views of the proposed flyover bridge and columns. The same visual impacts would occur with the Revised Project Alternative because none of the project changes would affect these views. The changes to the Sukut driveway would be at grade and would only be visible to people on the driveway. The revised structural design for two bridge column footings would be a few feet beneath the ground surface would not be visible after construction. Changes in grading of the hillside slopes would occur during construction, but revegetation and hydroseeding of the disturbed slopes with native vegetation would eventually revert the visual quality of these areas to match the visual quality of adjacent areas.

Because the Revised Project Alternative would lead to a permanent but minor decrease in the overall visual quality of the area, the same avoidance and minimization measures AES-1 through AES-7 are recommended to avoid and minimize these effects to the greatest extent practicable. With their implementation, visual impacts would be reduced, and effects to the overall existing visual character or quality of the project area are not anticipated to be significant.

AES-3 Light and Glare

Construction activities may include the use of temporary lights at construction staging areas and where nighttime work will occur. There are no light-sensitive land uses on Federal land but the project will implement measures to redirect night lighting from sensitive biological resource areas (measures BIO-6 and BIO-29). Permanent lighting would also be provided on the flyover, revised on- and off-ramps, and realigned freeway sections. Implementation of AES-9, BIO-6 and BIO-29 would reduce and avoid light and glare impacts from new light sources. Thus, the impacts of this alternative from new sources of light or glare would be less than significant.

No new or substantially more severe significant direct and indirect effects related to aesthetics would occur with the Revised Project Alternative over those addressed in the previous EA.

3.6.2.3 No Action Alternative (Previously Approved Design)

Under the previously approved design, project modifications included under the Proposed Action would not be implemented, and the project would be constructed as described in the 2014 EA. Effects of the previously approved design were analyzed and disclosed in the 2014 EA and include temporary views of construction activities and equipment and permanent changes in visual quality due to the proposed flyover bridge and associated structures. Measures to avoid and minimize visual impacts would be implemented so as not to result in significant impacts related to aesthetics and visual quality, scenic resources, and light and glare. Potential impacts of the No Action Alternative on visual resources would be less than significant, as described in the 2014 EA.

3.6.3 Avoidance/Minimization Measures

While no significant or substantial impacts are anticipated with the Revised Project Alternative or the No Action Alternative, the avoidance and minimization measures in the previous EA would be implemented as part of the Revised Project Alternative to avoid significant effects to aesthetics. The measures include:

AES-1 Work with the community during preliminary design to implement the Aesthetics and Landscape Master Plan for the project improvements through a formalized structure that allows for community input.

AES-2 Develop Context-Sensitive Solutions for the aesthetic and landscape treatments of the project elements based on the SR-91 Corridor Improvement Project Aesthetics and Landscape Master Plan.

AES-3 Apply architectural detailing to the bridges in the corridor, including textures, colors, and patterns. Potential bridge elements that might receive aesthetics treatments include columns, pier caps, parapets, fencing, abutment, and wing walls.

AES-4 Apply architectural detailing to the retaining walls, including textures, colors, and patterns. Include caps that will provide shadow lines, as shown in the Aesthetics and Landscape Master Plan.

AES-5 Save and protect as much existing vegetation as feasible, especially trees.

AES-6 Replant the southeast quadrant of the SR-91/Green River Road interchange consistent with the plantings in the other quadrants of the interchange previously installed by the SR-91 Corridor Improvement Project. All planting must be reviewed and approved by the District Landscape Architect. Replacement planting will be funded with the project's construction and will include no less than 3 years of plant

establishment. The Project Engineer will ensure that the replacement is under construction within 2 years of acceptance of the highway contract that damaged or removed the existing planting.

AES-7 Utilize drainage and water quality elements, where required, that maximize the allowable landscape. Place any water quality or detention ponds out of clear view of the interchange or from the highway when feasible. If this is not possible, integrate these features into the landscape design when feasible.

AES-8 To address potential impacts associated with views of construction access and staging areas, the Contractor will be required to construct the project in accordance with Caltrans Standard Specifications, including appropriate measures to address visual impacts during construction.

AES-9 To reduce glare, RCTC's Project Engineer will ensure that the project plans specify lighting fixtures with non-glare hoods and that lighting plans require the review and approval of Caltrans and applicable City and County before construction to assure compliance with their applicable policies regarding public street lighting.

No new or additional avoidance, minimization, and mitigation measures would be required with the proposed project changes.

3.7 Noise

3.7.1 Description of Resource and Baseline Conditions

As discussed in the previous EA, sources of ambient noise in the area are primarily traffic noise generated by vehicles on SR-71 and SR-91. The sound levels of typical noise sources, the County of Riverside and City of Corona noise limits and construction noise standards, and the noise abatement criteria in 23 CFR 772 remain the same, as discussed in the EA.

3.7.2 Potential Noise Impacts

3.7.2.1 Significance Criteria

Impacts of an alternative would be considered significant if it would:

N-1: Expose person(s) to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

N-2: Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.

N-3: Generate excessive groundborne vibration or groundborne noise levels.

3.7.2.2 Revised Project Alternative (Proposed Action)

N-1 Noise Standards

As discussed in the previous EA, the realignment of SR-71 would not produce permanent noise impacts. Any noise effects arising from the construction of the six proposed bridge footings for the proposed flyover on Federal land would be temporary and would last the duration of construction, which is

currently estimated at approximately 28 months. As discussed in the previous EA, compliance with Caltrans' Standard Specifications would require compliance with applicable local, State, and Federal regulations and that all equipment shall be fitted with adequate mufflers according to the manufacturers' specifications. Thus, no exceedance of City of Corona or County of Riverside noise standards would occur. Similarly, the other proposed project changes (e.g., Sukut driveway redesign, footing redesign, additional rock slope protection) would not generate any permanent noise impacts.

Because the area mainly consists of open space, a flood risk management facility, and government property, along with the absence of residential uses and other noise-sensitive receptors on Federal land, permanent noise effects resulting from future increases in traffic volumes on SR-71 and SR-91 would not expose persons to excessive noise nor generate noise levels in excess of standards established in local general plans or noise ordinances. Impacts would be less than significant.

N-2 Temporary Noise

During the construction phase of the Interchange Project, noise from construction activities may intermittently dominate the noise environment in the immediate area of construction. The noise levels produced by construction equipment commonly used on roadway construction projects was provided in the EA and would remain the same. Project changes associated with the widened Sukut driveway, rock slope protection, revised grading limits, and spread footings would extend construction activities by a few weeks, but they would not result in more severe noise impacts. In addition, construction noise would be short term, intermittent, and not discernible because the ambient noise environment is dominated by freeway and local roadway traffic noise.

There are no noise-sensitive receivers (e.g., residences, schools, churches) within Federal lands that would be subject to construction noise effects within a distance of 50 feet. The nearest sensitive receivers are residences located in the surrounding area, well beyond the project area. In addition, construction noise generated by the project would have to conform to Caltrans' Standard Specifications Section 14-8.02, "Noise Control," and Standard Special Provision S5-310. These requirements state 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.

Because the project changes would lead to very minor increases in construction activity and associated noise impacts, the same avoidance, minimization, and mitigation measures N-1 through N-7 and BIO-7 would be implemented to avoid and minimize these effects to the greatest extent practicable. With their implementation and Caltrans' Standard Specifications for noise control, temporary or periodic increase in ambient noise levels would be reduced and are not anticipated to be significant.

N-3 Groundborne Vibration and Noise

Construction related noise and vibration would be temporary and primarily related to the use of heavy equipment. As discussed above, implementation of measures N-1 through N-7 would avoid and minimize construction noise impacts. Also, CIDH piles will be used, as recommended in measures GEO-4 and N-2. With implementation of these measures and short-term duration of construction, no excessive groundborne vibration or groundborne noise would be generated and noise and vibration impacts would not be significant.

No new or substantially more severe significant direct and indirect effects related to noise would occur with the Revised Project Alternative over those addressed in the previous EA.

3.7.2.3 No Action Alternative (Previously Approved Design)

Under the previously approved design, project modifications included under the Proposed Action would not be implemented, and the project would be constructed as described in the 2014 EA. Effects of the previously approved design were analyzed and disclosed in the 2014 EA and include temporary construction noise, and, with the lack of noise-sensitive land uses in the area, no permanent noise effects would occur. With implementation of measures N-1 to N-7, no significant impacts related to noise and vibration are anticipated. The potential impacts of the No Action Alternative on noise would be less than significant, as described in the 2014 EA.

3.7.3 Avoidance/Minimization Measures

Construction of the project would be conducted in accordance with Caltrans' Standard Specifications, and, while no significant or substantial impacts are anticipated with the Revised Project Alternative or the No Action Alternative, minimization measures N-1 through N-7 from the previous EA would be implemented to reduce construction noise impacts. These include:

N-1 To minimize construction-generated noise, the Contractor will adhere to Standard Specification Section 14-8.02 "Noise Control" and Standard Special Provision S5-310 need to be followed. This Standard Special Provision will be edited specifically for the project during the PS&E phase.

Construction noise control and noise monitoring must comply with Caltrans General "5-1 Noise Control" standard special provisions. This section applies to equipment on the project or associated with the project, including trucks, transit mixers, stationary equipment, and transient equipment. Do not exceed 86 A-weighted decibels (dBA) at 50 feet from the project limits from 7:00 p.m. to 7:00 a.m. Do not operate construction equipment or run equipment engines from 7:00 p.m. to 7:00 a.m. or on Sundays, except you may operate within the project limits during these hours to:

- Service traffic control facilities
- Service construction equipment

Noise Monitoring

Provide one Type 1 sound-level meter and one acoustic calibrator to be used by Caltrans until contract acceptance. Provide training by a person trained in noise monitoring to one Caltrans employee designated by the Engineer. The sound-level meter must be calibrated and certified by the manufacturer or other independent acoustical laboratory before delivery to Caltrans. Provide annual recalibration by the manufacturer or other independent acoustical laboratory. The sound-level meter must be capable of taking measurements using the A-weighting network and the slow-response settings. The measurement microphone must be fitted with a windscreen. Caltrans returns the equipment to you at contract acceptance. The contract lump sum price paid for noise monitoring includes full compensation for furnishing all labor, material, tools, equipment, and incidentals and for doing all work involved in noise monitoring.

Section 14-8.02, Noise Control, of Caltrans Standard Specifications states:

Do not Exceed 86 dBA at 50 feet from the jobsite activities from 9:00 p.m. to 6:00 a.m.

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

If adverse construction noise impacts are anticipated, project plans and specifications must identify abatement measures that will minimize or eliminate adverse construction noise impacts on the community. When construction noise abatement is identified, Caltrans will consider the benefits achieved and the overall adverse social, economic, and environmental effects and costs of the construction noise abatement measures.

If noise barriers are planned as part of the project, Caltrans will consider constructing the barriers before beginning project construction so that the barriers can reduce construction noise transmission to adjacent land uses. Barriers can be constructed before project construction through a separate contract or as a first phase of work under the project construction contract.

N-2 If possible, avoid using impact pile driving for bridge demolition/reconstruction. Utilize less noise-intrusive piling techniques using vibratory pile driving or CIDH piling.

N-3 In case of construction noise complaints by the public, the construction manager will be notified, and noise monitoring will be conducted if necessary.

N-4 All equipment will have sound-control devices no less effective than those provided on the original equipment. No equipment will have an unmuffled exhaust.

N-5 Truck loading, unloading, and hauling operations will be conducted so that associated noise impacts are kept to a minimum by carefully selecting routes to avoid going through residential neighborhoods to the greatest possible extent.

N-6 Use and relocate temporary barriers, if warranted and practicable, to protect sensitive receptors from excessive construction noise. Such temporary noise barriers can be made of heavy plywood or moveable insulated sound blankets. They will be free of visible internal gaps, and the material will provide a transmission loss of at minimum 15 dBA (preferably at least 20 dBA) relative to the noise source requiring abatement so that it can provide a useful level of insertion loss when used as a barrier.

N-7 As directed by Caltrans' Resident Engineer, the Contractor will implement appropriate additional noise abatement measures including, but not limited to, changing the location of stationary construction equipment, turning off idling equipment, rescheduling construction activity, notifying adjacent residents in advance of construction work, or installing acoustic barriers around stationary construction noise sources.

Implementation of the measures above would reduce construction noise impacts on Federal land. No new or additional avoidance, minimization, and mitigation measures would be required with the proposed project changes.

3.8 Recreational Resources

3.8.1 Description of Resource and Baseline Conditions

Recreational resources in the project area include the CHSP, Santa Ana River Trail and Parkway, and Prado Regional Park. These resources are the same ones described in the EA for the project.

3.8.2 Potential Recreational Resource Impacts

3.8.2.1 Significance Criteria

Impacts of an alternative would be considered significant if it would:

REC-1: Increase the use of existing neighborhood and regional parks or other recreation facilities such that substantial physical deterioration of the facility would occur or be accelerated.

3.8.2.2 Revised Project Alternative (Proposed Action)

REC-1 Use of Parks and Recreational Facilities

The proposed design refinements under the Revised Project Alternative would be located outside Prado Regional Park and would have no impact on this park. Potential impacts on the Santa Ana River Trail and CHSP remain the same as discussed in the previous EA. The permanent slope easement previously required on the hillside slope to be graded at CHSP has been revised to a Right-of-Entry Permit. This does not change the physical impact of the project on the park. The California State Parks Superintendent's concurrence on May 3, 2010 of the Project's Section 4(f) *de minimis* impact finding and the State Parks' concurrence that the project would only have a temporary nonconforming use remains valid. No new recreational facilities or park areas have been developed in the Prado Dam and Flood Control Basin, the Santa Ana River, or the surrounding areas. Thus, no new impacts related to an increase in the use of existing neighborhood and regional parks or other recreation facilities would occur with the Revised Project Alternative.

With the implementation of minimization measures PR-1 and PR-2, potential effects to recreational resources within CHSP are not anticipated to be significant. No new or substantially more severe significant direct and indirect effects related to recreation would occur with the Revised Project Alternative over those addressed in the previous EA.

3.8.2.3 No Action Alternative (Previously Approved Design)

Under the previously approved design, project modifications included under the Proposed Action would not be implemented, and the project would be constructed as described in the 2014 EA. Effects of the previously approved design were analyzed and disclosed in the 2014 EA and include grading of slopes within the CHSP. These slopes are not used for recreational activities and will remain a permanent open space. Measure PR-1 would limit disturbance at CHSP and PR-2 would restore disturbed areas. The No Action Alternative would not result in an increase in the use of existing neighborhood and regional parks or other recreation facilities. Potential impacts of the No Action Alternative on recreational resources would be less than significant, as described in the 2014 EA.

3.8.3 Avoidance/Minimization Measures

Construction activities and permanent features of the direct flyover bridge connector structure and bridge footing columns avoid recreational uses at CHSP. While no significant or substantial impacts are anticipated with the Revised Project Alternative or the No Action Alternative, the avoidance and

minimization measures in the previous EA would be implemented as part of the Revised Project Alternative to avoid significant effects to recreational resources. The measures include:

PR-1 Contractor will clearly delineate the construction area with environmentally sensitive fencing. All construction activities, including staging and storage, will stay within the designated construction limits.

PR-2 After construction, the Contractor will reseed the slope with native vegetation, including CSS or other native species that are characteristic of the CHSP flora. RCTC will confer with State Parks on the native seed mix prior to implementation of the project.

No new or additional avoidance, minimization, and mitigation measures would be required with the proposed project changes.

3.9 Health and Safety

3.9.1 Description of Resource and Baseline Conditions

Emergency Services

Emergency services in the area, such as police and fire protection, are provided by the counties of Riverside, San Bernardino, and Orange County and the cities of Corona, Anaheim, Yorba Linda, and Brea. Table 3-9 lists the agencies providing these services.

Table 3-9: Local Fire and Police Stations

Public Service Department	Service Area	Station and Address
Anaheim Police Department	Anaheim	East District 8201 E. Santa Ana Canyon Road, Anaheim, CA 92808
Anaheim Fire Department	Anaheim	East District Weir Canyon Station 10 8270 E. Monte Vista Avenue, Anaheim, CA 92808
Brea Police Department Brea Fire Department	Brea	1 Civic Center Circle, Brea, CA 92821
Yorba Linda Police Department	Yorba Linda	20994 Yorba Linda Boulevard, Yorba Linda, CA 92887
Orange County Fire Authority	Yorba Linda	Station 53 25415 La Palma Avenue, Yorba Linda, CA 92887
Corona Police Department	Corona	730 Public Safety Way, Corona, CA 92882
Corona Fire Department	Corona	Station 5 1200 Canyon Crest, Corona, CA 92882
Riverside County Sheriff's Department	Riverside County	Jurupa Valley Station 7477 Mission Street, Jurupa Valley, CA 92509
Riverside County Fire Department	Riverside County	Northwest Division Station 14 1511 Hamner Avenue, Norco, CA 92860
San Bernardino County Fire Department	San Bernardino County	Upland Station 161 475 North 2nd Avenue, Upland, CA 91786
San Bernardino County Sheriff's Department	San Bernardino County	Chino Hills Patrol Station 14077 Peyton Drive, Chino Hills, CA 91709

Hazardous Waste and Materials

Changes in Regulations

The governing regulatory guidance for conducting initial site assessments/hazardous materials/ hazardous waste assessments when the Phase I Initial Site Assessment (ISA) was prepared in April 2009 was the American Standards for Testing and Materials (ASTM) E 1527 05, Standard Practice for Environmental Site Assessments: Phase 1 Environmental Site Assessment Process. The regulatory guidance has since been updated to the current ASTM E 1527-13. Major changes include the definition of Recognized Environmental Conditions (RECs), discussion of potential for vapor migration in the Phase I report, and review of "pertinent regulatory files and/or records associated with the listing."

Recognized Environmental Conditions

The SR-71/SR-91 Interchange Improvement Project Initial Site Assessment (ISA) (April 2009) identified RECs in the project area. RECs include sites that use hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property. Based on the 2009 ISA, the following RECs were identified:

- Miscellaneous hazardous materials were spilled near the project site in the past. Although all hazardous materials have been cleaned up, it is still considered an REC for the Interchange Project.
- Polychlorinated biphenyl (PCB)-containing liquids in pole-top transformers may be present in the project area.
- Asbestos-containing materials (ACMs) are present in grey rectangular shims located beneath guard rail posts along the freeways.
- Lead-based paint (LBP) may also be present in the paint used for lane striping.
- Aerially deposited lead (ADL) may be present along the shoulders of SR-91 and SR-71 in exposed soils.

Known or Suspected Hazardous Material Contamination:

As discussed in the previous EA, several hazardous material sites are located near the project area, but none constitute an REC for the Interchange Project and the sites are not located on Federal lands. Two spills (a spill of oxidizing acid along SR-71 approximately 0.5 mile north of SR-91 and abandoned chemicals, butyl nitrite, and organic powder at 4718 Green River Road) were determined to constitute RECs for the Interchange Project; however, neither spill is on Federal lands. In addition, it is not likely these past spills would create conditions or expose people or the environment to a significant hazard.

An ISA Technical Memorandum was prepared in April 2020 as an update to the previous ISA. Additional sites listed in government databases were identified, and new information on government database-listed sites was available. The new information is summarized in Table 3-10.

Table 3-10: Additional Government Database Sites

Site	Address	Government Database	Recognized Environmental Condition?
Prado Flood Control Basin	South of SR-91 and west of SR-71	EnviroStor FUDS	This site is listed as Inactive – Needs Evaluation. There are no violations or enforcement actions for this site and no reports or any evidence of contamination or hazardous materials/substances migrating offsite. This site does not constitute an REC for the project location.
Corona Palisades Business Park	South of Palisades Drive and west of Serfas Club Drive	EnviroStor	This site is listed as a voluntary cleanup site with no further action needed as of June 2014. There are no current enforcement actions for this site and no reports or any evidence of contamination or hazardous materials/ substances migrating offsite. This site does not constitute an REC for the project location.
Frontier Aluminum Corporation	2480 Railroad Street, Corona	EnviroStor	This site is listed as Inactive – Needs Evaluation. There are no reports or any evidence of contamination or hazardous materials/substances migrating offsite. This site does not constitute an REC for the project location.
Owl Rock Products Prado Prado Pit	11901 Highway 71	LUST SWEEPS UST HIST UST FID UST US Mines Hist Cortese Mines	This site has been identified as an open pit for sand and gravel, but reclamation has not started yet. It was reported in 1992 as having an underground storage tank (UST) for diesel fuel. It also had a leaking underground storage tank (LUST), but remediation was completed, and the case was closed in 1997. There are no current enforcement actions for this site and no reports or any evidence of contamination or hazardous materials/substances migrating offsite. This site does not constitute an REC for the project location.
Shell Service Station	4721 Green River Road, Corona	LUST	This site had an LUST in 2005 and remediation began in 2006. The case was closed in December 2011. While there was evidence of contamination migrating offsite, the direction of the migration is away from the project footprint. This site does not constitute an REC for the project location.
Royal Cleaners	4300 Green River Drive, Corona	CPS-SLIC Brownfields	This site was identified as a cleanup program site for potential contamination of the soil and soil vapor. The case was closed in 2016. There are no current violations or enforcement actions for this site and no reports or any evidence of contamination or hazardous materials/ substances migrating offsite. This site does not constitute an REC for the project location.
Green River 76 Kaykel Investments	4350 Green River Road, Corona	UST CERS Haz Waste CERS Tanks RCRA NonGen/NLR	This site has an onsite UST regulated by the Riverside County Department of Environmental Health. It is also listed as a hazardous waste generator. There are no violations or enforcement actions for this site and no reports or any evidence of contamination or hazardous materials/ substances migrating offsite. This site does not constitute an REC for the project location.
Taco Bell	4718 Green River Road, Corona	UST	This site has a UST. There are no reported violations or enforcement actions for this site and no reports or any evidence of contamination or hazardous materials/ substances migrating offsite. This site does not constitute an REC for the project location.

Table 3-10: Additional Government Database Sites

Site	Address	Government Database	Recognized Environmental Condition?
Richards Neon Shop	4375 Prado Road, Suite 10, Corona	RCRA NonGen/NLR	This site handles hazardous materials but does not generate hazardous waste. There are no violations or enforcement actions for this site and no reports or any evidence of contamination or hazardous materials/ substances migrating offsite. This site does not constitute an REC for the project location.
USDOJDEA	4226 Green River Road, Corona	RCRA NonGen/NLR	This site handles hazardous materials but does not generate hazardous waste. No violations were found. There are no enforcement actions for this site and no reports or any evidence of contamination or hazardous materials/ substances migrating offsite. This site does not constitute an REC for the project location.
Thomas Ranch	South of Palisades Drive and west of Serfas Club Drive	CA BOND EXP. PLAN	This site is the location of four former oil field and refinery waste disposal ponds believed to be in operation from the 1930s to 1950s. A remedial action order for soil contamination was issued by the Department of Health Services (DHS) in August 1986. The Department of Toxic Substances Control (DTSC) cleanup status is listed as Certified/O&M as of May 2013. There are no current enforcement actions for this site, and due to the distance of this site from the project site, this site does not constitute an REC for the project location.
Prado/Valentine Pit	24980 Maitri Road	Mines	This site is an open pit for sand and gravel where reclamation has started. It has no reported violations or enforcement actions, and there are no reports or any evidence of contamination or hazardous materials/ substances migrating offsite. This site does not constitute an REC for the project location.
SR-71 S to SR-91 E connector	SR-71–SR-91	CIWQS CERS	This site is listed as a wetlands area with fill and dredge material. There are no violations or enforcement actions for this site and no reports or any evidence of contamination or hazardous materials/substances migrating offsite. This site does not constitute an REC for the project location.

3.9.2 Potential Health and Safety Impacts

3.9.2.1 Significance Criteria

Impacts of an alternative would be considered significant if it would:

HAZ-1: Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.

PSU-1: Require a substantial modification to existing facilities or services that would have an adverse environmental effect.

3.9.2.2 Revised Project Alternative (Proposed Action)

HAZ-1 Hazardous Materials

An ISA Technical Memorandum was prepared in April 2020 as an update to the 2009 ISA, which had previously identified five RECs: past miscellaneous hazardous materials spills in the project area, PCBs in pole-mounted transformers, ACMs in gray rectangular shims beneath guard rail posts, LBP in paint used for lane striping, and ADL in soils, as discussed in the 2014 EA. Based on the 2020 ISA memo findings, the same RECs are still applicable to the revised project. Hazardous material/waste sites not previously identified in the 2009 ISA and sites with updated information are listed in Table 3-10. As indicated in the last column, these sites do not constitute RECs for the project location. No new RECs or revised impacts related to hazardous materials/wastes would occur with the Revised Project Alternative. In addition, the proposed changes to the Sukut driveway, bridge column spread footings, additional rock slope protection, and revised grading would occur in areas previously anticipated to be disturbed by the project and were analyzed for hazardous materials/wastes issues in the 2009 ISA.

With implementation of the same avoidance and minimization measures HW-1 to HW-6, health and safety effects (permanent and temporary) are not anticipated to be significant due to construction of the Revised Project Alternative. No significant hazard to the public or the environment would be created by the project.

No new or substantially more severe significant direct and indirect effects would occur with the Revised Project Alternative over those addressed in the previous EA.

PSU-1 Public Services and Utilities

The project may result in the temporary obstruction of freeway segments and on-/off-ramps and outages of certain utilities to the surrounding communities and through Federal lands due to needed detours and closures during construction. However, the use of SR-91, local arterials, and secondary roads would continue to allow the provision of emergency services to the project area, as discussed in the previous EA. Implementation of measures U/ES-1 to U/ES-8 and COM-5 would ensure coordination with public service providers and utility companies to avoid impacts to emergency response and access and minimize disruption of services. No new impacts related to a substantial modification to existing facilities or services would occur with the proposed project changes.

3.9.2.3 No Action Alternative (Previously Approved Design)

Under the previously approved design, project modifications included under the Proposed Action would not be implemented, and the project would be constructed as described in the 2014 EA. Effects of the previously approved design were analyzed and disclosed in the 2014 EA and include temporary disruption to emergency services and utility services during construction and potential public health hazards associated with hazardous materials and wastes. Several avoidance and minimization measures would be implemented to reduce risks to public health and safety, as associated with hazardous materials and waste and with emergency services. Potential impacts of the No Action Alternative on health and safety would be less than significant, as described in the 2014 EA.

3.9.3 Avoidance/Minimization Measures

Emergency Services

While no significant or substantial impacts are anticipated with the Revised Project Alternative or the No Action Alternative, the avoidance, minimization, and mitigation measures in the previous EA would be implemented as part of the Revised Project Alternative. The measures include:

U/ES-1 To ensure that emergency response times are not disrupted, all affected public and private emergency responders will be informed of the project construction schedule, lane closures (if any), and detour plans (if any) well in advance of any detour plan or lane closure being implemented throughout the construction period.

U/ES-2 Area residents will be regularly informed of the project development and construction plans prior to and during the construction period so that they are aware of the construction timing, traffic detour plans, lane/road closures, and transit detour plans.

U/ES-3 All public utility lines, pipes, and cables that are disturbed or removed to accommodate the project will be replaced or relocated to continue to meet the needs of surrounding residents and businesses. During construction, arrangements will be made to avoid disruption in utility services. If interruption in service is unavoidable, notice will be given and proper arrangements will be made with residents and businesses to minimize inconveniences.

U/ES-4 To avoid conflicts during construction, emergency and other essential service providers, as well as other public services will be notified prior to construction. The Contractor will also establish a communication plan with each public service provider. Public service providers to be contacted include the following agencies:

- Anaheim Police Department
- Anaheim Fire Department
- California Department of Forestry and Protection
- Orange County Fire Authority
- Corona Fire Department
- Corona Police Department
- Riverside County Sheriff
- Riverside County Fire Department
- San Bernardino County Fire Department
- San Bernardino County Sheriff

U/ES-5 A Transportation Management Plan (TMP) Data Sheet and Traffic Handling Plans will be prepared for the project prior to construction. The TMP Data Sheet and Traffic Handling Plans will include requirements for the project area that must be implemented during project construction to ensure traffic safety and maintain access for emergency access vehicles at all times.

U/ES-6 Coordination with California Department of Forestry and Fire Protection, Riverside County Fire Department, and other public service providers will occur at least 6 months prior to construction of the project.

U/ES-7 To minimize the risk of wildfire during construction, the construction contractor shall ensure that all construction vehicles are equipped with fire extinguishers and shovels, as well as provide other firefighting equipment at the construction site. Inspection of all construction equipment is required to ensure compliance with minimum safety standards. Access to all fire hydrants, if any, and fire department vehicle access along the project site and Santa Ana River watershed area will be provided.

U/ES-8 The Mitigation Monitoring Plan for the project will be provided to the California Department of Forestry and Fire Protection, Riverside County Fire Department, and other public service providers at least 6 months prior to commencement of construction activities.

The preparation and implementation of the TMP under U/ES-5 and U/ES-6 would avoid and minimize disruption to emergency services. No new or additional avoidance, minimization, and mitigation measures would be required with the proposed project changes.

Hazardous Waste and Materials

The same avoidance, minimization, and mitigation measures in the previous EA would be implemented as part of the Revised Project Alternative. The measures include:

HW-1 There is a possibility of encountering PCB-containing liquids, ACMs, LBP, and ADL during construction. Any hazardous materials encountered shall be managed accordingly.

HW-2 Pole-top transformers with PCB-containing liquids shall be properly managed if they are to be removed or relocated.

HW-3 Prior to the final environmental document, presumed ACM materials, including rails, bearing pads, support piers, expansion joint material of bridges, asphalt, and concrete, will be surveyed and assessed in compliance with 40 CFR 763. During construction, if bridge structures not previously tested for asbestos are anticipated to be disturbed or if suspect ACMs are discovered, the contractor shall stop work and these materials will be surveyed and assessed for asbestos prior to disturbance.

HW-4 Paint used for lane striping shall be tested for LBP prior to demolition/removal to determine proper handling and disposal requirements.

HW-5 Any soils with ADL contamination shall be managed properly and disposed. During project construction, soil in the project limits may be reused within Caltrans ROW, provided it is placed a minimum of 5 feet above the maximum water table and is covered by pavement. Soil export will be minimized, and excess soil generated during project construction, if any, will be disposed of at a non-Resource Conservation and Recovery Act (RCRA) California Class I hazardous waste disposal facility.

HW-6 LBP, ACM, and ADL surveys shall be conducted if data have not already been collected in this area by previous projects.

No new or additional avoidance, minimization, and mitigation measures would be required due to project changes.

3.10 Flood Risk Management

3.10.1 Description of Resource and Baseline Conditions

The Interchange Project would be located within a flood risk management facility under the jurisdiction of USACE. As discussed in the previous EA, Prado Dam and its associated features provide flood risk management with the purpose of reducing the risk of damage from floods to the surrounding area and the communities of Orange, Riverside, and San Bernardino counties. Of the flood risk management features of the Prado Dam and Flood Control Basin and the Santa Ana River, it is anticipated that the spillway channel and the surrounding adjacent area would be affected by construction of the project. This area is in the Wardlow/Fresno Canyon Wash area, which is within the 100-year floodplain.

3.10.2 Potential Flood Risk Management Impacts

3.10.2.1 Significance Criteria

Impacts of an alternative would be considered significant if it would:

FR-1: Substantially alters the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increases the rate or amount of surface runoff in a manner which would result in flooding on or offsite.

FR-2: Create or contribute runoff which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.

FR-3: Place structures within a 100-year floodplain which would impede or redirect flood flows or would expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as result of the failure of a levee or dam.

3.10.2.2 Revised Project Alternative (Proposed Action)

FR-1 Flood Hazard

Subsequent to the coordination meetings with USACE, the project has been designed to avoid or minimize any potential effects to flood risk management facilities under the jurisdiction of USACE. Only minor permanent modifications to the Santa Ana River channel are proposed (e.g., bridge footings and utility relocations), which would be exposed to flood hazards, but the project would not increase flood hazards along the Santa Ana River and associated drainages. Measures FP-1 to FP-3 would be implemented during construction to minimize impacts to the floodplain. Thus, impacts related to flooding due to the alteration of the existing drainage pattern would not be significant.

FR-2 Drainage Capacity

The Revised Project Alternative does not propose any changes to the drainage capacity of Prado Dam or the Santa Ana River. Modification and construction of new drainage facilities (e.g., culvert extensions and rock slope protection on Wardlow Wash) would better accommodate projected runoff flows and the project includes a detention basin and three flow-based bio-filtration swales to accommodate additional runoff from increases in impervious surfaces. No change to the capacity of the Santa Ana River would occur with implementation of FP-2; thus, impacts related to drainage capacity or the exceedance of the capacity of existing or planned stormwater drainage systems are anticipated to be less than significant. Impacts related to stormwater pollutants that may be generated by construction activities are discussed in Section 3.2.1 and are not anticipated to be significant.

FR-3 Redirection of Flood Flows

The Revised Project Alternative involves construction of 9 bridge columns supporting the proposed flyover structure over the Santa Ana River Channel. Of these, six bridge columns would be constructed within Federal land. Two proposed bridge columns would be constructed on top of the channel levees. Four columns would be located on unpaved areas and would increase impervious surfaces in the area. The change of Footing #5 and Footing #8 from CIDH piles to spread footings would add 2,624 square feet (0.06 acre) of impervious area but would be below the ground surface. The Sukut driveway redesign would add 4,968 square feet (0.11 acre) of impervious area, and the additional rock slope protection would add 10,019 square feet (0.23 acre) of impervious area along Wardlow Wash. Refinements tot eh engineering plans show an addition 0.18 acre of permanent disturbance. These project changes would add a relatively small area and generally have the same impacts as analyzed in the previous EA. Similar to the discussion in the previous EA, the additional paved area associated with the Revised Project Alternative is relatively minor (4.78 acres compared to the 32,112-acre watershed) and does not have the potential to result in permanent effects to surface hydrology.

Falsework construction in the areas west of and downstream of the Prado Dam and Flood Control Basin and along the Santa Ana River would be the same as discussed in the previous EA. Measures would be implemented to minimize impacts to the flood risk management facility, including prohibitions on the use of heavy-duty machinery, designated construction access, bridge construction during the dry season, removal of falsework at the end of the dry season (generally from March 10 to October 1) (FP-3), construction staging outside the Santa Ana River Channel, and maintaining the structural integrity of the falsework. Columns supporting the flyover bridge structure would have large-diameter single-shaft CIDH piles to optimize foundations and eliminate the need for large pile caps, except for Footing #5 and Footing #8, which would be spread footings due to structural design requirements and site geologic conditions. The two bridge columns on top of the Santa Ana River Channel levee would not affect the operations or the system performance of the flood risk management facility. Modifications are relatively minor, and potential effects related to flooding resulting from these modifications are not anticipated to adversely affect the operations and structural integrity of the Prado Dam and Flood Control Basin and the Santa Ana River.

As indicated, the proposed modifications to the flood risk management facility would not result in a realignment, change to the structural geometry, or affect the hydraulic capacity of the Prado Dam and Flood Control Basin and Santa Ana River Channel. Thus, the project's permanent and temporary effects to flood risk management facilities are not anticipated to be significant. Avoidance and minimization measures FP-1 through FP-3 would ensure that the construction and permanent features of the Interchange Project would not result in the impediment or redirection of flood flows so as to cause flooding effects or in impacts that are anticipated to be significant for flood risk management.

No new or substantially more severe significant direct and indirect effects would occur with the Revised Project Alternative over those addressed in the previous EA.

3.10.2.3 No Action Alternative (Previously Approved Design)

Under the previously approved design, project modifications included under the Proposed Action would not be implemented, and the project would be constructed as described in the 2014 EA. Effects of the previously approved design were analyzed and disclosed in the 2014 EA and include the construction of six bridge footings on and near the Santa Ana River and temporary falsework on the River. No increase in flooding or major changes in drainage patterns would occur under this alternative. Potential impacts of the No Action Alternative on flood risk management would be less than significant, as described in the 2014 EA.

3.10.3 Avoidance/Minimization Measures

While no significant or substantial impacts are anticipated with the Revised Project Alternative or the No Action Alternative, the avoidance and minimization measures in the previous EA would be implemented to avoid and/or minimize potential effects to flood risk management facilities and flood risk management. These avoidance and minimization measures include:

FP-1 To minimize impacts to the floodplain during construction, the Contractor will implement temporary construction measures as indicated under Section 2.2.2, Water Quality and Stormwater Runoff, of the 2011 IS/MND.

FP-2 If construction is occurring within the Zone A floodplain, then the Contractor will ensure that the area will be returned to its original state after construction is completed to maintain the integrity of the floodplain.

FP-3 The portion of the bridge spanning the channel will be constructed within the 6-month-long dry season (March 10 to October 1) to minimize potential effects on the operations of flood risk management facility. During construction of the falsework, heavy-duty vehicles (e.g., 250-ton crane) are prohibited from entering/ traversing on the bottom of the Santa Ana River channel and its lining. Construction equipment will not be stored or remain in the channel at the end of each workday for the duration of project construction. Construction equipment storage will be located at a USACE-approved location. Additionally, the proponents will implement and follow conditions issued by USACE during construction.

In addition, any conditions issued by USACE as part of permits, easements, and outgrants would be implemented and followed by Caltrans, RCTC, and its construction contractor. No new or additional avoidance, minimization, and mitigation measures would be required with the proposed project changes.

3.11 Socioeconomics and Environmental Justice

3.11.1 Description of Resource and Baseline Conditions

The area west of and downstream of the Prado Dam and Flood Control Basin and along the Santa Ana River on which a portion of the Interchange Project would be constructed consists of open space, a Federal flood risk management facility, and government property. This area does not support a resident population; provide housing or a means to add to the population in the area; nor consist of industrial or commercial land uses that are sources of employment. While there are government employees related to the maintenance and operation of the Prado Dam and Basin, the Santa Ana River, and the recreational facilities at Prado Regional Park, there are no known future plans within Federal lands to develop land uses that could change socioeconomic conditions and issues related to environmental justice within the area.

Review of the EPA's Environmental Justice Screening and Mapping Tool (EJScreen) shows that the resident population within a 1-mile radius of the project site has a higher percent of people of color and linguistically isolated population than the US population but lower than the State and EPA region. It also has a lower percent of low income, less than high school educated, and older residents (over 64 years old) than the US, State and EPA region. The area population is exposed to higher levels of the following environmental indicators compared to the overall US population: $PM_{2.5}$, ozone, NATA Diesel PM, Cancer Risk, and Respiratory Hazard Index, and Traffic Proximity, but lower exposures to Lead Paint, Superfund, RMP and Hazardous Waste Proximities and Wastewater Discharge indicators

than the US population. At the same time, the area population has higher exposure to $PM_{2.5}$, ozone, NATA Diesel PM, Cancer Risk, and Respiratory Hazard Index than the State and EPA region population but lower or the same exposure to Traffic, Lead Paint, Superfund, RMP, and Hazardous Waste Proximities, and Wastewater Discharge indicators. Thus, the surrounding area is not occupied by a large percent of environmental justice population.

3.11.2 Potential Socioeconomic Impacts

3.11.2.1 Significance Criteria

Impacts of an alternative would be considered significant if it would:

EJ-1: Have disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority and/or low-income populations.

LU-1: Physically divide an established community.

LU-2: Conflict with any applicable land use plan, policy or regulation of an agency with jurisdiction over the project adopted for avoiding or mitigating an environmental effect.

3.11.2.2 Revised Project Alternative (Proposed Action)

EJ-1 Minority and/or Low-income Populations

As discussed in the previous EA, there are no minority or low-income populations on or near the site and the project would have no effects on socioeconomic conditions and environmental justice populations at the Prado Dam and Flood Control Basin and the Santa Ana River. Rather, improved traffic conditions on SR-71 and SR-91 are expected to have a beneficial effect on the surrounding communities. No minority or low-income populations would directly be affected by the Interchange Project. As such, no disproportionately high and adverse human health or environmental effects to environmental justice populations would occur.

LU-1 Established Communities

SR-71 and SR-19 are existing freeway facilities and there are no established communities at the project site. Residential areas are present in the City of Corona to the south but these nearby residential neighborhoods would not be divided or displaced by the project. No resident or household displacement would occur with the Revised Project Alternative and implementation of measures COM-1 to COM-5 would minimize impacts on adjacent communities. Thus, no division of an established community or any significant impacts on established communities are anticipated.

LU-2 Land Use Plan or Policy

The Revised Project Alternative would only change land uses of undeveloped lands to freeway/roadway facilities. No change to developed land uses would occur. Where there are wo residential tracts south of the SR-71/SR-91 interchange, the residences in these tracts are outside the existing project boundaries and would not directly affected by the project.

With the proposed project changes under the Revised Project Alternative, construction activities would still not conflict with applicable land use plans, policies, or regulations of local or regional agencies. These activities would be temporary in nature and would not introduce new land uses that are

incompatible with existing uses; require changes to existing land use designations; or conflict with local or regional plan goals and policies. In addition, construction traffic management, noise abatement, and the control of air quality emissions and water quality impacts implemented during construction would reduce construction-related impacts to nearby land uses. No conflict with any applicable land use plan, policy or regulation and no new or more severe land use impacts would occur with the proposed project changes.

The Revised Project Alternative would improve traffic conditions on SR-71 and SR-91 and would result in beneficial effects on all surrounding communities as it reduces congestion and improves mobility for all travelers and would also reduce associated air pollutants from travelling vehicles. The project will not result in property value degradation, land use changes, and/or additional visual impairments that are not currently existing (see Section 3.6 for the discussion of Aesthetic impacts).

No new or substantially more severe significant direct and indirect effects related to socioeconomic and environmental justice issues would occur with the Revised Project Alternative over those addressed in the previous EA.

3.11.2.3 No Action Alternative (Previously Approved Design)

Under the previously approved design, project modifications included under the Proposed Action would not be implemented, and the project would be constructed as described in the 2014 EA. Effects of the previously approved design were analyzed and disclosed in the 2014 EA and states that because of the absence of a population within Federal lands, there would be no effects to socioeconomic and environmental justice populations. The No Action alternative would not result in significant impacts related to socioeconomic issues nor would it disproportionately affect minority and low-income populations. Potential impacts of the No Action Alternative on socioeconomic issues and environmental justice would be less than significant, as described in the 2014 EA.

3.11.3 Avoidance/Minimization Measures

No avoidance, minimization, and mitigation measures are proposed because the Interchange Project is consistent with existing and proposed land uses and would have no permanent effects on socioeconomic or environmental justice resources. While no significant or substantial impacts are anticipated with the Revised Project Alternative or the No Action Alternative, avoidance and minimization measures would be implemented during project construction, as identified in the previous EA. These measures include:

COM-1 Public outreach will be conducted with affected area residents and businesses regarding construction schedules and potential temporary inconveniences during project construction.

COM-2 The project will be constructed in several stages to minimize impacts to the communities by avoiding concurrent ramp closures and traffic congestion during construction.

COM-3 The effects of temporary construction-related disruptions to the local communities will be addressed through implementation of a TMP Data Sheet and a Ramp Closure Study for all ramps closed longer than 10 consecutive days.

COM-4 Where appropriate and feasible, construction staging areas will be located inconspicuously to minimize adverse visual effects upon residential and recreational areas.

COM-5 Prior to beginning construction, RCTC, with concurrence of Caltrans, will submit a copy of the proposed construction schedule and detour information to all potentially affected emergency service providers, school districts, and municipal transportation departments so that school bus routes and emergency vehicle routes can be revised.

While minimization and avoidance measures were provided for impacts related to relocations and real property acquisitions, no relocations or land acquisition are proposed on Federal land. Thus, COM-6 through COM-8 are not applicable to work on Federal land and are not included in the measures above. No new or additional avoidance, minimization, and mitigation measures would be required with the proposed project changes.

3.12 Traffic and Transportation

3.12.1 Description of Resource and Baseline Conditions

SR-71 and SR-91 are under the jurisdiction of Caltrans and are not evaluated in this Supplemental EA specifically as they relate to traffic and transportation. Roadways within the Prado Dam and Flood Control Basin and near the Santa Ana River are not public roadway facilities that are part of the local or regional traffic circulation network; they only provide access to various public facilities within the Prado Dam and Flood Control Basin and near the Santa Ana River. There are four existing access points along SR-71, north of SR-91 (three are located east of SR-71 and one access point located west of SR-71). These access roads provide USACE staff and authorized personnel access to and from SR-71, but they do not exhibit heavy ingress/egress traffic volumes throughout the day because the primary function of these access points is for facility maintenance and emergency purposes for the Prado Dam and Flood Control Basin and the Santa Ana River, and as direct access to the mineral extraction activities at the Sukut property (west of SR-71).

3.12.2 Potential Traffic Impacts

3.12.2.1 Significance Criteria

Impacts of an alternative would be considered significant if it would:

T-1: Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking account of all modes of transportation including mass transit, and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrians and bicycle paths and mass transit.

T-2: Substantially increase hazards to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

3.12.2.2 Revised Project Alternative (Proposed Action)

T-1 Circulation System Performance

The project involves construction of bridge columns, a flyover structure, access modifications, rock slope protection, and hillside grading within Federal land. These features would not introduce a traffic-generating land use that would result in additional vehicular traffic within the area. Rather, reduced congestion and increased safety due to improved roadway operations would occur with the Revised Project Alternative.

As discussed in the previous EA, traffic volumes at the access points are considerably low because public access to these areas is prohibited. Although one of these access points would be vacated and one replaced/moved, access to and from the Prado Dam and Basin would not be affected because access to the same areas would still be available from other access points. In addition, the proposed exclusive right-turn lane and an acceleration lane from Access Point #4 to SR-71 would improve ingress and egress movements and would accommodate large trucks entering and exiting the Prado Dam facility, while the proposed SR-71 median barrier would reduce conflicting traffic movements. No adverse impacts to traffic volumes or operational levels of service on SR-71 and SR-91 are expected.

During the 28-month construction period, temporary impacts to access points would be the same as discussed in the previous EA. Intermittent ingress and egress movements into Federal land by trucks, construction equipment, and crews during construction would not affect LOS on the SR-91 and SR-71 mainlines, as traffic delays due to merging vehicles would be negligible. Implementation of measures TC-1 and TC-2, COM-3, and U/ES-5 would minimize temporary construction traffic impacts.

The project itself would have a positive effect on traffic operations by directly addressing existing and projected operational deficiencies at the SR-71/SR-91 junction. The project would provide a safer, more efficient freeway interchange facility and accommodate traffic demand from regional growth throughout the Inland Empire.

Thus, beneficial impacts on the performance of the vehicle circulation system in the project area would occur. No conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system would occur.

T-1 Traffic Hazard

Proposed modifications to existing access points include removal of Access Point #2 (located west of SR-71 and approximately 0.33 mile north of SR-91) and replacement of the western driveway of Access Point #3 (located on SR-71 approximately 0.5 mile north of SR-91) with a new western access point at Access Point #4 (located approximately 0.75 mile north of SR-91 to provide access to the Sukut property). Access Point #4 would also be modified by providing the driveway with an exclusive right-turn lane into Prado Dam and an acceleration lane out of the driveway. In addition, the project would close the median barrier gap along SR-71 by removing left-turn pockets at the Sukut and USACE driveway locations; however, a slide barrier would be provided to allow vehicles to turn from SB SR-71 into the Access Point #4 driveway during an emergency situation. In addition, the Revised Project Alternative proposes a widened knuckle and secondary access opening at the end of the Sukut driveway (Access Point #4). The project would improve traffic flow through the interchange, and the proposed project changes would further enhance traffic safety.

As indicated above, the addition of construction vehicle traffic to area roadways and freeway would be negligible and implementation of measures TC-1 and TC-2 would minimize temporary construction traffic impacts. No increase in traffic hazards would occur.

No new or substantially more severe significant direct and indirect effects would occur with the Revised Project Alternative over those addressed in the previous EA.

3.12.2.3 No Action Alternative (Previously Approved Design)

Under the previously approved design, project modifications included under the Proposed Action would not be implemented, and the project would be constructed as described in the 2014 EA. Effects of the previously approved design were analyzed and disclosed in the 2014 EA and include reduced

congestion, improved traffic safety, and temporary and minor construction-related traffic. The No Action Alternative would not result in adverse impacts related to traffic and transportation. These potential impacts would be less than significant, as described in the 2014 EA.

3.12.3 Avoidance/Minimization Measures

Avoidance or minimization measures are required to ensure access to and from Federal lands are maintained during construction. While no significant or substantial impacts are anticipated with the Revised Project Alternative or the No Action Alternative, the avoidance and minimization measures in the previous EA include prohibiting construction equipment storage on access points/routes and limiting obstruction of USACE routes/paths within the Prado Dam and Flood Control Basin and the Santa Ana River. During construction, Caltrans, RCTC, and the construction contractor would provide at least one access point from SR-71 to Federal land (TC-2). Implementation of these measures would maintain USACE access to Federal land and the flood risk management facility:

TC-1 Prior to project construction, a TMP Data Sheet and Detour and Traffic Handling Plans will be prepared to address the detours and traffic issues that may occur to the traveling public as a result of construction activities. The TMP Data Sheet and plans will address elements such as signage, traffic controls, Construction Zone Enhanced Enforcement Program (COZEEP), and public awareness campaign.

TC-2 During the design phase, RCTC will coordinate with the City of Corona, USACE, and other affected parties to ensure that access to their jurisdictions or properties will be maintained during construction.

With implementation of these measures, the O&M of the Prado Dam and Flood Control Basin and the Santa Ana River (by USACE staff) would not be adversely affected by construction activities associated with the project. No new or additional avoidance, minimization, and mitigation measures would be required with the proposed project changes.

3.13 Paleontological Resources

3.13.1 Description of Resource and Baseline Conditions

A Paleontologic Identification/Evaluation Report (PIR/PER) and PIR/PER Addendum were prepared for the project in 2009 and 2010, respectively, which included a review of the literature regarding the paleontological sensitivity of sediments exposed within areas of development.

Previous geologic mapping of the area indicates that the project alignment traverses many geologic units with high potential to yield significant nonrenewable paleontological resources. These units include the following (from oldest to youngest): the Santiago Formation; undifferentiated rocks of the Vaqueros and Sespe Formations; an unnamed sandstone and conglomerate in the southeastern Chino Hills; the Sycamore Canyon member of the Puente Formation; and Quaternary fan and very Quaternary fan deposits. With the exception of the fan deposits, all units have high potential to yield significant nonrenewable paleontological resources; therefore, they are assigned high paleontological sensitivity. The Quaternary fan gravels have undetermined paleontological potential. Paleontological sensitivity of fan deposits is dependent upon their lithology (sands and clays have high paleontological sensitivity). Holocene and recent sediments traversed by the project alignment are too geologically young to contain significant fossil remains; therefore, they are assigned low paleontological sensitivity.

Santiago Formation

The Santiago Formation is continental and marine sandstone and conglomerate rock unit. The lower part of this formation contains abundant marine mollusks, while the upper portion commonly yields silicified wood that is likely of terrestrial rather than marine origin.

Sespe and Vaqueros Formation

Rocks of the undifferentiated Sespe and Vaqueros Formations consist of interbedded marine and nonmarine sandstones and conglomerates. Locally, marine fossil-bearing strata of the Vaqueros Formation are bed-by-bed interlayered with nonmarine rocks of the Sespe Formation to such a degree that the formations cannot be mapped as separate units. The continental Sespe Formation and interbedded marine Vaqueros Formation are both abundantly fossiliferous; the former has yielded fossil remains of terrestrial vertebrate fossils ranging in age from the Eocene through to the early Miocene, while the marine Vaqueros Formation has yielded shallow water marine megafossils.

Unnamed Sandstone and Conglomerate in Southeastern Chino Hills

Poorly exposed unnamed marine and nonmarine sedimentary sandstone and conglomerate in the Arena Blanca syncline area of southeastern Chino Hills have yielded foraminifera fossils (marine micro-organisms of plankton and benthic animals) of Pliocene age. Similar rocks southeast to Wardlow Wash, Bedford Canyon, and Brown Canyon are included in this unit, and previously have resulted in finds of Pliocene foraminifera. Fossils of meager megafauna were collected on the northwest side of Bedford Canyon, including a fragment of Cantharus sp. of Pliocene age. In the Chino Hills, this unit was differentiated from underlying Puente Formation, but it was included within the Puente Formation. Fossils obtained from sand-and-gravel quarry included marine invertebrate and nonmarine vertebrate faunas and nonmarine flora; a relatively large molluscan faunule is also present in the assemblage from this region. This faunule correlates well with fossils from the lower part of Fernando Formation and the upper part of Capistrano Formation.

Puente Formation

The Puente Formation was originally named from exposures in the Puente Hills. The Puente Formation is considered to be equivalent to the Upper Miocene Monterey Formation, which is widespread in the Coast Range province of California, as well as in the Palos Verdes Hills and the San Juan Capistrano area. The Sycamore Canyon Member of the Puente Formation is the uppermost and youngest of the Miocene sediments in this formation. Until 1985, diagnostic fossils were reported to be sparse in the Sycamore Canyon Member, both in the Santa Ana Mountains and in exposures in the Puente Hills, although foraminifera are locally common; however, several thousand specimens have since been exposed and recovered from the Sycamore Canyon Member, representing a minimum of 62 identified taxa of microfossil invertebrates and megafossil vertebrates, invertebrates, plants, and marine algae. Taxa identified include whales, bird, marine turtle, shark, bony fishes, terrestrial leaves, wood, reeds, and seaweeds. These fossils, in conjunction with lithologic and stratigraphic data gathered during monitoring, indicated that deposition occurred in near-shore water at a depth near the oxygen-minimum boundary during the latest Miocene Epoch, approximately 8 million years before present.

Surface and subsurface deposits of Pleistocene fan sediments include gravels, sands, and clays. Of these lithologies, the sands and clays have high paleontological sensitivity, while the gravels may not be as conducive to the preservation of paleontological resources (although occasionally significant fossil remains can be recovered from such sediments). Pleistocene older alluvial sediments throughout Riverside County and the Inland Empire have been extensively reported to yield significant fossils of plants and extinct animals from the Ice Age. Fossils recovered from these Pleistocene sediments represent extinct taxa, including mammoths, mastodons, ground sloths, dire wolves, short-faced bears, sabre-toothed cats, large and small horses, large and small camels, and bison.

The results of this review demonstrate that numerous exposures of potentially fossil-bearing sediments are present and may be impacted by the project. A windshield survey of the project area was conducted by the Curator of Paleontology at the San Bernardino County Museum (SBCM). This survey included drive-by visual inspection of the entire project alignment, with stops to examine key outcrops of exposed native sediments on foot where appropriate. The windshield survey confirmed the geologic interpretations of the literature review.

3.13.2 Potential Paleontological Resources Impacts

3.12.2.1 Significance Criteria

Impacts of an alternative would be considered significant if it would:

P-1: Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature

3.13.2.2 Revised Project Alternative (Proposed Action)

P-1 Paleontological Resources

Excavation into undisturbed rocks of the Santiago Formation, the undifferentiated Vaqueros and Sespe Formations, the unnamed sandstone and conglomerate of the Sycamore Canyon member of the Puente Formation, and Quaternary sedimentary deposits (the latter depending upon lithology) could be impacted by construction activities associated with the project. Since portions of the project alignment have high paleontological sensitivity, excavation activities in association with the Revised Project Alternative has high potential to impact significant nonrenewable fossil resources. Measures P-1 to P-8 shall be implemented to avoid and reduce impacts to unique paleontological resources or geologic features that may be disturbed or destroyed by the project.

A Paleontological Mitigation Plan (PMP) was prepared in October 2020 that proposes fulltime monitoring during excavation into native sediments. The PMP states that, in the event of unanticipated paleontological resource discoveries during Project related activities, work must be halted within 25 feet of the discovery until it can be evaluated by a qualified paleontologist. Appropriate salvage measures will be developed in consultation with the responsible agencies and in conformance with Caltrans guidelines and best practices in mitigation paleontology. Implementation of the PMP would reduce impacts to less than significant levels.

3.13.2.3 No Action Alternative (Previously Approved Design)

Under the previously approved design, the No Action Alternative would result in the same impacts on paleontological resources as the Proposed Action, since excavation and grading would generally occur in the same areas, except for additional areas due to the proposed project changes at Sukut driveway, Wardlow Wash slope protection, Footings 5 and 8, utility relocations, and SR-71 median barrier and gate. Thus, impacts of this alternative on paleontological resources would also be less than significant.

3.13.3 Avoidance/Minimization Measures

Implementation of the following measures would avoid or reduce impacts on paleontological resources:

P-1 A Paleontological Mitigation Plan (PMP) will be prepared by a qualified paleontologist in accordance with Caltrans' Standard Environmental Reference (SER) requirements. *(Completed)*

The PMP will include, at a minimum, the following minimization measures:

P-2 A qualified principal paleontologist (M.S. or Ph.D. in paleontology or geology familiar with paleontological procedures and techniques) will be retained by the Contractor to be present to consult with grading and excavation contractors at pre-grading meetings.

P-3 A paleontological monitor, under the direction of the qualified principal paleontologist, will be onsite to inspect cuts for fossils at all times during original grading involving sensitive geologic formations.

P-4 When fossils are discovered, the paleontologist (or paleontological monitor) will recover them. Construction work in these areas will be halted or diverted to allow recovery of fossil remains in a timely manner.

P-5 Fossil remains collected during the monitoring and salvage portion of the mitigation program will be cleaned, repaired, sorted, and cataloged.

P-6 Prepared fossils, along with copies of all pertinent field notes, photos, and maps, will then be deposited in a scientific institution with paleontological collections.

P-7 A Paleontological Mitigation Report (PMR) will be completed that outlines the results of the mitigation program.

P-8 Where feasible, selected road cuts or large finished slopes in areas of critically interesting geology may be left exposed as important educational and scientific features. This may be possible if no substantial adverse visual impact results.

3.14 Cumulative Impacts

As discussed in the previous EA, a cumulative impact is an "impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions" (40 CFR 1508.7). This is because cumulative impacts can result from individually minor, but collectively significant, actions taking place over time (40 CFR 1508.7).

3.14.1 Affected Environment

The project area is characterized by large open space areas to the north and southwest, including the CHSP, Prado Flood Control Basin, and Cleveland National Forest. Land within and near the Prado Dam and Flood Control Basin and the Santa Ana River have a land use designation of Open Space in the County of Riverside General Plan Land Use Map and a Water zoning classification. Thus, future development associated with residential, commercial, industrial, and/or agricultural land uses would not occur on these publicly owned lands. Private development opportunities are limited and almost exclusively focused along SR-91 within the city of Corona to the south. Other surrounding areas are either in permanent conservation or are part of the Prado Flood Control Basin, with some oil and mining activities west and northwest of the SR-71. However, various infrastructure and public projects are

proposed on SR-71, SR-91, the Santa Ana River, and the Prado Flood Control Basin, several of which are the same as those listed in the previous EA.

The reasonably foreseeable actions used in this cumulative impact analysis were obtained through research and based on information from the following agencies: RCTC, Caltrans, USACE, Orange County Water District (OCWD), City of Corona, County of Riverside, Orange County Transportation Authority (OCTA), and County of Orange, which identified approved and pending development and infrastructure projects proposed on and near the Prado Dam and Flood Control Basin and the Santa Ana River. Current development proposals near the project are listed in Table 3-11 and their general locations shown in Figure 3-5.

Table 3-11: Related Projects

Name	Jurisdiction	Proposed Activity	Status
1 – Western Realco	Corona	3 light industrial buildings totaling 751,600 square feet on approximately 43 acres located on the south side of Green River Road and west of Dominguez Ranch Road.	In Progress – Under Development Plan Review
2 – SR-91 CIP	Caltrans/RCTC	Conversion of an existing high-occupancy vehicle (HOV) lane to a high-occupancy toll (HOT) lane; conversion of an existing general purpose (GP) lane to an HOT lane; addition of a GP lane between SR-241 and SR-71; improvements to the SR-91 WB off-ramp to SR-71 NB; and improvements to the SR-71 SB ramp to SR-91 EB. Construction of a second left-turn lane on the SR-91 WB exit ramp to Green River Road; construct a third right-turn lane on the SR-91 EB exit ramp to Green River Road; and construct a third SB through lane along Green River Road south of the SR-91 EB exit ramp.	Construction of the Initial Phase was completed in 2017. Construction of the Ultimate Project would be completed by 2035.
3 – SR-91 Corridor Operations Project (COP) (part of SR-91 CIP)	Caltrans/RCTC	Addition of a new lane to WB SR-91 for approximately 2 miles between the Green River Road on-ramp and the SB SR-241 connector.	Construction to begin in September 2020 and end in September 2021
4 – SR-71 Corridor Improvement Project	Caltrans/RCTC	Widen to 3 lanes in each direction by addition of 1 GP lane along the NB and SB sides of SR-71 for approximately 3 miles from the San Bernardino County line and SR-91.	Long Range
5 – Alcoa Dike Project of Santa Ana River Mainstem Project	USACE	Construction of the Alcoa Dike embankment at the southeastern edge of Prado Basin near Smith Avenue and Rincon Street to reduce flood risk to infrastructure and private and public developments located just outside the Basin.	Recently completed – Spring 2020

Table 3-11: Related Projects

Name	Jurisdiction	Proposed Activity	Status
6 – Santa Ana River Parkway and Open Space Plan	Santa Ana River Conservancy	Completion of a continuous Class I Bikeway along the entire Santa Ana River through San Bernardino, Riverside, and Orange counties and improvement of recreational and open space areas within 0.5 mile of the river. From the Hidden Valley Wildlife Area to Prado Dam, 10 trail segments to complete gap, treatment of invasive species, restoration of 4 abandoned ponds, restoration of approximately 1 mile of river channel and riparian vegetation, and development of fishing and educational ponds are proposed.	Riverside County Regional Park and Open Space District is working in the area from Hidden Valley Wildlife Area to Prado Dam – construction dependent on funding availability
7 – Santa Ana River Parkway Extension	Orange County Public Works (OCPW)	Construction of a 3-mile-long riding and hiking trail along the Santa Ana River from the Orange County line to Gypsum Canyon Road	Construction in 2021–2022
8 – Rancho Miramonte Easement Exchange Agreement	USACE	Topographic modification, reconfiguration and exchange of an existing flowage easement within the Prado Basin to allow development of the Rancho Miramonte Project, a 272.91-acre residential community, located in the southeast portion of the City of Chino.	Under review by USACE
9 – Prado Ecosystem Restoration and Water Conservation	OCWD/USACE	This project would increase the current allowable temporary storage behind Prado Dam and reduce the flow release from Prado Dam during flood seasons, as well as restore the quality and function of aquatic, riparian, and transitional habitats within the Prado Basin, and address obstacles to regional wildlife movement for both terrestrial and aquatic species.	Draft Integrated Feasibility Report and Environmental Impact Report (EIR)/EIS completed February 2019. Construction is anticipated to be completed by 2026.
10 – Prado Basin Sediment Management Demonstration Project	OCWD/USACE	This project would remove up to 120,000 cubic yards of sediment from Prado Basin and reintroduce it into the river below Prado Dam to manage and restore sediment transport in the Santa Ana River Watershed.	Site clearing and vegetation removal in fall 2019 and excavation and dredging in fall 2020 plus monitoring for 3 years
11 - Prado Dam Spillway Modification	USACE	Raising the Prado Dam spillway is the last major project component of the Prado Dam Separable Element of the Santa Ana River Mainstem Project. To continue to protect communities and infrastructure from future anticipated storms, USACE will replace the existing spillway structure and abutments with a large capacity spillway structure designed to release flows totaling 615,000 cubic feet per second (cfs).	Under development (planning, environmental assessment phase)

Table 3-11: Related Projects

Name	Jurisdiction	Proposed Activity	Status
12 - Prado Dam Safety Modification Study	USACE	USACE is currently undergoing a Dam Safety Modification Study (DSMS) to evaluate for extreme events the alternatives for long term risk reduction for the assumed future condition. There are unacceptable life safety risks associated with erosion of the Prado Spillway due to underlying geology and soil conditions.	Under development (planning, environmental assessment phase)
13 – Prado Dam Gasline Removal	So Cal Gas /USACE	So Cal Gas is applying for a permit with USACE to removal and relocate a 30-inch pipeline located below the Prado Dam.	Under review by USACE
14 - Oak Mitigation at Prado Basin	USACE	As part of the Santa Ana River Mainstream Project, oak tree removal in Reach 9 was replaced at a 4:1 ratio and a minimum of 200 oak trees were planted in the Prado Basin.	Planted Fall 2020, monitoring and maintenance until 2025

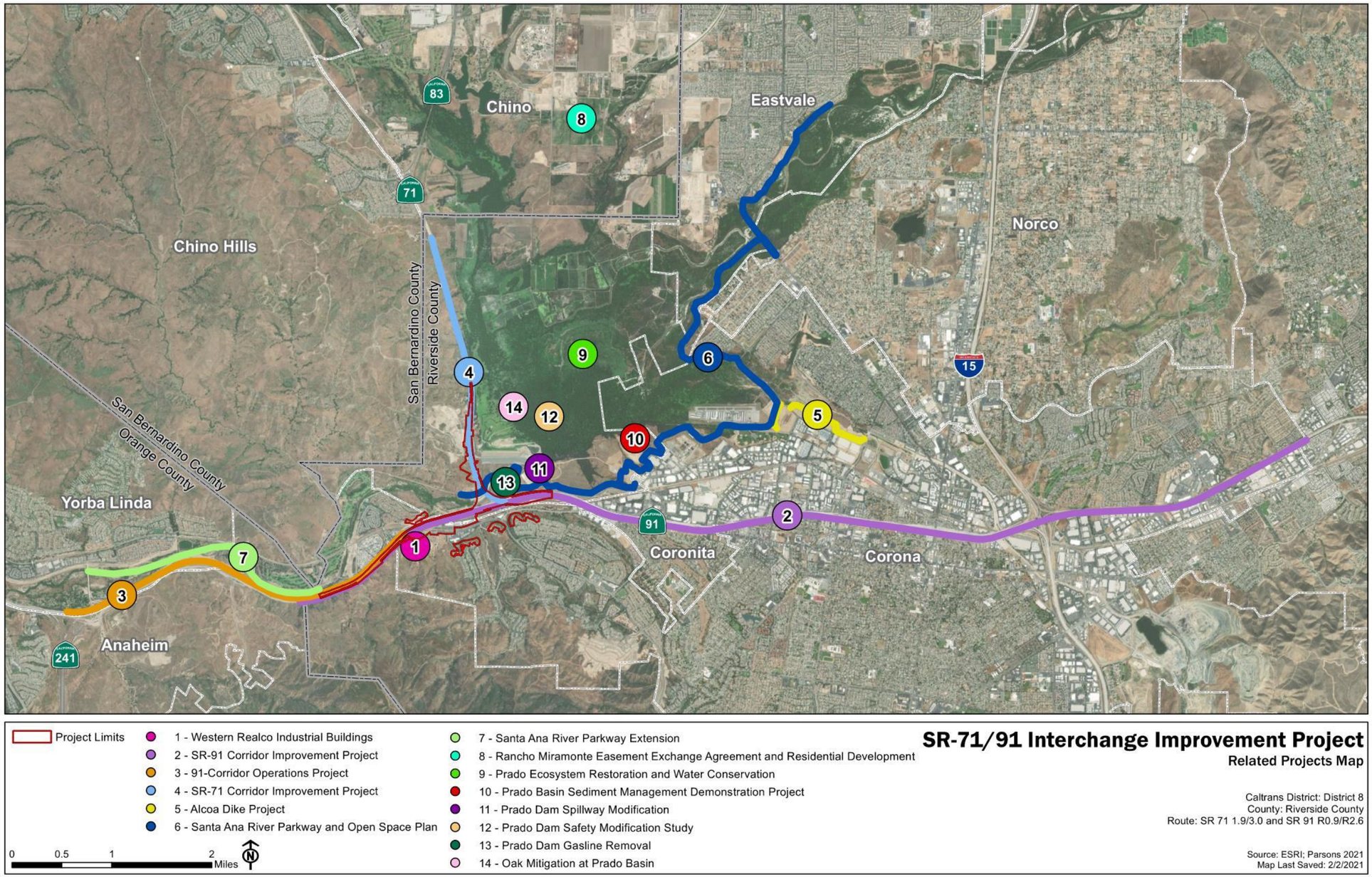


Figure 3-5: Related Projects Map

The cumulative impact analysis follows the same methodology as presented in the previous EA, with completed projects considered as part of the existing conditions and projects under construction and those proposed for future construction included as related projects and analyzed as part of the cumulative analysis.

Cumulative impacts to environmental resources discussed in this Supplemental EA analyze whether the Revised Project Alternative would contribute to the degradation of the environment in addition to other known planned development within the area. Although future urban development will continue to be seen incrementally in the western areas of Riverside and San Bernardino counties, which will be served by the proposed Interchange Project, development within the Prado Basin is constrained because the Prado Dam and Basin is reserved for flood risk management activities and protected under the Western Riverside County MSHCP. Therefore, it is unlikely that high-impact development would occur in the area without approvals from USACE and other resource agencies. Freeway improvements proposed by Caltrans and RCTC adjacent to the project include the SR-91 CIP and SR-71 CIP. The Interchange Project complements these projects and is not likely to add significant cumulative effects with the implementation of avoidance, minimization, and mitigation measures and with the related projects also implementing avoidance, minimization, and/or mitigation measures to address their individual potentially adverse effects.

The subsequent sections discuss the cumulative environmental impacts for each specific resource as a result of the Revised Project Alternative and the related projects.

3.14.2 Environmental Resources for Which No Cumulative Impacts Would Result

As discussed in the previous EA, the following environmental resources would not be subject to cumulative impacts within the project area:

Geology and Seismicity. The project and related projects in the area are expected to be designed in accordance with applicable building and seismic codes so that the facilities would be able to withstand site-specific geologic conditions and the effects of seismic events that occur in the region. No direct or indirect cumulative impacts to geology and seismicity, including soil quality, stability, and moisture, would occur.

Air Quality. Construction activities associated with the project would produce criteria pollutants, odor, and GHG emissions; however, these effects would be temporary and are not anticipated to be significant. In addition, phased construction (e.g., staggered construction times and separate locations) by the project and related projects would avoid cumulative construction emissions at any one area.

In the long term, the project would improve vehicle traffic flow and would not violate any ambient air quality standards, contribute substantially to an existing air quality violation, or expose sensitive receptors to substantial pollutant concentrations. The project and other proposed freeway improvements are anticipated to reduce operational emissions from vehicles and improve regional air quality through the reduction in traffic congestion and vehicle idling. Most other related projects are infrastructure improvements that are not anticipated to generate long-term operational criteria pollutants. Two development projects would result in long-term vehicle emissions, but the Interchange Project itself is not anticipated to contribute to long-term cumulative impacts on air quality.

Cultural Resources. There are no cultural, historic resources/historic properties near the Interchange Project; therefore, the Revised Project Alternative would not result in direct or indirect cumulative impacts to cultural resources.

Noise. Noise from construction of the project and related projects is not anticipated to be significant because construction noise control measures would be implemented by each project in accordance with Caltrans' Standard Specifications and/or other local noise ordinances. Furthermore, construction-related noise would be short term, intermittent, and largely indiscernible because noise levels in the area are dominated by vehicle traffic noise. The timing of the construction of the Interchange Project and some related projects are expected to be staggered to prevent adverse impacts on freeway traffic and, in turn, would not result in cumulative construction noise impacts.

The redesigned bridge footings, Sukut driveway redesign, additional rock slope protection, and grading changes proposed within Federal lands would not produce long-term noise. The SR-71 CIP, SR-91 CIP, SR-91 COP, Santa Ana River Parkway and extension, Alcoa Dike, Prado Ecosystem restoration, gas pipeline removal, and Prado Basin sediment management, spillway modification and safety modification projects would not generate any permanent long-term noise impacts by themselves. The related projects include one industrial development and one residential development that would both generate traffic and associated long-term noise impacts. The Interchange Project itself would not contribute to cumulative noise impacts in the area.

Health and Safety. Short-term disruption to emergency services in and through Federal land may occur due to access road detours and closures during construction of the project. Major disruptions to emergency services would be avoided by implementation of a TMP. Cumulative impacts to emergency services are not anticipated.

The ISA and ISA update memo identified five RECs, including miscellaneous hazardous materials, PCBs, ACM, LBP, and ADL. These RECs are not located within the Prado Dam and Basin and the Santa Ana River; they are mostly located along SR-91 and SR-71. In addition, hazardous materials use during project construction would be made in accordance with pertinent regulations. Other cumulative projects in the area, such as the Santa Ana River Parkway and extension, Alcoa Dike, Prado Ecosystem restoration, and Prado Basin sediment management, spillway modification and safety modification projects, are not anticipated to encounter hazardous waste materials because these are proposed on public lands that are not currently and have not been historically developed with land uses utilizing hazardous materials or generating hazardous wastes. The gas pipeline removal would reduce hazards in the area. The Interchange Project would not result in direct or indirect cumulative impacts to factors affecting health and safety on Federal land. Nevertheless, Caltrans, RCTC, and/or the construction contractor would implement minimization measures as detailed in Section 3.9 to ensure significant effects on health and safety would not result from construction of the project.

Socioeconomic and Environmental Justice. Proposed construction activities and permanent improvements on Federal land are not going to occur within areas developed with residential, industrial, and/or commercial uses or that support a resident or employee population. Land uses near the Interchange Project consist mainly of open space and a flood risk management facility. Because of the absence of potential displacement of a resident or employee population within Federal land, there would be no effects to socioeconomic and environmental justice populations. Furthermore, no minority or low-income populations in the surrounding area would be affected by the Interchange Project. As such, the project would not contribute to cumulative effects related to the socioeconomic conditions or environmental justice issues in the project area.

A review of the SR-91 CIP indicates that the project would have no effect on socioeconomic or environmental justice issues on Federal land or near the project area. The SR-71 CIP is also not expected to result in disturbances to existing communities because it would be constructed within an area that does not support residents. Other related projects, such as the Santa Ana River Parkway and extension, Alcoa Dike, Prado Ecosystem restoration, gas pipeline removal, and Prado Basin sediment

management, spillway modification and safety modification projects, are not anticipated to have an effect on socioeconomics or environmental justice issues because these related projects would be located entirely within the general area of the Prado Dam Basin and the Santa Ana River and would not result in displacement of residents, employees, or businesses. As such, neither the Interchange Project nor the related projects collectively would result in direct or indirect cumulative impacts to socioeconomic or environmental justice issues in the area.

Traffic and Transportation. Construction activities would temporarily alter existing traffic circulation or worsen traffic conditions at the SR-71/SR-91 interchange. Construction equipment and vehicles would also use access roadways within the Prado Dam Basin, which would affect internal traffic. These would be temporary during the 28-month construction period. The SR-91 CIP, SR-91 COP, and SR-71 CIP projects are anticipated to be constructed within Federal lands; however, these related projects would implement measures to ensure USACE access and existing routes are not obstructed during construction. In addition, these freeway improvement projects would not be constructed concurrently. The SR-91 COP would be constructed first, followed by the Interchange Project second, the ultimate phase of the SR-91 CIP third, and the SR-71 CIP last.

Permanent impacts to regional traffic would not occur because the project itself would not add new vehicle trips but would accommodate existing and future traffic in the area. While EB SR-91 to NB SR-71 vehicles would be using the proposed flyover connector instead of the existing loop ramp, no effects to traffic volumes and circulation patterns are anticipated. Similarly, the SR-91 CIP, SR-91 COP, and SR-71 CIP projects would improve traffic in the area.

The Santa Ana River Parkway and extension, Alcoa Dike, Prado Ecosystem restoration, gas pipeline removal, and Prado Basin sediment management, spillway modification and safety modification projects are located within the Prado Dam Basin and along the Santa Ana River; therefore, they are not expected to temporarily or permanently affect traffic and transportation on nearby roads and freeways. Two development projects would generate new vehicle trips, but the Interchange Project itself would not result in direct or indirect cumulative impacts to traffic and transportation.

3.14.3 Environmental Resources having Potential Cumulative Impacts but could be Minimized

Water Resources. Potential impacts to jurisdictional drainages identified in Section 3.2 reflect impacts by recently constructed and current projects under construction, such as the initial phase of the SR-91 CIP, Alcoa Dike Project, and Prado Basin Sediment Management Demonstration Project. The Interchange Project is anticipated to permanently impact 0.03 acre of wetland waters and 0.31 acre of non-wetland waters. Impacts to jurisdictional resources will be mitigated through USACE's Section 404 NWP process and would offset impacts to WOTUS through the purchase of mitigation credits at a USACE-approved mitigation bank. Temporary impacts would be minimized through the implementation of WQ-1 through WQ-8.

Similarly, the other freeway improvement projects (SR-91 CIP, SR-91 COP, and SR-71 CIP) could impact jurisdictional resources and would have to mitigate their individual impacts through the Section 404 permitting process by either mitigating impacts through onsite restoration or the purchase of mitigation credits from a USACE-approved mitigation bank. The Interchange Project and these related projects would also implement the appropriate avoidance and minimization measures during construction activities. Through these permitting requirements, minimization and restoration measures for each project, no net loss of wetlands or other jurisdictional waters would result from the project and related projects, and cumulative effects to wetlands and other waters are not anticipated to be significant.

Similarly, the Santa Ana River Parkway and extension and the two development projects would implement avoidance, minimization, and compensatory mitigation so that no net loss of waters or wetlands are anticipated; therefore, cumulative effects to WOTUS would not be significant. The Alcoa Dike, Prado Ecosystem restoration, and Prado Basin sediment management projects are not anticipated to have adverse effects to water resources because these projects are intended to enhance water resources and avoid impacts to jurisdictional resources.

In addition, the Interchange Project is anticipated to result in a 4.78-acre increase of impervious surface on Federal land. Relative to the 32,112 acres of total area within the Lower Santa Ana River Watershed, this increase is not considered significant. This impervious area is expected to translate into minor localized increases in runoff of insignificant volume within Federal land. With the implementation of various design pollution prevention BMPs in conjunction with treatment BMPs (i.e., a detention basin and three flow-based bio-filtration swales), the existing drainage pattern of the area would not be altered in a manner that would result in substantial erosion, sedimentation, or flooding within or downstream of Prado Dam. Furthermore, these BMPs would treat runoff prior to discharge into the Santa Ana River to not affect water quality or beneficial uses of the river.

The SR-91 COP, SR-91 CIP, and SR-71 CIP are also expected to increase impervious areas, which in turn would increase sediment, trash, and debris pollutants and runoff volume flowing to the Santa Ana River. Based on the impervious surface coverage in the vicinity, these projects could lead to the increased transport of pollutants to receiving waters in addition to downstream erosion. However, as part of these projects, BMPs would be implemented to treat stormwater runoff from these projects by incorporating biofiltration swales, infiltration basins, detention basins, and/or media filters.

Other related projects, including the Alcoa Dike, Prado Ecosystem restoration, gas pipeline removal, and Prado Basin sediment management, spillway modification and safety modification projects, are expected to positively affect regional water resources by increasing percolation rates within Prado Basin, conserving water resources, and restoring critical habitat; therefore, they would have beneficial impacts on water quality. The Santa Ana River Parkway and extension is anticipated to consist mainly of dirt trails, but any paved sections would add impervious surfaces and runoff volumes. This minor increase is not anticipated to lead to a significant cumulative impact on water quality.

The two development projects would contribute to increased impervious surface in the surrounding area and additional pollutant sources. They would also be required to provide onsite treatment of stormwater prior to discharge in compliance with the NPDES. Implementation of construction and permanent BMPs would minimize adverse impacts on water quality in the Prado Dam Basin and the Santa Ana River.

Thus, the Interchange Project and related projects would not result in a significant direct or indirect cumulative impacts to water resources because BMPs would be implemented by individual projects.

Biological Resources. Urbanization has significantly affected biological resources within the area through the removal of native vegetation and the introduction of ornamental landscaping. Historically, the area supported CSS, chaparral, and riparian plant communities. These habitats have been reduced and largely limited to areas designated as open space, such as the CHSP, Cleveland National Forest, and Prado Dam area. Similarly, most animal species, especially those that are currently designated by Federal and State agencies as sensitive, have experienced considerable decline. Wildlife movement between Cleveland National Park and CHSP is constrained due to SR-91, and wildlife crossings within this area are limited to a few locations. Implementation of State and Federal long-term planning and conservation programs, such as the Natural Communities Conservation Plan (NCCP) and Western

Riverside County MSHCP, have assisted in reducing impacts on native species through conservation of natural habitats and the enhancement of wildlife corridors.

The project's temporary and permanent effects on biological resources (i.e., wildlife, vegetation, and sensitive species) are not anticipated to be cumulatively significant with the implementation of minimization and mitigation measures discussed in Section 3.4. The environmental document for the SR-91 CIP indicates that effects on biological resources are not anticipated to be significant with the implementation of avoidance, minimization, and mitigation measures. The SR-91 COP would implement the same measures. The SR-71 CIP is in the preliminary stages of project development, but it is also anticipated to implement avoidance, minimization, and mitigation measures to offset any potential adverse effects on sensitive biological resources. The Santa Ana River Mainstem Project also includes oak mitigation at the Prado Basin.

To protect the Santa Ana River and its critical habitats, comprehensive monitoring and protection plans, which avoid, minimize, and mitigate for potential impacts to biological resources, have been incorporated into the project and other related projects, as required by the MSHCP. This will mitigate impacts of covered activities (e.g., the Interchange Project and other proposed transportation projects) on sensitive biological resources in the Prado Dam Basin, the Santa Ana River, and other natural communities in the area.

Cumulative impacts to biological resources would be minimized through the restoration of vegetation in temporary impact areas to preconstruction conditions, conduct of preconstruction surveys for sensitive plants and wildlife to avoid impacts to these species, and offsite habitat restoration. Most of the permanent and temporary impacts to vegetation and invasive and exotic plant species would affect portions of Federal land already disturbed by previous construction. Given the temporary nature of construction activities and lack of substantial permanent loss of vegetation by all three roadway projects, cumulative effects on biological resources within Federal lands are not anticipated to be significant.

Aesthetics. Views at the SR-71/SR-91 interchange include those of surrounding urban developments and expansive views of open space areas located within the CHSP, Cleveland National Forest, and Prado Dam area. Existing views of urban development are to the east and west of the interchange. These areas were previously characterized as rural and contained expansive views of the adjacent mountains and Chino Valley. Over the years, urban development has considerably altered these views and the visual quality of the environment.

Because the remaining open space areas are currently in long-term conservation, it is anticipated that views and aesthetics will largely remain the same in the future. Current land use restrictions are anticipated to limit the location and intensity of development within the remaining hillside areas. In addition, views along SR-91 and SR-71 are anticipated to be similar to existing conditions except for the proposed flyover bridge structure. The Interchange Project involves construction of a bridge structure that would be a prominent addition to the landscape. As discussed in Section 3.6, views of temporary construction activities would have minor effects on aesthetics and visual quality. Long-term visual effects due to the bridge structure are not anticipated to be significant because the visual quality of the area is low and a substantial number of man-made structures are already present in the landscape. Thus, the addition of the bridge structure is unlikely to diverge significantly from the existing visual quality. On the other hand, travelers in vehicles that would use the flyover bridge would have expanded views of the Prado Dan Basin and surrounding open spaces. While the Revised Project Alternative would lead to a permanent but minor decrease in the overall visual quality of the area, measures AES-1 through AES-10 would be implemented to avoid and minimize these effects to the greatest extent practicable.

The potential aesthetic impacts of other related projects would include temporary visual effects during construction that are not anticipated to be cumulatively significant because they are unlikely to be under construction during the same time periods. There are no prominent structures that would be constructed by the Santa Ana River Parkway and extension, Alcoa Dike, Prado Ecosystem restoration, gas pipeline removal, and Prado Basin sediment management and safety modification projects and the Prado Dam spillway modification project would result in a minor change in the visual quality of the spillway. Therefore, changes in views would be localized and not cumulative. The two development projects would not be highly visible and would be located near existing urban developments. Their visual impacts would be localized and not cumulative.

The SR-91 CIP, SR-91 COP, and SR-71 CIP would include permanent structures that could result in cumulative visual impacts associated with additional and wider pavements along both freeways; however, avoidance, minimization, and mitigation measures would be incorporated into these projects to substantially reduce the short- and long-term visual impacts to less than significant levels. These may include providing structural enhancements, highway plantings, and glare and graffiti reduction measures. As such, the visual effects associated with the Interchange Project and related projects are not anticipated to be cumulatively significant and are not anticipated to collectively result in direct or indirect cumulative impacts to aesthetics.

Recreational Resources. Existing recreational opportunities within the area are subject to long-term, permanent preservation, such as the CHSP, Cleveland National Forest, and Prado Dam area. The Interchange Project would temporarily affect approximately 2.46 acres of CHSP for a right-of-entry while the slopes are graded; however, this land is currently used as open space and has no recreational function. It would also be revegetated with native plants after grading. In addition, construction activities would avoid CHSP to the greatest extent feasible and would not affect access to and from CHSP or other recreational resources in the area. No direct or indirect impacts to existing recreational uses at Cleveland National Forest or Prado Dam recreational facilities are anticipated.

Some related projects, such as the Alcoa Dike, Prado Ecosystem restoration, gas pipeline removal, Prado Basin sediment management, spillway modification and safety modification projects, SR-91 COP, and the two development projects would not directly affect recreational facilities at the Prado Dam Basin and CHSP because they are located away from existing recreational areas. The SR-91 CIP and SR-71 CIP would likely result in temporary and permanent use of CHSP land. These freeway improvements would be designed to avoid effects to the park maintenance road and would not affect CHSP trailheads. In addition, no permanent features would be constructed in the CHSP. The affected areas would also be revegetated at the completion of construction in consultation with State Parks to return the property to its original functions and values. Thus, potential cumulative impacts are considered minimal.

The proposed Santa Ana River Parkway and extension would provide a Class I Bikeway along the Santa Ana River and would have beneficial impacts by increasing recreational opportunities in the area. The Interchange Project and SR-91 CIP may result in temporary detours and permanent relocation of a segment of this trail, depending on the timing and location of construction activities and how they relate to the recreational facilities in place at the time. Coordination among the responsible parties would be ongoing to reduce the likelihood of significant delays and cumulative impacts to recreational trail users. As such, neither the Interchange Project nor the related projects would result in direct or indirect cumulative impacts to parks or recreation resources.

Flood Risk Management. Temporary impacts on hydrology and floodplains associated with construction activities could occur with the project; however, effects are not anticipated to be significant as they relate to hydrology and floodplains. The SR-91 CIP and SR-91 COP would also result in

temporary, but mitigable, impacts; however, no permanent or cumulative impacts would result. Similar effects are anticipated from the proposed SR-71 CIP. The Alcoa Dike project and Prado Dam spillway modification and safety modification projects would help provide additional flood protection. The Prado Ecosystem restoration and Prado Basin sediment management projects would result in increased percolation of stormwater, providing additional capacity to handle stormwater during storm events. The Santa Ana River Parkway and extension would not adversely affect the hydrology of the area nor increase flood risk. The two development projects would have to be designed to avoid flood risk and minimize impacts to the local hydrology and floodplains. As such, neither the Interchange Project nor the related projects would result in direct or indirect cumulative impacts to flood risk management facilities and their functions.

Cumulative Impact Determination

Considering all past, present, and future projects within and near the Federal land in the area, no significant adverse cumulative effects to the environment are foreseen as a result of the Interchange Project with the implementation of specified avoidance and minimization measures. Past projects that have occurred within the area generally consist of flood risk management projects and freeway improvement projects. Present and planned projects also consist of flood risk management and freeway improvements, which would not significantly convert existing land uses to high-intensity development or other urban land uses. Two development projects would convert vacant land to residential and industrial uses. Because the Prado Dam and Basin and the Santa Ana River are regulated by USACE and adjacent outside areas fall under the protection of the Western Riverside County MSHCP, development is highly constrained and would not likely result in cumulatively adverse effects in the future. No new or substantially more severe cumulative effects would occur with the Revised Project Alternative over those addressed in the previous EA.

3.12.2.3 No Action Alternative (Previously Approved Design)

Under the previously approved design, the project modifications included under the current Proposed Action would not be implemented, and the project would be constructed as described in the 2014 EA. Cumulative effects of the previously approved design were analyzed and disclosed in the 2014 EA and potential cumulative impacts would be less than significant.

3.14.4 Avoidance/Minimization Measures

No additional avoidance and/or minimization measures beyond those identified in the previous EA are required to address the Revised Project Alternative’s contribution to cumulative impacts.

4.0 APPLICABLE ENVIRONMENTAL LAWS AND REGULATIONS

This Supplemental EA has been prepared to fulfill the requirements of NEPA and other pertinent federal laws and regulations, as discussed below. Expanded descriptions of each federal regulation are provided in the previous EA, with compliance of the Revised Project Alternative with these regulations addressed below.

4.1 National Environmental Policy Act

NEPA provides a framework for Federal agencies to minimize environmental damage and requires Federal agencies to evaluate the potential environmental impacts of their proposed actions. The Interchange Project EA was prepared in accordance with NEPA, and this Supplemental EA is also prepared to address proposed project changes in compliance with NEPA; therefore, the project complies with NEPA.

4.2 United States Fish and Wildlife Coordination Act (16 U.S.C. 661)

The United States Fish and Wildlife Coordination Act requires Federal agencies to coordinate with USFWS and local and State agencies when any stream or body of water is proposed to be modified. The Interchange Project and proposed changes to project features would not involve modification of a body of water; therefore, formal coordination and preparation of a Coordination Act Report is not required.

4.3 Endangered Species Act of 1973 (Public Law 93-205, as amended)

The Endangered Species Act (ESA) protects threatened and endangered species, as listed by USFWS, from unauthorized take, and directs Federal agencies to ensure that their actions do not jeopardize the continued existence of such species. Through the formal Section 7 consultation process, USFWS issued a BO in June 2011 for the Interchange Project. As discussed in Section 3.4, a Supplemental NES was prepared and submitted to Caltrans on December 2020 to identify impacts associated with proposed project changes to threatened and endangered species. Updated lists from the CNDDB and Information for Planning and Consultation (IPaC) databases were accessed in October 2020 to obtain updated species lists and determine if there were changes to the sensitive species in the project area (see Appendix I). There have been no changes to the species lists and the effect determinations between the NES and Supplemental NES. Thus, the Revised Project Alternative would not change the project's impacts on threatened and endangered species. The 2011 BO remains applicable for the project and is in compliance with the requirements of the ESA.

4.4 Migratory Bird Treaty Act (16 U.S.C. 703-711)

The MBTA prohibits the taking or harming of any migratory bird, its eggs, nests, or young without an appropriate Federal permit. As discussed in Section 3.4, measure BIO-31 will be implemented by the project for compliance with the MBTA and states that to avoid impacts to other migratory birds and consistent with MSHCP 10(a)(1)(B) Permit Condition 5, vegetation removal during project construction would be performed outside of the February to September bird breeding season. If construction activities are scheduled to occur within an area that supports an active nest site or within an established no-disturbance buffer, construction will be delayed until after the breeding season or until the young have fledged (as determined by an ornithologist). As such, the Revised Project Alternative would be in compliance with the MBTA.

4.5 Clean Water Act

The CWA Section 404(b) prohibits the discharge of dredged or fill materials into WOTUS, including wetlands, except as permitted under separate regulations by USACE and EPA. As discussed in Section 3.2, the Interchange Project is anticipated to produce minor discharge of fill materials into WOTUS, which requires an NWP prior to construction of the Interchange Project. RCTC would request verification under NWP 14 (Linear Transportation Projects) and would require additional certification to authorize activities within California, as a state that has a Federally approved coastal zone management program. Furthermore, because coverage under NWP 14 would authorize activities that would result in permanent impacts to WOTUS, a CWA Section 401 Water Quality Certification will also be required.

In accordance with the CWA, the Interchange Project requires a Section 404 Permit and a Section 401 Water Quality Certification, in addition to requesting verification under NWP 14. Through these permits and implementing the permit conditions, the Interchange Project would be in compliance with the CWA.

4.6 Clean Air Act of 1970 (42 U.S.C. 7401 *et seq.*)

The 1977 Amendments to the CAA enacted legislation to control seven toxic air pollutants. EPA adopted National Emission Standards for Hazardous Air Pollutants (NESHAP), which has been designed to control HAP emissions to prevent health effects in humans. The 1990 Amendments to the CAA determine the attainment and maintenance of NAAQS (Title I), motor vehicles and reformulation (Title II), HAP (Title III), acid deposition (Title IV), operating permits (Titles V), stratospheric O_3 protection (Title VI), and enforcement (Title VII).

General Conformity

Under Section 176(c) of the Clean Air Act Amendments (CAAA) of 1990, the lead agency is required to make a determination of whether the proposed action "conforms" to the State Implementation Plan (SIP). The Interchange Project is in conformance with the SIP because it is included in the Southern California Association of Governments' (SCAG) 2020 Regional Transportation Plan (RTP)/Sustainable Communities Strategy (SCS) and 2019 Federal Transportation Improvement Program (FTIP).

Project Conformity

A project would also not have a significant impact on air quality if the total emissions of each criteria pollutant either meets or is below *de minimis* levels as prescribed in 40 CFR 93.153(b). The Interchange Project would not generate long-term emissions and would not violate national or State standards. Thus, the project would have no long-term impacts on local or regional air quality. In addition, construction of the project would occur within 28 months and emissions would be temporary. Construction criteria pollutants have been quantified in the previous EA and this Supplemental EA, and they do not meet significance thresholds (as discussed in Section 3.3). Therefore, approval of the Interchange Project would be in compliance with the Federal CAA.

4.7 Noise Control Act of 1972, as amended (42 U.S.C. 4901 *et seq.*)

Noise generated by any activity that may affect human health or welfare on Federal, State, County, local, or private lands must comply with noise limits specified in the Noise Control Act. USACE has determined that compliance with USACE's Special Events Policy minimizes impacts during construction of a project, and approval of the project would be in compliance with the Noise Control

Act. The Revised Project Alternative would comply with USACE's Special Events Policy and is consistent with the Noise Control Act.

4.8 National Historic Preservation Act (Public Law 89-665; 16 U.S.C. 470–470m, as amended, 16 U.S.C. 460b, 470l–470n)

Section 106 of the National Historic Preservation Act (NHPA) requires Federal agencies to identify and protect districts, sites, buildings, structures, and objects significant in American history, architecture, archaeology, and culture that are located on Federal land and/or that would be affected by Federal actions.

Caltrans and FHWA have signed a Section 106 Programmatic Agreement and MOU that allows Caltrans to assume FHWA's responsibilities for compliance with NEPA and other federal laws. Thus, Caltrans (acting on behalf of FHWA) is the lead federal agency for the purposes of Section 106 of the NHPA for the Interchange Project. Caltrans established the project's APE, which was subject to a survey in 2008 and determined that no historic properties would be affected in 2010. The APE was expanded in some areas and reduced in others based on design modifications in 2014. Caltrans then made the same determination of No Historic Properties Affected. Considering the recent project design modifications, Caltrans further revised and expanded the APE in 2020 and determined that there are no new historic properties in the expanded APE and the revised project would still not affect any historic properties. In accordance with Section 106 of the NHPA, Caltrans has determined that no properties requiring evaluation are present within the revised APE and that a finding of No Historic Properties Affected is appropriate for the project with the proposed project changes. As discussed in Section 3.5, the proposed project changes would not revise the impacts of the project on cultural resources in the area; therefore, the Revised Project Alternative would still have no adverse effect on any historic properties. As such, approval of the Interchange Project would be in compliance with NHPA Section 106, as implemented by 36 CFR 800.

4.9 Archaeological Resources Protection Act, as amended

The Archaeological Resources Protection Act (ARPA) requires the preservation of historical and archaeological data, including relics and specimens that might otherwise be irreparably lost or destroyed. As discussed in Section 3.5, although the record searches and archaeological surveys failed to indicate the presence of known archaeological cultural resources, Measures CR-1 and CR-2 would be implemented to minimize potential effects to buried cultural resources in the unlikely event cultural resources are encountered during construction activities. As such, approval of the Interchange Project would be in compliance with ARPA.

4.10 Comprehensive Environmental Response, Compensation, and Liability Act

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) provides EPA with the authority to identify and clean up contaminated hazardous waste sites. In addition, the California Hazardous Waste Control Law (HWCL) is administered by the California Environmental Protection Agency (Cal-EPA) to regulate hazardous wastes. Hazardous material/waste sites were not previously identified in the area by the previous ISA, and no new hazardous materials/waste sites were identified in the ISA update for the Revised Project Alternative (as discussed in Section 3.9). Conformance with this law would only be engaged if unforeseen waste was found or was abandoned onsite. Approval of the Interchange Project would be in compliance with this Act because no CERCLA substances would be locally stored for construction activities associated with the project.

4.11 National Flood Insurance Program

The National Flood Insurance Program (NFIP) is administered by the Federal Emergency Management Agency's (FEMA) Flood Insurance Administration. As discussed in Section 3.10, the flood risk management capacity of the Prado Flood Control Basin would not be impacted by the project or the proposed changes to project features; therefore, NFIP users would not be affected.

4.12 Federal Water Project Recreation Act of 1965, as amended

The Federal Water Project Recreation Act requires that any Federal water project give full consideration to opportunities afforded by the project for outdoor recreation and fish and wildlife enhancement. As discussed in Section 3.8, the Interchange Project would not be located near the outdoor recreation and fish and wildlife opportunities within the Prado Regional Park, where recreational areas are approximately 5,000 feet from SR-71. Construction activities associated with the Interchange Project would be temporary in nature and could block the use of informal trails along the Santa Ana River. However, construction would not permanently affect normal outdoor water recreation use within Federal land; therefore, the Interchange Project would be in compliance with the Federal Water Project Restoration Act.

4.13 Federal Land Policy and Land Management Act of 1976

The Federal Land Policy and Land Management Act regulates the management of public lands and their various resource values so that resources are used in a combination that would best meet the present and future needs of the American people. The Interchange Project addresses a current and future need for transportation improvements to serve the public; therefore, the use of resources within Federal land would be in compliance with the Act.

4.14 Executive Order 11988: Floodplain Management

EO 11988 seeks to avoid adverse impacts associated with the occupancy and modification of floodplains and direct or indirect support of floodplain development wherever there is a practicable alternative. As discussed in Section 3.10 and in the previous EA, the two bridge columns that are proposed on the Santa Ana River Channel levee and four other columns and footings near the channel would result in an additional paved area of 0.08 acre, which is relatively minor compared to the pervious area along the river and does not have the potential to result in permanent effects to the surface hydrology of the river. In addition, the installation of temporary falsework within the Santa Ana River channel would affect the facility due to temporary construction activities within the channel; however, the falsework has been designed to not interfere with the channel's maximum release parameters of 30,000 cfs. Furthermore, the portion of the bridge structure spanning the Santa Ana River channel would be constructed within the 6-month-long dry season (March 10 to October 1), during which significant floods or maximum flow-controlled releases are highly unlikely. Following construction of this flyover section, temporary falsework would be removed from the channel prior to the end of the dry season of each year.

Falsework occupancy within the channel would not modify floodplains nor support excessive floodplain development because its purpose would be to facilitate construction of the flyover connector bridge section spanning the Santa Ana River channel. Additionally, construction equipment would not be stored within the spillway or directly within the spillway floodplain, thereby eliminating the risk of construction equipment being accidentally washed out onto the floodplain (should an unforeseen event occur [such as a 100-year flood event or unplanned controlled release]). Thus, approval of the Interchange Project would not adversely impact floodplain management or add to excessive floodplain development on Federal lands. The project would be in compliance with EO 11988.

4.15 Executive Order 12088: Federal Compliance with Pollution Control Standards

The head of each executive agency is responsible for ensuring that all necessary actions are taken for the prevention, control, and abatement of environmental pollution with respect to Federal facilities and activities under control of the agency. Implementation of environmental commitments to minimize pollution impacts during construction of the Interchange Project would meet the standards of EO 12088; therefore, the project would be in compliance with EO 12088.

4.16 Executive Order 12898: Environmental Justice Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations

EO 12898 directs Federal agencies "To make achieving environmental justice part of its mission by identifying and addressing... disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations in the [U.S.]...." As discussed in Section 3.11, no minority or low-income communities would be disproportionately affected by implementation of the Interchange Project. As such, approval of the project would be in compliance with EO 12898.

4.17 Land and Water Conservation Fund Act of 1965

A Land and Water Conservation Fund (LWCF) Project Description and Environmental Screening Form was submitted to State Parks stating that the Interchange Project proposes a temporary nonconforming use (i.e., slope grading) within CHSP and requires a permanent slope easement of approximately 3.84 acres at the easternmost section of CHSP. The affected area is not part of a trail system and would not affect any park facilities nor decrease recreational opportunities at CHSP. Construction on the permanent slope easement within CHSP is anticipated to occur for less than 6 months and would not affect outdoor recreational activity during construction and after completion of the permanent slope easement.

In May 2011, a concurrence letter from State Parks agreed to a temporary nonconforming use as described in Section 6(f) of the LWCF. Subsequent coordination with State Parks has led to a need for a Right-of-Entry Permit for the project, rather than an easement. In addition, revised grading plans reduced the affected area at CHSP to 2.46 acres. Because the Interchange Project has undergone the Section 6(f) review and evaluation process and planned construction activities at CHSP would affect a smaller area than previously anticipated, approval of the Revised Project Alternative would be in compliance with the Section 6(f) requirements of the LWCF Act.

5.0 PREPARERS

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6.0 AGENCY COORDINATION AND PUBLIC OUTREACH

6.1 Introduction

RCTC has coordinated with USACE extensively regarding the scope and schedule of the project since the early planning stages. To ensure compliance with Federal and State environmental regulations, RCTC, along with Caltrans District 8, coordinated with USFWS, the State Historic Preservation Officer (SHPO), USACE, and State regulatory agencies during the Project Approval phase of the SR-71/ SR-91 Interchange Improvement Project. As a result of this coordination, minimization and compensatory measures have been incorporated into the project. Continued coordination with the regulatory agencies will be necessary to verify implementation of the avoidance, minimization, and mitigation measures prior to and during project construction.

During the previous NEPA environmental review process, the Draft EA was made available through the USACE SPL website and RCTC's website to interested parties from April 25 to May 27, 2014. No public comments were received, and the EA was approved by USACE in August 2014 and the FONSI was issued in September 2014. To account for the impacts of proposed project changes, this Draft Supplemental EA was prepared and will be made available through the USACE SPL website and RCTC's website to interested parties from April 16 to May 16, 2021. Any comments received will be addressed in the Final Supplemental EA before the FONSI is issued.

6.2 Summary of the Scoping Process

Prior to completion of the previous EA, RCTC conducted public outreach meetings to solicit comments on the project and ensure coordination among all stakeholders. The following groups are considered stakeholders for the Interchange Project:

- The agencies represented by the Project Development Team, including Caltrans, FHWA, RCTC, Riverside County, and the City of Corona.
- The general public, which includes local residents, business owners, and other groups or individuals who have a stake in the effects of the Interchange Project.
- Agencies that are either public or private organizations, bureaus, or companies that have a fiduciary stake in the effects of the Interchange Project on a particular resource. Resources that are managed by these agencies include wildlife, resource conservation areas, and utilities.

6.2.1 Update of Technical of Studies and Environmental Documents

During preparation of the engineering plans in 2019, coordination between Caltrans and RCTC raised the need for preparation of a Revalidation of the IS/MND to address various changes to project features and design modifications. Several technical memoranda have been prepared and are being prepared to address the changes in environmental impacts associated with these design modifications and to update the previously approved environmental studies. After approval of the technical memoranda, the Revalidation document was prepared and subject to Caltrans approval, in compliance with CEQA.

Subsequent consultation with USACE also indicated the need for a Supplemental EA prior to USACE approval of permits and issuance of the Outgrant, in compliance with NEPA. This Supplemental EA also utilizes the findings of the technical memoranda to address the changes in environmental impacts associated with design modifications that would occur on Federal land.

Upon completion, the Draft Supplemental EA will be subject to a 30-day public review and comment period in accordance with NEPA and USACE's procedures for implementing NEPA.

6.2.2 Public Open House Meetings

A public open house meeting was held in 2008 to inform interested individuals about the Interchange Project, answer questions, and solicit oral and written comments and input. A second public open house meeting was held in 2010 to discuss the findings of the draft CEQA environmental document and solicit comments from the public.

Due to the relatively minor scope of the proposed design improvements, no public open house meeting is planned.

6.2.3 Native American Coordination

Eight Native American Tribes were previously contacted based on recommendations from the NAHC. A summary of the consultation and coordination efforts is provided in the previous EA. Based on the update to the cultural resources studies (as discussed in Section 3.5), no additional consultation with Native American Tribes was conducted because the proposed project changes are relatively minor and do not significantly change the area of direct impacts of the project.

6.2.4 Agency Coordination

Coordination was conducted with the five agencies that have authority over resources in the APE. A natural resource meeting took place on September 25, 2008, to discuss the Interchange Project's potential impacts to environmental resources. The agencies that follow were contacted regarding the Interchange Project.

6.2.4.1 San Bernardino County Museum

The San Bernardino County Museum (SBCM) was consulted on whether the Interchange Project could affect paleontological resources. A request for a paleontological literature search was submitted to SBCM to conduct a records search within the APE. In January 2009, a Paleontological Identification Report/Paleontological Evaluation Report (PIR/PER) was issued by SBCM, stating that the project site "demonstrates that numerous exposures of potentially fossil-bearing sediments are present and may be impacted by development. These lithologic units have high potential to contain significant nonrenewable paleontologic resources throughout their extent and are therefore assigned high paleontologic sensitivity." The report further states that a Paleontological Mitigation Plan (PMP) to mitigate impacts to nonrenewable paleontologic resources should be prepared by a qualified vertebrate paleontologist. Measure P-1 requires a PMP for the project.

The proposed project changes would not change project impacts on paleontological resources, and no additional consultation with SBCM was conducted as part of the Supplemental EA.

6.2.4.2 Southern California Association of Governments Transportation Conformity Working Group

On March 24, 2009, the Interchange Project's air quality staff consulted with the SCAG Transportation Conformity Working Group (TCWG) according to the guidance provided in the *Transformation Conformity Guidance for Qualitative Hot-Spot Analysis in $PM_{2.5}$ and PM_{10} Nonattainment and Maintenance Areas.* During its April 28, 2009 meeting, the TCWG determined that the Interchange Project is "Not a Project of Air Quality Concern (POAQC) – Hot Spot Analysis not required," and no further analysis was required. An Air Quality Conformity Analysis was prepared for the project and submitted to FHWA. On May 10, 2011, FHWA issued a Project-Level Conformity Determination for the overall SR-71/SR-91 Interchange Improvement Project.

The proposed project changes do not change the traffic volumes and associated long-term air quality emissions of the project; therefore, no new consultation with TCWG is necessary.

6.2.4.3 Orange County Flood Control District

A copy of the draft *SR-91/71 Improvement Project Initial Study/Proposed Mitigated Negative Declaration* was provided to the Orange County Flood Control District (OCFCD) in 2014. OCFCD provided comments related to the Santa Ana River Project within the jurisdiction and responsibility of OCFCD. The proposed project changes would not be located within the jurisdiction and responsibility of OCFCD; therefore, no new consultation with OCFCD is necessary.

6.2.4.4 United States Fish and Wildlife Service

Formal Section 7 consultation with USFWS was initiated on March 31, 2011. USFWS reviewed the Western Riverside County RCA JPR prepared for the SR-71/91 Improvement Project and determined that the overall project is consistent with the Western Riverside County MSHCP. A BO was issued by USFWS in June 2011 and is included in this Supplemental EA as Appendix C. The RCA JPR is also included as Appendix D.

For the Revised Project Alternative, USFWS and RCA were notified that the overall project footprint was not expanding. These agencies concurred that the original consistency analysis and DBESP would not require updates (see Appendix C for USFWS and RCA correspondence).

6.2.4.5 State Historic Preservation Officer

Per the Section 106 Programmatic Agreement (PA) between the Advisory Council on Historic Preservation, FHWA, SHPO, and Caltrans, certain FHWA responsibilities under the PA have been assigned to Caltrans (see Appendix G). Given delegation of these responsibilities, Caltrans, in accordance with Section 106 PA Stipulation IX.A, has determined a Finding of No Historic Properties Affected is appropriate for this undertaking (see the Historic Property Survey Report [HPSR] and Supplemental HPSR in Appendix H). As such, coordination between Caltrans and SHPO was not necessary. Caltrans has also determined that the proposed project changes would not affect any historic properties and will not require SHPO coordination.

6.2.5 Permits and Approvals Needed

Specific regulatory requirements have been identified through a review of environmental laws and regulations, existing guidelines, and correspondence with responsible agencies. Table 6-1 summarizes the permits and approvals that are necessary for the Interchange Project to satisfy regulatory requirements.

Table 6-1: Required Permits

Agency	Permit
Federal	
USACE	CWA Section 404 Discharge of Dredged or Fill Materials Permit
USACE	Non-Recreational Outgrant
USACE	Amended Easement
State of California	
RWQCB	CWA, Section 401 Water Quality Certification
CDFW	California Fish and Game Code, Section 1602 Lake or Streambed Alteration Permit
CHSP	Right-of-Entry Permit

7.0 PUBLIC CIRCULATION/RESPONSE TO COMMENTS

A notice will be issued to the public to announce the availability of the Draft Supplemental EA for public review and comment. The 30-day public review and comment period will be from April 16 to May 16, 2021. Following the public review and comment period, written comments received from members of the public, public agencies, or other interested parties and responses to these comments will be added into the Final Supplemental EA.

8.0 REFERENCES

California Department of Transportation (Caltrans). 2014. NEPA/CEQA Re-validation Form, State Route 91/71 Interchange Improvement Project. November.

———. 2011. SR-91 and SR-71 Interchange Improvement Project Initial Study and Mitigated Negative Declaration, City of Corona, Riverside County, California. June.

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California Environmental Protection Agency, State Water Resources Control Board. 2020. Impaired Water Bodies – Final 2014-2016 California Integrated Report (Clean Water Act Section 303(d) List/305(b) Report). https://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2014_2016.shtml. Website accessed June 16, 2020.

Paleo Solutions. 2020. Paleontological Mitigation Plan, State Route 71/State Route 91 Interchange Improvement Project. October.

Parsons. 2020a. State Route 71/State Route 91 Interchange Improvement Project Revalidation, EA 0F5411/PN 0800000137, Climate Change Technical Memorandum. June 10.

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———. 2020c. SR-71/SR-91 Interchange Improvement Project, Supplemental Natural Environment Study. December.

———. 2020d. State Route 71/State Route 91 Interchange Improvement Project Revalidation, Cultural Resources Technical Memorandum. May.

———. 2020e. State Route 71/State Route 91 Interchange Improvement Project Revalidation, Initial Site Assessment Technical Memorandum. April.

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———. 2011. State Route 71/State Route 91 Interchange Improvement Project Initial Study and Mitigated Negative Declaration. June.

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United States Army Corps of Engineers (USACE). 2014. State Route 91/State Route 71 Interchange Improvement Proposal, Riverside County, California, Final Environmental Assessment. August.

9.0 CONCLUSION

Based on information in this Supplemental EA, the proposed changes to project features of the SR-71/SR 91 Interchange Improvement Project would have no new or more severe adverse effects on the environmental resources in the project area beyond those addressed in the previous EA for the Interchange Project. Therefore, the Proposed Action would not require any new or additional avoidance, minimization, and mitigation measures beyond those identified in the 2014 EA. The Proposed Action would meet the requirements for USACE actions permitted following completion of a FONSI, as described in 40 CFR 1508.13. These actions would not have a significant effect on the quality of the natural and human environment; therefore, these actions do not require preparation of an EIS.

APPENDIX A CALTRANS CATEGORICAL EXCLUSION

CATEGORICAL EXEMPTION/ CATEGORICAL EXCLUSION DETERMINATION FORM

08-Riv-91	PM R0.6/R2.6; PM 1.6/3.0	0F5410	PN 0800000137
Dist.-Co.-Rte. (or Local Agency)	P.M/P.M.	E.A. (State project)	Federal-Aid Project No. (Local project)/ Proj. No.

PROJECT DESCRIPTION:

(Briefly describe project, purpose, location, limits, right-of-way requirements, and activities involved.)

Enter project description in this box. Use Continuation Sheet, if necessary

The California Department of Transportation (Department), in cooperation with the Riverside County Transportation Commission (RCTC), proposes to improve the State Route (SR) 91/SR 71 interchange by constructing a new direct flyover connector from eastbound SR 91 (post mile [PM] R0.6/R2.6) to northbound SR 71 (PM 1.6/3.0). The proposed project includes the following project components: flyover connector ramp, bridge widening, restriping of SR 91 eastbound lanes, modification or construction of new drainage facilities, retaining walls, and relocation of access roads. The proposed project would improve the current and future operational efficiency and enhance the capacity of the eastbound SR 91 to northbound SR 71 connector.

(Continued...)

CEQA COMPLIANCE *(for State Projects only)*

Based on an examination of this proposal, supporting information, and the following statements (See 14 CCR 15300 et seq.):

- If this project falls within exempt class 3, 4, 5, 6 or 11, it does not impact an environmental resource of hazardous or critical concern where designated, precisely mapped and officially adopted pursuant to law.
- There will not be a significant cumulative effect by this project and successive projects of the same type in the same place, over time.
- There is not a reasonable possibility that the project will have a significant effect on the environment due to unusual circumstances.
- This project does not damage a scenic resource within an officially designated state scenic highway.
- This project is not located on a site included on any list compiled pursuant to Govt. Code § 65962.5 ("Cortese List").
- This project does not cause a substantial adverse change in the significance of a historical resource.

CALTRANS CEQA DETERMINATION (Check one)

☐ **Exempt by Statute.** (PRC 21080[b]; 14 CCR 15260 et seq.)

Based on an examination of this proposal, supporting information, and the above statements, the project is:

☐ **Categorically Exempt. Class ____.** (PRC 21084; 14 CCR 15300 et seq.)

☐ **Categorically Exempt. General Rule exemption.** [This project does not fall within an exempt class, but it can be seen with certainty that there is no possibility that the activity may have a significant effect on the environment (CCR 15061[b][3])

N/A	N/A
Print Name: Environmental Branch Chief	Print Name: Project Manager/DLA Engineer
N/A	N/A
Signature Date	Signature Date

NEPA COMPLIANCE

In accordance with 23 CFR 771.117, and based on an examination of this proposal and supporting information, the State has determined that this project:

- does not individually or cumulatively have a significant impact on the environment as defined by NEPA and is excluded from the requirements to prepare an Environmental Assessment (EA) or Environmental Impact Statement (EIS), and
- has considered unusual circumstances pursuant to 23 CFR 771.117(b) (http://www.fhwa.dot.gov/hep/23cfr771.htm - sec.771.117).

In non-attainment or maintenance areas for Federal air quality standards, the project is either exempt from all conformity requirements, or conformity analysis has been completed pursuant to 42 USC 7506(c) and 40 CFR 93.

CALTRANS NEPA DETERMINATION (Check one)

☐ **Section 6004:** The State has been assigned, and hereby certifies that it has carried out, the responsibility to make this determination pursuant to Chapter 3 of Title 23, United States Code, Section 326 and a Memorandum of Understanding (MOU) dated June 7, 2010, executed between the FHWA and the State. The State has determined that the project is a Categorical Exclusion under:

- ☐ **23 CFR 771.117(c): activity (c)(___)**
- ☐ **23 CFR 771.117(d): activity (d)(___)**
- ☐ **Activity ___ listed in the MOU between FHWA and the State**

☒ **Section 6005:** Based on an examination of this proposal and supporting information, the State has determined that the project is a CE under Section 6005 of 23 U.S.C. 327.

Aaron Burton	Daniel Ciachella
Print Name: Environmental Branch Chief	Print Name: Project Manager/DLA Engineer
6-29-2011	6-29-1
Signature Date	Signature Date

Briefly list environmental commitments on continuation sheet. Reference additional information, as appropriate (e.g., air quality studies, documentation of conformity exemption, FHWA conformity determination if Section 6005 project; §106 commitments; §4(f); §7 results; Wetlands Finding; Floodplain Finding; additional studies; and design conditions). **Revised June 7, 2010**

Categorical Exemption/ Categorical Exclusion Determination Form Continuation Page

Project Description (continued):

Eastbound SR 91 to Northbound SR 71 Flyover Connector

The main feature of the project would include a two-lane direct flyover connector between EB SR 91 and NB SR 71. The flyover connector would have two 12-ft-wide lanes and 10-ft-wide shoulders. In addition to the two main connector lanes, the flyover structure would carry an outside auxiliary lane extending along the connector from the Green River Road on-ramp. The flyover connector ramp would begin on EB SR 91, east of the existing Green River Road interchange, and would span SR 91, the Santa Ana River, and the SB lanes of SR 71. The two lanes of the EB-to-NB flyover connector would form the inside two lanes of NB SR 71. The proposed two-lane WB SR 91 to NB SR 71 connector would merge to a single lane and join NB SR 71 as an outside auxiliary lane before merging to a two-lane facility. Structural features for the proposed new bridges, such as abutments, columns, and associated footings, would also be part of the proposed project. The flyover connector is expected to have longer piles for the bent footings than the West Prado Overhead Bridge (Bridge No. 56-0634) due to larger dead loads and added seismic and wind forces. Before subsurface investigations have been performed, pile depths are estimated to extend to approximately 110 ft below the existing ground surface.

Southbound SR 71 to Eastbound SR 91 Connector

The existing EB SR 91 to NB SR 71 loop connector would be closed to traffic, and pavement on this segment may be removed. Currently, a concrete barrier exists to separate the single lane of the SB SR 71 to EB SR 91 connector and the single lane of the EB SR 91 to NB SR 71 connector. With construction of the SB SR 71 to EB SR 91 connector, the existing barrier would be removed to accommodate restriping of 1,900 ft of pavement from a single lane to three lanes from just south of the Santa Ana River Bridge.

Westbound SR 91 to Northbound SR 71 Connector

Currently, the WB SR 91 to NB SR 71 connector is two lanes and merges to one lane just south of the Santa Ana River Bridge. The project would restripe the connector to extend the two lanes approximately 1,200 ft to merge into a single lane just north of the Santa Ana River Bridge.

Reconstruction of Green River Road On-Ramp

To accommodate the new flyover connector ramp, the Green River Road on-ramp to EB SR 91 would be realigned as a two-lane on-ramp that would span over the Burlington Northern Santa Fe (BNSF) Railway parallel to the West Prado Overhead Bridge (Bridge No. 56-0634). The inside lane of the ramp would continue as a slip ramp to the SR 91/71 flyover, joining the connector as an auxiliary lane before merging into the two-lane section on the flyover structure. The outside lane of the Green River

Road on-ramp would diverge to the right and would run parallel to the SR 91/71 flyover prior to converging with the EB SR 91 mainline. The Fresno Canyon Wash Bridge (E91-N71 Connector UC; Bridge No. 56-0635) would be widened to accommodate the realigned ramp and shoulder. It should be noted that the existing West Prado Overhead Bridge is constructed atop foundations consisting of Class 70 and Class 100 driven piles with estimated tip depths of 70 to 80 ft below the finished ground surface. Based on the Preliminary Foundation Report, the abutment footings for the proposed two-lane West Prado on-ramp overhead structure are expected to require foundations with Class 140 driven piles. Bents on the West Prado on-ramp overhead are proposed to be supported on single-shaft concrete piles.

SR 91 Restriping

To comply with design standards, the proposed SR 91/71 interchange project intends to restripe the EB lanes from the 11-ft width to the 12-ft standard width between PM R0.6 and PM R2.6. In addition, 10-ft-wide right shoulders would be constructed in the EB direction between these limits.

Realignment of SR 71

The existing SB SR 71 lanes would be realigned to the west to allow adequate spacing for the SR 91/71 flyover to touch down and form the inside lanes of NB SR 71. The project would realign the existing USACE driveway approximately 0.3-mile to the north with wider shoulders to allow right ingress and egress movements from the NB SR 71 mainline to the USACE driveway. The approximate limits of realignment of the existing SB SR 71 lanes would be from Station 334+00, the northern end of the SR 71 Santa Ana River Bridge (Bridge No. 56-0379), to Station 373+35 at the north end of the realignment.

The area adjacent to SR 71 consists of large hillside slopes and valleys. To accommodate the realignment, several cut slopes and fill areas are proposed west of SR 71. The cut slopes would be approximately 2,600 ft in length and would result in removal of approximately 430 cubic yards of soil. The cuts would be made with 2:1 slopes with benches constructed at 10-ft vertical intervals. In addition, approximately 678 cubic yards of soil would be used to fill in two valleys west of SR 71 that range in depth from 10 ft to 14 ft.

Drainage

Additional improvements include modification or construction of new drainage facilities. Hillside drainage along SR 71 may be improved through construction of new concrete ditches that would run along the top of any proposed retaining walls and convey drainage to new or existing culverts. Permanent treatment features would be designed based on anticipated stormwater volumes (129,536 cubic ft/11.07 cubic ft per second) associated with 54.9 acres of impervious surfaces. The proposed treatment BMP strategy would treat 100 percent (13.4 acres) of new project impervious surfaces; however, due to limitations within the project area for the placement of stormwater treatment BMPs, it is estimated that 40 percent (21.97 acres) of total stormwater runoff from project impervious surfaces would be treated.

Treatment features may include biofiltration swales along the toe of slopes and retention/detention basins within the project limits.

Retaining Walls

Based on preliminary designs, it is anticipated that retaining walls would be constructed along portions of the Green River Road on-ramp south of SR 91, along SR 71, and at the abutment ends of the flyover connector. In addition, the retaining walls may be constructed with any of the five standard-type Caltrans retaining walls, soil nail walls, and/or tie-back walls.

Local Access

The existing USACE driveway is proposed to be relocated approximately 0.3-mile north of its current location. Similarly, an intersection exists on SR 71 just north of the interchange and currently allows access to the Sukut property (currently operated by Dan Copp Materials, which is a small-scale concrete crushing and recycling operation) on the west and to USACE Prado Dam property on the east. As part of the project, the intersection would be relocated to Station 358+00, approximately 0.3-mile north of its current location along SR 71.

Signage

Freeway signage would be installed within the project area for the new flyover connector and for the Green River Road on-ramp

Right-of-Way Acquisition

The main project features would require only minor right-of-way (ROW) acquisition south of SR 91 and west of SR 71. Temporary construction easements and permanent easements would be needed along the commercial business park south of SR 91, within the USACE Prado Dam/Santa Ana River property, and west of SR 71. The following parcels are anticipated to be affected by the project through partial acquisition, permanent easements, and/or temporary easements:

101-040-004
101-040-009
101-120-009
101-140-013
101-140-031
101-180-035
101-180-017
101-140-010
101-140-034
101-140-035

Summary of Potential Environmental Impacts

The proposed SR 91/ SR 71 Interchange Improvement Project is not anticipated to produce adverse effects to environmental resources identified in Table 1. Avoidance, minimization, and/or mitigation measures are required to be implemented to ensure that the project does not adversely affect environmental resources. These measures for each affected environmental resource are summarized in Table 2.

Table 1: SR 91/ SR 71 Interchange Improvement Project Potential Impacts

Environmental Resource	Potential Impact	Description
Farmlands/ Timberlands	No Effect	Based on the City of Corona's and County of Riverside's General Plan land use maps, there are no designated agricultural lands within the vicinity of the proposed project. The California Division of Conservation does not identify any prime or unique farmlands, farmlands of statewide, or lands with Williamson Act contracts within the project vicinity. In addition, there are no designated timberland areas or Timber Production Zone within the project area.
Mineral Resources	No Effect	Based on the City of Corona's and County of Riverside's General Plan land use maps and Division of Conservation Mapping, there are no designated mineral resource recovery areas within the project limits; however, there is a mineral recovery area located to the north of the project limits along the west side of SR 71. This area would not be impacted by the proposed project.
Land Use	No Adverse Effect	Permanent Impact No permanent impacts are anticipated. Temporary Impact Construction activities associated with the Build Alternative would not conflict with applicable land use plans, policies, or regulations of local or regional agencies. These activities would be temporary in nature and would not introduce land uses that are incompatible with existing uses, require changes to existing land use designations, or change local or regional planning document goals or policies. In addition, they would not include activities that would be unacceptable or intrusive on adjacent land uses such that current land uses could not remain. Moreover, BMPs for construction traffic management, noise abatement, and control of air quality and water quality impacts would be implemented during project construction and would address construction-related impacts to area land uses.
Community	No Adverse Effect	Permanent Impact No permanent impacts are anticipated. Temporary Impacts During the construction period, local circulation and residents would be affected by potential construction detours, temporarily altered driveway access, and movement of construction equipment/vehicles within the proposed interchange area. Local streets would be maintained open for vehicle traffic, and driveway access to adjacent properties would be maintained at all times during the construction period. These temporary construction-related impacts would not affect lifestyles or neighborhood character and stability; therefore, temporary adverse effects to community character and cohesion would be avoided during project

<table>
<tr><td></td><td></td><td>construction.</td></tr>
<tr><td>Environmental Justice</td><td><u>No Effect</u></td><td>No minority or low-income populations that would be adversely affected by the project have been identified as determined above. Therefore, this project is not subject to the provisions of EO 12898.

Based on the above discussion and analysis, the build alternative(s) will not cause disproportionately high and adverse effects on any minority or low income populations as per EO 12898 regarding environmental justice.</td></tr>
<tr><td>Relocations and Real Property Acquisitions</td><td><u>No Adverse Effect</u></td><td><u>Permanent Impact</u>

The project would require acquisition of new ROW to accommodate the proposed realignment of the Green River Road on-ramp and the SB lanes of SR 71. RCTC would conduct acquisition of ROW needed for the project, including temporary and permanent easements necessary for construction of the proposed improvements. A review of existing parcel information indicates that 10 parcels would be affected by the project with partial ROW take, and temporary and permanent easements. One parcel would require a partial acquisition and relocation of an electrical billboard and its associated utilities. Newly acquired fee ROW would be relinquished to the Department. The table below summarizes the parcels and the type of acquisition necessary for the project.

Summary of Affected Properties
<table>
<tr><th>Assessor's Parcel Number</th><th>Type of Property</th><th>Type of Action</th><th>Estimated Acreage Needed for Project</th></tr>
<tr><td>101-040-004</td><td>Government Facility</td><td>Permanent Easement</td><td>6.47</td></tr>
<tr><td>101-040-009</td><td>Commercial</td><td>Partial Acquisition</td><td>0.28</td></tr>
<tr><td>101-120-009</td><td>Government Facility/ Recreational</td><td>Permanent Easement</td><td>3.84</td></tr>
<tr><td>101-140-013</td><td>Commercial</td><td>Partial Acquisition</td><td>0.12</td></tr>
<tr><td>101-140-031</td><td>Commercial</td><td>Partial Acquisition</td><td>0.01</td></tr>
<tr><td>101-180-035</td><td>Commercial</td><td>Temporary Construction Easement</td><td>3,132</td></tr>
<tr><td>101-180-017</td><td>Commercial</td><td>Temporary Construction Easement</td><td>4,249</td></tr>
<tr><td>101-140-010</td><td>Commercial</td><td>Temporary Construction Easement</td><td>774</td></tr>
<tr><td>101-140-013</td><td>Commercial</td><td>Temporary Construction Easement</td><td>7,631</td></tr>
<tr><td>101-140-031</td><td>Commercial</td><td>Temporary Construction Easement</td><td>10,058</td></tr>
<tr><td>101-140-034</td><td>Railroad</td><td>Temporary Construction Easement/ Permanent</td><td>26,754/15,864</td></tr>
</table></td></tr>
</table>

		Easement	
101-140-035	Railroad	Temporary Construction Easement/ Permanent Easement	13,096/6,552

Source: Project Report: SR 91/71 Interchange Improvement Project, Parsons 2010.

The project is anticipated to acquire 6.47 acres from USACE for permanent easement. The area to be acquired is located north of SR 91 and west of SR 71. Similarly, an intersection exists on SR 71 just north of the interchange and currently allows access to the Sukut property (currently operated by Dan Copp Materials, which is a small-scale concrete crushing and recycling operation) on the west and to USACE Prado Dam property on the east. As part of the project, the intersection would be relocated to Station 358+00, approximately 0.3-mile north of its current location along SR 71.

Parks & Recreation	No Adverse Effect	Permanent Impact No permanent impacts are anticipated. Temporary Impact Construction impacts on CHSP would affect 3.84 acres and will be short term as the 2:1 slopes for the SR 71 are being built. This area of the park is preserved as open space conservation and is not used for recreational activities. Currently, the project area within CHSP functions as a slope easement. With implementation of minimization measures, these impacts will not be considered adverse to CHSP. On May 2010, California State Parks issued a written concurrence of the project's Section 4(f) de minimis finding and found that the proposed project's impacts are de minimis for the following reasons: 1) The total land needed for the slope easement is marginal (3.84 acres) and will accommodate the proposed SR 91/ SR71 Interchange project and other future plans along the SR 71 (SR 71 Widening). 2) There are no anticipated adverse impacts to the recreational value of CHSP, since the proposed slope easement is identified as open space/ conservation. 3) Avoidance, minimization and mitigation measures will be implemented, including replanting of slopes with coastal sage scrub plant species and maintaining wildlife movement in the area. On April 2011, Caltrans submitted the *LWCF Proposal Description and Environmental Screening Form* to California State Parks pursuant to Section 6(f) regulations for Temporary Non-Conforming Use. The are proposed for the slope easement will remain the property of the California Department of aprks and Recreation and will not be permanently converted to non-recreational uses. In addition, the property necessary for the slope easement will not be paved, and its use after construction will remain as open space/ conservation. Therefore the project will not affect the boundary of CHSP nor its recreational value. The construction of the slope easement is anticipated to last for approximately six months.
Utilities/Emergency Services	No Adverse Effect	Permanent Impact Existing utilities would have to be relocated to accommodate the project.

		However, the project is not expected to result in adverse effects to utilities and emergency services because Caltrans would coordinate with the appropriate utility companies and public agencies to ensure that essential services are maintained after the project is constructed. Temporary Impact The project may result in some disruption to utility and emergency services due to detours and closures from project construction. Caltrans will notify utility and emergency service providers prior to construction.
Traffic/ Circulation	No Adverse Effect	Permanent Impact No permanent impacts are anticipated. Temporary Impact The project is likely to cause temporary traffic delays and inconveniences during construction; however, these delays would be relatively brief. In addition, based on the preliminary construction staging plan, construction of the project would not require any detours or prolonged local street, ramps, or mainline closures. With preparation and implementation of a TMP, impacts during construction can be minimized.
Visual/ Aesthetics	No Adverse Effect	Permanent Impact It is anticipated that the Build Alternative would cause a minor decrease in the overall visual quality of the area. Temporary Impact The construction phase of the project would result in temporary visual impacts. The presence of construction vehicles and equipment would temporarily degrade the visual quality of the project site. This impact is temporary, would cease once construction is complete, and is not considered to be an adverse effect.
Cultural Resources	No Adverse Effect	Permanent Impact No permanent impacts are anticipated. Temporary Impact Though the record search and archaeological survey failed to indicate the presence of known archaeological cultural resources, construction monitoring would minimize potential effects to buried cultural resources in the unlikely event cultural resources are encountered during construction activities.
Hydrology and Floodplain	No Adverse Effect	Permanent Impact No permanent impacts are anticipated. Temporary Impact The project would require equipment storage and access through the floodplain. In addition, grading and haul roads may be constructed within the floodplain. These activities would not result in an adverse impact to the floodplain because the activities would be short term and the area would be restored to its natural state after the project is constructed.
Water Quality/ Stormwater Run-off	No Adverse Effect	Permanent Impact The proposed Build Alternative is anticipated to result in approximately 54.5 DSA. The existing impervious surface area within the project limits is estimated at 41.5 acres. The Build Alternative increases the impervious surface area by 13.4 acres, reaching a combines total of 54.9 acres of impervious surface area upon completion of the proposed project.With implementation of treatment BMPs storage capacity for runoff would be provided, and the change in flow velocity in pre-and post-project

		conditions would be minimal; therefore, there would be no exceedance of the capacity of the existing or planned stormwater drainage systems, and effects to the stormwater drainage system would be less than significant. Additionally, with the implementation of various design pollution prevention BMPs in conjunction with treatment BMPs, the existing drainage pattern of the area would not be altered in a manner that would result in substantial eroision, sedimentation, or flooding within or downstream of the project area; therefore, impacts associated with surface hydrology related to capacity exceedance related to existing or planned storm drains or provide a substantial additional source of polluted runoff would be less than significant. Temporary Impact Excavation, grading, paving, and other construction activities would expose disturbed and loosened soils to erosion by wind and runoff; therefore, construction activities could result in increased erosion and siltation, including potential additional nutrient loading and increased total suspended solids concentration. Erosion and siltation from construction could affect drainages downstream of the project area, which would pose a potentially adverse, although likely minor, impact to water quality. Construction activities for the project could result in the creation of additional polluted runoff. Grading, paving, and construction activities associated with this project could create additional sources of polluted runoff throughout the study area because of construction related pollution and waste discharge. Pollutants associated with construction activities typically include gasoline, oil, rubber particles, herbicides, pesticide, paint, adhesives, tar, other chemicals, and other construction-related waste materials. These contaminants could affect surface water quality downstream of the project construction site. Construction activities could release such pollutants onto roadways and soils, from where it would be carried offsite in runoff. Given these considerations, construction activities would pose a potentially significant adverse impact to water quality if appropriate preventive measures are not employed. Construction activities for the project could result in adverse water quality effects related to dewatering. Construction associated with this project could involve dewatering activities during excavation of the ramps or where new footings would be required, which in turn could affect surface water quality in the area. Penetration of the water table could result in adverse effects related to dewatering discharge. Dewatering would occur only where excavation below the water table is necessary and only during the initial phases of excavation and construction, and it would not be carried out for substantial periods of time. However, dewatering discharge typically contains a high sediment concentration and, therefore, may contain construction-related pollutants; thus, there is the potential for significant adverse effects to water quality, if appropriate preventive measures are not employed. To avoid such water quality/ stormwater run-off temporary impacts, the project will implement minimization measures during construction. These measures include compliance with the dewatering permit (RWQCB) and NPDES permit (SWRCB).
Geology/ Soils/ Seismicity/ Topography	No Adverse Effect	Permanent Impact Drainage abutting these freeways could experience high-velocity flows and associated debris; however, drainage improvements including detention basins could be implemented where appropriate to ensure that the potential for mudflows would be negligible.

		Temporary Impact No temporary impacts are anticipated.
Paleontology	No Adverse Effect	Permanent Impact No permanent impacts are anticipated. Temporary Impact The results of the PIR/PER-level study demonstrate that excavation in association with development of the project alignment has high potential to impact significant nonrenewable fossil resources; therefore, portions of this alignment are assigned high paleontological sensitivity. Excavation into undisturbed rocks of the Santiago Formation, the undifferentiated Vaqueros and Sespe Formations, the unnamed sandstone and conglomerate of the Sycamore Canyon member of the Puente Formation, and Quaternary sedimentary deposits (the latter depending upon lithology) could be impacted by construction activities associated with the proposed project. To avoid such impacts during construction, the project will implement minimization measures.
Hazardous Waste/ Materials	No Adverse Effect	Permanent Impact No permanent impacts are anticipated. Temporary Impact There is a possibility of encountering PCB-containing liquids, ACMs, LBP, and ADL during construction. Any hazardous materials encountered shall be managed accordingly.
Air Quality	No Adverse Effect	Permanent Impact The project is intended to alleviate the existing and future traffic congestion and delays, but not to increase traffic volumes. Nevertheless, the improved efficiency of the roadways could attract rerouted trips, although minimal, from elsewhere in the local transportation network. This increase in VMT would lead to slightly higher MSAT emissions for the Build Alternative. In summary, while the project Build Alternative would result in relatively small increase in localized MSAT emissions, the EPA and California vehicle and fuel regulations, coupled with fleet turnover, would result in substantial reductions over time, which cause region wide MSAT levels to decline substantially when compared to the existing levels. The project is also included in the latest FHWA and FTA approved 2011 FTIP regional emissions analysis. On May 2011, the FHWA concurred with the Air Quality Conformity Analysis conducted for the project finding that the “SR 91/71 Interchange Improvement Project conforms to the State Implementation Plan (SIP) in accordance with 40 C.F.R. Part 93.” Temporary Impact Construction related impacts to air quality are short term in duration and are not anticipated to result in adverse or long-term conditions. Implementation of appropriate measures will reduce any air quality impacts resulting from construction activities.

Noise	No Adverse Effect	Permanent Impact Noise abatement was considered at four proposed locations because future noise levels within the project area approaches or exceeds the noise abatement criteria (NAC) of 67dBA. A noise impact is defined as when the future traffic noise level with the project results in a substantial increase in noise level (defined by Caltrans as a 12-dBA or more increase) or when the future noise level with the project approaches or exceeds the NAC of 67 dBA. The affected residents are anticipated to generally experience a zero to 1-dBA increase in noise levels for future conditions, which is far below the noise impact level criteria of 12-dBA increase. Noise abatement was considered because traffic noise levels approached the NAC of 67-dBA. A Sound Barrier Survey was sent to affected residents informing them of the proposed masonry soundwall. Because the results of the survey did not receive the required 100% approval from the home owners, the soundwall will not be constructed as part of the project. Temporary Impact Temporary noise impacts would be related to construction activities. Noise at the construction sites would be intermittent with varying intensity. The degree of construction noise would also vary depending on the location and type of construction activities. Long-term noise exposure descriptors would be difficult to quantify because of the intermittent nature of construction noise. During the construction phases of the project, noise from construction activities may intermittently dominate the noise environment in the immediate area of construction; therefore, a detailed construction noise-level calculation is often conducted during the design phase. Construction noise is regulated by Caltrans' Standard Specifications Section 14-8.02, "Noise Control" and also by Standard Special Provision S5-310. These requirements state 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. In addition, Standard Special Provision will be edited specifically for this project during the PS&E phase. No adverse noise impacts from construction are anticipated because construction would be conducted in accordance with Caltrans' Standard Specifications and would be short term, intermittent, and dominated by local traffic noise. Temporary adverse effects related to construction noise are not anticipated and measures are proposed to minimize construction noise.
Natural Communities	No Adverse Effect	Permanent Impact Permanent Impacts associated with the project would occur within 24.91 acres of habitat as a result of infrastructure and interchange improvements to SR 91 and SR 71. Permanent impacts associated with the project involve sections of the flyover and auxiliary lane west of Wardlow Wash, footing and column locations to support the flyover, and realignment of SR 71; however, a substantial portion of the permanently impacted areas consist of poor quality plant and animal habitat. Construction of the project would result in the permanent loss of 0.56 acres of sensitive riparian and woodland habitat, which includes mule fat scrub, oak woodland and southern cottonwood willow riparian forest. Impacts to riparian/riverine resources would primarily occur south of SR 91, west of the terminus of Wardlow Wash and Fresno Canyon Wash.

		The project has been designed to reduce impacts to riparian/riverine resources to the greatest extent feasible. With the implementation of mitigation measures identified in Table 2, adverse effects to Natural Communities would be avoided. <u>Temporary Impact</u> Temporary impacts associated with the construction phase of the project would occur within approximately 38.36 acres; however, a substantial portion of the temporary impacted areas consist of poor quality plant and animal habitat. These temporary impacts include construction staging and operating areas, cut and fill areas, and sections of the flyover that do not result in the loss of habitat. The temporary impacts associated with construction of the project would not adversely affect the greater population of plant and wildlife species, or associated habitats onsite. Construction would also result in temporary impacts to sensitive riparian and woodland habitat; however, the project has been designed to reduce impacts to riparian/riverine resources to the greatest extent feasible. Temporary impacts include construction staging and operating areas, cut and fill areas, and sections of the flyover that do not result in the loss of habitat. The temporary impacts associated with construction of the project would not adversely affect the greater population of plant and wildlife species, or associated habitats onsite. Implementation of mitigation measures identified in Table 2 ensures that adverse effects to Natural Communities are avoided.
Wetlands and Other Waters	<u>No Adverse Effect</u>	<u>Permanent Impact</u> Construction of the project Build Alternative, specifically support structures, footings, slope protection, and realignment of SR 91 and SR 71 roads and connectors, would result in permanent impacts to ACOE jurisdictional waters and wetlands and CDFG jurisdictional vegetated streambed within the project site. The project would result in permanent impacts to 0.03-acre of ACOE and RWQCB non-wetland waters and 0.02-acre of wetland waters. The project would impact 0.01-acre of CDFG jurisdictional unvegetated streambed, and would result in the permanent loss of 0.07-acre of CDFG jurisdictional vegetated streambed. Based on these findings, the project would require a Section 404 permit from USACE pursuant to Section 404 of the CWA, a Section 401 Water Quality Certification from the RWQCB, and a Section 1600 Streambed Alteration Agreement from CDFG pursuant to Section 1600 of the California Fish and Game Code. With the implementation of mitigation measures identified in Table 2, adverse effects are not anticipated to wetlands and other waters within the project area. *Wetlands Only Practicable Finding* According to the Executive Order for the Protection of Wetlands (E.O. 11990), new construction located in wetlands cannot be undertaken unless the head of the agency finds that there is no practicable alternative to the construction, and the project includes all practicable measures to minimize harm. Based on the discussion in Section 1.4.4, the Build Alternative is the least environmentally damaging practicable alternative (LEDPA) and meets the project purpose and need. As discussed in Section 1.4.5, *Alternatives Considered but Eliminated from Further Discussion Prior to Draft Environmental Document,* the PSR Alternative was not carried forward

		because of the impacts that the C-D road had on several biological resources within the Fresno Canyon Wash area. The function of the C-D road and auxiliary lanes in the PSR Alternative could be achieved with the slip on-ramp design in the current build alternative (preferred alternative) with less biological impacts. Throughout the preliminary project design process, consultant biologists, in coordination with the project engineer, evaluated various design alternatives to avoid and/ or minimize (to the greatest extent practicable) impacts to wetlands and other biological resources associated with the SR 91/ SR 71 Interchange Improvement project. Sensitive biological resources and regulatory jurisdiction within the project footprint were identified during the field surveys and conveyed to the design engineer to enable re-design and impact avoidance. To the greatest extent practicable, project design features for the Build Alternative were modified to avoid impacts to habitat for sensitive wildlife species. These areas suitable to support sensitive species within and adjacent to the project area were identified early in the PA/ED process and conveyed to the engineering team so appropriate action could be undertaken to minimize the effects. During the preliminary design phase, engineers minimized impacts to wildlife habitat within Fresno Canyon Wash area by reducing the cross sectional width of the slip-on ramp along eastbound SR-91. The project further minimized potential impacts to wetlands by designing bridge footings for the fly-over bridge structure away from wetlands. During the final design phase, construction staging locations will be located at previously disturbed areas or away from sensitive species habitat. All applicable mitigation and minimization measures, as outlined in Appendix F, will be implemented prior to and during construction to minimize harm to wetland areas. Although impacts to jurisdictional waters have been minimized through design modifications, impacts to wetlands area can not be completely avoided because of the proximity of the project to wetlands without meeting the purpose and need of the project. Based on the above considerations, it is determined that there is no practicable alternative to the proposed construction in wetlands and that the proposed action includes all practicable measures to minimize harm to wetlands that may result from such use. <u>Temporary Impact</u> During construction of the Build Alternative support structures, footings, slope protection, and realignment of SR 91 and SR 71 roads and connectors, ACOE and RWQCB jurisdictional waters and wetlands and CDFG jurisdictional vegetated and unvegetated streambed would be temporarily impacted within the site. Construction of the project would result in temporary impacts to 0.77-acre of ACOE and RWQCB non-wetland waters, and 1.11-acre of wetland waters. Construction of the project would also result in temporary impacts to 0.48-acre of unvegetated streambed, and 1.58-acres of vegetated CDFG jurisdictional streambed. Temporary impacts to jurisdictional resources would be incorporated into the previously discussed Section 404 permit, Section 401 Water Quality Certification and Streambed Alteration Agreement.
Plant Communities	<u>No Adverse Effect</u>	<u>Permanent Impact</u> Construction of the project would result in the permanent loss of 10.6 acres of coastal sage scrub and coastal sage-chaparral scrub, which provide suitable habitat for sensitive plant species discussed in this section. No permanent impacts to any federally or State-listed threatened endangered species would occur. Impacts to commonly occurring

		species or CNPS Sensitive Species, although adverse, are not considered substantial. The likelihood of CNPS Sensitive Species to occur within the project site is low because occurrences have not been observed within ½ mile of the project area; however, if these sensitive plant species are present, the project may impact these species. With the implementation of mitigation measures identified in Table 2, potential impacts could be avoided. Temporary Impact Construction of the project would result in the temporary loss of 11.09 acres of coastal sage scrub and coastal sage-chaparral scrub, which provide suitable habitat for sensitive plant species discussed in this section; however, no temporary impacts to any federally or State-listed threatened or endangered plant species would occur. Impacts to commonly occurring species or CNPS Sensitive Species, although adverse, are not considered substantial.
Animal Species	No Adverse Effect	Permanent Impact Permanent impacts resulting from sections of the flyover and auxiliary lane west of Wardlow Wash, the footing and column locations to support the flyover, and the realignment of SR 71 would occur in areas supporting a significant number of common and sensitive species. Implementation of BMPs, preconstruction surveys, construction monitoring, and prescribed mitigation for impacts to riparian/riverine areas would reduce all potential impacts to sensitive species not considered adequately conserved under the MSHCP to less than substantial. Construction is not anticipated to result in direct impacts to animal species. Potential project-related impacts are not anticipated to be substantial on a local or regional scale, and they would not likely adversely jeopardize the sustainability and recovery of the greater population of these species. Temporary Impact Temporary impacts associated with construction would occur in approximately 38.36 acres and include construction staging and operating areas, cut and fill areas, and sections of the flyover that do not result in the loss of habitat. The temporary impacts associated with construction of the project would not adversely affect the greater population of plant and wildlife species, or associated habitats onsite. Minimal impacts to sensitive animal species would occur and are considered a covered activity under the MSHCP. As part of the MSHCP JPR process, the RCA and wildlife agencies evaluated if temporary project impacts are a covered activity under the MSHCP. At the end of the JPR process, the RCA determined that the project is a covered activity and comments were received by the wildlife agencies that will need to be addressed by RCTC.
Threatened and Endangered Species	No Adverse Effect	Permanent Impact The project site provides suitable habitat for several species that are State and federally listed as threatened or endangered, including coastal California gnatcatcher, western yellow-billed cuckoo, Santa Ana sucker, and least Bell's vireo. Construction of the project would result in permanent loss of 0.20-acre of suitable habitat for least bell's vireo, and 0.12 acres of riparian/riverine habitat that could support western yellow-billed cuckoo, and southwestern willow flycatcher. Additionally, the project would result in the permanent loss of 10.6 acres of coastal sage scrub, coastal sage-chaparral scrub and mixed-scrub that is suitable

		habitat for the California gnatcatcher. The project would not result in any permanent loss of habitat for the arroyo toad or Santa Ana sucker. **Section 7 Consultation** Any species impacts from removal of suitable habitat will be covered through the MSHCP consistency determination and DBESP processes with the Riverside County Regional Conservation Agency. Consultation between the Department and USFWS will occur to determine the effect to endangered and threatened species and their critical habitat. For project effects to the Least Bell's vireo, southwestern willow flycatcher and the California Gnatcatcher, Section 7 consultation with the United States Fish and Wildlife Service will be necessary and a Biological Opinion (BO) will need to be issued for the project. Formal Section 7 Consultation with USFWS was initiated on March 31, 2011, and the BO with a Not Likely to Adversely Affect determination was issued on June, 2011. <u>Temporary Impact</u> Construction of the project would result in the temporary loss of 11.9 acres of coastal sage scrub and coastal sage-chaparral scrub and 2 acres of riparian/riverine vegetation that provides suitable habitat for wildlife species, including State-listed and Federally threatened or endangered species. Species impacts resulting from temporary removal of sutiable habitat were covered through the MSHCP consistency determination and DBESP processes with the Riverside County Regional Conservation Agency. Consultation between the Department and USFWS will occur to determine the effect to endangered and threatened species and their critical habitat. Temporary impacts to federally listed species will be included in the previously discussed BO and take authorization for coastal California gnatcatcher and least Bell's vireo. Consultation will also be conducted with CDFG to discuss temporary impacts to least Bell's vireo. With implementation of the avoidance and minimization efforts, temporary impacts may affect, but would not likely adversely affect the coastal California gnatcatcher. The project would not include any construction within the Santa Ana River, the federally threatened Santa Ana sucker may be indirectly affected by construction of the flyover and culverts that would drain into the river; however, minimization measures would be implemented to minimize potential impacts to threatened and endangered species.
Invasive Species	<u>No Adverse Effects</u>	<u>Permanent Impact</u> No permanent impacts are anticipated. <u>Temporary Impact</u> The project may introduce the spread of invasive species throughout the project area through clearing and grubbing of natural vegetation. In addition, spread of invasive species could occur through imported borrow, which may contain invasive species seedlings. Potential temporary impacts resulting from the introduction of invasive species would be reduced using BMPs; potential impacts to natural communities would be reduced to less than substantial.

Table 2: SR 91/ SR 71 Interchange Improvement Project Environmental Commitment Record

No.	Description of Commitment	Responsible Party/ Monitor	Timing/Phase	Task Completed (Sign and Date)	Commitment Source	Comments
PARKS & RECREATION						
PR-1	The project will clearly delineate the construction area with environmentally sensitive fencing. All construction activities, including staging and storage, will stay within the designated construction limits.	Caltrans/ Contractor	The delineation of the construction area should be implemented before construction activities. All construction personnel should stay within the designated construction limits at all times.		IS	
PR-2	After construction, the project will re-seed the slope with native vegetation, including coastal sage scrub or other native species that is characteristic of the Chino Hills State Park flora. The project sponsor will confer with State Parks on the native seed mix prior to implementation of the project.	Caltrans/ Contractor	Re-seeding of the slope shall be implemented after construction.		IS	
COMMUNITY CHARACTER AND COHESION						
COM-1	Per the TMP, a public outreach will be conducted with affected area residents and businesses regarding construction schedules and potential temporary inconveniences during project construction.	City/Caltrans/ RCTC	Public outreach to inform area residents and businesses regarding construction schedules shall be conducted prior to construction.		IS	
COM-2	The proposed action will be constructed in several stages to minimize impacts to the communities by avoiding concurrent ramp closures and traffic congestion during construction.	Caltrans	Construction staging should be planned prior to construction (during PS&E phase).		IS	
COM-3	The effects of temporary construction-related disruptions to the local communities will be addressed through implementation of a Transportation Management Plan (TMP) and a Ramp	Caltrans	The TMP plan should be completed during the PS&E phase of the project.		IS	

No.	Description of Commitment	Responsible Party/ Monitor	Timing/Phase	Task Completed (Sign and Date)	Commitment Source	Comments
	Closure Study for all ramps closed longer than 10 consecutive days.					
COM-4	Where appropriate and feasible, construction staging areas will be located inconspicuously to minimize adverse visual effects upon residential and recreational areas.	Caltrans	Construction staging areas should be determined during PS&E phase of the project.		IS	
COM-5	Prior to beginning construction, the project proponent, with concurrence of the Department, will submit a copy of the proposed construction schedule and detour information to all potentially affected emergency service providers, school districts, and municipal transportation departments so that school bus routes and emergency vehicle routes can be revised.	Caltrans/ RCTC	Construction schedule and detour information should be provided prior to construction.		IS	
RELOCATIONS AND REAL PROPERTY ACQUISITION						
COM-6	Property owners will be compensated at the fair market value for their property, determined on the basis of the highest and best use.	Caltrans	Relocations/ acquisitions will be conducted during final design.		IS	
COM-7	Maintaining access to affected properties will receive special consideration during the design and construction stages of the project.	Caltrans	Access issues to affected properties will be addressed during final design.		IS	
COM-8	Potential impacts to utility services, such as stormwater channels, railroad tracks, or power lines, will be avoided or minimized to the extent feasible during the project design stage. When avoidance is not feasible, close coordination with utility providers will be conducted to identify and address possible relocations and interruptions in service.	Caltrans	Relocations of utilities will be conducted during final design.		IS	

No.	Description of Commitment	Responsible Party/ Monitor	Timing/Phase	Task Completed (Sign and Date)	Commitment Source	Comments
UTILITIES/EMERGENCY SERVICES						
U/ES-1	To ensure that emergency response times are not disrupted, all affected public and private emergency responders will be informed of the project construction schedule, lane closures (if any), and detour plans (if any) well in advance of any detour plan or lane closure being implemented throughout the construction period.	Caltrans (final design)/ Resident Engineer (prior to and during construction)	Notification of Utilities and Emergency Services will occur prior to commencement of construction. Resident Engineer will establish open lines of communication during the duration of construction.		IS	
U/ES-2	Area residents will be regularly informed of the project development and construction plans prior to and during the construction period so that they are aware of the construction timing, traffic detour plans, lane/road closures, and transit detour plans.	Caltrans (during final design)/ Resident Engineer (prior to and during construction)	A TMP will be prepared during PS&E. The TMP will be implemented during construction.		IS	
U/ES-3	All public utility lines, pipes, and cables that are disturbed or removed to accommodate the proposed action must be replaced or relocated to continue to meet the needs of residents and businesses in the community. During construction, arrangements will be made to avoid disruption in utility services. If interruption in service is unavoidable, then notice to the affected utilities will be given and proper arrangements will be made with residents and businesses to minimize inconveniences.	Caltrans (during final design)/ Resident Engineer (during construction)	Public utility lines, pipes, and cables that will be replaced or relocated should be incorporated during final design. During construction, arrangements must be made to avoid disruption in utility services.		IS	
U/ES-4	To avoid conflicts during construction, emergency and other essential service providers, as well as other public services will be notified prior to construction. The project Resident Engineer will also establish a communication plan with each public service provider. Public service	Caltrans/ Resident Engineer (during construction)	Implement recommendation during construction.		IS	

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	providers to be contacted include all of the following agencies: -Anaheim Police Department -Anaheim Fire Department -Brea Police Department -California Department of Forestry and Protection -Orange County Fire Authority -Corona Police Department -Riverside County Sheriff -Riverside County Fire Department -San Bernardino County Fire Department -San Bernardino County Sheriff					
U/ES-5	A TMP will be prepared for the project prior to construction. The TMP will include plans and requirements for the project area that must be implemented during project construction to ensure traffic safety and maintain access for emergency access vehicles at all times.	Caltrans/ RCTC (prior to construction)	Implement recommendation prior to construction.		IS	
U/ES-6	A TMP will be provided to California Department of Forestry and Fire Protection, Riverside County Fire Department and other public service providers at least 6 months prior to construction of the project.	Caltrans/ RCTC	Provide TMP prior to construction activities.		IS	
U/ES-7	To minimize the risk of wildfire during construction, the construction contractor shall ensure that all construction vehicles are equipped with fire extinguishers and shovels, as well as provide other fire-fighting equipment at the construction site. Inspection of all construction equipment is required to ensure compliance with minimum safety standards. Access to all fire hydrants, if any, and fire department vehicle access along the project site and Santa Ana River watershed area will be	Caltrans/ RCTC/ Contractor	Implement during construction.		IS	

No.	Description of Commitment	Responsible Party/ Monitor	Timing/Phase	Task Completed (Sign and Date)	Commitment Source	Comments
	provided.					
U/ES-8	The Mitigation Monitoring Plan for the project will be provided to the California Department of Forestry and Fire Protection, Riverside County Fire Department and other public service providers at least 6 months prior to commencement of construction activities.	Caltrans/ RCTC	Prior to construction.		IS	
TRAFFIC & TRANSPORTATION/PEDESTRIAN & BICYCLE FACILITIES						
TC-1	Prior to project construction, a TMP will be prepared to address the detours and traffic issues that may occur to the traveling public as a result of construction activities. The TMP will address elements, such as signage, traffic controls, Construction Zone Enhanced Enforcement Program (COZEEP), and public awareness campaign.	Caltrans (during final design)/ Resident Engineer (prior to construction)	The TMP will be developed during PS&E.		IS	
TC-2	During the design phase, the Riverside County Transportation Commission (RCTC) will coordinate with the City of Corona, United States Army Corps of Engineers (USACE), and other affected parties to ensure that access to their jurisdictions or properties will be maintained during construction.	Caltrans (during final design) Resident Engineer/ Contractor (prior to and during construction)	Coordination with City and USACE will be conducted during PS&E. The construction management plan shall be followed during construction.		IS	
VISUAL/AESTHETICS						
AES-1	Work with the community during preliminary design to implement the Aesthetics and Landscape Master Plan for the project improvements through a formalized structure that allows for community input.	Caltrans (during final design)/ Landscape Architect (during final design)	Solicit comments from the community regarding the Aesthetics and Landscape Master Plan during preliminary design.		IS	
AES-2	Develop Context-Sensitive Solutions for the aesthetic and landscape treatments of	Caltrans (during final	Develop Context-Sensitive Solutions		IS	

No.	Description of Commitment	Responsible Party/ Monitor	Timing/Phase	Task Completed (Sign and Date)	Commitment Source	Comments
	the project elements based on Caltrans' Aesthetic and Landscape Master Plan.	design)/ Landscape Architect (during final design)	during final design.			
AES-3	Apply architectural detailing to the proposed bridges in the corridor, including textures, colors, and patterns. Potential bridge elements that might receive aesthetics treatments include columns, pier caps, parapets, fencing, abutment, and wing walls.	Caltrans (during final design)/ Landscape Architect (during final design)	Caltrans (during final design)/ Landscape Architect (during final design).		IS	
AES-4	Apply architectural detailing to the retaining walls, including textures, colors, and patterns. Include caps that will provide shadow lines, as shown in the Caltrans' Aesthetics and Landscape Master Plan.	Caltrans (during final design)/ Landscape Architect (during final design)	Caltrans (during final design)/ Landscape Architect (during final design).		IS	
AES-5	Save and protect as much existing vegetation, especially trees, as feasible.	Caltrans/ RCTC (during final design) Resident Engineer/ (during construction)	Saving and protecting existing vegetation shall be implemented during construction.		IS	
AES-6	Include skyline trees in the new plantings to help break up views to the new flyover.	Caltrans (during final design)/ Landscape Architect (during final design)	Include skyline trees during final design.		IS	
AES-7	Utilize drainage and water quality elements, where required, that maximize the allowable landscape. Place any water quality or detention ponds out of clear view	Caltrans (during final design)/ Landscape	Implement drainage and water quality elements during final design.		IS	

No.	Description of Commitment	Responsible Party/ Monitor	Timing/Phase	Task Completed (Sign and Date)	Commitment Source	Comments
	of the interchange or from the highway. If this is not possible, integrate these features into the Landscape Design.	Architect (during final design)				
AES-8	The Project Engineer will ensure that replacement planting to mitigate the loss of existing landscaping is included in the final design. All planting must be reviewed and approved by the District Landscape Architect. Replacement planting will be funded with project's construction and will include no less than 3 years of plant establishment. The Project Engineer will ensure that the replacement is under construction within 2 years of acceptance of the highway contract that damaged or removed the existing planting	RCTC/ Project Engineer (during final design)/ Landscape Architect (during final design)	Revegetation of disturbed areas will occur after construction. Landscaping design of disturbed areas will be completed during project design.		IS	
AES-9	To address potential impacts associated with views of construction access and staging areas, the resident engineer will be required to construct the project in accordance with Caltrans Standard Construction Specifications, including appropriate measures to address visual impacts during construction.	Caltrans/ Resident Engineer	Implement measures during construction		IS	
AES-10	To reduce glare, RCTC's Project Engineer will ensure that the project plans specify lighting fixtures with non-glare hoods and that lighting plans will require the review and approval of the Department and applicable city and county before construction to assure compliance with their applicable policies regarding public street lighting.	RCTC/ Project Engineer	Implement measure prior to and during construction		IS	

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CULTURAL RESOURCES						
CR-1	Though no archaeological resources are anticipated to be encountered during construction, it is Caltrans' policy if cultural materials are discovered during construction, all earth-moving activity within and around the immediate discovery area will be diverted until a qualified archaeologist can assess the nature and significance of the find.	Caltrans/ Contractor (during construction)	Implement recommendation during construction		IS	
CR-2	If human remains are discovered, State Health and Safety Code Section 7050.5 states that further disturbances and activities shall cease in any area or nearby area suspected to overlie remains, and the County Coroner contacted. Pursuant to PRC Section 5097.98, if the remains are thought to be Native American, the coroner will notify the Native American Heritage Commission (NAHC), who will then notify the Most Likely Descendent (MLD). At this time, the person who discovered the remains will contact Gary Jones, District Cultural Resources Environmental Branch so that they may work with the MLD on the respectful treatment and disposition of the remains. Further provisions of PRC 5097.98 are to be followed as applicable.	Caltrans/ Contractor (during construction)	Implement recommendation during construction		IS	
HYDROLOGY AND FLOODPLAIN						
FP-1	To minimize impacts to the floodplain during construction, the project will implement temporary construction measures as indicated under Section 2.2.2, Water Quality and Stormwater Runoff.	Resident Engineer/ Contractor (during construction)	Implement recommendation during construction.		IS	
FP-2	If construction is occurring within the Zone A floodplain, then the contractor will ensure	Resident Engineer/	Implement recommendation after		IS	

No.	Description of Commitment	Responsible Party/ Monitor	Timing/Phase	Task Completed (Sign and Date)	Commitment Source	Comments
	that the area will be returned to its original state after construction is completed to maintain the integrity of the floodplain.	Contractor (during construction)	construction.			
WATER QUALITY AND STORMWATER RUNOFF						
WQ-1	Conform to the requirements of the Caltrans Statewide NPDES Storm Water Permit, Order No. 99-06-DWQ, NPDES No. CAS000003, adopted by the SWRCB on July 15, 1999, in addition to the BMPs specified in the Caltrans Storm Water Management Plan (SWMP) (Caltrans 2007b). When applicable, the Contractor shall also conform to the requirements of the General NPDES Permit for Construction Activities, Order No. 2009-0009-DWQ, NPDES No. CAS000002 and any subsequent General Permit in effect at the time of project construction.	Caltrans (during final design)/ Contractor (prior to and during construction)/ Resident Engineer	The Contractor will conform to the requirements of the Caltrans Statewide NPDES Storm Water Permit and implement BMPs prior to and during construction activities.		IS; CWA 402	
WQ-2	Prepare and implement the SWPPP. The SWPPP shall address all State and Federal water control requirements and regulations. The SWPPP shall address all construction-related activities, equipment, and materials that have the potential to impact water quality. The SWPPP shall include BMPs to control pollutants, sediment from erosion, stormwater runoff, and other construction-related impacts. In addition, the SWPPP shall include the provisions of SWRCB Resolution No. 2001-046, which requires implementation of specific Sampling Analysis Procedures to ensure that the implemented BMPs are effective in preventing the exceedance of any water quality standards. The results of the risk-level determination indicate that the project has a Risk Level of 1, which directs the project to implement the	Contractor (during construction)/ Resident Engineer	The Contractor shall conform and implement site BMPs prior to and during construction activities.		IS; CWA 402	

No.	Description of Commitment	Responsible Party/ Monitor	Timing/Phase	Task Completed (Sign and Date)	Commitment Source	Comments
	following Risk Level 1 requirements: - Effluent Standards - Good Site Management "Housekeeping" - Non-Stormwater Management - Sediment Controls - Run-on and Runoff Controls - Inspection, Maintenance, and Repair Risk Level 1 Monitoring and Reporting Requirements specific implementation details regarding these requirements are found in Attachment C of the NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities Order No. 2009-0009-DWQ (September 2009).					
WQ-3	Filing a Notice of Intent (NOI) with the SWRCB at least 30 days prior to any soil-disturbing activities.	RCTC (prior to construction)/ Caltrans	File NOI to SWRCB at least 30 days prior to construction.		IS; CWA 402	
WQ-4	Conform all work to the Construction Site BMP (Category II) requirements specified in the latest edition of the Caltrans SWMP to control and minimize the impacts of construction and construction-related activities, materials, and pollutants on the watershed. These include, but are not limited to, temporary sediment control, temporary soil stabilization, scheduling, waste management, materials handling, and other non-stormwater BMPs. For a complete list, refer to Section 4.5 of the Caltrans SWMP (2003).	RCTC (during final design)/ Contractor (during construction)/ Resident Engineer	Caltrans SWMP should be followed during the design phase of the project. BMPs should be implemented during construction.		IS; CWA 402	
WQ-5	Give special attention to stormwater pollution control during the rainy season, which is defined by the State Water Resources Control Board (SWRCB) as year round. Appropriate soil stabilization and sediment controls will be implemented when rain is predicted.Water Pollution	Contractor (during construction)/ Resident Engineer	Implement recommendations during construction.		IS	

No.	Description of Commitment	Responsible Party/ Monitor	Timing/Phase	Task Completed (Sign and Date)	Commitment Source	Comments
	Control BMPs will be used to minimize impacts to receiving waters. Measures would be incorporated to contain all vehicle loads and avoid any tracking of materials, which may fall or blow onto Caltrans right-of-way (ROW).					
WQ-6	If dewatering is necessary, then this project will fully conform to Order No. R8-2009-0003 (NPDES No. CAG998001), General Waste Discharge Requirements for Discharges to Surface Water which Pose an Insignificant *(De Minimis)* Threat to Water Quality, from the Santa Ana RWQCB. Dewatering BMPs will be used to control sediments and pollutants. An EPA-certified laboratory will test and monitor the discharge for compliance with the requirements of the RWQCB.	Contractor (during construction)/ Resident Engineer	Dewatering BMPs should be implemented during construction activities.		IS; CWA 402	

No.	Description of Commitment	Responsible Party/ Monitor	Timing/Phase	Task Completed (Sign and Date)	Commitment Source	Comments
WQ-7	The Caltrans SWMP describes BMPs and practices to reduce the discharge of pollutants associated with the stormwater drainage systems of State highways, facilities, and activities. The completed project plans will incorporate all necessary Maintenance BMPs (Category IA), Design Pollution BMPs (Category IB), and Treatment BMPs (Category III) to meet the Maximum Extent Practicable (MEP) requirements. A combination of BMPs from the following categories will be implemented as part of the proposed project: • Maintenance BMPs – This category includes routine maintenance work, such as litter pickup, toxics control, street sweeping, drainage, and channel cleaning. • Design Pollution Prevention BMPs – Permanent soil stabilization systems will be incorporated into project design, such as preservation of existing vegetation, concentrated flow conveyance systems (e.g., drainage ditches, dikes, berms, swales), and slope/surface protection systems that utilize either vegetated or hard surfaces. Determination of Design Pollution Prevention BMPs will occur during final design. • Treatment BMPs – The applicability of all nine Caltrans-approved Treatment BMPs were analyzed as part of this project. This category of BMPs includes traction sand traps, infiltration devices, detention devices, biofiltration strips/swales, dry weather flow diversion, media filters, multi-chamber treatment trains, wet basins, and gross solids removal devices (GSRDs).	RCTC/ Caltrans (Oversight) (during final design) Contractor/ Resident Engineer (during construction)	Implement BMPs during construction.		IS; CWA 402	

No.	Description of Commitment	Responsible Party/ Monitor	Timing/Phase	Task Completed (Sign and Date)	Commitment Source	Comments
WQ-8	Prior to the disturbance of all jurisdictional drainages, the following are required: • Obtain and conform to CWA Section 404 permit issued by USACE prior to disturbance of all jurisdictional drainages. • Obtain and conform to CWA Section 401 Water Quality Certificate issued by Santa Ana RWQCB prior to disturbance of all jurisdictional drainages. • Obtain and conform to Streambed Alteration Agreement from CDFG prior to disturbance of all jurisdictional drainages. Compensatory mitigation measures for impacts to jurisdictional drainages shall adhere to requirements contained within Section 2.3 of this IS.	RCTC/ Caltrans (during final design/prior to construction)/ Contractor during construction	Obtain permits prior to construction. Conform to requirements during construction.		CWA 404; CWA 401; CDFG 1600	
GEOLOGY/SOILS/SEISMIC/TOPOGRAPHY						
GEO-1	A site-specific geotechnical investigation will be completed ensuring that piles, retaining walls, and other structures will not impact geology and topography in the area. The final design will address any geotechnical hazards that are identified in the investigation.	Caltrans (during final design)	Site-specific geotechnical investigation should be conducted during final design.		IS	
GEO-2	An erosion control plan will be prepared prior to construction of the project. The erosion control plan must specify measures such as soil stabilization. As described in the Caltrans Plans Preparation Manual: "The locations and details of the erosion control materials shall be shown on the erosion control plans. Erosion control materials may include, but are not limited to, compost, straw, fiber, stabilizing emulsion, and erosion control blankets/mats."	Caltrans (during final design)	An erosion control plan shall be prepared during final design.		IS; CWA 402	

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GEO-3	If slopes are going to be constructed steeper than 2:1 (H:V), then stability analyses should be performed during the final design phase.	Caltrans (during final design)	Stability analysis should be conducted during final design		IS	
GEO-4	During final design, the most suitable pile type should be used based on the geotechnical data, site-specific investigation, cost considerations, and the latest Caltrans requirements by using Working Stress Design or Load and Resistance Factor Design methods for abutment and bent.	Caltrans (during final design)	Determine the most suitable pile type during final design.		IS	
GEO-5	Earthwork should conform to requirements of the Caltrans Standard Specifications, Section 19. Soil compaction should be accomplished in accordance with Section 19-5 of the Standard specification. The subgrade should be compacted to at least 95 percent of the laboratory maximum dry density. Fill placed during widening of the embankments should be benched into the existing slopes as described in Section 19-6.1 of the Standard specifications. Actual depths and extend of toe-of-fill keyways will be determined during site-specific investigations.	Caltrans (during final design)	Conformance with Caltrans Standard Specifications Section 19 is required during final design.		IS	
GEO-6	Import soils should have the minimum characteristics: • Non-reactive to Portland cement concrete, or cement type should reflect corrosivity test results. • Have shear values of a minimum cohesion equal to 100 pounds per square inch and friction angle of 30 degrees or a combination of strength parameters that will provide a safety factor of at least 1.5 static and 1.1 pseudostatic stability analysis results. Expansion index should be equal to or less	Caltrans (during final design) Resident Engineer/ Contractor (during construction)	Type of import soils should be determined during final design.		IS	

No.	Description of Commitment	Responsible Party/ Monitor	Timing/Phase	Task Completed (Sign and Date)	Commitment Source	Comments
	than 20.					
GEO-7	A minimum over-excavation should be performed within all areas to receive compacted fill. The over-excavation should extend horizontally a minimum distance equal to the depth of excavation from the edges of new fill.	Caltrans (during final design) Resident Engineer/ Contractor (during construction)	Over-excavation should be performed during construction.		IS	
GEO-8	If soundwalls are determined feasible and reasonable on the hillside homes south of SR 91, then a geotechnical engineer will review the plans to ensure stability of these soundwalls.	Caltrans (during final design) Resident Engineer/ Contractor (during construction)	Recommendations for appropriate foundation support measures will be incorporated during the final design. Dewatering permit must be obtained prior to construction (if required).		IS	
PALEONTOLOGY						
P-1	A Paleontological Mitigation Plan (PMP) will be prepared by a qualified paleontologist in accordance with Caltrans' Standard Environmental Reference (SER) requirements.	Caltrans (during design)	The PMP will be prepared during design.		IS	
P-2	A qualified principal paleontologist (M.S. or Ph.D. in paleontology or geology familiar with paleontological procedures and techniques) will be retained to be present to consult with grading and excavation contractors at pre-grading meetings.	Caltrans (during final design)/ Paleontologist (during construction)	Contractors will consult with the paleontologist at pre-grading meetings.		IS	
P-3	A paleontological monitor, under the direction of the qualified principal paleontologist, will be onsite to inspect cuts for fossils at all times during original grading involving sensitive geologic formations.	Caltrans (during construction)/ Paleontologist (during construction)	A paleontological monitor should be present during construction.		IS	

No.	Description of Commitment	Responsible Party/ Monitor	Timing/Phase	Task Completed (Sign and Date)	Commitment Source	Comments
P-4	When fossils are discovered, the paleontologist (or paleontological monitor) will recover them. Construction work in these areas will be halted or diverted to allow recovery of fossil remains in a timely manner.	Paleontologist (during construction)/ Resident Engineer (during construction)	Paleontological monitor will recover fossils during construction.		IS	
P-5	Fossil remains collected during the monitoring and salvage portion of the mitigation program will be cleaned, repaired, sorted, and cataloged.	Paleontologist (during construction)	Fossil remains collected will be cleaned, repaired, sorted, and catalogued during the monitoring and salvage portion of the mitigation program.		IS	
P-6	Prepared fossils, along with copies of all pertinent field notes, photos, and maps, will then be deposited in a scientific institution with paleontological collections.	Paleontologist (during construction)	Prepared fossils with all information will be deposited in a scientific institution during/after construction.		IS	
P-7	A Paleontological Mitigation Report (PMR) will be completed that outlines the results of the mitigation program.	Paleontologist (during construction)	Final report will be completed after construction.		IS	
P-8	Where feasible, selected road cuts or large finished slopes in areas of critically interesting geology may be left exposed as important educational and scientific features. This may be possible if no substantial adverse visual impact results.	Paleontologist (during construction)/ Resident Engineer (during construction)	If feasible, exposure of interesting geology may be left exposed during construction.		IS	
HAZARDOUS WASTE/MATERIALS						
HW-1	There is a possibility of encountering polychlorinated biphenyl (PCB)-containing liquids, asbestos-containing materials (ACMs), lead-based paint (LBP), and aerially deposited lead (ADL) during construction. Any hazardous materials encountered shall be managed accordingly.	Resident Engineer/ Contractor (during construction)	Proper handling and managing of hazardous materials should be carried out during construction.		IS	

No.	Description of Commitment	Responsible Party/ Monitor	Timing/Phase	Task Completed (Sign and Date)	Commitment Source	Comments
HW-2	Pole-top transformers with PCB-containing liquids shall be properly managed if they are to be removed or relocated.	Resident Engineer/ Contractor (during construction)	Removal and relocation of PCB containing transformers should be properly managed during construction.		IS	
HW-3	Prior to the final environmental document, presumed ACM materials, including rails, bearing pads, support piers, expansion joint material of bridges, asphalt, and concrete, will be surveyed and assessed in compliance with 40 CFR *(Code of Federal Regulations)* 763. During construction, if bridge structures not previously tested for asbestos are anticipated to be disturbed or if suspect ACMs are discovered, the contractor shall stop work and these materials will be surveyed and assessed for asbestos prior to disturbance.	Caltrans (during PA/ED) Resident Engineer/ Contractor (during construction)	Survey and assessment of ACM materials will be conducted during the PA/ED phase of the project. Structures that are anticipated to be disturbed and have not been tested for asbestos or ACMs must stop work during construction.		IS	
HW-4	Paint used for lane striping should be tested for LBP prior to demolition/removal to determine proper handling and disposal requirements.	Caltrans (prior to construction) Resident Engineer/ Contractor (during construction)	Testing of paint for LBP should be conducted prior to demolition/ removal.		IS	
HW-5	Any soils with ADL contamination shall be managed properly and disposed. During project construction, soil in the project limits may be reused within Caltrans right-of-way (ROW), provided it is placed a minimum of 5 feet (ft) above the maximum water table and is covered by pavement. Soil export will be minimized, and excess soil generated during project construction, if any, will be disposed of at a non-Resource Conservation and Recovery Act (RCRA) California hazardous waste at a Class I hazardous waste disposal facility.	Caltrans Haz Waste Coordinator (Prior to Construction) Resident Engineer/ Contractor (during construction)	Caltrans will review the Lead Compliance Plan (prior to Construction) Soil handling instructions should be implemented during construction.		IS	

No.	Description of Commitment	Responsible Party/ Monitor	Timing/Phase	Task Completed (Sign and Date)	Commitment Source	Comments
HW-6	LBP, ACM, and ADL surveys shall be conducted if data has not already been collected in this area by previous projects. LBP, ACM, ADL, and herbicide/pesticide surveys should take approximately 4 to 6 weeks (for sampling and report generation). Further needed investigations will be postponed until final design is complete.	Caltrans (prior to construction) Resident Engineer/ Contractor (prior to construction)	LBP, ACM, ADL, and herbicide/pesticide surveys will be conducted prior to construction.		IS	
AIR QUALITY						
AQ-1	In addition to the South Coast Air Quality Management District (SCAQMD) rules, the following mitigation measures set forth a program of air pollution control strategies that will ensure that construction emissions will not exceed any applicable standard. Measures 1 and 2 include fugitive dust reduction strategies, in addition to Rule 403 requirements. Measures 3 through 5 provide reduction for other contaminants, including nitrogen oxide (NO_x) emissions. 1. In addition to SCAQMD Rule 403 requirements, apply water to all excavation/grading activity areas as necessary to remain visibly moist during active operations. 2. Apply nontoxic soil stabilizers, as needed, to reduce offsite transport of fugitive dust from unpaved staging areas and unpaved road surfaces. 3. Properly tune and maintain construction equipment and vehicles in accordance with manufacturer's specifications. Low-sulfur fuel shall be used in construction equipment per California Code of Regulations (CCR) Title 17, Section 93114. 4. During construction, keep trucks and vehicles in loading/ unloading queues	Caltrans (during final design) Resident Engineer/ Contractor (during construction)	Minimization measures will be conducted during construction.		SCAQMD Rule 403	

No.	Description of Commitment	Responsible Party/ Monitor	Timing/Phase	Task Completed (Sign and Date)	Commitment Source	Comments
	with their engines off when not in use to reduce vehicle emissions. Phase construction activities to avoid emissions peaks, where feasible, and discontinue during second-stage smog alerts. 5. To the extent feasible, use construction equipment that is either equipped with diesel oxidation catalyst or is powered by alternative fuel sources (e.g., methanol, natural gas). 6. Active construction areas shall be watered regularly to control dust and minimize impacts to adjacent vegetation. All measures provided above and included in SCAQMD Rule 403 and 1403 that are applicable to the project construction activities shall be implemented to the extent feasible to avoid adverse short-term air quality impacts.					
AQ-2	Active construction areas shall be watered regularly to control dust and minimize impacts to adjacent vegetation.	Resident Engineer/ Contractor (during construction)	Implement recommendation during construction.		IS	
NOISE						
N-1	To minimize construction generated noise, Standard Specification Section 14-8.02 “Noise Control” and Standard Special Provision S5-310 need to be followed. This Standard Special Provision will be edited specifically for the project during the PS&E phase. Construction noise control and noise monitoring must comply with Caltrans General “5-1 Noise Control” standard	Resident Engineer/ Contractor (during construction)	Noise control provisions will be implemented during construction.		IS; Caltrans SSPs	

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	special provisions. This section applies to equipment on the project or associated with the project, including trucks, transit mixers, stationary equipment, and transient equipment. Do not exceed 86 A-weighted decibels (dBA) at 50 ft from the project limits from 9:00 p.m. to 6:00 a.m. Do not operate construction equipment or run equipment engines from 7:00 p.m. to 7:00 a.m. or on Sundays, except you may operate within the project limits during these hours to: - Service traffic control facilities - Service construction equipment *Noise Monitoring* Provide 1 Type 1 sound-level meter and 1 acoustic calibrator to be used by the Department until contract acceptance. Provide training by a person trained in noise monitoring to 1 Department employee designated by the Engineer. The sound-level meter must be calibrated and certified by the manufacturer or other independent acoustical laboratory before delivery to the Department. Provide annual recalibration by the manufacturer or other independent acoustical laboratory. The sound-level meter must be capable of taking measurements using the A-weighting network and the slow response settings. The measurement microphone must be fitted with a windscreen. The Department returns the equipment to you at contract acceptance. The contract lump sum price paid for noise monitoring includes full compensation for furnishing all labor, material, tools, equipment, and incidentals and for doing all work involved in noise monitoring.					

No.	Description of Commitment	Responsible Party/ Monitor	Timing/Phase	Task Completed (Sign and Date)	Commitment Source	Comments
N-2	If possible, avoid using impact pile driving for bridge demolition/ reconstruction. Utilize less noise-intrusive piling techniques using vibratory pile driving or CIDH piling.	Resident Engineer/ Contractor (during construction)	Avoidance of the usage of impact pile driving will be implemented during construction.		IS; Caltrans SSPs	
N-3	In case of construction noise complaints by the public, the construction manager will be notified and noise monitoring will be conducted if necessary.	Resident Engineer/ Contractor (during construction)	Noise monitoring will be implemented during construction (if applicable).		IS; Caltrans SSPs	
N-4	All equipment will have sound-control devices no less effective than those provided on the original equipment. No equipment will have an unmuffled exhaust.	Resident Engineer/ Contractor (during construction)	Sound control devices will be implemented during construction.		IS; Caltrans SSPs	
N-5	Truck loading, unloading, and hauling operations will be conducted so that associated noise impacts are kept to a minimum by carefully selecting routes to avoid going through residential neighborhoods to the greatest possible extent.	Resident Engineer/ Contractor (during construction)	Truck activities will be monitored during construction.		IS; Caltrans SSPs	
N-6	Use and relocate temporary barriers, if warranted and practicable, to protect sensitive receptors from excessive construction noise. Such temporary noise barriers can be made of heavy plywood or moveable insulated sound blankets. They will be free of visible internal gaps, and the material will provide a transmission loss of at minimum 15 dBA (preferably at least 20 dBA) relative to the noise source requiring abatement so that it can provide a useful level of insertion loss when used as a barrier.	Resident Engineer/ Contractor (during construction)	Use and relocate temporary barriers, if warranted and practicable, to protect sensitive receptors from excessive construction noise during construction.		IS; Caltrans SSPs	
N-7	As directed by the Department's resident engineer, the contractor will implement appropriate additional noise abatement	Contractor (during construction)	Implement noise abatement measures during construction.		IS; Caltrans SSPs	

No.	Description of Commitment	Responsible Party/ Monitor	Timing/Phase	Task Completed (Sign and Date)	Commitment Source	Comments
	measures including, but not limited to, changing the location of stationary construction equipment, turning off idling equipment, rescheduling construction activity, notifying adjacent residents in advance of construction work, or installing acoustic barriers around stationary construction noise sources.					
NATURAL COMMUNITIES						
BIO-1	The limits of grading required for all aspects of the interchange and construction staging areas will be clearly marked, and all construction areas, including staging of construction equipment, will be surveyed.	Caltrans (prior to construction)/ Resident Engineer (during construction)	The limits of grading of the project and staging areas will be delineated prior to construction.		IS	
BIO-2	Planned roads will be located in the least environmentally sensitive location feasible, including disturbed and developed areas or areas that have been previously altered.	Caltrans (PS&E)	Implement recommendation during PS&E.		Western Riverside County MSHCP; IS	
BIO-3	Alignments will follow existing roads, easements, ROWs, and disturbed areas, as appropriate, to minimize habitat fragmentation. Implementation of BMPs, as discussed in Section 5.2.5 of the SR 91 and SR 71 Interchange Improvement Project Habitat Assessment and MSHCP Consistency Analysis Report (Parsons/MBA 2010), preconstruction surveys, construction monitoring, and prescribed mitigation for impacts to riparian/riverine areas will reduce all potential impacts to sensitive species not considered adequately conserved under the MSHCP to less than substantial.	Caltrans (PS&E)/ Resident Engineer (prior to and during construction)	Minimizing habitat fragmentation by implementing alignments to follow disturbed areas should be completed during PS&E. Preconstruction surveys and construction monitoring should be implemented during construction.		IS	
BIO-4	Incorporate measures to control the quantity and quality of runoff from the site entering the MSHCP Conservation Area.	Caltrans (during final design)/	Incorporate measures prior to construction		Western Riverside County MSHCP;	

No.	Description of Commitment	Responsible Party/ Monitor	Timing/Phase	Task Completed (Sign and Date)	Commitment Source	Comments
	In particular, measures shall be put in place to avoid discharge of untreated surface runoff from developed and paved areas into MSHCP Conservation Areas. According to the *Water Resources and Water Quality Technical Report* (Parsons 2010), the proposed construction of a new flyover connector will not generate any changes in existing runoff in the area, and an SWPPP will be prepared for construction of the site.	Contractor (during construction			IS	
BIO-5	The use of chemicals or generation of bioproducts (i.e., manure) that are potentially toxic or may adversely affect wildlife species, habitat, or water quality shall not result in discharge to the MSHCP Conservation Area. The greatest risk is from landscaping fertilization overspray and runoff. Contractor shall avoid the discharge of chemicals, generation of bio products and over spraying of landscaping fertilizer within the MSHCP Conservation Area.	Caltrans/ Contractor	Avoid discharge of chemicals within MSHCP during construction		Western Riverside County MSHCP; IS	
BIO-6	Night lighting shall be directed away from the MSHCP Conservation Area to protect species within the MSHCP Conservation Area from direct night lighting. Shielding shall be incorporated in project designs to ensure that ambient lighting in the MSHCP Conservation Area is not increased.	Caltrans/ Contractor	Implement measure during construction		Western Riverside County MSHCP; IS	
BIO-7	Proposed noise-generating land uses affecting the MSHCP Conservation Area shall incorporate setbacks, berms, or walls to minimize the effects of noise on MSHCP Conservation Area resources pursuant to applicable rules, regulations, and guidelines related to land use noise standards.	Caltrans (during final design)	Implement measure during final design		Western Riverside County MSHCP; IS	

No.	Description of Commitment	Responsible Party/ Monitor	Timing/Phase	Task Completed (Sign and Date)	Commitment Source	Comments
BIO-8	Proposed land uses adjacent to the MSHCP Conservation Area shall incorporate barriers, where appropriate, in individual project designs to minimize unauthorized public access, domestic animal predation, illegal trespass, or dumping into the MSHCP Conservation Areas. Such barriers may include native landscaping, rocks/boulders, fencing, walls, signage, and/or appropriate mechanisms. Manufactured slopes associated with the proposed site development shall not extend into the MSHCP Conservation Area.	Caltrans/ Contractor	Incoporate barriers during construction		Western Riverside County MSHCP; IS	
BIO-9	To maintain the integrity of the wildlife corridor, the design plans of culvert improvements in the Fresno Canyon area will be submitted to the wildlife agencies for review and approval	Caltrans (during final design)	Submit design plans during final design		Western Riverside County MSHCP; IS	
WETLANDS AND OTHER WATERS						
BIO-10	If jurisdiction is confirmed by USACE, RWQCB, and CDFG, then the following permits will be acquired: a Section 404 permit from USACE pursuant to Section 404 of the CWA; a Section 401 Water Quality Certification from the RWQCB; and a Section 1600 Streambed Alteration Agreement from CDFG pursuant to Section 1600 of the California Fish and Game Code.	Caltrans/ RCTC (during final design)	Obtain Section 404 permit, Section 401certification, and section 1600 agreement during final design.		CWA 404; CWA 401; CDFG 1600	

No.	Description of Commitment	Responsible Party/ Monitor	Timing/Phase	Task Completed (Sign and Date)	Commitment Source	Comments
BIO-11	To offset impacts to jurisdictional resources, RCTC will obtain mitigation credits at a minimum ratio of 2:1. Currently, there are three potential mitigation areas under consideration by RCTC for riparian/riverine and jurisdiction resources mitigation: (1) habitat restoration of lands within Chino Hills State Park (CHSP); (2) habitat restoration of lands within the Green River Golf Course; and (3) habitat restoration or creation of lands owned by the Regional Conservation Authority (RCA).	RCTC (during final design)	Obtain mitigation credit during final design.		IS; DBESP	
BIO-12	Planned roads will avoid, to the greatest extent feasible, impacts to wetlands. If wetlands avoidance is not possible, then any impacts to wetlands will require issuance of and mitigation in accordance with a Federal Section 404 and/or State Section 1600 permit.	Caltrans (during final design)	Avoidance of impacts to wetlands shall be implemented during final design.		Western Riverside County MSHCP; IS	
PLANT SPECIES						
BIO-13	To minimize direct impacts to special-status plant species, the limits of grading required for all aspects of the interchange and construction staging areas will occur entirely within Caltrans ROW or temporary construction easements and will be clearly marked.	Caltrans (during final design) Resident Engineer/ Contractor (during construction)	Construction staging areas will be delineated prior to construction. Construction activities should only occur within these limits.		IS	
BIO-14	Preconstruction surveys will be conducted for sensitive plants after the final construction ROW has been established. All appropriate plants will be tagged and moved to appropriate offsite locations prior to the start of grading. It may be possible that plants will be salvaged, stored, and replanted within disturbed areas subsequent to construction.	Caltrans (during final design)/ Resident Engineer/ Contractor (during construction)	Preconstruction surveys, tagging, and moving of plants will be conducted prior to construction.		IS	

No.	Description of Commitment	Responsible Party/ Monitor	Timing/Phase	Task Completed (Sign and Date)	Commitment Source	Comments
BIO-15	The appropriate biological surveys will be based on field conditions and recommendations of the project manager in consultation with a qualified biologist. The results of the biological resources investigations will be mapped and documented. The documentation will include preliminary conclusions and recommendations regarding potential effects of facility construction on MSHCP Conservation Area resources and methods to avoid and minimize impacts to these resources in conjunction with project siting, design, construction, and operation. The project biologist will work with facility designers during the design and construction phase to ensure implementation of feasible recommendations.	Caltrans/ Biologist (during final design) Resident Engineer/ Biologist (during construction)	Biological Surveys will be conducted prior to construction. Project biologist will work with facility designers during the design and construction phase to implement recommendations.		IS	
BIO-16	During the Design Phase, a habitat assessment, and as required, focused surveys for theBrand's phacelia (blooming period: March–June), San Diego ambrosia (blooming period: April–October), and San Miguel savory (blooming period: March–May) will be conducted during the appropriate blooming season. Subsequent to surveys, the RCTC will update the information in the JPR and DEBSP to address the additional surveys, and as necessary, presence of and impacts to these species. If the federally endangered San Diego ambrosia is identified on-site during the surveys, Caltrans will reinitiate Section 7 consultation with the USFWS to amend the BO. Applicable mitigation will be determined through coordination with the resource agencies based on the survey results and project impacts. Potential mitigation measures listed below	RCTC to conduct habitat assessment/ focused surveys, and update JPR and DBESP (if necessary); Caltrans to reinitiate Section 7 consultation (if required)	Conduct habitat assessment during final design phase. Habitat assessment must be conducted during the blooming season for each plant species.		IS	

No.	Description of Commitment	Responsible Party/ Monitor	Timing/Phase	Task Completed (Sign and Date)	Commitment Source	Comments
	or a combination of the two measures could be implemented. • On-site conservation of existing Brand's phacelia, San Diego ambrosia, and San Miguel savory though avoidance and designation of environmentally sensitive areas. • Translocation of Brand's phacelia, San Diego ambrosia, and San Miguel savory individuals outside of the Project ROW to areas of suitable habitat, as identified by a contractor supplied plant biologist with knowledge of and experience with translocation of local flora species of the region.					
ANIMAL SPECIES						
BIO-17	Design of planned roads will consider wildlife movement requirements, as further outlined in Section 7.5.2, Guidelines for Construction of Wildlife Corridors, and any construction, maintenance, and operation activities that involve clearing of natural vegetation will be conducted outside the active breeding season (February 15 through August 31).	Caltrans (during final design) Resident Engineer/ Contractor (during construction)	Clearing of vegetation shall occur outside the breeding season during construction.		Western Riverside County MSHCP; IS	
BIO-18	For the wildlife fencing on SR 91 and SR 71, consideration will be given during design to avoid disturbance of the fencing or movement of wildlife. If the project requires removal of the fencing, then biological monitoring will be required and replacement of any disturbed fencing will occur after construction. For PCL 1 and PCL 2, the following	Caltrans (during final design); Resident Engineer (during construction)	Wildlife fencing should be implemented during construction; if fencing is removed, a biological monitor is required during construction.		IS	

No.	Description of Commitment	Responsible Party/ Monitor	Timing/Phase	Task Completed (Sign and Date)	Commitment Source	Comments
	measures shall be implemented to improve wildlife connectivity: • For PCL 1, the project will improve wildlife connectivity by utilizing an open channel instead of a traditional pipe extension, installing wildlife fencing to funnel into the crossing, and planting of native vegetation. • For PCL 2, the project will improve the function of the undercrossing bridge by removing most of the existing concrete revetment and regrading the slopes of the crossing openings to a 4:1 slope. In addition, wildlife fencing will be installed to funnel the wildlife into the crossings, and native vegetation will be planted to provide habitat continuity. Caltrans and RCTC will continue its commitment to work with the RCA and Wildlife Agencies on implementing a replacement linkage for PCL 1, as well as incorporating measures to improve PCL 2 after the completion of cumulative projects in the area (SR-91 Corridor Improvement Project [CIP]). These measures to improve PCL 1 and PCL 2 will be incorporated before the completion of the SR-91 CIP Initial Project, which is anticipated to be completed in 2015.					
BIO-19	An appropriate openness ratio of at least 0.6 (calculated in meters as [opening width X height/length of crossing]) and height for crossings intended for use by medium- and large-sized wildlife will be maintained. The openness ratio, which is a function of a structure's length [(height x width)/length], is important for larger animals when using culverts and highway undercrossings. To maintain the integrity	Caltrans (final design) Resident Engineer/ Contractor (during construction)	Dimensions of wildlife crossing should be implemented during final design. Resident Engineer/Contractor will maintain crossing during construction activities.		IS	

No.	Description of Commitment	Responsible Party/ Monitor	Timing/Phase	Task Completed (Sign and Date)	Commitment Source	Comments
	of the wildlife corridor, the design plans of culvert improvements in the Fresno Canyon area will be submitted to the wildlife agencies for review and approval.					
BIO-20	Crossing facilities will be vegetated as naturally as possible to mimic the surrounding natural crossing area. In some instances, vegetation may need to be tailored to match the needs of the focused species. Natural objects, such as stumps, rocks, and other natural debris, will be used within the crossing facility to create cover for wildlife and to encourage the use of crossings. The landscaping plans near the wildlife corridor areas will be submitted to the wildlife agencies for review and approval.	Caltrans (final design)	Artificial lighting will be implemented during final design.		IS	
BIO-21	Sediment and erosion-control measures will be implemented until such time soils are determined to be successfully stabilized. In addition, the following measures will be implemented to areas within the MSHCP Conservation Areas: • Incorporate measures to control the quantity and quality of runoff from the site entering the MSHCP Conservation Area. In particular, measures shall be put in place to avoid discharge of untreated surface runoff from developed and paved areas into MSHCP Conservation Areas. According to the report, the proposed construction of a new flyover connector will not generate any changes in existing runoff in the area and an SWPPP will be prepared for construction of the site. • The use of chemicals or generation of bioproducts (i.e., manure) that are potentially toxic or may adversely affect	Resident Engineer/ Contractor (during construction)	Sediment and erosion control measures will be implemented during construction.		IS	

No.	Description of Commitment	Responsible Party/ Monitor	Timing/Phase	Task Completed (Sign and Date)	Commitment Source	Comments
	wildlife species, habitat, or water quality shall not result in discharge to the MSHCP Conservation Area. The greatest risk is from landscaping fertilization overspray and runoff.					
BIO-22	Equipment storage, fueling, and staging areas will be sited on non-sensitive upland habitat types with minimal risk of direct discharge into riparian areas or other sensitive habitat types.	Resident Engineer/ Contractor (during construction)	Equipment storage, fueling, and staging areas will be sited on non-sensitive upland habitat during construction.		IS	
BIO-23	During construction, the placement of equipment within the stream or on adjacent banks or adjacent upland habitats occupied by Covered Species that are outside of the project footprint will be avoided.	Resident Engineer/ Contractor (during construction)	Avoidance of placing equipment within the stream or adjacent banks will be followed during construction.		IS	
BIO-24	When work is conducted during the fire season, as identified by the Riverside County Fire Department, adjacent to coastal sage scrub or chaparral vegetation, appropriate fire-fighting equipment (e.g., extinguishers, shovels, water tankers) shall be available on the site during all phases of project construction to help minimize the chance of human-caused wildfires. Shields, protective mats, and/or other fire preventative methods shall be used during grinding, welding, and other spark-inducing activities. Personnel trained in fire hazards, preventive actions, and responses to fires shall advise contractors regarding fire risk from all construction-related activities.	Resident Engineer/ Contractor (during construction)	Fire-fighting equipment will be present during construction.		IS	

No.	Description of Commitment	Responsible Party/ Monitor	Timing/Phase	Task Completed (Sign and Date)	Commitment Source	Comments
BIO-25	Active construction areas shall be watered regularly to control dust and minimize impacts to adjacent vegetation.	Resident Engineer/ Contractor (during construction)	Implement recommendation during construction.		IS	
BIO-26	All equipment maintenance, staging, and dispensing of fuel, oil, coolant, or any other toxic substances shall occur only in designated areas within the proposed grading limits of the project site. These designated areas shall be clearly marked and located in such a manner as to contain runoff.	Resident Engineer/ Contractor (during construction)	All toxic substances shall occur only in designated areas during construction.		IS	
BIO-27	Waste, dirt, rubble, or trash shall not be deposited in the Conservation Area or on native habitat. No erodible materials will be deposited into water courses. Brush, loose soils, or other debris material will not be stockpiled within stream channels or on adjacent banks. Silt fencing or other sediment trapping materials will be installed at the downstream end of construction activities to minimize the transport of sediments offsite.	Resident Engineer/ Contractor (during construction)	Implement recommendation during construction.		IS	
BIO-28	Impacts to Species of Special Concern, such as the coast horned lizard, although adverse, are not considered substantial; however, to avoid any impacts to the coast horned lizard, a qualified biological monitor will be onsite during the construction phase of the project to ensure that direct take of this species does not occur.	Resident Engineer/ Contractor (during construction)	Recommendation should be followed during construction.		IS	
BIO-29	To avoid impacts to bats and potentially suitable habitat for day, night, and maternity roosting, construction activities should avoid the maternity season (March through August). In addition, a qualified biologist will conduct a preconstruction	Resident Engineer/ Contractor (during construction)	A biological monitor should be present at the construction site during construction.		IS	

No.	Description of Commitment	Responsible Party/ Monitor	Timing/Phase	Task Completed (Sign and Date)	Commitment Source	Comments
	survey to determine if the construction area contains roosting or maternity colonies. If work must be conducted during the maternity period and roost locations are not occupied, exclusion devices will be installed in all potential roosting locations before March and maintained throughout construction. If work must be conducted during the maternity period and roost locations are found to be occupied, then a sufficient buffer, in consultation with CDFG, will be maintained around any bat roosting or maternity colony. In addition, a qualified biological monitor will be onsite during the construction phase of the project to ensure that no direct take occurs and there is no nest abandonment due to excessive disturbance. Any active nurseries found onsite and mitigation to offset impacts to bat species will be coordinated with CDFG.					
BIO-30	During the Design Phase of the project, a habitat assessment will be completed in accordance with the Burrowing Owl Survey instructions for the Western Riverside Multiple Species Habitat Conservation Plan Survey Area. If suitable habitat is identified during the survey, additional focused surveys may be completed as applicable. To ensure that any BUOW that may occupy the project area in the future are not affected by construction activities, preconstruction surveys will be completed 30 days prior to construction and a report will be prepared and submitted in accordance with the requirements of the MSHCP 30-day Pre-Construction Burrowing Owl Survey Report Format identified . If	Caltrans/ RCTC to conduct habitat assessment and pre-construction surveys. Resident Engineer/ Contractor (during construction)	Habitat Assessment should be conducted during the design phase. Pre-construction surveys to be conducted 30-days prior to construction. Implement mitigation measures during construction.		IS	

No.	Description of Commitment	Responsible Party/ Monitor	Timing/Phase	Task Completed (Sign and Date)	Commitment Source	Comments
	preconstruction surveys determine that BUOW are present, one or more of the following mitigation measures may be required: (1) avoidance of active nests and surrounding buffer area during construction activities; (2) passive relocation of individual owls; (3) active relocation of individual owls; and (4) preservation of onsite habitat with long-term conservation value for the owl. The specifics of the required measures will be coordinated between the Caltrans District Biologist, RCTC and the resource agencies.					
BIO-31	In accordance with the Migratory Bird Treaty Act, to avoid effects to nesting birds, any native or exotic vegetation removal or tree trimming activities will occur outside of the nesting bird season (i.e., March 1–June 30 within Riverside County). In the event that vegetation clearing is necessary during the nesting season, a qualified biologist will conduct a preconstruction survey to identify the locations of nests. Should nesting birds be found, an exclusionary buffer will be established by the biologist. This buffer will be clearly marked in the field by construction personnel under guidance of the biologist, and construction or clearing will not be conducted within this zone until the biologist determines that the young have fledged or the nest is no longer active.	Caltrans/ Resident Engineer	Implement measure during design phase		IS	
THREATENED AND ENDANGERED SPECIES						
BIO-32	Timing of construction activities will consider seasonal requirements for breeding birds and migratory nonresident species. Habitat clearing will be avoided	Caltrans/ RCTC (during final design); Resident	Construction activities will adhere to seasonal requirements and will occur outside the		IS	

No.	Description of Commitment	Responsible Party/ Monitor	Timing/Phase	Task Completed (Sign and Date)	Commitment Source	Comments
	during species' active breeding season, which is generally defined as February to August.	Engineer/ Contractor (during construction)	breeding season of February to August.			
BIO-33	To offset the permanent loss of 1.0 acre of the MSHCP PQP Lands, RCTC will commit to purchase 1.0 acre of land and relinquish to the RCA for long term conservation, consistent with the requirements of the MSHCP.	RCTC	Purchase replacement land during final design		IS	
BIO-34	To offset permanent impacts to riverine and riparian areas, the project will perform off-site enhancement at a 3:1 ratio through one of three options: purchasing credits in the Santa Ana Watershed for arundo (Arundo donax) or salt cedar (Tamarix spp.) removal; restoration within Chino Hills State Park; or restoration on the Green River Golf Course.	RCTC (during final design)	Obtain mitigation credit during final design.		IS; DBESP	
INVASIVE SPECIES						
BIO-35	The invasive, non-native plant species listed in the MSHCP will be considered in approving landscape plans to avoid the use of invasive species for portions of the project that are adjacent to the MSHCP Conservation Area. Considerations in reviewing the applicability of this list shall include proximity of planting areas to the MSHCP Conservation Areas, species considered in the planting plans, resources being protected within the MSHCP Conservation Area and their relative sensitivity to invasion, and barriers to plant and seed dispersal, such as walls, topography, and other features.	Caltrans (during final design)	Implement measure during final design		Western Riverside County MSHCP; IS	

No.	Description of Commitment	Responsible Party/ Monitor	Timing/Phase	Task Completed (Sign and Date)	Commitment Source	Comments
BIO-36	In compliance with the Executive Order on Invasive Species, EO 13112, and subsequent guidance from FHWA, the landscaping and erosion control included in the project will not use species listed as noxious weeds. In areas of particular sensitivity, extra precautions will be taken if invasive species are found in or adjacent to the construction areas. These include the inspection and cleaning of construction equipment and eradication strategies to be implemented should an invasion occur.	Caltrans/ RCTC (prior to construction); Resident Engineer/ Contractor (during construction)	Landscaping and erosion control measures shall be decided prior to construction. Inspection and cleaning of equipment shall occur during construction.		IS	
BIO-37	Implementation of the BMPs discussed in Section 5.2.5 of the *SR 91 and SR 71 Interchange Improvement Project Habitat Assessment and MSHCP Consistency Analysis Report* (2010) will limit the introduction of invasive species into the Conservation Area and will reduce any potential impacts to adjacent sensitive communities to less than substantial.	Caltrans/ RCTC (prior to construction); Resident Engineer/ Contractor (during construction)	Implement recommendations during construction.		MSHCP Consistency Analysis Report (2010)	

APPENDIX B SUPPLEMENTAL NATURAL ENVIRONMENTAL STUDY

SR-71/SR-91 Interchange Improvement Project



Supplemental Natural Environment Study

08-RIV-SR-71-PM 1.9/R3.0 SR-91 R0.9/R2.6

City of Corona, Riverside County, CA

EA 0F5411

February 2021

Caltrans

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Supplemental Natural Environment Study

SR-71/SR-91 Interchange Improvement Project

08-RIV-SR-71-PM 1.9/3.0 SR-91R0.9/R2.6

City of Corona, Riverside County, CA

EA 0F5411

October 2020

STATE OF CALIFORNIA
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List of Abbreviated Terms

°F	degrees Fahrenheit
AMSL	Above Mean Sea Level
APN	Assessor's Parcel Number
BMP	Best Management Practice
BNSF	Burlington Northern Santa Fe
BO	Biological Opinion
BSA	Biological Study Area
BUOW	Burrowing Owl
CAGN	Coastal California Gnatcatcher
Cal-IPC	California Invasive Plant Council
Caltrans	California Department of Transportation
CDFG	California Department of Fish and Game
CDFW	California Department of Fish and Wildlife
CE	Categorical Exemption
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFG	California Fish and Game
CFR	*Code of Federal Regulations*
CH	Critical Habitat
CHSP	Chino Hills State Park
CIP	Corridor Improvement Project
COP	Corridor Operational Project
City	City of Corona
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CSCS	Coastal Sage-Chaparral Scrub
CSS	Coastal Sage Scrub
CWA	Clean Water Act
DBESP	Determination of Biologically Equivalent or Superior Preservation
DH	Disturbed Habitat
DOT	Department of Transportation
DPS	Distinct Population Segment
DSFLF	Delhi Sands Flower-Loving Fly
ECR	Environmental Commitments Record
EFH	Essential Fish Habitat
ELC	Express Lane Connector
ELP	Express Lane Project
EO	Executive Order

EOW	Eucalyptus/Ornamental Woodland
ESA	Environmentally Sensitive Area
FESA	Federal Endangered Species Act
FHWA	Federal Highway Administration
FMP	Fisheries Management Plan
FR	*Federal Register*
GIS	Geographical Information System
HCP	Habitat Conservation Plan
I-15	Interstate 15
IPaC	Information, Planning, and Consultation
IS/MND	Initial Study/Mitigated Negative Declaration
JD	Jurisdictional Delineation
JPR	Joint Project Review
LSA	LSA Associates
LBV	Least Bell's Vireo
MBA	Michael Brandman Associates
MBTA	Migratory Bird Treaty Act
MFS	Mule Fat Scrub
MOU	Memorandum of Understanding
MPH	Miles Per Hour
MS	Mixed Scrub
MSHCP/Plan	Multiple Species Habitat Conservation Plan
NEPA	National Environmental Policy Act
NEPSSA	Narrow Endemic Plant Species Survey Area
NES	Natural Environment Study
NMFS	National Marine Fisheries Service
NLAA	Not Likely to Adversely Affect
NNG	Non-Native Grassland
NOAA	National Oceanic and Atmospheric Administration
NPDES	National Pollutant Discharge Elimination System
OHWM	Ordinary High Water Mark
OW	Oak Woodland
PA/ED	Project Approval/Environmental Document
PCL	Proposed Constrained Linkage
PM	post mile
PQP	Public/Quasi-Public
RCA	Regional Conservation Authority
RCP	reinforced concrete pipe
RCRCD	Riverside-Corona Resource Conservation District
RCTC	Riverside County Transportation Commission
RF	Riparian Forest

ROW	Right-of-Way
RWQCB	Regional Water Quality Control Board
SAA	Streambed Alteration Agreement
SAN	Streambed Alteration Notification
SAS	Santa Ana Sucker
SAWA	Santa Ana Watershed Association
SCE	Southern California Edison
SCRF	Southern Cottonwood Riparian Forest
SCWRF	Southern Cottonwood Willow Riparian Forest
SKR	Stephens' Kangaroo Rat
SNES	Supplemental Natural Environment Study
SR	State Route
SS	Saltbush Scrub
SSC	California Species of Special Concern
SWMP	Storm Water Management Plan
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
SWWF	Southwestern Willow Flycatcher
U/D	Urban/Developed
USACE	United States Army Corps of Engineers
U.S.C.	United States Code
USDA	United States Department of Agriculture
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
WDR	Waste Discharge Requirements
WOTS	Waters of the State
WOTUS	Waters of the United States

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Summary

The California Department of Transportation (Caltrans), in cooperation with the Riverside County Transportation Commission (RCTC), proposes to construct the State Route (SR) 71/ SR-91 Interchange Improvement Project. The project is located in the city of Corona and unincorporated portions of Riverside County, California. The improvement project is proposed within the existing Caltrans right-of-way (ROW) for SR-71 and SR-91. The project proposes to improve the existing SR-71/SR-91 interchange by constructing a new direct flyover connector from eastbound SR-91 to northbound SR-71 to support increased traffic flows. In addition to the flyover, the Green River Road eastbound on-ramp will be reconstructed, SR-71 realigned, and access to properties relocated. Other project features include drainage improvements, signage, and retaining walls.

A Natural Environment Study (NES) for the SR-71/SR-91 Interchange Improvement Project, was completed in 2010 and analyzed the proposed project's potential impacts to biological resources. Due to the time between preparation of the original NES and modifications to the project design, a supplement to the NES is necessary to document changes to existing conditions, incorporate results of subsequent biological surveys, update findings based on construction projects in the area, and update impacts to jurisdictional waters and vegetation resulting from the SR-71/SR-91 Interchange Improvement Project. Construction projects completed or underway since preparation of the original NES, in or near the Biological Study Area (BSA), include the SR-91 Eastbound Lane Addition, SR-91 Corridor Operational Project (COP), SR-91 Corridor Improvement Project (CIP), SR-91 CIP Restoration, Caltrans Landscape Project at SR-91 and Green River Road, I-15 Express Lane Project (ELP) and the I-15/SR-91 Express Lane Connector (ELC), and Santa Ana River Mainstem Project. The BSA survey area for the NES was 840 acres.

The total area surveyed for the habitat assessment effort includes an approximate 781-acre area, herein referred to as the BSA or study area, located in the vicinity of the intersection of SR-71 and SR-91, generally north of the Cleveland National Forest, south of Chino Hills, and northeast of SR-241 in northwestern Riverside County. The project is identified in the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) as a Planned Road and a Covered Activity. For the MSHCP-covered resources, no additional mitigation or requirements beyond those necessitated by the MSHCP would be applied to the project. The BSA was slightly reduced in the western end of the project limits because there are no project features extending as far west along SR-91 as originally anticipated during preparation of the NES.

A reconnaissance-level habitat assessment was performed during multiple site visits occurring in the spring and early summer in 2020 to assess current site conditions. The survey dates were selected to incorporate the blooming season of sensitive plants with the potential to occur in the BSA. These surveys determined that conditions of the biological resources within the BSA remain relatively unchanged since they were documented in the NES (2010) and the Project Initial Study/Mitigated Negative Declaration (IS/MND). Minor updates to vegetation mapping were required to record newer habitat restoration areas associated with successful completion of the SR-91 CIP Restoration, in addition to changes to vegetation from construction projects in the area, including the U.S. Army Corps of Engineers (USACE) Santa Ana River Mainstem Project.

Updated surveys for these species were completed for this Supplemental NES (SNES) during April–June 2020 for special-status wildlife and plant species including western burrowing owl (BUOW) *(Athene cunicularia)* and three narrow endemic plant species, including San Diego ambrosia *(Ambrosia pumila),* Brand's phacelia *(Phacelia stellaris),* and San Miguel savory *(Clinopodium chandleri).*

Fifteen (15) plant communities occur within the BSA: oak woodland (OW), coastal sage scrub (CSS), coastal sage-chaparral scrub (CSCS), mixed scrub (MS), mule fat scrub (MFS), saltbush scrub (SS), southern cottonwood willow riparian forest (SCWRF), southern cottonwood riparian forest (SCRF), eucalyptus/ornamental woodland (EOW), non-native grassland (NNG), disturbed habitat (DH), urban/developed (U/D) land, streambed, waters, riparian forest (RF).

Of the 42 sensitive wildlife species with the potential to occur, the BSA provides habitat for 24 sensitive faunal species of which 16 species have a moderate potential to occur, 7 species have a high potential to occur, and 4 species are present on the site. These are the Santa Ana sucker (SAS) *(Catostomus santaanae),* least Bell's vireo (LBV) *(Vireo bellii pusillus),* coastal California gnatcatcher (CAGN) *(Polioptila californica californica),* and pallid bat *(Antrozous pallidus).* Mountain lion was observed in the Santa Ana Canyon in 2008; however, the species was not observed in the BSA in 2020.

A total of 21 special-status plant species have the potential to occur in the BSA including 12 of these species are covered under the MSHCP, with 16 of these species California Native Plant Society (CNPS) sensitive plants. No sensitive plant species were observed during the general habitat assessment surveys conducted during the blooming period for these species.

An update to the jurisdictional delineation (JD) was completed in January 2020 and confirmed the presence of 19 potential jurisdictional areas within the BSA that support waters, wetlands,

and/or streambeds that may be considered jurisdictional by the USACE, California Department of Fish and Wildlife (CDFW). Any impacts to jurisdictional features would require permitting with the appropriate regulatory agencies pursuant to Sections 404 and 401 of the federal Clean Water Act (CWA), the State Porter-Cologne Water Quality Act, and Section 1600 of the California Fish and Game (CFG) Code.

Impacts to USACE Jurisdictional Features based on the JD completed in 2020 include:

- 0.31 acre of permanent impacts to non-wetland waters
- 3.04 acres of temporary impacts to non-wetland waters
- 0.03 acre of permanent impacts to wetland waters
- 0.42 acre of temporary impacts to wetland waters

Impacts to CDFW Jurisdictional Features based on the JD completed in 2020 include:

- 0.16 acre of permanent impacts to ephemeral streams
- 0.26 acre of temporary impacts to ephemeral streams
- 0.15 acre of permanent impacts to intermittent streams
- 2.78 acres of temporary impacts to intermittent streams
- 1.42 acres of permanent impacts to riparian vegetation
- 8.13 acres of temporary impacts to riparian vegetation
- 0.03 acre of permanent impacts to wetlands
- 0.42 acre of temporary impacts to wetlands

Surveys completed for the NES were positive for CAGN and LBV. A Biological Opinion (BO) was issued for LBV and CAGN in 2011. There have been no changes to effect determinations with this SNES. Surveys completed for this SNES resulted in positive findings for LBV and CAGN. There is no further take of these species for this SNES.

Construction of the proposed project would result in 51.39 acres of temporary and 11.02 acres of permanent impacts to vegetation communities located within the BSA. These temporary impacts include construction staging and operating areas, cut and fill areas, and sections of the flyover that do not result in the loss of habitat. The temporary impacts associated with construction of the proposed project would not adversely affect the greater population of plant and wildlife species, or associated habitats onsite.

Permanent impacts to 11.02 acres of habitat would occur as a result of infrastructure and interchange improvements to SR-71 and SR-91. Permanent impacts associated with the project involve sections of the flyover and auxiliary lane west of Wardlow Wash, footing and column

locations to support the flyover, and realigning of SR-71. These permanent impacts would occur in areas supporting both common and sensitive species. Implementation of Best Management Practices (BMPs), pre-construction surveys, construction monitoring, and prescribed mitigation for impacts to riparian/riverine areas would reduce all potential impacts to sensitive species to less than substantial.

Since preparation of the NES (2010), there have been changes in the BSA from project design, various construction projects in the area, restoration activities, and natural growth of new vegetation. The successful restoration efforts of RCTC have resulted in an overall increase in acreage that may support riparian and/or riverine species. In addition, construction projects along SR-91 and the Santa Ana River have changed the existing conditions in the BSA. Successful restoration efforts associated with SR-91 have resulted in the growth of CSS and Riparian Areas both natural recruitment and as a result of these restoration efforts. This has resulted in an increase in CSS and riparian species west of the SR-71/SR-91 interchange and south of the Santa Ana River at the undercrossing near Fresno Canyon. The reduction in permanent impacts to CSS and Riparian Habitat, from the NES to SNES, will provide a benefit to species that are found in these habitats, including CAGN and LBV.

The United States Fish and Wildlife Service (USFWS) and Regional Conservation Authority (RCA) were notified that the overall project footprint was not expanding; these agencies concurred that the original consistency analysis and Determination of Biologically Equivalent or Superior Preservation (DBESP) would not require updates.

Chapter 1 Introduction

This Supplemental Natural Environment Study (SNES) was developed to update existing biological conditions and potential impacts resulting from construction of the State Route (SR) 71/SR-91 Interchange Improvement Project. Since the biological resources and Biological Study Area (BSA) are seasonally and annually variable (i.e., location, species, and quality of habitat may change over time) and time has elapsed since approval of the NES (2010c), existing biological conditions and impact analyses have been re-evaluated to determine if any new sensitive species would be impacted within the BSA pursuant to the California Endangered Species Act (CESA) or the Federal Endangered Species Act (FESA). The project footprint has not increased in acreage, but there have been design modifications since preparation of the NES (2010c) that are discussed in this SNES.

1.1 Project History

The Riverside County Transportation Commission (RCTC), in conjunction with the California Department of Transportation (Caltrans), and the city of Corona (City), proposed to construct a new full-service interchange at SR-71 and SR-91 (see Figures 1-1 and 1-2). The project proposes to improve the existing SR-71/SR-91 interchange by constructing a new direct flyover connector from eastbound SR-91 to northbound SR-71. In addition to the flyover, the Green River Road eastbound on-ramp would be reconstructed, SR-71 realigned, and access to properties relocated. Other project features include drainage improvements, signage, and retaining walls. The proposed project would improve traffic operations by reducing congestion on the existing SR-71 and SR-91 associated interchanges. The SR-71/SR-91 Interchange Improvement Project was approved in an Initial Study/Mitigated Negative Declaration (IS/MND) (June 2011).

The following reports were prepared for the IS/MND:

- SR-91 and SR-71 Interchange Improvement Project NES, dated June 2010
- Determination of Biological Equivalent or Superior Preservation (DBESP) Analysis, SR-91 and SR-71 Interchange Improvement Project, City of Corona, Riverside County, California, dated June 2010
- Wildlife Corridor Analysis Report for the SR-91 and SR-71 Interchange Improvement Project, City of Corona, Riverside County, California, dated August 2010
- SR-91 and SR-71 Interchange Improvement Project Habitat Assessment, dated March 2011
- Formal Section 7 Consultation resulted in Biological Opinion 09B0057-11F0421, dated June 22, 2011.

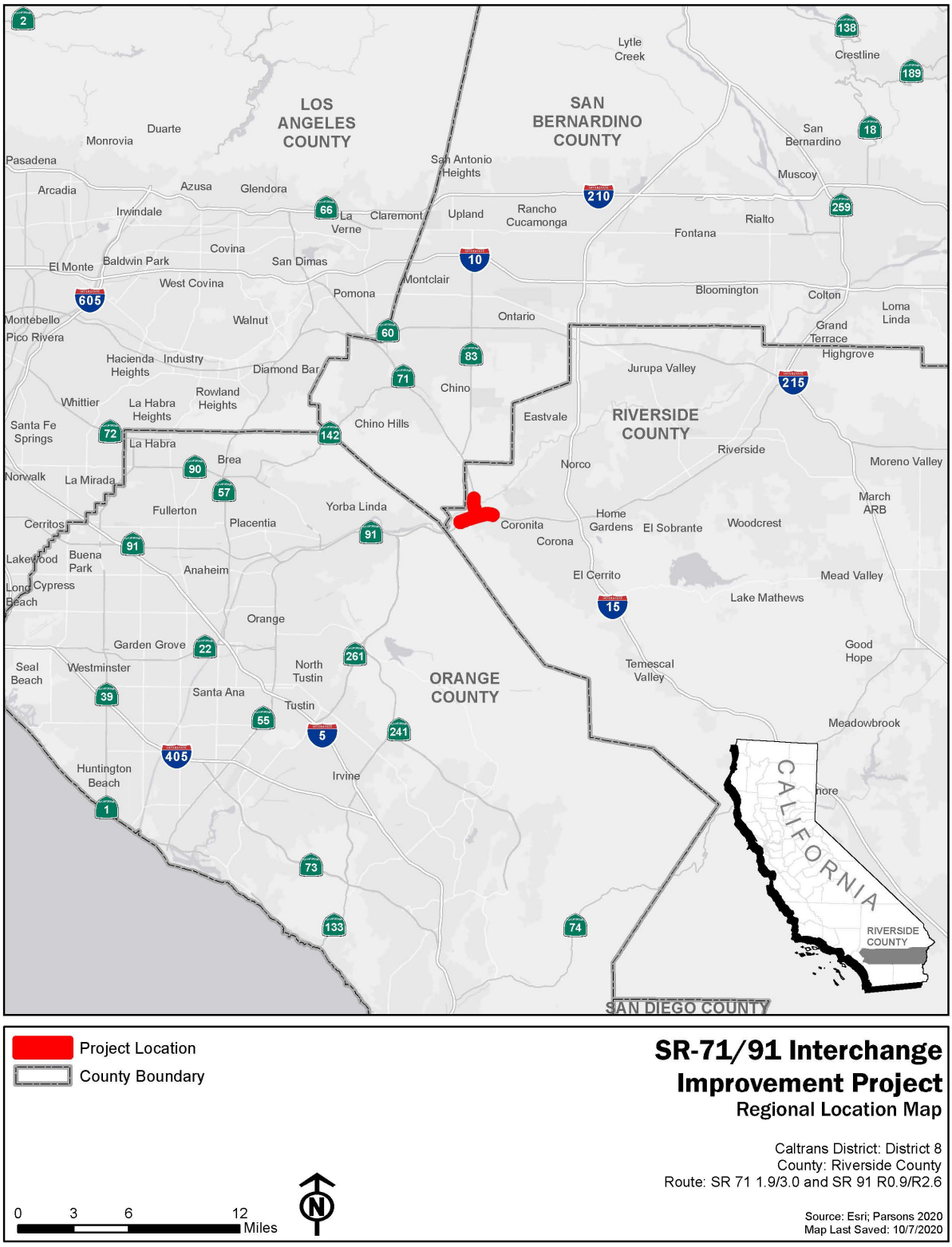
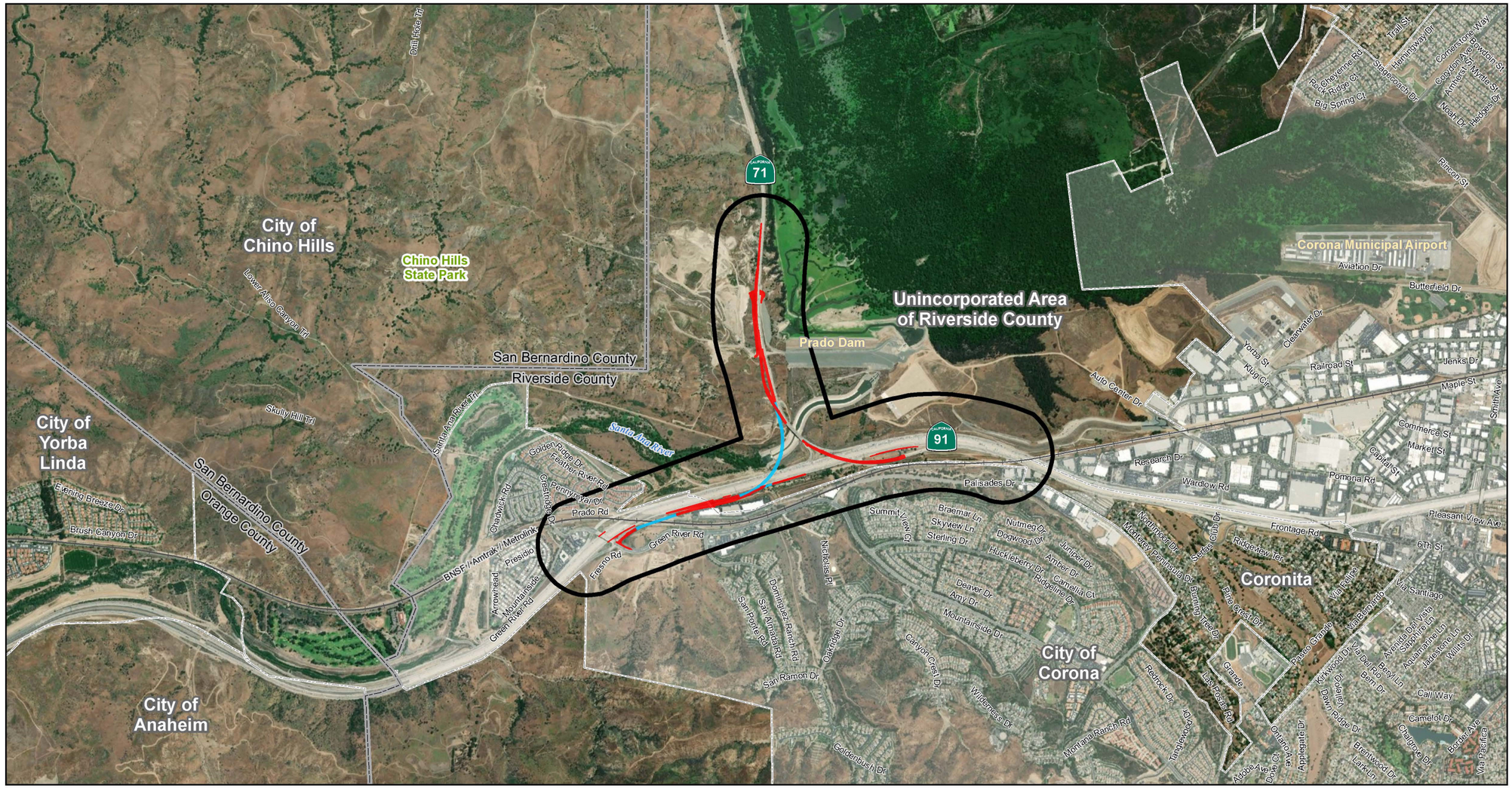


Figure 1-1: Regional Location Map



SR-71/91 Interchange Improvement Project
Local Vicinity Map

Caltrans District: District 8
County: Riverside County
Route: SR 71 1.9/3.0 and SR 91 R0.9/R2.6

Source: ESRI; Parsons 2020
Map Last Saved: 10/7/2020

Figure 1-2: Local Vicinity Map

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- Jurisdictional Delineation for the SR-91/SR-71 Interchange Project, Riverside County, California, dated December 2013.
- Natural Environment Study (NES) Technical Memorandum Update for SR-71/91 Interchange Improvement Project, dated October 2014
- Update Memorandum for Jurisdictional Delineation of the SR-71/SR-91 Interchange Improvement Project, dated January 2020

Since approval of the SR-91/SR-71 IS/MND, a Revalidation/Re-evaluation (Revalidation #1) was approved in 2014 to document changes to the project and potential impacts, if any, to biological resources. This SNES assumes the latest information and data inclusive of all approved documents.

1.2 Project Description

The BSA is generally located north of the Cleveland National Forest, south of SR-60, northeast of SR-241, and west of Interstate 15 (I-15) in unincorporated Riverside County, California (Figure 1-1). More specifically, the BSA occurs in the western portion of the city of Corona, from Green River Road to the confluence of SR-71 and SR-91 (Figure 1-2). The BSA is within the Prado Dam, California United States Geological Survey (USGS) 7.5-minute topographic quadrangle, in non-sectioned Township 3 South, Range 7 West (Figure 1-3).

1.2.1 Build Alternative

The proposed impact area for Build Alternative encompasses approximately 62.4 acres and includes the following:

Flyover Connector

The main feature of the project would include an approximately 3,000-foot, two-lane direct flyover connector between SR-91 and northbound SR-71. The flyover connector would have two 12-foot-wide lanes, an auxiliary lane extending from the on-ramp to halfway through the flyover, and 10-foot-wide shoulders. The flyover on-ramp would begin on SR-91 at the Green River Road interchange, with a bridge structure spanning SR-91, the Santa Ana River, and southbound SR-71. The two lanes of the flyover would merge to one lane to become the two lanes of northbound SR-71. The westbound SR-91 to northbound SR-71 connector merge would be reconstructed as an auxiliary lane that merges onto northbound SR-71 (see Figure 1-4).

Other Project Features

For the SR-71/SR-91 Interchange Improvement Project, in addition to the flyover, the Green River Road eastbound on-ramp would be reconstructed, SR-71 realigned, and access to adjacent properties relocated. Other project features include drainage improvements, signage, and retaining walls.

Features of the project include:

- Construct a direct two-lane flyover connector from eastbound SR-91 to northbound SR-71 and close the existing eastbound SR-91 to northbound SR-71 loop connector
- Replace the existing Green River Road eastbound SR-91 on-ramp with a slip on-ramp to the SR-71/SR-91 flyover
- Realign southbound SR-71 lanes to the west to accommodate the new flyover connector and modified connectors
- Restripe the SR-91 eastbound lanes from the 11-foot width to the 12-foot standard width between Post Mile (PM) R0.9 and PM R2.6
- Modify or construct new drainage facilities
- Construct retaining walls along portions of the Green River Road on-ramp south of SR-91, along SR-71 and at the abutment ends of the flyover connector
- Relocate the U.S. Army Corps of Engineers (USACE) driveway approximately 0.3 mile north of its current location
- Install freeway signage within the project area for the new flyover connector and for the Green River Road on-ramp; ramp metering may be installed on the Green River Road on-ramp prior to merging with eastbound SR-91

Revalidation #1 was prepared in 2014 and included the following project changes:

- A portion of an easement of the Sukut Driveway will be relinquished to USACE of approximately 0.53 acre (Assessor's Parcel Number [APN]) 101-040-004).
- Additional easements to construct structures associated with the SR-91/Green River Road eastbound slip on-ramp and hillside slope grading along the western portion of SR-71 will be included.
- Proposed Constrained Linkage (PCL) 1 will be eliminated, with the proposed extension from 435 to 531 feet no longer required.
- An existing 36-inch reinforced concrete pipe (RCP) (drainage #36a) will be extended to 93 feet.
- Bat mitigation will be updated.
- One access to USACE property will be eliminated due to design modifications, with three access locations to remain.
- The project is conditioned to remove the existing concrete revetment and regrade the existing 2:1 slope to a flatter slope of 4:1, located along SR-91 south of the Santa Ana Spillway. The revalidation included temporary and permanent impacts to vegetation and jurisdictional resources not covered in the environmental document.

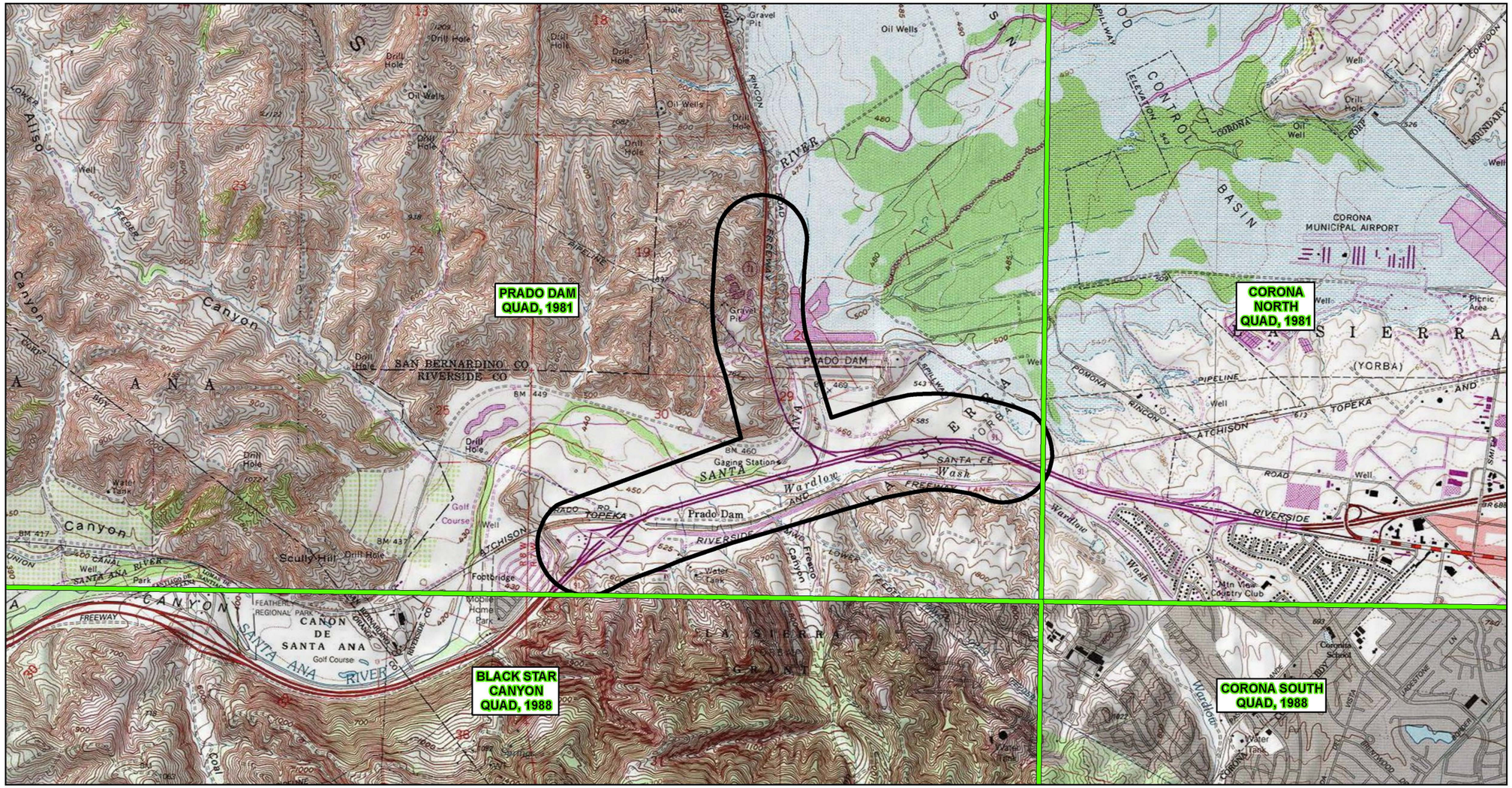

Figure 1-3: USGS Topographic Map

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Proposed Roadway Improvements
Proposed Structures
Right-of-Way
Proposed Project Design Linework and Striping

0 500 1,000 2,000 Feet

SR-71/91 Interchange Improvement Project
Build Alternative

Caltrans District: District 8
County: Riverside County
Route: SR 71 1.9/3.0 and SR 91 R0.9/R2.6

Source: ESRI; Parsons 2020
Map Last Saved: 10/7/2020

Figure 1-4: Build Alternative

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- Design changes with the SR-71/91 interchange and construction along eastbound SR-91, including slight widening to meet shoulder requirements, will be included.
- A Southern California Edison (SCE) utility overhead at Burlington Northern Santa Fe (BNSF) right-of-way (ROW)/Prado Road and new utility poles along Green River Road outside an area approved during the project approval/ environmental document (PA/ED) phase will be relocated.
- SCE overhead utility to areas outside the cleared areas approved during the PA/ED phase of the project will be relocated.
- Grading along SR-71 and easement requirements at Chino Hills State Park (CHSP), including the elimination of benches along the hillsides west of SR-71, will be reduced. The reduction in grading area along SR-71 will decrease the amount of Public/Quasi Public (PQP) lands impacted by the project, with a reduction to 8.357 acres of temporary impacts and 0.813 acre of permanent impacts.
- Stormwater Treatment Best Management Practices (BMPs) will be revised at the existing SR-71/SR-91 loop interchange to update the selection of the approved treatment.

Since approval of the 2011 IS/MND and Categorical Exemption (CE) and 2014 Revalidation (Revalidation #1) , there have been some minor modifications to the project design. These changes include:

- The Sukut property driveway knuckle would be widened to provide space for adequate turning movements. In addition, a secondary access opening would be created at the knuckle for emergency vehicle access.
- Approximately 8,400 square feet of new rock slope protection would be added to the southern side of the southbound SR-71 to eastbound SR-91 connector ramp along the Wardlow Wash channel.
- A right-turn pocket would be added to northbound Green River Road to address peak-hour traffic queues that extend south of the on-ramp to eastbound SR-91. The 12-foot-wide by 150-foot-long turn pocket would be constructed by widening Green River Road to the east. Construction would require fill grading and modifications to the existing slope at the edge of the road.
- The barrier gap along SR-71 will be closed, removing left turn pockets at the Sukut and USACE driveway locations. To maintain emergency vehicle access for USACE a slide barrier will be installed to allow vehicles to turn from SR-71 into the USACE driveway during an emergency situation.
- Culvert #36 (72” corrugated metal pipe) will be extended an additional 2 feet beyond what was previously proposed for a total length of 478 feet.

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Chapter 2 Study Methods

2.1 Regulatory Requirements

This SNES describes the existing biological environment of the proposed project and discusses the project's effects on biological resources. Implementation of this project will require RCTC/Caltrans to secure permits and agreements from federal, State, and local regulatory agencies, including a 404 permit from USACE, a 401 certification from the Regional Water Quality Control Board (RWQCB), and a Streambed Alteration Agreement (SAA) pursuant to Section 1602 of the California Fish and Game (CFG) Code.

This chapter summarizes the applicable regulations for protecting biological resources that are pertinent to the proposed project. Relevant studies that were prepared for the NES (2010c) are summarized in addition to studies completed after the NES was approved. Studies completed in preparation of this SNES are discussed in this chapter.

2.1.1 Review of Jurisdiction Subject to Section 404 of the Clean Water Act

Pursuant to Section 404 of the Clean Water Act (CWA), USACE regulates the discharge of dredged and/or fill material into waters of the United States (WOTUS). "Waters of the United States" is defined in 33 *Code of Federal Regulations* (CFR) Part 328 and currently includes: (1) all navigable waters (including all waters subject to the ebb and flow of the tide), (2) all interstate waters and wetlands, (3) all impoundments of waters mentioned above, (4) all tributaries to waters mentioned above, (5) the territorial seas, and (6) all wetlands adjacent to waters mentioned above.

The discharge of dredged or fill material (temporarily or permanently) into WOTUS (including wetlands) requires authorization from USACE pursuant to Section 404 of the CWA. Based on a jurisdictional decision (concurrence) from USACE, a Section 404 permit is expected to be required for this project.

2.1.2 Review of Jurisdiction Subject to Section 401 of the Clean Water Act

The RWQCB is responsible for the administration of Section 401 of the CWA. Typically, the areas subject to RWQCB jurisdiction coincide with those of USACE (i.e., WOTUS, including any wetlands). RWQCB also asserts authority over waters of the State (WOTS) under waste discharge requirements (WDRs) pursuant to the Porter-Cologne Water Quality Control Act (Porter-Cologne Act).

Upon a jurisdictional determination (concurrence) from USACE, a Section 401 Water Quality Certification from the RWQCB is expected to be required for this project.

2.1.3 Porter-Cologne Water Quality Control Act

This regulatory law is becoming more prominent on projects involving impacts to isolated WOTS (i.e., non-Section 404/401 waters). The RWQCB is increasingly requiring WDR permits for impacts to WOTS.

2.1.4 Review of Jurisdiction Subject to Section 1600 of the California Fish and Game Code

Pursuant to Division 2, Chapter 6, Sections 1600–1602 of the CFG Code, the California Department of Fish and Wildlife (CDFW) regulates all diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake that supports fish or wildlife.

Unlike USACE, CDFW regulates not only the discharge of dredged or fill material, but all activities that alter streams and lakes and their associated habitats. These additional areas include some artificial stock ponds and irrigation ditches constructed on uplands and the addition of riparian habitat supported by a river, stream, or lake regardless of the riparian area's federal wetland status. In addition, the lateral extent of a streambed may, in some situations, extend to include broader cross-sectional widths of drainages and floodplains above and beyond the area contained within the ordinary high-water mark (OHWM), depending on the hydrological regime of a stream or river. For this reason, the dimensions of a CDFW jurisdictional streambed may vary substantially from the measured OHWM within the same stream or river.

A CDFW Streambed Alteration Notification (SAN) is required for all activities resulting in effects to streambeds and their associated riparian habitats, and a SAA is expected to be required for this project.

2.1.5 Federal Endangered Species Act

Under provisions of Section 7(a)(2) of the FESA, a federal agency that permits, licenses, funds, or otherwise authorizes a project activity must consult with the United States Fish and Wildlife Service (USFWS) to ensure that its actions would not jeopardize the continued existence of any listed species or destroy or adversely modify critical habitat (CH) that may be affected by

the project. Chapter 4 of this SNES provides details on the potential effects of the SR-71/SR-91 Interchange Improvement Project on federally listed plant and wildlife species.

2.1.6 California Endangered Species Act

The CESA is administered by CDFW and prohibits the take of plant and animal species identified as either threatened or endangered in California by the Fish and Game Commission (CFG Code Section 2050–2089). "Take" means hunt, pursue, catch, capture, or kill or attempt to hunt, pursue, catch, capture, or kill. Sections 2081 and 2080.1 of the CESA allow CDFW to authorize exceptions to the prohibition of take of the State-listed threatened or endangered plant and animal species for purposes such as public and private development. CDFW requires formal consultation to ensure that its actions would not jeopardize the continued existence of any listed species or destroy or adversely modify CH. Chapter 4 provides details on the proposed project's effects to State-listed plant and wildlife species.

Authorization from CDFW (under Sections 2081 or 2080.1 of the CFG Code) for take of any endangered, threatened, or candidate species is not expected to be required. All other species that would require authorization from CDFW are covered by the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP).

2.1.7 Migratory Bird Treaty Act and Executive Order 13186

This treaty with Canada, Mexico, and Japan makes it unlawful at any time, by any means or in any manner, to pursue, hunt, take, capture, or kill migratory birds. The law applies to the removal of nests (e.g., swallow nests on bridges) occupied by migratory birds during the breeding season. CFG Code Sections 3503 and 3503.5 (protection of birds' nests) and 3513 (taking Migratory Bird Treaty Act [MBTA] birds) also prohibit the destruction of any nest, egg, or nestling.

Executive Order (EO) 13186 (Responsibilities of Federal Agencies to Protect Migratory Birds) directs federal agencies "…taking actions that have, or are likely to have, a measurable negative effect on migratory bird populations to develop and implement a Memorandum of Understanding (MOU) with USFWS that promotes the conservation of migratory bird populations." On February 2, 2001, the Federal Highway Administration (FHWA) issued guidance on EO 13186 recommending various measures to assist with protecting migratory birds.

2.1.8 County of Riverside Oak Tree Management

Riverside County's oak tree management guidelines are intended to provide long-term protection and conservation of oak trees and oak woodlands and provide guidance on establishing baseline oak tree data to develop adequate avoidance, minimization, and/or compensation for impacts on this natural resource.

2.1.9 Western Riverside County Multiple Species Habitat Conservation Plan

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

The Western Riverside County MSHCP is a comprehensive, multi-jurisdictional conservation plan focusing on conservation of species and their associated habitats in western Riverside County. Of the 146 Covered Species within the MSHCP, 118 are considered to be "adequately conserved." The remaining 28 Covered Species will be considered to be adequately conserved when certain landmark conservation requirements are met during the course of future development. The general goal of the MSHCP is to maintain biological and ecological diversity within a rapidly urbanizing region.

The BSA was reviewed to determine consistency with the MSHCP in the SR-71/SR-91 Interchange Improvement Project Habitat Assessment and MSHCP Consistency Analysis Report (MBA, 2009). The BSA is located within Subunit 1 – Santa Ana River/Santa Ana Mountains and Subunit 2 – Prado Basin of the Temescal Canyon Area Plan of the Western Riverside County MSHCP. The study area occurs within Criteria Cells 1520 and 1612 of Cell Group B, and within independent Criteria Cell 1616 of Subunit 1, in addition to independent Criteria Cells 1702, 1704, and 1706 of Subunit 2.

The MSHCP also establishes habitat assessment requirements for certain plant, bird, mammal, and amphibian species. The BSA is within the habitat assessment area for western burrowing owl (BUOW) *(Athene cunicularia)* and three narrow endemic plant species, including San Diego ambrosia *(Ambrosia pumila),* Brand's phacelia *(Phacelia stellaris),* and San Miguel savory *(Clinopodium chandleri).* During preparation of the NES and verified with this SNES, the project considered the protection of species associated with the Riparian/Riverine and

Vernal Pools Policy. Planned road projects designed within the Criteria Area must demonstrate consistency with the biological goals and objectives of Section 7.5 of the MSHCP. The MSHCP, among other things, provides impact mitigation for future Caltrans projects on existing routes in the covered area of western Riverside County. Participation by Caltrans is intended to streamline the environmental process for future transportation projects in western Riverside County (e.g., through pre-mitigation) and save money over the long term. A review of the proposed project's consistency with the MSHCP is provided in Chapter 5.

Section 6.1.3 of the MSHCP requires a thorough habitat assessment for plant species in potentially suitable habitat within plan areas identified as Narrow Endemic Plant Species Survey Areas (NEPSSA). The BSA for the SR-71/SR-91 Interchange Improvement Project falls within the NEPSSAs. A habitat assessment for the SR-71/SR-91 Interchange Improvement Project was required in areas of suitable habitat for San Diego ambrosia, Brand's phacelia, and San Miguel savory. Figure 2-1 shows the MSHCP Narrow Endemic Species Survey Area. Focused surveys for NEPSSA were completed for the NES (2010c). Surveys for the SNES focused on updated surveys for NEPSSA species in addition to sensitive status species with the potential to occur as discussed in Chapter 3 of this SNES. The Habitat Assessment and survey for NEPSSA were completed for the NES (2010) and have been updated for this SNES.

Section 6.3.2 of the MSHCP identifies the BSA as occurring within the Additional Needs Survey Area for BUOW. Figure 2-2 shows the locations within and near the BSA that were studied for BUOW.

The MSHCP identified least Bell's vireo (LBV) *(Vireo bellii pusillus),* southwestern willow flycatcher (SWWF) *(Empidonax traillii extimus),* and western yellow-billed cuckoo *(Coccyzus americanas occidentalis)* as potentially occurring within the BSA. If potential habitat is present and would be directly or indirectly affected by project build-out, focused surveys would be necessary. A full review of potential riparian-riverine and vernal pool resources is also required by the MSHCP. These surveys were completed for the NES (2010c) and were updated for this SNES.

The requirements for the MSHCP were analyzed in detail for the NES (2010c). These requirements are summarized in this SNES. There are no further requirements that have been mandated for the MSHCP since approval of the NES (2010c). There measures are summarized in Chapter 4 of the SNES and have been included in the project Environmental Commitment Record (ECR) (Appendix H).

2.1.10 Planned Roads within the Criteria Area and Public/Quasi-Public Lands

The proposed project is considered a Covered Activity under Section 7.3.5 of the MSHCP document as a "Planned Road within a Criteria Area." As such, the project is required to demonstrate consistency with the biological goals and guidelines of Section 7.5.1 of the MSHCP. The following guidelines are provided to avoid and minimize impacts to sensitive species and habitats known to occur in the vicinity of the planned roadway.

- Planned roads will be located in the least environmentally sensitive location feasible, including disturbed and developed areas or areas that have been previously altered. Alignments will follow existing roads, easements, ROW, and disturbed areas, as appropriate to minimize habitat fragmentation.
- Planned roads will avoid, to the greatest extent feasible, impacts to Covered Species and wetlands. If wetlands avoidance is not possible, then any impacts to wetlands will require issuance of and mitigation in accordance with a federal 404 and/or state 1600 permit.
- Design of planned roads will consider wildlife movement requirements, as further outlined in Section 7.5.2 "Guidelines for Construction of Wildlife Corridors."
- Narrow Endemic Plant Species will be avoided; if avoidance is not feasible, then mitigation as described in the Narrow Endemics Plant Policy will be implemented.
- Any construction, maintenance, and operation activities that involve clearing of natural vegetation will be conducted outside the active breeding season (February 15 through August 31).
- Prior to design and construction of transportation facilities, biological surveys will be conducted within the BSA for the facility, including vegetation mapping and species surveys and/or wetland delineations. The appropriate biological surveys will be based on field conditions and recommendations of the project manager in consultation with a qualified biologist. The results of the biological resources investigations will be mapped and documented. The documentation will include preliminary conclusions and recommendations regarding potential effects of facility construction on MSHCP Conservation Area resources and methods to avoid and minimize impacts to these resources in conjunction with project siting, design, construction, and operation. The project biologist will work with facility designers during the design and construction phase to ensure implementation of feasible recommendations.
- PQP Lands require replacement as coordinated with Western Riverside County Regional Conservation Authority (RCA) and USFWS (PQP Lands evaluated under a separate cover).

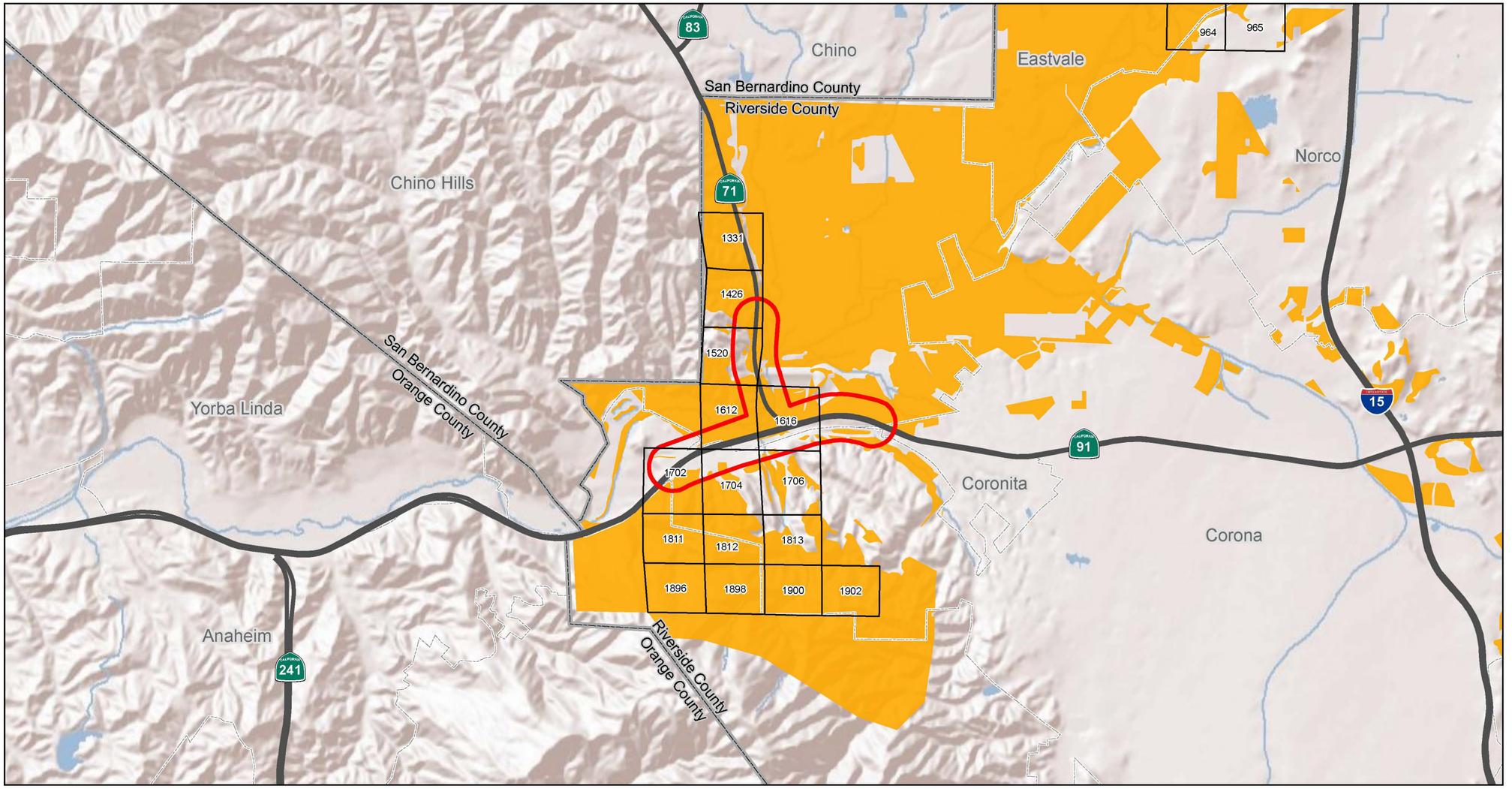

Figure 2-1: Narrow Endemic Species Survey Area

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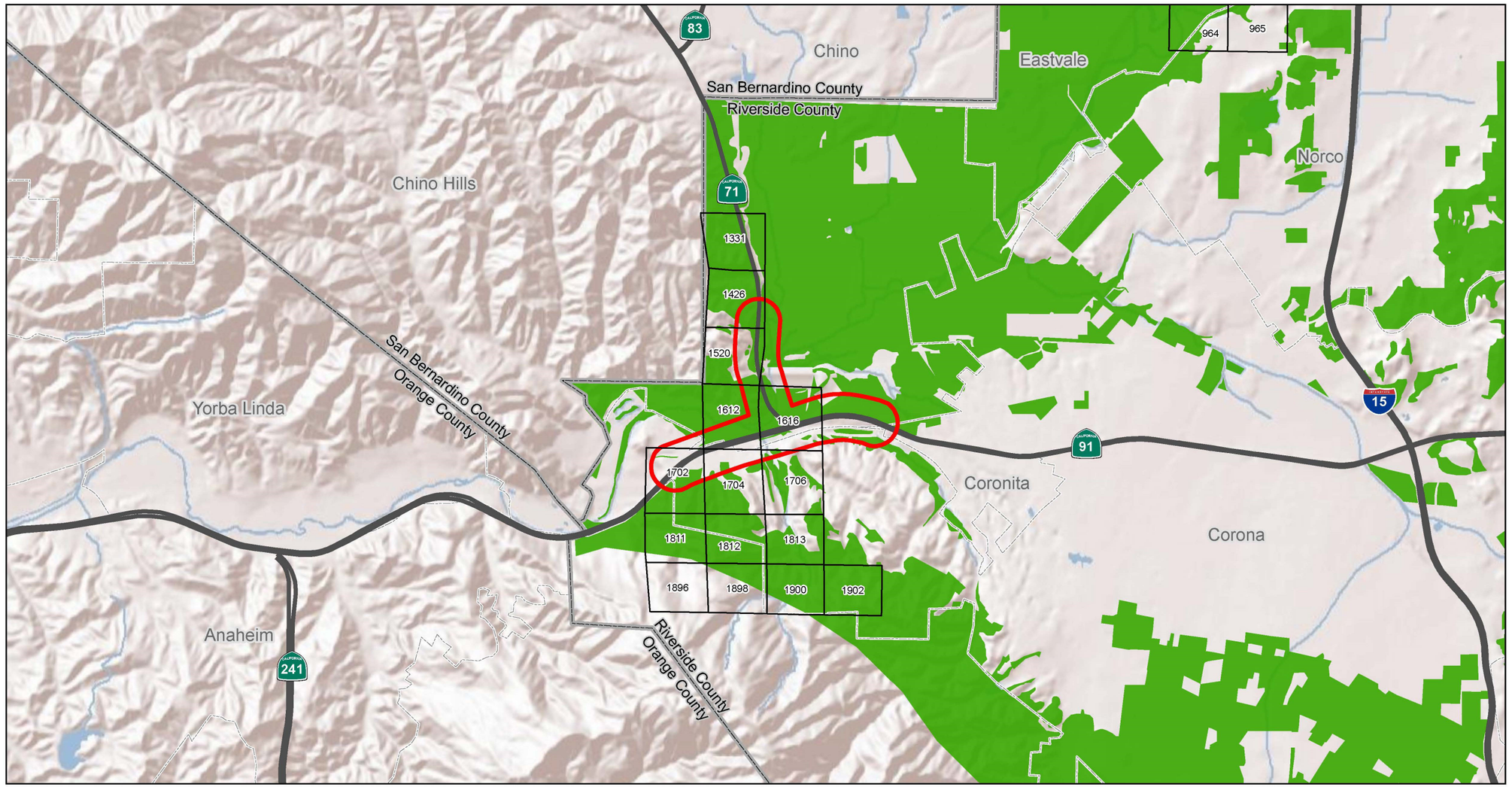

Figure 2-2: Burrowing Owl Additional Needs Survey Area

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2.1.11 Executive Order 13112 – Invasive Species

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

Under the EO, federal agencies cannot authorize, fund, or carry out actions that it believes are likely to cause or promote the introduction or spread of invasive species in the United States or elsewhere unless all reasonable measures to minimize risk of harm have been analyzed and considered.

2.1.12 Executive Order 11990 – Protection of Wetlands

EO 11990 established a national policy to avoid adverse impacts on wetlands whenever there is a practicable alternative. The United States Department of Transportation (DOT) promulgated DOT Order 5660.1A in 1978 to comply with this direction. On federally funded projects, impacts on wetlands must be identified. Alternatives that avoid wetlands must be considered. If wetland impacts cannot be avoided, then all practicable measures to minimize harm must be included. This must be documented in a specific Wetlands Only Practicable Alternative Finding.

An additional requirement is to provide early public involvement in projects affecting wetlands. FHWA provides technical assistance in the *Guidance for Preparing and Processing Environmental and Section 4(f) Documents* (Technical Advisory T 6640.8A) and reviews environmental documents for compliance.

2.2 Studies Required

As part of the update for this SNES, recent database searches and literature reviews were performed, and reconnaissance field surveys were conducted to update the potential occurrence of sensitive and special-species, verify suitable habitat conditions, and identify vegetation within the project area.

In assessing the natural resources within the BSA, the following studies were conducted for the SNES: general biological survey including sensitive birds; habitat suitability survey for BUOW; blooming season surveys for Brand's phacelia, San Diego ambrosia, and San Miguel savory; and a jurisdictional assessment of waters and wetlands. The following section discusses the methods used for these studies.

2.2.1 Definition of Biological Study Area

The BSA for the SR-71/SR-91 Interchange Improvement Project was determined by incorporating electronic data provided by the design engineer into a geographic information system (GIS) layout, which included areas of potential direct effect, as shown in Figure 2-3. The BSA was created by buffering approximately 1,000 feet from the project centerline, beyond the maximum extent of potential direct effect where necessary to identify sensitive biological resources within and immediately adjacent to the project area. The BSA was then used as the study limit boundaries for all biological studies. The BSA for the SNES was slightly reduced in size from the original BSA in the western end of the project limits because there are no project features extending as far west along SR-91 as originally anticipated during preparation of the NES.

Where access was available, the study area was surveyed on foot. Where access was not available (e.g., fenced areas along SR-71, CHSP lands), areas were analyzed from adjacent accessible areas with the aid of binoculars.

2.2.2 General Biological Surveys and Habitat Assessments

Potentially relevant reference literature, natural resource databases, and the MSHCP were reviewed to determine the potential value of the study area to biological and habitat resources with special status or resource value. Specific information for the study area was developed in part through a general field evaluation.

Biologists initially performed field reconnaissance work within the BSA for the NES (2010c). Reconnaissance surveys were completed on June 6, 2008, to assess the project scope and verify the impact area. A general biological survey was completed on August 7, September 16, and November 11, 2008. A formal delineation of jurisdictional waters and wetlands was completed on September 2 and 16, 2008.



Figure 2-3: Biological Study Area

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Due to a lapse of time, surveys have been updated for the SNES including focused surveys from spring to summer 2020. Prior to performing the field surveys, existing documentation relevant to the BSA was reviewed. Database records reviewed included:

- USFWS Information, Planning, and Consultation (IPaC) – June 29, 2020, updated October 7, 2020 (Appendix B).
- California Natural Diversity Database (CNDDB) information – June 29, 2020, updated October 7, 2020. This database covers sensitive plant and animal species, as well as sensitive natural communities that occur within California (Appendix C).
- National Marine Fisheries Service (NMFS) – July 17, 2020, updated October 8, 2020 (Appendix D).
- Western Riverside County MSHCP, relevant sections.

In addition, Prado Dam 7.5-minute series topographical quadrangles (USGS, 1981) were searched for database records due to their proximity to the BSA. Other sensitive species known to occur in the general area were also considered.

The focused surveys and habitat mapping for this SNES were completed to verify current field conditions. A habitat assessment for special-status species and narrow endemic plants was conducted for this SNES, and all previously documented studies were reviewed, and results of those studies were verified. Habitat evaluations were performed during spring and summer 2020 for special-status species, MSHCP Additional Needs Survey Area, and MSHCP Narrow Endemic species. Species considered included BUOW, San Diego ambrosia, Brand's phacelia, and San Miguel savory.

Plant communities were mapped using 7.5-minute USGS topographic base maps and aerial photography. The plant communities within the BSA were classified according to California Department of Fish and Game's (CDFG) List of Terrestrial Natural Communities (2003) and cross referenced to descriptions provided in Holland's Preliminary Descriptions of the Terrestrial Natural Communities of California (1986 and 1992 update) (see Figure 2-4). Additionally, each area of potential habitat for the focused species within the BSA was visited to verify findings associated with the aerial photography. Habitat areas that were considered too small to map separately were included in nearby habitat types determined to be the most appropriate based on species composition.

Prior to the field visit, a literature review was conducted of the environmental setting of the BSA. Literature reviewed included the United States Department of Agriculture (USDA, 1981) Soil Survey for the BSA, the USGS topographic quadrangle, the CNDDB (CNDDB, 2020), and literature detailing the habitat requirements of sensitive species occurring in the vicinity

of the BSA. The CNDDB GIS database was utilized, together with ArcGIS software, to determine sensitive species located within a 5-mile radius of the BSA.

The entire BSA, 781 acres, was surveyed to determine the extent of plant communities and to assess the presence of suitable habitat for sensitive plant and wildlife species. Parameters assessed included soil conditions, presence of indicator species, slope, aspect, and hydrology. All plant and wildlife species observed, as well as dominant plant species within each plant community, were recorded in a standardized field notebook.

Environmental conditions and biological resources that were observed or otherwise detected during the habitat assessments were recorded in a field notebook. Special attention was directed to the environmental setting of the study area, including areas potentially supporting sensitive plant and wildlife species, and to assess the possible presence of vernal pools, jurisdictional features, and riparian/riverine habitat. Parameters assessed regarding the habitat requirements for sensitive species included plant communities, soil conditions, presence of indicator species, slope, aspect, and hydrology.

2.2.3 Botanical Surveys

Focused surveys for special-status species were completed for this SNES. Site visits included the bloom seasons of species to provide a visual confirmation. Focused surveys were completed for San Diego ambrosia, Brand's phacelia, and San Miguel savory.

Common plant species observed during the field survey were identified by visual characteristics and morphology in the field and recorded in a field notebook. Unusual and less familiar plants were identified offsite using taxonomical guides. A list of all species observed within the study area was compiled from the survey data and included in Appendix E. Taxonomic nomenclature used in this study follows the California Native Plant Society (CNPS) (CNPS, 2020).

2.2.4 Wildlife Surveys

Reconnaissance-level site assessments were performed within the BSA for wildlife. While focused surveys for special-status species were not performed for this SNES, the biologist leading surveys, Arianne Preite, possesses the necessary permits to positively identify sensitive species and evaluate potential for occurrence in the BSA. This report includes relevant and recent studies to support the findings presented below.

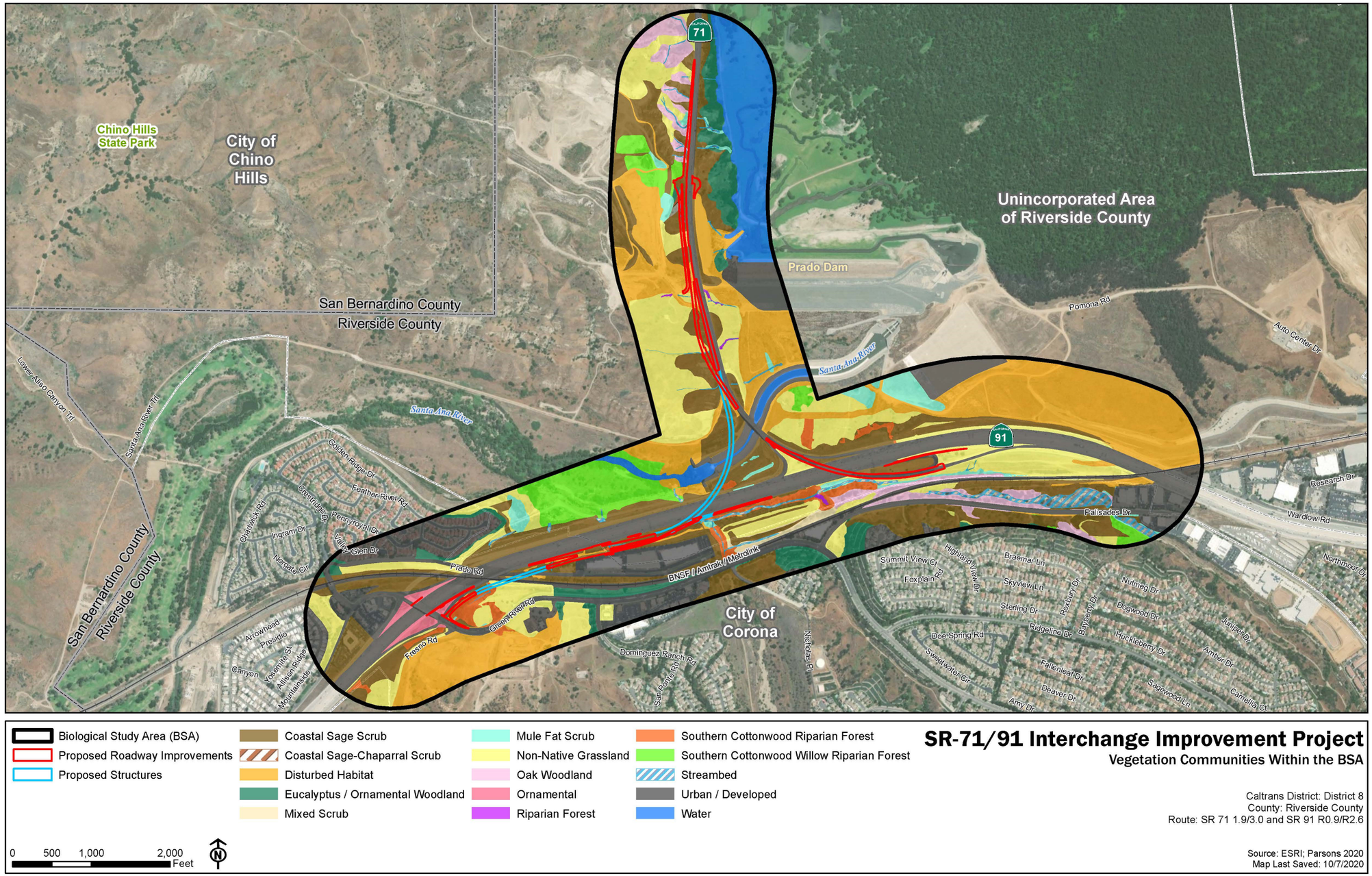

Figure 2-4: Vegetation Communities Within the BSA

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Wildlife species detected during field surveys by sight, calls, tracks, scat, or other sign were recorded during surveys in a field notebook. Various field guides were used to assist with identification of species during surveys for birds, mammals, reptiles, and amphibians (Conant, 1992).

2.2.4.1 Listed Riparian Birds

A habitat evaluation was performed by Parsons biologists for this SNES to determine if potentially suitable habitat for LBV, SWWF, and western yellow-billed cuckoo was present. The biologists were familiar with the habitat requirements of these three species.

LBV, SWWF, and western yellow-billed cuckoo are covered species under the MSHCP; however, additional survey requirements must be met if potentially suitable habitat would be directly or indirectly impacted for project build-out. The requirements and conservation measures for these species are detailed in the riparian-riverine and vernal pool policies of the MSHCP (Volume I, Section 6.1.2).

Focused surveys for riparian birds were not conducted for this SNES given the presence of the species; however, a reconnaissance survey was completed.

2.2.4.2 Coastal California Gnatcatcher Habitat Assessment

A habitat assessment was completed for the SR-71/SR-91 Interchange Improvement Project NES. Since completion of the SR-91 Corridor Improvement Project (CIP), RCTC has restored areas along SR-91 with coastal sage scrub (CSS) species within the BSA (see Figure 3-5). The habitat areas are of high quality and dense in nature, with monitoring records indicating the presence of CAGN. RCTC anticipates site acceptance of these areas from USFWS and CDFW before construction starts for the SR-71/SR-91 Interchange Improvement Project.

Protocol-level CAGN surveys were performed for the NES; however, they were not completed for the SNES given the presence of CAGN as observed during protocol surveys. Habitat mapping of CSS and a general reconnaissance survey for CAGN occurred for the SNES. Furthermore, CAGN is a fully covered species under the MSHCP and is considered adequately conserved.

2.2.4.3 Burrowing Owl Habitat Assessment

The BSA is within the MSHCP Additional Needs Survey Area for BUOW (refer to Figure 2-2). The MSHCP stipulates that land within the Additional Needs Survey Area be evaluated for suitable habitat to support BUOW. If suitable habitat is present, focused surveys are necessary to determine whether the species is present or absent. A habitat evaluation was

performed at a cursory level to identify potential habitat as part of the NES. Open lands that were sparsely vegetated with native or nonnative vegetation were considered potentially suitable. The NES and Revalidation #1 identified limited suitable habitat within the BSA. An updated habitat assessment was performed for BUOW for this SNES.

2.2.4.4 Bat Habitat Suitability Assessment

A bat habitat suitability assessment was conducted during fall 2008 (Carpenter, 2009) for the SR-91 CIP in addition to surveys for the NES. Survey results indicated there is potential foraging habitat throughout the BSA based on vegetation composition, existence of adjacent habitat, and accessibility. Potential roosting sites included bridges, culvert structures, and rocky outcrops for suitable crevices and roosting habitat. Placement of bat panels were installed at the West Prado Overhead structure (Bridge 4) as part of the SR-91 CIP in the BSA. Nighttime emergence surveys were performed over a 20-month period as mitigation for the SR-91 CIP (ICF, 2018 and LSA 2018). Caltrans has indicated that bat surveys were not required during a teleconference in May 2020 for this SNES due to recent surveys in the area. Bat surveys were not completed for this SNES.

2.2.4.5 Wildlife Corridor Assessment

Previous studies along the SR-91 corridor have been extensively reported on for this section of the corridor. LSA Associates prepared a *Comprehensive Wildlife Corridor Analysis Report* (January 2009) to analyze potential effects the proposed project may have on wildlife movement between the Santa Ana Mountains and the Puente-Chino Hills and Prado Basin, and between the Santa Ana Mountains and Lake Mathews-Estelle Mountain Reserve.

Information was gathered from the MSHCP (Volume I, Section 3.2.3, Cores and Linkages in the MSHCP Conservation Area; Section 7.3.5, Planned Roads in the Criteria Area).

An assessment of potential wildlife corridors through the BSA was not studied for the SNES.

2.2.5 Assessment of Jurisdictional Waters and Wetlands

The BSA was initially evaluated for any potential jurisdictional drainage features during the habitat assessment survey. Aerial photography was reviewed prior to conducting general surveys. The photographs were used to locate and inspect any potential natural drainage features and water bodies that may be considered to be under the jurisdiction of USACE and/or CDFW. In general, surface drainage features indicated as blue-line streams on USGS maps that are observed or expected to exhibit evidence of flow are considered to be subject to state and federal regulatory authority as “waters.”

Areas of potential jurisdiction were evaluated according to USACE, CDFW, and RWQCB criteria. The boundaries of the potential jurisdictional areas were observed in the field and mapped on a series of aerial photographs (for each scale, 1 inch = approximately 200 feet), which together show the entire BSA. Measurements of federal and State jurisdictional areas mapped during the 2020 field investigation were determined by a combination of direct measurements taken in the field and measurements taken from the aerial photographs.

Jurisdictional Delineation (JD) reports for the project were previously completed in December 2013 by ECORP and by MBA. USACE issued a Preliminary Jurisdictional Determination on April 1, 2014 (File No. SPL-2020-00408-VCC). A project revalidation was completed to update impacts to vegetation and jurisdictional resources resulting from minor project changes with Revalidation #1 (Parsons, 2014). A site visit was conducted by Parsons Biologist Elizabeth Kempton and Parsons Environmental Planner Eleni Getachew on December 17, 2019, and January 9, 2020, to detect changes in previously delineated areas and to update delineations, where appropriate. A few areas changed in vegetation classification due to construction and/or habitat restoration within the BSA. These areas have been included in vegetation mapping included with this SNES.

According to the Jurisdictional Delineation Update Memorandum (Parsons, 2020), there are 45 features that may be subject to agency jurisdiction. These include features classified as Streams (Ephemeral, Intermittent, and Perennial), Wetlands, and Riparian Vegetation. There are approximately 5.34 acres of potential WOTS/WOTUS Wetlands (including Wetlands only), 12.59 acres WOTS/WOTUS Non-Wetland (includes Streams only), and 41.52 acres of potential WOTS (includes Riparian Vegetation only). A total of 19 features totaling 2.49 acres classified as “Ephemeral Streams” may be subject to changes of jurisdiction; however, results of the JD are subject to review by the resource agencies for concurrence (USACE, CDFW, and Santa Ana RWQCB).

All potentially jurisdictional features within the project site were systematically inspected to record existing conditions and to determine the jurisdictional limits. The site was carefully assessed for surface flow indicators (e.g., presence of hydrophytic vegetation, staining, cracked soil, ponding). The apparent flow regimes and corresponding hydrogeomorphic features were subsequently identified. The lateral extent of USACE jurisdiction was measured at the OHWM. Where appropriate, multiple measurements were recorded at various representative locations along the length of the feature.

2.3 Personnel and Survey Dates

Focused biological surveys were conducted by Ms. Arianne Preite, Parsons Principal Scientist, under TE095858 and Mr. Brian Upchurch, Parsons Environmental Planner.

Table 2-1: Survey Dates and Personnel

Date	Surveyor	Time	Weather	Wind
4/15/20	BU, AP	8:00 a.m. – 11:30 a.m.	68.9°F – 71.5°F; clear, sunny	1 mph – 2.4 mph
5/13/20	BU, AP	8:00 a.m. – 4:30 p.m.	67.8°F – 82.2°F; clear, sunny	1.3 mph – 3 mph
6/8/20	BU, AP	8:00 a.m. – 5:00 p.m.	64.5°F – 79°F; clear, windy	1.3 mph – 4 mph
6/30/20	BU, AP	8:00 a.m. – 3:00 p.m.	71.4°F – 79.1°F; clear	1.0 mph – 2.5 mph
BU = Brian Upchurch; AP = Arianne Preite °F = degrees Fahrenheit; mph = miles per hour				

2.4 Agency Coordination and Professional Contacts

During preparation of the NES (2010), coordination with the resource agencies occurred. A DBESP was prepared on January 8, 2010. A Biological Opinion (BO) for potential effects on LBV and CAGN was issued for the project in 2011.

A Habitat Assessment and MSHCP Consistency Analysis was completed for the project in 2010. The purpose of the habitat assessment was to document existing conditions onsite and determine if the BSA contains suitable habitat for any sensitive plant or wildlife species. The BSA is located within an MSHCP-designated habitat assessment survey area for BUOW and three Narrow Endemic Plant Species, including San Diego ambrosia, Brand's phacelia, and San Miguel savory. The project was found to be consistent with requirements of the MSHCP.

The USFWS and RCA were notified that the overall project footprint was not expanding; these agencies concurred that the original consistency analysis and DBESP would not require updates through e-mail correspondence with Mr. John Taylor (USFWS) on June 8, 2020, and Ms. Tricia Campbell (RCA) on May 28, 2020.

2.5 Limitations Potentially Influencing Results

Several locations within the BSA on both the western and eastern sides of SR-71 were restricted by gates, preventing access for the habitat assessment. These areas include ROW fencing along the highway and areas of CHSP where access was restricted. The morning surveys started along the SR-71/SR-91 northeast and northwest quadrants.

Field data must be conservative and consider the uncertainties and limitations necessarily imposed by the environment; however, due to the experience and qualifications of the consultant biologists involved in the surveys, this limitation is not expected to severely influence the results or substantially alter the findings. In addition, the results of the biological resource surveys are limited where access was not available.

Although information was gathered from the entire BSA, project effects discussed in this SNES are considered for biological resources that fall within the project footprint of the various alternatives and design variations and in adjacent areas that may be directly or indirectly affected by the proposed project.

These limitations may affect the results of the site assessment; however, based on the amount of development in the project area, it is unlikely that these limitations would greatly affect the survey results. Avoidance and minimization measures described in Chapter 4 will be implemented throughout the project to reduce project impacts.

The general biological surveys were conducted in an extremely dry year. This could potentially affect the number and types of plants identified during the surveys; however, surveys were conducted over the blooming season of sensitive plants in order to provide visual observation if the species was present.

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Chapter 3 Results: Environmental Setting

This chapter discusses changes to the environmental setting since approval of the SR-71/SR-91 IS/MND, results of the updated database record searches (2020), recent construction projects in the area including the SR-91 CIP and subsequent restoration efforts, I-15 Express Lane Project (ELP) and the I-15/SR-91 Express Lane Connector (ELC), the Santa Ana River Mainstem Project, SR-91 Eastbound Project, Caltrans Planting Project at SR-91 Green River Road, and recent biological surveys conducted in January 2020 and April to June 2020.

3.1 Description of the Existing Biological and Physical Conditions

The BSA is located within the South Coast subregion of the Southwestern California region of the California Floristic Province (Jepson, 1993). The South Coast Subregion is characterized by valley and small hills extending form the coast inland to the foothills of the Transverse and Peninsular Mountain Ranges. Much of the area is intensively developed for urban, suburban, and agricultural uses. The natural vegetation of the subregion consists primarily of chaparral, CSS, annual grasslands, and some riparian scrub and woodland. Much of the vegetation occurs in scattered, often fragmented patches on hills or in other areas not easily developed.

The BSA borders open space areas owned by the CHSP and USACE (Prado Dam) in the northern section. Along the southern section, the BSA borders industrial and residential developments. The Santa Ana River bisects the BSA, with drainage features traversing under SR-71 and SR-91.

3.1.1 Biological Study Area

The study area is referred to as the BSA, which is the area assessed for biological resources. The BSA encompasses the impact area and a buffer around the impact area. The BSA was created by buffering approximately 1,000 feet from the project centerline, beyond the maximum extent of potential direct effect where necessary to identify sensitive biological resources within and immediately adjacent to the project area. The BSA was then used as the study limit boundaries for all biological studies. The BSA for the SNES has been reduced in size from the original BSA due to minor design modifications that have occurred along SR-91 at the farthest western section of the project. The BSA for the SNES was slightly reduced in size from the original BSA in the western end of the project limits because there are no project features extending as far west along SR-91 as originally anticipated during preparation of the NES. The BSA not only includes the project footprint, but all areas where permanent or

temporary impacts, associated infrastructure and staging areas may occur, and it identifies all potential opportunities and constraints in determining the final alignment for the proposed improvements (Figure 3-1).

In 2019, fires occurred in areas along SR-91 that contained primarily non-native grassland (NNG) along the SR-91 eastbound shoulder and CHSP. RCTC reported these occurrences to USFWS during quarterly and annual reporting of the SR-91 CIP Restoration Areas. The fires did not directly impact habitat in the BSA of the SR-71/SR-91 Interchange Improvement Project.

3.1.2 Physical Conditions

The BSA is located within the Santa Ana River Canyon, in the southwestern portion of the Prado Basin, between Chino Hills to the north and the Santa Ana Mountains to the south. The topography onsite consists of a relatively flat river valley surrounded by steep hillsides that continue to the north and south, with an elevation range from approximately 450 feet to 600 feet above mean sea level (AMSL).

The BSA occurs immediately west of the Prado Dam and is intersected by the Santa Ana River. According to the JD update completed in January 2020, there are 19 features potentially under the jurisdiction of USACE, and/or CDFW. Major features observed within the BSA include Fresno Canyon Wash and Wardlow Wash, which are tributaries to the Santa Ana River.

Due to previous and ongoing disturbances in the local vicinity, the study area consists of an abundant mix of native and non-native vegetation. The original construction of SR-91, SR-71, BNSF railroad, commercial and residential developments, and associated roads in the local area have created isolated stands of habitat that demonstrate little connectivity with neighboring vegetation communities.

Surrounding upland use in the vicinity of the BSA consists of medium-density residential and commercial development, open space, and USACE land. Medium-density residential and commercial development occurs to the south, east, and west of the BSA. Open space occurs farther to the north and south of the BSA, within CHSP and the Cleveland National Forest, respectively. USACE lands occur to the north of SR-91 and include Prado Dam and the associated spillway.

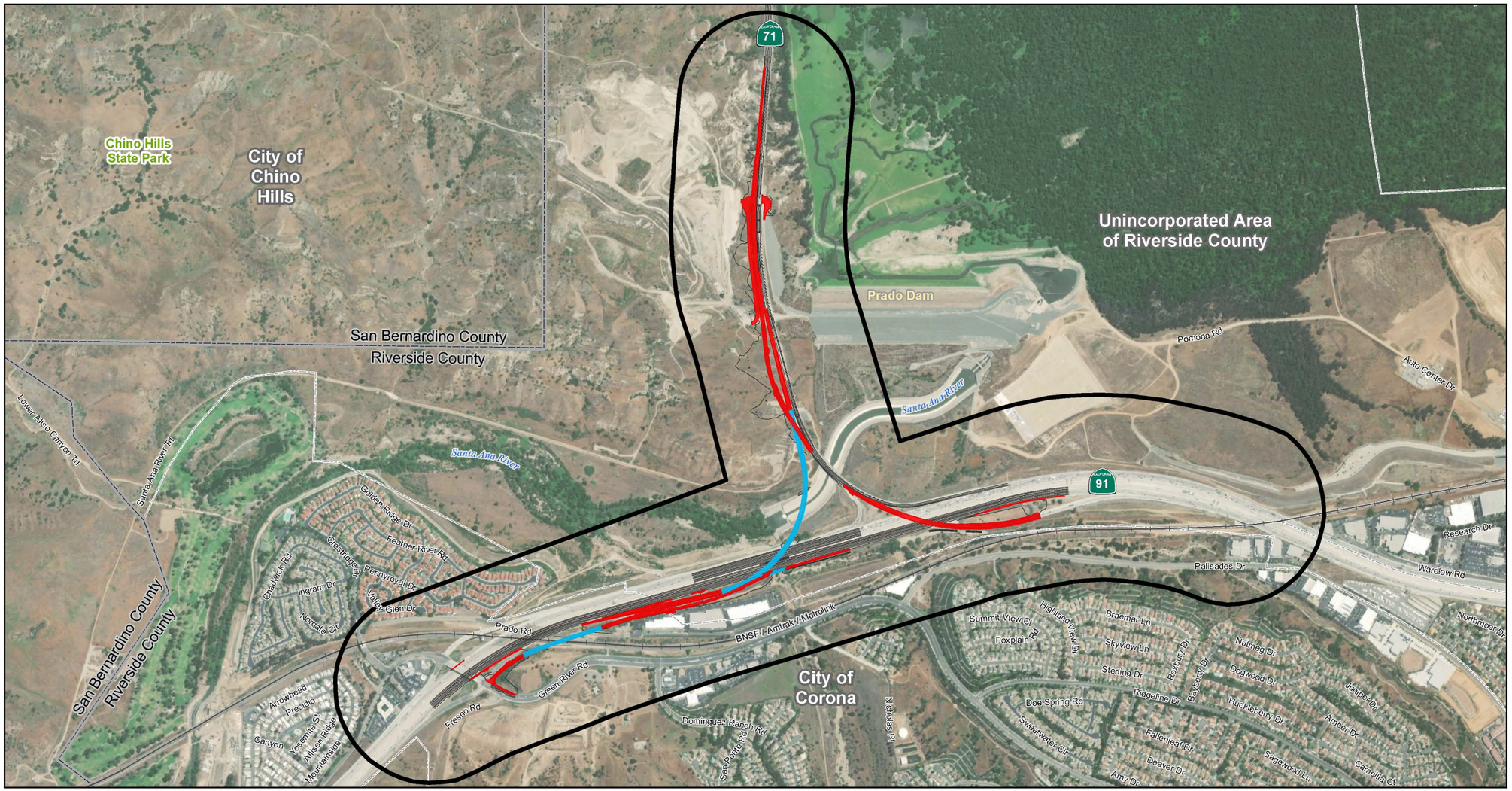

Figure 3-1: Biological Study Area and Site Plan

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Within the boundaries of the MSHCP, the BSA falls within Subunit 1 – Santa Ana River/Santa Ana Mountains and Subunit 2 – Prado Basin of the Temescal Canyon Area Plan. The study area occurs within Criteria Cells 1520 and 1612 of Cell Group B, and within independent Criteria Cell 1616 of Subunit 1, in addition to independent Criteria Cells 1702, 1704, and 1706 of Subunit 2. Portions of the BSA also fall within Existing Core A, PCL 1, and PCL 2 of the MSHCP. As currently designed, the proposed project impact area is consistent with the conservation goals and objectives for these MSHCP Conservation Areas.

3.1.3 Biological Conditions within the Biological Study Area

The entire BSA is located within the Santa Ana River Watershed, which has an overall size of 2,800 square miles. The Santa Ana River Watershed is divided into an upper and lower watershed at Prado Dam. From the Santa Ana Mountains, the Santa Ana River flows southwest to the Pacific Ocean (Mitchell, 2006).

The BSA is mapped as supporting 16 soil mapping units belonging to 9 separate soil series, as well as 6 land features (see Figure 3-2). The soil series mapped onsite are Altamont, Arbuckle, Cotina, Garretson, Gaviota, Grangeville, Metz, Perkins, and San Emigdio (USDA, 1971). There are no changes to existing soil conditions from the original NES.

The 16 specific soils onsite are: Altamont clay, Arbuckle loam, Cortina cobbly loamy sand, Cortina gravelly coarse sandy loam, Garretson very fine sandy loam, Gaviota rocky fine sandy loam, Gaviota very fine sandy loam, Gaviota-Rock outcrop complex, Gaviota rocky very fine sandy loam, Grangeville fine sandy loam poorly drained saline-alkali, Grangeville fine sandy loam saline-alkali, Metz loamy sand, Metz loamy fine sand, Perkins loam, Perkins gravelly loam, and San Emigdio loam.

Photos of the plant communities are provided in Appendix A, and a map of the plant communities is provided in Figures 3-3 and 3-4.

3.1.3.1 Vegetation Communities

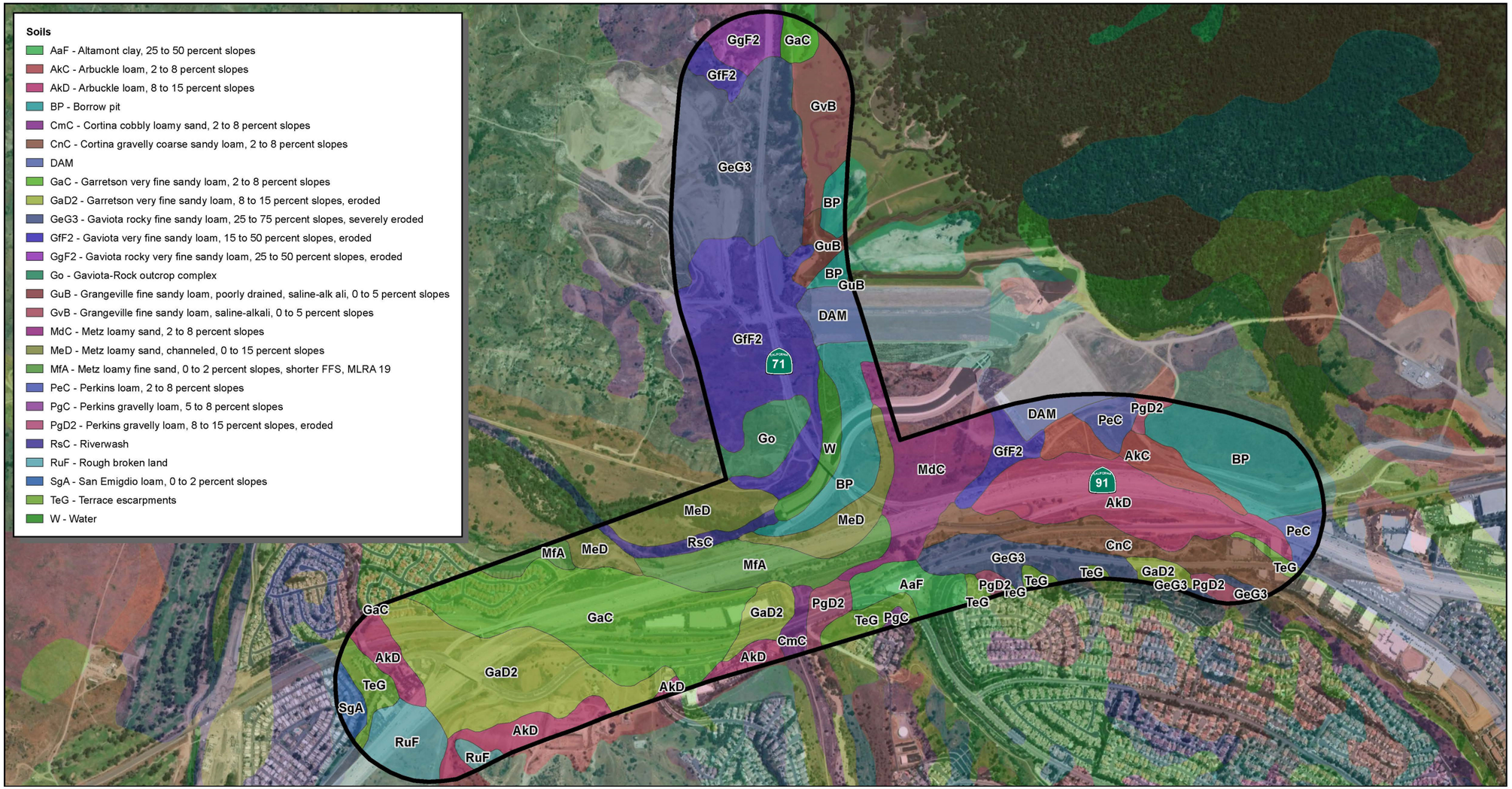
Fifteen (15) plant communities occur within the BSA: oak woodland (OW), CSS, coastal sage-chaparral scrub (CSCS), mixed scrub (MS), mule fat scrub (MFS), saltbush scrub (SS), southern cottonwood willow riparian forest (SCWRF), southern cottonwood riparian forest (SCRF), eucalyptus/ornamental woodland (EOW), NNG, disturbed habitat (DH), urban/developed (U/D) land, streambed, waters, and riparian forest (RF). Table 3-1 details the temporary and permanent impacts to these communities. Habitat communities are based on nomenclature from the NES and remain consistent in the SNES.

Table 3-1: Plant Communities within the BSA

Plant Communities	Acres within the BSA
Coastal Sage Scrub	149.17
Coastal Sage-Chaparral Scrub	0.54
Disturbed Habitat	148.02
Eucalyptus/Ornamental Woodland	27.68
Mixed Scrub	2.64
Mule Fat Scrub	14.14
Non-Native Grassland	119.09
Oak Woodland	20.62
Ornamental	4.00
Riparian Forest	0.57
Southern Cottonwood Riparian Forest	13.27
Southern Cottonwood Willow Riparian Forest	33.34
Streambed	9.77
Urban/Developed	193.61
Water	44.79
TOTAL	781.25

Coastal Sage Scrub

CSS consists of low-growing, drought-deciduous and evergreen shrubs that occur in foothills throughout coastal southern California south into Baja California, below 3,000 feet in elevation. This community is typically located on sites with low moisture availability, such as steep, xeric slopes or clay-rich soils that release stored moisture slowly. It intergrades at higher elevations with chaparral communities and in drier, inland areas with Riversidean sage scrub. Characteristic dominant species include California sagebrush (*Artemisia californica*) and California buckwheat (*Eriogonum fasciculatum*).



Biological Study Area

0 500 1,000 2,000 Feet

SR-71/91 Interchange Improvement Project
USDA Soils Map

Caltrans District: District 8
County: Riverside County
Route: SR 71 1.9/3.0 and SR 91 R0.9/R2.6

Source: ESRI; USDA; Parsons 2020
Map Last Saved: 10/7/2020

Figure 3-2: USDA Soils Map

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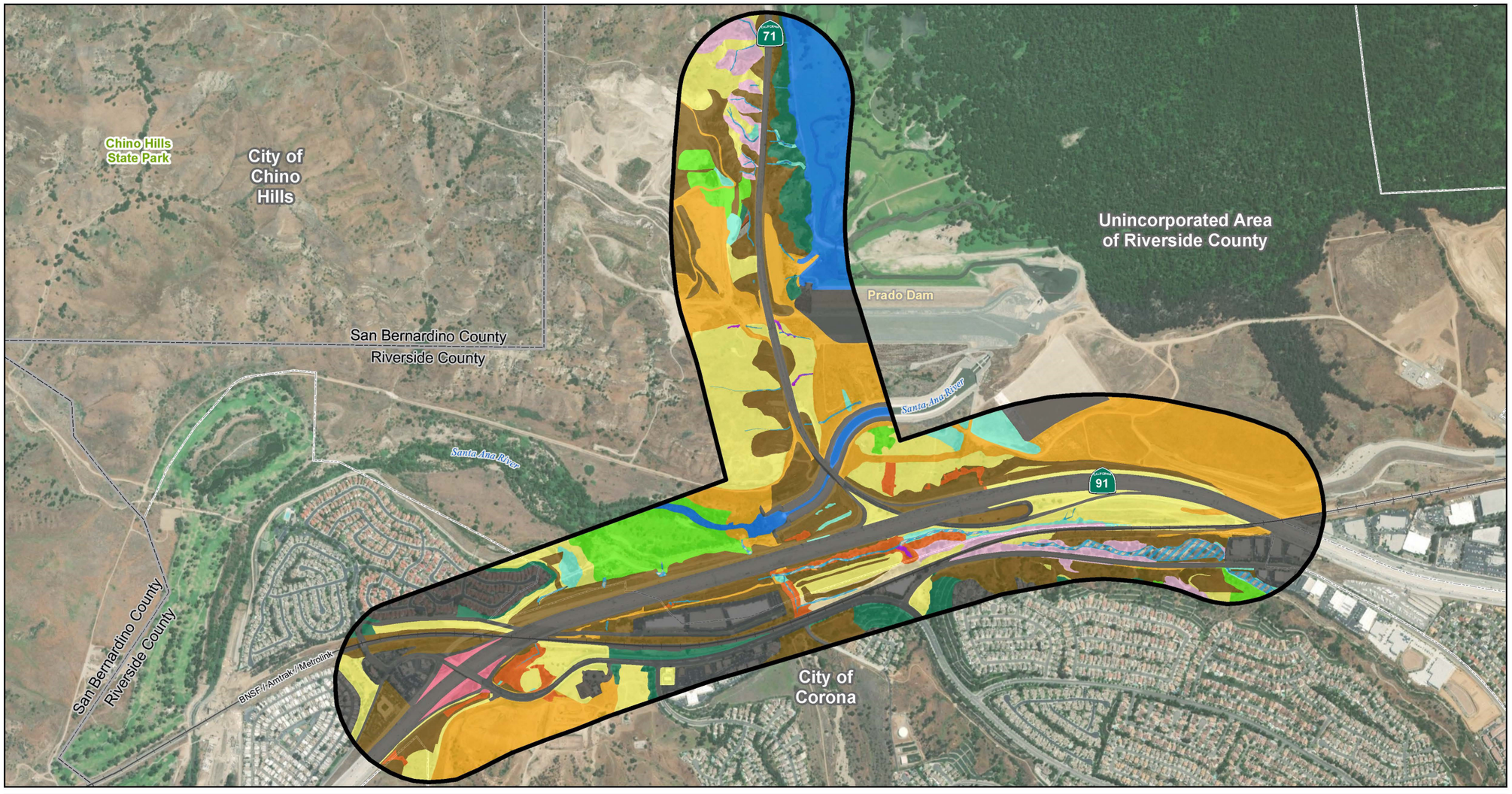

Figure 3-3: Plant Communities Overview Map

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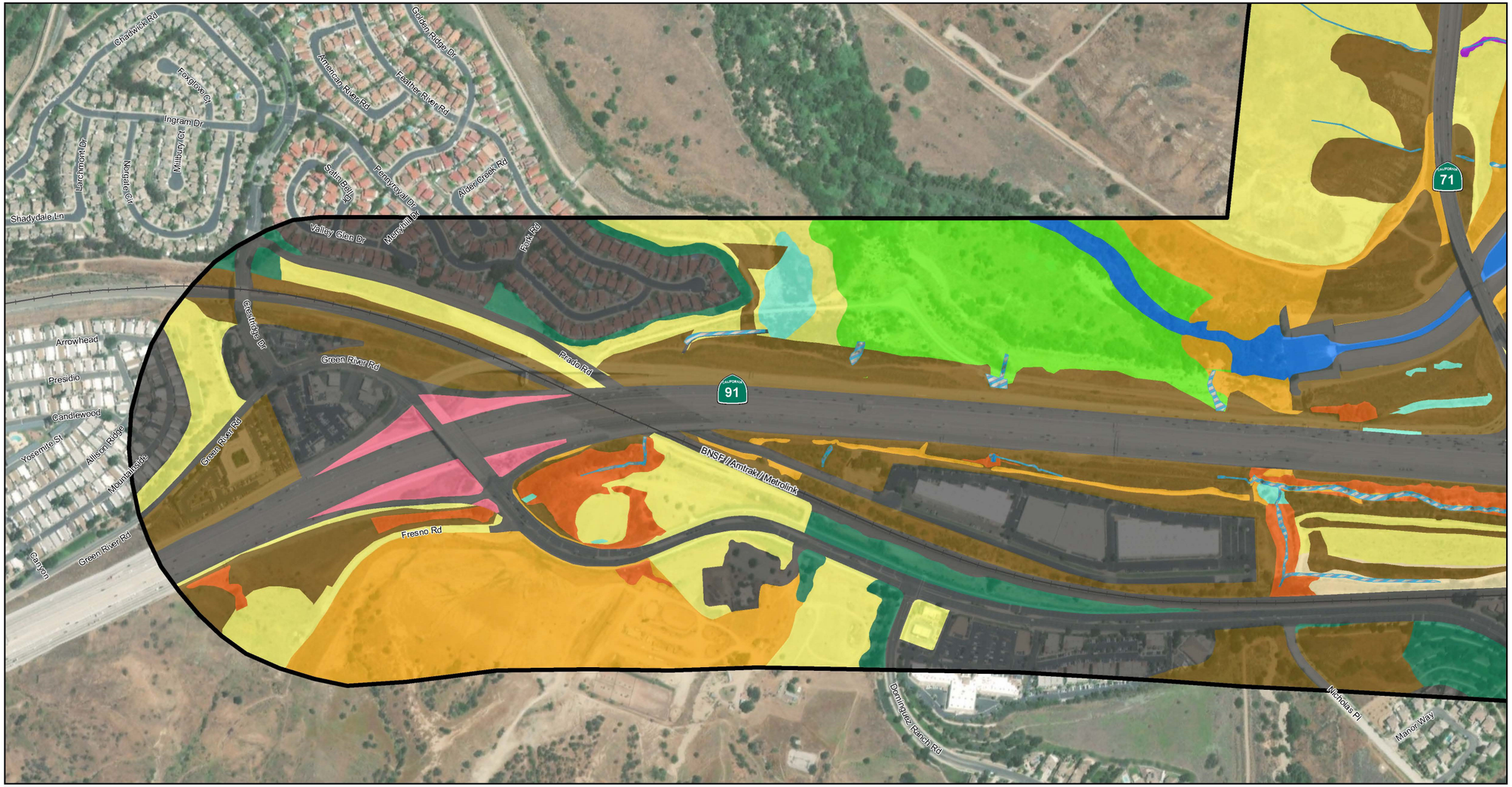

Figure 3-4: Plant Communities Map (page 1 of 4)

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Figure 3-4: Plant Communities Map (page 2 of 4)

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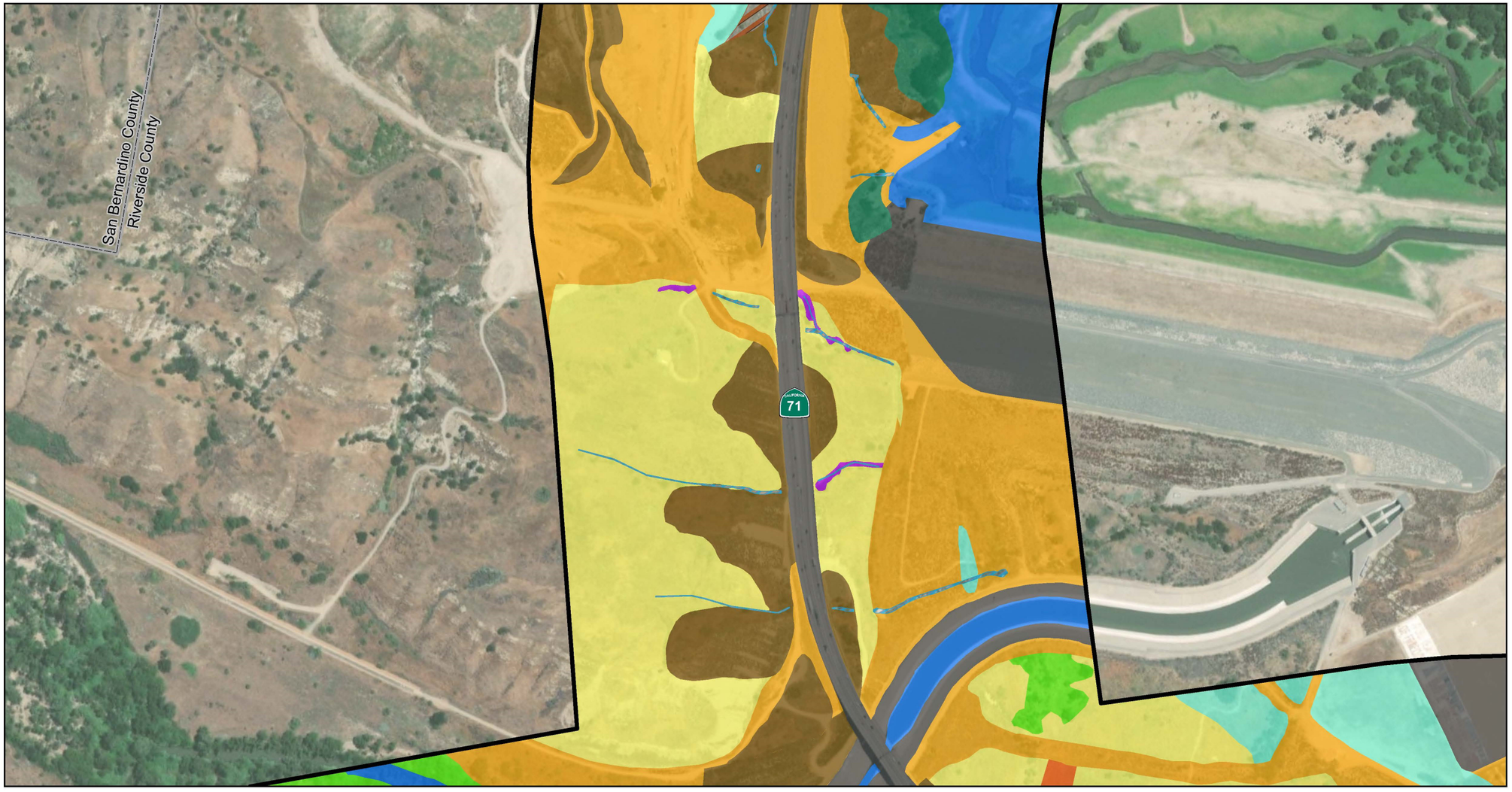

Figure 3-4: Plant Communities Map (page 3 of 4)

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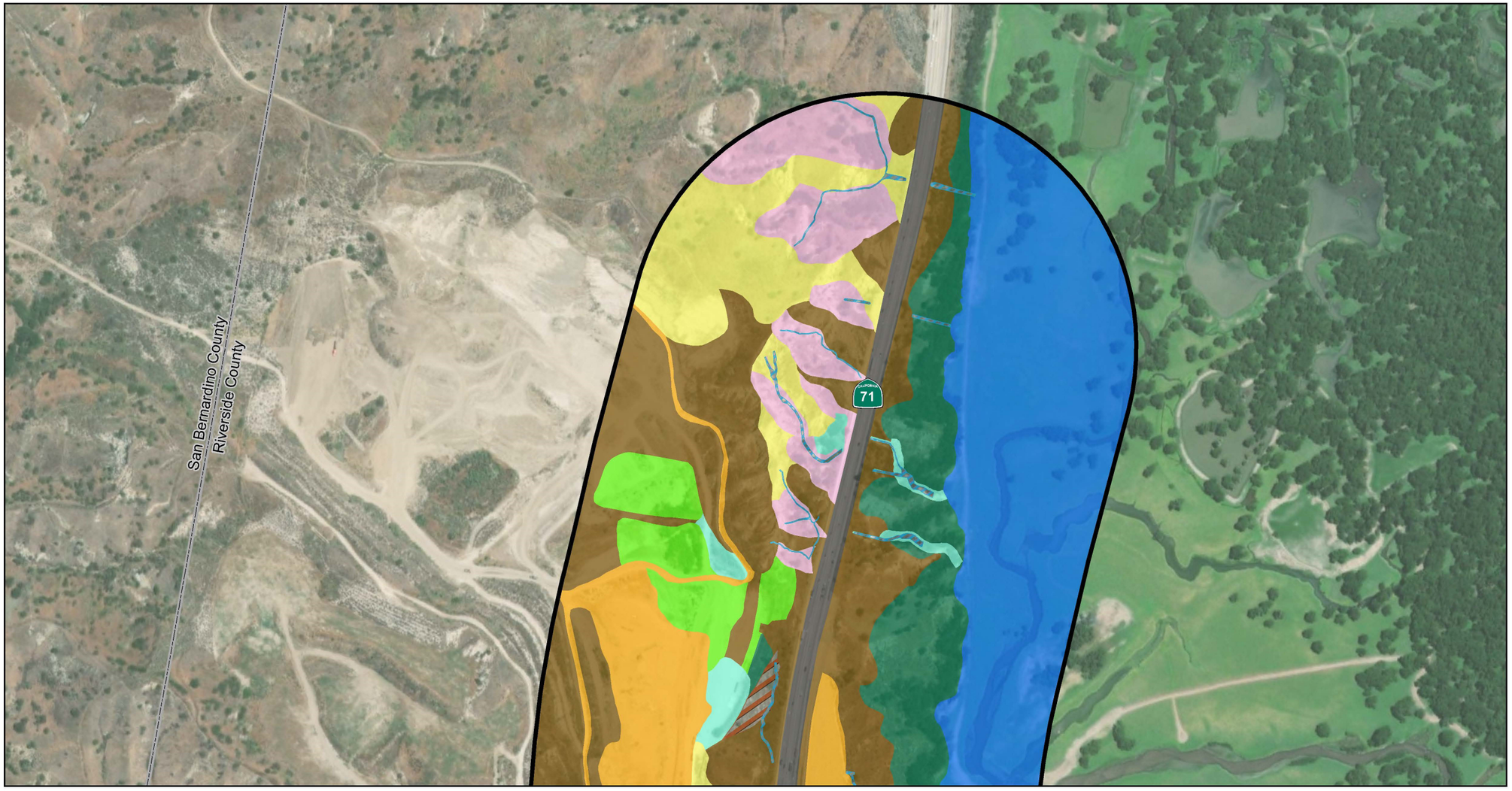

Figure 3-4: Plant Communities Map (page 4 of 4)

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Most of the CSS that occurs throughout the BSA has been restored on cutback slopes as a means of mitigation for previous development projects. The CSS occurs in relatively isolated stands along several east-facing slopes adjacent to SR-91, SR-71, and Green River Road. The areas along the east-facing slopes adjacent to SR-91 contain isolated slivers of CSS, often surrounded by NNG. Approximately 149.17acres of restored CSS occurs within the project impact area, along hillside cutbacks adjacent to SR-71. The CSS within the project study area is considered low to moderate in habitat quality based on the communities' exposure to adjacent ongoing disturbances and provides very marginal nesting and foraging opportunities for sensitive wildlife species known to occur in the region, including CAGN. Common species observed within this community include California sagebrush, California buckwheat, coastal goldenbush (*Isocoma menziesii var. vernonioides*), and white sage (*Salvia apiana*). Due to adjacent disturbances, several non-native species, including Russian thistle (*Salsola tragus*), red brome (*Bromus rubens*), ripgut brome (*Bromus diandrus*) and shortpod mustard (*Hirschfeldia incana*), occur within the understory of the CSS.

Areas of restored CSS are present along SR-91 as part of restoration efforts for the SR-91 CIP (see Figure 3-5). These areas are shown as CSS in Figure 3-5 and are found at the SR-71/ SR-91 northeast (Restoration Area 7) and northwest quadrants (Restoration Area 6), north of SR-91 at Green River Road (Restoration Area 2), along Prado Road north of SR-91 (Restoration Area 3), and in Fresno Canyon/Wardlow Wash (Restoration Area 5). Restoration Area 1 is outside the BSA. In coordination with USFWS, Restoration Areas 4 and 8 were updated to permanent impact classification as part of the SR-91 CIP. Impacts to CSS in these areas were calculated with the SR-91 CIP. These areas should not count as impacts to CSS for the SR-71/SR-91 Interchange Improvement Project and have been further classified as disturbed habitat. Surveys in 2020 showed there are variations between areas planted for the SR-91 CIP restoration and current field conditions. These areas include SCRF at Restoration 7, SCWRF present in Restoration Area 6, and areas lacking vegetation in Restoration Area 5. RCTC is coordinating with USFWS on future actions for these areas.

Saltbush Scrub (SS) occurs as an isolated linear patch, north of Green River Road and south of SR-91. The SS community occurs parallel with SR-91 and along the southern edge of an SCWRF. In addition, four wing saltbush *(Atriplex canescens)* is found associated in SR-91 CIP Restoration Area 7 in the SR-71/SR-91 northeast quadrant, associated with the CSS vegetation community (see Figure 3-5). Isolated occurrences of four wing saltbush have been included in the CSS vegetation community. Common species observed within this community include four wing saltbush and coyote brush. Holland (1986) does not provide a description for SS; therefore, for the purpose of this effort, the description of this community has been developed by Michael Brandman Associates (MBA) based on knowledge of the local area, for the NES. This community is similar to desert sage scrub, referenced in Section 36110 of Holland (1986). SS

is a relatively moderate growing, open to dense scrub community dominated by several species of saltbush (*Atriplex* sp.). This community is often found near dry lake or riverbeds, in areas of high alkalinity or salinity, and poorly drained soils.

Coastal Sage-Chaparral Scrub

CSCS consists of a mix of sclerophyllous, woody chaparral species and drought-deciduous, malacophyllous sage scrub species. This community is apparently a post-fire successional community that occurs intermediate to coastal scrubs and chaparrals throughout coastal California south to Baja. Characteristic species of this community include chamise (*Adenostoma fasciculatum*), California sagebrush, ceanothus (*Ceanothus* sp.), black sage (*Salvia mellifera*), and poison oak.

Within the BSA, this community occurs within two relatively large isolated stands in the eastern portion of Wardlow Wash immediately south of SR-91 (Figure 3-4, page 1) and within a wash on the west side of SR-71 (Figure 3-4, page 4) for a total area of 0.54 acre. This community contains a mix of CSS and chaparral species, including California sagebrush, California buckwheat, coyote brush (*Baccharis pilularis*), coast goldenbush, scale-broom (*Lepidospartum squamatum*), laurel sumac (*Malosma laurina*), toyon (*Heteromeles arbutifolia*), and scrub oak. A few isolated and emergent arroyo willow (*Salix lasiolepis*), black willow (*Salix gooddingii*) and Fremont's cottonwood (*Populus fremontii* ssp. *fremontii*) trees occur adjacent to two drainage features that bound the eastern portions of the community. The CSCS within the project site provides suitable habitat for several common and sensitive wildlife species.

This community is also found on PQP Lands, with California sagebrush, California buckwheat, coyote brush, coast goldenbush, laurel sumac, toyon, and scrub oak present on these east-facing slopes in isolated slivers typically surrounded by disturbed areas associated with SR-71.

Disturbed Habitat

DH includes areas in which the vegetative cover comprises less than 10 percent of the surface area (disregarding natural rock outcrops) and where there is evidence of soil surface disturbance and compaction from previous legal human activity; or where the vegetative cover is greater than 10 percent, there is soil surface compaction, in addition to the presence of building foundations and debris (e.g., irrigation piping, fencing, old wells, abandoned farming or mining equipment) resulting from legal activities (as opposed to illegal dumping). Vegetation commonly observed within DH will have a high predominance of non-native or weedy species that are indicators of soil disturbance. Common species include Russian thistle, telegraph weed (*Heterotheca grandiflora*), horehound (*Marrubium vulgare*), and sow thistle (*Sonchus oleraceus*), and a sub-dominance of NNG. DH is referenced in Section 11300 of Oberbauer (1996).

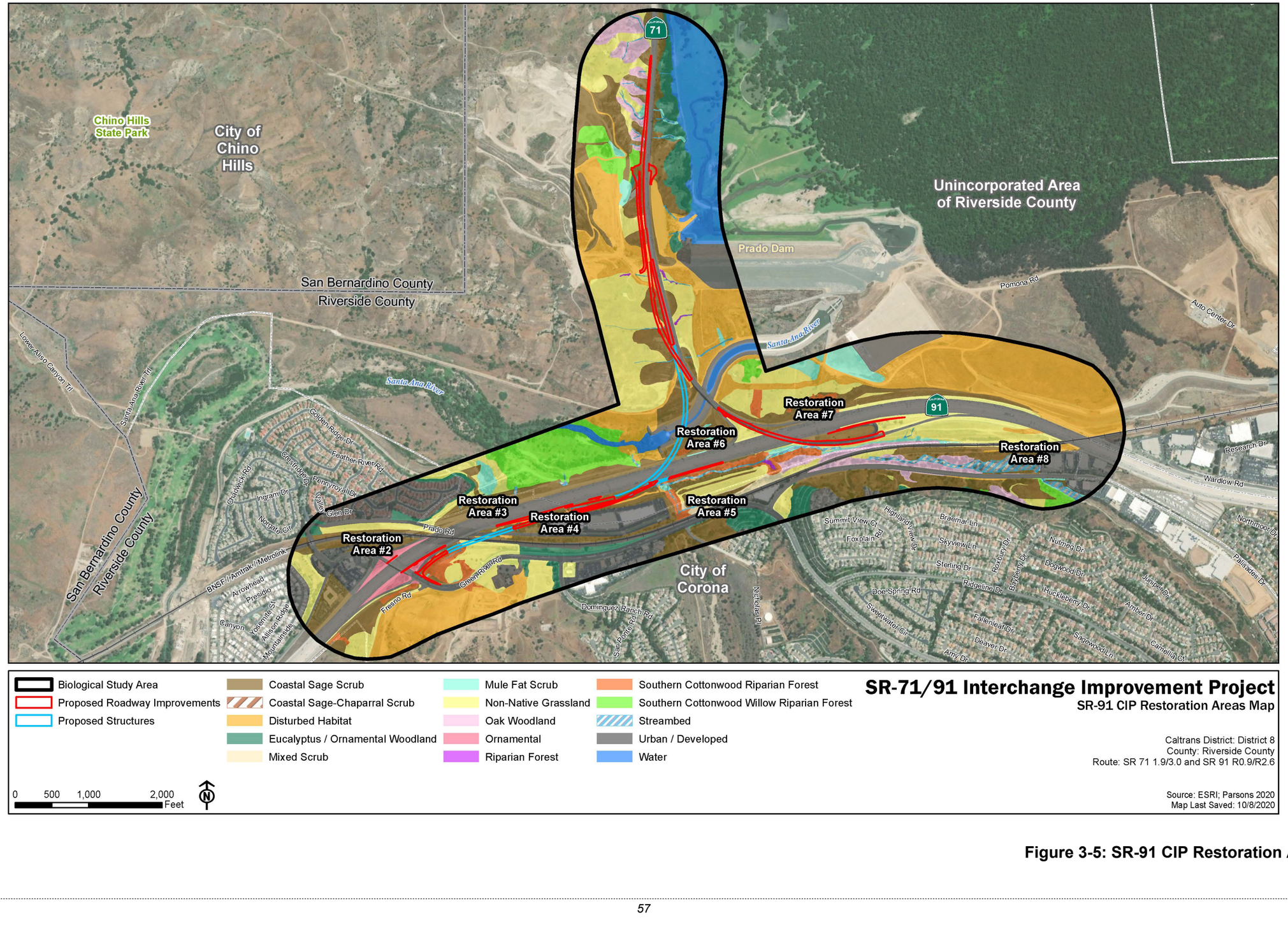

Figure 3-5: SR-91 CIP Restoration Areas Map

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DH is prevalent throughout the BSA in areas of previous or current ground disturbance associated with construction improvements of SR-91, Green River Road, shoulder areas along SR-71, and the SR-71 north driveway. Approximately 148.02 acres of DH is located within the project study area. The DH within the project site is generally located adjacent to U/D areas where grading and vegetation removal has taken place. The vegetation within these areas consists of sparsely scattered non-native grasses and ruderal forbs, including red brome, ripgut brome, Russian thistle, and shortpod mustard. Portions of this community that occur on and within 500 feet of the project site provide marginal nesting and foraging habitat for burrowing owl, such as along low-lying areas of SR-71. Areas of DH are present in Fresno Canyon/Wardlow Wash due to ongoing issues of trespass by unauthorized persons and vehicles. SR-91 CIP Restoration Areas 4 and 8 are included in impacts for DH due to coordination between USFWS and RCTC.

Eucalyptus/Ornamental Woodland

EOW is a non-native vegetation community characterized by a mix of non-native ornamental trees, shrubs, and groundcover species, often dominated by ornamental gum trees (*Eucalyptus* sp.). Physical structure and canopy ranges from low growing to tall, sparse to dense, often with a high species diversity. This community is associated with previously cultivated areas, including parks, agricultural windrows, residential properties, and other urban landscapes.

The EOW located within the BSA occurs in disturbed and landscaped areas adjacent to existing residential and commercial development, as well as areas within the Prado Basin, north of Prado Dam and adjacent to SR-71. This habitat is found adjacent to SR-71, typically in flat terrain or east-facing slopes, often in sliver areas that are isolated and surrounded by NNG along the highway. Approximately 27.68 acres of this community occurs within the BSA. The woodlands are dominated by mature ornamental species including gum tree and Peruvian pepper tree (*Schinus molle*), as well as common ornamental ground cover species such as ice plant (*Carpobrotus* sp.). The EOW onsite provide suitable nesting habitat for common nesting avian species. EOW is found at SR-91/Green River Road from a Caltrans Planting Project, south of SR-91. In addition, areas of Peruvian pepper tree are found in connector areas such as the SR-91 eastbound to SR-71 connectors.

Mixed Scrub

This community was developed by MBA during preparation of the NES and based on knowledge of the local area. MS consists of a relatively low- to tall-growing scrub community containing a mix of native and non-native shrub species. Several native and non-native tree species, containing a non-native grass understory, also occur within the MS community. This

vegetation community is prevalent within the BSA due to a high amount of previous and ongoing disturbance associated with existing landscaping and previous development and restoration. A total of 2.64 acres of mixed scrub is found in the BSA.

MS is located immediately north and downslope from the BNSF railroad line, south of SR-91, in the eastern portion of the BSA south of SR-91, and on east- and west-facing slopes along SR-71. Common species observed include Mexican elderberry (*Sambucus mexicanus*), gum tree, broom baccharis (*Baccharis sarothroides*), poison oak, tree tobacco (*Nicotiana glauca*), mule fat (*Baccharis salicifolia*), coast live oak, laurel sumac, shortpod mustard, ripgut brome, and red brome. This community is subject to ongoing disturbance associated with the adjacent railroad line and is considered relatively low in habitat quality for plant and wildlife species.

Mule Fat Scrub

MFS is a depauperate, tall, herbaceous riparian scrub community strongly dominated by mule fat. It is widely scattered throughout California near streams and rivers below 2,000 feet. This community is maintained by frequent flooding and commonly occurs along intermittent stream channels with fairly coarse substrate and moderate depth to the water table. This community frequently occurs as a patchy understory in light gaps within sycamore alluvial woodlands, especially under heavy grazing. Common species observed within this community include, mule fat, sedge (*Carex* sp.), and a variety of willow species.

Within the BSA, MFS occurs at several isolated low-lying locales associated with hydrological features. A total of 14.14 acres of MFS are present in the BSA. The MFS is primarily located in disturbed areas and is considered low to moderate in quality. It is located in Fresno Canyon/Wardlow Wash areas, south of SR-91, in addition to areas in the Prado Dam area on USACE land. This community is largely dominated by mule fat and generally contains a disturbed understory of non-native grasses, including red brome, ripgut brome, and wild oat (*Avena fatua*). Some of the stands of this community function as understory extensions and upland transition areas for the riparian forest habitats associated with the Santa Ana River and its tributary waters. MFS in the Fresno Canyon/Wardlow area are subject to human disturbance due to illegal trespass from foot and vehicle traffic.

Non-Native Grassland

NNG, a prevalent community throughout southern California, is generally characterized by a dense to sparse cover of non-native annual grasses often associated with numerous weedy species and native annual forbs (wildflowers), especially in years with plentiful rain. Seed germination occurs with the onset of winter rains. Some plant growth occurs in winter, but most growth and flowering occurs in the spring. Plants then die in the summer and persist as

seeds in the uppermost layers of soil until the next rainy season. Dominant plant genera typically found within NNG include brome, slender oat (*Avena barbata*), fescue (*Vulpia* sp.), and barley (*Hordeum* sp.).

NNG occurs throughout most of the BSA. Approximately 119.09 acres of this community are located within the project study area. The NNG observed within the project study area has been introduced as a result of previous disturbances in the local area. NNG is found on the east-facing slopes along SR-71 in addition to areas of disturbance along the SR-71 and SR-91 in shoulder areas. Within the project site, this community most commonly occurs within areas adjacent to existing roads and highways. Common species observed throughout this community include red brome, ripgut brome, wild oat, slender oat, barley, and filaree (*Erodium botrys*). NNG that occurs on and within 500 feet of the project site provides marginal nesting and foraging habitat for BUOW.

Oak Woodland

OW is a sclerophyllous woodland community dominated by a variety of oak trees including coast live oak (*Quercus agrifolia*) and canyon live oak (*Quercus chrysolepis*). Its canopy ranges from 30 to 75 feet tall and may be open or closed. This community is typically found on east-facing slopes or in shaded ravines along SR-71. The understory is usually dominated by grass species or covered with leaf litter and has a poorly developed shrub layer. In general, the community within the study area is dominated by coast live oaks and canyon live oaks, but it also contains scattered, interior live oak (*Quercus wislizeni*) and understory species such as scrub oak (*Quercus berberidifolia*) and poison oak (*Toxicodendron diversilobum*).

The woodlands occur in three locations in the eastern portion of the BSA and on the east-facing cutback slopes along the west side of SR-71, often occurring in isolated slivers of habitat surrounded by NNG. Approximately 20.62 acres of OW habitat occurs within the proposed impact area. This community is located immediately adjacent to developed areas of Palisades Drive, the BNSF railroad line, and SR-71. An OW occurs immediately south of the proposed project impact area, adjacent to the BNSF railroad line and the existing southbound SR-71 to eastbound SR-91 on-ramp. Although located in areas of ongoing disturbances, the OW within the study area is considered moderate quality habitat for common bird and raptor species by providing cover, nesting, and perching opportunities.

Ornamental

Ornamental is a non-native vegetation community characterized by a mix of non-native ornamental trees, shrubs, and groundcover species; however, it differs from EOW due to a lack of dominance by ornamental gum trees (*Eucalyptus* sp.). Physical structure and canopy ranges

from low growing to tall, sparse to dense, often with a high species diversity. This community is associated with previously cultivated areas, including parks, agricultural windrows, residential properties, and other urban landscapes. The area is primarily seen along Green River Road in areas planted by Caltrans.

Riparian Forest

According to Holland (1986), riparian forest vegetation includes Western sycamore *(Platanus racemosa),* Freemont cottonwood *(Populus fremontii),* coast live oak *(Quercus agrifolia),* and various willow species including *Salix gooddingii, Salix laevigata,* and *Salix lasiolepis.*

RF was observed within the BSA in a small area in the Fresno Canyon/Wardlow Wash area. The total of this habitat in the BSA is 0.57 acre. Trees from this community are also found in small slivers of habitat along east-facing slopes along SR-71.

Southern Cottonwood Riparian Forest

SCRF is very similar to SCWRF, but it does not contain any willow species and is heavily dominated by cottonwood trees. This community typically occurs along perennially wet stream areas from the coast to the edge of deserts, in subirrigated and frequently overflowed lands along rivers and streams. Characteristic species include mule fat, western sycamore, and cottonwood.

Within the BSA, this community occurs in isolation, north of the westbound SR-91 to northbound SR-71 on-ramp, associated with the Santa Ana River. The SCRF within the BSA consists of tall-growing cottonwood trees, completely devoid of willow trees, with scattered ruderal forbs. Other species observed in this community include black mustard (*Brassica nigra*), fennel (*Foeniculum vulgare*), mule fat, and scale-broom. The community is relatively undisturbed and provides moderate quality nesting habitat for common and riparian bird species.

This area is found south of SR-91 in Fresno Canyon/Wardlow Wash (see Figure 3), totaling 13.27 acres. SCRF is subject to ongoing disturbance by homeless and unauthorized vehicles, resulting in habitat of moderate quality nesting habitat.

Southern Cottonwood Willow Riparian Forest

SCWRF is a relatively tall-growing, open, broad-leafed winter-deciduous, riparian forest dominated by several species of cottonwood trees (*Populus* sp.) and willow trees. This community typically occurs along perennially wet stream areas from the coast to the edge of deserts, in subirrigated and frequently overflowed lands that occur along rivers and streams. In the BSA, it is associated with the Santa Ana River and low-lying areas along the SR-71. The

dominant species require moist, bare mineral soil for germination and establishment, which is provided after flood waters recede, leading to uniformly aged stands. Characteristic species of this community include cottonwood, mugwort (*Artemesia douglasiana*), mule fat, western sycamore (*Platanus racemosa*), black willow, arroyo willow, and stinging nettle (*Urtica dioica*).

SCWRF is prevalent throughout the lowland areas and drainage features within the BSA. Approximately 33.34 acres of the BSA is comprised of SCWRF. This community has remained relatively undisturbed despite previous construction activities in the local area. Common species observed include cottonwood, arroyo willow, black willow, mule fat, Mexican elderberry, fan palm (*Washingtonia* sp.), and cattail (*Typha* sp.). The SCWRF located within the BSA provides high-quality habitat for resident and migratory bird species, including the sensitive LBV.

Streambed

Holland (1986) does not contain a classification of streambed. For this project, it is considered all areas of intermittent subsystems of the riverine system and all channels of the estuarine system or of the tidal system dewatered at low tide. In the BSA, it is primarily found in the Fresno Canyon/Wardlow Wash area. There are 9.77 acres in the BSA.

Urban/Developed

U/D includes land that has been constructed upon or otherwise covered with a permanent unnatural surface. Areas where no natural land is evident due to a large amount of debris or other materials being placed upon it may also be considered.

The U/D land observed within the BSA consists of areas containing commercial and residential development, associated parking lots and roads, SR-71 and SR-91, and Prado Dam and the associated spillways. Approximately 193.61 acres of U/D land occurs within the project study area. Vegetation within the U/D land consists only of ornamental landscape vegetation with little to no native species observed.

Water

Holland (1986) includes areas of water as open water, tidal, or bay areas. Within the BSA, these areas include the Prado Basin and Santa Ana River. A total of 44.79 acres is present in the BSA.

Invasive Species

During the fieldwork, a list of plant species was compiled (Appendix E). Included are species that have been classified as invasive by the California Invasive Plant Council (Cal-IPC) (2020).

These species invade natural communities in California and replace habitat needed by native plants and animals, increase wildfire and flood danger, and destroy productive range and timberland. Invasive species observed in the BSA include black mustard *(Brassica nigra),* madrid brome *(Bromus madritensis),* red-stem filaree *(Eordium cicutarium),* Eucalyptus (*Eucalyptus* sp.), short-pod mustard *(Hirschfeldia incana),* tree tobacco *(Nicotiana glauca),* wild radish *(Raphanus sativus),* castor bean *(Ricinus communis),* curley dock *(Rumex crispus),* Russian thistle *(Salsola tragus),* Pepper tree *(Schinus* sp.), tamarisk (*Tamarix* sp.), and Mexican fan palm (*Washingtonia robusta).*

Trees

A tree survey was completed for the SNES. The trees within the BSA are shown on Figures 3-6 and 3-7. Trees are primarily found in the planted areas south of SR-91 at Green River Road, in east-facing slopes along SR-71, and in the Fresno Canyon/Wardlow Wash area. Permanent impacts to trees are considered as full removal. Temporary impacts include work within the dripline of the tree. The trees are also classified in the appropriate vegetation community. Trees observed in the BSA include Freemont Cottonwood *(Populus fremontii),* Canary Island Pine *(Pinus* sp.), Western Sycamore *(Platanus racemosa),* Coast Live Oak *(Quercus agrifolia),* Eucalyptus *(Eucalyptus* spp), and Brazilian Pepper *(Schinus molle).*

3.1.3.2 Wildlife Species

The BSA provides habitat for wildlife species that commonly occur in disturbed and developed communities, as well as riparian and scrub habitats. Commonly found avian and mammalian species observed within the BSA include, but are not limited to:

- California towhee (*Pipilo crissalis*)
- Cliff swallow (*Petrochelidon*)
- House finch (*Carpodacus mexicanus*)
- Mourning dove (*Zenaida macroura*)
- Fence lizard (*Sceloporus occidentalis*)
- White-throated swift (*Aeronautes saxatalis*)
- Black phoebe (*Sayornis nigricans*)
- California ground squirrel (*Spermophilus beecheyi*)
- Desert cottontail (*Sylvilagus audubonii*)

A complete list of wildlife species observed during the habitat assessment survey is included in Appendix E.

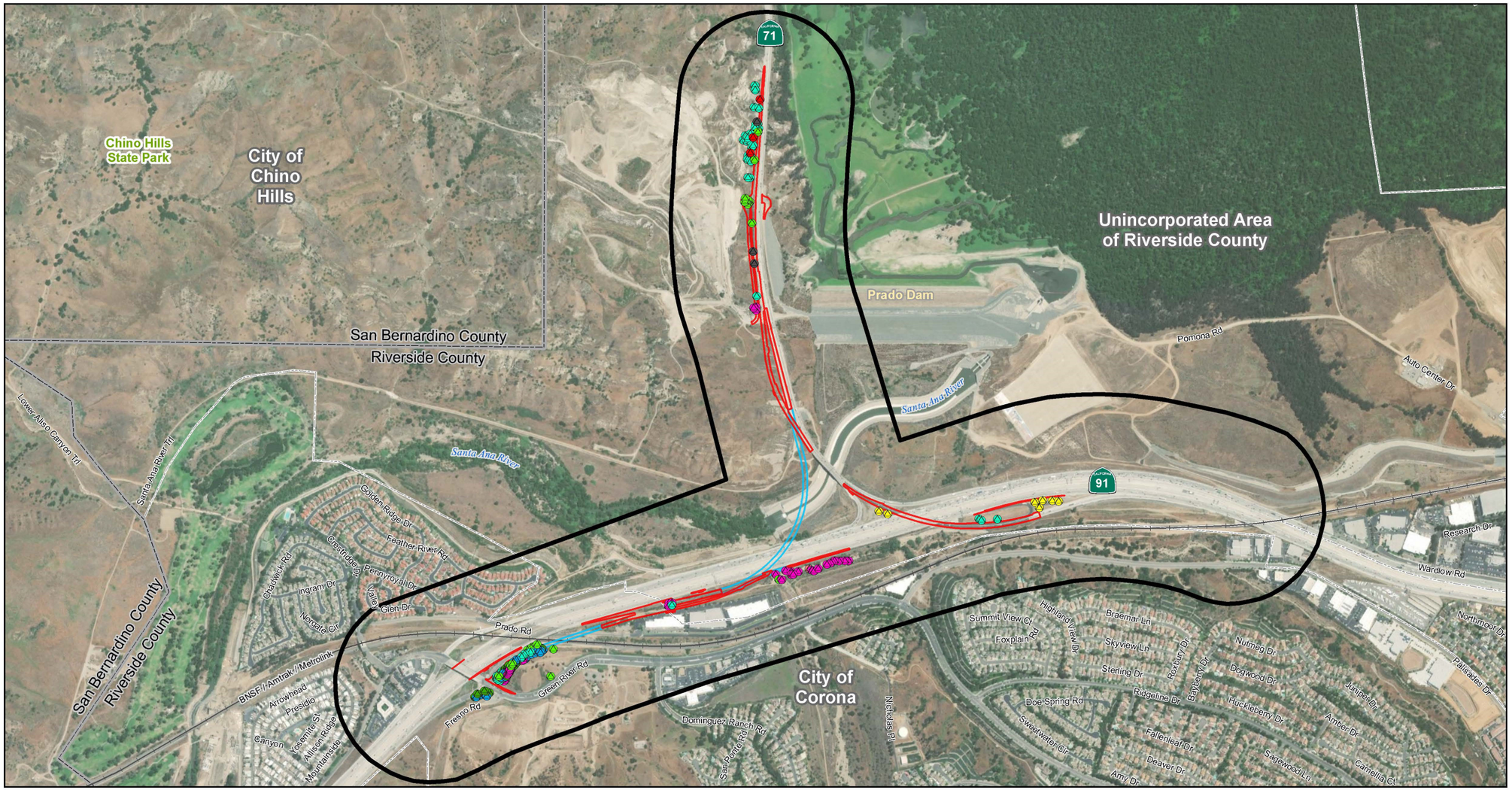

Figure 3-6: Tree Locations Overview Map

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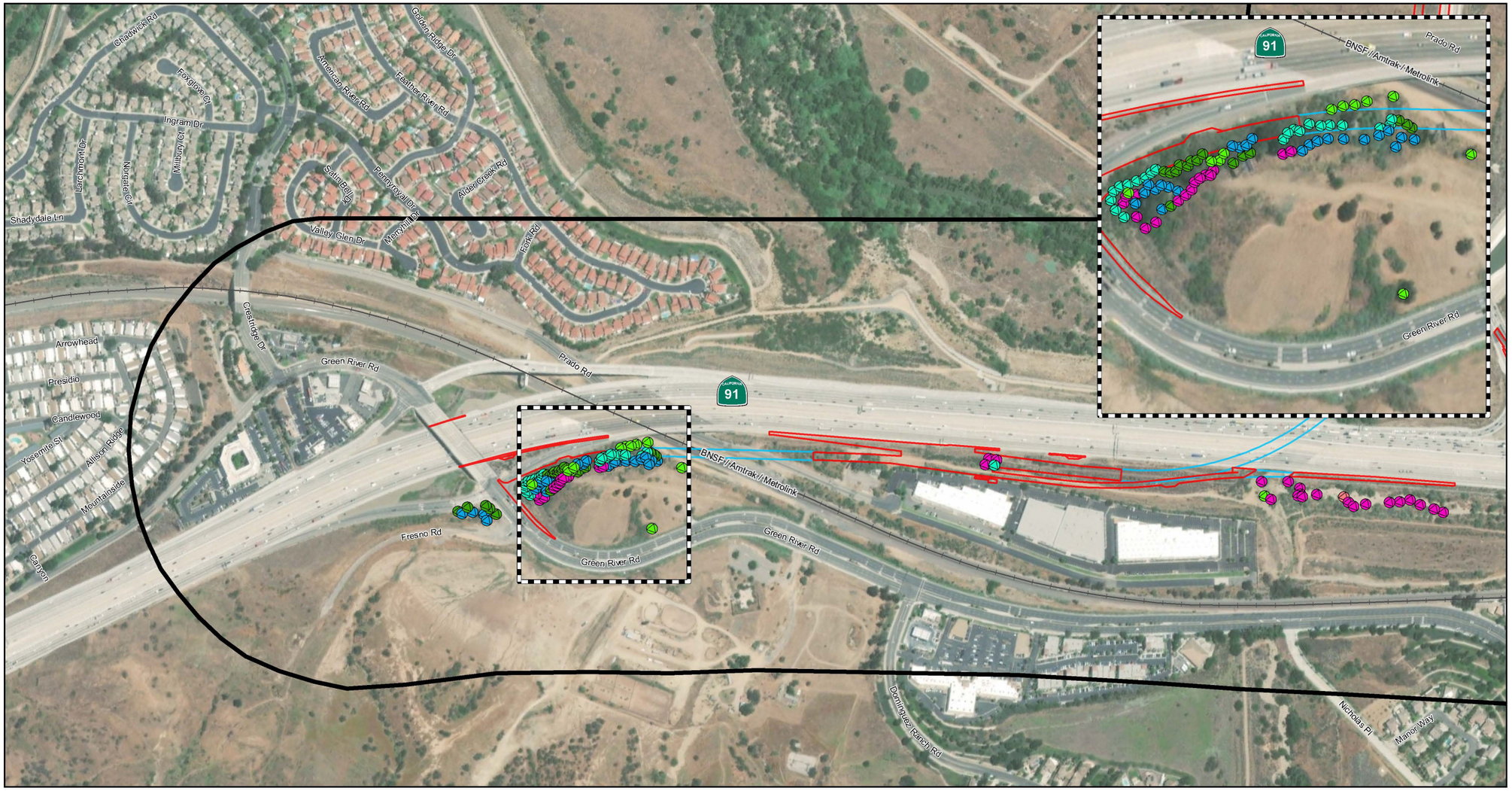

Biological Study Area
Proposed Roadway Improvements
Proposed Structures

Willow
Cottonwood
Pine

Sycamore
Oak Tree
Eucalyptus Tree

0 300 600 1,200 Feet

SR-71/91 Interchange Improvement Project

Tree Locations Map
Page 1 of 4

Caltrans District: District 8
County: Riverside County
Route: SR 71 1.9/3.0 and SR 91 R0.9/R2.6

Source: ESRI; Parsons 2020
Map Last Saved: 10/8/2020

Figure 3-7: Tree Locations Map (page 1 of 4)

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Figure 3-7: Tree Locations Map (page 2 of 4)

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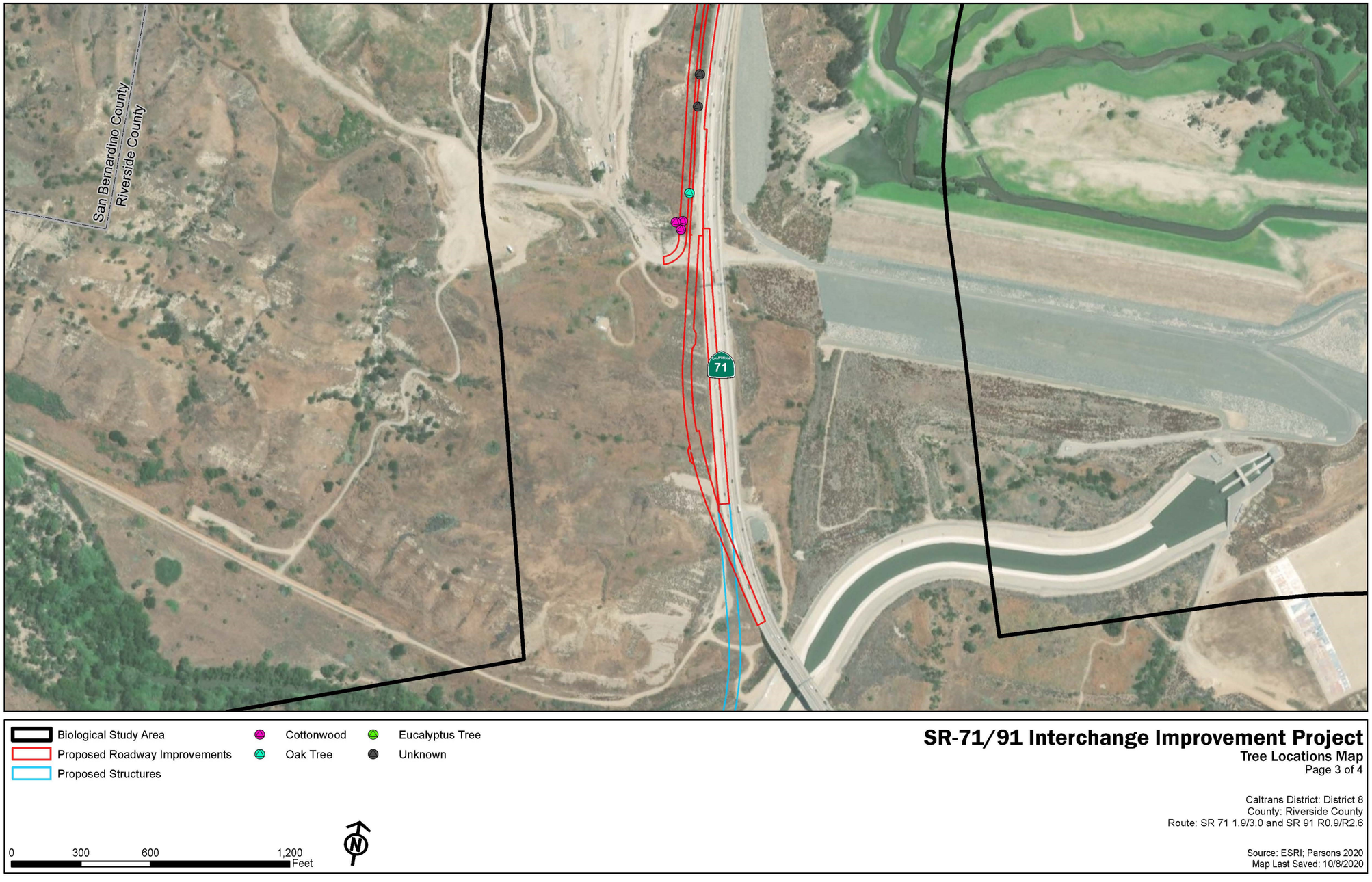

Figure 3-7: Tree Locations Map (page 3 of 4)

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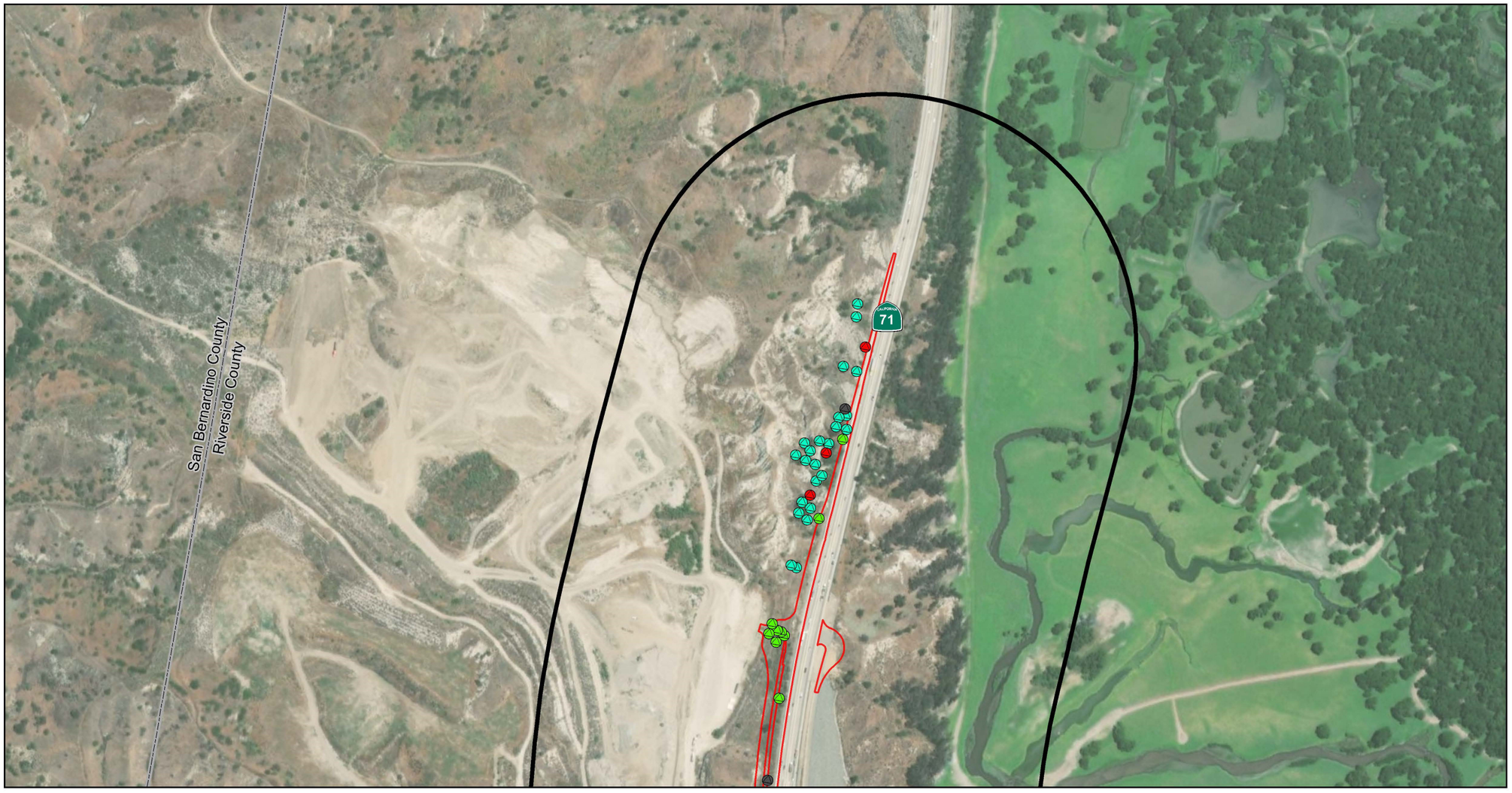

Figure 3-7: Tree Locations Map (page 4 of 4)

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3.1.3.3 Wildlife Corridors

The BSA contains several areas that promote the movement of wildlife from the Santa Ana River and Prado Basin in the north to the Cleveland National Forest in the south. These areas were previously identified in studies conducted by Caltrans in 2007 for the SR-91 Eastbound Lane Addition Project between SR-241 and SR-71 (Caltrans, 2007). The wildlife crossings primarily occur along SR-91 from the Green River Road on-ramp to the interchange from southbound SR-71 to eastbound SR-91. Caltrans identified eight crossings that allow wildlife movement from the north to the south of SR-91 (Figure 3-8). The wildlife crossings range in size from small concrete-lined culverts to a large box culvert located at the mouth of the Santa Ana River spillway. These corridors allow the important exchange of individuals to cross three imposing barriers: SR-91, railroad tracks, and the Santa Ana River.

These eight wildlife crossings include two major crossings recognized by the Western Riverside County MSHCP as PCL 1 and PCL 2, which serve as a wildlife linkage between Core A and Core B (Figure 3-8). The project impact area intersects the northern portion of PCL 2, which passes under SR-91 through a large box culvert. PCL 2 provides a riparian connection from the Prado Basin and Santa Ana River to the Cleveland National Forest, thus allowing movement of species such as coastal range newt (*Taricha torosa torosa*) and western pond turtle (*Actinemys marmorata*). This linkage is also likely to be important for mountain lion movement from the Santa Ana Mountains to the Chino Hills beyond the Plan Area.

The Santa Ana River Canyon and the surrounding area provide suitable habitat for several migratory and nonmigratory wildlife species known to occur in the region and identified by LSA in their wildlife corridor study of the region (LSA, 2007a). Based on the wildlife detected during the habitat assessment and JD studies conducted in 2008, and information collected by LSA, the project site supports a resident population of small to large mammal species including coyote and mountain lion. The variety of resident and migratory wildlife species observed within the BSA during numerous studies conducted in the region undeniably utilizes the wildlife crossings for shelter, food, water, and mating on both sides of SR-91. The linkage areas have not changed; however, slight changes to vegetation communities within the BSA have been updated for this SNES. There are no additional changes to the Wildlife Corridor Linkages with this SNES.

3.2 Regional Species and Habitats of Concern

The BSA is located within the Western Riverside County MSHCP within Subunit 1 – Santa Ana River/Santa Ana Mountains and Subunit 2 – Prado Basin of the Temescal Canyon Area Plan. The BSA occurs within Criteria Cells 1520 and 1612 of Cell Group B, and within

independent Criteria Cell 1616 of Subunit 1, in addition to independent Criteria Cells 1702, 1704, and 1706 of Subunit 2. The MSHCP also establishes habitat assessment requirements for certain plant, bird, mammal, and amphibian species. The BSA is within the habitat assessment area for BUOW and three narrow endemic plant species, including San Diego ambrosia, Brand's phacelia, and San Miguel savory.

The NES (2010c) described regional species and habitat of concern. This SNES includes updates to species per IPaC, CNDDB, and National Oceanic and Atmospheric Administration (NOAA) Fisheries database searches were updated on October 8, 2020.

Regional Species and/or Habitat of Concern discussed in this section are for species with the potential to occur due to the change in the BSA of ongoing construction projects and restoration activities. In addition, new species occurrences resulting from the database searches are also discussed.

3.2.1 Sensitive Plant Communities

Section 6.1.2 of the Western Riverside County MSHCP describes the process to protect species associated with riparian/riverine areas and vernal pools. The purpose is to ensure that the biological functions and values of these areas throughout the MSHCP Plan Area are maintained such that habitat values for species inside the MSHCP Conservation Area are maintained. This assessment is independent from considerations given to WOTUS and WOTS under the CWA and the CFG Code.

Parsons conducted a riparian/riverine habitat assessment of the BSA concurrent with the habitat assessment for the original NES. The riparian/riverine habitat assessment focused on all drainage features within the BSA that were considered to meet the minimum criteria to be considered riparian/riverine habitat per the definition provided within the MSHCP. All targeted drainage features were carefully inspected for the presence of riparian habitat characteristics and suitability to support associated species, including a dominance of hydrophytic vegetation, suitable topography and hydrology, and suitable soil substrate where necessary. In addition, Parsons completed a JD update for this SNES, with findings presented in Appendix F.



Figure 3-8: Wildlife Corridors and Crossings Map

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No portions of the BSA contain areas capable of supporting vernal pools. Three features are located within and/or adjacent to the proposed project impact area and may be impacted as a result of construction of the flyover and associated improvements. The Santa Ana River flows east–west, below SR-71, and eventually drains into the Pacific Ocean. This feature contains perennially flowing water and dense stands of riparian vegetation. Fresno Canyon Wash and Wardlow Wash are located immediately south of SR-91 and the proposed impact area (Figure 3-4, pages 1 and 4). These two features flow south–north and are tributaries to the Santa Ana River. Both features contain dense stands of riparian vegetation and have a defined bed and bank. The riparian vegetation associated with the portion of the Santa Ana River onsite, Fresno Canyon Wash, and Wardlow Wash were identified as SCWRF plant communities. All three features and associated vegetation within the BSA are considered riparian/riverine areas under the MSHCP and provide suitable habitat for sensitive riparian species contained in Section 6.1.2 of the MSHCP. A total of 19 features were identified.

3.2.2 Sensitive Wildlife Species

The BSA was evaluated to determine if suitable habitat occurs for special-status species recognized as sensitive by CDFW, CNPS, and CNDDB and are protected under the FESA and CESA. A review of the CNDDB and the CNPS Electronic Inventory of Rare and Endangered Vascular Plants resulted in a list of 42 sensitive wildlife species, 21 sensitive plant species, and 10 sensitive plant communities that occur within the Prado Dam and adjacent Black Star Canyon, Corona North and Corona South, California USGS topographic quadrangles. These species are listed in Table 3-2.

Of the 42 sensitive wildlife species with the potential to occur, the BSA provides habitat for 24 sensitive faunal species of which 16 species have a moderate potential to occur, 7 species have a high potential to occur, and 4 species are present on the site. This designation is based on their current distribution, habitat requirements, and information concerning land use in the vicinity of the site. These 24 species are discussed in more detail below. The species discussed in the NES (2010c) with moderate to high potential for occurrence are summarized, with any new database occurrences discussed in further detail for this SNES. In addition, if a sensitive species warrants further discussion, it is included in this section.

Table 3-2: Listed, Proposed, and Special-Status Wildlife Species Potentially Occurring within the BSA

Scientific Name	Common Name	Status	MSHCP Covered Species	General Habitat Description	Rationale	Determination Effect
Insects						
Rhaphiomidas terminates abdominalis	Delhi sands flower-loving fly	FE	Yes	Found only in areas of the Delhi sands formation in southwestern San Bernardino and northwestern Riverside Counties. Requires fine, sandy soils, often with wholly or partly consolidated dunes and sparse vegetation. Oviposition requires shade.	**No suitable habitat.** No Delhi soils present with the BSA. Recorded occurrences are greater than 5 miles. Not observed during 2020 site visit.	**No effect**
Fish Species						
Catostomus santaanae	Santa Ana sucker	FT SSC, CH	Yes	Endemic to Los Angeles basin south coastal streams. Habitat generalists, but prefer sand-rubble-boulder bottoms, cool, clear water, and algae.	**Present.** Suitable habitat occurs within the Santa Ana River located within the BSA. Recorded occurrences located immediately downstream (west) of the SR-71/SR-91 interchange. Not observed during 2020 site visit.	**No effect**
Gila orcuttii	Arroyo chub	SSC	Yes	Los Angeles basin in south coastal streams. Slow-water stream sections with mud or sand bottoms. Feed heavily on aquatic vegetation and associated invertebrates.	**Moderate potential to occur.** Suitable habitat occurs within the Santa Ana River located within the BSA. Recorded occurrences within approximately 3 miles. Not observed during 2020 site visit.	--
Oncorhynchus mykiss irideus pop. 10	Steelhead southern California DPS	FE	No	Aquatic, south coast flowing waters.	**Moderate potential to occur.** Downstream barriers to passage exist. Not observed during 2020 site visit.	**No effect**

Table 3-2: Listed, Proposed, and Special-Status Wildlife Species Potentially Occurring within the BSA

Scientific Name	Common Name	Status	MSHCP Covered Species	General Habitat Description	Rationale	Determination Effect
Amphibians						
Anaxyrus californicus	Arroyo toad	FE SSC	Yes	Semi-arid regions near washes or intermittent streams, including valley-foothill and desert riparian, desert wash, etc. Rivers with sandy banks, willows, cottonwoods, and sycamores; loose, gravelly areas of streams in drier parts of range.	**Moderate potential to occur.** Suitable habitat occurs within the drainage features located within the BSA. Recorded occurrences are greater than 5 miles. Not observed during 2020 site visit.	**No effect**
Taricha torosa torosa	Coast range newt	SSC	Yes	Found in coastal drainages from Mendocino County to San Diego County. Lives in terrestrial habitats and will migrate over 0.60 mile to breed in ponds, reservoirs, and slow-moving streams.	**Moderate potential to occur.** A minimal amount of suitable foraging habitat occurs within the BSA. Recorded occurrences are greater than 5 miles. Not observed during 2020 site visit.	--
Reptiles						
Aspidoscelis hyperythra	Orange-throated whiptail	WL	No	Inhabits low-elevation coastal scrub, chaparral, and valley-foothill hardwood habitats. Prefers washes and other sandy areas with patches of brush and rocks. Perennial plants necessary for its major food – termites.	**High potential to occur.** The BSA contains elements of suitable habitat within the CSCS. Recorded occurrences within approximately 2 miles. Not observed during 2020 site visit.	--
Aspidoscelis tigris stejnegeri	Coastal western whiptail	SSC	Yes	Found in deserts and semiarid areas with sparse vegetation and open areas. Also found in woodland and riparian areas. Ground may be firm soil, sandy, or rocky.	**Moderate potential to occur.** Suitable habitat occurs within the riparian woodland located within the BSA. Recorded occurrences are greater than 5 miles. Not observed during 2020 site visit.	--

Table 3-2: Listed, Proposed, and Special-Status Wildlife Species Potentially Occurring within the BSA

Scientific Name	Common Name	Status	MSHCP Covered Species	General Habitat Description	Rationale	Determination Effect
Coleonyx variegates abbotti	San Diego banded gecko	SSC	Yes	Coastal and cismontane habitat in southern California. Found in granite or rocky outcrops in coastal scrub and chaparral habitats.	**Low potential to occur.** The BSA contains elements of habitat within the CSCS; however, no rocky outcrops were observed. Recorded occurrences are greater than 5 miles. Not observed during 2020 site visit.	--
Crotalus ruber ruber	Northern red-diamond rattlesnake	SSC	Yes	May be found in chaparral, woodland, grassland, and desert areas from coastal San Diego County to the eastern slopes of the mountains. Occurs in rocky areas and dense vegetation. Needs rodent burrows, cracks in rocks, or surface cover objects.	**Low potential to occur.** The BSA contains elements of habitat within the CSCS; however, the low density of plants and lack of rocky areas reduces the habitat suitability. Recorded occurrences are greater than 5 miles. Not observed during 2020 site visit.	–
Emys marmorata	Western pond turtle	SSC	No	Aquatic, artificial flowing waters, south coast flowing waters, wetland.	**Moderate potential to occur.** The BSA contains aquatic areas in the Santa Ana River. Recorded occurrences are within approximately 0.67 mile. Not observed during 2020 site visit.	–
Phrynosoma coronatum	Coast horned lizard	SSC	No	Inhabits CSS and chaparral in arid and semi-arid climate conditions, desert wash, pinon and juniper woodlands, riparian scrub and riparian woodland, Valley and foothill grassland. Prefers friable, rocky, or shallow sandy soils.	**High potential to occur.** The BSA contains elements of suitable habitat within the CSCS. Recorded occurrences within approximately 3 miles. Not observed during 2020 site visit.	–
Salvadora hexalepis virgultea	Coast patch-nosed snake	SSC	No	Found in brushy or shrubby vegetation in coastal southern California. Requires small mammal burrows for refuge and overwintering sites.	**Low potential to occur.** A minimal amount of foraging habitat occurs within the BSA. Recorded occurrences are greater than 5 miles. Not observed during 2020 site visit.	–

Table 3-2: Listed, Proposed, and Special-Status Wildlife Species Potentially Occurring within the BSA

Scientific Name	Common Name	Status	MSHCP Covered Species	General Habitat Description	Rationale	Determination Effect
Spea hammondii	Western spadefoot	SSC	Yes	Cismontane woodland, coastal scrub, Valley and foothill grassland, vernal pool, and wetland.	**Moderate potential to occur.** A minimal amount of marginal habitat occurs south of SR-91 in Fresno Canyon and Wardlow Wash. The area is subject to high levels of disturbance. Not observed during 2020 site visit.	–
Thamnophis hammondii	Two-striped garter snake	SSC	No	Coastal California from vicinity of Salinas to northwest Baja California from sea to approximately 7,000 feet elevation. Highly aquatic, found in or near permanent fresh water. Often along streams with rocky beds and riparian growth.	**Moderate potential to occur.** Suitable habitat occurs within the riparian habitat located within the BSA. Recorded occurrences are greater than 5 miles. Not observed during 2020 site visit.	–
Avian Species						
Accipiter cooperii	Cooper's hawk	WL	Yes	Nesting habitat in woodlands, chiefly of open, interrupted or marginal type. Nest sites mainly in riparian growths of deciduous trees, as in canyon bottoms on river floodplains; also, live oaks.	**Moderate potential to occur.** Suitable nesting habitat occurs within the riparian woodland located within the BSA. Recorded occurrences are greater than 5 miles. Not observed during 2020 site visit.	–
Agelaius tricolor	Tricolored blackbird	ST, SSC	Yes	Nesting colony habitat; highly colonial species, most numerous in central valley and vicinity. Largely endemic to California. Requires open water, protected nesting substrate, and foraging area with insect prey within a few kilometers of the colony.	**Moderate potential to occur.** Suitable nesting habitat occurs within the riparian woodland located within the BSA. Recorded occurrences within approximately 5 miles. Not observed during 2020 site visit.	**No take per CESA.**

Table 3-2: Listed, Proposed, and Special-Status Wildlife Species Potentially Occurring within the BSA

Scientific Name	Common Name	Status	MSHCP Covered Species	General Habitat Description	Rationale	Determination Effect
Aimophila ruficeps canescens	Southern California rufous-crowned sparrow	WL	Yes	Resident in southern California CSS and sparse mixed chaparral. Frequents relatively steep, often rocky hillsides with grass and forb patches.	**High potential to occur.** Suitable habitat exists in the northern portion of the BSA. Recorded occurrences within approximately 1 mile. Not observed during 2020 site visit.	–
Ammondramus savannarum	Grasshopper sparrow	SSC	Yes	Dense grasslands on rolling hills, lowland plains, in valleys and on hillsides on lower mountain slopes. Favors native grasslands with a mix of grasses, forbs, and scattered shrubs.	**Low potential to occur.** The BSA does not contain any annual or perennial grasslands. Recorded occurrences are greater than 5 miles. Not observed during 2020 site visit.	–
Amphispiza bellii bellii	Bell's sage sparrow	WL	Yes	Nests in chaparral dominated by fairly dense stands of chamise. Found in CSS in south of range. Nest located on the ground beneath a shrub or in a shrub 6 to 18 inches above ground.	**Low potential to occur.** The BSA does not contain the dense areas of chamise required for suitable habitat. Recorded occurrences are greater than 5 miles. Not observed during 2020 site visit.	–
Aquila chrysaetos	Golden eagle	FP, WL	Yes	Nesting and wintering habitat of rolling foothills, mountain areas, sage-juniper flats, and desert. Cliff-walled canyons provide nesting habitat in most parts of range; also, large trees in open areas.	**High potential to occur.** Rolling hills within the northern portion of the BSA may provide suitable habitat. Recorded occurrences within approximately 1.5 miles. Not observed during 2020 site visit.	**No take.**
Asio otus	Long-eared owl	SSC	No	Nesting habitat of riparian bottomlands grown to tall willows and cottonwoods; also, belts of live oak paralleling stream courses. Require adjacent open land productive of mice and the presence of old nests of crows and hawks for breeding.	**Moderate potential to occur.** Suitable habitat occurs within the riparian woodland located within the BSA. Recorded occurrences are greater than 5 miles. Not observed during 2020 site visit.	–

Table 3-2: Listed, Proposed, and Special-Status Wildlife Species Potentially Occurring within the BSA

Scientific Name	Common Name	Status	MSHCP Covered Species	General Habitat Description	Rationale	Determination Effect
Athene cunicularia	Burrowing owl	SSC	Yes	Burrow sites in open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Subterranean nester, dependent on burrowing mammals, most notably the California ground squirrel.	**High potential to occur.** Rolling hills within the northern portion of the BSA may provide suitable habitat. Recorded occurrences within approximately 2 miles. Not observed during 2020 site visit.	–
Buteo swainsoni	Swainson's hawk	ST	Yes	Great Basin grassland, riparian forest, riparian woodland, Valley and foothill grassland.	**Low potential to occur.** Riparian areas south of SR-91 and along the Sana Ana River may provide suitable habitat. Recorded occurrences within approximately 0.06 mile. Not observed during 2020 site visit.	**No take per CESA.**
Campylorhynchus brucceicapillus sandiegensis	Coastal cactus wren	SSC	Yes	Found in southern California CSS. Wrens require tall Opuntia cactus for nesting and roosting.	**Low potential to occur.** The BSA contains elements of suitable habitat within the CSCS; however, no Opuntia was observed. Recorded occurrences within approximately 5 miles. Not observed during 2020 site visit.	–
Coccyzus americanus occidentalis	Western yellow-billed cuckoo	FT, SE	Yes	Nesting habitat of riparian forest, along the broad, lower flood-bottoms of larger river systems. Nests in riparian jungles of willow, often mixed with cottonwoods, with lower story of blackberry, nettles, or wild grape.	**High potential to occur.** Suitable habitat occurs within the riparian woodland located within the BSA. Recorded occurrences within approximately 1 mile. Not observed during 2020 site visit.	**No effect. No take per CESA.**
Cotumicops noveboracensis	Yellow rail	SSC	No	Freshwater marsh, meadow, and seep.	**Low potential to occur.** Habitat in the BSA lacks hydrological characteristics to be considered suitable. Not observed during 2020 site visit.	–

Table 3-2: Listed, Proposed, and Special-Status Wildlife Species Potentially Occurring within the BSA

Scientific Name	Common Name	Status	MSHCP Covered Species	General Habitat Description	Rationale	Determination Effect
Dendroica petechia brewsteri	Yellow warbler	SSC	Yes	Nesting habitat of riparian plant associations. Prefers willows, cottonwoods, aspens, sycamores, and alders for nesting and foraging. Also nests in montane shrubbery in open conifer forests	**Moderate potential to occur.** Suitable habitat occurs within the riparian woodland located within the BSA. Recorded occurrences within approximately 4.5 miles. Not observed during 2020 site visit.	–
Elanus leucurus	White-tailed kite	FP (state)	Yes	Cismontane woodland, marsh and swamp, riparian woodland, Valley and foothill grassland, and wetland.	**Moderate potential to occur.** Marginally suitable habitat occurs south of SR-91 and on CHSP lands northwest of the BSA. Recorded occurrences within approximately 2.5 miles. Not observed during 2020 site visit.	**No take.**
Empidonax trailli extimus	Southwestern willow flycatcher	FE SE	Yes	Nesting habitat of riparian woodlands in southern California. State listing includes all subspecies.	**Moderate potential to occur.** Suitable habitat for this species occurs within the BSA. There are recorded observations of this species within 2 miles of the BSA. There are been no documented territories for this species downstream of Prado Dam. Not observed during 2020 site visit.	**No effect. No take.**
Eremophila alpestris actia	California horned lark	WL	Yes	Found in coastal regions, chiefly from Sonoma County to San Diego County in short-grass prairie, “bald” hills, mountain meadows, open coastal plains, fallow grain fields, and alkali flats.	**Low potential to occur.** The BSA contains non-native grassland; however, this habitat does not provide the habitat elements found in prairie, meadows, and plains. Recorded occurrences are greater than 5 miles. Not observed during 2020 site visit.	–

Table 3-2: Listed, Proposed, and Special-Status Wildlife Species Potentially Occurring within the BSA

Scientific Name	Common Name	Status	MSHCP Covered Species	General Habitat Description	Rationale	Determination Effect
Icteria virens	Yellow-breasted chat	SSC	Yes	Summer resident; nesting habitat of riparian thickets of willow and other brushy tangles near watercourses. Nests in low, dense riparian, consisting of willow, blackberry, wild grape; forage and nest within 10 feet of ground.	**Moderate potential to occur.** There are recorded observations of this species within the BSA. Not observed during 2020 site visit.	–
Laterallus jamicensis cotumiculus	California black rail	FT, FP	No	Nests in high portions of salt marshes, shallow freshwater marshes, wet meadows, and flooded greasy vegetation. Requires dense vegetation for nesting habitat. Diet includes small invertebrates and seeds.	**Low potential to occur.** The BSA lacks dense vegetation requirements for nesting opportunities. Not observed during 2020 site visit.	**No effect. No take.**
Polioptila californica californica	Coastal California gnatcatcher	FT SSC	Yes	Obligate, permanent resident of coastal sage scrub below 2,500 feet in southern California. Low, CSS in arid washes, on mesas and slopes. Not all areas classified as CSS are occupied.	**Present.** There are recorded observations of this species within the BSA. Observed during 2020 surveys.	**BO issued for take. No further take with this SNES.**
Vireo bellii pusillus	Least Bell's vireo	FE SE, CH	Yes	Nesting summer resident of southern California in low riparian in vicinity of water or in dry river bottoms; below 2,000 feet. Nests placed along margins of bushes or on twigs projecting into pathways, usually willow, baccharis, or mesquite.	**Present.** There are recorded observations of this species within the BSA. Observed during 2020 surveys.	**BO issued for take. No further take with this SNES.**

Table 3-2: Listed, Proposed, and Special-Status Wildlife Species Potentially Occurring within the BSA

Scientific Name	Common Name	Status	MSHCP Covered Species	General Habitat Description	Rationale	Determination Effect
Mammals						
Antrozous pallidus	Pallid bat	SSC	No	May be found in deserts, grasslands, shrublands, woodlands, and forests. Most common in open, dry habitats with rocky areas for roosting. Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	**Present.** This species was observed during bat surveys conducted by LSA for the SR-91 Eastbound Widening Project in 2008. Bat surveys of the BSA were not conducted in 2020.	–
Chaetodipus fallax fallax	Northwestern San Diego pocket mouse	SSC	Yes	May be found in coastal scrub, chaparral, grasslands, sagebrush, etc. in western San Diego County in sandy, herbaceous areas, usually in association with rocks or coarse gravel.	**Low potential to occur.** The BSA contains CSCS; however, it lacks vegetation and soil elements. Recorded occurrences within approximately 4 miles. Not observed during 2020 surveys.	–
Dipodomys stephensi	Stephens' kangaroo rat	FE ST	Yes	Found primarily in annual and perennial grasslands, but also occurs in coastal scrub and sagebrush with sparse canopy cover. Prefers buckwheat, chamise, brome grass, and filaree. Will burrow into firm soil.	**Low potential to occur.** The BSA does not contain any annual or perennial grasslands, limited elements of suitable habitat do occur within the CSCS. Recorded occurrences are greater than 5 miles. Not observed during 2020 surveys.	**No effect. No take.**
Eumops perotis californicus	Western mastiff bat	SSC	No	Many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, and chaparral. Roosts in crevices in cliff faces, high buildings, trees, and tunnels.	**High potential to occur.** Bridge overcrossings within the BSA may provide suitable habitat. Recorded occurrences within approximately 2.5 miles. Bat surveys of the BSA were not conducted in 2020.	–

Table 3-2: Listed, Proposed, and Special-Status Wildlife Species Potentially Occurring within the BSA

Scientific Name	Common Name	Status	MSHCP Covered Species	General Habitat Description	Rationale	Determination Effect
Lasiurus xanthinus	Western yellow bat	SSC	No	Found in valley foothill riparian, desert riparian, desert wash, and palm oasis habitats. Roosts in trees, particularly palms. Forages over water and among trees.	**Low potential to occur.** Bridge overcrossings within the BSA may provide suitable habitat. Recorded occurrences within approximately 5 miles. This species was not observed during focused bat surveys conducted by LSA. Bat surveys of the BSA were not conducted in 2020.	–
Nyctinomops femorosaccus	Pocketed free-tailed bat	SSC	No	Found in a variety of habitats, desert riparian, desert wash, and palm oasis habitats, Joshua tree woodland, and Sonoran desert scrub. Roosts in high cliffs.	**Low potential to occur.** Bridge overcrossings within the BSA may provide suitable habitat. Recorded occurrences within approximately 4 miles. This species was not observed during focused bat surveys conducted by LSA. Bat surveys of the BSA were not conducted in 2020.	–
Puma concolor	Mountain lion	SC	Yes	Found typically in steep, rocky canyons or mountainous terrain. Can also be present in deserts as well as coastal areas or forests from sea level to 10,000 ft elevation.	**Moderate potential to occur.** Santa Ana Canyon may provide suitable habitat. The BSA contains bridge structures that facilitate wildlife movement in addition to fencing along SR-71 and SR-91 in the BSA. 2008 surveys by LSA indicated presence of species in Santa Ana Canyon; however, 2020 surveys indicated species absence. In addition, ongoing surveys for the SR-91 CIP have indicated species absence.	

Table 3-2: Listed, Proposed, and Special-Status Wildlife Species Potentially Occurring within the BSA

Scientific Name	Common Name	Status	MSHCP Covered Species	General Habitat Description	Rationale	Determination Effect

Federal – U.S. Fish and Wildlife Service

FE	Federal Endangered
FT	Federal Threatened
PE	Proposed Endangered
PT	Proposed Threatened
FC	Federal Candidate

State – California Department of Fish and Wildlife

FP	Fully Protected
SE	State Endangered
ST	State Threatened
SR	State Rare
SSC	California Species of Special Concern
SC	State Candidate
WL	Delisted and currently on a Watch List

Not Likely to Occur – There are no present or historical records of the species occurring on or in the immediate vicinity (within 3 miles) of the project site, and the diagnostic habitats strongly associated with the species do not occur on or in the immediate vicinity of the site.

Low Potential to Occur – There is a historical record of the species in the vicinity of the project site and potentially suitable habitat on site, but existing conditions, such as density of cover, prevalence of non-native species, evidence of disturbance, limited habitat area, and isolation, substantially reduce the possibility that the species may occur. The site is above or below the recognized elevation limits for this species.

Moderate Potential to Occur – The diagnostic habitats associated with the species occur on or in the immediate vicinity of the project site, but there is not a recorded occurrence of the species within the immediate vicinity (within 3 miles). Some species that contain extremely limited distributions may be considered moderate, even if there is a recorded occurrence in the immediate vicinity.

High Potential to Occur – There is both suitable habitat associated with the species and a historical record of the species on or in the immediate vicinity of the project site (within 3 miles).

Species Present – The species was observed on the project site at the time of the survey or during a previous biological survey.

3.2.2.1 Species with a Moderate Potential for Occurrence

Arroyo Chub (Species of Special Concern)

The arroyo chub *(Gila orcuttii)* is known to occur within the south coastal streams of the Los Angeles Basin. The chub is a small, less than 4 inches, chunky minnow found in slow-moving mud or sand-bottomed sections of streams. They are characterized by gray-olive green backs and white bellies, with fairly large eyes and small mouths. It primarily feeds on algae, small insects, and other invertebrates they pick off plants or off the stream bottom. The arroyo chub breeds from February through August, and during the breeding season, males develop bumps, called breeding tubercles, on their pectoral fins. This species population has declined due to habitat modification from urbanization and by competition with introduced minnow species such as the red shiner (*Cyprinella lutrensis*).

The BSA provides suitable habitat for this species within the Santa Ana River. A known occurrence of this species has been recorded within approximately 3 miles of the BSA; therefore, there is a moderate potential for this species to occur within the BSA.

The arroyo chub is covered under the MSHCP.

Arroyo Toad (Federally Listed Endangered)

The arroyo toad *(Bufo californicus)* prefers rivers and large streams with sandy banks and loose, gravely areas in arid regions within its range. Arroyo Toad occurs across coastal southern California from Monterey and San Luis Obispo counties to northern Baja California, México. The arroyo toad breeds along large streams with persistent in-channel pools between late March through mid-June. Larvae have very specific habitat requirements: very shallow water, usually less than 4 inches deep, with slight currents; a substrate of gravel or fine cobble that supports filamentous algae; emergent vegetation is usually absent; and the stream terrace pools are usually in full sunlight. After metamorphosis, juveniles remain on nearby gravel bars associated with large riparian trees and shrubs in areas lacking grass or herbaceous ground cover present. Threats to the species include habitat degradation, drought, and small population size. Unlike the common western toad *(Anaxyrus boreas)*, it is shy and secretive and is vulnerable to disturbance.

The drainage features within the BSA contain suitable habitat for arroyo toad, even though the BSA is not within the MSHCP survey area for arroyo toad. Additionally, arroyo toad was previously recorded as occurring within 5 miles of the BSA.

The arroyo toad is covered under the MSHCP.

Coastal Range Newt (Species of Special Concern)

The coastal range newt inhabits coastal drainages along the coast and coast ranges from Mendocino County to San Diego County. Its preferred habitat includes wet forests, oak forests, chaparral, and rolling grasslands. It avoids predation by excreting potent skin secretions that can cause death in most vertebrates, including humans. This newt feeds mostly on small invertebrates such as worms, snails, slugs, and insects, along with eggs and amphibian larvae. This terrestrial newt is often seen crawling on land in the daytime, but it becomes aquatic when breeding. The breeding season for this species typically begins in December or January following the first heavy rains of the winter season.

The BSA provides a minimal amount of suitable foraging habitat for this species. No known occurrences of this species have been recorded within 5 miles of the BSA.

The coastal range newt is covered under the MSHCP.

Two-Striped Garter Snake (Species of Special Concern)

The two-striped garter snake *(Thamnophis hammondii)* is associated with permanent or semi-permanent bodies of water in a variety of habitats from sea level to 8,000 feet. It is a historically common species, that now only occurs in approximately 40 percent of its historic range. This snake is highly aquatic and forages primarily in and along streams. Its primary food source is fish, especially trout and sculpin *(Cottoidea)* and their eggs, and amphibians and amphibian larvae. Courtship and mating occur in the spring, soon after emergence, with 1 to 25 young born in late summer and fall.

The BSA provides suitable habitat for this species within the riparian habitat located onsite. No known occurrences of this species have been recorded within 5 miles of the BSA. This species has a moderate potential to occur within the BSA.

The two-striped garter snake is not covered under the MSHCP.

Coastal Western Whiptail (CDFW Watch List)

The coastal western whiptail *(Cnemidophorus tigris)* is known to occur in deserts and semiarid areas with sparse vegetation. This whiptail can also be found within forests, woodlands, chaparral, and riparian areas. It feeds commonly on small invertebrates, especially spiders, scorpions, centipedes, termites, and other small lizards. This species can be identified by its somewhat checkered appearance on its dorsal side with dark spots on its pale throat and a very long tail. It is a very active species that continually flicks its forked tongue, walks with a jerking gait, and rarely sits still.

The BSA contains moderately suitable habitat to support this species within the riparian woodland located onsite. No known occurrences have been recorded within 5 miles of the BSA.

The coastal western whiptail is covered under the MSHCP.

Cooper's Hawk (CDFW Watch List)

A medium-sized hawk of the forest, Cooper's hawk's *(Accipiter cooperii)* primary prey is birds. It is built for fast flight to navigate through trees and limbs. The average adult male, at 11 ounces, 15 inches long, and a wingspan of 29 inches, is considerably smaller than the female, at 1.1 pounds, 18 inches long, and a wingspan of 33 inches. Adults have short broad wings and a long round-ended tail with dark bands. They have a dark cap, blue-grey upperparts, and white underparts with red bars. They have red eyes and yellow legs. These birds capture prey from cover or while flying quickly through dense vegetation, relying on surprise. Most prey are mid-sized birds, with typical prey including jays, starlings, and doves. They also eat small mammals, especially rodents. Their breeding habitat is generally forested or riparian areas. The breeding pair builds a stick nest in large trees. Suitable nesting habitat, as well as foraging habitat, exists within the BSA, and the species was observed during the biological survey.

The Cooper's hawk is covered under the MSHCP.

Long-Eared Owl (Species of Special Concern)

The long-eared owl *(Asio otus)* is an uncommon winter visitor of southern California deserts. This owl nests in riparian habitat, live oak thickets, and other dense stands of trees. This species has declined in California due to destruction and fragmentation of riparian habitat and live oak groves as a result of urban development and agriculture. The long-eared owl feeds mostly on voles and other rodents, occasional birds, and other vertebrates. It usually hunts for prey in open areas, but it is known to hunt in woodland and forested habitats. This owl breeds from early March to late July, laying a clutch of eggs (3 to 8) from April to May. It competes for hunting, nesting, and breeding sites with northern harriers, red-shouldered hawks, and great horned owls.

The long-eared owl has a moderate potential to occur within the riparian woodlands located within the BSA. This species was not observed during MBA's site visit in 2008. No known occurrence of this species has been recorded within 5 miles of the BSA.

The long-eared owl is not covered under the MSHCP.

Mountain Lion (Candidate Species)

Mountain lion are typically found in steep, rocky canyons or mountainous terrain. They can also be found in deserts as well as coastal areas or forests from sea level to 10,000 ft in elevation.

Historical occurrences of mountain lion have been found along the SR-241, in Chino Hills State Park, and in the Santa Ana Canyon.

Based on the wildlife detected during the habitat assessment and JD studies conducted in 2008, and information collected by LSA, the project site supports a resident population of small to large mammal species including coyote and mountain lion in the Santa Ana Canyon. The linkage areas have not changed; however, slight changes to vegetation communities within the BSA have been updated for this SNES. There are no additional changes to the Wildlife Corridor Linkages with this SNES.

Mountain lion is a covered species under the MSHCP.

Southwestern Willow Flycatcher (Federally and State Listed Endangered)

The SWWF is a migratory resident of southern California. This relatively small bird, 5.75 inches in length, has brown-gray wings, a white throat, gray-olive breast, and pale, sometimes yellow belly. The primary habitat for this species consists of riparian vegetation found along rivers and streams throughout southern California. This species is extremely endangered in southern California due to habitat loss and degradation, as well as parasitism by the brown-headed cowbird *(Molothrus ater).* Its primary food source consists of insects. This flycatcher breeds in willows and other riparian vegetation from late April to late August.

Occurrences of this species have been recorded within 2 miles of the BSA; however, there have been no documented SWWF territories downstream of Prado Dam. Because suitable habitat remains undisturbed within the BSA, the species has a moderate potential to occur within the BSA.

The SWWF is a covered species under the MSHCP.

Southern Steelhead DPS (Federally Endangered)

The DPS includes naturally spawned anadromous steelhead (*Oncorhynus mykiss* pop. 10) originating below natural and manmade impassable barriers from the Santa Maria River to the United States–Mexico border. Steelhead require sufficient flows in their natal streams to be able to return from oceans and lakes to spawn. Due to extended periods of drought throughout

their range, Southern California steelhead are most commonly seen during periods of increased rainfall, such as El Nino events.

The species has a moderate potential to occur due to the presence of downstream barriers to fish passage. Southern steelhead is not a covered species under the MSHCP.

Tricolored Blackbird (Species of Special Concern)

The tricolored blackbird *(Agelaius tricolor)* commonly occurs throughout central and coastal California. It is often found near fresh water and prefers emergent wetlands with tall, dense cattails or tules, but it can also be found in thickets of willow, blackberry, wild rose, and other tall herbs. This species is known to forage on the ground in croplands, grassy fields, flooded land, and along the edges of ponds. The tricolored blackbird diet generally consists of insects and spiders as a juvenile, and seeds and cultivated grains, such as rice and oats, as an adult. The breeding season for this colonial breeding species generally ranges from mid-April to late July.

The site provides suitable nesting and foraging habitat within the riparian woodlands adjacent to the Santa Ana River. A known occurrence of this species has been recorded approximately 5 miles from the site. This species was not observed during MBA's site visit in 2008; however, the blackbird has a moderate potential to occur due to the presence of suitable habitat.

The tricolored blackbird is a covered species under the MSHCP.

Western Pond Turtle (Species of Special Concern)

The western pond turtle is found in permanent and intermittent waters of rivers, creeks, small lakes and ponds, marshes, irrigation ditches, and reservoirs. Turtles bask on land or near water on logs, branches, or boulders. Terrestrial and aquatic habitat are important components for the species life history. Most of the diet includes insects, crayfish, and other aquatic invertebrates.

Western pond turtle has a moderate potential to occur in the Santa Ana River in the BSA. The species is not a covered species under the MSHCP.

Western spadefoot (Species of Special Concern)

Western spadefoot *(Spea hammondii)* ranges throughout the central valley of California to the coast south of San Jose and the desert. The species prefers grassland, scrub, and chaparral; it can also occur in OW. It is nocturnal, and activity is limited to the wet season, summer storms, or during evenings with elevated moisture levels. Tadpoles feed mainly on plants and

planktonic organisms, algae, ants, small invertebrates, and dead aquatic larvae of amphibians. Adult toads feed on insects, worms, and other invertebrates, including grasshoppers, moths, ground beetles, spiders, flies, ants, and earthworms.

Western spadefoot has a moderate potential to occur in areas south of SR-91 in Fresno Canyon/Wardlow Wash. It is a species covered by the MSHCP.

Western tailed kite (Fully Protected)

White-tailed kite *(Elanus leucurus)* hovers above open areas while hunting small mammals. It is typically found in grasslands, open woodlands, savannas, marshes, and cultivated fields. It eats mainly small mammals, but it also eats birds, lizards, and insects. White-tailed kite typically nest in the upper third of trees that may be 10 to 160 feet tall.

White tailed kite has a moderate potential to occur on CHSP lands northwest of the BSA. It is a species covered under the MSHCP.

Yellow-Breasted Chat (Species of Special Concern)

Yellow-breasted chat *(Icteria virens)* is an uncommon summer resident and migrant in coastal California and in foothills of the Sierra Nevada. In southern California, the species breeds locally on the coast and very locally inland. The species requires riparian thickets of willow and other brushy tangles near watercourses for cover, and it typically nests approximately 2 to 8 feet above ground in dense shrubs along a stream or river. It frequents dense, brushy thickets and tangles near water, and thick understory in riparian woodland.

The BSA provides moderately suitable habitat for this species within the riparian woodlands onsite. There are recorded occurrences of this species within 2 miles of the project site, north of Prado Dam and within the foothills to the south of the project site; therefore, there is a moderate potential for this species to occur within the BSA.

The yellow-breasted chat is a covered species under the MSHCP.

Yellow Warbler (Species of Special Concern)

The yellow warbler *(Setophaga petechia)* was once abundant and common throughout California. The population of this species has substantially declined due to riparian habitat destruction, fragmentation, and parasitism by the brown-headed cowbird. This bird is highly recognizable by its extensively yellow-colored underparts, rusty streaks on the breast, and yellow spotted tail. This species prefers moist habitats with a high insect abundance, such as wetlands and mature riparian woodlands dominated by cottonwoods, alders, willow, and ash

trees. However, it is also known to inhabit drier areas of thickets, orchards, or farmlands. The breeding season for the yellow warbler ranges from mid-April to July.

The BSA provides moderately suitable habitat for this species within the riparian woodlands onsite. A known occurrence of this bird has been recorded within 5 miles of the BSA; therefore, there is a moderate potential for this species to occur within the BSA.

The yellow warbler is a covered species under the MSHCP.

3.2.2.2 Species with a High Potential for Occurrence

Coast Horned Lizard (Species of Special Concern)

The coast horned lizard *(Phrynosoma coronatum)* generally occurs in grassland, sage scrub, and chaparral, but it can also be found in coniferous forest and broadleaf woodland. It is usually found in open sandy areas such as ridge tops and washes, especially where harvester ants (*Pogonomyrmex* spp.) are found. This species was formerly common throughout southern California west of the deserts, but it has declined substantially due to development and as a result of over collecting for the pet trade. Recent evidence also indicates that its preferred food, the harvester ant, has declined dramatically in areas near human habitation with the introduction and spread of the non-native Argentine ant (*Iridiomyrmex humilis*), which out-compete the native species.

There are three documented occurrences of coast horned lizard within approximately 3 miles of the BSA, within upland areas to the west of the BSA. The BSA provides sandy soils suitable for the coast horned lizard; therefore, there is a high potential for this species to occur within the BSA.

The coast horned lizard is not covered under the MSHCP.

Orange-Throated Whiptail (Species of Special Concern)

The orange-throated whiptail *(Aspidoscelis hyperythra)* occurs throughout southern California. It inhabits coastal scrub, chamise-redshank chaparral, mixed chaparral, and valley-foothill hardwood habitats, from sea level to 3,000 feet. This species forages near perennial plants for a variety of small arthropods, especially termites. They take cover in dense vegetation when pursued and seek cover under rocks, logs, decaying vegetation, and boards. Breeding activity for this whiptail begins in April and ends in September. This species population has declined in California due to predation by snakes, birds, and nocturnal mammals.

The BSA provides suitable habitat within the CSS and CSCS habitats located onsite. A known occurrence of this species has been recorded within 3 miles of the BSA; therefore, there is a high potential for this species to occur within the BSA.

The orange-throated whiptail is not covered under the MSHCP.

Burrowing Owl (Species of Special Concern)

BUOW is known to occur within Riverside County. It is a yearlong resident of open, dry grassland and desert habitats, and in grass, forb, and open shrub stages of pinyon-juniper and ponderosa pine habitats. A once fairly common resident of California, this species' population has declined in recent years due to habitat loss and fragmentation from development throughout California. This owl uses rodent or other burrows of small mammals, including the California ground squirrel, for roosting and nesting cover. BUOW may often use pipes, culverts, and nest boxes where existing burrows are scarce. They will perch in open sunlight in the early morning and move to shade or burrow when temperatures increase. This species feeds mostly on insects and also small mammals, reptiles, birds, and carrion. The breeding season for the BUOW occurs from March through August, with a peak in April and May.

Suitable habitat for the BUOW occurs within the relatively flat, NNG located within the BSA. Known occurrences of this species have been recorded within 3 miles of the BSA. The MSHCP indicates this is a BUOW survey area. Based on recent disturbances from the Prado Dam improvements, the various highways, and the topography of the area, it is not likely that the BUOW is currently present within the project area. However, due to the large home range of the species and the rapidly changing physical conditions of the area, there is a chance that the BUOW may inhabit the project area in the future.

The focused BUOW surveys conducted by Parsons in April, May, and June 2020 resulted in negative findings of the species. The surveys for the SNES covered the species breeding season.

The BUOW is a covered species under the MSHCP.

Golden Eagle (Fully Protected)

The golden eagle *(Aquila chrysaetos)* is a migratory California resident that resides in rolling foothills, mountain areas, sage-juniper flats, and deserts from sea level to 11,500 feet. It feeds mostly on lagomorphs and rodents, and occasionally other mammals, birds, reptiles, and some carrion. This eagle hunts in open terrain, including grasslands, deserts, savannahs, and early successional stages of forest and shrub habitats. It is known to hunt in pairs and pirate food

from other predators. This species nests in large trees in open areas on cliffs. The breeding season for the golden eagle ranges from January through August, with a peak in March through July.

The BSA provides suitable nesting and foraging habitat for this species in areas north of SR-91. Known occurrences of this species have been recorded within 3 miles of the BSA; therefore, there is a high potential for golden eagle to occur in the rolling hills located within the northern portion of the BSA.

The golden eagle is a fully protected species by CDFW. Sections 3511, 4700, 5050, and 5515 of the CFG Code outline protection for fully protected species of mammals, birds, reptiles, amphibians, and fish. Species that are fully protected by these sections may not be taken or possessed at any time. CDFW cannot issue permits or licenses that authorize the "take" of any fully protected species, except under certain circumstances such as scientific research and live capture and relocation of such species pursuant to a permit for the protection of livestock.

The golden eagle is covered under the MSHCP.

Southern California Rufous-Crowned Sparrow (CDFW Watch List)

The southern California rufous-crowned sparrow *(Aimophila ruficeps)* is a resident of CSS habitats, but it will also frequent relatively steep, rocky hillsides with grass and forb patches. It forages in the litter beneath shrubs, oak trees, and herbaceous cover.

Southern California rufous-crowned sparrow was previously recorded as occurring within 1 mile of the BSA. Suitable habitat is also located in the BSA; therefore, the species has a high potential to occur within the BSA.

The southern California rufous-crowned sparrow is a covered species under the MSHCP.

Western Yellow-Billed Cuckoo (State Listed Endangered)

Western yellow-billed cuckoo is also a candidate for federal listing. The species inhabits densely foliaged, riparian woodlands along broad, lower flood-bottoms of larger river systems. Western yellow-billed cuckoo nests in riparian jungles with willow trees, often mixed with cottonwood trees, with a dense understory of blackberry, nettle, and/or wild grape. The species prefers willow-dominated forests along slow-moving watercourses, with the riparian forest exceeding 300 feet in width.

The BSA contains suitable riparian habitat for western yellow-billed cuckoo, and the species was previously observed within 1 mile of the BSA; therefore, the species has high potential to occur within the BSA.

The western yellow-billed cuckoo is a covered species under the MSHCP.

Western Mastiff Bat (Species of Special Concern)

The western mastiff bat *(Eumops perotis)* is also considered a High Priority species by the Western Bat Working Group. This species ranges throughout California in a wide range of habitat types, typically below 9,000 feet in elevation. Distribution is correlated with suitable rock features required for roosting. Western mastiff bats are nonmigratory, however they may move short distances within their home ranges. This bat species does not hibernate and is active periodically throughout the winter. Greater western mastiff bat is a cliff-dwelling species, and virtually any habitat with cliff features may be suitable. Preferred habitats include chaparral, mixed chaparral, montane chaparral, valley oak woodland, blue oak woodland, blue-oak foothill pine, montane hardwood, montane hardwood conifer, and ponderosa pine. Roosts are generally high above the ground, allowing a clear vertical drop of at least 10 feet for flight. Maternity colonies range from 30 to several hundred individuals and generally include adult males. This species has an audible echolocation call and is easily detected while foraging. The western mastiff bat forages primarily on moths, but it also takes crickets and katydids. This species forages most frequently in broad open areas, including floodplains, chaparral, oak woodland, open ponderosa pine forest, grassland, montane meadows, and agricultural areas. Breeding occurs from October to March, from which pups are born primarily in July and are volant at 4 to 6 weeks of age.

The project site provides suitable nesting habitat for this species within the bridge and overpass crossings located within the BSA. A known occurrence of this species has been recorded within 3 miles of the BSA; therefore, there is a high potential for this species to occur within the BSA.

The western mastiff bat is not covered under the MSHCP.

3.2.2.3 Species Present Onsite

Santa Ana Sucker (Federally Listed Threatened and Species of Special Concern)

The Santa Ana Sucker (SAS) is endemic to the south coastal streams of the Los Angeles basin, including the Los Angeles River, San Gabriel River, and Santa Ana River. This sucker is generally found in small- to medium-sized, less than 23 feet wide, permanent streams in water ranging in depth from a few inches to 3 feet or more. Its preferred substrates are generally

coarse and consist of gravel, rubble, boulders, and occasionally sand/mud substrates. They seek cover in overhanging riparian plants, mainly alders and sedges. This species has been extirpated from the upper Santa Ana River drainage and now only survive in the lower portions, mainly in reaches with flows enhanced by wastewater. SAS are relatively short-lived with a high adult mortality rate; therefore, they produce offspring early in life. Spawning generally occurs from March until early July, with a peak from late May through early June.

The BSA provides suitable habitat for the SAS within the portions of the Santa Ana River that occur onsite. The BSA does not occur within or directly adjacent to any CH for the SAS within the Santa Ana River, as designated by USFWS (see Figure 3-9). The Final Rule for SAS CH did not include this portion of the Santa Ana River because it is within the MSHCP and is part of the SAS Conservation Program. Based on the CNDDB, there is a recorded occurrence of this species within the BSA in the Santa Ana River; therefore, this species is currently considered present onsite.

The SAS is covered under the MSHCP.

Coastal California Gnatcatcher (Federally Listed Threatened and CDFW Species of Special Concern)

CAGN is a species with restricted habitat requirements, being an obligate resident of CSS habitats that are dominated by coastal sagebrush and generally occur below 750 feet elevation in coastal regions and below 1,500 feet inland. It ranges from Ventura County south to San Diego County and northern Baja California. CSS communities dominated by California sagebrush, California buckwheat, white sage, and black sage are preferred by the species. Declines are attributed to loss of CSS habitat through development, and there is some evidence of cowbird nest parasitism.

CAGN was previously recorded as occurring within the BSA. The species was present during 2020 surveys and is present along restoration areas of SR-91. Because suitable habitat remains undisturbed within the BSA, the species is assumed to be present within the BSA.

CAGN is a covered species under the MSHCP. A BO was issued for the project.

Least Bell's Vireo (Federally and State Listed Endangered)

LBV is a migratory songbird that was historically widespread and abundant throughout coastal and central California. Habitat degradation and brood parasitism by the brown-headed cowbird has decimated the LBV population throughout California. This species is highly dependent on riparian habitat for breeding.

Suitable habitat for this species occurs within the riparian woodlands in the BSA. LBV was previously recorded as occurring within the BSA as a result of focused surveys conducted for the NES. The species was present during 2020 surveys. Because suitable habitat remains undisturbed within the BSA, the species is assumed to be present within the BSA (see Figure 3-9).

LBV is a covered species under the MSHCP. A BO was issued for the project.

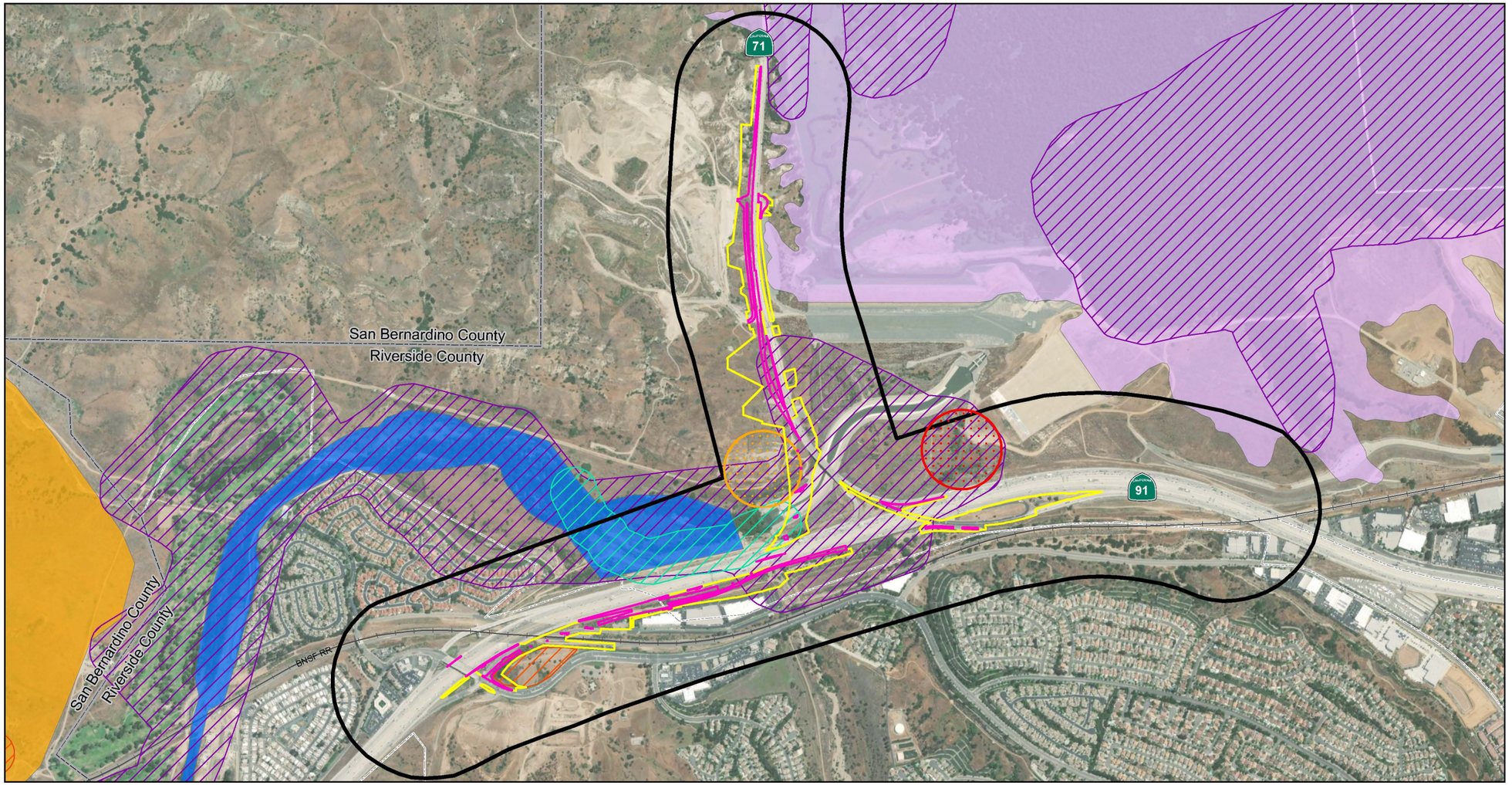

Figure 3-9: Sensitive Species Critical Habitat and Occurrences

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Pallid Bat (Species of Special Concern)

The pallid bat *(Antrozous pallidus)* is considered a High Priority species by the Western Bat Working Group. This species ranges throughout California within a wide range of habitat types, typically below 6,000 feet AMSL in elevation. Pallid bats are nonmigratory and hibernate during the winter during which they experience very little activity. Pallid bats occur in a variety of habitats throughout California and are most abundant is xeric ecosystems. Pallid bats roost alone and in small and large groups in colonies of 20 to several hundred individuals. Day and night roosts include crevices in rocky outcrops and cliffs, caves, mines, trees, and human structures, such as bridges, barns, porches, bat boxes, and buildings. This species also has been found roosting on or near the ground under stone piles, rags, and baseboards. The tendency to roost gregariously, combined with a relative sensitivity to disturbance, makes it vulnerable to mass displacement. Pallid bats are generalists that surface glean for arthropods and capture insects on the wing. Breeding occurs from October to February. Pups are born from late April to July and are volant at 4 to 6 weeks of age. Breeding colonies disperse between August and October.

This species has a moderate potential to nest within the bridge and overpass crossing located within the BSA. The pallid bat was observed within the Green River railroad bridge crevice during focused bat surveys conducted by LSA in 2008 for the SR-91 Eastbound Widening project; therefore, this species is currently considered present onsite.

The pallid bat is not a species covered under the MSHCP.

3.2.2.4 Species with a Low Potential for Occurrence

Swainson's Hawk (State Threatened)

A raptor adapted to the open grasslands, Swainson's hawk *(Buteo swainsoni) h*as become increasingly dependent on agriculture, especially alfalfa crops, as native communities are converted to agricultural lands. Its diet is varied, but it mainly consists of small rodents; however, other small mammals, birds, and insects are also taken. They often nest peripheral to riparian systems. They will also use lone trees in agricultural fields or pastures and roadside trees when available and adjacent to suitable foraging habitat.

Swainson's hawk has a low potential to occur in areas south of SR-91 and along the Santa Ana River. The species is covered by the MSHCP.

Yellow Rail (Species of Special Concern)

The yellow rail *(Coturnicops noveboracensis)* is a secretive bird that requires sedge marshes/meadows with moist soil or shallow standing water. In winter, yellow rail inhabit wet

meadows and coastal tidal marshes. They pick food from the ground, vegetation, and sometimes below the water surface. Their diet consists mostly of small snails, earthworms, insects, and other invertebrates, with seeds becoming an important component in fall and winter.

The species has a low potential to occur given a lack of hydrological features preferred by the species. Yellow rail is not covered by the MSHCP.

California Black Rail (Federally Threatened, Fully Protected)

This elusive bird inhabits salt marsh areas, where it preys on small invertebrates. It nests in wet meadows, and the shallower or drier ("upland") portions of salt marshes. It tends to winter in shallow coastal and interior marshes that do not freeze.

The California black rail *(Laterallus jamicensis coturniculus)* has a low potential to occur given the lack of dense vegetation in the BSA preferred by the species. The species has a low potential to occur in wet areas of the Prado Basin. California black rail is not covered by the MSHCP.

San Diego Banded Gecko (Species of Special Concern)

This species occurs in coastal and cismontane habitat in southern California. It is found in granite or rocky outcrops, in coastal scrub and chaparral habitats. San Diego banded gecko *(Coleonyx variegatus)* has a low potential to occur onsite because the BSA lacks granitic or rocky outcrops in preferred habitat types. The San Diego banded gecko is covered by the MSHCP.

Northern Red-Diamond Rattlesnake (Species of Special Concern)

This species may be found in chaparral, woodland, grassland, and desert areas from coastal San Diego County to the eastern slopes of the mountains. It occurs in rocky areas and dense vegetation. It requires rodent burrows, cracks in rocks, or surface cover objects. The northern red-diamond rattlesnake *(Crotalus ruber ruber)* has a low potential to occur. The BSA contains CSS-CSCS; however, the low density of plants and lack of rocky areas reduces habitat suitability. The MSHCP covers this species.

Coast Patch-Nosed Snake (Species of Special Concern)

This species may be found in brushy or shrubby vegetation in coastal southern California. This snake requires small mammal burrows for refuge and overwintering sites. The coast patch-nosed snake *(Salvadora hexalepis virgultea)* has a low potential to occur. The BSA contains

minimal foraging habitat; however, burrows are lacking to the extent required of the species. The MSHCP does not cover this species.

Grasshopper Sparrow (Species of Special Concern)

This species may be found in dense grasslands or rolling hills, lowland plains, in valleys, and on hillsides on lower mountain slopes. Grasslands favored contain a mix of grasses, forbs, and scattered scrubs. The grasshopper sparrow *(Ammodramus savannarum)* has a low potential to occur. Vast areas of grasslands with required habitat constituents are lacking. The MSHCP covers this species.

Bell's Sage Sparrow (Watch List)

This species may be found nesting in chaparral areas dominated by dense chamise. It is found in south range areas of CSS. The Bell's sage sparrow *(Amphispiza bellii belii)* has a low potential to occur. The BSA lacks chamise-dominated chaparral areas and other habitat constituents for nest building. The MSHCP covers this species.

Coastal Cactus Wren (Species of Special Concern)

This species may be found in areas of CSS; however, it requires tall Opuntia cactus for nesting and roosting. The coastal cactus wren *(Campylorhynchus brucceicapillus sandiegensis)* has a low potential to occur. The BSA lacks cactus vegetation required for nesting and roosting. The MSHCP covers this species.

California Horned Lark (Watch List)

This species may be found in coastal regions, primarily from Sonoma County to San Diego County in short-grass prairie, "bald" hills, mountain meadows, open coastal plains, fallow grain fields, and alkali flats. The California horned lark *(Eremophila alpestris actia)* has a low potential to occur. The BSA lacks suitable habitats such as prairies, meadows, and plains. The MSHCP covers this species.

Northern San Diego Pocket Mouse (Species of Special Concern)

This species may be found in coastal scrub, chaparral, grasslands, and woodlands in western San Diego County. In addition, it prefers sandy, herbaceous areas in areas with rocks or coarse gravel. The Northern San Diego Pocket Mouse *(Chaetodipus fallax fallax)* has a low potential to occur due to lack of suitable soils. The MSHCP covers this species.

Stephen's Kangaroo Rat (Federally Endangered, State Threatened)

This species is found primarily in annual and perennial grasslands, but also occurs in coastal scrub and sagebrush with spare canopy cover. It prefers buckwheat, chamise, brome grass, and filaree. Stephen's kangaroo rat (SKR) *(Dipodomys stephensi)* has a low potential to occur with a lack of the presence of grasslands. The MSHCP covers this species.

Western Yellow Bat (Species of Special Concern)

This species is found in valley foothill riparian, desert riparian, desert wash, and palm oasis habitat. It roosts primarily in palm trees and forages over water and among trees. Western yellow bat *(Lasiurus xanthinus)* has a low potential to occur given the lack of palm trees in the BSA. The MSHCP does not cover this species.

Pocketed Free-Tailed Bat (Species of Special Concern)

This species is found in desert riparian, desert wash, and palm oasis habitats. It prefers Joshua tree woodland and Sonoran desert scrub, roosting in high cliffs. Pocketed free-tailed bat *(Nyctinomops femorosaccus)* has a low potential to occur given the absence of desert habitat in the BSA. The MSHCP does not cover this species.

3.2.3 Sensitive Plant Species

The literature review and updated CNDDB and CNPS database searches of the Prado Dam and adjacent Black Star Canyon, Corona North, and Corona South Quadrangles indicated that 21 special-status plant species have been reported as occurring in the region (due to the mountainous terrain surrounding the site, the search was limited to a 5-mile radius within these quadrangles). A total of 12 of these species are covered under the MSHCP. A total of 16 of these species are CNPS sensitive plants. The species described in this SNES have the potential to occur or are new occurrences within 5 miles of the BSA as recorded during 2020 searches of the CNDDB and CNPS database searches (see Table 3-3).

This designation is based on their current distribution, habitat requirements, and information concerning land use near the site. However, all of the plant species are absent from the BSA.

Due to the lapse of time, blooming season surveys were completed in 2020 with a focus on the three Narrow Endemic Plant Species (Brand's phacelia, San Diego ambrosia, and San Miguel savory) that are recommended to be surveyed as an update to the SNES according to the guidelines for Narrow Endemic Plant Species. Construction of the SR-91 CIP and wildfires in the area resulted in heavy disturbance of suitable habitat.

Table 3-3: Listed, Proposed, and Special-Status Plant Species Potentially Occurring within the BSA

Scientific Name	Common Name	Life Form	Blooming Period	Status	MSHCP Covered Species	General Habitat Description	Rationale	Determination Effect
Abronia villosa var. aurita	Chaparral sand-verbena	Annual	January – September	1B.1.2	No	Chaparral, coastal scrub, desert dunes.	**Lack of suitable habitat. Not likely to occur.** Not observed during 2020 blooming season surveys.	–
Ambrosia pumila	San Diego ambrosia	Rhizomatous herb	April–June	FE, CH	Yes	May be found in chaparral, coastal scrub, valley, foothill grassland, or vernal pools, often in disturbed, sometimes alkaline, areas. 65–1,360 feet	**Low potential to occur.** The BSA does not contain clay or alkaline soils. Due to the marginal quality of habitat within the BSA and the lack of historical observations in the project vicinity, this species is not likely to occur. No occurrences recorded with 5 miles. Not observed during 2020 blooming season surveys.	**No effect.**
Astragalus brauntonii	Braunton's milk-vetch	Short-lived perennial	January – August	FE, 1B.1, CH	No	Chaparral, coastal scrub, limestone, valley and foothill grassland. Restricted to soils with high calcium carbonate concentrations.	**Low potential to occur.** The BSA does not contain suitable soils. Closest suitable habitat is within CHSP. Recorded occurrence within approximately 1.64 mile. Not observed during 2020 blooming season surveys.	**No effect.**

Table 3-3: Listed, Proposed, and Special-Status Plant Species Potentially Occurring within the BSA

Scientific Name	Common Name	Life Form	Blooming Period	Status	MSHCP Covered Species	General Habitat Description	Rationale	Determination Effect
Atriplex coulteri	Colter's saltbush	Perennial herb	March - October	1B.2	No	Coastal bluff scrub, coastal dunes, coastal scrub, valley and foothill grassland.	**No suitable habitat. Not expected to occur.** Recorded occurrence within approximately 4.58 miles. Not observed during 2020 blooming season surveys.	**–**
Brodiaea filifolia	Thread-leaved brodiaea	Perennial herb	March–June	FT, SE, 1B.1, CH	Yes	May be found within disturbed and sometimes alkaline soils in chaparral, coastal scrub, valley and foothill grasslands, and vernal pools.	**Low potential to occur. Not expected to occur.** The species was not observed during 2020 blooming season surveys.	**No effect. No take.**
Calochortus plummerae	Plummer's mariposa-lily	Perennial herb	May–July	4.2	Yes	May be found in coastal scrub, chaparral, valley and foothill grassland, cismontane woodland, and lower montane coniferous forest. Occurs on rocky and sandy sites, usually of granitic or alluvial material. Can be very common after fire. 295–5,280 feet	**Moderate potential to occur.** The BSA contains elements of suitable habitat within the CSCS. Recorded occurrences within approximately 5 miles. The species was not observed during 2020 blooming season surveys.	–

Table 3-3: Listed, Proposed, and Special-Status Plant Species Potentially Occurring within the BSA

Scientific Name	Common Name	Life Form	Blooming Period	Status	MSHCP Covered Species	General Habitat Description	Rationale	Determination Effect
Calochortus weedii var. intermedius	Intermediate mariposa-lily	Perennial herb	May–July	1B.2	Yes	May be found in coastal scrub, chaparral, valley and foothill grassland with dry, rocky open slopes and rock outcrops. 394–2,788 feet	**High potential to occur.** The BSA contains elements of suitable habitat within the CSCS. Recorded occurrences within approximately 2.5 miles. The species was not observed during 2020 blooming season surveys.	–
Calystegia felix	Lucky morning-glory	Annual rhizomatous herb	March-September	1B.1	No	Meadow and seep, riparian scrub.	**No suitable habitat in BSA. Not expected to occur.** The species was not observed during 2020 blooming season surveys.	–
Caulanthus simulans	Payson's jewel-flower	Annual herb	March–June	4.2	Yes	May be found in chaparral and coastal scrub. Frequently found in burned areas, or in disturbed sites such as streambeds; also on rocky, steep slopes. 295–7,218 feet	**Low potential to occur.** The BSA contains elements of habitat within the CSCS. Recorded occurrences are greater than 5 miles. The species was not observed during 2020 blooming season surveys.	–

Table 3-3: Listed, Proposed, and Special-Status Plant Species Potentially Occurring within the BSA

Scientific Name	Common Name	Life Form	Blooming Period	Status	MSHCP Covered Species	General Habitat Description	Rationale	Determination Effect
Centromadia pungens ssp. laevis	Smooth tarplant	Annual herb	April–September	1B.1	Yes	Alkali playa, chenopod scrub, meadow and seep, riparian woodland, valley and foothill grassland, and wetland.	**Low Potential to occur.** BSA is lacking characteristic alkali, grassland, or suitable scrub habitat. Recorded occurrence within 4.06 miles. The species was not observed during 2020 blooming season surveys.	–
Chorizanthe parryi var. parryi	Parry's spineflower	Annual herb	April–June	3.2	Yes	May be found in coastal scrub, chaparral with dry slopes and flats; sometimes at interface of two vegetation types, such as chaparral and oak woodland; dry, sandy soils. 131–5,594 feet	**Low potential to occur.** The BSA contains elements of habitat within the CSCS. Recorded occurrences are greater than 5 miles. The species was not observed during 2020 blooming season surveys.	–
Chorizanthe polygonoides var. longispina	Long-spined spineflower	Annual herb	April–July	1B.2	Yes	May be found in chaparral, coastal scrub, meadows, valley and foothill grassland with Gabbroic clay. 98–4,757 feet	**Moderate potential to occur.** The BSA contains elements of habitat within the CSCS. Recorded occurrences within approximately 4.5 miles. The species was not observed during 2020 blooming season surveys.	–

Table 3-3: Listed, Proposed, and Special-Status Plant Species Potentially Occurring within the BSA

Scientific Name	Common Name	Life Form	Blooming Period	Status	MSHCP Covered Species	General Habitat Description	Rationale	Determination Effect
Dudleya multicaulis	Many-stemmed dudleya	Perennial herb	April–July	1B.2	Yes	May be found in chaparral, coastal scrub, valley and foothill grassland in heavy, often clayey soils or grassy slopes. 0–2,592 feet	**High potential to occur.** The BSA contains suitable habitat within the CSCS. Recorded occurrences within the western portion of the BSA approximately 0.75 mile west of SR-71/SR-91 intersection. The species was not observed during 2020 blooming season surveys.	–
Eriastrum densifolium ssp. sanctorum	Santa Ana River woollystar	Perennial herb	June–September	FE, SE	Yes	May be found in coastal scrub, chaparral in sandy soils on river floodplains or terraced fluvial deposits. 492–2,000 feet	**Low potential to occur.** The BSA contains elements of habitat within the CSCS. Recorded occurrences are greater than 5 miles. The species was not observed during 2020 blooming season surveys.	**No effect. No take.**
Lepidium virginicum var. robinsonii	Robinson's pepper-grass	Annual herb	January - July	4.3	No	Chaparral, coastal scrub.	**Moderate potential to occur.** The BSA contains chaparral and coastal scrub habitat. Recorded occurrence in BSA. The species was not observed during 2020 blooming season surveys.	–

Table 3-3: Listed, Proposed, and Special-Status Plant Species Potentially Occurring within the BSA

Scientific Name	Common Name	Life Form	Blooming Period	Status	MSHCP Covered Species	General Habitat Description	Rationale	Determination Effect
Monardella australis ssp. jokerstii	Jokerst's monardella	Perennial rhizomatous herb	July - September	1B.1	No	Chaparral, lower montane coniferous forest.	**Low potential to occur. Species not expected to occur.** Surveys in 2020 confirmed absence. Recorded occurrence within approximately 1.1 mile. The species was not observed during 2020 blooming season surveys.	–
Phacelia stellaris	Brand's phacelia	Annual herb	March–June	1B.1	Yes	May be found in coastal dunes or coastal scrub. 3–1,312 feet	**Low potential to occur.** The BSA contains no suitable substrate or hydrology for this species within or adjacent to APE. No occurrences recorded within 5 miles of study area. The species was not observed during 2020 blooming season surveys.	–

Table 3-3: Listed, Proposed, and Special-Status Plant Species Potentially Occurring within the BSA

Scientific Name	Common Name	Life Form	Blooming Period	Status	MSHCP Covered Species	General Habitat Description	Rationale	Determination Effect
Pseudognaphalium leucocephalum	White rabbit tobacco	Perennial herb	July - December	2B.2	No	Chaparral, cismontane woodland, coastal scrub, and riparian woodland.	**Low potential to occur.** The BSA contains primarily restored scrub areas, with riparian areas south of SR-91 and along the Santa Ana River considered marginal habitat. Recorded occurrence within 2.16 miles. The species was not observed during 2020 blooming season surveys.	–
Saturejo chandleri	San Miguel savory	Shrub	March–May	1B.2	Yes	May be found in chaparral, cismontane woodland, coastal scrub, riparian woodland, valley and foothill grassland, and rocky, gabbroic or metavolcanic habitats. 393–3,526 feet	**Low potential to occur.** The BSA contains low-quality, restored CSS and NNG; however, there are no metavolcanic soils onsite, and no populations have been recorded in the vicinity. Therefore, San Miguel savory is not likely to occur within the BSA. The species was not observed during 2020 blooming season surveys.	–

Table 3-3: Listed, Proposed, and Special-Status Plant Species Potentially Occurring within the BSA

Scientific Name	Common Name	Life Form	Blooming Period	Status	MSHCP Covered Species	General Habitat Description	Rationale	Determination Effect
Sidalcea neomexicana	Salt Spring checkerbloom	Perennial herb	March - June	2B.2	No	Alkali playa, chaparral, coastal scrub, lower montane coniferous forest, Mojavean desert scrub, and wetland.	**No suitable habitat in BSA. Species not expected to occur.** Recorded occurrence within approximately 1 mile. The species was not observed during 2020 blooming season surveys.	–
Symphyotrichum defoliatum	San Bernardino aster	Perennial rhizomatous herb	July - December	1B.2	No	Cismontane woodland, coastal scrub, lower montane coniferous forest, marsh and swamp, meadow and seep, valley and foothill grassland.	**No suitable habitat in BSA. Species not expected to occur.** The species was not observed during 2020 blooming season surveys.	–

U.S. Fish and Wildlife Service
FE Federal Endangered
FT Federal Threatened
PE Proposed Endangered
PT Proposed Threatened
FC Federal Candidate
FSC Species of Concern*
* No longer recognized as a federal designation.
CH Critical Habitat

California Native Plant Society (SNPS)
1A Plants presumed extinct in California
1B Plants rare, threatened, or endangered in California and elsewhere
2 Plants rare, threatened, or endangered in California, but more common elsewhere
3 Plants about which we need more information
4 Plants of limited distribution

Species discussed in this section are the new occurrences per the database searches conducted for preparation of this SNES or species with the potential to occur. In addition, any plant species requiring further discussion is included in this section. The following species have the potential to occur including, but not limited to, Brand's phacelia, San Diego ambrosia, San Miguel savory, Braunton's milk vetch, Coulter's saltbush, Jokerst's monardella, Lucky morning glory, Robinson's pepper grass, Salt spring checkerbloom, Smooth tarplant, Plummer's mariposa lily, intermediate mariposa lily, long-spined spineflower, many-stemmed dudleya, and white rabbit tobacco.

3.2.3.1 Species with Moderate to High Potential to Occur

Robinson's Pepper Grass (CNPS List 4.3)

This annual herb has a January–July bloom period. It is typically found in chaparral and coastal scrub habitat up to 2,903 feet. The chaparral and CSS in the BSA is undisturbed in CHSP, providing suitable habitat. Robinson's pepper grass is not covered by the MSHCP.

Plummer's Mariposa Lily (CNPS List 4.2)

This perennial herb has a May – July bloom period. It may be found in coastal scrub, chaparral, valley and foothill grassland, cismontane woodland, and lower montane coniferous forests. It tends to occur on rocky and sandy sites, usually of granitic or alluvial material. It can occur after fire from 295–5,280 feet. Plummer's mariposa lily is covered by the MSHCP.

Intermediate Mariposa Lily (CNPS List 1B.2)

This perennial herb has a May – July bloom period. It may be found in coastal scrub, chaparral, valley and foothill grassland with dry, rocky open slopes and rock outcrops, at 394-2,788 feet. Intermediate mariposa lily is covered by the MSHCP.

Long-spined spineflower (CNPS List 1B.2)

This annual herb has an April – July bloom period. It may be found in chaparral, coastal scrub, meadows, valley and foothill grassland with Gabbroic clay at 98-4,757 feet. Long-spined spineflower is covered by the MSHCP.

Many-Stemmed Dudleya (CNPS List 1B)

Many-stemmed dudleya (*Dudleya multicaulis*) is associated with clay soils in barrens, rocky places, or thinly vegetated openings in chaparral, coastal sage scrub, and southern needlegrass grasslands. The majority of populations are associated with coastal sage scrub or open coastal sage scrub. It is a perennial herb that blooms from April to July and is found below 2,590 feet (790 m) in elevation. It is known from less than 15 occurrences in Riverside County.

The many-stemmed dudleya is a species covered by the MSHCP.

3.2.3.2 Species with Low Potential to Occur

Chaparral Sand Verbena (CNPS List 1B.1.2)

This annual herb has a (January) March–September blooming season. Preferred habitat includes chaparral, coastal scrub, and desert dunes. Elevation is 246–5,250 feet. The chaparral and CSS in the BSA is undisturbed in CHSP and providing suitable habitat; however, there are no dunes on site. Chaparral sand verbena is not an MSHCP covered species.

San Diego Ambrosia (Federally Endangered, Critical Habitat)

This rhizomatous herb has an April – June bloom season. It may be found in chaparral, coastal scrub, valley, foothill grassland, or vernal pools, often in disturbed, sometimes alkaline areas, at 65-1,360 feet. San Diego Ambrosia is covered by the MSHCP.

Braunton's Milk Vetch (Federally Endangered, CNPS List 1B.1, Critical Habitat)

This perennial herb has a January–August bloom period. It is found in areas that have been recently burned or disturbed sandstone with carbonate layers, chaparral, coastal scrub, and valley and foothill grassland. Elevation is 13–2,100 feet. Though CHSP contains undisturbed areas of chaparral, CSS, and grassland, the soil conditions required by the species are absent. Braunton's milk vetch is not a species covered under the MSHCP.

Coulter's Saltbush (CNPS List 1B.2)

This perennial herb has a March–October bloom period. It is found in alkaline or clay soils, coastal bluff scrub, coastal dunes, coastal scrub, and valley and foothill grassland. It is found at elevations of 10–2,100 feet. The species is found in coastal areas as is unlikely to occur in the BSA. It is not an MSHCP covered species.

Thread-Leaved Brodiaea (State Endangered, Federally Threatened, CNPS List 1B.1.1, Critical Habitat)

This perennial bulbiferous herb has a March–June bloom period. It is found in clay soils, chaparral (openings), cismontane woodland, coastal scrub, playas, valley and foothill grassland, and vernal pools. It is found at elevations of 82–3,675 feet. The species has a low potential to occur given the absence of suitable habitat in the BSA. Thread-leaved brodiaea is not an MSHCP covered species.

Lucky Morning Glory (CNPS List 1B.1)

This annual rhizomatous herb has a March–September bloom period. It has been historically found associated with wetland and marshy places, but possibly in drier situations as well. It can be found in silty loam and alkaline soils, meadows and seeps (sometimes alkaline), and riparian scrub (alluvial). It is found at elevations of 98–705 feet. The species has a low potential to occur given the absence of suitable habitat in the BSA. Lucky morning glory is not an MSHCP covered species.

Payson's Jewel-Flower (CNPS List 4.2)

This annual herb has a March – June bloom period. It may be found in chaparral and coastal scrub and frequents burned or disturbed areas, such as streambeds. It is also found on rocky, steep slopes at 295-7,218 feet. Payson's jewel-flower is covered by the MSHCP.

Smooth Tarplant (CNPS List 1B.1)

This annual herb has an April–September bloom period. It is typically found in alkaline soils, in chenopod scrub, meadows and seeps, playas, riparian woodland, and valley and foothill grassland. It is found in elevations up to 2,100 feet. The species has a low potential to occur given the absence of suitable habitat in the BSA. Smooth tarplant is an MSHCP covered species.

Parry's Spineflower (CNPS List 3.2)

This annual herb has an April – June bloom period. It may be found in coastal scrub, and chaparral areas with dry slopes and flats; sometimes at the interface of two vegetation types such as chaparral and oak woodland. It is found in dry, sandy soils from 131-5,594 feet. Parry's spineflower is covered by the MSHCP.

Santa Ana River Woollystar (Federally Endangered, State Endangered)

This perennial herb has a June – September bloom period. It may be found in coastal scrub, chaparral scrub, and chaparral areas with sandy soils on river floodplains or terraced fluvial deposits at 492-2,000 feet. Santa Ana River Woollystar is covered by the MSHCP.

Brand's Phacelia (CNPS List 1B.1)

This annual herb has a March – June bloom period. It may be found in coastal dunes or coastal scrub areas at 3-1,312 feet. It is covered by the MSHCP.

Jokerst's Monardella (CNPS List 1B.1)

This perennial rhizomatous herb has a July–September bloom period. It is typically found on steep or talus slopes between secondary alluvial benches along drainages and washes. It can be found in chaparral and lower montane coniferous forests from 4,429–5,741 feet. The species has a low potential to occur given the absence of suitable habitat in the BSA. Jokerst's monardella is not an MSHCP covered species.

White Rabbit Tobacco (CNPS List 2B.2)

This perennial herb has a (July) August – November (December) bloom period. It can be found in sandy, gravelly habitat in chaparral, cismontane woodland, coastal scrub, and riparian woodland areas. It can be found up to 6,890 feet in elevation. The species has a low potential to occur given the absence of suitable habitat in the BSA. White rabbit tobacco is not an MSHCP covered species.

San Miguel Savory (CNPS List 1B.2)

This scrub has a March – May bloom period. It may be found in chaparral, cismontane woodland, coastal scrub, riparian woodland, valley and foothill grassland, and rocky, gabbronic or metavolcanics habitats from 393-3,526 feet. It is covered by the MSHCP.

Salt Spring Checkerbloom (CNPS List 2B.2)

This perennial herb has a March – June bloom period. It can be found in alkaline, mesic areas of chaparral, coastal scrub, lower montane coniferous forest, Mojavean desert scrub, and playa habitats. It can be found in elevations from 49–5,019 feet. The species has a low potential to occur given the absence of suitable habitat in the BSA. Salt spring checkerbloom is not an MSHCP covered species.

Salt Bernardino Aster (CNPS List 1B.2)

This perennial rhizomatous herb has a July – November (December) bloom season. It is found near ditches, streams, springs, in cismontane woodlands, coastal scrub, lower montane coniferous forest, meadows and seeps, marshes and swamps, and valley and foothill grassland. It can be found in elevations from 6–6,692 feet. The species has a low potential to occur given the absence of suitable habitat in the BSA. Salt Bernardino aster is not an MSHCP covered species.

Chapter 4 Results: Biological Resources, Discussion of Impacts and Mitigation

4.1 Habitats Natural Communities of Special Concern

The proposed project lies within the boundaries of the MSHCP and is a Covered Activity under the MSHCP. The MSHCP provides full mitigation under the California Environmental Quality Act (CEQA) for impacts on most of the biological resources that have been identified as being potentially affected by the proposed project. To ensure consistency with the MSHCP, measures are presented in this chapter, where appropriate, that follow the MSHCP requirements and ECR. The NES (2010c) listed avoidance, minimization, and mitigation measures, with this SNES updating the measures for consistency with the ECR.

This SNES indicated eight natural communities of special concern are reported to occur within 5 miles of the BSA and include southern riparian scrub, riparian forest, southern California arroyo chub/SAS stream, southern coast live oak riparian forest, SCWRF, southern interior cypress forest, southern sycamore alder riparian woodland, and southern willow scrub. One of the communities mentioned above, SCWRF, occurs within or adjacent to the project site and may be impacted as a result of construction of the proposed project. Vegetation containing riparian habitat is impacted by the project and discussed in this section. The riparian vegetation impacted includes MFS, RF, SCRF, SCWRF, and streambed. See Tables 4-1 and 4-2 for permanent and temporary impacts to vegetation and Figures 4-1 and 4-2.

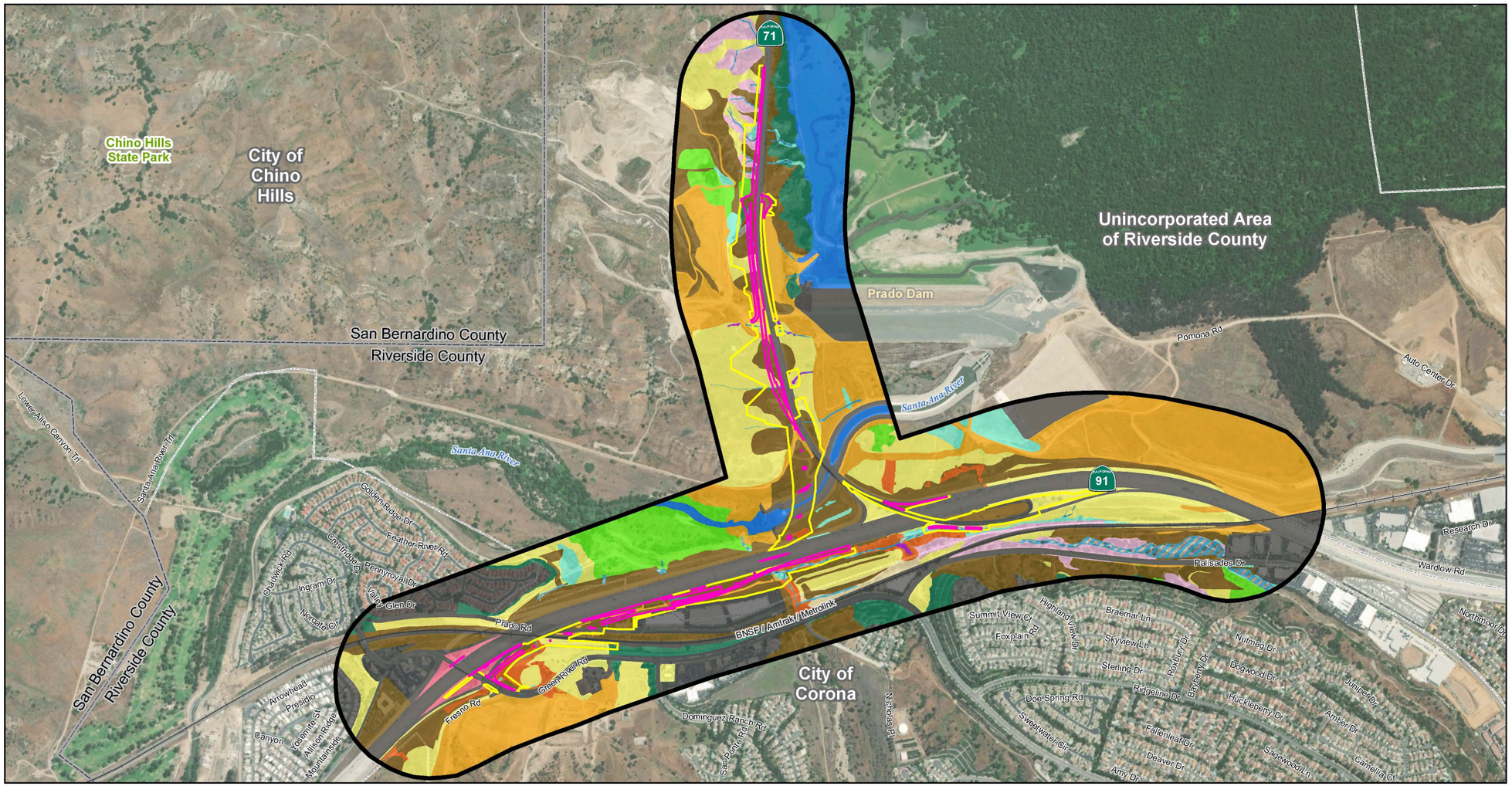
Construction of the proposed project would result in 51.39 acres of temporary and 11.02 acres of permanent impacts to vegetation communities located within the BSA. The temporary impacts include construction staging and operating areas, cut and fill areas, and sections of the flyover that do not result in the loss of habitat. The temporary impacts associated with construction of the proposed project would not adversely affect the greater population of plant and wildlife species, or associated habitats onsite.

Table 4-1: Temporary Impacts to Habitat

Plant Communities	Impact Acres
Coastal Sage-Chaparral Scrub	0.39
Coastal Sage Scrub	22.28
Disturbed Habitat	3.02
Eucalyptus/Ornamental Woodland	0.30
Mule Fat Scrub	0.77
Non-Native Grassland	10.08
Oak Woodland	0.98
Ornamental	0.64
Riparian Forest	0.12
Southern Cottonwood Riparian Forest	2.70
Southern Cottonwood Willow Riparian Forest	0.52
Streambed	1.05
Urban/Developed	8.34
Waters	0.20
Total	**51.39**

Table 4-2: Permanent Impacts to Habitat

Plant Communities	Impact Acres
Coastal Sage-Chaparral Scrub	0.14
Coastal Sage Scrub	6.72
Disturbed Habitat	1.23
Eucalyptus/Ornamental Woodland	0.06
Mule Fat Scrub	0.07
Non-Native Grassland	0.70
Oak Woodland	0.30
Ornamental	0.11
Southern Cottonwood Riparian Forest	0.50
Southern Cottonwood Willow Riparian Forest	0.01
Streambed	0.27
Urban/Developed	0.90
Waters	0.01
Total	**11.02**



Biological Study Area
Permanent Impact Area
Temporary Impact Area

Coastal Sage Scrub
Coastal Sage-Chaparral Scrub
Disturbed Habitat
Eucalyptus / Ornamental Woodland
Mixed Scrub

Mule Fat Scrub
Non-Native Grassland
Oak Woodland
Ornamental
Riparian Forest

Southern Cottonwood Riparian Forest
Southern Cottonwood Willow Riparian Forest
Streambed
Urban / Developed
Water

0 500 1,000 2,000 Feet

SR-71/91 Interchange Improvement Project
Vegetation Impacts Overview Map

Caltrans District: District 8
County: Riverside County
Route: SR 71 1.9/3.0 and SR 91 R0.9/R2.6

Source: ESRI; Parsons 2020
Map Last Saved: 10/8/2020

Figure 4-1: Vegetation Impacts Overview Map

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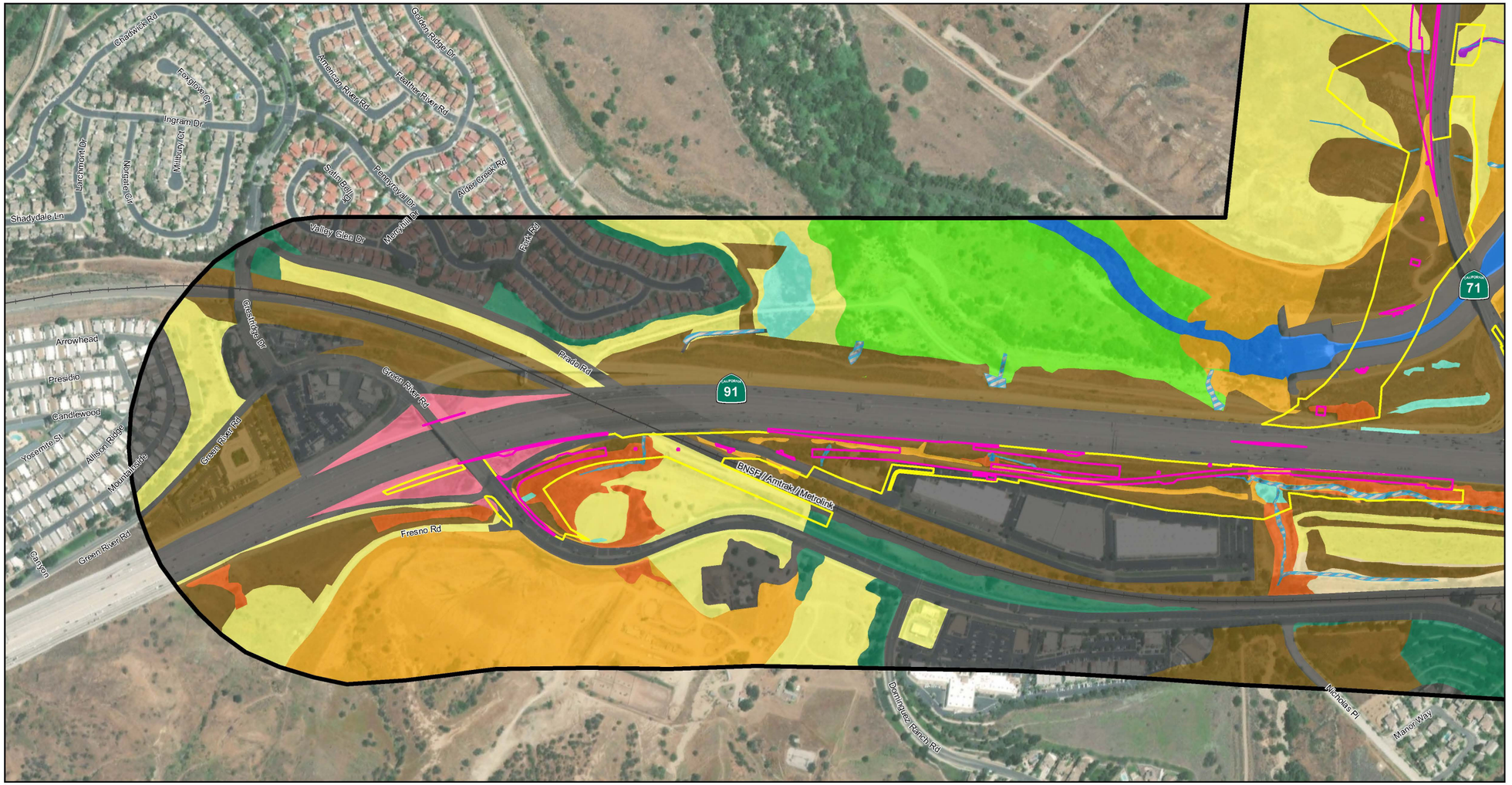

Figure 4-2: Vegetation Impacts Map (Page 1 of 4)

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Figure 4-2: Vegetation Impacts Map (Page 2 of 4)

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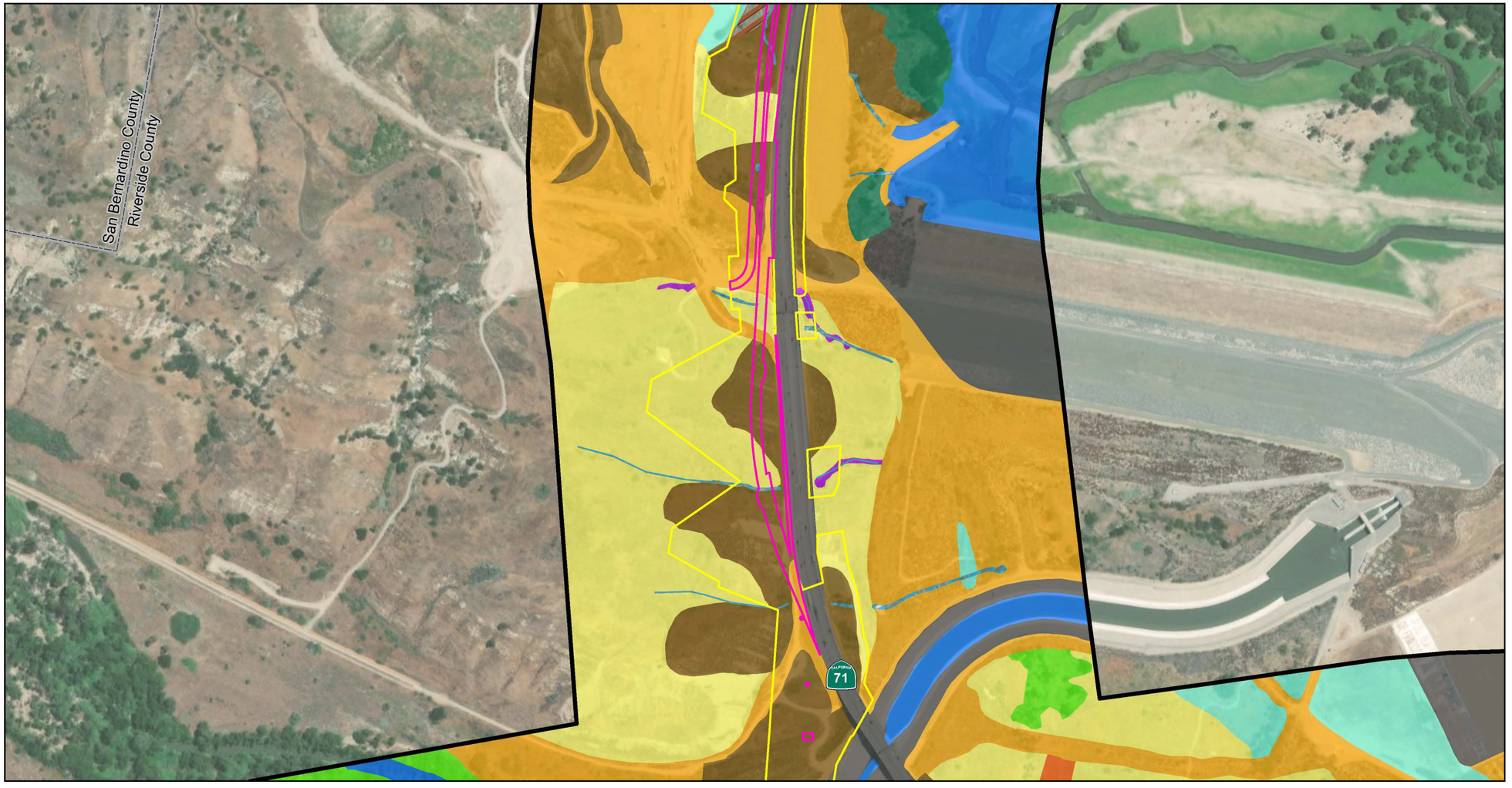

Figure 4-2: Vegetation Impacts Map (Page 3 of 4)

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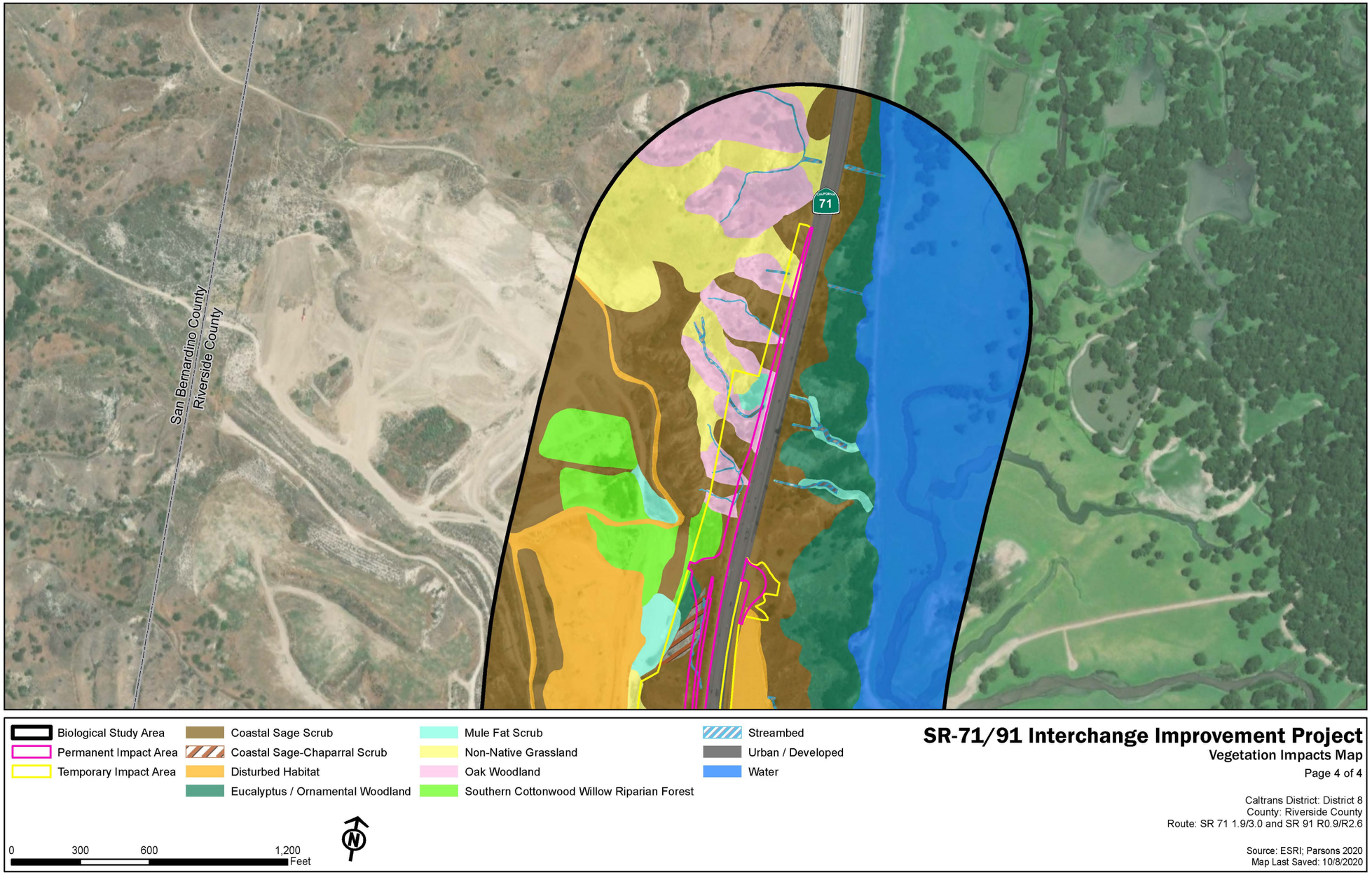

Figure 4-2: Vegetation Impacts Map (Page 4 of 4)

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Permanent impacts to 11.02 acres of habitat would occur as a result of infrastructure and interchange improvements to SR-71 and SR-91. Permanent impacts associated with the project involve sections of the flyover and auxiliary lane west of Wardlow Wash, footing and column locations to support the flyover, and realigning of SR-71. These permanent impacts would occur in areas supporting several common and sensitive species. Implementation of BMPs, pre-construction surveys, construction monitoring, and prescribed mitigation for impacts to riparian/riverine areas would reduce all potential impacts to sensitive species not considered adequately conserved under the MSHCP to less than substantial.

4.1.1 Riparian Vegetation Communities

Riparian habitats, such as those within the BSA, were formerly abundant along major rivers of coastal southern California but are now reduced by urban expansion, flood control, and channel improvements. The typical association of these riparian habitat types with drainages means that they are protected under the CFG Code and, to a certain extent, by the CWA. These habitats are considered high-quality wildlife habitats because they provide protective cover, water, and food for a variety of species. Many animal species are riparian habitat obligates. Other animals, including large mammals, require access to water and use bands of riparian habitat as wildlife corridors. As such, CDFW regulates riparian areas only to the extent that those areas are associated with the banks of a stream or lake shorelines.

4.1.2 Survey Results

A riparian vegetation survey was conducted to verify riparian vegetation communities within the BSA since the approved NES (2010c). Riparian vegetation occurs primarily south of SR-91 in the BSA, along the Fresno Canyon/Wardlow Wash. See Figure 3-4 for the complete map book showing vegetation mapping within the BSA. The southern cottonwood willow riparian forest occurs along the Santa Ana River, Fresno Canyon/Wardlow Wash, and a drainage west of SR-71.

Areas of southern cottonwood riparian are found at the SR-91 westbound/SR-71 northbound connector on USACE land and south of SR-91 in the Fresno Canyon/Wardlow Wash.

The SCWRF that occurs within the BSA, specifically west of SR-71, north and south of SR-91, and adjacent to the Santa Ana River, provides suitable habitat for several special-status species, including LBV. Suitable habitat occurs for long-eared owl and two-striped garter snake along the Santa Ana River stream course that is dominated by willow and cottonwood trees. As currently designed, construction of the proposed project is not anticipated to result in direct impacts to these species. Potential project-related impacts to these species are not anticipated

to be substantial on a local or regional scale and would not likely adversely jeopardize the sustainability and recovery of the greater population of these species.

Suitable foraging habitat also occurs for pallid bat, pocketed free-tailed bat, western mastiff bat, and western yellow bat within the riparian habitat located adjacent to the Santa Ana River. Additionally, suitable day and night roosting sites occur within the study area, along existing SR-71 and SR-91 underpasses and large culverts. Crevices within culverts could potentially be suitable habitat for maternity roosting sites for bats. As currently designed, construction of the proposed project is not anticipated to result in a substantial disturbance to these species habitats, and direct impacts are not likely to occur. Potential project-related impacts to these species are not anticipated to be substantial on a local or regional scale and would not likely adversely jeopardize the sustainability and recovery of the greater population of these species. The SR-71 northbound bridge in the BSA over the Santa Ana River is a metal bridge. It is unlikely that this structure provides suitable habitat for bats. Bat roosting panels were placed in the BSA at West Prado Overhead Bridge (Bridge 4) as part of SR-91 CIP construction. These panels are not anticipated to be impacted by the project.

However, during project construction, the proposed project may result in potentially substantial impacts to riparian habitat located adjacent to the Santa Ana River, which provides suitable habitat for the riparian species discussed in this section. Avoidance and minimization of impacts to riparian/riverine areas, as well as nesting and maternity roosting season avoidance, are discussed further below and will reduce impacts to riparian habitat associated species to less than substantial.

4.1.3 Project Impacts

Based on the updated riparian vegetation survey, updated JD (2020), and latest SR-71/SR-91 design, impacts to riparian vegetation are within the previously identified permanent and temporary vegetation impact area provided in the original NES. The SR-71/SR-91 Interchange Improvement Project obtained a DBESP where riparian/riverine habitat was addressed. Impacts specific to the riparian/riverine classification, as defined in the updated JD (2020), are discussed in Chapter 5.

Construction of the proposed project would result in the temporary loss of approximately 5.36 acres of riparian vegetation and permanent loss of 0.86 acre of riparian vegetation, respectively. These impacts include MFS, SCRF, SCWRF, RF, streambed, and waters.

Impacts to riparian/riverine resources will primarily occur south of SR-91, west of the terminus of Wardlow Wash and Fresno Canyon Wash. Impacts to riparian vegetation have increased

with this SNES because of the growth of riparian vegetation within the BSA since the NES was prepared in 2010. In addition, modifications to the project design including, but not limited to, the inclusion of retaining walls and rock slope protection, require additional work in riparian areas of Wardlow Wash (eastern section of the project). Impacts to jurisdictional areas and MSHCP riparian/riverine habitats have been updated from the previous analysis for the project for the NES. Under the MSHCP, riparian/riverine habitat is defined as lands which contain habitat dominated by trees, shrubs, persistent emergent, or emergent mosses and lichens, which occur close to or which depend upon soil moisture from a nearby fresh water source, or areas with fresh water flow during all or a portion of the year. It is a specific classification of habitat further discussed in Chapter 5 of this SNES. Avoidance and minimization measures discussed in Section 4.1.4 apply to both riparian and riparian/riverine habitats, as they are both considered sensitive.

Differences in the delineation of riparian vegetation, as well as the growth of new riparian vegetation naturally and due to SR-91 CIP Restoration in the BSA, have resulted in an overall increase in acreage that may support riparian and/or riverine species. The largest change in delineation from previous analysis occurred west of the SR-71/SR-91 interchange and south of the Santa Ana River at the undercrossing near Fresno Canyon, where multiple riparian plants were identified in areas not previously delineated. This area is subject to high levels of trespass, resulting in a dynamic system. As currently designed, the proposed project would be contained within the least environmentally sensitive location feasible and demonstrates consistency with the biological goals and objectives as set forth in Section 7.5.1 of the MSHCP, “Guidelines for Siting and Design of Planned roads within the Criteria Area and Public/Quasi-Public Lands.” Minimal impacts to sensitive plant communities would occur and are considered a covered activity under the MSHCP.

Temporary indirect effects include construction-related effects such as dust, potential fuel spills from construction equipment, possible night lighting during construction, and activities of equipment or personnel outside designated construction areas and Environmentally Sensitive Areas (ESA), as well as operation effects such as effects on adjacent habitat caused by stormwater runoff, traffic, and litter. In addition, construction may indirectly affect riparian/riverine habitats through enhancing the germination and proliferation of nonnative invasive plant species. Indirect effects are difficult to quantify because they are a result of normal activities and can vary day to day. Permanent impacts include placement of structures for the flyover, retaining wall construction and drainage improvements.

Project-related noise levels nearest to riparian/riverine habitat are expected to be relatively the same with or without the SR-71/SR-91 Interchange Improvement Project. Treatment BMPs will help avoid and minimize effects to increased traffic, noise, and impervious surfaces.

4.1.4 Avoidance, Minimization, and/or Mitigation Measures

The following measures identified in the SR-71/SR-91 NES and ECR will be incorporated to avoid any potential indirect impacts and minimize effects to riparian and/or riverine habitats:

BIO-1: The limits of grading required for all aspects of the interchange and construction staging areas will be clearly marked, and all construction areas, including staging of construction equipment, will be surveyed.

BIO-2: Planned roads will be located in the least environmentally sensitive location feasible, including disturbed and developed areas or areas that have been previously altered.

BIO-3: Alignments will follow existing roads, easements, ROWs, and disturbed areas, as appropriate, to minimize habitat fragmentation. Implementation of BMPs, as discussed in Section 5.2.5 of the SR-71/SR-91 Interchange Improvement Project Habitat Assessment and MSHCP Consistency Analysis Report (Parsons/MBA, 2010), preconstruction surveys, construction monitoring, and prescribed mitigation for impacts to riparian/riverine areas will reduce all potential impacts to sensitive species not considered adequately conserved under the MSHCP to less than substantial.

BIO-4: Incorporate measures to control the quantity and quality of runoff from the site entering the MSHCP Conservation Area. In particular, measures shall be put in place to avoid discharge of untreated surface runoff from developed and paved areas into MSHCP Conservation Areas. According to the *Water Resources and Water Quality Technical Report* (Parsons, 2010d), construction of a new flyover connector would not generate any changes in existing runoff in the area, and a Storm Water Pollution Prevention Plan (SWPPP) will be prepared for construction of the site.

BIO-5: The use of chemicals or generation of bioproducts (i.e., manure) that are potentially toxic or may adversely affect wildlife species, habitat, or water quality shall not result in discharge to the MSHCP Conservation Area. The greatest risk is from landscaping fertilization overspray and runoff. Contractor shall avoid the discharge of chemicals, generation of bioproducts, and overspraying of landscaping fertilizer within the MSHCP Conservation Area.

BIO-6: Night lighting shall be directed away from the MSHCP Conservation Area to protect species within the MSHCP Conservation Area from direct night lighting. Shielding

shall be incorporated in project designs to ensure that ambient lighting in the MSHCP Conservation Area is not increased.

BIO-10: If jurisdiction is confirmed by USACE, RWQCB, and CDFW, then the following permits will be acquired: a Section 404 permit from USACE pursuant to Section 404 of the CWA; a Section 401 Water Quality Certification from the RWQCB; and a Section 1600 Streambed Alteration Agreement from CDFW pursuant to Section 1600 of the CFG Code.

BIO-11: To offset impacts to jurisdictional resources, RCTC will obtain mitigation credits at a minimum ratio of 2:1. Currently, there are three potential mitigation areas under consideration by RCTC for riparian/riverine and jurisdiction resources mitigation: (1) habitat restoration of lands within CHSP; (2) habitat restoration of lands within the Green River Golf Course; and (3) habitat restoration or creation of lands owned by the RCA.

BIO-12: Planned roads will avoid, to the greatest extent feasible, impacts to wetlands. If wetlands avoidance is not possible, then any impacts to wetlands will require issuance of and mitigation in accordance with a Federal Section 404 and/or State Section 1600 permit.

BIO-23: During construction, the placement of equipment within the stream or on adjacent banks or adjacent upland habitats occupied by Covered Species that are outside of the project footprint will be avoided.

BIO-31: In accordance with the MBTA, to avoid effects to nesting birds, any native or exotic vegetation removal or tree-trimming activities will occur outside of the nesting bird season (i.e., February through August). If vegetation clearing is necessary during the nesting season, a qualified biologist will conduct a preconstruction survey to identify the locations of nests. Should nesting birds be found, an exclusionary buffer will be established by the biologist. This buffer will be clearly marked in the field by the construction personnel under guidance of the biologist, and construction or clearing will not be conducted within this zone until the biologist determines that the young have fledged or the nest is no longer active.

BIO-34: To offset permanent impacts to 0.86 acre of riverine and riparian areas, the project will purchase mitigation bank credits at a 3:1 ratio from the Riverside Corona Resource Conservation District.

WQ-2: Prepare and implement the SWPPP. The SWPPP shall address all State and federal water control requirements and regulations. The SWPPP shall address all construction-related activities, equipment, and materials that have the potential to impact water quality. The SWPPP shall include BMPs to control pollutants, sediment from erosion, stormwater runoff, and other construction-related impacts. In addition, the SWPPP shall include the provisions of State Water Resources Control Board (SWRCB) Resolution No. 2001-046, which requires implementation of specific Sampling Analysis Procedures to ensure that the implemented BMPs are effective in preventing the exceedance of any water quality standards. The results of the risk-level determination indicate that the project has a Risk Level of 1, which directs the project to implement the following Risk Level 1 requirements:

- - Effluent Standards
- - Good Site Management "Housekeeping"
- - Non-Stormwater Management
- - Sediment Controls
- - Run-on and Runoff Controls
- - Inspection, Maintenance, and Repair

4.1.5 Compensatory Mitigation

To offset permanent impacts to riverine and riparian areas, the project will purchase mitigation bank credits at a 3:1 ratio from the Riverside Corona Resource Conservation District.

To offset impacts to jurisdictional resources, RCTC will obtain mitigation credits at a minimum ratio of 2:1. Currently, there are three potential mitigation areas under consideration by RCTC for riparian/riverine and jurisdiction resources mitigation: (1) habitat restoration of lands within CHSP; (2) habitat restoration of lands within the Green River Golf Course; and (3) habitat restoration or creation of lands owned by the RCA.

The project BO addressed potential effects of the project on least Bell's vireo. Take for least Bell's vireo is covered under the MSHCP.

4.1.6 Cumulative Effects

Some of the other cumulative projects in the same geographic areas may result in permanent and/or temporary removal of riparian/riverine habitat and may result in adverse effects on the plant and animal species associated with this natural community including, but not limited to, the SR-91 Corridor Operational Project (COP), and I-15 ELP and the I-15/SR-91 ELC, may

increase traffic noise and additional nighttime light spill into preserved areas, as well as the degradation of riparian/riverine habitat as a result of offsite development. The SR-71/SR-91 Interchange Improvement Project is not expected to contribute incrementally to the cumulative adverse effects on this natural community and the plant and animal species associated with them.

4.2 Coastal Sage Scrub Vegetation

CSS is generally a patchy vegetation community found in diverse habitat mosaics and is dominated by a suite of shrub species found in southern California. Shrub cover is dense and generally continuous, with low moisture content. Steep, xeric slopes and quickly draining soils characterize the CSS community. Annual herbs, including weedy grasses and forbs and native wildflowers, are common in openings and disturbed areas.

The BSA includes CSS subject to previous disturbances in the area that have reduced the overall quality and suitability of the habitat onsite, including impacts from the SR-91 CIP. As a result, areas along SR-71 and SR-91 in the BSA have been restored with CSS species in areas along SR-91 and SR-71. Impacts to these habitats as a result of the SR-71/SR-91 Interchange Improvement Project are considered temporary in areas RCTC has restored for the SR-91 CIP The RCTC anticipates site acceptance of these areas prior to the start of ground disturbing activities for SR-71/SR-91 Interchange Improvement Project

The BSA provides moderately suitable habitat for species known to occur within CSS and CSCS habitats, such as orange-throated whiptail, and coastal horned lizard. The suitable habitat for these species has been subject to previous disturbances, which have substantially reduced the overall quality and suitability of the habitat onsite. No known occurrences of orange-throated whiptail have been recorded within the immediate vicinity, 3 miles of the BSA. Therefore, construction of the proposed project is not anticipated to result in substantial impacts to these species or associated habitats.

4.2.1 Survey Results

Along SR-91, areas of CSS vegetation have increased since surveys were completed for the NES, likely due to the successful restoration areas associated with the SR-91 CIP. CSS communities along the side of SR-91 east of Green River Road are often dominated by nonnative species, including mustard (*Brassica* sp.), yellow star thistle (*Centaurea solstitialis*), and non-native grasses. Areas of restoration associated with the SR-91 CIP include dominance by California buckwheat and coastal goldenbush.

4.2.2 Project Impacts

Based on the updated CSS vegetation survey and latest project design, impacts to CSS are within the previously identified total permanent and temporary vegetation impacts provided in the original NES. Impacts to CSS vegetation communities have been updated, as shown in Tables 4-1 and 4-2. Temporary impacts to CSS total 22.28 acres; permanent impacts to CSS total 6.72 acres. Because of the change in impact classification of Restoration Areas 4 and 8 as part of the SR-91 CIP, Disturbed Area impacts include 3.02 acre of temporary impacts and 1.23 acres of permanent impacts.

The CSS within the BSA continues to provide suitable habitat for CAGN. Since preparation of the NES (2010c), the amount of suitable habitat for CAGN has increased primarily because of the restoration activities along SR-91 associated with the SR-91 CIP.

4.2.3 Avoidance, Minimization, and Mitigation Measures

The following measures identified in the SR-71/SR-91 ECR will be incorporated to avoid and minimize effects to CSS habitat:

BIO-1: The limits of grading required for all aspects of the interchange and construction staging areas will be clearly marked, and all construction areas, including staging of construction equipment, will be surveyed.

BIO-2: Planned roads will be located in the least environmentally sensitive location feasible, including disturbed and developed areas or areas that have been previously altered.

BIO-6: Night lighting shall be directed away from the MSHCP Conservation Area to protect species within the MSHCP Conservation Area from direct night lighting. Shielding shall be incorporated in project designs to ensure that ambient lighting in the MSHCP Conservation Area is not increased.

BIO-7: Noise-generating land uses affecting the MSHCP Conservation Area shall incorporate setbacks, berms, or walls to minimize the effects of noise on MSHCP Conservation Area resources pursuant to applicable rules, regulations, and guidelines related to land use noise standards.

BIO-8: Land uses adjacent to the MSHCP Conservation Area shall incorporate barriers, where appropriate, in individual project designs to minimize unauthorized public access, domestic animal predation, illegal trespass, or dumping into the MSHCP Conservation Areas. Such barriers may include native landscaping, rocks/boulders,

fencing, walls, signage, and/or appropriate mechanisms. Manufactured slopes associated with the site development shall not extend into the MSHCP Conservation Area.

BIO-31: In accordance with the MBTA, to avoid effects to nesting birds, any native or exotic vegetation removal or tree-trimming activities will occur outside of the nesting bird season (i.e., February through August). If vegetation clearing is necessary during the nesting season, a qualified biologist will conduct a preconstruction survey to identify the locations of nests. Should nesting birds be found, an exclusionary buffer will be established by the biologist. This buffer will be clearly marked in the field by the construction personnel under guidance of the biologist, and construction or clearing will not be conducted within this zone until the biologist determines that the young have fledged or the nest is no longer active.

Several known occurrences of coastal horned lizard have been recorded within approximately 3 miles of the BSA, within upland areas to the west of the BSA. Suitable habitat occurs for this species within the limits of the proposed impact area, and it would be impacted as a result of construction of the proposed project. However, the coastal horned lizard is a California Species of Special Concern, and impacts to this species, although adverse, are not considered substantial. Impacts to this species and its habitat would be minimal on the local and regional scale and would not adversely jeopardize the sustainability and recovery of the greater population of this species. This species was not observed during the general habitat assessment surveys; therefore, it is not considered a dominant species. Additionally, biological monitoring of suitable habitat for this species during the construction phase of the project would reduce any potential direct impact to coastal horned lizard to less than substantial and is discussed further below.

4.2.4 Compensatory Mitigation

Mitigation for effects to CSS vegetation within Riverside County was achieved through project consistency with the Western Riverside County MSHCP.

The project BO addressed impacts to the coastal California gnatcatcher.

4.2.5 Cumulative Effects

As described above, the SR-71/SR-91 Interchange Improvement Project would result in permanent and temporary removal of CSS within the project disturbance limits. Future development of these areas, such as those with the I-15/SR-91 ELC Project may increase traffic

noise and additional nighttime light spill into preserved areas, as well as the degradation of CSS habitat because of offsite development. As a result, the SR-71/SR-91 Interchange Improvement Project is not anticipated to contribute incrementally to the cumulative adverse effects on this natural community and the plant and animal species associated with them.

It is expected that other cumulative projects in the area that impact CSS would include appropriate avoidance, minimization, mitigation, and compensation measures in those individual projects to address permanent and temporary effects from those projects.

4.3 Trees

Trees are primarily found in the planted areas south of SR-91 at Green River Road, in east-facing slopes along SR-71, and in the Fresno Canyon/Wardlow Wash area. Permanent impacts to trees are considered as full removal. Temporary impacts include work within the dripline of the tree, including trimming. A total of 23 trees may be permanently impacted by the project and 108 trees may be temporarily impacted by the project. Trees may be used as nesting and foraging habitat by both migratory and nonmigratory birds. See Table 4-3 for a summary of tree impacts.

Table 4-3: Tree Occurrences within the BSA

Common Name	Scientific Name	Total Trees within BSA	# of Trees Permanent Impacted	# of Trees Temporary Impacted	Total Impacted Trees
Freemont Cottonwood	*Populus fremontii*	39	5	23	28
Canary Island Pine	*Pinus* sp.	20	1	14	15
Western Sycamore	*Platanus racemosa*	27	2	17	19
Coast Live Oak	*Quercus agrifolia*	49	8	37	45
Eucalyptus	*Eucalyptus* spp.	21	7	12	19
Brazilian Pepper	*Schinus molle*	7	0	5	5
Total		163	23	108	131

4.4 Habitat Impacts Comparison

Since preparation of the NES (2010c), there have been changes in the BSA from project design, various construction projects in the area, planting activities at the SR-91 Green River, restoration activities, growth of new vegetation naturally (see Table 4-4), and the fluid nature of the Fresno Canyon/Wardlow Wash area due to illegal trespass in the form of foot and vehicle traffic. Successful restoration efforts of RCTC have resulted in an overall increase in acreage

that may support riparian and/or riverine species. In addition, construction projects along SR-91 and the Santa Ana River have changed the existing conditions in the BSA. Successful restoration efforts associated with SR-91 have resulted in the growth of CSS and riparian areas both natural recruitment and as a result of these restoration efforts, primarily evident due to the increase from Revalidation #1. This has resulted in an increase in CSS and riparian species west of the SR-71/SR-91 interchange and south of the Santa Ana River at the undercrossing near Fresno Canyon, as evident for MFS in Tables 4-4, 5-1, and 5-2. The increase in EOW is likely from the Caltrans Planting Project south of SR-91 at Green River Road. The reduction in permanent impacts to CSS and riparian habitat, from the NES to SNES, will provide a benefit to species that are found in these habitats, including CAGN and LBV. There was also an update to impacts resulting from design refinements at the Sukut Driveway with this SNES.

During preparation of Revalidation #1, an overall decrease in loss of natural vegetation communities due to various design changes was observed. There was a proposed modification to drainage features, resulting in a decrease for non-wetland USACE/RWQCB jurisdictional areas and CDFW vegetated streambed, compared with an increase in CDFW unvegetated streambed (Parsons, 2014).

Table 4-4: Comparison of Permanent Impacts to Vegetation Communities

Habitat Type	NES (acres)	Reval #1 (acres)	SNES (acres)	Change from NES to SNES (acres)
Coastal Sage Scrub	11.2	5.69	6.72	-4.48
Coastal Sage-Chaparral Scrub	7.86	--	0.14	-7.72
Disturbed Habitat	4.98	1.02	1.23	-3.75
Eucalyptus/Ornamental Woodland	0.00	--	0.17***	+0.17
Non-native Grassland	10.60	0.97	0.70	-9.90
Oak Woodland	1.40	0.15	0.30	-1.10
Southern Cottonwood Willow/Riparian Forest	1.17	0.32*	0.51*	-0.66
Urban Developed	30.39	--	0.90	-29.49
Mulefat Scrub	--	--	0.07	+0.07
TOTAL	67.60	8.15	10.74**	-56.86

*Includes Southern Cottonwood Willow/Riparian Forest and Southern Cottonwood Riparian Forest.

**Total excludes jurisdictional areas; see Tables 5-1 and 5-2 for Jurisdictional Areas.

***Includes ornamental vegetation.

4.5 Threatened and Endangered Plant Species

This section includes a discussion of species with a potential to occur; however, no federal or state listed plant species are present in the BSA.

Narrow Endemic Plant Species with the potential to occur in the BSA include: San Diego ambrosia, Brand's phacelia, and San Miguel savory. None of these narrow endemic plant species were observed during the habitat assessments for the project site conducted during the blooming period for these species.

The plants listed are considered to be of special concern based on (1) federal, state, or local laws regulating their development; (2) limited distributions; and/or (3) the presence of habitat required by the special-status plants occurring onsite. There were no sensitive plants found to be present in the BSA.

4.5.1 Braunton's Milk Vetch

This perennial herb has a January–August bloom period. It is found in areas that have been recently burned or disturbed sandstone with carbonate layers, chaparral, coastal scrub, and valley and foothill grassland. Elevation is 13–2,100 feet. The species was absent during 2020 blooming season surveys of the BSA.

4.5.2 Thread-Leaved Brodiaea

This perennial bulbiferous herb has a March–June bloom period. It is found in clay soils, chaparral openings, cismontane woodland, coastal scrub, playas, valley and foothill grassland, and vernal pools. It is found at elevations of 82–3,675 feet. Given the lack of suitable habitat onsite, the species was unlikely to be present during surveys. Thread-leaved brodiaea was absent during 2020 blooming season surveys of the BSA.

4.5.3 Discussion of MSHCP Threatened and Endangered Plants

A habitat assessment and survey for the various species was conducted on April – July 2020. The survey focused on potential habitat that could support any sensitive species.

4.5.3.1 Survey Results

Within the BSA, no potentially suitable habitat for MSHCP-listed plants was recorded. Given the lack of clay soils, coastal scrub, and woodland habitat, thread-leaved brodiaea was absent from the BSA.

4.5.3.2 Project Impacts

FESA Determination. Caltrans has determined, in accordance with Section 7 of FESA, a "No Effect" finding for MSHCP Threatened and Endangered Plants.

No temporary or permanent impacts to any federally or state listed threatened or endangered plant species would occur. Impacts to commonly occurring species or species of special concern, although adverse, are not considered substantial.

4.5.3.3 Avoidance, Minimization, and/or Mitigation Measures

The limits of grading required for all aspects of the interchange and construction staging areas will occur entirely within Caltrans ROW or temporary construction easements. All limits of grading will be clearly marked, and all construction areas, including staging of construction equipment, will be surveyed.

To ensure that impacts do not occur to sensitive plant species, pre-construction surveys will be conducted for sensitive plants after the final construction ROWs have been established. All appropriate plants will be tagged and moved to appropriate offsite locations prior to the start of grading. It may be possible that plants will be salvaged, stored, and replanted within disturbed areas subsequent to construction.

4.5.3.4 Compensatory Mitigation

No compensatory mitigation will be required for these species because they are not expected to occur within the BSA. No temporary or permanent impacts to any federally or threatened or endangered plant species will occur.

4.5.3.5 Cumulative Impacts

MSHCP federally and state-listed plants (endangered and/or threatened) were not present within the BSA; therefore, cumulative effects are not expected.

4.6 Non-Listed Special-Status Plant Species – Not Covered by MSHCP

Non-listed special-status plant species known to occur in the region are listed in Table 3-3. The following sections provide the results of the habitat evaluations/focused surveys and relevant regulatory analysis. Habitat requirements for each species are briefly summarized in Table 3-3.

4.6.1 Chaparral Sand Verbena

This annual herb has a (January) March–September blooming season. Preferred habitat includes chaparral, coastal scrub, and desert dunes. Elevation is 246–5,250 feet. Chaparral sand verbena was absent during 2020 blooming season surveys of the BSA.

4.6.2 Coulter's Saltbush

This perennial herb has a March–October bloom period. It is found in alkaline or clay soils, coastal bluff scrub, coastal dunes, coastal scrub, and valley and foothill grassland. It is found at elevations of 10–2,100 feet. Coulter's saltbush was absent during 2020 blooming season surveys of the BSA.

4.6.3 Lucky Morning Glory

This annual rhizomatous herb has a March–September bloom period. It has been historically found associated with wetland and marshy places, but possibly in drier situations as well. It can be found in silty loam and alkaline soils, meadows and seeps (sometimes alkaline), and riparian scrub (alluvial). It is found at elevations of 98–705 feet. Lucky morning glory was absent during 2020 blooming season surveys of the BSA.

4.6.4 Robinson's Peppergrass

This annual herb has a January–July bloom period. It is typically found in chaparral and coastal scrub habitat up to 2,903 feet. Robinson's peppergrass was absent during 2020 blooming season surveys of the BSA.

4.6.5 Jokerst's Monardella

This perennial rhizomatous herb has a July–September bloom period. It is typically found on steep or talus slopes between secondary alluvial benches along drainages and washes. It can be found in chaparral and lower montane coniferous forests from 4,429–5,741 feet. Jokersts's monardella was absent during 2020 blooming season surveys of the BSA.

4.6.6 White Rabbit Tobacco

This perennial herb has a (July) August–November (December) bloom period. It can be found in sandy, gravelly habitat in chaparral, cismontane woodland, coastal scrub, and riparian woodland areas. It can be found up to 6,890 feet in elevation. White rabbit tobacco was absent during 2020 blooming season surveys of the BSA.

4.6.7 Salt Spring Checkerbloom

This perennial herb has a March–June bloom period. It can be found in alkaline, mesic areas of chaparral, coastal scrub, lower montane coniferous forest, Mojavean desert scrub, and playa habitats. It can be found in elevations from 49–5,019 feet. Salt spring checkerbloom was absent during 2020 blooming season surveys of the BSA.

4.6.8 San Bernardino Aster

This perennial rhizomatous herb has a July–November (December) bloom season. It is found near ditches, streams, springs, in cismontane woodlands, coastal scrub, lower montane coniferous forest, meadows and seeps, marshes and swamps, and valley and foothill grassland. It can be found in elevations from 6–6,692 feet. San Bernardino aster was absent during 2020 blooming season surveys of the BSA.

4.6.8.1 Survey Results

The results of surveys for non-listed special-status plant species were negative; therefore, these species are considered absent from the BSA. In addition, focused surveys during the blooming period for these species confirmed absence.

4.6.8.2 Project Impacts

These species were confirmed absent during focused studies for rare plants. No impacts are anticipated.

4.6.8.3 Avoidance, Minimization, and/or Mitigation Measures

Though there were no special-status plant species observed within the BSA, the following avoidance, minimization, and/or mitigation measures would be implemented:

BIO-13: To minimize direct impacts to special-status plant species, the limits of grading required for all aspects of the interchange and construction staging areas will occur entirely within Caltrans ROW or temporary construction easements and will be clearly marked.

BIO-14: Preconstruction surveys will be conducted for sensitive plants after the final construction ROW has been established. All appropriate plants will be tagged and moved to appropriate offsite locations prior to the start of grading. It may be possible that plants will be salvaged, stored, and replanted within disturbed areas subsequent to construction.

BIO-15: The appropriate biological surveys will be based on field conditions and recommendations of the project manager in consultation with a qualified biologist. The results of the biological resources investigations will be mapped and documented. The documentation will include preliminary conclusions and recommendations regarding potential effects of facility construction on MSHCP Conservation Area resources and methods to avoid and minimize impacts to these resources in conjunction with project siting, design, construction, and operation. The project biologist will work with facility designers during the design and construction phase to ensure implementation of feasible recommendations.

BIO-16: During the Design Phase, a habitat assessment and, as required, focused surveys for the Brand's phacelia (blooming period: March to June), San Diego ambrosia (blooming period: April to October), and San Miguel savory (blooming period: March to May) will be conducted during the appropriate blooming season. Subsequent to surveys, RCTC will update the information in the JPR and DBESP to address the additional surveys and, as necessary, presence of and impacts to these species. If the federally endangered San Diego ambrosia is identified onsite during the surveys, Caltrans will reinitiate Section 7 consultation with USFWS to amend the BO. Applicable mitigation will be determined through coordination with the resource agencies based on the survey results and project impacts. Potential mitigation measures listed below, or a combination of the two measures, could be implemented.

- Onsite conservation of existing Brand's phacelia, San Diego ambrosia, and San Miguel savory though avoidance and designation of ESAs.
- Translocation of Brand's phacelia, San Diego ambrosia, and San Miguel savory individuals outside of the project ROW to areas of suitable habitat, as identified by a contractor-supplied plant biologist with knowledge of and experience with translocation of local flora species of the region.

4.6.8.4 Compensatory Mitigation

There were no special-status species observed in the BSA. No compensatory mitigation is necessary.

4.6.8.5 Cumulative Impacts

MSHCP non-listed special-status plants were found to be absent from the study area; therefore, the potential for cumulative effects is absent.

4.6.9 Discussion of MSHCP Narrow Endemic and Covered Plant Species

Of the non-listed special-status species initially reviewed in Table 3-3, the following MSHCP Narrow Endemic and covered plant species were determined to have some potential for occurrence in the study area and/or required an updated survey including: San Diego ambrosia, Brand's phacelia, and San Miguel savory.

4.6.10 Survey Results

Surveys were negative in 2020 for MSHCP covered or Narrow Endemic species during focused surveys. Focused surveys for special-status plants, including these species, were conducted in 2020 with species absence recorded.

4.6.10.1 Project Impacts

These species were confirmed absent during focused studies for rare plants. No impacts are anticipated.

4.6.10.2 Avoidance, Minimization, and/or Mitigation Measures

As required by the MSHCP, although MSHCP Narrow Endemic and covered plants were absent in the study area, the following measures would be implemented to avoid impacts to Narrow Endemic and covered plants:

BIO-13: To minimize direct impacts to special-status plant species, the limits of grading required for all aspects of the interchange and construction staging areas will occur entirely within Caltrans ROW or temporary construction easements and will be clearly marked.

BIO-14: Preconstruction surveys will be conducted for sensitive plants after the final construction ROW has been established. All appropriate plants will be tagged and moved to appropriate offsite locations prior to the start of grading. It may be possible that plants will be salvaged, stored, and replanted within disturbed areas subsequent to construction.

BIO-15: The appropriate biological surveys will be based on field conditions and recommendations of the project manager in consultation with a qualified biologist. The results of the biological resources investigations will be mapped and documented. The documentation will include preliminary conclusions and recommendations regarding potential effects of facility construction on MSHCP Conservation Area resources and methods to avoid and minimize impacts to these resources in conjunction with project siting, design, construction, and operation. The

project biologist will work with facility designers during the design and construction phase to ensure implementation of feasible recommendations.

BIO-16: During the Design Phase, a habitat assessment and, as required, focused surveys for the Brand's phacelia (blooming period: March to June), San Diego ambrosia (blooming period: April to October), and San Miguel savory (blooming period: March to May) will be conducted during the appropriate blooming season. Subsequent to surveys, RCTC will update the information in the Joint Project Review (JPR) and DBESP to address the additional surveys and, as necessary, presence of and impacts to these species. If the federally endangered San Diego ambrosia is identified onsite during the surveys, Caltrans will reinitiate Section 7 consultation with USFWS to amend the BO. Applicable mitigation will be determined through coordination with the resource agencies based on the survey results and project impacts. Potential mitigation measures listed below, or a combination of the two measures, could be implemented.

- Onsite conservation of existing Brand's phacelia, San Diego ambrosia, and San Miguel savory though avoidance and designation of ESAs.
- Translocation of Brand's phacelia, San Diego ambrosia, and San Miguel savory individuals outside of the project ROW to areas of suitable habitat, as identified by a contractor-supplied plant biologist with knowledge of and experience with translocation of local flora species of the region.

4.6.10.3 Compensatory Mitigation

There were no sensitive plant species observed in the BSA. No compensatory mitigation is necessary.

4.6.10.4 Cumulative Impacts

MSHCP Narrow Endemic or covered plants were found to be absent from the study area; therefore, the potential for cumulative effects is absent.

4.6.11 Smooth Tarplant

This annual herb has an April–September bloom period. It is typically found in alkaline soils, in chenopod scrub, meadows and seeps, playas, riparian woodland, and valley and foothill grassland. It is found in elevations up to 2,100 feet. Smooth tarplant was absent during 2020 blooming season surveys of the BSA.

4.6.12 Survey Results

Surveys were negative in 2020 for MSHCP covered or Narrow Endemic species were found during focused surveys. Focused surveys for special-status plants, including these species, were conducted in 2020 with species absence recorded.

4.6.12.1 Project Impacts

These species were confirmed absent during focused studies for rare plants. No impacts are anticipated.

4.6.12.2 Avoidance, Minimization, and/or Mitigation Measures

As required by the MSHCP, although MSHCP Narrow Endemic and covered plants were absent in the study area, the following measures would be implemented to avoid impacts to Narrow Endemic and covered plants:

BIO-13: To minimize direct impacts to special-status plant species, the limits of grading required for all aspects of the interchange and construction staging areas will occur entirely within Caltrans ROW or temporary construction easements and will be clearly marked.

BIO-14: Preconstruction surveys will be conducted for sensitive plants after the final construction ROW has been established. All appropriate plants will be tagged and moved to appropriate offsite locations prior to the start of grading. It may be possible that plants will be salvaged, stored, and replanted within disturbed areas subsequent to construction.

BIO-15: The appropriate biological surveys will be based on field conditions and recommendations of the project manager in consultation with a qualified biologist. The results of the biological resources investigations will be mapped and documented. The documentation will include preliminary conclusions and recommendations regarding potential effects of facility construction on MSHCP Conservation Area resources and methods to avoid and minimize impacts to these resources in conjunction with project siting, design, construction, and operation. The project biologist will work with facility designers during the design and construction phase to ensure implementation of feasible recommendations.

BIO-16: During the Design Phase, a habitat assessment and, as required, focused surveys for the Brand's phacelia (blooming period: March to June), San Diego ambrosia (blooming period: April to October), and San Miguel savory (blooming period: March to May) will be conducted during the appropriate blooming season.

Subsequent to surveys, RCTC will update the information in the JPR and DBESP to address the additional surveys and, as necessary, presence of and impacts to these species. If the federally endangered San Diego ambrosia is identified onsite during the surveys, Caltrans will reinitiate Section 7 consultation with USFWS to amend the BO. Applicable mitigation will be determined through coordination with the resource agencies based on the survey results and project impacts. Potential mitigation measures listed below, or a combination of the two measures, could be implemented.

- Onsite conservation of existing Brand's phacelia, San Diego ambrosia, and San Miguel savory though avoidance and designation of ESAs.
- Translocation of Brand's phacelia, San Diego ambrosia, and San Miguel savory individuals outside of the project ROW to areas of suitable habitat, as identified by a contractor-supplied plant biologist with knowledge of and experience with translocation of local flora species of the region.

4.6.12.3 Compensatory Mitigation

There were no sensitive plant species observed in the BSA. No compensatory mitigation is necessary.

4.6.12.4 Cumulative Impacts

MSHCP Narrow Endemic or covered plants were found to be absent from the study area; therefore, the potential for cumulative effects is absent.

4.7 Threatened and Endangered Wildlife Species

The project site provides suitable habitat for several species that are state and federally listed as threatened or endangered, including coastal California gnatcatcher, Santa Ana Sucker, and least Bell's vireo. Least Bell's Vireo and California Gnatcatcher were observed during preparation of the NES. During 2020 surveys, both species were observed in the BSA during survey updates for this SNES.

All species presented below are covered under the MSHCP.

Animals are considered to be of special concern based on (1) federal, State, or local laws regulating their development; (2) limited distributions; and/or (3) the habitat requirements of special-status animals occurring onsite. LBV, CAGN, and SAS were found to be present in the BSA. These occurrences are shown in the Biological Resources Map in Figure 3-9.

4.7.1 Delhi Sands Flower Loving Fly

There is no suitable habitat for the federally endangered Delhi Sands Flower-Loving Fly *(Rhaphiomidas terminates addominalis)* (DSFLF) in the BSA due to a lack of suitable habitat conditions (i.e., lack of suitable soils, habitat associations, micro habitat, and nectar sources). There will be no effect on the project to the DSFLF.

4.7.2 Santa Ana Sucker

SAS is federally listed as threatened and a State species of special concern. This is a fully covered MSHCP species, and MSHCP conserved lands for this species bisect the study area at the Santa Ana River. There are no survey requirements for this species under the MSHCP.

This species of sucker inhabits streams that are small and shallow but subject to periodic severe flooding, with currents that range from swift to sluggish. The species is most abundant where waters are cool and unpolluted, though it can occur where waters are turbid. It often occurs where boulders, rubble, and sand are the main bottom materials and is associated with growths of filamentous algae and Chara (*Characeae* sp.). Spawning takes place from early April to early July. The combination of early maturity, a protracted spawning period, and high fecundity allows SAS to repopulate streams quickly following periodic severe floods, which can decimate the populations. Small tributaries of the Santa Ana River are potentially important spawning habitat.

The BSA provides suitable habitat for the Santa Ana sucker within the portions of the Santa Ana River that occur onsite. The BSA does not occur within or directly adjacent to any Critical Habitat for the SAS within the Santa Ana River. The Final Rule for the SAS did not include this portion of the Santa Ana River because it is within the MSHCP and is part of the Santa Ana Sucker Conservation Program. Based on the CNDDB, there is a recorded occurrence within the BSA in the Santa Ana River; this species is considered present onsite.

4.7.2.1 Survey Results

Surveys results from the NES indicated Santa Ana Sucker is present within the Santa Ana River near Prado Dam.

4.7.2.2 Project Impacts

The Santa Ana Sucker will not be directly impacted by the project and construction activities. Critical habitat for SAS will not be permanently or temporarily impacted by the project.

4.7.2.3 Avoidance, Minimization, and/or Mitigation Measures

Construction of the flyover connector will avoid direct impacts within the Santa Ana River.

WQ-1: Conform to the requirements of the Caltrans Statewide National Pollutant Discharge Elimination System (NPDES) Storm Water Permit, Order No. 99-06-DWQ, NPDES No. CAS000003, adopted by the SWRCB on July 15, 1999, in addition to the BMPs specified in the Caltrans Storm Water Management Plan (SWMP) (Caltrans, 2007b). When applicable, the Contractor shall also conform to the requirements of the General NPDES Permit for Construction Activities, Order No. 2009- 0009-DWQ, NPDES No. CAS000002 and any subsequent General Permit in effect at the time of project construction.

WQ-2: Prepare and implement the SWPPP. The SWPPP shall address all State and Federal water control requirements and regulations. The SWPPP shall address all construction-related activities, equipment, and materials that have the potential to impact water quality. The SWPPP shall include BMPs to control pollutants, sediment from erosion, stormwater runoff, and other construction-related impacts. In addition, the SWPPP shall include the provisions of SWRCB Resolution No. 2001-046, which requires implementation of specific Sampling Analysis Procedures to ensure that the implemented BMPs are effective in preventing the exceedance of any water quality standards. The results of the risk-level determination indicate that the project has a Risk Level of 1, which directs the project to implement the following Risk Level 1 requirements:

- - Effluent Standards
- - Good Site Management “Housekeeping”
- - Non-Stormwater Management
- - Sediment Controls
- - Run-on and Runoff Controls
- - Inspection, Maintenance, and Repair

Risk Level 1 Monitoring and Reporting Requirements specific implementation details regarding these requirements are found in Attachment C of the NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities Order No. 2009-0009-DWQ (September 2009).

WQ-4: Conform all work to the Construction Site BMP (Category II) requirements specified in the latest edition of the Caltrans SWMP to control and minimize the impacts of construction and construction-related activities, materials, and pollutants on the watershed. These include, but are not limited to, temporary sediment control, temporary soil stabilization, scheduling, waste management, materials handling, and

other non-stormwater BMPs. For a complete list, refer to Appendix F of the Caltrans SWMP (2016).

WQ-5: Give special attention to stormwater pollution control during the rainy season, which is defined by the SWRCB as year-round. Appropriate soil stabilization and sediment controls will be implemented when rain is predicted. Water Pollution Control BMPs will be used to minimize impacts to receiving waters. Measures will be incorporated to contain all vehicle loads and avoid any tracking of materials, which may fall or blow onto Caltrans ROW.

WQ-8: Prior to the disturbance of all jurisdictional drainages, the following are required:

- Obtain and conform to CWA Section 404 permit issued by USACE prior to disturbance of all jurisdictional drainages.
- Obtain and conform to CWA Section 401 Water Quality Certificate issued by Santa Ana RWQCB prior to disturbance of all jurisdictional drainages.
- Obtain and conform to SAA from CDFW prior to disturbance of all jurisdictional drainages.

Compensatory mitigation measures for impacts to jurisdictional drainages shall adhere to requirements contained within Section 2.3 of the IS.

4.7.2.4 Compensatory Mitigation

SAS will not directly be impacted by the project and construction activities. There are no direct impacts to habitat in the Santa Ana River. No compensatory mitigation is necessary due to the inclusion of the SAS in the Conservation Program.

4.7.2.5 Cumulative Impacts

The SR-71/SR-91 Interchange Improvement Project will not have a cumulative impact on SAS.

4.7.3 Coastal California Gnatcatcher

CAGN was listed as threatened by USFWS in March 1993 and is a covered species under the MSHCP. On February 7, 2000, approximately 513,650 acres in Los Angeles, Orange, Riverside, San Bernardino, and San Diego counties were designated as CH for CAGN (65 *Federal Register* [FR] 63680). New boundaries of CH totaling 495,795 acres were proposed in April 2003 (968 FR 20228). On December 19, 2007, USFWS designated 197,303 acres as revised final CH (72 FR 72010). This revised final rule excludes lands within approved HCP areas.

CAGN is a nonmigratory songbird that typically nests and forages in moderately dense stands of CSS below an elevation of 2,500 feet in southern California. CAGN usually defend breeding territories ranging in size from 2 to 14 acres and occupy home ranges that vary in size from 13 to 39 acres. The breeding season of CAGN generally extends from February 15 through August 30. After the chicks have fledged, juveniles remain closely associated with their parents for up to several months and may disperse up to 9 miles from their natal territory.

4.7.3.1 Survey Results

CAGN have been observed consistently along SR-91 in the SR-71/SR-91. In addition, CAGN have been observed north of SR-91 at Green River Road, in the BSA. CAGN was observed in the BSA during 2020 surveys in the northwestern quadrant of the SR-71/SR-91 intersection (SR-91 CIP Restoration Area 6).

4.7.3.2 Project Impacts

The project would contribute to temporary and permanent impacts to CSS from the SR-71/SR-91 Interchange Improvement Project. The CSS within the BSA is of high quality due to the restoration efforts associated with the SR-91 CIP.

Based on the updated CSS vegetation survey and latest project design, impacts to CSS are within the previously identified total permanent and temporary vegetation impacts provided in the original NES. Impacts to CSS vegetation communities have been updated, as shown in Tables 4-1 and 4-2. Temporary impacts to CSS total 22.28 acres; permanent impacts to CSS total 6.72 acres. Due to the change in impact classification of Restoration Areas 4 and 8 as part of the SR-91 CIP, disturbed area impacts include 3.02 acres of temporary impacts and 1.23 acres of permanent impacts.

The CSS within the BSA continues to provide suitable habitat for CAGN. Since preparation of the NES (2010c), the amount of suitable habitat for CAGN has increased because of the restoration activities along SR-91 associated with the SR-91 CIP.

The project BO addressed impacts to the coastal California gnatcatcher. As stated in the BO, the project is consistent with the MSHCP, and adverse effects to CAGN not previously evaluated in the BO for the MSHCP were not anticipated. Implementation of the project would not result in jeopardy to CAGN. Caltrans has determined, in accordance with Section 7 of FESA, a “may affect, likely to adversely affect” finding for CAGN.

4.7.3.3 Avoidance, Minimization, and/or Mitigation Measures

Avoidance and minimization measures for CAGN remain the same as outlined in the approved NES (2010c), including the following ECR measures:

BIO-1: The limits of grading required for all aspects of the interchange and construction staging areas will be clearly marked, and all construction areas, including staging of construction equipment, will be surveyed.

BIO-2: Planned roads will be located in the least environmentally sensitive location feasible, including disturbed and developed areas or areas that have been previously altered.

BIO-3: Alignments will follow existing roads, easements, ROWs, and disturbed areas, as appropriate, to minimize habitat fragmentation. Implementation of BMPs, as discussed in Section 5.2.5 of the SR-71/SR-91 Interchange Improvement Project Habitat Assessment and MSHCP Consistency Analysis Report (Parsons/MBA 2010), preconstruction surveys, construction monitoring, and prescribed mitigation for impacts to riparian/riverine areas will reduce all potential impacts to sensitive species not considered adequately conserved under the MSHCP to less than substantial.

BIO-4: Incorporate measures to control the quantity and quality of runoff from the site entering the MSHCP Conservation Area. In particular, measures shall be put in place to avoid discharge of untreated surface runoff from developed and paved areas into MSHCP Conservation Areas. According to the *Water Resources and Water Quality Technical Report* (Parsons, 2010d), construction of a new flyover connector would not generate any changes in existing runoff in the area, and an SWPPP will be prepared for construction of the site.

BIO-5: The use of chemicals or generation of bioproducts (i.e., manure) that are potentially toxic or may adversely affect wildlife species, habitat, or water quality shall not result in discharge to the MSHCP Conservation Area. The greatest risk is from landscaping fertilization overspray and runoff. Contractor shall avoid the discharge of chemicals, generation of bioproducts and overspraying of landscaping fertilizer within the MSHCP Conservation Area.

BIO-6: Night lighting shall be directed away from the MSHCP Conservation Area to protect species within the MSHCP Conservation Area from direct night lighting. Shielding shall be incorporated in project designs to ensure that ambient lighting in the MSHCP Conservation Area is not increased.

BIO-32: Timing of construction activities will consider seasonal requirements for breeding birds and migratory nonresident species. Habitat clearing will be avoided during species' active breeding season, which is generally defined as February to August.

BIO-33: To offset the permanent loss of 1 acre of the MSHCP PQP Lands, RCTC will commit to purchase 1 acre of land and relinquish it to a land conservation agency for long-term conservation, consistent with the requirements of the MSHCP.

4.7.3.4 Compensatory Mitigation

Mitigation for effects to CSS vegetation within Riverside County was achieved through project consistency with the Western Riverside County MSHCP.

4.7.3.5 Cumulative Impacts

Cumulative impacts from the removal of suitable habitat will occur due to the grading associated with road and interchange improvements.

4.7.4 Least Bell's Vireo

LBV is a federally and State endangered species. This species is covered under the MSHCP, but it is not yet adequately conserved. Focused studies are required when the species potentially occupies riparian-riverine vegetation and could be directly and/or indirectly affected (MSHCP Volume I, Section 6.1.2).

LBV is found as a summer resident of southern California where it inhabits low riparian growth near water or dry river bottoms below 2,000 feet. Nests are found in dense vegetation located low in the riparian zones, most frequently in 5- to 10-year-old stands. When LBV nest in mature riparian woodlands, they nest in areas with a substantial robust understory of willows, as well as other plant species.

4.7.4.1 Survey Results

Surveys for the NES in 2008 resulted in positive findings of least Bell's vireo within and immediately adjacent to the BSA. A majority of the occurrences were noted just west of the Prado Dam spillway. Take for LBV is covered under the MSHCP.

Surveys conducted in 2020 resulted in positive findings of least Bell's vireo within and immediately adjacent to the BSA in the area of the Prado Dam spillway.

4.7.4.2 Project Impacts

Construction of the proposed project would result in the temporary and permanent loss of approximately 5.36 acres of riparian vegetation and 0.86 acre of riparian vegetation, respectively, that may be used by LBV. These impacts include MFS, SCRF, SCWRF, RF, streambed, and waters. Impacts to riparian/riverine resources will primarily occur south of

SR-91, west of the terminus of Wardlow Wash and Fresno Canyon Wash. The project, however, will not have any temporary or permanent impacts to LBV critical habitat.

The project BO addressed potential effects of the project on least Bell's vireo. Caltrans has determined, in accordance with Section 7 of FESA, a "may affect, likely to adversely affect" finding for LBV. Take for LBV is covered under the MSHCP.

4.7.4.3 Avoidance, Minimization, and/or Mitigation Measures

The following measures will be incorporated to avoid and minimize effects to LBV:

This SNES also includes the ECR measures for riparian/riverine including:

BIO-1: The limits of grading required for all aspects of the interchange and construction staging areas will be clearly marked, and all construction areas, including staging of construction equipment, will be surveyed.

BIO-2: Planned roads will be located in the least environmentally sensitive location feasible, including disturbed and developed areas or areas that have been previously altered.

BIO-3: Alignments will follow existing roads, easements, ROWs, and disturbed areas, as appropriate, to minimize habitat fragmentation. Implementation of BMPs, as discussed in Section 5.2.5 of the SR-71/SR-91 Interchange Improvement Project Habitat Assessment and MSHCP Consistency Analysis Report (Parsons/MBA, 2010), preconstruction surveys, construction monitoring, and prescribed mitigation for impacts to riparian/riverine areas will reduce all potential impacts to sensitive species not considered adequately conserved under the MSHCP to less than substantial.

BIO-4: Incorporate measures to control the quantity and quality of runoff from the site entering the MSHCP Conservation Area. In particular, measures shall be put in place to avoid discharge of untreated surface runoff from developed and paved areas into MSHCP Conservation Areas. According to the *Water Resources and Water Quality Technical Report* (Parsons, 2010d), construction of a new flyover connector would not generate any changes in existing runoff in the area, and an SWPPP will be prepared for construction of the site.

BIO-5: The use of chemicals or generation of bioproducts (i.e., manure) that are potentially toxic or may adversely affect wildlife species, habitat, or water quality shall not result in discharge to the MSHCP Conservation Area. The greatest risk is from

landscaping fertilization overspray and runoff. Contractor shall avoid the discharge of chemicals, generation of bioproducts, and overspraying of landscaping fertilizer within the MSHCP Conservation Area.

BIO-6: Night lighting shall be directed away from the MSHCP Conservation Area to protect species within the MSHCP Conservation Area from direct night lighting. Shielding shall be incorporated in project designs to ensure that ambient lighting in the MSHCP Conservation Area is not increased.

BIO-10: If jurisdiction is confirmed by USACE, RWQCB, and CDFW, then the following permits will be acquired: a Section 404 permit from USACE pursuant to Section 404 of the CWA; a Section 401 Water Quality Certification from the RWQCB; and a Section 1600 Streambed Alteration Agreement from CDFW pursuant to Section 1600 of the CFG Code.

BIO-11: To offset impacts to jurisdictional resources, RCTC will obtain mitigation credits at a minimum ratio of 2:1. Currently, there are three potential mitigation areas under consideration by RCTC for riparian/riverine and jurisdiction resources mitigation: (1) habitat restoration of lands within CHSP; (2) habitat restoration of lands within the Green River Golf Course; and (3) habitat restoration or creation of lands owned by the RCA.

BIO-12: Planned roads will avoid, to the greatest extent feasible, impacts to wetlands. If wetlands avoidance is not possible, then any impacts to wetlands will require issuance of and mitigation in accordance with a Federal Section 404 and/or State Section 1600 permit.

BIO-23: During construction, the placement of equipment within the stream or on adjacent banks or adjacent upland habitats occupied by Covered Species that are outside of the project footprint will be avoided.

BIO-31: In accordance with the MBTA, to avoid effects to nesting birds, any native or exotic vegetation removal or tree-trimming activities will occur outside of the nesting bird season (i.e., February through August). If vegetation clearing is necessary during the nesting season, a qualified biologist will conduct a preconstruction survey to identify the locations of nests. Should nesting birds be found, an exclusionary buffer will be established by the biologist. This buffer will be clearly marked in the field by the construction personnel under guidance of the biologist, and construction or clearing will not be conducted within this zone until the biologist determines that the young have fledged or the nest is no longer active.

BIO-34: To offset permanent impacts to 0.86 acre riverine and riparian areas, the project will purchase mitigation bank credits at a 3:1 ratio from the Riverside Corona Resource Conservation District.

WQ-2: Prepare and implement the SWPPP. The SWPPP shall address all State and federal water control requirements and regulations. The SWPPP shall address all construction-related activities, equipment, and materials that have the potential to impact water quality. The SWPPP shall include BMPs to control pollutants, sediment from erosion, stormwater runoff, and other construction-related impacts. In addition, the SWPPP shall include the provisions of SWRCB Resolution No. 2001-046, which requires implementation of specific Sampling Analysis Procedures to ensure that the implemented BMPs are effective in preventing the exceedance of any water quality standards. The results of the risk-level determination indicate that the project has a Risk Level of 1, which directs the project to implement the following Risk Level 1 requirements:

- - Effluent Standards
- - Good Site Management "Housekeeping"
- - Non-Stormwater Management
- - Sediment Controls
- - Run-on and Runoff Controls
- - Inspection, Maintenance, and Repair

4.7.4.4 Compensatory Mitigation

The project BO addressed impacts to the least Bell's vireo. As stated in the BO, the project is consistent with the MSHCP and adverse effects to LBV, not previously evaluated in the BO for the MSHCP, are not anticipated with this SNES. Implementation of the project will not result in the jeopardy to LBV. The project DBESP addressed impacts to riparian/riverine habitats in the BSA that may be used by LBV. Take for LBV is provided by the MSHCP.

To offset permanent impacts to riverine and riparian areas, the project will purchase mitigation bank credits at a 3:1 ratio from the Riverside Corona Resource Conservation District.

To offset impacts to jurisdictional resources, RCTC will obtain mitigation credits at a minimum ratio of 2:1. Currently, there are three potential mitigation areas under consideration by RCTC for riparian/riverine and jurisdiction resources mitigation: (1) habitat restoration of lands within CHSP; (2) habitat restoration of lands within the Green River Golf Course; and (3) habitat restoration or creation of lands owned by the RCA.

4.7.4.5 Cumulative Impacts

As a regional plan, the MSHCP serves to provide mitigation for cumulative effects to covered species and their habitats. Project consistency with the MSHCP ensures that the cumulative effects to those species are effectively mitigated. The proposed project would not contribute to cumulative effects on LBV.

4.7.5 Southwestern Willow Flycatcher

SWWF is a federally and State endangered species. SWWF is covered under the MSHCP, but it is not yet adequately conserved. Focused studies are required when potentially suitable habitat is present and a potential impact is foreseeable (MSHCP Volume I, Section 6.1.2) (refer to Table 3-3 for a summary of this species' habitat requirements).

4.7.5.1 Survey Results

There is moderate suitable habitat within the SR-71/SR-91 Interchange Improvement Project in the Prado Basin. The species was not observed during 2020 surveys.

4.7.5.2 Project Impacts

No direct impacts to SWWF would occur from the proposed project because the species is considered absent.

FESA Determination. Caltrans has determined, in accordance with Section 7 of the FESA, a "No Effect" finding for SWWF.

4.7.5.3 Avoidance, Minimization, and/or Mitigation Measures

No impacts to SWWF would occur because the species is absent from the study area. Avoidance and minimization measures are not applicable.

4.7.5.4 Compensatory Mitigation

No compensatory mitigation is required because SWWF is absent from the study area.

4.7.5.5 Cumulative Impacts

SWWF does not occur in the study area; therefore, no cumulatively considerable impacts to the species would occur.

4.7.6 Western Yellow-billed Cuckoo

The yellow-billed cuckoo Distinct Population Segment (DPS) is federally proposed for listing, and the subspecies, western yellow-billed cuckoo, is considered to be State endangered. The

two entities have effectively congruent ranges and are herein referred to collectively simply as western yellow-billed cuckoo. Western yellow-billed cuckoo is a covered species under the riparian-riverine policies set forth in Section 6.1.2 of Volume I of the MSHCP.

The species is now extremely rare in California. Within the MSHCP area, it is known to breed only in Prado Basin, with occasional nonbreeding individuals observed elsewhere (refer to Table 3-3 for more details of the species' requirements).

4.7.6.1 Survey Results

Western yellow-billed cuckoo was not observed during surveys conducted in 2008 for the SR-91 CIP. Surveys completed for this SNES indicated the species was absent from the BSA.

4.7.6.2 Project Impacts

Western yellow-billed cuckoo was not detected; hence, avoidance and minimization measures are not necessary.

FESA Determination. Caltrans has determined, in accordance with Section 7 of the FESA, a "No Effect" finding for Western yellow-billed cuckoo.

4.7.6.3 Avoidance, Minimization, and/or Mitigation Measures

Western yellow-billed cuckoo is considered absent from the BSA, no avoidance or minimization measures are required.

4.7.6.4 Compensatory Mitigation

Western yellow-billed cuckoo is considered absent from the BSA, no compensatory mitigation is required.

4.7.6.5 Cumulative Impacts

Western yellow-billed cuckoo was confirmed absent from the study area. No potential cumulative effects are expected.

4.7.7 Southern Steelhead

The DPS includes naturally spawned anadromous steelhead *(Oncorhynchus mykiss irideus* pop. 10) originating below natural and manmade impassable barriers from the Santa Maria River to the United States–Mexico border. Steelhead require sufficient flows in their natal streams to be able to return from oceans and lakes to spawn. Due to extended periods of drought throughout their range, Southern California steelhead are most commonly seen during periods of increased rainfall, such as El Nino events.

4.7.7.1 Survey Results

Surveys completed for this SNES indicated the species was absent from the BSA.

4.7.7.2 Project Impacts

Southern steelhead was not detected; hence, avoidance and minimization measures are not necessary.

FESA Determination. There is no effect to southern steelhead from the project.

4.7.7.3 Avoidance, Minimization, and/or Mitigation Measures

Because southern steelhead is considered absent from the BSA, no avoidance or minimization measures are required.

4.7.7.4 Compensatory Mitigation

Because southern steelhead is considered absent from the BSA, no compensatory mitigation is required.

4.7.7.5 Cumulative Impacts

Southern steelhead was confirmed absent from the study area. No potential cumulative effects are expected.

4.7.8 Swainson's Hawk

A raptor adapted to the open grasslands, Swainson's hawk has become increasingly dependent on agriculture, especially alfalfa crops, as native communities are converted to agricultural lands. Its diet is varied, but it mainly consists of small rodents; however, other small mammals, birds, and insects are also taken. They often nest peripheral to riparian systems. They will also use lone trees in agricultural fields or pastures and roadside trees when available and adjacent to suitable foraging habitat.

4.7.8.1 Survey Results

Surveys completed for this SNES indicated the species was absent from the BSA.

4.7.8.2 Project Impacts

Swainson's hawk was absent during surveys. Avoidance and minimization measures are not necessary.

CESA Determination. There is no take to Swainson's hawk from the project.

4.7.8.3 Avoidance, Minimization, and/or Mitigation Measures

Swainson's hawk is considered absent from the BSA, no avoidance or minimization measures are required.

4.7.8.4 Compensatory Mitigation

Swainson's hawk is considered absent from the BSA, no compensatory mitigation is required.

4.7.8.5 Cumulative Impacts

Swainson's hawk was confirmed absent from the study area. No potential cumulative effects are expected.

4.8 Non-listed Special-Status Wildlife Species

Thirty (30) species of non-listed, special-status animals were initially determined to have potential for occurrence in the study area based on known range and the presence of suitable habitat. These include arroyo chub, coastal range newt, orange-throated whiptail, coast patch nosed snake *(Saladora hexalepis virgultea),* western spadefoot, two-striped garter snake, Cooper's hawk, coastal western whiptail, San Diego banded gecko, Northwestern San Diego pocket mouse, northern red-diamond rattlesnake, western pond turtle, coast horned lizard, southern California rufous-crowned sparrow, grasshopper sparrow, Bell's sage sparrow, golden eagle, long-eared owl, burrowing owl, coastal cactus wren, yellow rail, yellow warbler, white-tailed kite, California horned lark, yellow-breasted chat, pallid bat, western mastiff bat, western yellow bat, pocketed-free-tailed bat, and mountain lion. This section discusses both species covered and not-covered under the MSHCP. Of these, a focused survey was conducted only for BUOW, which is a covered species requiring additional study under the MSHCP.

Upon further evaluation, habitat for the following species is absent in the BSA. No compensatory mitigation is required. No cumulative effects are anticipated.

4.8.1 Western Pond Turtle

The western pond turtle is found in permanent and intermittent waters of rivers, creeks, small lakes and ponds, marshes, irrigation ditches, and reservoirs. Turtles bask on land or near water on logs, branches, or boulders. Terrestrial and aquatic habitat are important components for the species life history. Most of the diet includes insects, crayfish, and other aquatic invertebrates.

4.8.2 Western Spadefoot

Western spadefoot ranges throughout the central valley of California to the coast south of San Jose and the desert. The species prefers grassland, scrub, and chaparral; it can also occur in OW. It is nocturnal, and activity is limited to the wet season, summer storms, or during evenings with elevated moisture levels. Tadpoles feed mainly on plants and planktonic organisms, algae, ants, small invertebrates, and dead aquatic larvae of amphibians. Adult toads feed on insects, worms, and other invertebrates, including grasshoppers, moths, ground beetles, spiders, flies, ants, and earthworms.

4.8.3 Yellow Rail

The yellow rail is a secretive bird that requires sedge marshes/meadows with moist soil or shallow standing water. In winter, yellow rail inhabit wet meadows and coastal tidal marshes. They pick food from the ground, vegetation, and sometimes below the water surface. Their diet consists mostly of small snails, earthworms, insects, and other invertebrates, with seeds becoming an important component in fall and winter.

4.8.4 White-Tailed Kite

White-tailed kite hovers above open areas while hunting small mammals. It is typically found in grasslands, open woodlands, savannas, marshes, and cultivated fields. It eats mainly small mammals, but it also eats birds, lizards, and insects. White-tailed kite typically nest in the upper third of trees that may be 10 to 160 feet tall.

4.8.5 Western Burrowing Owl

BUOW is not a federally or State-listed species, but it is a California species of concern. This species is protected by an international treaty under the MBTA of 1918 (16 United States Code [U.S.C.] 703-711) and under Sections 3503 and 3800 of the CFG Code. Sections 2503, 3503.5, and 2800 of the CFG Code prohibit the take, possession, or destruction of birds, their nests, or eggs. In addition, the MSHCP identifies BUOW survey areas that must be assessed for the presence of BUOW.

BUOW are found in open, dry grasslands, agricultural and range lands, and desert habitats often associated with burrowing animals. BUOW commonly perch on fence posts or on top of mounds outside its burrow. These owls can be found at the margins of airports and golf courses and in vacant urban lots. They are active day and night, but they are usually less active during the peak of day (California Burrowing Owl Consortium, 1993).

As their name suggests, BUOW nest in burrows in the ground, often in old ground squirrel burrows or badger dens. They can dig their own burrows, but they prefer deserted excavations of other animals. They are also known to use rock outcrops; artificial burrows, such as pipes; and concrete debris piles.

4.8.5.1 Survey Results

A habitat suitability assessment was conducted for the SNES. In addition to identifying general habitat requirements (e.g., grasslands, fallow fields, sparsely vegetated scrub), specifically suitable habitat for BUOW was identified by the presence of potential burrows, perch sites, and/or BUOW sign such as scat, tracks, or feathers associated with BUOW survey guidelines. During 2020 surveys, burrows were observed in USACE lands at Prado Basin and within east-facing slopes along SR-71. The burrows are considered inactive due to the presence of webs at their entrance and lack of indicators of BUOW usage at the burrows.

Within the BSA for the SR-71/SR-91 Interchange Improvement Project, marginally suitable habitat for BUOW occurs in linear swaths along the Caltrans ROW.

4.8.5.2 Project Impacts

The SR-71/SR-91 Interchange Improvement Project is not expected to affect any BUOW due to the low probability of them occurring in the BSA. The project is consistent with the MSHCP.

4.8.5.3 Avoidance, Minimization, and/or Mitigation Measures

Avoidance and minimization measures for BUOW remain the same as outlined in the approved NES (2010c):

BIO-28: Impacts to Species of Special Concern, such as the coast horned lizard, although adverse, are not considered substantial; however, to avoid any impacts to the coast horned lizard, a qualified biological monitor will be onsite during the construction phase of the project to ensure that direct take of this species does not occur.

BIO-30: During the Design Phase of the project, a habitat assessment will be completed in accordance with the BUOW Survey instructions for the Western Riverside MSHCP Survey Area. If suitable habitat is identified during the survey, additional focused surveys may be completed as applicable. To ensure that any BUOW that may occupy the project area in the future are not affected by construction activities, preconstruction surveys will be completed 30 days prior to construction, and a report will be prepared and submitted in accordance with the requirements of the MSHCP 30-day Pre-Construction Burrowing Owl Survey Report Format identified. If

preconstruction surveys determine that BUOW are present, one or more of the following mitigation measures may be required:

(1) Avoidance of active nests and surrounding buffer area during construction activities;
(2) Passive relocation of individual owls;
(3) Active relocation of individual owls; and
(4) Preservation of onsite habitat with long-term conservation value for the owl. The specifics of the required measures will be coordinated between the Caltrans District Biologist, RCTC, and the resource agencies.

BIO-31: In accordance with the MBTA, to avoid effects to nesting birds, any native or exotic vegetation removal or tree-trimming activities will occur outside of the nesting bird season (i.e., February through August). If vegetation clearing is necessary during the nesting season, a qualified biologist will conduct a preconstruction survey to identify the locations of nests. Should nesting birds be found, an exclusionary buffer will be established by the biologist. This buffer will be clearly marked in the field by construction personnel under guidance of the biologist, and construction or clearing will not be conducted within this zone until the biologist determines that the young have fledged or the nest is no longer active.

4.8.5.4 Compensatory Mitigation

No effects on BUOW are expected; therefore, no compensatory mitigation is proposed. BUOW is a covered species under the MSHCP.

4.8.5.5 Cumulative Impacts

BUOW is not expected to occur within the project footprint, and the measures previously discussed would protect BUOW. As a regional plan, the MSHCP serves to provide mitigation for cumulative effects to covered species and their habitats. Project consistency with the MSHCP ensures that potential project-related cumulative effects to BUOW are effectively mitigated.

4.8.6 Mountain Lion

Historical occurrences of mountain lion have been found along the SR-241, in Chino Hills State Park, and in the Santa Ana Canyon. The BSA contains bridge structures and fencing along SR-71 and SR-91 that facilitate wildlife movement. Surveys of the BSA in 2020 indicate species absence.

There have been no occurrences in the BSA of mountain lion during construction monitoring and restoration activities associated with the SR-91 CIP.

4.9 Other Special-Status Bridge- and Crevice-Dwelling Animal Species

Special-status bridge- and crevice-dwelling animal species (i.e., bats) with the potential to occur in the BSA include pallid bat, western mastiff bat, western yellow bat, and pocketed free-tailed bat.

4.9.1 Survey Results

Bat roosting panels were installed during 2017 as mitigation for the SR-91 CIP. Nighttime emergence surveys have been conducted as part of a 20-month postconstruction evaluation of mitigation measures. The surveys began in April 2018 concluded in December 2019 (ICF, 2018). Per Caltrans guidance provided by Caltrans during preparation of this SNES, surveys for bats in 2020 were not required. During preparation of the NES (2010c), pallid bat was present in the BSA. Bat surveys were not completed for this SNES.

4.9.2 Project Impacts

Project effects to bridge- and crevice-dwelling animal species would include temporary indirect disturbance (e.g., noise, vibration, dust, night lighting, and human encroachment) from construction. Furthermore, other permanent indirect issues associated with human encroachment, such as the introduction of nonnative species and trash, would permanently contribute to the degradation of foraging habitat (i.e., riparian/riverine vegetation) in the vicinity.

In addition, construction could temporarily impede access to roost sites (existing and future) in the crevices of bridges, culverts, and overhead structures. Only a small part of roosting habitat (existing and future) may be permanently altered by the SR-71/SR-91 Interchange Improvement Project. If the specific features that provide roosting habitat for bats are retained following construction, the project is not expected to substantially affect long-term use of the structures by bats. If structural features providing existing roosting habitat cannot be permanently retained following construction, the installation of alternative roosting habitat may reduce the effects of the SR-71/SR-91 Interchange Improvement Project on long-term use of the structure by bats. When feasible, on-structure replacement habitat is more ecologically effective than off-structure replacement habitat.

In some cases, the widening and modification of bridges, culverts, and overhead structures may increase future potential roosting habitat. Prior to the start of construction, the District Biologist, RCTC, and/or the consultant biologist will verify that the final design plans include suitable designs and specifications for bat exclusions and habitat replacement structures that appropriately reflect minimization and mitigation measures.

4.9.3 Avoidance, Minimization, and/or Mitigation Measures

The following measures identified in the SR-71/SR-91 ECR will be incorporated to avoid and minimize effects to the bridge- and crevice-dwelling animal species:

BIO-29: To avoid impacts to bats and potentially suitable habitat for day, night, and maternity roosting, construction activities should avoid the maternity season (March through August). In addition, a qualified biologist will conduct a preconstruction survey to determine if the construction area contains roosting or maternity colonies. If work must be conducted during the maternity period and roost locations are not occupied, exclusion devices will be installed in all potential roosting locations before March and maintained throughout construction. If work must be conducted during the maternity period and roost locations are found to be occupied, then a sufficient buffer, in consultation with CDFW, will be maintained around any bat roosting or maternity colony. In addition, a qualified biological monitor will be onsite during the construction phase of the project to ensure that no direct take occurs and there is no nest abandonment due to excessive disturbance. Any active nurseries found onsite and mitigation to offset impacts to bat species will be coordinated with CDFW. To further address bat species protection, the following recommendations shall be implemented as part of the project:

Bat Surveys:

- A CDFW-approved biologist shall survey each structure and the surrounding area that may be impacted by the project for bats. A minimum of 30 days prior to performing bat surveys Permittee shall submit qualifications of the bat biologist for CDFW approval. If bats are found using any bridges or culverts within the project area, the Biologist shall identify the bats to the species level, evaluate the colony to determine its size and significance, and the type of roost. The results of the bat survey shall be submitted to CDFW no later than 60 days prior to the initiation of construction activities.

Seasonal/Nighttime Work Restrictions:

- Construction activities on, under, around, or within close proximity to bridges/culverts will be limited to October 1 to March 1, unless all bats have been excluded from the structure and concurrence has been received from CDFW.
- If any structures house a maternity colony of bats, construction activities shall not occur during the recognized bat breeding season (March 1 to October 1).
- Night work is not permitted on or within 200 feet of any occupied structures housing bats without prior concurrence from CDFW.

Lighting and Noise Attenuation Plan:

- If night work is required adjacent to jurisdictional areas, no later than 60 days prior to construction, Permittee shall submit to CDFW for review and approval a Lighting and Noise Attenuation Plan.
- Night lighting should be used only on the portion of the structure actively being worked on, and focused on the direct area of work.
- Airspace access to and from the roost features of the structure should not be obstructed except in direct work areas.
- Construction personnel should not be present in non-active areas beneath the structure.

Installation of Alternate Bat Roosting Habitat:

- Alternate bat roosting habitat structures shall be installed in the vicinity of any bridge or culvert containing roosting habitat that will be subject to impacts at least 9 months prior to starting construction at those structures.
- The total length of the roosting structures shall be no less than one half the total length of the crevice habitat that will be subject to impacts from construction.
- Construction and installation of roosting structures shall be supervised by a CDFW-approved biologist.
- A plan on the construction, placement, and timing of installation of the alternative roosting structures shall be submitted to CDFW for review and concurrence prior to construction.

Integration of Bat Roosting Habitat into New Bridge Designs:

- Bridge widening designs shall contain and be constructed with similar structural features to encourage continued roosting by bats.
- Vegetation removal around structures shall be minimized.

Humane Eviction/Exclusion of Roosting Bats. If bridge-dwelling wildlife is detected in bridges or culverts, the following bridge-dwelling wildlife protection measures shall be implemented:

- Bats will be temporarily and humanely excluded from the area of direct impacts, plus an additional buffer, for the duration of construction work at that structure.
- A CDFW-approved biologist shall design and direct implementation of exclusionary devices designed to prevent birds and bats from utilizing bridges/culverts before construction activities begin. Exclusionary devices shall be installed on all bridges prior to the initiation of nesting season.
- If bats are found using any bridge, roost entrances shall be fitted with one-way doors that allow exits but prevent entrance for a period of several days to encourage bats to relocate.

Unexpected Discovery of Roosting Bats during Construction:

- If any roosting bats are discovered during construction activities, all work shall stop on, under, around, or within 500 feet of the structure, and CDFW will be consulted.

4.9.4 Compensatory Mitigation

Effects may be temporarily minimized if the bats are able to tolerate the proximity of construction and continue using other parts of the structures during construction activities. However, in the case where a maternity colony or winter hibernacula may be affected by construction activities, replacement roosting habitat shall be installed to minimize the effect of temporary displacement brought about by exclusion from the roost site.

In general, if the exclusion is temporary and the specific features that provide roosting habitat for bats are retained following construction, the project is not expected to substantially affect long-term use of the structures by bats. If structural features providing existing roosting habitat cannot be permanently retained following construction, alternative roosting habitat will be installed at the discretion and guidance of the bat specialist.

4.10 Invasive Species

Seeds of invasive species can be transported to natural open space areas through a variety of mechanisms, including vehicles. Recurring fires can encourage the establishment of invasive species and so can some forms of routine land maintenance (e.g., disking). The impact invasive species have on southern California native vegetation communities, as well as the plants and

animals that are found within these areas, is, in some circumstances, catastrophic. Therefore, a need exists to identify and recommend measures that reduce and/or avoid further transport of invasive species into natural open space areas. Because this project is federalized, EO 13112 is triggered, which states that federal agencies are required to combat the introduction or spread of invasive species in the United Sates.

4.10.1 Survey Results

A total of 13 plant species that have been classified as invasive by the Cal-IPC were found to occur in the BSA. Invasive species are classified as exotic pest plants by Cal-IPC and are known to invade natural communities, leading to devastating effects of the native ecosystems of California. Invasive species observed in the BSA include black mustard *(Brassica nigra),* madrid brome *(Bromus madritensis),* red-stem filaree *(Eordium cicutarium),* Eucalyptus (*Eucalyptus* sp.), short-pod mustard *(Hirschfeldia incana),* tree tobacco *(Nicotiana glauca),* wild radish *(Raphanus sativus),* castor bean *(Ricinus communis),* curley dock *(Rumex crispus),* Russian thistle *(Salsola tragus),* Pepper tree *(Schinus* sp.), tamarisk (*Tamarix* sp.), and Mexican fan palm (*Washingtonia robusta).*

4.10.2 Project Impacts

Invasive species occur within the limits of disturbance for this project. During construction activities, construction vehicles and equipment could transport invasive plant species from past work sites to the project area or between work areas within the BSA. After construction is complete, areas left as bare ground could create favorable conditions for invasive plants and promote the spread of these species. Invasive plant species could also spread to open space areas. Thus, the potential exists for biologically significant effects on natural open space from the introduction of invasive species, and these impacts could be substantial at the Santa Ana River.

4.10.3 Avoidance, Minimization, and Mitigation Measures

BIO-35: The invasive, non-native plant species listed in the MSHCP will be considered in approving landscape plans to avoid the use of invasive species for portions of the project that are adjacent to the MSHCP Conservation Area. Considerations in reviewing the applicability of this list shall include proximity of planting areas to the MSHCP Conservation Areas, species considered in the planting plans, resources being protected within the MSHCP Conservation Area and their relative sensitivity to invasion, and barriers to plant and seed dispersal, such as walls, topography, and other features.

BIO-36: In compliance with the Executive Order on Invasive Species, EO 13112, and subsequent guidance from FHWA, the landscaping and erosion control included in the project will not use species listed as noxious weeds. In areas of particular sensitivity, extra precautions will be taken if invasive species are found in or adjacent to the construction areas. These include the inspection and cleaning of construction equipment and eradication strategies to be implemented should an invasion occur.

BIO-37: Implementation of the BMPs discussed in Section 5.2.5 of the *SR 91 and SR 71 Interchange Improvement Project Habitat Assessment and MSHCP Consistency Analysis Report* (2010) will limit the introduction of invasive species into the Conservation Area and will reduce any potential impacts to adjacent sensitive communities to less than substantial.

4.11 Wildlife Corridors

As currently designed, no existing culverts and crossings would be permanently impacted, and no habitat would be fragmented or interrupted that would adversely affect the movement of wildlife beyond that which already exists onsite. However, temporary impacts to wildlife crossings located adjacent to SR-91, along Fresno Canyon Wash and Wardlow Wash, including PCL 2, may occur during the construction phase of the project due to the increased presence of equipment, structures, and construction personnel. Temporary structures and large pieces of equipment required for bridgework could act as barriers to wildlife movement and restrict wildlife usage of the corridors during construction. In addition, the SR-91 eastbound lane addition project (EA 0E800), included construction of wildlife fencing along the southside of SR-91 just east of Fresno Canyon Wash. Construction of the Green River on-ramp, flyover structure, and permanent stormwater BMPs may impact this fencing and movement of wildlife along this area. Wildlife fencing is also present along SR-71 and may also be impacted during construction.

As required by the Western Riverside County MSHCP, the existing culvert structures that would be extended or modified by the proposed project should be designed so that they would be at least as compatible for wildlife usage as the existing culverts. The general design and construction measures for construction of wildlife crossings discussed in Section 7.5.2 of the MSHCP have been adapted to address potential impacts associated with this project. The adapted measures, which are further discussed below, will be incorporated into the proposed project to maintain existing culverts and crossings, and reduce any potential temporary or permanent impacts to migratory corridors or linkages.

4.11.1 Avoidance and Minimization Efforts

To minimize and avoid impacts to wildlife corridors located within the project site, the following measures shall be implemented into the construction phase of the project. These measures have been summarized from Sections 7.5.2 and 7.5.3 of the MSHCP and modified to address impacts to wildlife corridors that may result from this specific project.

BIO-8: Land uses adjacent to the MSHCP Conservation Area shall incorporate barriers, where appropriate, in individual project designs to minimize unauthorized public access, domestic animal predation, illegal trespass, or dumping into the MSHCP Conservation Areas. Such barriers may include native landscaping, rocks/boulders, fencing, walls, signage, and/or appropriate mechanisms. Manufactured slopes associated with the site development shall not extend into the MSHCP Conservation Area.

BIO-17: Design of planned roads will consider wildlife movement requirements, as further outlined in Section 7.5.2, Guidelines for Construction of Wildlife Corridors, and any construction, maintenance, and operation activities that involve clearing of natural vegetation will be conducted outside the active breeding season (February 15 through August 31).

BIO-18: For the wildlife fencing on SR-71 and SR-91, consideration during design to avoid disturbance of the fencing or movement of wildlife. If the project will require removal of the fencing, then biological monitoring will be required, and replacement of any disturbed fencing will occur after construction.

For PCL-2, the following measures shall be implemented to improve wildlife connectivity:

- For PCL-2, the project will improve the function of the Fresno Canyon/Wardlow Wash undercrossing bridge by removing most of the existing concrete revetment and regrading the slopes of the crossing openings to a 4:1 slope. In addition wildlife fencing will be installed to funnel the wildlife into the crossings, and native vegetation will be planted to provide habitat continuity.
- Caltrans and RCTC will continue its commitment to work with the RCA and Wildlife Agencies on incorporating measures to improve PCL-2 after completion of cumulative projects in the area (SR-91 CIP). These measures to improve PCL 2 will be incorporated before completion of the SR-91 CIP Initial Project.

BIO-19: Maintain an appropriate openness ratio of at least 0.6 square meter (calculated in meters as [opening width X height/length of crossing]) and height for crossings intended for crossings intended for use by medium- and large-sized wildlife will be maintained. The openness ratio, a function of a structure's length, [(height x width)/length] is important for larger animals when using culverts and highway undercrossings. To maintain the integrity of the wildlife corridor, the design plans of culvert improvements in the Fresno Canyon area will be submitted to the Wildlife Agencies for review and approval.

BIO-20: Crossing facilities will be vegetated as naturally as possible to mimic the surrounding natural crossing area. In some instances, vegetation may need to be tailored to match the needs of the focused species. Natural objects, such as stumps, rocks, and other natural debris, will be used within the crossing facility to create cover for wildlife and to encourage the use of crossings. The landscaping plans near the wildlife corridor areas will be submitted to the wildlife agencies for review and approval.

BIO-21: Sediment and erosion-control measures will be implemented until such time soils are determined to be successfully stabilized. In addition, the following measures will be implemented to areas within the MSHCP Conservation Areas:

- Incorporate measures to control the quantity and quality of runoff from the site entering the MSHCP Conservation Area. In particular, measures shall be put in place to avoid discharge of untreated surface runoff from developed and paved areas into MSHCP Conservation Areas. According to the report, construction of a new flyover connector will not generate any changes in existing runoff in the area, and an SWPPP will be prepared for construction of the site.
- The use of chemicals or generation of bioproducts (i.e., manure) that are potentially toxic or may adversely affect wildlife species, habitat, or water quality shall not result in discharge to the MSHCP Conservation Area. The greatest risk is from landscaping fertilization overspray and runoff.

BIO-22: Equipment storage, fueling, and staging areas will be sited on nonsensitive upland habitat types with minimal risk of direct discharge into riparian areas or other sensitive habitat types.

BIO-23: During construction, the placement of equipment within the stream or on adjacent banks or adjacent upland habitats occupied by Covered Species that are outside of the project footprint will be avoided.

BIO-24: When work is conducted during the fire season, as identified by the Riverside County Fire Department, adjacent to CSS or chaparral vegetation, appropriate fire-fighting equipment (e.g., extinguishers, shovels, water tankers) shall be available on the site during all phases of project construction to help minimize the chance of human-caused wildfires. Shields, protective mats, and/or other fire preventive methods shall be used during grinding, welding, and other spark-inducing activities. Personnel trained in fire hazards, preventive actions, and responses to fires shall advise contractors regarding fire risk from all construction-related activities.

BIO-25: Active construction areas shall be watered regularly to control dust and minimize impacts to adjacent vegetation.

BIO-26: All equipment maintenance, staging, and dispensing of fuel, oil, coolant, or any other toxic substances shall occur only in designated areas within the grading limits of the project site. These designated areas shall be clearly marked and located in such a manner as to contain runoff.

BIO-27: Waste, dirt, rubble, or trash shall not be deposited in the Conservation Area or on native habitat. No erodible materials will be deposited into water courses. Brush, loose soils, or other debris material will not be stockpiled within stream channels or on adjacent banks. Silt fencing or other sediment trapping materials will be installed at the downstream end of construction activities to minimize the transport of sediments offsite.

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Chapter 5 Conclusions and Regulatory Determinations

5.1 Federal Endangered Species Act Consultation Summary

Under the provisions of Section 7(a)(2) of the FESA, a federal agency that permits, licenses, funds, or otherwise authorizes a project activity must consult with USFWS to ensure that its actions would not jeopardize the continued existence of any listed species or destroy or adversely modify CH. This SNES provides detail on the proposed project's impacts to federally listed plant and wildlife species.

A species list was generated on June 29, 2020, from the USFWS IPAC, and updated on October 7, 2020. The project study area provides suitable habitat for several species that are state and federally listed as threatened or endangered, including CAGN, SAS, and LBV. A known occurrence of CAGN was recorded within the project site during 2020 surveys. In addition, LBV was recorded within and adjacent to the BSA during 2020 surveys. Therefore, it is determined that the project site is currently occupied by these species. The project is within the Western Riverside MSHCP, which covers several federally listed species, including CAGN, LBV, and SAS. The project completed the MSHCP consistency analysis process, which included project review by USFWS.

Under provisions of Section 7(a)(2) of the FESA, a federal agency (i.e., FHWA) that permits, licenses, funds, or otherwise authorizes a project activity must consult with USFWS to ensure that its actions would not jeopardize the continued existence of any listed species or destroy or adversely modify CH. This SNES provides details on the potential effects of the proposed SR-71/SR-91 Interchange Improvement Project to federally listed plant and wildlife species. A Section 7 consultation was issued for potential effects to federally listed CAGN, SAS, and LBV. There has been no change to critical habitat with this SNES.

On June 22, 2011, BO FWS-WRIV-09B0057-11F0421 was issued for the project. According to the issued BO, the project "may affect and is likely to adversely affect LBV and CAGN." The project was found consistent with MSHCP policies and procedures. The status of LBV and CAGN and the effects of implementing the MSHCP were previously addressed in the USFWS BO for the MSHCP dated June 22, 2004. The BO for the MSHCP concluded that the level of anticipated take in the plan area for the MSHCP was not likely to result in jeopardy to LBV or CAGN. In conclusion, implementation of the project was found to not result in jeopardy to LBV or CAGN.

A total of 12 federally listed endangered or threatened species were identified in the literature search for this project. A determination for every listed species and critical habitat is included, either no effect, may affect, or not likely to adversely affect (NLAA).

Caltrans has determined that, in accordance with Section 7(a)(2) of the FESA, the proposed project would result in "No Effect" on the following federally listed threatened or endangered species:

- Arroyo toad
- Braunton's milk vetch
- Delhi sands flower-loving fly
- Many-stemmed dudleya
- San Diego ambrosia
- Santa Ana river woolly-star
- Southwestern willow flycatcher
- Stephen's kangaroo rat
- Thread-leaved brodiaea
- Western yellow-billed cuckoo

5.2 Essential Fish Habitat Consultation Summary

The Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act), as amended by the Sustainable Fisheries Act of 1996 (Public Law 104-267), established procedures designed to identify, conserve, and enhance Essential Fish Habitat (EFH) for those species regulated under a federal fisheries management plan (FMP). Section 305(b)(2) of the Magnuson-Stevens Act requires Federal action agencies to consult with the NOAA's NMFS on all actions, or proposed actions, authorized, funded, or undertaken by the agency, that may adversely affect EFH.

The EFH Guidelines (50 CFR 600.05 - 600.930) outline the process for federal agencies, NOAA NMFS and the Fishery Management Councils to satisfy the EFH consultation requirement under Section 305(b(2)-(4)) of the Magnuson-Stevens Act. As part of the EFH consultation process, the guidelines require federal action agencies to prepare a written EFH Assessment describing the effects of that action on EFH (50 CFR 600.920(e)(1)). The EFH Assessment is a necessary component for efficient and effective consultations between a federal action agency and NOAA NMFS. An EFH Assessment will be necessary for project-related impacts to the SAS that is currently present within the project site.

A species list was obtained on July 17, 2020, from NOAA Fisheries, and updated on October 8, 2020. A determination for every listed species and critical habitat is included, either no effect; may affect, not likely to adversely affect (NLAA).

A total of two federally listed endangered or threatened fish species were identified in the literature search for this project. Caltrans has determined that, in accordance with Section 7(a)(2) of the FESA, the proposed project would result in "No Effect" on the following federally listed threatened or endangered species:

- Santa Ana sucker
- Southern steelhead

The SAS would not be impacted because construction activities would occur outside of the Santa Ana River. An EFH is therefore not required. The project avoids impacts to the Santa Ana River; therefore, there is no effect to southern steelhead.

The project will have no effect on SAS and southern steelhead. There are no impacts on CH from the SR-71/SR-91 Interchange Improvement Project on the SAS or southern steelhead.

5.3 California Endangered Species Act Consultation Summary

The CESA protects plant and animal species listed as rare, candidate, threatened, or endangered. CDFW authorizes take of endangered, threatened, or candidate species through the provisions of Sections 2081 and 2080.1 of the CFG Code. Authorization from CDFW for take of any endangered, threatened, or candidate species is not expected to occur due to the absence of CESA-protected species and the unlikely event that they would occur in the project footprint. All other species where authorization from CDFW would be required are covered by the Western Riverside County MSHCP.

A CDFW CNDDB Rarefind species list was generated on June 29, 2020, and updated on October 7, 2020. Take coverage for LBV is provided under the MSHCP.

A total of nine State-listed endangered and/or threatened species were identified in the literature search for this project. Caltrans has determined that, in accordance with the CESA, the proposed project would result in "No Take" of the following State-listed threatened and/or endangered species, as consistent with the original NES:

- Santa Ana River woolly-star
- Swainson's hawk

- Southwestern willow flycatcher
- Stephen's kangaroo rat
- Thread-leaved brodiaea
- Tricolored blackbird
- Western yellow-billed cuckoo
- Mountain lion
- California black rail

5.4 Wetlands and Other Waters Coordination Summary

Resource agencies, including USACE and CDFW, have jurisdiction over stream courses and associated riparian vegetation types in the study area. USACE takes jurisdiction over areas considered WOTUS and wetlands as currently defined by the 1987 USACE Wetlands Delineation Manual. Jurisdictional waters are typically defined by the OHWM. The OHWM is a line on the shore of a stream or riverbank established by fluctuations of water identified by one or more flowing characteristics: clear, natural line on the bank; shelving; changes in soil; destruction of terrestrial vegetation; or presence of litter and debris. Wetlands, a subset of jurisdictional waters, are defined as those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas. The 1987 USACE Wetlands Delineation Manual requires the delineation wetland boundaries to be determined based on the following three parameters: (1) hydrology providing permanent or periodic inundation by groundwater or surface water, (2) hydric soils, and (3) hydrophytic vegetation. Jurisdictional limits of CDFW are similar to the jurisdiction of USACE, but they include riparian habitat supported by a river, stream, or lake regardless of the presence or absence of hydric soils and saturated soil conditions. The limits of CDFW jurisdiction are defined by the presence of bed, channel, or bank of any river, stream, or lake. This includes ephemeral streams, desert washes, and watercourses with a subsurface flow. If riparian habitat is also present within and/or dripline extending into a stream, creek, river, or lake, CDFW will take jurisdiction over areas containing riparian habitat to the outer dripline riparian vegetation.

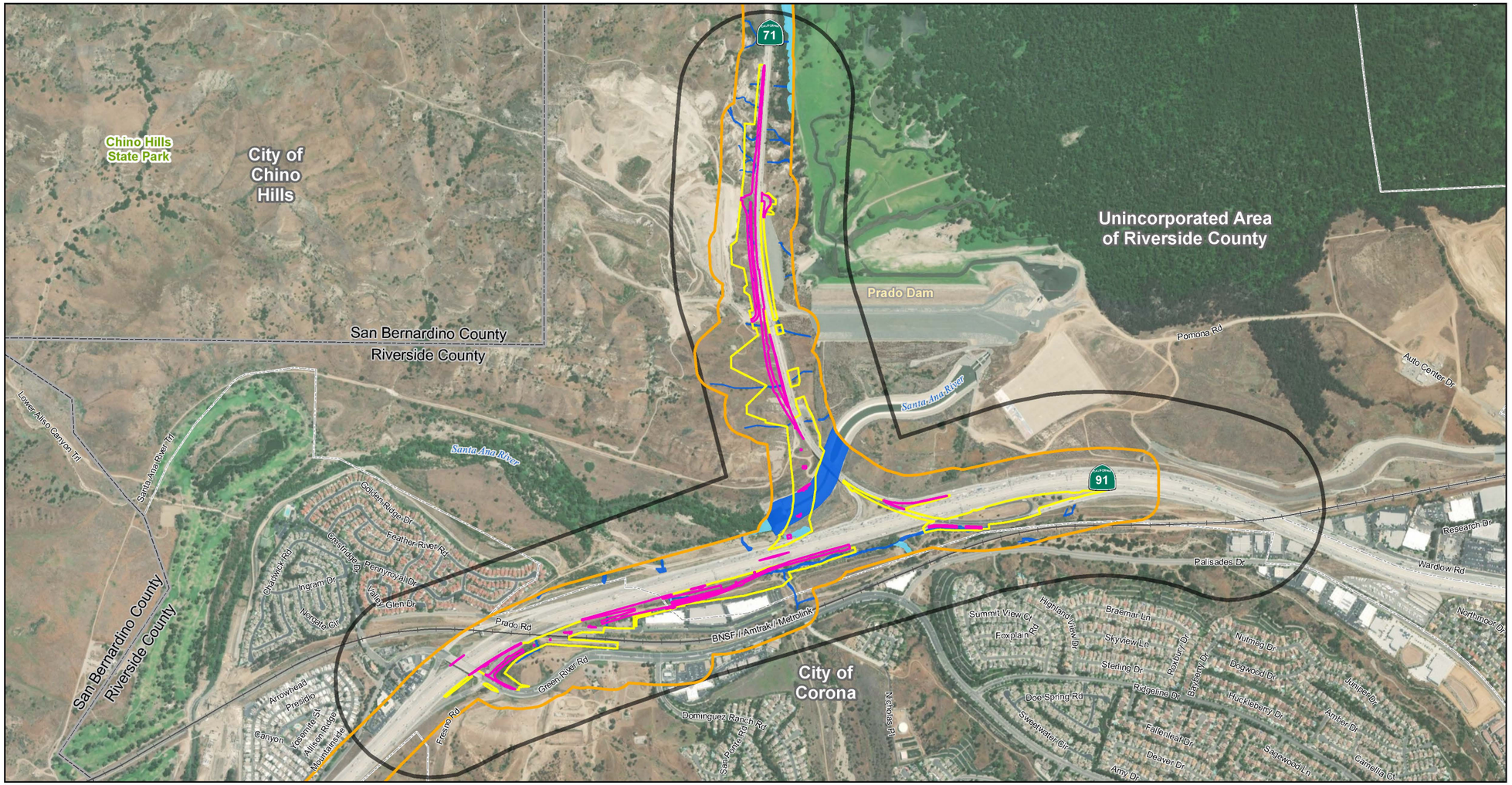

Figure 5-1: USACE Drainage Impact Map

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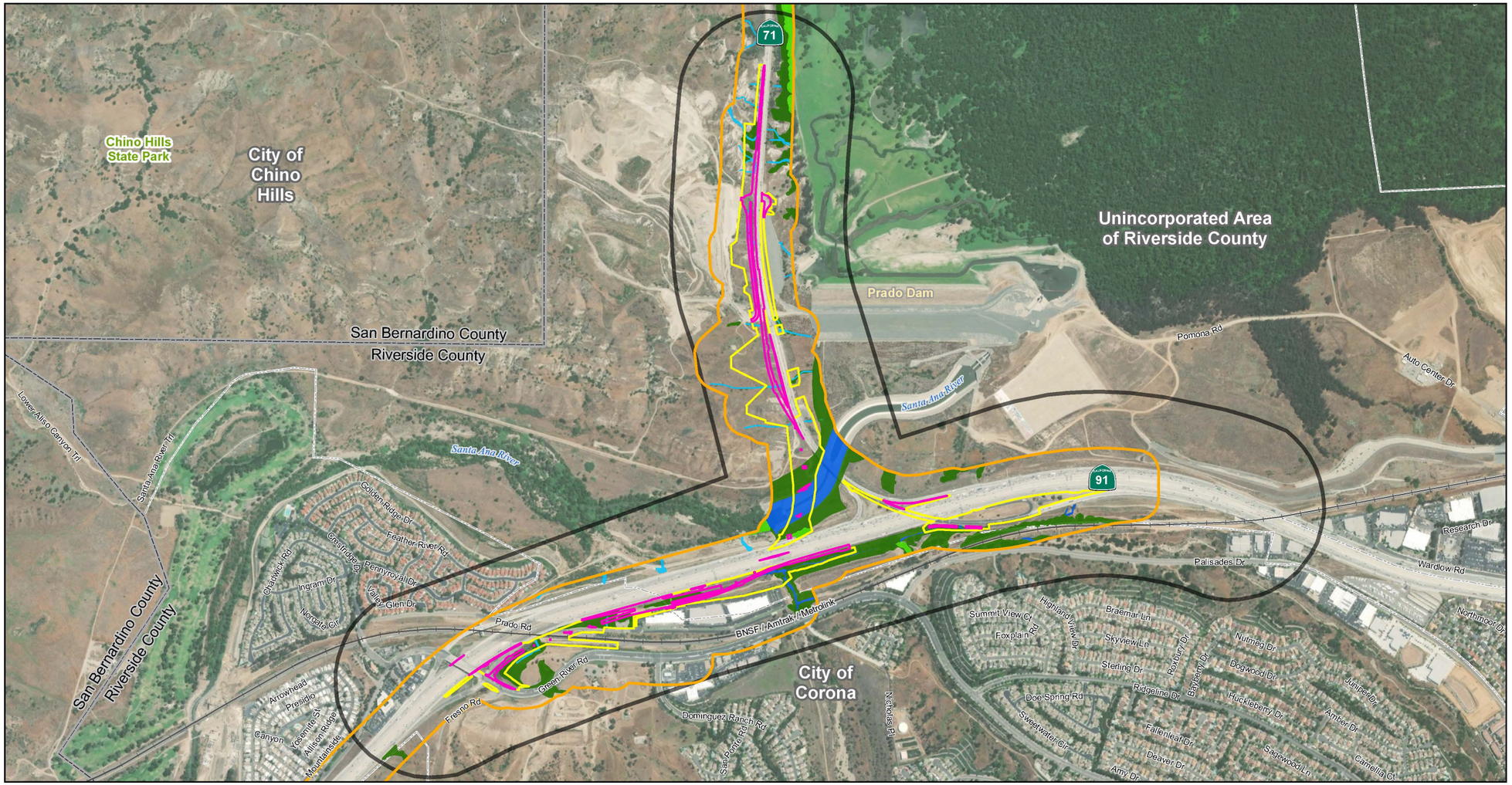

Figure 5-2: CDFW Drainage Impact Map

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In total, 19 features within the jurisdictional delineation reconnaissance survey area were identified in the *Update Memorandum for Jurisdictional Delineation of the State Route 71 (SR-71)/State Route 91 (SR-91) Interchange Improvement Project (2020)* with the potential to be subject to the jurisdiction of USACE, RWQCB, and/or CDFW. Potential USACE jurisdiction on the site totals 5.83 acres of non-wetland waters and 28.07 acres of wetlands. Potential RWQCB jurisdiction on the site totals 33.90 acres. Potential CDFW jurisdiction on the site totals 3.10 acres of unvegetated streambed and 30.89 acres of vegetated riparian habitat.

Construction of the proposed project (specifically support structures, footings, slope protection and realignment of SR-71 and SR-91 roads and connectors) would result in temporary and permanent impacts to jurisdictional waters within the project site. Based on these findings, the proposed project would require a Section 404 permit from USACE pursuant to Section 404 of the CWA, a Section 401 Water Quality Certification from RWQCB, Section 408 authorization from USACE, and a Section 1600 SAA from CDFW pursuant to Section 1600 of the CFG Code.

As shown in Tables 5-1 and 5-2 and Figures 5-1 and 5-2, there are impacts to USACE and CDFW Jurisdictional Features. Permanent impacts to USACE Jurisdictional Features are 0.31 acre non-wetland waters. Temporary impacts to USACE Jurisdictional Features are 3.04 acres non-wetland waters. Permanent impacts to USACE Jurisdictional Features are 0.03 acre wetland waters and 0.42 acre of temporary impacts.

Table 5-1: USACE Jurisdictional Features

Feature Name	Permanent Impacts (acres)	Temporary Impacts (acres)	Total Impacts (acres)
Non-Wetland Waters			
Feature A	0.00	0.03	0.03
Feature B	0.02	0.02	0.04
Feature C	0.04	0.01	0.05
Feature D	0.04	2.02	2.06
Feature F	0.11	0.76	0.87
Feature I	0.00	0.03	0.03
Feature J	0.01	0.04	0.05
Feature K	0.00	0.04	0.04
Feature L	0.01	0.00	0.01
Feature N	0.07	0.01	0.08
Feature O	0.01	0.03	0.04
Feature P	0.00	0.05	0.05

Table 5-1: USACE Jurisdictional Features

Feature Name	Permanent Impacts (acres)	Temporary Impacts (acres)	Total Impacts (acres)
Feature Q	0.00	0.00	0.00
Feature R	0.00	0.00	0.00
TOTAL	0.31	3.04	3.35
Wetland Waters			
Feature C	0.01	0.00	0.01
Feature E	0.02	0.38	0.40
Feature G	0.00	0.04	0.04
TOTAL	0.03	0.42	0.45

Table 5-2: CDFW Jurisdictional Features

Feature Name	Permanent Impacts (acres)	Temporary Impacts (acres)	Total Impacts (acres)
Ephemeral Stream			
Feature A	0.00	0.03	0.03
Feature B	0.02	0.02	0.04
Feature C	0.04	0.01	0.05
Feature I	0.00	0.03	0.03
Feature J	0.01	0.04	0.05
Feature K	0.00	0.04	0.04
Feature L	0.01	0.00	0.01
Feature N	0.07	0.01	0.08
Feature O	0.01	0.03	0.04
Feature P	0.00	0.05	0.05
Feature Q	0.00	0.00	0.00
Feature R	0.00	0.00	0.00
TOTAL	0.16	0.26	0.42
Intermittent Stream			
Feature D	0.04	2.02	2.06
Feature F	0.11	0.76	0.87
TOTAL	0.15	2.78	2.93
Riparian Vegetation			
Feature A	0.10	0.82	0.92
Feature B	0.37	1.40	1.77

Table 5-2: CDFW Jurisdictional Features

Feature Name	Permanent Impacts (acres)	Temporary Impacts (acres)	Total Impacts (acres)
Feature C	0.63	0.11	0.74
Feature D	0.04	2.90	2.94
Feature F	0.14	1.51	1.65
Feature G	0.06	0.46	0.52
Feature J	0.00	0.08	0.08
Feature K	0.00	0.04	0.04
Feature O	0.00	0.15	0.15
Feature P	0.08	0.66	0.74
TOTAL	1.42	8.13	9.55
Wetland			
Feature C	0.01	0.00	0.01
Feature E	0.02	0.38	0.40
Feature G	0.00	0.04	0.04
TOTAL	0.03	0.42	5

The project will result in impacts to CDFW Jurisdictional Features. These include 0.16 acre of permanent impacts and 0.26 acre of temporary impacts to ephemeral stream. Impacts to intermittent stream include 0.15 acre of permanent and 2.78 acres of temporary impact. Impacts to CDFW riparian vegetation are 1.42 acres of permanent impact and 8.13 acres of temporary impact. Finally, impacts to CDFW wetlands include 0.03 acre of permanent impact and 0.42 acre of temporary impact. The overall project footprint for this SNES has not expanded since preparation of the original NES was completed (2010c).

5.5 Invasive Species

EO 13112, signed in February 1999, prevents the introduction of invasive species and provides for their control to minimize the economic, ecological, and human health impacts that invasive species cause. Implementation of the BMPs discussed in Section 5.2.5 of the SR-71/SR-91 Interchange Improvement Project Habitat Assessment and MSHCP Consistency Analysis Report (MBA, 2009), will limit the introduction of invasive species into the Conservation Area and will reduce any potential impacts to adjacent sensitive communities to less than substantial.

In compliance with EO 13112, and subsequent guidance from FHWA, the landscaping and erosion control included in the project would not include species listed on either the federal or

State of California Noxious Weeds List. In areas of sensitivity (i.e., near or adjacent to drainages), extra precautions would be taken if invasive species are found in or adjacent to these areas. This would include the inspection and cleaning of construction equipment and eradication strategies, as required by the Caltrans Biological Monitor, to be implemented by the Contractor should an invasion occur. Any cleaning of equipment or site watering would be conducted in adherence to any applicable drought conditions and related regulations.

5.6 DBESP and Western Riverside County MSHCP Consistency Determination

A DBESP for impacts to riparian/riverine habitat as required under the MSHCP was obtained for the project in January 2010. The DBESP indicated that implementation of the project would result in an increase in habitat quality and long-term sustainability of the riparian/riverine resources on the project site, resulting in a superior alternative to that which exists under pre-project conditions. An assessment of Riparian/Riverine Areas and Vernal Pools was previously conducted as part of the MSHCP consistency analysis according to Section 6.2.1 of the MSHCP. Additional surveys conducted by MBA as part of the formal JD for waters and wetlands determined that riparian/riverine habitat occurred within 13 district areas of the project site, encompassing approximately 32.71 acres. These areas generally occur in the southern portions of the project site adjacent to the Santa Ana River and associated tributaries, Fresno Canyon Wash and Wardlow Wash, and within the northern area of the BSA immediately adjacent to SR-71.

According to the DBESP, MSHCP findings determined that 32.71 acres of high-quality functioning riparian habitat would be impacted as a result of project construction. Moderate- to high-quality SCWRF and MFS communities generally dominate the riparian/riverine habitat onsite. Several riparian/riverine areas occur within low-quality scrub habitats where several disturbances have occurred.

The proposed project is considered a covered activity under Section 7.3.5 of the MSHCP and has been designed to occur within the least environmentally sensitive location feasible. Most of the riparian/riverine areas that occur within the project site, the Santa Ana River, and associated major tributaries Fresno Canyon Wash and Wardlow Wash, would be avoided to the greatest extent feasible.

The following demonstrates how the post-project conditions of the onsite riparian/riverine habitat would be functionally superior to the pre-project conditions, according to the DBESP (2010). Though the DBESP will not be updated, the project will comply with the following:

- Construction of the proposed project has been designed to occur within the least environmentally sensitive location feasible and is considered a covered activity under the MSHCP. Additionally, the project would avoid 98 percent of the total riparian/riverine locations onsite, to preserve the highest quality habitat on the project site, including functioning riparian/riverine habitat. This would ensure the preservation of suitable habitat for riparian-associated wildlife species such as LBV and species known to occur within the reach of the Santa Ana River, including the SAS, which have been observed in the project site. In addition, this area would ensure the preservation of suitable habitat for plant species that have potential to occur within the Santa Ana River floodplain and adjacent upland areas.
- To mitigate for permanent impacts to 0.41 acre of MSHCP-defined riparian/riverine areas that occur within the project site, offsite enhancement of riparian habitat shall be executed at a minimum of 1:1. This can be accomplished through purchasing mitigation credit from the Riverside-Corona Resource Conservation District (RCRCD) to aid in the eradication of giant reed *(Arundo donax)* and salt cedar *(Tamarix* sp.) throughout the reach of the Santa Ana Watershed. This requirement has been updated in BIO-34 for the project ECR (see Appendix H). The 0.41 acre of impacts to MSHCP-defined riparian/riverine areas, was determined in 2010 for the DBESP.
- Temporary impacts to approximately 1.2 acres of MSHCP-defined riparian/riverine areas would be minimized through delineation of the limits of disturbance with environmentally sensitive fencing. After completion of construction, the disturbed areas would be restored to pre-existing conditions.
- Implementation of the Urban/Wildlands Interface Guidelines would ensure that all indirect project-related impacts to riparian/riverine habitat would be avoided or minimized to the greatest extent feasible.
- Construction of the proposed project would add infrastructure to the existing SR-71 and SR-91 and, in doing so, would add habitat for bat species that may potentially roost within crossings and culverts located along SR-71 and SR-91. Construction of the proposed project would improve habitat for bat species known to occur within the region.

Impacts to riparian vegetation have increased with this SNES because of the growth of riparian vegetation within the BSA since the NES was prepared in 2010. In addition, modifications to the project design including, but not limited to, the inclusion of retaining walls and rock slope protection, require additional work in riparian areas of Wardlow Wash (eastern section of the project). Impacts to jurisdictional areas and MSHCP riparian/riverine habitats have been updated from the previous analysis for the project. Differences in the delineation of riparian vegetation, as well as the growth of new riparian vegetation naturally and due to SR-91 CIP

Restoration in the BSA, in addition to the dynamic nature of Fresno Canyon/Wardlow Wash due to illegal trespass, have resulted in an overall increase in acreage that may support riparian and/or riverine species. The largest change in delineation from previous analysis occurred west of the SR-71/SR-91 interchange and south of the Santa Ana River at the undercrossing near Fresno Canyon, where multiple riparian plants were identified in areas not previously delineated (see Figures 4-1 and 4-2).

There has been an increase in impacts to riparian areas with this SNES, as discussed in Chapter 4. The increase is because of the growth of riparian vegetation within the BSA since preparation of the NES. In addition, modifications to project design including, but not limited to, retaining walls and rock slope protection, require additional work within riparian areas such as Wardlow Wash (in the eastern section of the project) (see Figures 4-1 and 4-2). Table 5-3 reflects a Comparison of Jurisdictional Features for the various project submittals. According to the JD, the USACE classifications of riparian and riverine are equivalent to Wetland and Non-Wetland WOTUS, respectively. The CDFW Riverine classification is equivalent to the combination of CDFW Ephemeral Stream and Intermittent Stream.

Table 5-3: Comparison of Jurisdictional Features

Feature Type	Reval #1 (2014) (acres)	Updated JD (2020) (acres)	Change (acres) Reval #1 to JD
USACE Permanent Impacts			
Riparian	0.034	0.030	-0.004
Riverine	0.237	0.310	+0.073
USACE Temporary Impacts			
Riparian	0.297	0.420	+0.123
Riverine	0.412	3.040	+2.628
CDFW Permanent Impacts			
Riparian	0.082	1.420	+1.338
Riverine	0.216	0.310	+0.094
CDFW Temporary Impacts			
Riparian	0.880	8.130	+7.250
Riverine	0.480	3.040	+2.560

5.7 Regional Conservation Authority Joint Project Review

The Habitat Assessment dated March 2011 was provided to RCA. RCA reviewed the Habitat Assessment, and the Western Riverside County Regional Conservation Authority Joint Project Review (JPR) #10-07-19-02 was completed in May 2011. Confirmation was received from RCA on May 8, 2020, that the project would not need to revise the JPR because the overall project area is not expanding into new areas that were not previously analyzed. The project would mitigate for temporary impacts onsite and permanent impacts with offsite mitigation.

5.8 Wildlife Corridor Analysis

A Wildlife Corridor Analysis Report was prepared to determine whether the proposed project would potentially impact MSHCP-designated Cores and Linkages, specifically the potential effects of the project on wildlife movement between the Cleveland National Forest and Prado Basin/Santa Ana River and the wildlife corridor linking the Santa Ana Mountains and Prado Basin.

As part of Wildlife Corridor Analysis Report, the project was found to result in some extensions of culverts and pipes that are used as wildlife crossings for PCL 1 and PCL 2. For PCL 1, the project would improve wildlife connectivity by utilizing an open channel instead of a traditional pipe extension, constructing wildlife fencing to funnel into the crossing, and planting native vegetation. For PCL 2, the project would improve the function of the undercrossing bridge by removing the obstruction of the concrete revetment and recontouring the slopes of the crossing openings. In addition, wildlife fencing would be installed to funnel the wildlife into the crossings into the area, and native vegetation would be planted to provided habitat continuity (Parsons Transportation Group, 2010b). After the preparation of the Wildlife Corridor Analysis Report, the extension of PCL 1 was removed from the scope of the project.

There are no proposed changes to wildlife crossings by the SR-71/SR-91 Interchange Improvement Project.

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Appendix A Site Photographs

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Photo 1. Green River Road and SR-91, facing north



Photo 2. Sukut Properties, facing west



Photo 3. BSA facing east, areas along SR-71 northbound



Photo 4. SR-71/SR-91 Northeast Quad, facing southeast



Photo 5. SR-71/SR-91 Northwest Quad, facing north



Photo 6. CSS Areas along SR-91 Eastbound, facing north



Photo 7. Disturbed Areas along SR-91 Eastbound, facing north



Photo 8. SR-71/SR-91 Northeast Quad, facing west



Photo 9. SR-71/SR-91 Northeast Quad, facing east



Photo 10. SR-71/SR-91 Northeast Quad, facing west



Photo 11. SR-71/SR-91 Northeast Quad, facing west



Photo 12. Burrow observed on SR-71/SR-91 Northeast Quad



Photo 13. SR-71/SR-91 Northwest Quad, facing south



Photo 14. SR-71/SR-91 Northwest Quad, facing south



Photo 15. SR-71/SR-91 Northwest Quad, facing southeast



Photo 16. SR-71/SR-91 Northwest Quad, facing south



Photo 17. View North of SR-71 from SR-71/SR-91 Northwest Quad



Photo 18. View of CSS from SR-71/SR-91 Northwest Quad



Photo 19. View west along SR-71 of steep slopes, note ROW fencing



Photo 20. View west along SR-71 of slope areas



Photo 21. View from Sukut properties, facing west of BSA



Photo 22. View facing south of Sukut property



Photo 23. View North of Slopes Along SR-71, from Sukut Driveway



Photo 24. View slightly northwest of SR-71/SR-91 Northwest Quad CSS Habitat



Photo 25. View north of SR-71/SR-91 Northwest Quad CSS Habitat



Photo 26. View south of CSS along SR-91 Green River



Photo 27. View slightly southwest of CSS along SR-91 Green River



Photo 28. View south of CSS at SR-91 Green River Road



Photo 29. View west of BNSF at SR-91/Prado Road



Photo 30. View north of Disturbed Areas along SR-91 at Prado Road



Photo 31. View facing north from SR-91 of USACE property



Photo 32. View West of Disturbed Areas along SR-91 at Prado Road



Photo 33. View west of CSS North of SR-91 at Prado Road



Photo 34. View North of SR-91 Green River Road



Photo 35. View North of SR-91 Green River Road



Photo 36. View north of SR-91 from Green River Road



Photo 37. View east of SR-91 Eastbound On-ramp at Green River



Photo 38. View West of Slopes from SR-71 southbound



Photo 39. View east of SR-91 Eastbound On-ramp at Green River



Photo 40. View east of SR-91 Eastbound at Green River



Photo 41. View west of SR-91 Easbound On-ramp at Green River



Photo 42. View south from SR-91 Eastbound On-ramp at Green River



Photo 43. View south from SR-91 Eastbound On-ramp at Green River



Photo 44. View of Green River Road Planting



Photo 45. View slight from Green River Road



Photo 46. View North of Green River Planting



Photo 47. View of SR-91 north from Green River Road



Photo 48. View west of SR-91 Eastbound Planting West of Green River Road along



Photo 49. View of Prado Road from SR-91 eastbound



Photo 50. View from eastern portion of Green River On-ramp, facing east along SR-91



Photo 51. View of Areas along SR-91 Eastbound, facing west, Prado Road



Photo 52. View from Sukut Property entrance along SR-71 southbound, facing southwest



Photo 53. View of shoulder areas along SR-91 eastbound in BSA



Photo 54. View west of areas along SR-91 easbound west of Fresno Canyon/Wardlow Wash



Photo 55. View south of CSS along SR-91



Photo 56. View east of Fresno Canyon/Wardlow Wash



Photo 57. View West of Fresno Canyon/Wardlow Wash



Photo 58. View south from SR-91 of Fresno Canyon/Wardlow Wash



Photo 59. View east from SR-91 of Fresno Canyon/Wardlow Wash



Photo 60. View from SR-91 of SR-71/SR-91 connector, facing east



Photo 61. View of Bridges and NNG north of SR-91 at Green River Road



Photo 62. View of SR-91 westbound, from CSS habitat, SR-71/SR-91 Northeast Quad, note CSS



Photo 63. View from Prado Road Access Gate of Areas along SR-91 eastbound



Photo 64. View of Pepper Trees, facing west, at SR-91 eastbound to SR-71 northbound Connector



Photo 65. Green River Road at SR-91, facing north



Photo 66. View north along Green River Road



Photo 67. View Westbound of riparian vegeation south of SR-91



Photo 68. View south along Green River Road



Photo 69. View north of Green River Road Planting



Photo 70. View from SR-91 Green River On-ramp facing east



Photo 71. View from SR-91 eastbound of CSS south of highway



Photo 72. View east of disturbed areas south of SR-91



Photo 73. View of Green River Road facing south



Photo 74. View east of from SR-91 of Fresno Canyon/Wardlow Wash



Photo 75. View south from SR-91 of Fresno Canyon/ Wardlow Wash



Photo 76. View north east of SR-71 southbound from SR-91 westbound



Photo 77. View of distrubed areas along SR-91



Photo 78. View of vegetation within Fresno Canyon/Wardlow Wash



Photo 79. View of disturbed areas along SR-91 eastbound at Prado Road



Photo 80. View of Green River Road Planting



Photo 81. View of landscaped areas along SR-91 eastbound Green River on-ramp



Photo 82. View from Sukut Property of CHSP, south and west of BSA

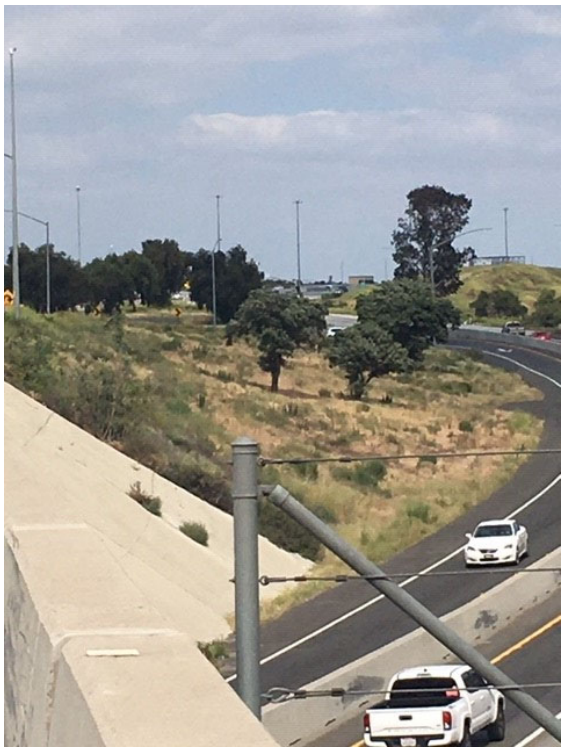

Photo 83. View from SR-91 Eastbound of connector to SR-71 northbound



Photo 84. View westbound of Disturbed Areas along SR-91 eastbound at Prado Road



Photo 85. View north from Green River Road Planting of SR-91



Photo 86. View east of BNSF



Photo 87. View north at Green River Road



Photo 88. View east of CSS along SR-91 eastbound



Photo 89. View north of Fresno Canyon/Wardlow Wash



Photo 90. View from Industrial Complex, northeast of Wardlow Wash



Photo 92. SR-91 eastbound to SR-71 northbound connector, facing east



Photo 91. Sample burrow along SR-71 southbound in BSA



Photo 93. View west of slopes along SR-71 southbound



Photo 94. View of Eucalyptus trees along SR-71 southbound



Photo 95. View of Eucalyptus trees and NNG along SR-71 southbound



Photo 96. View of laurel sumac and NNG along SR-71 southbound



Photo 97. View southwest of SR-91 eastbound from USACE Property at SR-71/SR-91 Northeast Quad



Photo 98. View south of SR-91 eastbound from USACE Property at SR-71/SR-91 Northeast Quad



Photo 99. View west of SR-91 eastbound from USACE Property at SR-71/SR-91 Northeast Quad



Photo 100. View southwest of USACE properties at Prado Dam



Photo 101. View west of SR-71 northbound from USACE Property at SR-71/SR-91 Northeast Quad



Photo 102. View south of SR-91 eastbound from USACE Property at SR-71/SR-91 Northeast Quad



Photo 103. Sample soil along SR-71 southbound in BSA



Photo 104. View south of SR-91 eastbound from USACE Property at SR-71/SR-91 Northeast Quad



Photo 105. View south of SR-91 eastbound at SR-71/SR-91 Northeast Quad



Photo 106. View west of SR-71 northbound at SR-71/SR-91 Northeast Quad



Photo 107. View south of SR-91 from SR-71/SR-91 northwest quad



Photo 108. View southwest of SR-91 from SR-71/SR-91 northwest quad



Photo 109. View south of SR-91 from SR-71/SR-91 northwest quad



Photo 110. View east of CSS along SR-91 eastbound



Photo 111. View east of Cottonwood Trees along Wardlow Wash at Bridge



Photo 112. View of CSS along SR-91 eastbound and disturbed areas at Prado Road

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Appendix B USFWS Species List (IPaC)

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United States Department of the Interior

FISH AND WILDLIFE SERVICE
Carlsbad Fish And Wildlife Office
2177 Salk Avenue - Suite 250
Carlsbad, CA 92008-7385
Phone: (760) 431-9440 Fax: (760) 431-5901
http://www.fws.gov/carlsbad/

In Reply Refer To:
Consultation Code: 08ECAR00-2020-SLI-1255
Event Code: 08ECAR00-2021-E-00069
Project Name: SR-71 and SR-91 Interchange Improvement Project

October 07, 2020

Subject: Updated list of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, and proposed species, designated critical habitat, and candidate species that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm; http://www.towerkill.com; and http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Carlsbad Fish And Wildlife Office
2177 Salk Avenue - Suite 250
Carlsbad, CA 92008-7385
(760) 431-9440

Project Summary

Consultation Code: 08ECAR00-2020-SLI-1255

Event Code: 08ECAR00-2021-E-00069

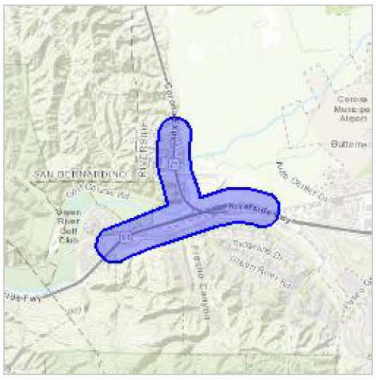
Project Name: SR-71 and SR-91 Interchange Improvement Project

Project Type: TRANSPORTATION

Project Description: The project proposes to improve the existing SR-71/SR-91 interchange by constructing a new direct flyover connector from eastbound SR-91 to northbound SR-71. In addition to the flyover, the Green River Road eastbound onramp will be re-constructed, the SR-71 realigned, and access to properties relocated.

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/33.88726690412026N117.64526659104055W



Counties: Riverside, CA

Endangered Species Act Species

There is a total of 9 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
Stephens' Kangaroo Rat *Dipodomys stephensi (incl. D. cascus)* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/3495	Endangered

Birds

NAME	STATUS
Coastal California Gnatcatcher *Polioptila californica californica* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8178	Threatened
Least Bell's Vireo *Vireo bellii pusillus* There is **final** critical habitat for this species. Your location overlaps the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5945	Endangered
Southwestern Willow Flycatcher *Empidonax traillii extimus* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/6749	Endangered

Fishes

NAME	STATUS
Santa Ana Sucker *Catostomus santaanae* Population: 3 CA river basins There is **final** critical habitat for this species. Your location overlaps the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/3785	Threatened

Insects

NAME	STATUS
Delhi Sands Flower-loving Fly *Rhaphiomidas terminatus abdominalis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1540	Endangered

Flowering Plants

NAME	STATUS
San Diego Ambrosia *Ambrosia pumila* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8287	Endangered
Santa Ana River Woolly-star *Eriastrum densifolium ssp. sanctorum* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6575	Endangered
Thread-leaved Brodiaea *Brodiaea filifolia* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/6087	Threatened

Critical habitats

There are 2 critical habitats wholly or partially within your project area under this office's jurisdiction.

NAME	STATUS
Least Bell's Vireo *Vireo bellii pusillus* https://ecos.fws.gov/ecp/species/5945#crithab	Final
Santa Ana Sucker *Catostomus santaanae* https://ecos.fws.gov/ecp/species/3785#crithab	Final

Appendix C California Natural Diversity Database (CNDDB)

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CALIFORNIA DEPARTMENT OF FISH and WILDLIFE **RareFind**

Query Summary:
Quad IS (Prado Dam (3311786))

Print Close

CNDDB Element Query Results

Scientific Name	Common Name	Taxonomic Group	Element Code	Total Occs	Returned Occs	Federal Status	State Status	Global Rank	State Rank	CA Rare Plant Rank	Other Status	Habitats
Abronia villosa var. aurita	chaparral sand-verbena	Dicots	PDNYC010P1	98	1	None	None	G5T2?	S2	1B.1	BLM_S-Sensitive, SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, USFS_S-Sensitive	Chaparral, Coastal scrub, Desert dunes
Accipiter cooperii	Cooper's hawk	Birds	ABNKC12040	118	1	None	None	G5	S4	null	CDFW_WL-Watch List, IUCN_LC-Least Concern	Cismontane woodland, Riparian forest, Riparian woodland, Upper montane coniferous forest
Agelaius tricolor	tricolored blackbird	Birds	ABPBXB0020	955	3	None	Threatened	G2G3	S1S2	null	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_EN-Endangered, NABCI_RWL-Red Watch List, USFWS_BCC-Birds of Conservation Concern	Freshwater marsh, Marsh & swamp, Swamp, Wetland
Aimophila ruficeps canescens	southern California rufous-crowned sparrow	Birds	ABPBX91091	235	1	None	None	G5T3	S3	null	CDFW_WL-Watch List	Chaparral, Coastal scrub
Ammodramus savannarum	grasshopper sparrow	Birds	ABPBXA0020	27	1	None	None	G5	S3	null	CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern	Valley & foothill grassland
Aquila chrysaetos	golden eagle	Birds	ABNKC22010	323	3	None	None	G5	S3	null	BLM_S-Sensitive, CDF_S-Sensitive, CDFW_FP-Fully Protected, CDFW_WL-Watch List, IUCN_LC-Least Concern, USFWS_BCC-Birds of Conservation Concern	Broadleaved upland forest, Cismontane woodland, Coastal prairie, Great Basin grassland, Great Basin scrub, Lower montane coniferous forest, Pinon & juniper woodlands, Upper montane coniferous forest, Valley & foothill grassland
Asio otus	long-eared owl	Birds	ABNSB13010	48	1	None	None	G5	S3?	null	CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern	Cismontane woodland, Great Basin scrub, Riparian forest, Riparian woodland, Upper montane coniferous forest
Aspidoscelis hyperythra	orange-throated whiptail	Reptiles	ARACJ02060	369	2	None	None	G5	S2S3	null	CDFW_WL-Watch List, IUCN_LC-Least Concern, USFS_S-Sensitive	Chaparral, Cismontane woodland, Coastal scrub
Astragalus brauntonii	Braunton's milk-vetch	Dicots	PDFAB0F1G0	42	1	Endangered	None	G2	S2	1B.1	SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, SB_SBBG-Santa Barbara Botanic Garden	Chaparral, Coastal scrub, Limestone, Valley & foothill grassland
Athene cunicularia	burrowing owl	Birds	ABNSB10010	1989	10	None	None	G4	S3	null	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_LC-	Coastal prairie, Coastal scrub, Great Basin grassland, Great

											Least Concern, USFWS_BCC-Birds of Conservation Concern	Basin scrub, Mojavean desert scrub, Sonoran desert scrub, Valley & foothill grassland
Atriplex coulteri	Coulter's saltbush	Dicots	PDCHE040E0	121	1	None	None	G3	S1S2	1B.2	SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, SB_CRES-San Diego Zoo CRES Native Gene Seed Bank	Coastal bluff scrub, Coastal dunes, Coastal scrub, Valley & foothill grassland
Buteo swainsoni	Swainson's hawk	Birds	ABNKC19070	2535	1	None	Threatened	G5	S3	null	BLM_S-Sensitive, IUCN_LC-Least Concern, USFWS_BCC-Birds of Conservation Concern	Great Basin grassland, Riparian forest, Riparian woodland, Valley & foothill grassland
California Walnut Woodland	California Walnut Woodland	Woodland	CTT71210CA	76	9	None	None	G2	S2.1	null	null	Cismontane woodland
Calochortus weedii var. intermedius	intermediate mariposa-lily	Monocots	PMLIL0D1J1	140	4	None	None	G3G4T2	S2	1B.2	SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, USFS_S-Sensitive	Chaparral, Coastal scrub, Valley & foothill grassland
Calystegia felix	lucky morning-glory	Dicots	PDCON040P0	10	6	None	None	G1Q	S1	1B.1	null	Meadow & seep, Riparian scrub
Campylorhynchus brunneicapillus sandiegensis	coastal cactus wren	Birds	ABPBG02095	156	1	None	None	G5T3Q	S3	null	CDFW_SSC-Species of Special Concern, USFS_S-Sensitive, USFWS_BCC-Birds of Conservation Concern	Coastal scrub
Catostomus santaanae	Santa Ana sucker	Fish	AFCJC02190	28	1	Threatened	None	G1	S1	null	AFS_TH-Threatened, IUCN_VU-Vulnerable	Aquatic, South coast flowing waters
Centromadia pungens ssp. laevis	smooth tarplant	Dicots	PDAST4R0R4	126	1	None	None	G3G4T2	S2	1B.1	SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	Alkali playa, Chenopod scrub, Meadow & seep, Riparian woodland, Valley & foothill grassland, Wetland
Coccyzus americanus occidentalis	western yellow-billed cuckoo	Birds	ABNRB02022	165	3	Threatened	Endangered	G5T2T3	S1	null	BLM_S-Sensitive, NABCI_RWL-Red Watch List, USFS_S-Sensitive, USFWS_BCC-Birds of Conservation Concern	Riparian forest
Coturnicops noveboracensis	yellow rail	Birds	ABNME01010	45	1	None	None	G4	S1S2	null	CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern, NABCI_RWL-Red Watch List, USFS_S-Sensitive, USFWS_BCC-Birds of Conservation Concern	Freshwater marsh, Meadow & seep
Crotalus ruber	red-diamond rattlesnake	Reptiles	ARADE02090	192	2	None	None	G4	S3	null	CDFW_SSC-Species of Special Concern, USFS_S-Sensitive	Chaparral, Mojavean desert scrub, Sonoran desert scrub
Dudleya multicaulis	many-stemmed dudleya	Dicots	PDCRA040H0	154	3	None	None	G2	S2	1B.2	SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, USFS_S-Sensitive	Chaparral, Coastal scrub, Valley & foothill grassland
Elanus leucurus	white-tailed kite	Birds	ABNKC06010	180	3	None	None	G5	S3S4	null	BLM_S-Sensitive, CDFW_FP-Fully Protected, IUCN_LC-Least Concern	Cismontane woodland, Marsh & swamp, Riparian woodland, Valley & foothill grassland, Wetland
Empidonax traillii extimus	southwestern willow flycatcher	Birds	ABPAE33043	70	2	Endangered	Endangered	G5T2	S1	null	NABCI_RWL-Red Watch List	Riparian woodland
Emys marmorata	western pond turtle	Reptiles	ARAAD02030	1398	2	None	None	G3G4	S3	null	BLM_S-Sensitive, CDFW_SSC-Species of Special	Aquatic, Artificial flowing waters, Klamath/North

											Concern, IUCN_VU-Vulnerable, USFS_S-Sensitive	coast flowing waters, Klamath/North coast standing waters, Marsh & swamp, Sacramento/San Joaquin flowing waters, Sacramento/San Joaquin standing waters, South coast flowing waters, South coast standing waters, Wetland
Eriastrum densifolium ssp. sanctorum	Santa Ana River woollystar	Dicots	PDPLM03035	31	1	Endangered	Endangered	G4T1	S1	1B.1	SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	Chaparral, Coastal scrub
Eumops perotis californicus	western mastiff bat	Mammals	AMACD02011	296	1	None	None	G5T4	S3S4	null	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, WBWG_H-High Priority	Chaparral, Cismontane woodland, Coastal scrub, Valley & foothill grassland
Icteria virens	yellow-breasted chat	Birds	ABPBX24010	100	1	None	None	G5	S3	null	CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern	Riparian forest, Riparian scrub, Riparian woodland
Laterallus jamaicensis coturniculus	California black rail	Birds	ABNME03041	303	1	None	Threatened	G3G4T1	S1	null	BLM_S-Sensitive, CDFW_FP-Fully Protected, IUCN_NT-Near Threatened, NABCI_RWL-Red Watch List, USFWS_BCC-Birds of Conservation Concern	Brackish marsh, Freshwater marsh, Marsh & swamp, Salt marsh, Wetland
Lepidium virginicum var. robinsonii	Robinson's pepper-grass	Dicots	PDBRA1M114	142	1	None	None	G5T3	S3	4.3	null	Chaparral, Coastal scrub
Monardella australis ssp. jokerstii	Jokerst's monardella	Dicots	PDLAM18112	3	1	None	None	G4T1?	S1?	1B.1	USFS_S-Sensitive	Chaparral, Lower montane coniferous forest
Oncorhynchus mykiss irideus pop. 10	steelhead - southern California DPS	Fish	AFCHA0209J	20	1	Endangered	None	G5T1Q	S1	null	AFS_EN-Endangered	Aquatic, South coast flowing waters
Phrynosoma blainvillii	coast horned lizard	Reptiles	ARACF12100	784	1	None	None	G3G4	S3S4	null	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern	Chaparral, Cismontane woodland, Coastal bluff scrub, Coastal scrub, Desert wash, Pinon & juniper woodlands, Riparian scrub, Riparian woodland, Valley & foothill grassland
Polioptila californica californica	coastal California gnatcatcher	Birds	ABPBJ08081	883	10	Threatened	None	G4G5T2Q	S2	null	CDFW_SSC-Species of Special Concern, NABCI_YWL-Yellow Watch List	Coastal bluff scrub, Coastal scrub
Pseudognaphalium leucocephalum	white rabbit-tobacco	Dicots	PDAST440C0	62	1	None	None	G4	S2	2B.2	null	Chaparral, Cismontane woodland, Coastal scrub, Riparian woodland
Sidalcea neomexicana	salt spring checkerbloom	Dicots	PDMAL110J0	30	1	None	None	G4	S2	2B.2	USFS_S-Sensitive	Alkali playa, Chaparral, Coastal scrub, Lower montane coniferous forest, Mojavean desert scrub, Wetland
Southern California Arroyo Chub/Santa Ana Sucker Stream	Southern California Arroyo Chub/Santa Ana Sucker Stream	Inland Waters	CARE2330CA	4	1	None	None	GNR	SNR	null	null	null

Southern Cottonwood Willow Riparian Forest	Southern Cottonwood Willow Riparian Forest	Riparian	CTT61330CA	111	3	None	None	G3	S3.2	null	null	Riparian forest
Southern Sycamore Alder Riparian Woodland	Southern Sycamore Alder Riparian Woodland	Riparian	CTT62400CA	230	5	None	None	G4	S4	null	null	Riparian woodland
Southern Willow Scrub	Southern Willow Scrub	Riparian	CTT63320CA	45	1	None	None	G3	S2.1	null	null	Riparian scrub
Spea hammondii	western spadefoot	Amphibians	AAABF02020	1409	5	None	None	G3	S3	null	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_NT-Near Threatened	Cismontane woodland, Coastal scrub, Valley & foothill grassland, Vernal pool, Wetland
Symphyotrichum defoliatum	San Bernardino aster	Dicots	PDASTE80C0	102	1	None	None	G2	S2	1B.2	SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, SB_CRES-San Diego Zoo CRES Native Gene Seed Bank, USFS_S-Sensitive	Cismontane woodland, Coastal scrub, Lower montane coniferous forest, Marsh & swamp, Meadow & seep, Valley & foothill grassland
Vireo bellii pusillus	least Bell's vireo	Birds	ABPBW01114	503	13	Endangered	Endangered	G5T2	S2	null	IUCN_NT-Near Threatened, NABCI_YWL-Yellow Watch List	Riparian forest, Riparian scrub, Riparian woodland

Appendix D NOAA Species List

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From: NMFSWCRCA Specieslist - NOAA Service Account
To: prvs=7550d03e45=brian.upchurch@parsons.com
Subject: [EXTERNAL] Re: FHWA (California Department of Transportation) Project Title SR-71 and SR-91 Interchange Improvement Project
Date: Thursday, October 8, 2020 11:22:02 AM

Receipt of this message confirms that NMFS has received your email to nmfswcrca.specieslist@noaa.gov. If you are a federal agency (or representative) and have followed the steps outlined on the California Species List Tools web page (http://www.westcoast.fisheries.noaa.gov/maps_data/california_species_list_tools.html [westcoast.fisheries.noaa.gov]), you have generated an official Endangered Species Act species list.

Messages sent to this email address are not responded to directly. For project specific questions, please contact your local NMFS office.

Northern California/Klamath (Arcata)
707-822-7201 North-Central Coast
(Santa Rosa) 707-387-0737 Southern
California (Long Beach) 562-980-4000
California Central Valley (Sacramento)
916-930-3600

Quad Name **Prado Dam**
Quad Number **33117-H6**

ESA Anadromous Fish

SONCC Coho ESU (T) -
CCC Coho ESU (E) -
CC Chinook Salmon ESU (T) -
CVSR Chinook Salmon ESU (T) -
SRWR Chinook Salmon ESU (E) -
NC Steelhead DPS (T) -
CCC Steelhead DPS (T) -
SCCC Steelhead DPS (T) -
SC Steelhead DPS (E) - **X**
CCV Steelhead DPS (T) -
Eulachon (T) -
sDPS Green Sturgeon (T) -

ESA Anadromous Fish Critical Habitat

SONCC Coho Critical Habitat -
CCC Coho Critical Habitat -
CC Chinook Salmon Critical Habitat -
CVSR Chinook Salmon Critical Habitat -
SRWR Chinook Salmon Critical Habitat -
NC Steelhead Critical Habitat -
CCC Steelhead Critical Habitat -
SCCC Steelhead Critical Habitat -
SC Steelhead Critical Habitat -
CCV Steelhead Critical Habitat -
Eulachon Critical Habitat -
sDPS Green Sturgeon Critical Habitat -

ESA Marine Invertebrates

Range Black Abalone (E) -
Range White Abalone (E) -

ESA Marine Invertebrates Critical Habitat

Black Abalone Critical Habitat -

ESA Sea Turtles

East Pacific Green Sea Turtle (T) -
Olive Ridley Sea Turtle (T/E) -
Leatherback Sea Turtle (E) -
North Pacific Loggerhead Sea Turtle (E) -

ESA Whales

Blue Whale (E) -
Fin Whale (E) -
Humpback Whale (E) -
Southern Resident Killer Whale (E) -
North Pacific Right Whale (E) -
Sei Whale (E) -
Sperm Whale (E) -

ESA Pinnipeds

Guadalupe Fur Seal (T) -
Steller Sea Lion Critical Habitat -

Essential Fish Habitat

Coho EFH -
Chinook Salmon EFH -
Groundfish EFH -
Coastal Pelagics EFH -
Highly Migratory Species EFH -

MMPA Species (See list at left)

ESA and MMPA Cetaceans/Pinnipeds
See list at left and consult the NMFS Long Beach office 562-980-4000

MMPA Cetaceans -
MMPA Pinnipeds -

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Appendix E Flora and Fauna Compendia

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Common Wildlife

Scientific Name	Common Name
Birds	
Aeronautes saxatalis	white-throated swift
Buteo jamaicensis	red-tailed hawk
Carpodacus mexicanus	house finch
Cathartes aura	turkey vulture
Geothlypis trichas	Common yellowthroat
Melospiza melodia	Song sparrow
Pipilo crissalis	California towhee
Polioptila californica	California gnatcatcher
Psaltriparus minimus	bushtit
Sayomis nigricans	black phoebe
Vireo bellii pusillus	Least Bell's vireo
Zenaida macroura	mourning dove
Mammals	
Sylvilagus audubonii	desert cottontail
Insects	
Danaus plexippus	monarch
Junonia coenia	common buckeye
Pieris rapae	cabbage white
Vanessa annabella	west coast lady
Reptiles	
Sceloporus occidentalis	Western fence lizard

Common Plants

Scientific Name	Common Name
Anacardiaceae – Sumac or Cashew Family	
Malosma laurina	laurel sumac
Schinus molle	Peruvian pepper tree
Toxicondendron diversilobum	poison oak
Apiaceae – Carrot Family	
Foeniculum vulgare	fennel
Asteraceae – Sunflower Family	
Artemisia californica	California sagebrush
Barrharis pilularis	coyote bush
Baccharis salicifolia	mulefat
Baccharis sarathroides	broom baccharis
Centaurea solstitialis	yellow star thistle
Heterotheca grandifolia	Telegraph weed

Scientific Name	**Common Name**
Helianthus annuus	common sunflower
Isocoma menziesii	coastal goldenbush
Boraginaceae – Borage Family	
Amsinckia menziesii var. *intermedia*	fiddleneck
Brassicaceae – Mustard Family	
Brassica nigra	black mustard
Hirshfeldia incana	shortpod mustard
Raphanus sativus	Wild radish
Cactaceae – Cactus Family	
Opuntia littoralis	coastal prickly pear
Caprifoliaceae – Honeysuckle Family	
Sambucus Mexicana	Mexican elderberry
Chenopodiaceae – Goosefoot Family	
Atriplex canescens	Four-wing saltbush
Salsola tragus	Russian thistle
Euphorbiaceae – Spurge Family	
Ricinus communis	castor bean
Fabaceae – Legume Family	
Lotus scoparius	Deer weed
Lupinus sp.	lupine
Meliolotus indicus	Sweet clover
Fagaceae – Oak Family	
Quercus agrifolia	coast live oak
Quercus berberifolia	scrub oak
Hydrophyllaceae – Waterleaf Family	
Phacelia distans	Common phacelia
Lamiaceae – Mint Family	
Salvia apiana	white sage
Myriaceae – Myrtle Family	
Eucalyptus globulus	blue gum
Platanaceae – Sycamore Family	
Platanus racemosa	western sycamore
Poaceae – Grass Family	
Avena barbata	slender oat
Avena fatua	wild oat
Bromus madritensis ssp. *rubens*	red brome
Bromus diandrus	ripgut brome
Polygonaceae – Buckwheat Family	
Eriogonum fasciculatum	California buckwheat

Scientific Name	**Common Name**
Rumex crispus	curly dock
Salicaceae – Willow Family	
Populus fremontii	Fremont cottonwood
Salix lasiolepis	arroyo willow
Solanaceae – Nightshade Family	
Datura meteloides	Jimson weed
Nicotiana glauca	tree tobacco
Tamaricaceae – Tamarisk Family	
Tamarix	tamarisk
Typhaceae – Cattail Family	
Typha angustifolia	narrow leaf cattail

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Appendix F Approved Jurisdictional Determination

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PARSONS

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January 31, 2019

Veronica Li, Senior Project Manager
Transportation & Special Projects Branch Regulatory Division
Los Angeles District, U.S. Army Corps of Engineers
915 Wilshire Boulevard
Los Angeles, CA 90017

Subject: Update Memorandum for Jurisdictional Delineation of the State Route 71 (SR-71)/State Route-91 (SR-91) Interchange Project

Dear Ms. Li:

To assess potential permitting requirements for the State Route 71 (SR-71)/State Route-91 (SR-91) Interchange Project (hereafter referred to as the project), an update to the most recent jurisdictional delineation (ECORP, 2013; see Attachment 1a) is provided herein. The intent of this document is to expedite the review process for jurisdictional determinations and permitting by utilizing information previously reviewed by regulatory agencies and updating that information based on current conditions observed in the field. Applicable information included in the previous jurisdictional delineation is reviewed and discussed here and updated where appropriate. All results presented herein are subject to review by the United States Army Corps of Engineers (USACE), California Department of Fish and Wildlife (CDFW), and Santa Ana Regional Water Quality Control Board (SARWQCB) for evaluation purposes and are considered preliminary until concurrence is received by each respective regulatory agency.

Introduction

Project Description

Riverside County Transportation Commission (RCTC), in cooperation with California Department of Transportation (Caltrans), proposes to improve the existing SR-71/SR-91 interchange by constructing a new direct flyover connector from eastbound (EB) SR-91 to northbound (NB) SR-71 in the City of Corona, Riverside County. In addition to the flyover, the Green River Road eastbound on-ramp would be reconstructed, SR-71 realigned, and access to adjacent properties relocated. Other project features include drainage improvements, signage, and retaining walls.

Features of the project include:

- Construct a direct two-lane flyover connector from EB SR-91 to NB SR-71 and close the existing EB SR-91 to NB SR-71 loop connector
- Replace the existing Green River Road EB SR-91 on-ramp with a slip on-ramp to the SR-71/91 flyover
- Realign SB SR-71 lanes to the west to accommodate the new flyover connector and modified connectors
- Restripe the SR-91 EB lanes from the 11-foot width to the 12-foot standard width between Post Mile (PM) R0.6 and PM R2.6
- Modify or construct new drainage facilities
- Construct retaining walls along portions of the Green River Road on-ramp south of SR-91, along SR-71, and at the abutment ends of the flyover connector
- Relocate the USACE driveway approximately 0.3 mile north of its current location
- Install freeway signage within the project area for the new flyover connector and for the Green River Road on-ramp; ramp metering may be installed on the Green River Road on-ramp prior to merging with EB SR-91

Previous Jurisdictional Delineation and Agency Consultation

Jurisdictional delineation reports for the project were previously completed in December 2013 by ECORP (Attachment 1a) and by Michael Brandman and Associates (Attachment 1b). USACE issued a Preliminary Jurisdictional Determination on April 1, 2014 (File Number SPL-2010-00408-VCC; Attachment 4). Previous

informal consultations with USACE, CDFW, and SARWQCB occurred in 2013, including a site visit with USACE representatives; however, permits for impacts to jurisdictional waters have not been issued for this project to date.

Methods

Desktop Review

Prior to visiting the project site, results included in the 2013 Jurisdictional Delineation for the SR-71/91 Interchange Project (Attachments 1a, 1b) were reviewed. Applicable literature and databases were also reviewed, including National Wetlands Inventory[1], Natural Resources Conservation Service (NRCS) Web Soil Survey database[2], National List of Hydric Soils[3], aerial photos[4], and United States Geological Survey (USGS) 7.5-minute quadrangle maps. Field surveys were conducted using guidance included in the Corps of Engineers Wetlands Delineation Manual[5], Regional Supplement to the Corps of Engineers Wetlands Delineation Manual[6], and A Field Guide to the Identification of the Ordinary High-Water Mark (OHWM) in the Arid West Region of the Western United States: A Delineation Manual[7].

Field Visit and Jurisdictional Mapping

Due to the lapse in time since the previous jurisdictional delineation, a site visit was conducted by Biologist Elizabeth Kempton and Environmental Planner Eleni Getachew on December 17, 2019, and January 9, 2020, to check for potential environmental changes and verify previous results. The site visit was reconnaissance in nature, consisting of a field review of previously delineated areas to detect changes and to update delineations where appropriate. The survey was limited to areas that may have episodic changes to stream flows (e.g., where earthen substrates/soils may be subject to changes from flooding and/or new developments have occurred that alter drainage patterns). The general area of the survey is shown in Figure 1, which comprises a 100ft buffer around all proposed project work areas.

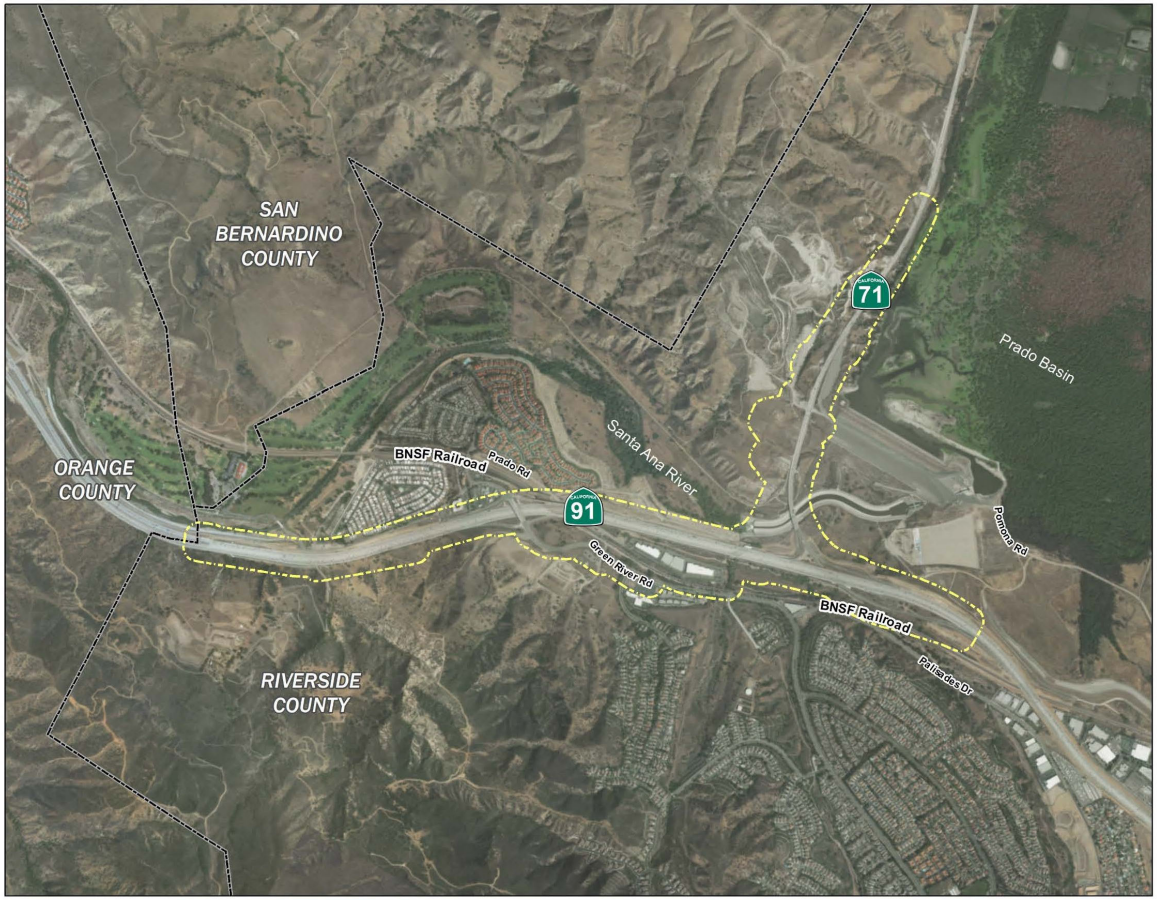
Photographs were taken during the site visit, and previously mapped jurisdictional areas were reviewed and compared to existing conditions. Potential jurisdictional areas were examined in the field for evidence of field marks (i.e., wetland parameters, OHWM, streambed and bank, and/or riparian habitat) previously noted. More recent aerial photos from the area were also reviewed and used to delimit the boundaries of potential jurisdictional waters, based on changes in sediment texture, elevation, and vegetation, as appropriate.

Features were mapped in ArcGIS 10.1 and labeled using the same alphabetical feature IDs as ECORP 2013, where possible, to provide comparisons between this report and the most recent delineation. Additional feature IDs were added where necessary, and numeric suffixes were added to provide more detail about specific ecological types (e.g., ephemeral stream, intermittent stream, wetland, riparian vegetation) within each feature.

Regulatory Update

Previous maps of potential jurisdictional waters (see Attachments 1a and 1b) were examined for consistency with the currently accepted definition of the Waters of the United States (WOTUS) provided in the most recent guidance from USACE and the United States Environmental Protection Agency (EPA)[8].

1 U.S. Fish and Wildlife Service (USFWS). 2019. National Wetlands Inventory. Available at: www.fws.gov/wetlands/Data/Mapper.html.
2 U.S. Department of Agriculture, NRCS. 2019a. Web Soil Surveys Available at: websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx.
3 U.S. Department of Agriculture, NRCS. 2019b. List of Hydric Soils, National List. Available at: www.nrcs.usda.gov/wps/portal/nrcs/main/soils/use/hydric/.
4 Google Earth. 2019 and 2020. Aerial Imagery. Available at: www.google.com/earth.
5 USACE. 1987. Corps of Engineers Wetlands Delineation Manual. Vicksburg, MS: Environmental Laboratory, U.S. Army Corps of Engineers.
6 USACE. 2008. Regional Supplement to the Corps of Engineers Wetlands Delineation Manual: Arid West Region, Version 2. Vicksburg, MS: U.S. Army Engineer Research and Development Center.
7 USACE. 2008. A Field Guide to the Identification of the Ordinary High-Water Mark (OHWM) in the Arid West Region of the Western United States: A Delineation Manual: Vicksburg, MS: U.S. Army Engineer Research and Development Center.
8 EPA. 2020. Waters of the United States (WOTUS) Rulemaking. Available at: https://www.epa.gov/wotus-rule/.



SR-71/91 Interchange Project

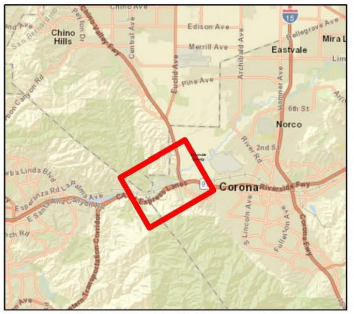
Figure 1. Project Vicinity

Legend

JD Reconnaissance Survey Area

0 1,000 2,000 4,000 Feet

1 inch = 1,624 feet



Sources: ESRI; Cal-Atlas (2011); Parsons 2020

Based on preliminary guidance[8] for the proposed new definition of WOTUS, the jurisdiction of multiple features included in this document may be subject to flux; therefore, each feature was also examined for the potential to change jurisdiction in the near future based on the proposed "new" definition of WOTUS.[9] In particular, based on the preliminary guidance, the proposed definition of WOTUS may exclude streams described as "ephemeral," which may exclude most waterways in the arid west from the jurisdiction of USACE.

Results

Existing Conditions

No substantial changes to existing conditions have occurred since the most recent jurisdictional delineation authored by ECORP (2013, Attachment 1). Some changes have occurred to the regional setting, including the currently ongoing construction of the Santa Ana River Mainstem Project, which includes major modifications to some of the flows of the Santa Ana River and the impoundment of the Prado Dam for increased flood control protection, as well as the addition of some commercial buildings. Please see ECORP (2013, Attachment 1) for a review of the following datasets, which have not been updated since the previous delineation: topography, national wetlands inventory mapping/national hydrology dataset, vegetation communities, soils, and watersheds. A few areas changed in vegetation classification due to construction and/or habitat restoration within the study area.

An update to the precipitation data is provided in Attachment 2. The most recent year (2019) had higher than normal annual rainfall, while the previous year (2018) had less than normal rainfall. Both years had months that were dryer than normal.

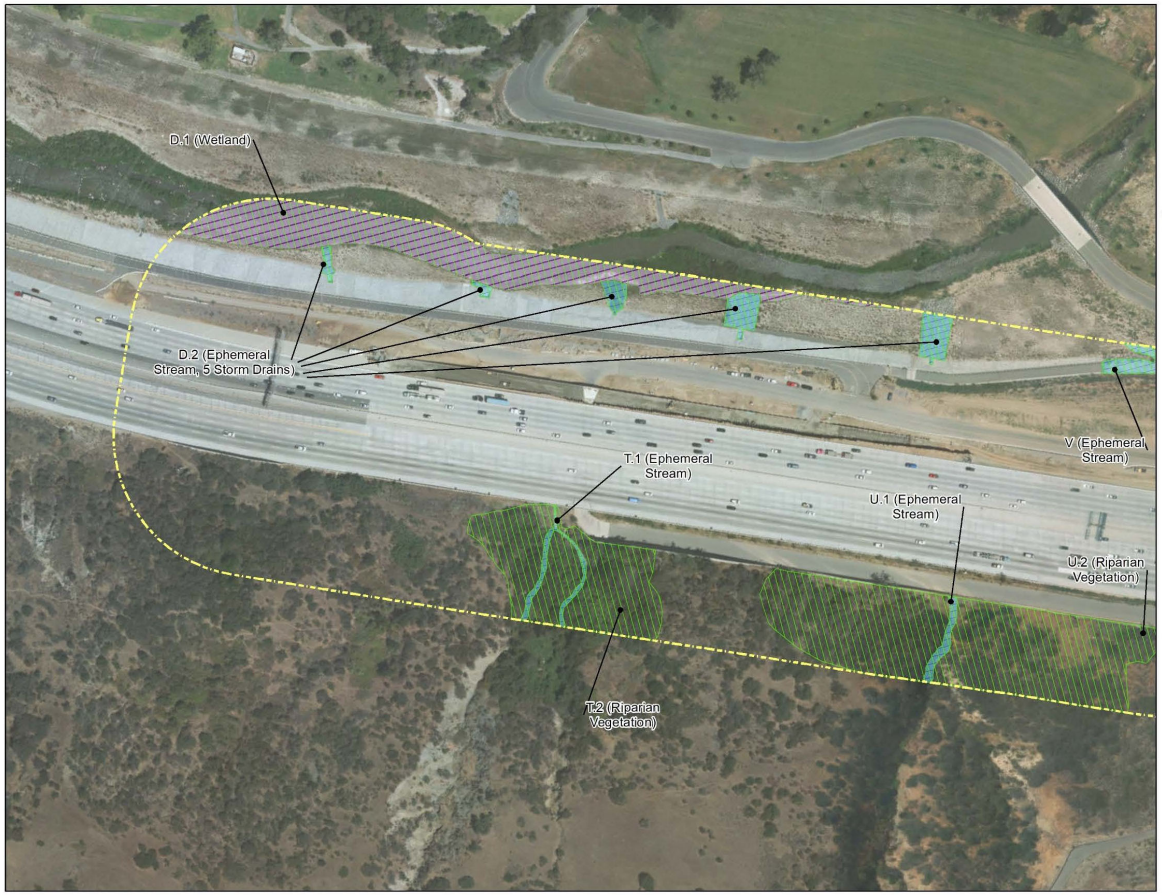
Updated Jurisdictional Delineation

Figure 2 and Table 1 show the locations of potential WOTUS and Waters of the State (WOTS) within the survey area. The boundaries of some features were updated due to recent or current construction and restoration activities occurring near the Santa Ana River and Prado Dam. No new wetland areas were identified during the reconnaissance survey; however, delineations of various features identified in the previous delineation were modified, as appropriate. USACE jurisdiction extends to the limits of the OHWM in non-wetland WOTUS. CDFW jurisdiction (WOTS) corresponds to areas that have a defined bed and bank, plus riparian vegetation surrounding the waterway[10], in addition to any wetlands. The SARWQCB jurisdiction typically corresponds to USACE jurisdiction under Section 401 of the Clean Water Act, or areas identified as WOTUS, and likely extends to most streams that are WOTS under the Porter-Cologne Water Quality Control Act. Most importantly, consultation with the agencies (i.e., USACE, CDFW, and SARWQCB) will be required to determine the classification of waters and the extent of jurisdictional assertion, and these results presented here are considered preliminary without agency confirmation. Photographs are provided in Attachment 3, and there are no pictures of Features O, P, Q, R, S, T, U, V, and W, as these features were not accessed during this reconnaissance-level survey.[11]

[9] As of January 31, 2020, the proposed "new" definition of WOTUS has not yet become effective; however, it is possible that it could go into effect prior to submittal of Section 401/404 applications. The 2015 Clean Water Act definition for WOTUS was repealed on December 23, 2019, which was Step One of the planned rulemaking processes to recodify the definition of WOTUS. Step Two involves revising the definition of WOTUS -- the proposed rule containing the proposed new definition for WOTUS was published February 14, 2019, and the public comment period closed April 15, 2019.

[10] Most areas were updated with additional riparian vegetation, as the previous delineations excluded many areas with riparian vegetation subject to CDFW jurisdiction. Also, areas where impoundments or concrete aqueducts are present were updated and included as part of WOTS/WOTUS features where appropriate, as altering these structures would fall under agency jurisdiction as well.

[11] Active construction was occurring for the Santa Ana Mainstem Project preventing accurate estimates near Feature V and W; traffic on SR-71, in combination with inundation of the Prado Basin, discouraged direct access to Features O, P, Q, R, and S; and traffic on SR-91 discouraged access to features T, U, and W on the south side. These features were viewed from a distance in the field for safety, and with the assistance of aerial photographs and Google Streetview images, these features were delineated.



SR-71/91 Interchange Project

Figure 2. Exhibits Sheet 1 of 12

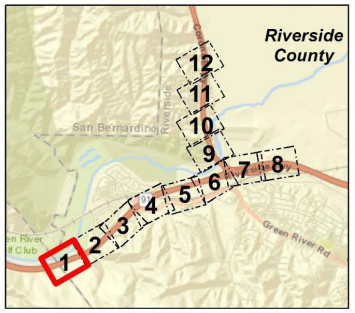
Jurisdictional Delineation of Waters of the United States (WOTUS) and Waters of the State (WOTS)

Legend

- JD Reconnaissance Survey Area
- Waters of the US (WOTUS) Non-Wetland
- WOTUS Wetland
- Waters of the State (WOTS)

0 75 150 300 Feet

1 inch = 167 feet



Sources: ESRI; Cal-Atlas (2011); Parsons 2020



SR-71/91 Interchange Project

Figure 2. Exhibits Sheet 2 of 12

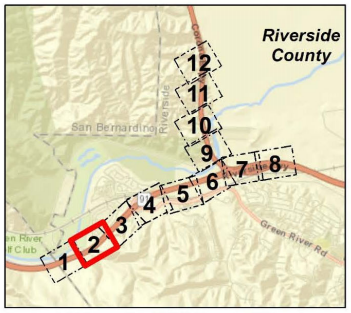
Jurisdictional Delineation of Waters of the United States (WOTUS) and Waters of the State (WOTS)

Legend

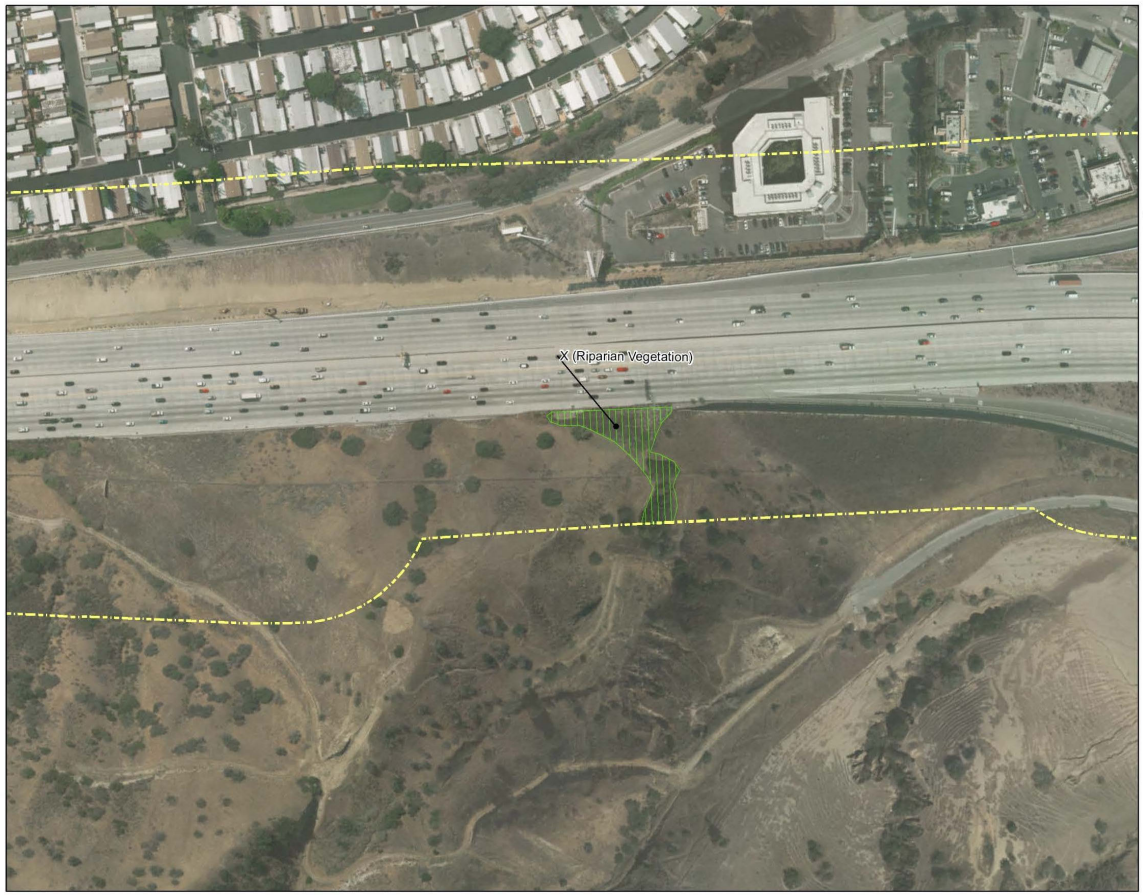
- JD Reconnaissance Survey Area
- Waters of the US (WOTUS) Non-Wetland
- WOTUS Wetland
- Waters of the State (WOTS)

0 75 150 300 Feet

1 inch = 167 feet



Sources: ESRI; Cal-Atlas (2011); Parsons 2020



SR-71/91 Interchange Project

Figure 2. Exhibits Sheet 3 of 12

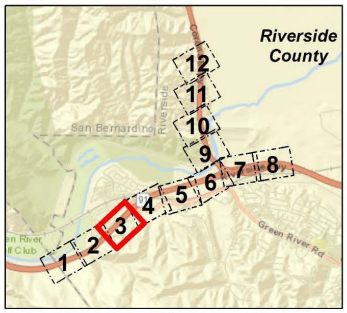
Jurisdictional Delineation of Waters of the United States (WOTUS) and Waters of the State (WOTS)

Legend

- JD Reconnaissance Survey Area
- Waters of the US (WOTUS) Non-Wetland
- WOTUS Wetland
- Waters of the State (WOTS)

0 75 150 300 Feet

1 inch = 167 feet



Sources: ESRI; Cal-Atlas (2011); Parsons 2020



SR-71/91 Interchange Project

Figure 2. Exhibits Sheet 4 of 12

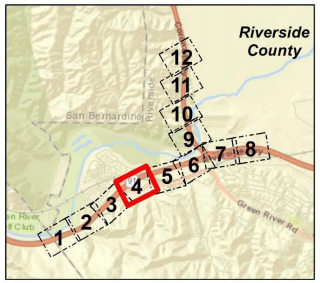
Jurisdictional Delineation of Waters of the United States (WOTUS) and Waters of the State (WOTS)

Legend

- JD Reconnaissance Survey Area
- Waters of the US (WOTUS) Non-Wetland
- WOTUS Wetland
- Waters of the State (WOTS)

0 75 150 300 Feet

1 inch = 167 feet



Sources: ESRI; Cal-Atlas (2011); Parsons 2020



SR-71/91 Interchange Project

Figure 2. Exhibits Sheet 5 of 12

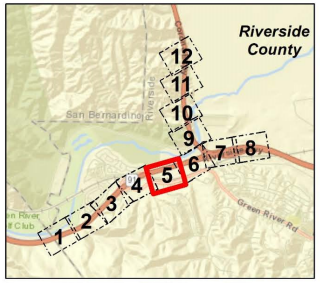
Jurisdictional Delineation of Waters of the United States (WOTUS) and Waters of the State (WOTS)

Legend

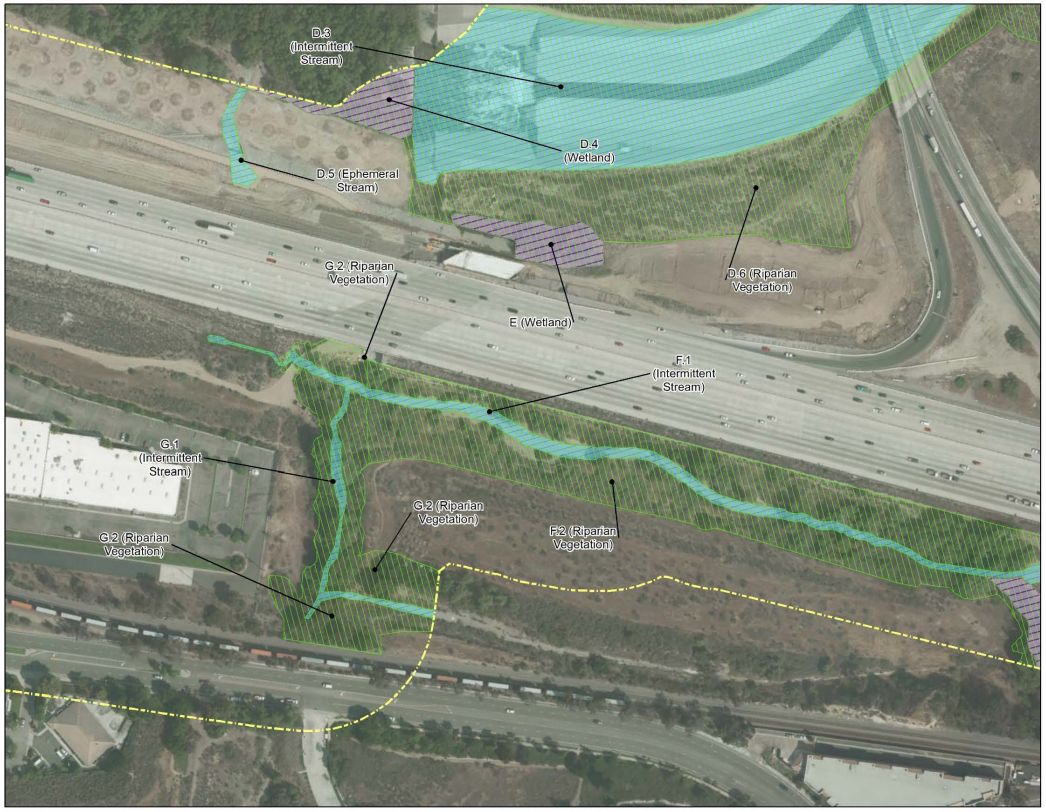
- JD Reconnaissance Survey Area
- Waters of the US (WOTUS) Non-Wetland
- WOTUS Wetland
- Waters of the State (WOTS)

0 75 150 300 Feet

1 inch = 167 feet



Sources: ESRI; Cal-Atlas (2011); Parsons 2020



SR-71/91 Interchange Project

Figure 2. Exhibits Sheet 6 of 12

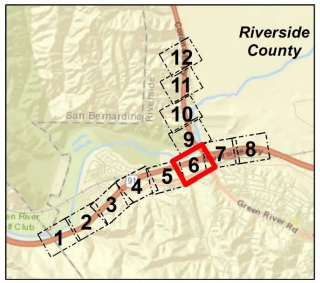
Jurisdictional Delineation of Waters of the United States (WOTUS) and Waters of the State (WOTS)

Legend

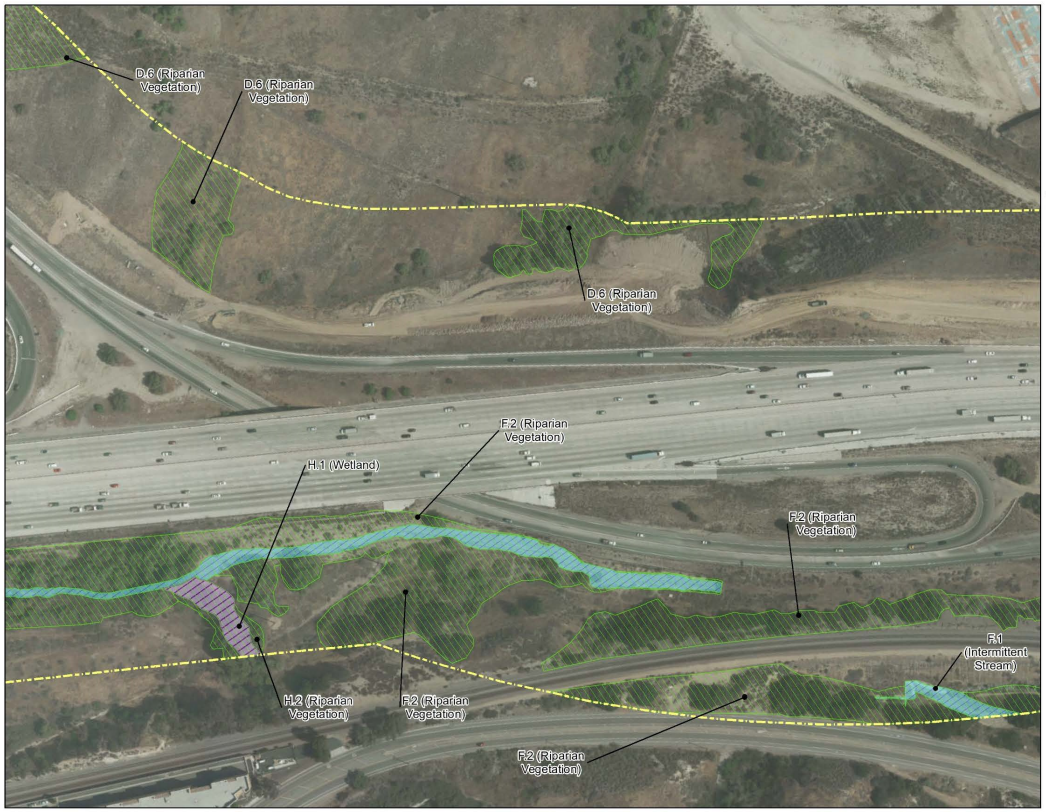
- JD Reconnaissance Survey Area
- Waters of the US (WOTUS) Non-Wetland
- WOTUS Wetland
- Waters of the State (WOTS)

0 75 150 300 Feet

1 inch = 167 feet



Sources: ESRI; Cal-Atlas (2011); Parsons 2020



SR-71/91 Interchange Project

Figure 2. Exhibits Sheet 7 of 12

Jurisdictional Delineation of Waters of the United States (WOTUS) and Waters of the State (WOTS)

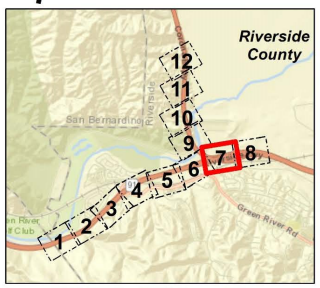
Legend

- JD Reconnaissance Survey Area
- Waters of the US (WOTUS) Non-Wetland
- WOTUS Wetland
- Waters of the State (WOTS)

N

0 75 150 300 Feet

1 inch = 167 feet



Sources: ESRI; Cal-Atlas (2011); Parsons 2020



SR-71/91 Interchange Project

Figure 2. Exhibits Sheet 8 of 12

Jurisdictional Delineation of Waters of the United States (WOTUS) and Waters of the State (WOTS)

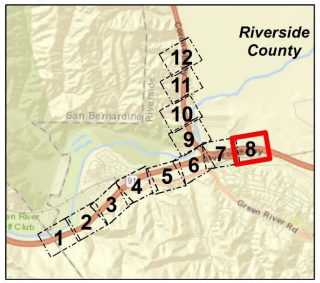
Legend

- JD Reconnaissance Survey Area
- Waters of the US (WOTUS) Non-Wetland
- WOTUS Wetland
- Waters of the State (WOTS)

N

0 75 150 300 Feet

1 inch = 167 feet



Sources: ESRI; Cal-Atlas (2011); Parsons 2020



SR-71/91 Interchange Project

Figure 2. Exhibits Sheet 9 of 12

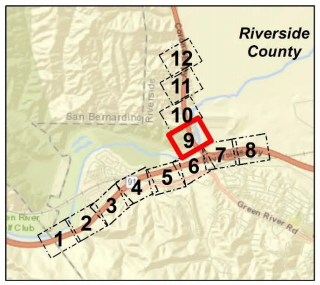
Jurisdictional Delineation of Waters of the United States (WOTUS) and Waters of the State (WOTS)

Legend

- JD Reconnaissance Survey Area
- Waters of the US (WOTUS) Non-Wetland
- WOTUS Wetland
- Waters of the State (WOTS)

0 75 150 300 Feet

1 inch = 167 feet



Sources: ESRI; Cal-Atlas (2011); Parsons 2020



SR-71/91 Interchange Project

Figure 2. Exhibits Sheet 10 of 12

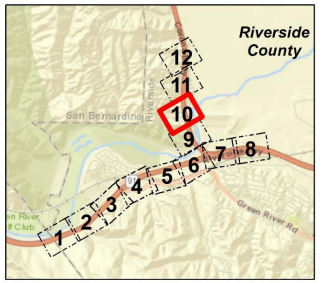
Jurisdictional Delineation of Waters of the United States (WOTUS) and Waters of the State (WOTS)

Legend

- JD Reconnaissance Survey Area
- Waters of the US (WOTUS) Non-Wetland
- WOTUS Wetland
- Waters of the State (WOTS)

0 75 150 300 Feet

1 inch = 167 feet



Sources: ESRI; Cal-Atlas (2011); Parsons 2020



SR-71/91 Interchange Project

Figure 2. Exhibits Sheet 11 of 12

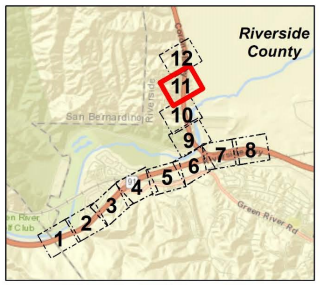
Jurisdictional Delineation of Waters of the United States (WOTUS) and Waters of the State (WOTS)

Legend

- JD Reconnaissance Survey Area
- Waters of the US (WOTUS) Non-Wetland
- WOTUS Wetland
- Waters of the State (WOTS)

0 75 150 300 Feet

1 inch = 167 feet



Sources: ESRI; Cal-Atlas (2011); Parsons 2020



SR-71/91 Interchange Project

Figure 2. Exhibits Sheet 12 of 12

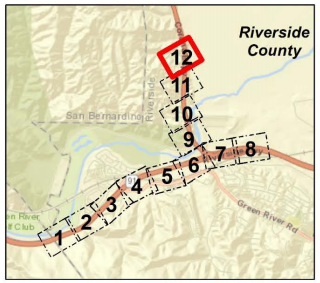
Jurisdictional Delineation of Waters of the United States (WOTUS) and Waters of the State (WOTS)

Legend

- JD Reconnaissance Survey Area
- Waters of the US (WOTUS) Non-Wetland
- WOTUS Wetland
- Waters of the State (WOTS)

0 75 150 300 Feet

1 inch = 167 feet



Sources: ESRI; Cal-Atlas (2011); Parsons 2020

TABLE 1. CLASSIFICATION OF POTENTIAL JURISDICTIONAL WATERS

Feature ID	Type of Feature and Description of Indicators	Would Classification of Jurisdiction Potentially Change Based on Proposed WOTUS Definition?[1]	Previous Delineation Potential WOTS/WOTUS (Summary of 2013 Report Only)	Updated Potential WOTS/WOTUS under Current Legal Definitions[2] (as of January 31, 2020)
A.1	Ephemeral Stream	Yes	WOTS/WOTUS Non-Wetland	WOTS/WOTUS Non-Wetland
A.2	Riparian Vegetation	No	WOTS[3]	WOTS
B.1	Ephemeral Stream	Yes	WOTS/WOTUS Non-Wetland[3]	WOTS/WOTUS Non-Wetland
B.2	Riparian Vegetation	No	WOTS[3]	WOTS
C.1	Ephemeral Stream	Yes	WOTS/WOTUS Non-Wetland	WOTS/WOTUS Non-Wetland
C.2	Riparian Vegetation	No	WOTS[3]	WOTS
C.3	Wetland	No	WOTS/WOTUS-Wetland	WOTS/WOTUS Wetland
D.1	Wetland	No	WOTS/WOTUS Non-Wetland	WOTS/WOTUS Wetland
D.2	Ephemeral Stream	Yes	N/A: This feature was not delineated in previous report.[4,5]	WOTS/WOTUS Non-Wetland
D.3	Intermittent Stream	No	WOTS/WOTUS Non-Wetland	WOTS/WOTUS Non-Wetland
D.4	Wetland	No	WOTS/WOTUS-Wetland	WOTS/WOTUS Wetland
D.5	Ephemeral Stream	Yes	N/A: This feature was not delineated in previous report.[6]	WOTS/WOTUS Non-Wetland
D.6	Riparian Vegetation	No	N/A: This feature was not delineated in previous report.[3]	WOTS
E	Wetland	Yes	WOTS/WOTUS Wetland	WOTS/WOTUS Wetland
F.1	Intermittent Stream	No	WOTS/WOTUS Non-Wetland	WOTS/WOTUS Non-Wetland
F.2	Riparian Vegetation	No	N/A: This feature was not delineated in previous report.[3]	WOTS
G.1	Intermittent Stream	No	WOTS/WOTUS Non-Wetland	WOTS/WOTUS Non-Wetland
G.2	Riparian Vegetation	No	N/A: This feature was not delineated in previous report.[3]	WOTS
H.1	Wetland	No	WOTS/WOTUS Wetland	WOTS/WOTUS Wetland
H.2	Riparian Vegetation	No	WOTS[3]	WOTS
I	Ephemeral Stream	Yes	WOTS/WOTUS Non-Wetland	WOTS/WOTUS Non-Wetland
J.1	Ephemeral Stream	Yes	WOTS/WOTUS Non-Wetland	WOTS/WOTUS Non-Wetland
J.2	Riparian Vegetation	No	WOTS[3]	WOTS
K.1	Ephemeral Stream	Yes	WOTS/WOTUS Non-Wetland	WOTS/WOTUS Non-Wetland
K.2	Riparian Vegetation	No	WOTS[3]	WOTS
L	Ephemeral Stream	Yes	WOTS/WOTUS Non-Wetland	WOTS/WOTUS Non-Wetland
M.1	Wetland	No	WOTS/WOTUS Wetland	WOTS/WOTUS Wetland
M.2	Riparian Vegetation	No	WOTS[3]	WOTS

TABLE 1. CLASSIFICATION OF POTENTIAL JURISDICTIONAL WATERS

Feature ID	Type of Feature and Description of Indicators	Would Classification of Jurisdiction Potentially Change Based on Proposed WOTUS Definition?[1]	Previous Delineation Potential WOTS/WOTUS (Summary of 2013 Report Only)	Updated Potential WOTS/WOTUS under Current Legal Definitions[2] (as of January 31, 2020)
N	Ephemeral Stream	Yes	WOTS/WOTUS Non-Wetland	WOTS/WOTUS Non-Wetland
O.1	Ephemeral Stream	Yes	WOTS/WOTUS Non-Wetland	WOTS/WOTUS Non-Wetland
O.2	Riparian Vegetation	No	WOTS[3]	WOTS
P.1	Ephemeral Stream	Yes	WOTS/WOTUS Non-Wetland	WOTS/WOTUS Non-Wetland
P.2	Riparian Vegetation	No	WOTS[3]	WOTS
Q	Ephemeral Stream	Yes	WOTS/WOTUS Non-Wetland	WOTS/WOTUS Non-Wetland
R	Ephemeral Stream	Yes	WOTS/WOTUS Non-Wetland	WOTS/WOTUS Non-Wetland
S	Ephemeral Stream	Yes	WOTS/WOTUS Non-Wetland	WOTS/WOTUS Non-Wetland
T.1	Ephemeral Stream	Yes	N/A: This feature was not delineated in previous report.	WOTS/WOTUS Non-Wetland
T.2	Riparian Vegetation	No	N/A: This feature was not delineated in previous report.	WOTS
U.1	Ephemeral Stream	Yes	N/A: This feature was not delineated in previous report.	WOTS/WOTUS Non-Wetland
U.2	Riparian Vegetation	No	N/A: This feature was not delineated in previous report.	WOTS
V	Ephemeral Stream	Yes	N/A: This feature was not delineated in previous report.	WOTS/WOTUS Non-Wetland
W.1	Ephemeral Stream	Yes	N/A: This feature was not delineated in previous report.	WOTS/WOTUS Non-Wetland
W.2	Riparian Vegetation	No	N/A: This feature was not delineated in previous report.	WOTS
X	Riparian Vegetation	No	N/A: This feature was not delineated in previous report.	WOTS
Y	Intermittent Stream	No	N/A: This feature was not delineated in previous report.	WOTS/WOTUS Non-Wetland[3]

[1] The expanded 2015 definition for WOTUS was repealed on December 23, 2019. As of January 31, 2020, the proposed "new" definition of WOTUS has not become effective, although it was published on February 14, 2019. Due to the planned time for permit applications, it is possible that the proposed rule may go into effect; therefore, features that may be subject to flux in jurisdiction are indicated here. All of the features identified in this report potentially subject to be exempt from federal jurisdiction are ephemeral streams.

[2] Subject to evaluation by agencies; delineations presented here are preliminary until formal determinations are made by USACE, CDFW, and SARWQCB.

[3] The delineation of the boundaries of this feature differs from the last delineation, either due to the previous exclusion of riparian vegetation or due to current and/or previous construction in the area.

[4] Several new storm drains were constructed by the Santa Ana Mainstem Project that were not present during the previous delineations.

[5] Aerial photos used in this report do not depict the most current conditions and shape of this feature.

Calculation of Jurisdictional Areas within Reconnaissance Survey Area

Table 2 identifies acreages of potential jurisdictional areas estimated within the project area, while Figure 2 shows the locations of these features. In total, there are approximately 5.34 acres (232,686 square feet) of potential WOTS/WOTUS Wetland (includes Wetlands only), 12.59 acres (547,252 square feet) WOTS/WOTUS Non-Wetland (includes Streams only), and 41.52 acres (180,8443 square feet) of potential WOTS (includes Riparian Vegetation only). Nineteen (19) features (comprising 2.49 acres, 108,660 square feet) were classified as "ephemeral streams," which may be subject to change in federal jurisdiction based on proposed changes to the definition of WOTUS. No evaluation of temporary or permanent impacts is provided at this time, as this information will be provided as part of future permitting packages, but a general evaluation of potential impacts is provided in Table 2.

TABLE 2. POTENTIAL WOTUS AND WOTS

Feature ID	Classification (i.e., WOTUS/WOTS)[1]	Acres	Square Feet	Potential for Impacts?
A.1 (Ephemeral Stream)	WOTS/WOTUS Non-Wetland	0.17	7,411	Yes
A.2 (Riparian Vegetation)	WOTS	3.24	141,152	Yes
B.1 (Ephemeral Stream)	WOTS/WOTUS Non-Wetland	0.12	5,379	Yes
B.2 (Riparian Vegetation)	WOTS	1.84	80,175	Yes
C.1 (Ephemeral Stream)	WOTS/WOTUS Non-Wetland	0.20	8,496	Yes
C.2 (Riparian Vegetation)	WOTS	0.74	32,080	Yes
C.3 (Wetland)	WOTS/WOTUS Wetland	0.01	338	Yes
D.1 (Wetland)	WOTS/WOTUS Wetland	1.35	58,720	No
D.2 (Ephemeral Stream)	WOTS/WOTUS Non-Wetland	0.25	10,793	No
D.3 (Intermittent Stream)	WOTS/WOTUS Non-Wetland	8.35	363,553	No
D.4 (Wetland)	WOTS/WOTUS Wetland	0.39	17,075	No
D.5 (Ephemeral Stream)	WOTS/WOTUS Non-Wetland	0.12	5,215	No
D.6 (Riparian Vegetation)	WOTS	11.46	499,326	Yes
E (Wetland)	WOTS/WOTUS Wetland	0.40	17,392	Yes
F.1 (Intermittent Stream)	WOTS/WOTUS Non-Wetland	1.46	63,743	Yes
F.2 (Riparian Vegetation)	WOTS	10.46	455,648	Yes
G.1 (Intermittent Stream)	WOTS/WOTUS Non-Wetland	0.20	8,590	Yes
G.2 (Riparian Vegetation)	WOTS	1.93	84,062	Yes
H.1 (Wetland)	WOTS/WOTUS Wetland	0.22	9,617	No
H.2 (Riparian Vegetation)	WOTS	0.10	4,516	Yes
I (Ephemeral Stream)	WOTS/WOTUS Non-Wetland	0.12	5,258	Yes
J.1 (Ephemeral Stream)	WOTS/WOTUS Non-Wetland	0.14	5,881	Yes
J.2 (Riparian Vegetation)	WOTS	0.14	6,017	Yes
K.1 (Ephemeral Stream)	WOTS/WOTUS Non-Wetland	0.12	5,294	Yes
K.2 (Riparian Vegetation)	WOTS	0.21	9,057	Yes
L (Ephemeral Stream)	WOTS/WOTUS Non-Wetland	0.03	1,108	Yes
M.1 (Wetland)	WOTS/WOTUS Wetland	2.97	129,545	Yes
M.2 (Riparian Vegetation)	WOTS	4.98	216,934	No
N (Ephemeral Stream)	WOTS/WOTUS Non-Wetland	0.13	5,642	Yes

TABLE 2. POTENTIAL WOTUS AND WOTS

Feature ID	Classification (i.e., WOTUS/WOTS)[1]	Acres	Square Feet	Potential for Impacts?
O.1 (Ephemeral Stream)	WOTS/WOTUS Non-Wetland	0.14	6,045	Yes
O.2 (Riparian Vegetation)	WOTS	0.70	30,385	Yes
P.1 (Ephemeral Stream)	WOTS/WOTUS Non-Wetland	0.30	12,859	Yes
P.2 (Riparian Vegetation)	WOTS	1.40	60,991	Yes
Q (Ephemeral Stream)	WOTS/WOTUS Non-Wetland	0.03	1,260	Yes
R (Ephemeral Stream)	WOTS/WOTUS Non-Wetland	0.06	2,508	Yes
S (Ephemeral Stream)	WOTS/WOTUS Non-Wetland	0.15	6,508	No
T.1 (Ephemeral Stream)	WOTS/WOTUS Non-Wetland	0.07	2,892	No
T.2 (Riparian Vegetation)	WOTS	1.14	49,710	No
U.1 (Ephemeral Stream)	WOTS/WOTUS Non-Wetland	0.05	2,236	No
U.2 (Riparian Vegetation)	WOTS	2.31	100,443	No
V (Ephemeral Stream)	WOTS/WOTUS Non-Wetland	0.17	7,369	No
W.1 (Ephemeral Stream)	WOTS/WOTUS Non-Wetland	0.15	6,506	No
W.2 (Riparian Vegetation)	WOTS	0.48	20,859	No
X (Riparian Vegetation)	WOTS	0.39	17,089	No
Y (Intermittent Stream)	WOTS/WOTUS Non-Wetland	0.06	2,706	No
Totals	WOTS/WOTUS Wetland (including Wetlands only)	5.34	232,686	
	WOTS/WOTUS Non-Wetland (including Ephemeral, Intermittent and Perennial Streams)	12.59	547,252	
	WOTS Only (including Riparian Vegetation)	41.52	1,808,444	

Conclusions/Summary of Findings

Within the potential impact area, there are 45 features that may be subject to agency jurisdiction. These include features classified as Streams (Ephemeral, Intermittent, and Perennial), Wetlands, and Riparian Vegetation. In total, there are approximately 5.34 acres (232,686 square feet) of potential WOTS/WOTUS Wetlands (includes Wetlands only), 12.56 acres (547,252 square feet) WOTS/WOTUS Non-Wetland (includes Streams only), and 41.52 acres (1,808,443 square feet) of potential WOTS (includes Riparian Vegetation only).

Of note, 19 features (comprising 2.49 acres, 108,660 square feet) presented in this memo as "Ephemeral Streams" may be subject to changes of jurisdiction if the proposed definition of WOTUS becomes effective.

All results presented herein are subject to review and input of the agencies (i.e., USACE, CDFW, and SARWQCB) for concurrence.

Should there be any questions regarding information presented in this memorandum, please feel free to contact me at Elizabeth.Kempton@parsons.com or on my direct line at (626) 440-6149.

Sincerely,

Elizabeth Kempton

Elizabeth Kempton
Principal Scientist

ATTACHMENT 1A. ECORP (2013) JURISDICTIONAL DELINEATION FOR THE SR-71/91 INTERCHANGE PROJECT

ATTACHMENT 1B. MICHAEL BRANDMAN AND ASSOCIATES (2009) JURISDICTIONAL DELINEATION FOR THE SR-71/91 INTERCHANGE PROJECT

ATTACHMENT 2. MONTHLY PRECIPITATION DATA 2018–2019, SANTA ANA FIRE STATION, CA US[AB]

Date (Month/Year)	Monthly Rainfall[A] (Inches)	Cumulative Rainfall (Annual, Inches)	Normal Rainfall[B] (Inches)	Deviation from Normal Rainfall
01/2018	1.08	1.08	2.82	-1.74
02/2018	0.02	1.10	3.39	-3.37
03/2018	1.369	2.47	2.14	-0.771
04/2018	0.02	2.49	0.87	-0.85
05/2018	0.11	2.60	0.21	-0.1
06/2018	0	2.60	0.08	-0.08
07/2018	0	2.60	0.05	-0.05
08/2018	0	2.60	0.03	-0.03
09/2018	0	2.60	0.21	-0.21
10/2018	0.80	3.40	0.58	0.22
11/2018	1.11	4.51	1.15	-0.04
12/2018	2.57	7.08	2.10	0.47
	Subtotal 2018	*7.08*	*13.63*	*-6.55*
01/2019	6.01	6.01	2.82	3.19
02/2019	5.61	11.62	3.39	2.22
03/2019	1.42	13.04	2.14	-0.72
04/2019	0.06	13.1	0.87	-0.81
05/2019	0.66	13.76	0.21	0.45
06/2019	0.05	13.81	0.08	-0.03
07/2019	0	13.81	0.05	-0.05
08/2019	0	13.81	0.03	-0.03
09/2019	0.01	13.82	0.21	-0.20
10/2019	0	13.82	0.58	-0.58
11/2019	1.96	15.78	1.15	0.81
12/2019	1.80	17.58	2.10	-0.30
	Subtotal 2019	*17.58*	*13.63*	*3.95*

[A] Sources: NOAA. 2020. Climate Data Online: Santa Ana Station.
Available at: https://www.ncdc.noaa.gov/cdo-web/datasets/GHCND/stations/GHCND:USC00047888/detail
[B] Source: NOAA. 2020. Data Tools: 1981–2010 Normals. Santa Ana Station. Available at: https://www.ncdc.noaa.gov/cdo-web/datatools/normals

ATTACHMENT 3. PHOTOGRAPHS



Figure 1. Photograph of Feature A, looking southeast.
Mapped feature present on Figure 2, Exhibit Sheet 4.



Figure 2. Photograph of Feature B, looking northwest.
Mapped feature present on Figure 2, Exhibit Sheet 5.



Figure 3. Photograph of Feature C, looking northeast.
Mapped feature present on Figure 2, Exhibit Sheet 5.



Figure 4. Looking toward Santa Ana River (Feature D), just past storm drains near parking lot for Santa Ana River Trail. Road toward Green River Golf Club can be seen in picture where it crosses Santa Ana River.
Area mapped on Figure 2, Exhibit Sheets 1.

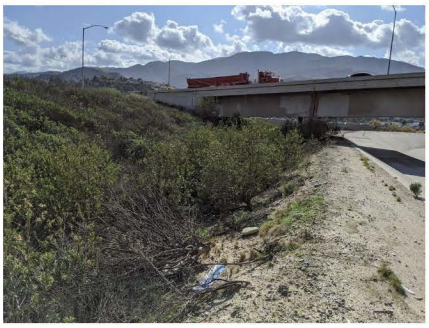


Figure 5. Photograph of Feature D, looking toward underpass of SR-71. Mapped feature present on Figure 2, Exhibit Sheet 6.



Figure 6. Photograph of Feature D, looking toward wetland area (D.3) from Santa Ana River trail near spillway. Mapped feature present on Figure 2, Exhibit Sheet 6.



Figure 7. Photograph of Feature D (Wardlow Wash) toward freeway undercrossing leading to Fresno Canyon (Feature G.1), looking southeast from Santa Ana River trail. Mapped feature present on Figure 2, Exhibit Sheet 6.



Figure 8. Photograph of riparian vegetation within southern portion of the Prado Basin. Mapped as D.6 on Figure 2, Exhibit Sheet 7.



Figure 9. Photograph of Feature E, looking southeast. Mapped feature present on Figure 2, Exhibit Sheet 6.



Figure 10. Photograph of Feature F, looking west near easternmost portion at outfall structure. Mapped on Figure 2, Exhibit Sheet 7



Figure 11. Photograph of Feature F, looking east just south of BNSF railroad tracks.
Mapped feature present on rightmost side of Figure 2, Exhibit Sheet 7.



Figure 12. Photograph of Feature F, west.
Mapped feature present on rightmost side of Figure 2, Exhibit Sheet 7.



Figure 13. Looking south toward Prado Dam from Pomona-Rincon Road with the Prado Basin. Area mapped on Figure 2, Exhibit Sheet 7 Feature D (Santa Ana River Channel) is visible at distance.



Figure 14. Photograph of Feature H, looking northeast.
Feature mapped on Figure 2, Exhibit Sheet 7.



Figure 15. Looking south toward Features K, J, and I within the Prado Basin near the intersection of SR-71 and SR-91.
Area mapped on Figure 2, Exhibit Sheet 9.



Figure 16. Photograph of Feature N, looking south.
Mapped feature present on Figure 2, Exhibit Sheet 10.



Figure 17. Photograph of Features L, M (inundated wetland area), and N looking northeast. Mapped feature present on Figure 2, Exhibit Sheet 10.



Figure 18. Looking toward Feature X from Fresno Road. Mapped feature present on Figure 2, Exhibit Sheet 3.



Figure 19. Photograph of Feature Y, looking east. Mapped feature present on Figure 2, Exhibit Sheet 8.



Figure 20. Photograph of Feature Y, looking north. Mapped feature present on Figure 2, Exhibit Sheet 8



Figure 21. Photograph of Feature Y, looking north. Mapped feature present on Figure 2, Exhibit Sheet 8



Figure 22. Photograph of Feature Y, looking north. Mapped feature present on Figure 2, Exhibit Sheet 8

ATTACHMENT 4. PRELIMINARY JURISDICTIONAL DETERMINATION

Appendix G SR-71/SR-91 Interchange Improvement Project Biological Opinion

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United States Department of the Interior

FISH AND WILDLIFE SERVICE
Ecological Services
Carlsbad Fish and Wildlife Office
6010 Hidden Valley Road, Suite 101
Carlsbad, California 92011

In Reply Refer To:
FWS-WRIV-09B0057-11F0421

JUN 22 2011

Mr. Aaron Burton
Senior Environmental Planner
California Department of Transportation
District 8
Environmental Planning (MS 1163)
464 West 4th Street, 6th Floor
San Bernardino, California 92401-1400

Attention: Scott Quinnell, Associate Environmental Planner (File No. D-08-Riv-91/71 Interchange-EA 0F5410)

Subject: Formal Section 7 Consultation for State Route 91 and State Route 71 Interchange Improvement Project, City of Corona, Riverside County, California

Dear Mr. Burton:

This document transmits our biological opinion based on our review of the proposed State Route (SR) 91 and SR 71 Interchange Improvement Project (Project), and its potential effects on the federally endangered least Bell's vireo (*Vireo bellii pusillus*, "vireo") and federally threatened coastal California gnatcatcher (*Polioptila californica californica*, "gnatcatcher"), in accordance with section 7 of the Endangered Species Act of 1973 (Act), as amended (16 U.S.C. 1531 *et seq.*). The proposed Project is receiving Federal funding through the Federal Highway Administration (FHWA), and Caltrans has assumed FHWA's responsibilities under the Act for this consultation in accordance with Section 6005 of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) 2005, as described in the National Environmental Policy Act, Delegation Pilot Program Memorandum of Understanding between FHWA and Caltrans (effective July 1, 2007) and codified in 23 U.S.C. 327(a)(2)(A). We initiated formal consultation on March 28, 2011, the date we received your request. You have determined the proposed Project may affect and is likely to adversely affect vireo and gnatcatcher.

On June 22, 2004, we issued a section 10(a)(1)(B) permit for the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP). The MSHCP establishes a multiple species conservation program to minimize and mitigate habitat loss and the incidental take of covered species in association with activities covered under the permit. The proposed Project is located within the plan area boundary of the MSHCP and is considered a covered activity under that plan.

TAKE PRIDE IN AMERICA

USFWS Biological Opinion

As a permittee under the MSHCP, Caltrans received incidental take authorization for vireo and gnatcatcher for the proposed Project through their section 10(a)(1)(B) permit for that plan. For us to extend the take coverage already provided to Caltrans to Caltrans acting as the FHWA designee, the proposed action must be consistent with the MSHCP and its associated implementation agreement and permit.

This biological opinion is based on information provided in the (1) *Natural Environment Study SR 91 and SR 71 Interchange Improvement Project SR–91–PM R0.6/R2.6; SR–71–PM 1.6/3.0 City of Corona, Riverside County, CA* (NES) (June 2010); (2) *Western Riverside County Regional Conservation Authority (RCA) Joint Project Review* (JPR) # *10–07–19–02* (May 2011); (3) *Habitat Assessment and MSHCP Consistency Analysis for the SR 91 and SR 71 Interchange Improvement Project City of Corona, Riverside County, California* (June 2010); (4) *SR 91 and SR 71 Interchange Improvement Project Habitat Assessment* (March 2011); and (5) other information available in our files. The complete project file addressing this consultation is maintained at the Carlsbad Fish and Wildlife Office (CFWO).

The Biological Study Area (BSA) for the proposed Project includes an approximate 341-hectare (ha) [842-acre (ac)] area located in the vicinity of the junction of SR 91 and SR 71 (91/71), north of the Cleveland National Forest and east of Chino Hills State Park. Included within the 341-ha (842-ac) BSA is a 40-ha (99-ac) project impact area where project construction will occur. The BSA falls within Subunit 1 (Santa Ana River/Santa Ana Mountains) and Subunit 2 (Prado Basin) of the Temescal Canyon Area Plan of the MSHCP. In Subunit 1, the BSA occurs within independent Criteria Cells 1702, 1704, and 1706. In Subunit 2, the BSA occurs within Criteria Cells 1426 of Cell Group A, 1520 and 1612 of Cell Group B, and within independent Criteria Cell 1616. Portions of the BSA also fall within Existing Core A, Proposed Constrained Linkage (PCL) 1, and PCL 2.

Implementation of the proposed Project will result in the construction of a new two-lane direct flyover connector (bridge) from eastbound SR 91 to northbound SR 71. Construction of the flyover connector would also include abutments, columns, and associated footings. The flyover connector would have two 4-meter (m) [12-foot (ft)] wide lanes and 3-m (10-ft) wide shoulders. In addition to the two main connector lanes, the flyover structure would carry an outside auxiliary lane extending along the connector from the Green River Road on-ramp. The flyover connector ramp would begin on eastbound SR 91, east of the existing Green River Road interchange, and would span SR 91, the Santa Ana River, and the southbound lanes of SR 71. Additionally, the Green River Road eastbound on-ramp would be reconstructed, SR 71 would be realigned, and access to properties would be relocated. Other project features include drainage improvements, signage, and retaining walls. Refer to Table 1 below for a summary of proposed Project related impacts to native plant communities.

USFWS Biological Opinion

Mr. Aaron Burton (FWS-WRIV-09B0057-11F0421) 3

Table 1 - Native Vegetation Impacts

Plant Communities	Permanent Impact (Acres)	Temp. Impact (Acres)
Coastal Sage Scrub	6.60	8.78
Coastal Sage-Chaparral Scrub	4.00	2.23
Mule Fat Scrub	0.04	0.15
Non-Native Grassland	2.24	13.50
Oak Woodland	0.36	1.06
Salt Brush Scrub	0.00	0.89
Southern Cottonwood Willow Riparian Forest	0.16	1.85
Total Impacts	**13.4**	**28.46**

In addition to the BSA occurring within MSHCP Criteria Areas, and PCLs 1 and 2, the BSA overlaps with Narrow Endemic Plant Species Survey Area 7 and Additional Species Survey area for burrowing owl (*Athene cunicularia hypugaea*). As currently designed, the proposed Project will be contained within the least environmentally sensitive location feasible and demonstrates consistency with the biological goals and objectives as set forth in Section 7.5.1 of the MSHCP. Section 7.5 of the MSHCP addresses the Guidelines for Facilities within the Criteria Area and Public/Quasi Public (PQP) Lands. The proposed Project has or will implement the conditions set forth in Section 7.5.1 through the design process, or will through the implementation process. Additionally, to offset the permanent loss of 0.40 ha (1.0 ac) of MSHCP PQP Lands, Riverside County Transportation Commission (RCTC) will commit to purchasing 0.40 ha (1.0 ac) of land and relinquishing it to the RCA for long-term conservation, consistent with the requirements of the MSHCP.

The proposed Project alignment crosses areas that were contemplated for conservation associated with PCL 1 and PCL 2. The proposed Project will maintain culverts and connections under the roadway, thereby continuing the ability of some wildlife to move through the proposed Project area. RCTC (the Project applicant), in discussions with the RCA and Wildlife Agencies, has acknowledged there is a need to address connectivity issues with PCL 1 in an alternate location. They have also acknowledged committing to enhancing PCL 2 as a viable wildlife corridor. For PCL 1, the proposed Project will improve wildlife connectivity by utilizing an open channel instead of a traditional pipe extension, constructing wildlife fencing to funnel into the crossing, and planting native vegetation; for PCL 2, the proposed Project will improve the function of the undercrossing bridge by removing the obstruction of the concrete revetment and re-grading the slopes of the crossing openings. In addition, wildlife fencing will be installed to funnel the wildlife into the crossings in the area and native vegetation will be planted to provide habitat continuity (see pages 11–12 of the Wildlife Corridor Analysis Report). Since the proposed Project design did consider the impacts to the MSHCP Criteria Area by proposing to improve the existing undercrossing to facilitate better wildlife movement from Existing Core A (Prado Basin and the Santa Ana River) to Existing Core B (Cleveland National Forest), the project would not conflict with the provisions set forth in Section 7.5.1 and 7.5.2 of the MSHCP.

USFWS Biological Opinion

Mr. Aaron Burton (FWS-WRIV-09B0057-11F0421) 4

The proposed Project is located in Narrow Endemic Plant Species Survey Area 7. In accordance with the Protection of Narrow Endemic Plant Species, a habitat assessment was conducted for three narrow endemic plant species, *Ambrosia pumila* (San Diego ambrosia), *Phacelia stellaris* (Brand's phacelia), and *Satureja chandleri* (San Miguel savory). None of these narrow endemic plant species were observed during the habitat assessments. Blooming period surveys for these plants were conducted for the SR 91 Corridor Improvement Project (CIP) and none were detected. However, the northern-most part of the proposed Project area was not surveyed during the blooming period for these plants. To ensure no direct impacts to the Brand's phacelia, San Diego ambrosia, and San Miguel savory during construction of the proposed Project, the following measures will be incorporated into the proposed Project to protect narrow endemic plant species:

- Prior to construction, a habitat assessment, and as required, focused surveys for the San Diego ambrosia, Brand's phacelia, and San Miguel savory will be conducted during the appropriate blooming season. Subsequent to surveys, the RCTC will update the information in the JPR and a Determination of Biologically Equivalent or Superior Preservation (DBESP) to address the additional surveys, and as necessary, presence of and impacts to these species. If the federally endangered San Diego ambrosia is identified on-site during the surveys, Caltrans will reinitiate section 7 consultation with the Service to amend the biological opinion. Applicable mitigation will be determined through coordination with the resource agencies based on the survey results and project impacts. Potential mitigation measures listed below or a combination of the two measures would be implemented.
    - On-site conservation of San Diego ambrosia, Brand's phacelia, and San Miguel savory through avoidance and designation of environmentally sensitive areas.
    - Translocation of San Diego ambrosia, Brand's phacelia, and San Miguel savory individuals outside of the proposed Project right of way to areas of suitable habitat, as identified by a contractor-supplied plant biologist with knowledge of and experience with translocation of local flora species of the region.

With the avoidance and minimization measures documented above, we concur that the proposed Project is consistent with the MSHCP Protection of Narrow Endemic Plant Species policy of the MSHCP for narrow endemic plant species.

In accordance with the Additional Survey Needs and Procedures policy of the MSHCP, focused burrowing owl surveys conducted by LSA in November and December 2008 and March, April, and May 2009 for the SR 91 CIP resulted in negative findings of burrowing owl within and adjacent to the project site. To avoid impacts to burrowing owl that may occur in the northwestern portion of the proposed Project, a preconstruction burrowing owl clearance survey will be conducted within 30 days prior to construction and a report will be prepared and submitted in accordance with the requirements of the MSHCP 30-day Pre-Construction Burrowing owl survey Report Format. If preconstruction surveys determine that burrowing owl are present, one or more of the following mitigation measures may be required: (1) avoidance of active nests and surrounding buffer area during construction activities; (2) passive relocation of individuals owls; (3) active relocation of individual owls; and (4) preservation of onsite habitat with long-term conservation value for the owl. The specifics of the required measures will be coordinated between the Caltrans District Biologist,

USFWS Biological Opinion

RCTC, and the Wildlife Agencies. With the avoidance and minimization measures documented above, we concur that the proposed Project is consistent with the MSHCP Additional Survey Needs and Procedures policy of the MSHCP for the burrowing owl.

To address the loss of MSHCP Riparian/Riverine resources, a DBESP was prepared. The proposed Project area supports 13.2 ha (32.7 ac) of riverine/riparian habitat in 13 distinct areas that generally occur in the southern portions of the proposed Project area adjacent to the Santa Ana River and associated tributaries—Fresno Canyon Wash and Wardlow Wash—and within the northern extent of the proposed Project site west of SR 71. Proposed Project construction and operation will permanently impact 0.11 ha (0.28 ac) and temporarily impact 1.32 ha (3.25 ac) of those riverine and riparian areas. The Project proposes to offset its permanent impacts at a 3:1 ratio by performing off-site enhancement through one of three options: purchasing credits in the Santa Ana Watershed for *Arundo donax* (arundo) or *Tamarix* spp. (salt cedar) removal; restoration within Chino Hills State Park; or restoration on the Green River Golf Course. To offset temporary impacts to riparian and riverine resources, the RCTC will restore the impacted area to pre-project conditions. Additionally, since the riparian areas in the project area are known to support occupied vireo habitat, the RCTC will avoid the nesting season (March 1 to June 30) with all construction activities. This will ensure that no vireo are directly or indirectly impacted by the project. Should construction be needed within the nesting season, the Permittee shall notify the RCA and Wildlife Agencies. Since the proposed Project will restore its temporary impacts on site, avoid the nesting season, and mitigate off-site for its permanent impacts, the project demonstrates compliance with the requirements of Section 6.1.2.

To avoid impacts to other migratory birds consistent with MSHCP 10(a)(1)(B) permit condition 5, vegetation removal will be performed outside of the March 1 to September 15 bird breeding season. If work must occur during the breeding season, a preconstruction nesting survey will be conducted in suitable habitat by a qualified ornithologist within 21 days prior to ground disturbing activities. If active raptor or migratory bird nests are detected, project activities may be temporarily curtailed or halted until California Department of Fish and Game (CDFG) and the CFWO are contacted and consulted. If surveys indicate that migratory bird or raptor nests are found in the survey area identified above, a no-disturbance buffer shall be established around the site to avoid disturbance or destruction of the nest site until after the breeding season or after a qualified ornithologist determines that the young have fledged (usually late June to mid-July). The extent of these buffers shall be determined by the ornithologist, in coordination with Caltrans, CFWO, and CDFG, and will depend on the level of noise or construction disturbance, line-of-sight between the nest and the disturbance, ambient levels of noise and other disturbances, and other topographical or artificial barriers. Suitable buffer distances may vary between species. If construction activities are scheduled to occur within an area that supports an active nest site or within an established no-disturbance buffer, construction will be delayed until after the breeding season or until the young have fledged (as determined by the ornithologist).

Based on our review of the information provided to us, we have determined that the proposed Project is consistent with relevant MSHCP policies and procedures. The status of vireo and the gnatcatcher and the effects of implementing the MSHCP were previously addressed in our biological opinion for the MSHCP dated June 22, 2004. In the biological opinion for the MSHCP, we concluded that the level of anticipated take in the plan area for the MSHCP was not likely to result in jeopardy to vireo

USFWS Biological Opinion

or gnatcatcher. Given that the proposed Project is consistent with the MSHCP, we do not anticipate any adverse effects to vireo or gnatcatcher that were not previously evaluated in the biological opinion for the MSHCP. No incidental take of vireo or gnatcatcher beyond that anticipated in the biological opinion for the MSHCP will occur. Therefore, it is our conclusion that implementation of the proposed project will not result in jeopardy to vireo or gnatcatcher.

By this consultation, we are extending to Caltrans, in accordance with their Federal responsibilities assumed under Section 6005 of SAFETEA-LU, the take coverage for vireo and gnatcatcher provided to permittees under the incidental take permit for the MSHCP. Extension of take coverage to Caltrans, acting as the Federal designee (as described above), under the MSHCP is limited to the proposed Project as described above.

This concludes formal consultation on the proposed action. As provided in 50 CFR §402.16, reinitiation of formal consultation is required where discretionary Federal agency involvement or control over the action has been retained (or is authorized by law) and if: (1) the amount or extent of incidental take is exceeded; (2) new information reveals effects of the proposed Project that may affect listed species or critical habitat in a manner or to an extent not considered in this opinion; (3) the agency action is subsequently modified in a manner that causes an effect to listed species or critical habitat that was not considered in this opinion; or (4) a new species is listed or critical habitat is designated that may be affected by the proposed Project. In instances where the amount or extent of incidental take is exceeded, any operations causing such take must cease pending reinitiation.

If you have any questions regarding this biological opinion, please contact Felicia Sirchia of this office at (760) 777-0163.

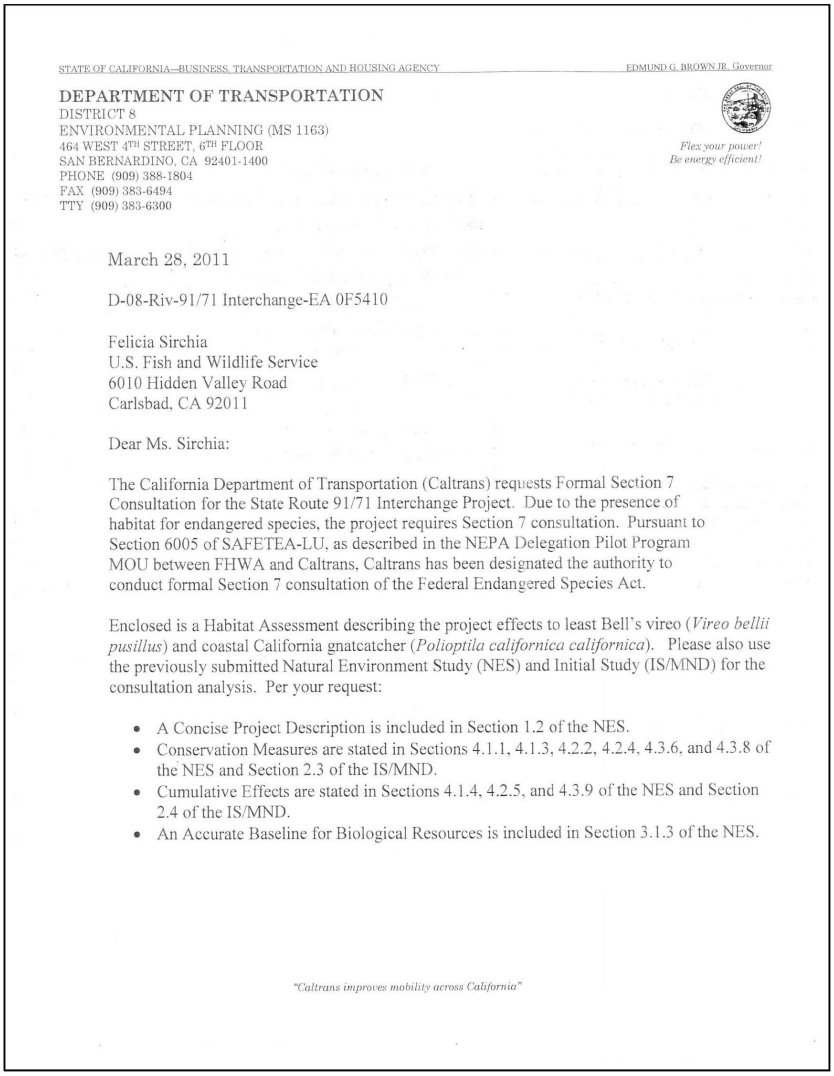
Sincerely,

for

Kennon A. Corey
Assistant Field Supervisor

cc:
Leslie MacNair, CDFG, Ontario, California

USFWS Biological Opinion



STATE OF CALIFORNIA—BUSINESS, TRANSPORTATION AND HOUSING AGENCY EDMUND G. BROWN JR. Governor

DEPARTMENT OF TRANSPORTATION
DISTRICT 8
ENVIRONMENTAL PLANNING (MS 1163)
464 WEST 4TH STREET, 6TH FLOOR
SAN BERNARDINO, CA 92401-1400
PHONE (909) 388-1804
FAX (909) 383-6494
TTY (909) 383-6300

Flex your power!
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March 28, 2011

D-08-Riv-91/71 Interchange-EA 0F5410

Felicia Sirchia
U.S. Fish and Wildlife Service
6010 Hidden Valley Road
Carlsbad, CA 92011

Dear Ms. Sirchia:

The California Department of Transportation (Caltrans) requests Formal Section 7 Consultation for the State Route 91/71 Interchange Project. Due to the presence of habitat for endangered species, the project requires Section 7 consultation. Pursuant to Section 6005 of SAFETEA-LU, as described in the NEPA Delegation Pilot Program MOU between FHWA and Caltrans, Caltrans has been designated the authority to conduct formal Section 7 consultation of the Federal Endangered Species Act.

Enclosed is a Habitat Assessment describing the project effects to least Bell's vireo (*Vireo bellii pusillus*) and coastal California gnatcatcher (*Polioptila californica californica*). Please also use the previously submitted Natural Environment Study (NES) and Initial Study (IS/MND) for the consultation analysis. Per your request:

- A Concise Project Description is included in Section 1.2 of the NES.
- Conservation Measures are stated in Sections 4.1.1, 4.1.3, 4.2.2, 4.2.4, 4.3.6, and 4.3.8 of the NES and Section 2.3 of the IS/MND.
- Cumulative Effects are stated in Sections 4.1.4, 4.2.5, and 4.3.9 of the NES and Section 2.4 of the IS/MND.
- An Accurate Baseline for Biological Resources is included in Section 3.1.3 of the NES.

"Caltrans improves mobility across California"

Caltrans Formal Section 7 Consultation Request

The following is a summary of the effect determinations stated in the Habitat Assessment:

1) The project may affect and is likely to adversely affect the least Bell's vireo (*Vireo bellii pusillus*) (LBV) through direct impacts to 2.2 acres (0.2 acres permanent & 2.0 acres temporary) of potentially suitable riparian habitat.

2) The project may affect and is likely to adversely affect the coastal California gnatcatcher (*Polioptila californica californica*) (CAGN) through direct impacts to approximately 22.5 acres (10.6 acres permanent & 11.9 acres temporary) of potentially suitable coastal sage scrub habitat.

Caltrans requests a Section 7 Biological Opinion for LBV and CAGN for the SR-91/71 Interchange Project. If you have any questions or concerns regarding this Section 7 consultation, please contact Scott Quinnell, Caltrans Associate Environmental Planner, at (909) 383-7584 or I can be reached at (909) 388-1804.

Sincerely,

Aaron Burton
Senior Environmental Planner
Caltrans District 8
Environmental Studies "B"

"Caltrans improves mobility across California"

Caltrans Formal Section 7 Consultation Request

Appendix H SR-71/SR-91 Interchange Improvement Project Environmental Commitments Record

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Permit Type	Agency	Date Received	Expiration	Notes
1602 LSA	California Department of Fish & Wildlife			
401 WQC	Regional Water Quality Control Board			
404 NWP	United States Army Corps of Engineers			

Date of ECR: September 2020
Date: IS/EA June 2011

Project Phase:
☐ PA/ED (*DED/FED*)
☒ PS&E Submittal 95%
☐ Construction

ENVIRONMENTAL COMMITMENTS RECORD (SR-71/91 Interchange Improvement Project)

08-RIV-SR-71 PM 1.9/R3.0
08-RIV-SR-91 PM R0.9/R2.6

EA 0F5411
PN 0800000137
Generalist: Vivian Ho
ECL: _____

Avoidance, Minimization, and/or Mitigation Measures	Page # In Env. Doc. Or Permit	Environmental Analysis Source (Technical Study, Environmental Document, and/or Technical Discipline)	Responsible for Development and/or Implementation of Measure	Timing/ Phase	If applicable, corresponding construction provision: (standard, special, non-standard)	Action(s) Taken to Implement Measure/If checked No, add Explanation here	PS&E Task Completed	Construction Task Completed	Environmental Compliance	
							Date / Initials	Date / Initials	YES	NO
CULTURAL RESOURCES										
CR-1: Though no archaeological resources are anticipated to be encountered during construction, it is Caltrans' policy if cultural materials are discovered during construction, all earth-moving activity within and around the immediate discovery area will be diverted until a qualified archaeologist can assess the nature and significance of the find.	2-99	Initial Study/ Categorical Exclusion Cultural Resources Technical Memorandum	Contractor	During construction	Caltrans Standard Specifications Section 14-2					
CR-2: If human remains are discovered, State Health and Safety Code Section 7050.5 states that further disturbances and activities shall cease in any	2-99	Initial Study/ Categorical Exclusion Cultural Resources	Contractor	During construction	Caltrans Standard Specifications Section 14-2					

Date of ECR: September 2020
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							Date / Initials	Date / Initials	YES	NO
area or nearby area suspected to overlie remains, and the County Coroner contacted. Pursuant to PRC Section 5097.98, if the remains are thought to be Native American, the coroner will notify the Native American Heritage Commission (NAHC), who will then notify the Most Likely Descendent (MLD). At this time, the person who discovered the remains will contact the District Cultural Resources Environmental Branch so that they may work with the MLD on the respectful treatment and disposition of the remains. Further provisions of PRC 5097.98 are to be followed as applicable.		Technical Memorandum								
UTIILITIES AND EMERGENCY SERVICES										
U/ES-1: To ensure that emergency response times are not disrupted, all affected public and private emergency responders will be informed of the project construction schedule, lane closures (if any), and detour plans (if any) well in advance of any detour plan or lane closure	2-47	Initial Study/ Categorical Exclusion	Contractor/ CM/RE Contractor/ CM/RE	Prior to construction During construction	Standard Special Provision 7					

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							Date / Initials	Date / Initials	YES	NO
being implemented throughout the construction period.										
U/ES-2: Area residents will be regularly informed of the project development and construction plans prior to and during the construction period so that they are aware of the construction timing, traffic detour plans, lane/road closures, and transit detour plans.	2-47	Initial Study/ Categorical Exclusion	RCTC Contractor Contractor	Final design Prior to Construction During Construction						
U/ES-3: All public utility lines, pipes, and cables that are disturbed or removed to accommodate the project will be replaced or relocated to continue to meet the needs of surrounding residents and businesses. During construction, arrangements will be made to avoid disruption in utility services. If interruption in service is unavoidable, notice will be given and proper arrangements will be made with residents and businesses to minimize inconveniences.	2-47	Initial Study/ Categorical Exclusion	RCTC Contractor/ CM/RE	Final design During construction	Standard Special Provision 5-1.36					
U/ES-4: To avoid conflicts during construction, emergency and other essential service providers, as well as other public services will be notified prior to construction. The Contractor will also establish a communication plan with each	2-47	Initial Study/ Categorical Exclusion	Contractor CM/RE Contractor/ CM/RE	Prior to construction During construction						

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public service provider. Public service providers to be contacted include all of the following agencies: -Anaheim Police Department -Anaheim Fire Department -Brea Police Department -California Department of Forestry and Protection -Orange County Fire Authority -Corona Police Department -Riverside County Sheriff -Riverside County Fire Department -San Bernardino County Fire Department -San Bernardino County Sheriff										
U/ES-5: A TMP Data Sheet and Traffic Handling Plans will be prepared for the project prior to construction. The TMP Data Sheet and Traffic Handling Plans will include requirements for the project area that must be implemented during project construction to ensure traffic safety and maintain access for emergency access vehicles at all times.	2-48	Initial Study/ Categorical Exclusion	RCTC	Final design						
U/ES-6: Coordination with California Department of Forestry and Fire Protection, Riverside County Fire Department and other public service providers will occur at	2-48	Initial Study/ Categorical Exclusion	RCTC	Prior to construction						

Date of ECR: September 2020
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							Date / Initials	Date / Initials	YES	NO
least 6 months prior to construction of the project.										
U/ES-7: To minimize the risk of wildfire during construction, the construction contractor shall ensure that all construction vehicles are equipped with fire extinguishers and shovels, as well as provide other fire- fighting equipment at the construction site. Inspection of all construction equipment is required to ensure compliance with minimum safety standards. Access to all fire hydrants, if any, and fire department vehicle access along the project site and Santa Ana River watershed area will be provided.	2-48	Initial Study/ Categorical Exclusion	Contractor	During construction						
U/ES-8: The Mitigation Monitoring Plan for the project will be provided to the California Department of Forestry and Fire Protection, Riverside County Fire Department and other public service providers at least 6 months prior to commencement of construction activities.	2-48	Initial Study/ Categorical Exclusion	RCTC	Prior to construction						
TRAFFIC AND TRANSPORTATION/BICYCLE AND PEDESTRIAN FACILITIES										
TC-1: Prior to project construction, a TMP Data Sheet and Detour and Traffic Handling Plans will be	2-71	Initial Study/ Categorical Exclusion	RCTC	Final design						

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							Date / Initials	Date / Initials	YES	NO
prepared to address the detours and traffic issues that may occur to the traveling public as a result of construction activities. The TMP Data Sheet and plans will address elements, such as signage, traffic controls, Construction Zone Enhanced Enforcement Program (COZEEP), and public awareness campaign.										
TC-2: During the design phase, the Riverside County Transportation Commission (RCTC) will coordinate with the City of Corona, United States Army Corps of Engineers (USACE), and other affected parties to ensure that access to their jurisdictions or properties will be maintained during construction.	2-71	Initial Study/ Categorical Exclusion	RCTC Contractor	Final design During construction	Caltrans Standard Specifications Section 7-1.03 Standard Special Provision 10-1.05					
VISUAL/AESTHETICS										
AES-1: Work with the community during preliminary design to implement the Aesthetics and Landscape Master Plan for the project improvements through a formalized structure that allows for community input.	2-91	Initial Study/ Categorical Exclusion	RCTC	Preliminary design						
AES-2: Develop Context-Sensitive Solutions for the aesthetic and landscape treatments of the project	2-91	Initial Study/ Categorical Exclusion	RCTC	Final design						

Date of ECR: September 2020
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elements based on the Aesthetic and Landscape Master Plan.										
AES-3: Apply architectural detailing to the bridges in the corridor, including textures, colors, and patterns. Potential bridge elements that might receive aesthetics treatments include columns, pier caps, parapets, fencing, abutment, and wing walls.	2-91	Initial Study/ Categorical Exclusion	RCTC Contractor	Final design During construction	Caltrans Standard Provisions Sections 51 and 53					
AES-4: Apply architectural detailing to the retaining walls, including textures, colors, and patterns. Include caps that will provide shadow lines, as shown in the Aesthetics and Landscape Master Plan.	2-91	Initial Study/ Categorical Exclusion	RCTC Contractor	Final design During construction						
AES-5: Save and protect as much existing vegetation as feasible, especially trees.	2-91	Initial Study/ Categorical Exclusion	RCTC Contractor	Final design During construction						
AES-6: Replant the southeast quadrant of the SR-91/Green River Road interchange consistent with the plantings in the other quadrants of the interchange previously installed by the SR-91 Corridor Improvement Project. All planting must be reviewed and approved by the District Landscape Architect. Replacement planting will be funded	2-91	Initial Study/ Categorical Exclusion	RCTC Contractor	Final design During construction						

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with the project's construction and will include no less than 3 years of plant establishment. RCTC's Project Engineer will ensure that the replacement is under construction within 2 years of acceptance of the highway contract that damaged or removed the existing planting.										
AES-7: Utilize drainage and water quality elements, where required, that maximize the allowable landscape. Place any water quality or detention ponds out of clear view of the interchange or from the highway when feasible. If this is not possible, integrate these features into the Landscape Design when feasible.	2-91	Initial Study/ Categorical Exclusion	RCTC	Final design						
AES-8: To address potential impacts associated with views of construction access and staging areas, the Contractor will be required to construct the project in accordance with Caltrans Standard Specifications, including appropriate measures to address visual impacts during construction.	2-92	Initial Study/ Categorical Exclusion	Contractor	During construction						
AES-9: To reduce glare, RCTC's Project Engineer will ensure that the project plans specify lighting fixtures with non-glare hoods and that lighting plans will require the	2-92	Initial Study/ Categorical Exclusion	RCTC	Final design						

Date of ECR: September 2020
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review and approval of the Department and applicable city and county before construction to assure compliance with their applicable policies regarding public street lighting.										
HYDROLOGY AND FLOODPLAIN										
FP-1: To minimize impacts to the floodplain during construction, the Contractor will implement temporary construction measures as indicated under Section 2.2.2, Water Quality and Stormwater Runoff.	2-103	Initial Study/ Categorical Exclusion	Contractor	During construction						
FP-2: If construction is occurring within the Zone A floodplain, then the Contractor will ensure that the area will be returned to its original state after construction is completed to maintain the integrity of the floodplain.	2-103	Initial Study/ Categorical Exclusion	Contractor	During construction						
FP-3: The portion of the bridge spanning the channel will be constructed within the 6-month-long dry season (March 10 to October 1) to minimize potential effects on the operations of flood risk management facility. During construction of the falsework, heavy-duty vehicles (e.g., 250-ton crane) are prohibited from entering/ traversing on the bottom of	B-30	Environmental Assessment	Contractor	During construction	Standard Special Provisions 10-1.03					

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the Santa Ana River channel and its lining. Construction equipment will not be stored or remain in the channel at the end of each workday for the duration of project construction. Construction equipment storage will be located at a USACE-approved location. Additionally, the proponents will implement and follow conditions issued by USACE during construction.										
WATER QUALITY AND STORM RUNOFF										
WQ-1: Conform to the requirements of the Caltrans Statewide NPDES Storm Water Permit, Order No. 99-06-DWQ, NPDES No. CAS000003, adopted by the SWRCB on July 15, 1999, in addition to the BMPs specified in the Caltrans Storm Water Management Plan (SWMP) (Caltrans 2007b). When applicable, the Contractor shall also conform to the requirements of the General NPDES Permit for Construction Activities, Order No. 2009- 0009-DWQ, NPDES No. CAS000002 and any subsequent General Permit in effect at the time of project construction.	2-116	Initial Study/ Categorical Exclusion	RCTC Contractor	Final design During construction	Caltrans Standard Specifications Section 13-1.01 Caltrans Statewide Stormwater Management Plan					

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Generalist: Vivian Ho
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☒ PS&E Submittal 95%
☐ Construction

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							Date / Initials	Date / Initials	YES	NO
WQ-2: Contractor will prepare and implement the SWPPP. The SWPPP shall address all State and Federal water control requirements and regulations. The SWPPP shall address all construction-related activities, equipment, and materials that have the potential to impact water quality. The SWPPP shall include BMPs to control pollutants, sediment from erosion, stormwater runoff, and other construction-related impacts. In addition, the SWPPP shall include the provisions of SWRCB Resolution No. 2001-046, which requires implementation of specific Sampling Analysis Procedures to ensure that the implemented BMPs are effective in preventing the exceedance of any water quality standards. The results of the risk-level determination indicate that the project has a Risk Level of 1, which directs the project to implement the following Risk Level 1 requirements: - Effluent Standards - Good Site Management "Housekeeping" - Non-Stormwater Management - Sediment Controls	2-116	Initial Study/ Categorical Exclusion	Contractor Contractor	Prior to construction During construction	Caltrans Standard Specifications Section 13-3 Caltrans Statewide Stormwater Management Plan					

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							Date / Initials	Date / Initials	YES	NO
- Run-on and Runoff Controls - Inspection, Maintenance, and Repair Risk Level 1 Monitoring and Reporting Requirements specific implementation details regarding these requirements are found in Attachment C of the NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities Order No. 2009-0009-DWQ (September 2009).										
WQ-3: Contractor will file a Notice of Intent (NOI) with the SWRCB at least 30 days prior to any soil-disturbing activities.	2-117	Initial Study/ Categorical Exclusion	Contractor	30 days prior to construction						
WQ-4: Conform all work to the Construction Site BMP (Category II) requirements specified in the latest edition of the Caltrans SWMP to control and minimize the impacts of construction and construction-related activities, materials, and pollutants on the watershed. These include, but are not limited to, temporary sediment control, temporary soil stabilization, scheduling, waste management, materials handling, and other non-stormwater BMPs. For a complete list, refer to	2-117	Initial Study/ Categorical Exclusion	RCTC Contractor	Final design During construction	Caltrans Standard Specifications Section 13 Caltrans Stormwater Management Plan					

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							Date / Initials	Date / Initials	YES	NO
Appendix F of the Caltrans SWMP (2016).										
WQ-5: Contractor will give special attention to stormwater pollution control during the rainy season, which is defined by the SWRCB as year round. Appropriate soil stabilization and sediment controls will be implemented when rain is predicted. Water Pollution Control BMPs will be used to minimize impacts to receiving waters. Measures would be incorporated to contain all vehicle loads and avoid any tracking of materials, which may fall or blow onto Caltrans right-of-way (ROW).	2-117	Initial Study/ Categorical Exclusion	Contractor	During construction	Caltrans Standard Specifications Section 13 Caltrans Stormwater Management Plan					
WQ-6: If dewatering is necessary, then the Contractor will fully conform to Order No. R8- 2009-0003 (NPDES No. CAG998001), General Waste Discharge Requirements for Discharges to Surface Water which Pose an Insignificant (De Minimis) Threat to Water Quality, from the Santa Ana RWQCB. Dewatering BMPs will be used to control sediments and pollutants. An EPA- certified laboratory will test and monitor the	2-117	Initial Study/ Categorical Exclusion	Contractor	During construction	Caltrans Standard Specifications Section 13-4					

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							Date / Initials	Date / Initials	YES	NO
discharge for compliance with the requirements of the RWQCB.										
WQ-7: The Caltrans SWMP describes BMPs and practices to reduce the discharge of pollutants associated with the stormwater drainage systems of State highways, facilities, and activities. The completed project plans will incorporate all necessary Maintenance BMPs (Category IA), Design Pollution BMPs (Category IB), and Treatment BMPs (Category III) to meet the Maximum Extent Practicable (MEP) requirements. A combination of BMPs from the following categories will be implemented as part of the project: • Maintenance BMPs – This category includes routine maintenance work, such as litter pickup, toxics control, street sweeping, drainage, and channel cleaning. • Design Pollution Prevention BMPs – Permanent soil stabilization systems will be incorporated into project design, such as preservation of existing vegetation, concentrated flow conveyance systems (e.g.,	2-118	Initial Study/ Categorical Exclusion	RCTC Contractor	Final design During construction	Caltrans Standard Specifications Section 13				

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drainage ditches, dikes, berms, swales), and slope/surface protection systems that utilize either vegetated or hard surfaces. Determination of Design Pollution Prevention BMPs will occur Final design. • Treatment BMPs – The applicability of all nine Caltrans-approved Treatment BMPs were analyzed as part of this project. This category of BMPs includes traction sand traps, infiltration devices, detention devices, biofiltration strips/swales, dry weather flow diversion, media filters, multi-chamber treatment trains, wet basins, and gross solids removal devices (GSRDs). Construction equipment will not be stored and/or remain within the Santa Ana River Channel after the conclusion of each work day throughout the duration of project construction.										
WQ-8: Prior to the disturbance of all jurisdictional drainages, the Contractor is required to: • Obtain and conform to CWA Section 404 permit issued by	2-118	Initial Study/ Categorical Exclusion	Contractor Contractor	Prior to construction During construction						

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							Date / Initials	Date / Initials	YES	NO
USACE prior to disturbance of all jurisdictional drainages. • Obtain and conform to CWA Section 401 Water Quality Certificate issued by Santa Ana RWQCB prior to disturbance of all jurisdictional drainages. • Obtain and conform to Streambed Alteration Agreement from CDFW prior to disturbance of all jurisdictional drainages. Compensatory mitigation measures for impacts to jurisdictional drainages shall adhere to requirements contained within Section 2.3 of this IS.										
PALEONTOLOGY										
P-1: A Paleontological Mitigation Plan (PMP) will be prepared by a qualified paleontologist in accordance with Caltrans' Standard Environmental Reference (SER) requirements.	2-129	Initial Study/ Categorical Exclusion Paleo Mitigation Plan	RCTC	Final design						
P-2: A qualified principal paleontologist (M.S. or Ph.D. in paleontology or geology familiar with paleontological procedures and techniques) will be retained by the Contractor to be present to consult	2-130	Initial Study/ Categorical Exclusion Paleo Mitigation Plan	Contractor	During construction						

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with grading and excavation contractors at pre-grading meetings.										
P-3: A paleontological monitor, under the direction of the qualified principal paleontologist, will be onsite to inspect cuts for fossils at all times during original grading involving sensitive geologic formations.	2-130	Initial Study/ Categorical Exclusion Paleo Mitigation Plan	Contractor	During construction						
P-4: When fossils are discovered, the paleontologist (or paleontological monitor) will recover them. Construction work in these areas will be halted or diverted to allow recovery of fossil remains in a timely manner.	2-130	Initial Study/ Categorical Exclusion Paleo Mitigation Plan	Contractor	During construction	Caltrans Standard Specification Section 14-7.03					
P-5: Fossil remains collected during the monitoring and salvage portion of the mitigation program will be cleaned, repaired, sorted, and cataloged.	2-130	Initial Study/ Categorical Exclusion Paleo Mitigation Plan	Contractor	During construction						
P-6: Prepared fossils, along with copies of all pertinent field notes, photos, and maps, will then be deposited in a scientific institution with paleontological collections.	2-130	Initial Study/ Categorical Exclusion Paleo Mitigation Plan	Contractor	During construction						
P-7: A Paleontological Mitigation Report (PMR) will be completed that outlines the results of the mitigation program.	2-130	Initial Study/ Categorical Exclusion Paleo Mitigation Plan	Contractor	During construction						

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P-8: Where feasible, selected road cuts or large finished slopes in areas of critically interesting geology may be left exposed as important educational and scientific features. This may be possible if no substantial adverse visual impact results.	2-130	Initial Study/ Categorical Exclusion Paleo Mitigation Plan	RCTC	During construction						
NOISE AND VIBRATION										
N-1: To minimize construction-generated noise, the Contractor will adhere to Standard Specification Section 14-8.02 "Noise Control" and Standard Special Provision S5-310 need to be followed. This Standard Special Provision will be edited specifically for the project during the PS&E phase. Construction noise control and noise monitoring must comply with Caltrans General "5-1 Noise Control" standard special provisions. This section applies to equipment on the project or associated with the project, including trucks, transit mixers, stationary equipment, and transient equipment. Do not exceed 86 A- weighted decibels (dBA) at 50 ft from the project limits from 9:00 p.m. to 6:00 a.m. Do not operate	2-195	Initial Study/ Categorical Exclusion	RCTC Contractor	Final design During construction	Caltrans Standard Specifications Section 14-8.02					

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construction equipment or run equipment engines from 7:00 p.m. to 7:00 a.m. or on Sundays, except you may operate within the project limits during these hours to: - Service traffic control facilities - Service construction equipment Noise Monitoring Provide 1 Type 1 sound-level meter and 1 acoustic calibrator to be used by the Department until contract acceptance. Provide training by a person trained in noise monitoring to 1 Department employee designated by the Engineer. The sound-level meter must be calibrated and certified by the manufacturer or other independent acoustical laboratory before delivery to the Department. Provide annual recalibration by the manufacturer or other independent acoustical laboratory. The sound-level meter must be capable of taking measurements using the A-weighting network and the slow response settings. The measurement microphone must be fitted with a windscreen. The Department returns the equipment to you at contract acceptance. The contract lump sum									

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price paid for noise monitoring includes full compensation for furnishing all labor, material, tools, equipment, and incidentals and for doing all work involved in noise monitoring.										
N-2: If possible, avoid using impact pile driving for bridge demolition/ reconstruction. Utilize less noise-intrusive piling techniques using vibratory pile driving or CIDH piling.	2-195	Initial Study/ Categorical Exclusion	Contractor	During construction						
N-3: In case of construction noise complaints by the public, the construction manager will be notified and noise monitoring will be conducted if necessary.	2-195	Initial Study/ Categorical Exclusion	Contractor	During construction						
N-4: All equipment will have sound-control devices no less effective than those provided on the original equipment. No equipment will have an unmuffled exhaust.	2-195	Initial Study/ Categorical Exclusion	Contractor	During construction						
N-5: Truck loading, unloading, and hauling operations will be conducted so that associated noise impacts are kept to a minimum by carefully selecting routes to avoid going through residential neighborhoods to the greatest possible extent.	2-195	Initial Study/ Categorical Exclusion	Contractor	During construction						

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N-6: Use and relocate temporary barriers, if warranted and practicable, to protect sensitive receptors from excessive construction noise. Such temporary noise barriers can be made of heavy plywood or moveable insulated sound blankets. They will be free of visible internal gaps, and the material will provide a transmission loss of at minimum 15 dBA (preferably at least 20 dBA) relative to the noise source requiring abatement so that it can provide a useful level of insertion loss when used as a barrier.	2-195	Initial Study/ Categorical Exclusion	Contractor	During construction						
N-7: As directed by the Department's resident engineer, the Contractor will implement appropriate additional noise abatement measures including, but not limited to, changing the location of stationary construction equipment, turning off idling equipment, rescheduling construction activity, notifying adjacent residents in advance of construction work, or installing acoustic barriers around stationary construction noise sources.	2-195	Initial Study/ Categorical Exclusion	Contractor	During construction						

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HAZARDOUS WASTE / MATERIALS										
HW-1: There is a possibility of encountering polychlorinated biphenyl (PCB)-containing liquids, asbestos-containing materials (ACMs), lead-based paint (LBP), and aerially deposited lead (ADL) during construction. Any hazardous materials encountered shall be managed accordingly.	2-134	Initial Study/ Categorical Exclusion Initial Site Assessment	Contractor	During construction	Caltrans Standard Specifications Section 14-11					
HW-2: Pole-top transformers with PCB-containing liquids shall be properly managed if they are to be removed or relocated.	2-134	Initial Study/ Categorical Exclusion Initial Site Assessment	Contractor	During construction						
HW-3: Prior to the final environmental document, presumed ACM materials, including rails, bearing pads, support piers, expansion joint material of bridges, asphalt, and concrete, will be surveyed and assessed in compliance with 40 CFR (Code of Federal Regulations) 763. During construction, if bridge structures not previously tested for asbestos are anticipated to be disturbed or if suspect ACMs are discovered, the contractor shall stop work and these materials will be surveyed and	2-134	Initial Study/ Categorical Exclusion Initial Site Assessment	RCTC Contractor	PA/ED During construction	Standard Special Provision 14-11.16					

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assessed for asbestos prior to disturbance.										
HW-4: Paint used for lane striping should be tested for LBP prior to demolition/removal to determine proper handling and disposal requirements.	2-134	Initial Study/ Categorical Exclusion Initial Site Assessment	Contractor	During construction	Caltrans Standard Specifications Section 14-11.12					
HW-5: Any soils with ADL contamination shall be managed properly and disposed. During project construction, soil in the project limits may be reused within Caltrans right- of-way (ROW), provided it is placed a minimum of 5 feet (ft) above the maximum water table and is covered by pavement. Soil export will be minimized, and excess soil generated during project construction, if any, will be disposed of at a non- Resource Conservation and Recovery Act (RCRA) California hazardous waste at a Class I hazardous waste disposal facility.	2-134	Initial Study/ Categorical Exclusion Initial Site Assessment	Contractor	During construction	Standard Special Provisions 14-11.08					
HW-6: LBP, ACM, and ADL surveys shall be conducted if data has not already been collected in this area by previous projects. LBP, ACM, ADL, and herbicide/pesticide surveys should take approximately 4 to 6 weeks (for sampling and report	2-134	Initial Study/ Categorical Exclusion Initial Site Assessment	RCTC RCTC	PA/ED Final Design						

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generation). Further needed investigations will be postponed until final design is complete.										
AIR QUALITY										
AQ-1: In addition to the South Coast Air Quality Management District (SCAQMD) rules, the following mitigation measures set forth a program of air pollution control strategies that will ensure that construction emissions will not exceed any applicable standard. Measures 1 and 2 include fugitive dust reduction strategies, in addition to Rule 403 requirements. Measures 3 through 5 provide reduction for other contaminants, including nitrogen oxide (NOx) emissions. 1. In addition to SCAQMD Rule 403 requirements, apply water to all excavation/grading activity areas as necessary to remain visibly moist during active operations. 2. Apply nontoxic soil stabilizers, as needed, to reduce offsite transport of fugitive dust from unpaved staging areas and unpaved road surfaces. 3. Properly tune and maintain construction equipment and vehicles	2-161	Initial Study/ Categorical Exclusion	Contractor	During construction	Caltrans Standard Specifications Section 10-5					

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in accordance with manufacturer's specifications. Low-sulfur fuel shall be used in construction equipment per California Code of Regulations (CCR) Title 17, Section 93114. 4. During construction, keep trucks and vehicles in loading/ unloading queues with their engines off when not in use to reduce vehicle emissions. Phase construction activities to avoid emissions peaks, where feasible, and discontinue during second-stage smog alerts. 5. To the extent feasible, use construction equipment that is either equipped with diesel oxidation catalyst or is powered by alternative fuel sources (e.g., methanol, natural gas). 6. Active construction areas shall be watered regularly to control dust and minimize impacts to adjacent vegetation. All measures provided above and included in SCAQMD Rule 403 and 1403 that are applicable to the project construction activities shall be implemented to the extent feasible to avoid adverse short-term air quality impacts.										

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Avoidance, Minimization, and/or Mitigation Measures	Page # in Env. Doc. Or Permit	Environmental Analysis Source (Technical Study, Environmental Document, and/or Technical Discipline)	Responsible for Development and/or Implementation of Measure	Timing/ Phase	If applicable, corresponding construction provision: (standard, special, non-standard)	Action(s) Taken to Implement Measure/if checked No, add Explanation here	PS&E Task Completed	Construction Task Completed	Environmental Compliance	
							Date / Initials	Date / Initials	YES	NO
AQ-2: Active construction areas shall be watered regularly to control dust and minimize impacts to adjacent vegetation.	2-161	Initial Study/ Categorical Exclusion	Contractor	During construction	Caltrans Standard Specifications Section 10-5					
COMMUNITY IMPACTS										
COM-1: Public outreach will be conducted with affected area residents and businesses regarding construction schedules and potential temporary inconveniences during project construction.	2-38	Initial Study/ Categorical Exclusion	RCTC	Prior to construction						
COM-2: The project will be constructed in several stages to minimize impacts to the communities by avoiding concurrent ramp closures and traffic congestion during construction.	2-38	Initial Study/ Categorical Exclusion	RCTC Contractor	Final design During construction						
COM-3: The effects of temporary construction- related disruptions to the local communities will be addressed through implementation of a TMP Data Sheet and a Ramp Closure Study for all ramps closed longer than 10 consecutive days.	2-38	Initial Study/ Categorical Exclusion	Contractor Contractor	Prior to construction During construction						
COM-4: Where appropriate and feasible, construction staging areas will be located inconspicuously to minimize adverse visual effects upon residential and recreational areas.	2-38	Initial Study/ Categorical Exclusion	RCTC Contractor	Final design During construction						

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08-RIV-SR-91 PM R0.9/R2.6

EA 0F5411
PN 0800000137
Generalist: Vivian Ho
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COM-5: Prior to beginning construction, RCTC, with concurrence of the Department, will submit a copy of the proposed construction schedule and detour information to all potentially affected emergency service providers, school districts, and municipal transportation departments so that school bus routes and emergency vehicle routes can be revised.	2-39	Initial Study/ Categorical Exclusion	RCTC	Prior to construction						
RELOCATIONS AND REAL PROPERTY ACQUISITION										
COM-6: Property owners will be compensated at the fair market value for their property, determined on the basis of the highest and best use.	2-41	Initial Study/ Categorical Exclusion	RCTC	Final design						
COM-7: Maintaining access to affected properties will receive special consideration during the design and construction stages of the project.	2-41	Initial Study/ Categorical Exclusion	RCTC Contractor	Final design During construction						
COM-8: Potential impacts to utility services, such as stormwater channels, railroad tracks, or power lines, will be avoided or minimized to the extent feasible during the project design stage. When avoidance is not feasible, the Contractor will have close	2-41	Initial Study/ Categorical Exclusion	RCTC Contractor	Final design During construction						

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coordination with utility providers will be conducted to identify and address possible relocations and interruptions in service.										
PARKS & RECREATION										
PR-1: Contractor will clearly delineate the construction area with environmentally sensitive fencing. All construction activities, including staging and storage, will stay within the designated construction limits.	2-23	Initial Study/ Categorical Exclusion	Contractor Contractor	Prior to construction During construction	Caltrans Standard Specifications Section 14-1.02 Standard Special Provisions 14-1.02					
PR-2: After construction, the Contractor will re-seed the slope with native vegetation, including coastal sage scrub or other native species that is characteristic of the Chino Hills State Park flora. RCTC will confer with State Parks on the native seed mix prior to implementation of the project.	2-23	Initial Study/ Categorical Exclusion	RCTC Contractor	Final design Post construction						
GEOLOGY/SOILS/SEISMIC/TOPOGRAPHY										
GEO-1: A site-specific geotechnical investigation will be completed ensuring that piles, retaining walls, and other structures will not impact geology and topography in the area. The final design will address any		Initial Study/ Categorical Exclusion	RCTC	Final design						

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geotechnical hazards that are identified in the investigation.										
GEO-2: An erosion control plan will be prepared prior to construction of the project. The erosion control plan must specify measures such as soil stabilization. As described in the Caltrans Plans Preparation Manual: "The locations and details of the erosion control materials shall be shown on the erosion control plans. Erosion control materials may include, but are not limited to, compost, straw, fiber, stabilizing emulsion, and erosion control blankets/mats."	2-125	Initial Study/ Categorical Exclusion	RCTC	Final design						
GEO-3: If slopes are going to be constructed steeper than 2:1 (H:V), then stability analyses should be performed during the final design phase.	2-125	Initial Study/ Categorical Exclusion	RCTC	Final design						
GEO-4: Final design, the most suitable pile type should be used based on the geotechnical data, site-specific investigation, cost considerations, and the latest Caltrans requirements by using Working Stress Design or Load and Resistance Factor Design methods for abutment and bent.	2-125	Initial Study/ Categorical Exclusion	RCTC	Final design						

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GEO-5: Earthwork should conform to requirements of the Caltrans Standard Specifications, Section 19. Soil compaction should be accomplished in accordance with Section 19-5 of the Standard specification. The subgrade should be compacted to at least 95 percent of the laboratory maximum dry density. Fill placed during widening of the embankments should be benched into the existing slopes as described in Section 19-6.1 of the Standard specifications. Actual depths and extend of toe-of-fill keyways will be determined during site-specific investigations.	2-126	Initial Study/ Categorical Exclusion	Contractor	Construction	Caltrans Standard Specifications Sections 19-5 and 19-6.1					
GEO-6: Import soils should have the minimum characteristics: • Non-reactive to Portland cement concrete, or cement type should reflect corrosivity test results. • Have shear values of a minimum cohesion equal to 100 pounds per square inch and friction angle of 30 degrees or a combination of strength parameters that will provide a safety factor of at least 1.5 static and 1.1 pseudostatic stability analysis results.	2-126	Initial Study/ Categorical Exclusion	Contractor	During construction	Caltrans Standard Specifications Section Section 19					

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							Date / Initials	Date / Initials	YES	NO
Expansion index should be equal to or less than 20.										
GEO-7: A minimum over-excavation should be performed within all areas to receive compacted fill. The over-excavation should extend horizontally a minimum distance equal to the depth of excavation from the edges of new fill.	2-126	Initial Study/ Categorical Exclusion	RCTC Contractor	Final design During construction	Caltrans Standard Specifications Section 19					
GEO-8: If soundwalls are determined feasible and reasonable on the hillside homes south of SR 91, then a geotechnical engineer will review the plans to ensure stability of these soundwalls.	2-126	Initial Study/ Categorical Exclusion	RCTC	Final design						
GEO-9: To address seismic concerns associated with placement of bridge columns on top of the Santa River Channel levees, a permanent steel isolation casing through the levee will be incorporated into the column design. A permanent steel isolation casing will isolate the levee from potential column movement during a seismic event.	B-3	Environmental Assessment	RCTC	Final design						

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NATURAL COMMUNITIES										
BIO-1: The limits of grading required for all aspects of the interchange and construction staging areas will be clearly marked, and all construction areas, including staging of construction equipment, will be surveyed.	2-213	Initial Study/ Categorical Exclusion	Contractor Contractor	Prior to construction During construction						
BIO-2: Planned roads will be located in the least environmentally sensitive location feasible, including disturbed and developed areas or areas that have been previously altered.	2-213	Initial Study/ Categorical Exclusion	RCTC	Final design						
BIO-3: Alignments will follow existing roads, easements, ROWs, and disturbed areas, as appropriate, to minimize habitat fragmentation. Implementation of BMPs, as discussed in Section 5.2.5 of the SR 91 and SR 71 Interchange Improvement Project Habitat Assessment and MSHCP Consistency Analysis Report (Parsons/MBA 2010), preconstruction surveys, construction monitoring, and prescribed mitigation for impacts to riparian/riverine areas will reduce all potential impacts to sensitive species	2-213	Initial Study/ Categorical Exclusion	RCTC Contractor Contractor	Final design Pre-construction During construction						

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not considered adequately conserved under the MSHCP to less than substantial.										
BIO-4: Incorporate measures to control the quantity and quality of runoff from the site entering the MSHCP Conservation Area. In particular, measures shall be put in place to avoid discharge of untreated surface runoff from developed and paved areas into MSHCP Conservation Areas. According to the Water Resources and Water Quality Technical Report (Parsons 2010), the construction of a new flyover connector will not generate any changes in existing runoff in the area, and an SWPPP will be prepared for construction of the site.	2-214	Initial Study/ Categorical Exclusion	Contractor Contractor	Prior to construction During construction						
BIO-5: The use of chemicals or generation of bioproducts (i.e., manure) that are potentially toxic or may adversely affect wildlife species, habitat, or water quality shall not result in discharge to the MSHCP Conservation Area. The greatest risk is from landscaping fertilization overspray and runoff. Contractor shall avoid the discharge of chemicals, generation of	2-214	Initial Study/ Categorical Exclusion	Contractor	During construction	Caltrans Standard Specifications Sections 13-4.03C and 21-2.03A					

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bioproducts and overspraying of landscaping fertilizer within the MSHCP Conservation Area.										
BIO-6: Night lighting shall be directed away from the MSHCP Conservation Area to protect species within the MSHCP Conservation Area from direct night lighting. Shielding shall be incorporated in project designs to ensure that ambient lighting in the MSHCP Conservation Area is not increased.	2-214	Initial Study/ Categorical Exclusion	RCTC Contractor	Final design During construction						
BIO-7: Noise-generating land uses affecting the MSHCP Conservation Area shall incorporate setbacks, berms, or walls to minimize the effects of noise on MSHCP Conservation Area resources pursuant to applicable rules, regulations, and guidelines related to land use noise standards.	2-214	Initial Study/ Categorical Exclusion	RCTC Contractor	Final design During construction						
BIO-8: Land uses adjacent to the MSHCP Conservation Area shall incorporate barriers, where appropriate, in individual project designs to minimize unauthorized public access, domestic animal predation, illegal trespass, or dumping into the MSHCP Conservation Areas. Such barriers may include native landscaping,	2-214	Initial Study/ Categorical Exclusion	RCTC Contractor	Final design During construction						

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rocks/boulders, fencing, walls, signage, and/or appropriate mechanisms. Manufactured slopes associated with the site development shall not extend into the MSHCP Conservation Area.										
BIO-9: To maintain the integrity of the wildlife corridor, the design plans of culvert improvements in the Fresno Canyon area will be submitted to the wildlife agencies for review and approval.	2-215	Initial Study/ Categorical Exclusion	RCTC	Final design						
WETLANDS AND OTHER WATERS										
BIO-10: If jurisdiction is confirmed by USACE, RWQCB, and CDFW, then the following permits will be acquired: a Section 404 permit from USACE pursuant to Section 404 of the CWA; a Section 401 Water Quality Certification from the RWQCB; and a Section 1600 Streambed Alteration Agreement from CDFW pursuant to Section 1600 of the California Fish and Game Code.	2-224	Initial Study/ Categorical Exclusion	RCTC	Final design						
BIO-11: To offset impacts to jurisdictional resources, RCTC will obtain mitigation credits at a minimum ratio of 2:1.	2-224	Initial Study/ Categorical Exclusion	RCTC	Final design						

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Currently, there are three potential mitigation areas under consideration by RCTC for riparian/riverine and jurisdiction resources mitigation: (1) habitat restoration of lands within Chino Hills State Park (CHSP); (2) habitat restoration of lands within the Green River Golf Course; and(3) habitat restoration or creation of lands owned by the Regional Conservation Authority (RCA).										
BIO-12: Planned roads will avoid, to the greatest extent feasible, impacts to wetlands. If wetlands avoidance is not possible, then any impacts to wetlands will require issuance of and mitigation in accordance with a Federal Section 404 and/or State Section 1600 permit.	2-224	Initial Study /Categorical Exclusion	RCTC	Final design						
PLANT SPECIES										
BIO-13: To minimize direct impacts to special- status plant species, the limits of grading required for all aspects of the interchange and construction staging areas will occur entirely within Caltrans ROW or temporary construction easements and will be clearly marked.	2-231	Initial Study/ Categorical Exclusion	RCTC Contractor	Final design During construction						

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BIO-14: Preconstruction surveys will be conducted by the Contractor for sensitive plants after the final construction ROW has been established. All appropriate plants will be tagged and moved to appropriate offsite locations prior to the start of grading. It may be possible that plants will be salvaged, stored, and replanted within disturbed areas subsequent to construction.	2-231	Initial Study/ Categorical Exclusion	Contractor	Prior to construction	Standard Special Provisions 14-6.03					
BIO-15: The Contractor will complete appropriate biological surveys will be based on field conditions and recommendations of the project manager in consultation with a qualified biologist. The results of the biological resources investigations will be mapped and documented. The documentation will include preliminary conclusions and recommendations regarding potential effects of facility construction on MSHCP Conservation Area resources and methods to avoid and minimize impacts to these resources in conjunction with project siting, design, construction, and operation. The project biologist will work with	2-231	Initial Study/ Categorical Exclusion	RCTC Contractor	Final Design Prior to / during construction	Standard Special Provisions 14-6.03					

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facility designers during the design and construction phase to ensure implementation of feasible recommendations.										
BIO-16: During the Design Phase, a habitat assessment and, as required, focused surveys for the Brand's phacelia (blooming period: March to June), San Diego ambrosia (blooming period: April to October), and San Miguel savory (blooming period: March to May) will be conducted during the appropriate blooming season. Subsequent to surveys, RCTC will update the information in the JPR and DBESP to address the additional surveys and, as necessary, presence of and impacts to these species. If the federally endangered San Diego ambrosia is identified onsite during the surveys, Caltrans will reinitiate Section 7 consultation with USFWS to amend the Biological Opinion (BO). Applicable mitigation will be determined through coordination with the resource agencies based on the survey results and project impacts. Potential mitigation measures listed below, or a	2-231	Initial Study/ Categorical Exclusion	RCTC	Final design						

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combination of the two measures, could be implemented. • Onsite conservation of existing Brand's phacelia, San Diego ambrosia, and San Miguel savory though avoidance and designation of environmentally sensitive areas. • Translocation of Brand's phacelia, San Diego ambrosia, and San Miguel savory individuals outside of the project ROW to areas of suitable habitat, as identified by a contractor-supplied plant biologist with knowledge of and experience with translocation of local flora species of the region.										
ANIMAL SPECIES										
BIO-17: Design of planned roads will consider wildlife movement requirements, as further outlined in Section 7.5.2, Guidelines for Construction of Wildlife Corridors, and any construction, maintenance, and operation activities that involve clearing of natural vegetation will be conducted outside the active breeding season (February 15 through August 31).	2-246	Initial Study/ Categorical Exclusion	RCTC Contractor	Final design During construction	Standard Special Provisions 14-6.03					

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BIO-18: For the wildlife fencing on SR 91 and SR 71, consideration will be given during design to avoid disturbance of the fencing or movement of wildlife. If the project requires removal of the fencing, then biological monitoring will be required and replacement of any disturbed fencing will occur after construction. For PCL 2, the following measure shall be implemented to improve wildlife connectivity: □ For PCL 2, the project will improve the function of the Fresno Canyon/Wardlow Wash undercrossing bridge by removing most of the existing concrete revetment and regrading the slopes of the crossing openings to a 4:1 slope. In addition, wildlife fencing will be installed to funnel the wildlife into the crossings, and native vegetation will be planted to provide habitat continuity. The Department and RCTC will continue its commitment to work with the RCA and Wildlife Agencies on incorporating measures to improve PCL 2 after completion of cumulative projects in the area (SR	2-246	Initial Study/ Categorical Exclusion	RCTC Contractor	Final design During construction							

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Avoidance, Minimization, and/or Mitigation Measures	Page # in Env. Doc. Or Permit	Environmental Analysis Source (Technical Study, Environmental Document, and/or Technical Discipline)	Responsible for Development and/or Implementation of Measure	Timing/ Phase	If applicable, corresponding construction provision: (standard, special, non-standard)	Action(s) Taken to Implement Measure/if checked No, add Explanation here	PS&E Task Completed	Construction Task Completed	Environmental Compliance	
							Date / Initials	Date / Initials	YES	NO
91 Corridor Improvement Project [CIP]).										
BIO-19: An appropriate openness ratio of at least 0.6 (calculated in meters as [opening width X height/length of crossing]) and height for crossings intended for use by medium- and large-sized wildlife will be maintained. The openness ratio, which is a function of a structure's length [(height x width)/length], is important for larger animals when using culverts and highway undercrossings. To maintain the integrity of the wildlife corridor, the design plans of culvert improvements in the Fresno Canyon area will be submitted to the wildlife agencies for review and approval.	2-246	Initial Study/ Categorical Exclusion	RCTC Contractor	Final design During construction						
BIO-20: Crossing facilities will be vegetated as naturally as possible to mimic the surrounding natural crossing area. In some instances, vegetation may need to be tailored to match the needs of the focused species. Natural objects, such as stumps, rocks, and other natural debris, will be used within the crossing facility to create cover for wildlife and to encourage the use of crossings. The landscaping plans	2-247	Initial Study/ Categorical Exclusion	RCTC	Final design						

Date of ECR: September 2020
Date: IS/EA June 2011

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(SR-71/91 Interchange Improvement Project)

08-RIV-SR-71 PM 1.9/R3.0
08-RIV-SR-91 PM R0.9/R2.6

EA 0F5411
PN 0800000137
Generalist: Vivian Ho
ECL: _____

Project Phase:
☐ PA/ED (*DED/FED*)
☒ PS&E Submittal 95%
☐ Construction

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							Date / Initials	Date / Initials	YES	NO
near the wildlife corridor areas will be submitted to the wildlife agencies for review and approval.										
BIO-21: Sediment and erosion-control measures will be implemented by the Contractor until such time soils are determined to be successfully stabilized. In addition, the following measures will be implemented to areas within the MSHCP Conservation Areas: • Incorporate measures to control the quantity and quality of runoff from the site entering the MSHCP Conservation Area. In particular, measures shall be put in place to avoid discharge of untreated surface runoff from developed and paved areas into MSHCP Conservation Areas. According to the report, the construction of a new flyover connector will not generate any changes in existing runoff in the area, and an SWPPP will be prepared for construction of the site. • The use of chemicals or generation of bioproducts (i.e., manure) that are potentially toxic or may adversely affect wildlife species, habitat, or water quality	2-247	Initial Study/ Categorical Exclusion	Contractor	During construction	Caltrans Standard Specifications Section 21-2					

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shall not result in discharge to the MSHCP Conservation Area. The greatest risk is from landscaping fertilization overspray and runoff.										
BIO-22: Contractor will ensure equipment storage, fueling, and staging areas will be sited on non-sensitive upland habitat types with minimal risk of direct discharge into riparian areas or other sensitive habitat types.	2-248	Initial Study/ Categorical Exclusion	Contractor	During construction	Caltrans Standard Specifications Section 13					
BIO-23: During construction, the placement of equipment within the stream or on adjacent banks or adjacent upland habitats occupied by Covered Species that are outside of the project footprint will be avoided by the Contractor.	2-248	Initial Study/ Categorical Exclusion	Contractor	During construction						
BIO-24: When work is conducted during the fire season, as identified by the Riverside County Fire Department, adjacent to coastal sage scrub or chaparral vegetation, appropriate fire-fighting equipment (e.g., extinguishers, shovels, water tankers) shall be available on the site during all phases of project construction to help minimize the chance of human-caused wildfires. Shields, protective mats, and/or other fire preventative methods shall	2-248	Initial Study/ Categorical Exclusion	Contractor	During construction	Standard Special Provision					

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be used during grinding, welding, and other spark-inducing activities. Personnel trained in fire hazards, preventive actions, and responses to fires shall advise contractors regarding fire risk from all construction-related activities.										
BIO-25: Active construction areas shall be watered regularly to control dust and minimize impacts to adjacent vegetation.	2-248	Initial Study/ Categorical Exclusion	Contractor	During construction	Caltrans Standard Specifications Sections 10-5 and 14-11.04					
BIO-26: All equipment maintenance, staging, and dispensing of fuel, oil, coolant, or any other toxic substances shall occur only in designated areas within the grading limits of the project site. These designated areas shall be clearly marked and located in such a manner as to contain runoff.	2-248	Initial Study/ Categorical Exclusion	Contractor	During construction	Caltrans Standard Specifications Section 13					
BIO-27: Waste, dirt, rubble, or trash shall not be deposited in the Conservation Area or on native habitat. No erodible materials will be deposited into water courses. Brush, loose soils, or other debris material will not be stockpiled within stream channels or on adjacent banks. Silt fencing or other sediment trapping	2-248	Initial Study/ Categorical Exclusion	Contractor	During construction						

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materials will be installed at the downstream end of construction activities to minimize the transport of sediments offsite.										
BIO-28: Impacts to Species of Special Concern, such as the coast horned lizard, although adverse, are not considered substantial; however, to avoid any impacts to the coast horned lizard, a qualified biological monitor supplied by the Contractor will be onsite during the construction phase of the project to ensure that direct take of this species does not occur.	2-249	Initial Study/ Categorical Exclusion	Contractor	During construction	Standard Special Provision 14-6.03B					
BIO-29: To avoid impacts to bats and potentially suitable habitat for day, night, and maternity roosting, construction activities should avoid the maternity season (March through August). In addition, a qualified biologist supplied by the Contractor will conduct a preconstruction survey to determine if the construction area contains roosting or maternity colonies. If work must be conducted during the maternity period and roost locations are not occupied, exclusion devices will be installed in all potential roosting locations before March and	2-249	Initial Study/ Categorical Exclusion	Contractor	During construction	Standard Special Provision 14-6.03A					

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maintained throughout construction. If work must be conducted during the maternity period and roost locations are found to be occupied, then a sufficient buffer, in consultation with CDFW, will be maintained around any bat roosting or maternity colony. In addition, a qualified biological monitor will be onsite during the construction phase of the project to ensure that no direct take occurs and there is no nest abandonment due to excessive disturbance. Any active nurseries found onsite and mitigation to offset impacts to bat species will be coordinated with CDFW. To further address bat species protection, the following recommendations shall be implemented as part of the project: Bat Surveys: • A CDFW-approved biologist shall survey each structure and the surrounding area that may be impacted by the project for bats. A minimum of 30 days prior to performing bat surveys Permittee shall submit qualifications of the bat biologist for CDFW approval. If bats are found using any bridges or culverts within the project area,										

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the Biologist shall identify the bats to the species level, evaluate the colony to determine its size and significance, and the type of roost. The results of the bat survey shall be submitted to CDFW no later than 60 days prior to the initiation of construction activities. Seasonal/Nighttime Work Restrictions: • Construction activities on, under, around, or within close proximity to bridges/culverts will be limited to October 1 to March 1, unless all bats have been excluded from the structure and concurrence has been received from CDFW. • If any structures house a maternity colony of bats, construction activities shall not occur during the recognized bat breeding season (March 1 to October 1). • Night work is not permitted on or within 200 feet of any occupied structures housing bats without prior concurrence from CDFW. Lighting and Noise Attenuation Plan: • If night work is required adjacent to jurisdictional areas, no later than 60 days prior to construction,										

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Permittee shall submit to CDFW for review and approval a Lighting and Noise Attenuation Plan. • Light lighting should be used only on the portion of the structure actively being worked on, and focused on the direct area of work. • Airspace access to and from the roost features of the structure should not be obstructed except in direct work areas. • Construction personnel should not be present in non-active areas beneath the structure. Installation of Alternate Bat Roosting Habitat: • Alternate bat roosting habitat structures shall be installed in the vicinity of any bridge or culvert containing roosting habitat that will be subject to impacts at least 9 months prior to starting construction at those structures. • The total length of the roosting structures shall be no less than one half the total length of the crevice habitat that will be subject to impacts from construction. • Construction and installation of roosting structures shall be										

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supervised by a CDFW-approved biologist. • A plan on the construction, placement, and timing of installation of the alternative roosting structures shall be submitted to CDFW for review and concurrence prior to construction. Integration of Bat Roosting Habitat into New Bridge Designs: • Bridge widening designs shall contain and be constructed with similar structural features to encourage continued roosting by bats. • Vegetation removal around structures shall be minimized. Humane Eviction/Exclusion of Roosting Bats. If bridge-dwelling wildlife is detected in bridges or culverts, the following bridge-dwelling wildlife protection measures shall be implemented: • Bats will be temporarily and humanely excluded from the area of direct impacts, plus an additional buffer, for the duration of construction work at that structure.										

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• A CDFW approved biologist shall design and direct implementation of exclusionary devices designed to prevent birds and bats from utilizing bridges/culverts before construction activities begin. Exclusionary devices shall be installed on all bridges prior to the initiation of nesting season. • If bats are found using any bridge, roost entrances shall be fitted with one-way doors that allows exits but prevent entrance for a period of several days to encourage bats to relocate. Unexpected Discovery of Roosting Bats During Construction: • If any roosting bats are discovered during construction activities all work shall stop on, under, around, or within 500 ft of the structure, and CDFW will be consulted.									
BIO-30: During the Design Phase of the project, a habitat assessment will be completed in accordance with the Burrowing Owl Survey instructions for the Western Riverside MSHCP Survey Area. If suitable habitat is identified during the survey, additional focused surveys may be completed as applicable. To ensure	2-249	Initial Study/ Categorical Exclusion	RCTC Contractor	Final design 30 days prior to construction	Standard Special Provision 14-6.03A					

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that any burrowing owl that may occupy the project area in the future are not affected by construction activities, preconstruction surveys will be completed by the Contractor 30 days prior to construction and a report will be prepared and submitted in accordance with the requirements of the MSHCP 30-day Pre- Construction Burrowing Owl Survey Report Format identified. If preconstruction surveys determine that burrowing owl are present, one or more of the following mitigation measures may be required: (1) avoidance of active nests and surrounding buffer area during construction activities; (2) passive relocation of individual owls; (3) active relocation of individual owls; and (4) preservation of onsite habitat with long- term conservation value for the owl. The specifics of the required measures will be coordinated between the Caltrans District Biologist, RCTC, and the resource agencies.										
BIO-31: In accordance with the Migratory Bird Treaty Act, to avoid effects to nesting birds, any native or	2-250	Initial Study/ Categorical Exclusion	Contractor	Prior to construction	Standard Special Provisions 14-6.03B					

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exotic vegetation removal or tree-trimming activities will occur outside of the nesting bird season (i.e., February through August). If vegetation clearing is necessary during the nesting season, a qualified biologist will conduct a preconstruction survey to identify the locations of nests. Should nesting birds be found, an exclusionary buffer will be established by the biologist. This buffer will be clearly marked in the field by construction personnel under guidance of the biologist, and construction or clearing will not be conducted within this zone until the biologist determines that the young have fledged or the nest is no longer active.										
THREATENED AND ENDANGERED SPECIES										
BIO-32: Timing of construction activities will consider seasonal requirements for breeding birds and migratory nonresident species. Habitat clearing will be avoided during species' active breeding season, which is generally defined as February to August.	2-259	Initial Study/ Categorical Exclusion	Contractor	During construction	Standard Special Provisions 14-6.03B					

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							Date / Initials	Date / Initials	YES	NO
BIO-33: To offset the permanent loss of 1.0-acre of the MSHCP PQP Lands, RCTC will commit to purchase 1.0-acre of land and relinquish it to a land conservation agency for long-term conservation, consistent with the requirements of the MSHCP.	2-260	Initial Study/ Categorical Exclusion	RCTC	Final design						
BIO-34: To offset permanent impacts to riverine and riparian areas, the project will purchase mitigation bank credits at a 3:1 ratio from the Riverside Corona Resource Conservation District.	2-260	Initial Study/ Categorical Exclusion	RCTC	Final design						
INVASIVE SPECIES										
BIO-35: The invasive, non-native plant species listed in the MSHCP will be considered in approving landscape plans to avoid the use of invasive species for portions of the project that are adjacent to the MSHCP Conservation Area. Considerations in reviewing the applicability of this list shall include proximity of planting areas to the MSHCP Conservation Areas, species considered in the planting plans, resources being protected within the MSHCP Conservation Area and their relative sensitivity to	2-261	Initial Study/ Categorical Exclusion	RCTC	Final design						

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							Date / Initials	Date / Initials	YES	NO
invasion, and barriers to plant and seed dispersal, such as walls, topography, and other features.										
BIO-36: In compliance with the Executive Order on Invasive Species, EO 13112, and subsequent guidance from FHWA, the landscaping and erosion control included in the project will not use species listed as noxious weeds. In areas of particular sensitivity, extra precautions will be taken if invasive species are found in or adjacent to the construction areas. These include the inspection and cleaning of construction equipment and eradication strategies to be implemented should an invasion occur.	2-261	Initial Study/ Categorical Exclusion	RCTC Contractor	Final design During construction	Caltrans Standard Specifications Section 20-1.03C(3)					
BIO-37: Implementation of the BMPs discussed in Section 5.2.5 of the SR 91 and SR 71 Interchange Improvement Project Habitat Assessment and MSHCP Consistency Analysis Report (2010) will limit the introduction of invasive species into the Conservation Area and will reduce any potential impacts to adjacent sensitive communities to less than substantial.	2-262	Initial Study/ Categorical Exclusion	RCTC Contractor	Final design During construction						

APPENDIX C USFWS-ISSUED BIOLOGICAL OPINION FOR SR-71/SR-91 INTERCHANGE PROJECT AND COORDINATION CORRESPONDENCE

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Ecological Services
Carlsbad Fish and Wildlife Office
6010 Hidden Valley Road, Suite 101
Carlsbad, California 92011

In Reply Refer To:
FWS-WRIV-09B0057-11F0421

JUN 22 2011

Mr. Aaron Burton
Senior Environmental Planner
California Department of Transportation
District 8
Environmental Planning (MS 1163)
464 West 4th Street, 6th Floor
San Bernardino, California 92401-1400

Attention: Scott Quinnell, Associate Environmental Planner (File No. D-08-Riv-91/71 Interchange-EA 0F5410)

Subject: Formal Section 7 Consultation for State Route 91 and State Route 71 Interchange Improvement Project, City of Corona, Riverside County, California

Dear Mr. Burton:

This document transmits our biological opinion based on our review of the proposed State Route (SR) 91 and SR 71 Interchange Improvement Project (Project), and its potential effects on the federally endangered least Bell's vireo (*Vireo bellii pusillus*, "vireo") and federally threatened coastal California gnatcatcher (*Polioptila californica californica*, "gnatcatcher"), in accordance with section 7 of the Endangered Species Act of 1973 (Act), as amended (16 U.S.C. 1531 *et seq.*). The proposed Project is receiving Federal funding through the Federal Highway Administration (FHWA), and Caltrans has assumed FHWA's responsibilities under the Act for this consultation in accordance with Section 6005 of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) 2005, as described in the National Environmental Policy Act, Delegation Pilot Program Memorandum of Understanding between FHWA and Caltrans (effective July 1, 2007) and codified in 23 U.S.C. 327(a)(2)(A). We initiated formal consultation on March 28, 2011, the date we received your request. You have determined the proposed Project may affect and is likely to adversely affect vireo and gnatcatcher.

On June 22, 2004, we issued a section 10(a)(1)(B) permit for the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP). The MSHCP establishes a multiple species conservation program to minimize and mitigate habitat loss and the incidental take of covered species in association with activities covered under the permit. The proposed Project is located within the plan area boundary of the MSHCP and is considered a covered activity under that plan.

TAKE PRIDE® IN AMERICA

As a permittee under the MSHCP, Caltrans received incidental take authorization for vireo and gnatcatcher for the proposed Project through their section 10(a)(1)(B) permit for that plan. For us to extend the take coverage already provided to Caltrans to Caltrans acting as the FHWA designee, the proposed action must be consistent with the MSHCP and its associated implementation agreement and permit.

This biological opinion is based on information provided in the (1) *Natural Environment Study SR 91 and SR 71 Interchange Improvement Project SR–91–PM R0.6/R2.6; SR–71–PM 1.6/3.0 City of Corona, Riverside County, CA* (NES) (June 2010); (2) *Western Riverside County Regional Conservation Authority (RCA) Joint Project Review* (JPR) # *10–07–19–02* (May 2011); (3) *Habitat Assessment and MSHCP Consistency Analysis for the SR 91 and SR 71 Interchange Improvement Project City of Corona, Riverside County, California* (June 2010); (4) *SR 91 and SR 71 Interchange Improvement Project Habitat Assessment* (March 2011); and (5) other information available in our files. The complete project file addressing this consultation is maintained at the Carlsbad Fish and Wildlife Office (CFWO).

The Biological Study Area (BSA) for the proposed Project includes an approximate 341-hectare (ha) [842-acre (ac)] area located in the vicinity of the junction of SR 91 and SR 71 (91/71), north of the Cleveland National Forest and east of Chino Hills State Park. Included within the 341-ha (842-ac) BSA is a 40-ha (99-ac) project impact area where project construction will occur. The BSA falls within Subunit 1 (Santa Ana River/Santa Ana Mountains) and Subunit 2 (Prado Basin) of the Temescal Canyon Area Plan of the MSHCP. In Subunit 1, the BSA occurs within independent Criteria Cells 1702, 1704, and 1706. In Subunit 2, the BSA occurs within Criteria Cells 1426 of Cell Group A, 1520 and 1612 of Cell Group B, and within independent Criteria Cell 1616. Portions of the BSA also fall within Existing Core A, Proposed Constrained Linkage (PCL) 1, and PCL 2.

Implementation of the proposed Project will result in the construction of a new two-lane direct flyover connector (bridge) from eastbound SR 91 to northbound SR 71. Construction of the flyover connector would also include abutments, columns, and associated footings. The flyover connector would have two 4-meter (m) [12-foot (ft)] wide lanes and 3-m (10-ft) wide shoulders. In addition to the two main connector lanes, the flyover structure would carry an outside auxiliary lane extending along the connector from the Green River Road on-ramp. The flyover connector ramp would begin on eastbound SR 91, east of the existing Green River Road interchange, and would span SR 91, the Santa Ana River, and the southbound lanes of SR 71. Additionally, the Green River Road eastbound on-ramp would be reconstructed, SR 71 would be realigned, and access to properties would be relocated. Other project features include drainage improvements, signage, and retaining walls. Refer to Table 1 below for a summary of proposed Project related impacts to native plant communities.

Table 1 - Native Vegetation Impacts

Plant Communities	Permanent Impact (Acres)	Temp. Impact (Acres)
Coastal Sage Scrub	6.60	8.78
Coastal Sage-Chaparral Scrub	4.00	2.23
Mule Fat Scrub	0.04	0.15
Non-Native Grassland	2.24	13.50
Oak Woodland	0.36	1.06
Salt Brush Scrub	0.00	0.89
Southern Cottonwood Willow Riparian Forest	0.16	1.85
Total Impacts	**13.4**	**28.46**

In addition to the BSA occurring within MSHCP Criteria Areas, and PCLs 1 and 2, the BSA overlaps with Narrow Endemic Plant Species Survey Area 7 and Additional Species Survey area for burrowing owl (*Athene cunicularia hypugaea*). As currently designed, the proposed Project will be contained within the least environmentally sensitive location feasible and demonstrates consistency with the biological goals and objectives as set forth in Section 7.5.1 of the MSHCP. Section 7.5 of the MSHCP addresses the Guidelines for Facilities within the Criteria Area and Public/Quasi Public (PQP) Lands. The proposed Project has or will implement the conditions set forth in Section 7.5.1 through the design process, or will through the implementation process. Additionally, to offset the permanent loss of 0.40 ha (1.0 ac) of MSHCP PQP Lands, Riverside County Transportation Commission (RCTC) will commit to purchasing 0.40 ha (1.0 ac) of land and relinquishing it to the RCA for long-term conservation, consistent with the requirements of the MSHCP.

The proposed Project alignment crosses areas that were contemplated for conservation associated with PCL 1 and PCL 2. The proposed Project will maintain culverts and connections under the roadway, thereby continuing the ability of some wildlife to move through the proposed Project area. RCTC (the Project applicant), in discussions with the RCA and Wildlife Agencies, has acknowledged there is a need to address connectivity issues with PCL 1 in an alternate location. They have also acknowledged committing to enhancing PCL 2 as a viable wildlife corridor. For PCL 1, the proposed Project will improve wildlife connectivity by utilizing an open channel instead of a traditional pipe extension, constructing wildlife fencing to funnel into the crossing, and planting native vegetation; for PCL 2, the proposed Project will improve the function of the undercrossing bridge by removing the obstruction of the concrete revetment and re-grading the slopes of the crossing openings. In addition, wildlife fencing will be installed to funnel the wildlife into the crossings in the area and native vegetation will be planted to provide habitat continuity (see pages 11–12 of the Wildlife Corridor Analysis Report). Since the proposed Project design did consider the impacts to the MSHCP Criteria Area by proposing to improve the existing undercrossing to facilitate better wildlife movement from Existing Core A (Prado Basin and the Santa Ana River) to Existing Core B (Cleveland National Forest), the project would not conflict with the provisions set forth in Section 7.5.1 and 7.5.2 of the MSHCP.

The proposed Project is located in Narrow Endemic Plant Species Survey Area 7. In accordance with the Protection of Narrow Endemic Plant Species, a habitat assessment was conducted for three narrow endemic plant species, *Ambrosia pumila* (San Diego ambrosia), *Phacelia stellaris* (Brand's phacelia), and *Satureja chandleri* (San Miguel savory). None of these narrow endemic plant species were observed during the habitat assessments. Blooming period surveys for these plants were conducted for the SR 91 Corridor Improvement Project (CIP) and none were detected. However, the northern-most part of the proposed Project area was not surveyed during the blooming period for these plants. To ensure no direct impacts to the Brand's phacelia, San Diego ambrosia, and San Miguel savory during construction of the proposed Project, the following measures will be incorporated into the proposed Project to protect narrow endemic plant species:

- Prior to construction, a habitat assessment, and as required, focused surveys for the San Diego ambrosia, Brand's phacelia, and San Miguel savory will be conducted during the appropriate blooming season. Subsequent to surveys, the RCTC will update the information in the JPR and a Determination of Biologically Equivalent or Superior Preservation (DBESP) to address the additional surveys, and as necessary, presence of and impacts to these species. If the federally endangered San Diego ambrosia is identified on-site during the surveys, Caltrans will reinitiate section 7 consultation with the Service to amend the biological opinion. Applicable mitigation will be determined through coordination with the resource agencies based on the survey results and project impacts. Potential mitigation measures listed below or a combination of the two measures would be implemented.

    - On-site conservation of San Diego ambrosia, Brand's phacelia, and San Miguel savory through avoidance and designation of environmentally sensitive areas.
    - Translocation of San Diego ambrosia, Brand's phacelia, and San Miguel savory individuals outside of the proposed Project right of way to areas of suitable habitat, as identified by a contractor-supplied plant biologist with knowledge of and experience with translocation of local flora species of the region.

With the avoidance and minimization measures documented above, we concur that the proposed Project is consistent with the MSHCP Protection of Narrow Endemic Plant Species policy of the MSHCP for narrow endemic plant species.

In accordance with the Additional Survey Needs and Procedures policy of the MSHCP, focused burrowing owl surveys conducted by LSA in November and December 2008 and March, April, and May 2009 for the SR 91 CIP resulted in negative findings of burrowing owl within and adjacent to the project site. To avoid impacts to burrowing owl that may occur in the northwestern portion of the proposed Project, a preconstruction burrowing owl clearance survey will be conducted within 30 days prior to construction and a report will be prepared and submitted in accordance with the requirements of the MSHCP 30-day Pre-Construction Burrowing owl survey Report Format. If preconstruction surveys determine that burrowing owl are present, one or more of the following mitigation measures may be required: (1) avoidance of active nests and surrounding buffer area during construction activities; (2) passive relocation of individuals owls; (3) active relocation of individual owls; and (4) preservation of onsite habitat with long-term conservation value for the owl. The specifics of the required measures will be coordinated between the Caltrans District Biologist,

RCTC, and the Wildlife Agencies. With the avoidance and minimization measures documented above, we concur that the proposed Project is consistent with the MSHCP Additional Survey Needs and Procedures policy of the MSHCP for the burrowing owl.

To address the loss of MSHCP Riparian/Riverine resources, a DBESP was prepared. The proposed Project area supports 13.2 ha (32.7 ac) of riverine/riparian habitat in 13 distinct areas that generally occur in the southern portions of the proposed Project area adjacent to the Santa Ana River and associated tributaries—Fresno Canyon Wash and Wardlow Wash—and within the northern extent of the proposed Project site west of SR 71. Proposed Project construction and operation will permanently impact 0.11 ha (0.28 ac) and temporarily impact 1.32 ha (3.25 ac) of those riverine and riparian areas. The Project proposes to offset its permanent impacts at a 3:1 ratio by performing off-site enhancement through one of three options: purchasing credits in the Santa Ana Watershed for *Arundo donax* (arundo) or *Tamarix* spp. (salt cedar) removal; restoration within Chino Hills State Park; or restoration on the Green River Golf Course. To offset temporary impacts to riparian and riverine resources, the RCTC will restore the impacted area to pre-project conditions. Additionally, since the riparian areas in the project area are known to support occupied vireo habitat, the RCTC will avoid the nesting season (March 1 to June 30) with all construction activities. This will ensure that no vireo are directly or indirectly impacted by the project. Should construction be needed within the nesting season, the Permittee shall notify the RCA and Wildlife Agencies. Since the proposed Project will restore its temporary impacts on site, avoid the nesting season, and mitigate off-site for its permanent impacts, the project demonstrates compliance with the requirements of Section 6.1.2.

To avoid impacts to other migratory birds consistent with MSHCP 10(a)(1)(B) permit condition 5, vegetation removal will be performed outside of the March 1 to September 15 bird breeding season. If work must occur during the breeding season, a preconstruction nesting survey will be conducted in suitable habitat by a qualified ornithologist within 21 days prior to ground disturbing activities. If active raptor or migratory bird nests are detected, project activities may be temporarily curtailed or halted until California Department of Fish and Game (CDFG) and the CFWO are contacted and consulted. If surveys indicate that migratory bird or raptor nests are found in the survey area identified above, a no-disturbance buffer shall be established around the site to avoid disturbance or destruction of the nest site until after the breeding season or after a qualified ornithologist determines that the young have fledged (usually late June to mid-July). The extent of these buffers shall be determined by the ornithologist, in coordination with Caltrans, CFWO, and CDFG, and will depend on the level of noise or construction disturbance, line-of-sight between the nest and the disturbance, ambient levels of noise and other disturbances, and other topographical or artificial barriers. Suitable buffer distances may vary between species. If construction activities are scheduled to occur within an area that supports an active nest site or within an established no-disturbance buffer, construction will be delayed until after the breeding season or until the young have fledged (as determined by the ornithologist).

Based on our review of the information provided to us, we have determined that the proposed Project is consistent with relevant MSHCP policies and procedures. The status of vireo and the gnatcatcher and the effects of implementing the MSHCP were previously addressed in our biological opinion for the MSHCP dated June 22, 2004. In the biological opinion for the MSHCP, we concluded that the level of anticipated take in the plan area for the MSHCP was not likely to result in jeopardy to vireo

or gnatcatcher. Given that the proposed Project is consistent with the MSHCP, we do not anticipate any adverse effects to vireo or gnatcatcher that were not previously evaluated in the biological opinion for the MSHCP. No incidental take of vireo or gnatcatcher beyond that anticipated in the biological opinion for the MSHCP will occur. Therefore, it is our conclusion that implementation of the proposed project will not result in jeopardy to vireo or gnatcatcher.

By this consultation, we are extending to Caltrans, in accordance with their Federal responsibilities assumed under Section 6005 of SAFETEA-LU, the take coverage for vireo and gnatcatcher provided to permittees under the incidental take permit for the MSHCP. Extension of take coverage to Caltrans, acting as the Federal designee (as described above), under the MSHCP is limited to the proposed Project as described above.

This concludes formal consultation on the proposed action. As provided in 50 CFR §402.16, reinitiation of formal consultation is required where discretionary Federal agency involvement or control over the action has been retained (or is authorized by law) and if: (1) the amount or extent of incidental take is exceeded; (2) new information reveals effects of the proposed Project that may affect listed species or critical habitat in a manner or to an extent not considered in this opinion; (3) the agency action is subsequently modified in a manner that causes an effect to listed species or critical habitat that was not considered in this opinion; or (4) a new species is listed or critical habitat is designated that may be affected by the proposed Project. In instances where the amount or extent of incidental take is exceeded, any operations causing such take must cease pending reinitiation.

If you have any questions regarding this biological opinion, please contact Felicia Sirchia of this office at (760) 777-0163.

Sincerely,

for

Kennon A. Corey
Assistant Field Supervisor

cc:
Leslie MacNair, CDFG, Ontario, California

APPENDIX D REGIONAL CONSERVATION AUTHORITY JOINT PROJECT REVIEW

RCA Joint Project Review (JPR)
PUBLIC PROJECT

Revised JPR #: 10-07-19-02
Revised Date: 6-8-11~~9-14-10~~

Project Information

Permittee: **Riverside County Transportation Commission**
Project: **SR91/71 Interchange Improvement Project**

Requirements Related to Planned Facilities

Consistency Conclusion: The proposed project demonstrates consistency with the requirements for covered road projects and with other requirements of the MSHCP.

This JPR Analysis is being updated to address new information provided by the Permittee in response to USFWS comments on the JPR. The new information is presented in a Habitat Assessment dated March 2011.

Applicable Core/Linkage: Proposed Constrained Linkage 1, Proposed Constrained Linkage 2, Existing Core A
Area Plan: Temescal Canyon

APN	Sub-Unit	Cell Group	Cell
Various	SU 1 – Santa Ana River/Santa Ana Mountains SU 2 – Prado Basin	B	1520 1612 1616 1702 1704 1706

Project Characteristics

a. The proposed project is the construction of a new flyover connector from the eastbound State Route 91 (SR 91) to northbound State Route 71 (SR 71) located in Riverside County in the City of Corona. The project includes the flyover connector from southbound SR 71 to eastbound SR 91; westbound SR 91 to northbound SR 71 connector; reconstruction of Green River Road On-Ramp to eastbound SR 91; SR 91 restriping; realignment of SR 71; drainage improvements; retaining walls; local access along SR 71 relocation; signage/ramp metering; and right-of-way acquisition (see Pages 8 and 9 of Habitat Assessment).

Relation to Reserve Assembly and Covered Activity Status

b. The SR91/71 interchange is depicted on Figure 7-1 of the MSHCP, which depicts the roadways that were contemplated in the MSHCP as going through the Criteria Area per Section 7.3.5 of the MSHCP. The project is considered a Covered Activity since it is depicted on Figure 7-1 of the MSHCP. Since the project is a covered activity, it is not subject to the Criteria.

a. The Reserve Features associated with the project impact area are Proposed Constrained Linkage 1, Proposed Constrained Linkage 2 and Existing Core A. Proposed Constrained Linkage 1 is located in the northwest portion of the Plan Area. The Linkage connects Existing Core A (Prado Basin and the Santa Ana River) with Existing Core B (Cleveland National Forest) to the south. Existing urban Development constrains the Linkage at its northern terminus; the Linkage is unconstrained in the south. In addition, SR 91 intersects this Linkage at its northern border. Despite this, Proposed Constrained Linkage 1 likely provides for movement of mountain lion and bobcat from the Santa Ana Mountains to the Chino Hills area beyond the Plan Area. Maintenance of contiguous habitat blocks with appropriate refugia for resting, such as rockpiles, brushpiles, windfalls, hollow snags, and hollow trees, is important for dispersal of juveniles in this proposed Linkage.

b. Proposed Constrained Linkage 2 consists of Fresno Canyon. Like Proposed Constrained Linkage 1, this Linkage connects Existing Core A (Prado Basin and the Santa Ana River) with Existing Core B (Cleveland National Forest) to the south. Unlike Constrained Linkage 1, however, the Fresno Canyon Constrained Linkage provides a riparian connection from the Prado Basin and Santa Ana River to the Cleveland National Forest, thus allowing for movement of species such as coast range newt and western pond turtle. This Linkage is also likely to be important for mountain lion movement from the Santa Ana Mountains to the Chino Hills beyond the Plan Area. Maintenance of contiguous habitat blocks with appropriate refugia for resting, such as rockpiles, brushpiles, windfalls, hollow snags, and hollow trees, is important for dispersal of juveniles in this proposed Linkage.

c. Existing Core A consists of Prado Basin and the Santa Ana River, located in the northwest region of the Plan Area. This southwest-to-northeast trending swath of land is composed largely of Public/Quasi-Public Lands owned by a variety of entities, but it also contains a small number of privately owned lands. The Core also functions as a Linkage, connecting Orange County to the west with San Bernardino County to the north. Existing Core A is connected to Existing Core B (Cleveland National Forest) via both an upland and a riparian connection (Proposed Constrained Linkage 1 and Proposed Constrained Linkage 2, respectively). This Core is constrained on all sides by existing urban development and agricultural use, and planned land uses surrounding the Core consist largely of high-impact land uses such as city and community Development. Therefore, high-quality riparian Habitat within the Core and along the edges must be maintained for species such as southwestern willow flycatcher, yellow warbler, yellow-breasted chat, western yellow-billed cuckoo, and others.

d. The Planning Species for Proposed Constrained Linkage 1 (PCL 1) are Cooper's hawk, coastal California gnatcatcher, bobcat, and mountain lion. The Planning Species for Proposed Constrained Linkage 2 (PCL 2) are coast range newt, western pond turtle, bobcat, and mountain lion. The proposed alignment and improvements are not expected to directly affect these planning species nor will it impact the function of ecotones as there are no significant ecotonal areas within the project footprint. The majority of the habitats surrounding the alignment are upland and riparian habitats with a mix of native and non-native habitats. The drainages in the project area may serve as linkages for the terrestrial planning species.

e. The Planning Species for Existing Core A are Santa Ana sucker, arroyo chub, western pond turtle, Cooper's hawk, tricolored blackbird, burrowing owl, American bittern, cactus wren, northern harrier, western yellow-billed cuckoo, yellow warbler, white-tailed kite, southwestern willow flycatcher, California horned lark, peregrine falcon, yellow-breasted chat, loggerhead shrike, black-crowned night heron, osprey, double-crested cormorant, downy woodpecker, white-faced ibis, tree swallow, least Bell's vireo, bobcat, mountain lion, and Santa Ana River woollystar. The project impacts would not directly affect the habitats associated with the Prado Basin, which is the focus of Existing Core A.

f. The project alignment does cross areas that are contemplated for MSHCP Conservation associated with PCL 1 and PCL 2. The project is a Covered Road and will maintain culverts and connections under the roadway, thereby continuing the ability of some wildlife to move through the project area. The Permittee, in discussions with the RCA and Wildlife Agencies, has acknowledged that there is a need to address connectivity issues with PCL 1 in an alternate location. The Permittee has also acknowledged that it will commit to enhancing PCL 2 as a viable wildlife corridor. As such, the project would not adversely affect the ability of the MSHCP Conservation Area to be assembled or managed in accordance with the MSHCP.

g. Section 7.5 of the MSHCP addresses the Guidelines for Facilities within the Criteria Area and Public/Quasi Public (PQP) Lands. Based on the revised analysis prepared by RCTC dated May 25, 2011, ~~T~~the proposed project would result in 1.03 acres of permanent impacts and 10.60 acres of temporary impacts of PQP lands. The supplemental report stated that with the exception of the Prado Dam access road, all temporary impacts to PQP lands will be revegetated with native vegetation. In addition, RCTC will purchase 1.0 acre of suitable PQP replacement land to mitigate for the project's permanent impacts and relinquish to the RCA for long-term conservation. The proposed project has or will implement the conditions set forth in Section 7.5.1 through the design process, or will through the implementation process. Section 7.5.2 of the MSHCP addresses the guidelines for constructing wildlife crossings. The proposed project was analyzed in a Wildlife Corridor Analysis Report prepared by Parsons Transportation Group (Parsons) dated August 2010. According to the Parsons report, the project area contains several areas that promote the movement of wildlife from the Prado Basin and the Santa Ana River (Existing Core A) in the north to the Cleveland National Forest (Existing Core B) in the south. The wildlife crossings are primarily located along SR 91 from the Green River Road on-ramp to the interchange from southbound SR 71 to eastbound SR 91. Within the project area are seven drainages or underpasses that potentially allow wildlife movement from the north to the south of SR 91. See the Parsons Report for more details on these seven crossings. Two of the seven underpasses are major crossings for PCL 1 and PCL 2, which serve as a wildlife linkage between Core A and Core B as shown in Figure 3 of the Wildlife Corridor Analysis Report. The seven wildlife crossings range in size from small concrete-lined culverts to an undercrossing located near the mouth of the Santa Ana River spillway. These corridors allow the exchange of wildlife to cross three imposing barriers – SR 91, railroad tracks, and the Santa Ana River. Coyote and mountain lion have been identified by wildlife studies conducted by LSA to utilize these corridors across SR 91. Parsons notes that for PCL 1, the project will improve wildlife connectivity by utilizing an open channel instead of a traditional pipe extension, constructing wildlife fencing to funnel into the crossing, and planting of native vegetation; for PCL 2, the

project will improve the function of the undercrossing bridge by removing the obstruction of the concrete revetment and re-grading the slopes of the crossing openings. In addition, wildlife fencing will be installed to funnel the wildlife into the crossings in the area and native vegetation will be planted to provide habitat continuity (see page 11 -12 of the Wildlife Corridor Analysis Report). Since the project design did consider the impacts to the MSHCP Criteria Area by proposing to improve the existing undercrossing to facilitate better wildlife movement from Existing Core A (Prado Basin and the Santa Ana River) to Existing Core B (Cleveland National Forest), the project would not conflict with the provisions set forth in Section 7.5.1 and 7.5.2 of the MSHCP. The project will also be designed to be consistent and compliant with Section 7.5.3 of the MSHCP, which addresses the Best Management Practices (BMPs) that will be used to minimize impacts to habitats and species.

h. Since the project interchange is depicted on Figure 7-1 of the MSHCP, the project is considered a Covered Activity. Additionally, since the project has considered its impacts on wildlife movement, planning species, ecotones, and habitats, it will not adversely affect Reserve Assembly.

Other Plan Requirements

Data:

Section 6.1.2 – Riparian/Riverine/Vernal Pool Mapping:

Yes. The project application materials include discussion of riparian/riverine areas. Vernal pool and fairy shrimp habitat were not identified within project footprint.

Section 6.1.3 – Narrow Endemic Plant Species Surveys:

Yes. A portion of the eastern project alignment is located in a Narrow Endemic Plant Species Survey Area (NEPSSA) for San Diego ambrosia, Brand's phacelia, and San Miguel savory.

Section 6.3.2 – Additional Species Surveys:

Yes. The project alignment is located within an Additional Species Survey area for burrowing owl.

Section 6.1.4 –Urban/Wildland Interface Guidelines:

Yes. The project is located within proposed MSHCP Conservation Areas and is subject to Urban/Wildland Interface requirements.

Comments:

a. Section 6.1.2: Updated information related to riverine and riparian resources was provided by the Permittee in their supplemental material dated May 25, 2011 followed by a clarification email dated June 2, 2011. Information from the ~~Based on the~~ Habitat Assessment prepared by Michael Brandman Associates (MBA) dated June 2010 and the DBESP dated June 2010, is also still utilized, where applicable. A Habitat Assessment dated March 2011 was also provided in the revised materials submitted to the RCA on May 25, 2011. Based on the information provided originally, the project area supports 32.71 acres of riverine/riparian habitat in thirteen distinct areas which generally occur in the southern portions of the project area adjacent to the Santa Ana River and associated tributaries – Fresno Canyon Wash and Wardlow Wash – and within the northern extent of the project site adjacent to SR 71. Of the approximately 32 acres of riparian/riverine resources, the project construction and operation will permanently impact 0.28 ~~0.44~~ acres of riverine and riparian areas and temporarily impact 3.25 ~~1.67~~ acres (see Table 4 from the June 2, 2011 email from Caltrans)~~1email from Permittee dated August 31, 2010~~). According to the supplemental report, permanent impacts to MSHCP designated riparian/riverine areas have been reduced primarily due to reconsideration of slope impacts within the project area (see Attachment 4 of supplemental report). The report state that project impacts outside of the toe of slope for the roadway adjacent to SR 71 are now considered temporary impacts. All temporary impacts will be revegetated subsequent to construction. Based on the information provided by MBA, the project site does not support vernal pools or fairy shrimp habitat. Field surveys were conducted by ~~Gonzales Environmental Consulting on April 25, May 1, 7, 15, 22, 29, June 5, 12, 19, 26, July 3, and 10, 2007~~ ECORP Consulting, Inc. (ECORP) on January 4, and 5, 2011 for riparian birds Least Bell's vireo~~,~~ and Southwestern Willow Flycatcher (SWF).~~,~~ ~~and~~ The previous survey work conducted by Gonzales Environmental Consulting addressed Western Yellow Cuckoo. No western yellow-billed cuckoo were observed or heard during the surveys in 2007. ~~Four pairs of Least Bell's vireo and one pair and one migratory SWF were observed in the project area during the Gonzales survey efforts. Gonzales Environmental Consulting concluded that the proposed action may adversely affect least Bell's vireo, southwestern willow flycatcher, and their habitat. Additionally, surveys conducted for other area projects by LSA conducted from April 15 through July 15, 2008 found suitable LBV habitat in the proposed project impact area (see Figure 2 Sheet 3 of 3 in LSA November 7, 2008 Report).~~ ECORP documented 78.3 acres of suitable habitat for LBV ~~-~~within the study area. Of the 78.3 acres of suitable habitat for LBV, the project would permanently impact 0.2 acres and temporarily impact 2.0 acres. The acres of impacts related to LBV are included in the above acres of impacts to riparian/riverine resources. ECORP noted that at least one vireo territory would be affected as a result of these impacts. The project proposes to mitigate all temporary impacts by in kind revegetation (native plants). Additionally, RCTC will mitigate permanent LBV impacts at a 2:1 ratio (0.4 acres). The project proposes to mitigate its permanent impacts to riparian/riverine resources (0.0.28~~44~~ acres) by performing off site enhancement through one of three options: ~~purchasing credits in the Santa Ana Watershed for arundo or salt cedar removal~~restoration or creation of lands ~~woend~~owned by the RCA; restoration within Chino Hills State

Park within Riverside County; and/or restoration on Green River Golf Course. To mitigate for the temporary impacts to riparian and riverine resources, the Permittee will restore the impacted area (3.25 acres) to pre-project conditions. Additionally, since the riparian areas in the project area are known to support occupied LBV and SWF habitat, the Permittee will avoid the nesting season (March 1 to June 30) with all construction activities. This will ensure that no LBV or SWF are directly or indirectly impacted by the project. Should construction need to happen within the nesting season, then the Permittee shall notify the RCA and Wildlife Agencies. Since the project proposes to restore its temporary impacts on site, avoid the nesting season, and mitigate off site for its permanent impacts, the project demonstrates compliance with the requirements of Section 6.1.2.

b. Section 6.1.3. A portion of the eastern project alignment is located in a NEPSSA for San Diego ambrosia, Brand's phacelia, and San Miguel savory. The project area was surveyed as part of larger project surveys for other projects in the area. Per pages 31 and 32 of the MBA Habitat Assessment, none of the past focused surveys found these three NEPSSA plants in the project area. Specifically, MBA states that there is no suitable soils or habitat present for these plants within the project impact area. No project-specific focused surveys were warranted based on MBA's determination of no suitable habitat. Additionally, based on the supplemental information provided in the June 2, 2011 email from Caltrans, there is no suitable habitat for the NEPSSA species, nor was there any of these NEPSSA species identified during the June 2, 2011 site visit conducted by Caltrans within the project footprint. Based on the results of the focused survey efforts, the project demonstrates consistency with Section 6.1.3 of the MSHCP.

c. Section 6.3.2: The project alignment is located within an Additional Species Survey area for burrowing owl. MBA concluded there was suitable habitat in the project area for burrowing owl. Habitat Assessments and focused surveys for burrowing owl were conducted by LSA in 2009 for another project (SR 91 CIP project) which covered the area to be impacted by the project. The LSA Burrowing Owl Survey Report dated December 2009 addresses within it the area to be impacted by the SR 71/SR91 interchange project which is the focus of this JPR. Page 14 of the December 2009 Burrowing Owl Survey Report describes "Survey Area 5 (SA5) as representing the proposed project. Within SA5, LSA determined there was suitable habitat for burrowing owl, and therefore conducted focused surveys on March 19, 20, April 22, 23 and May 8, 2009. No owl signs were found, and no owls were observed within the areas surveyed during these focused surveys. Additionally, based on the June 2, 2011 supplemental information, the area of the project along SR71 does not support suitable burrowing owl habitat. Since burrowing owls are mobile species and have the potential to subsequently occupy any suitable burrows on site, preconstruction surveys will be required in areas with suitable habitat no more than 30 days prior to the start of construction activities. Based on the information provided by LSA, the project demonstrates compliance with the requirements of Section 6.3.2 of the MSHCP.

d. Section 6.1.4: To preserve the integrity of areas adjacent to the project alignment which are proposed Conservation Areas, the guidelines contained in Section 6.1.4 related to controlling adverse effects for development adjacent to the MSHCP Conservation Area should be considered by the Permittee in their

actions relative to the project. Specifically, the Permittee should include as project conditions of approval the following measures:

i. Incorporate measures to control the quantity and quality of runoff from the site entering the MSHCP Conservation Area. In particular, measures shall be put in place to avoid discharge of untreated surface runoff from developed and paved areas into MSHCP Conservation Areas. According to the report, the proposed construction of a new flyover connector will not generate any changes in existing runoff into the area and a stormwater pollution prevention plan will be prepared for construction of the site.

ii. The use chemicals or generation of bioproducts (i.e.) manure, which are potentially toxic or may adversely affect wildlife species, habitat or water quality shall not result in discharge to the MSHCP Conservation Area. The greatest risk is from landscaping fertilization overspray and run-off.

iii. Night lighting shall be directed away from the MSHCP Conservation Area to protect species within the MSHCP Conservation Area from direct night lighting. Shielding shall be incorporated in project designs to ensure ambient lighting in the MSHCP Conservation Area is not increased.

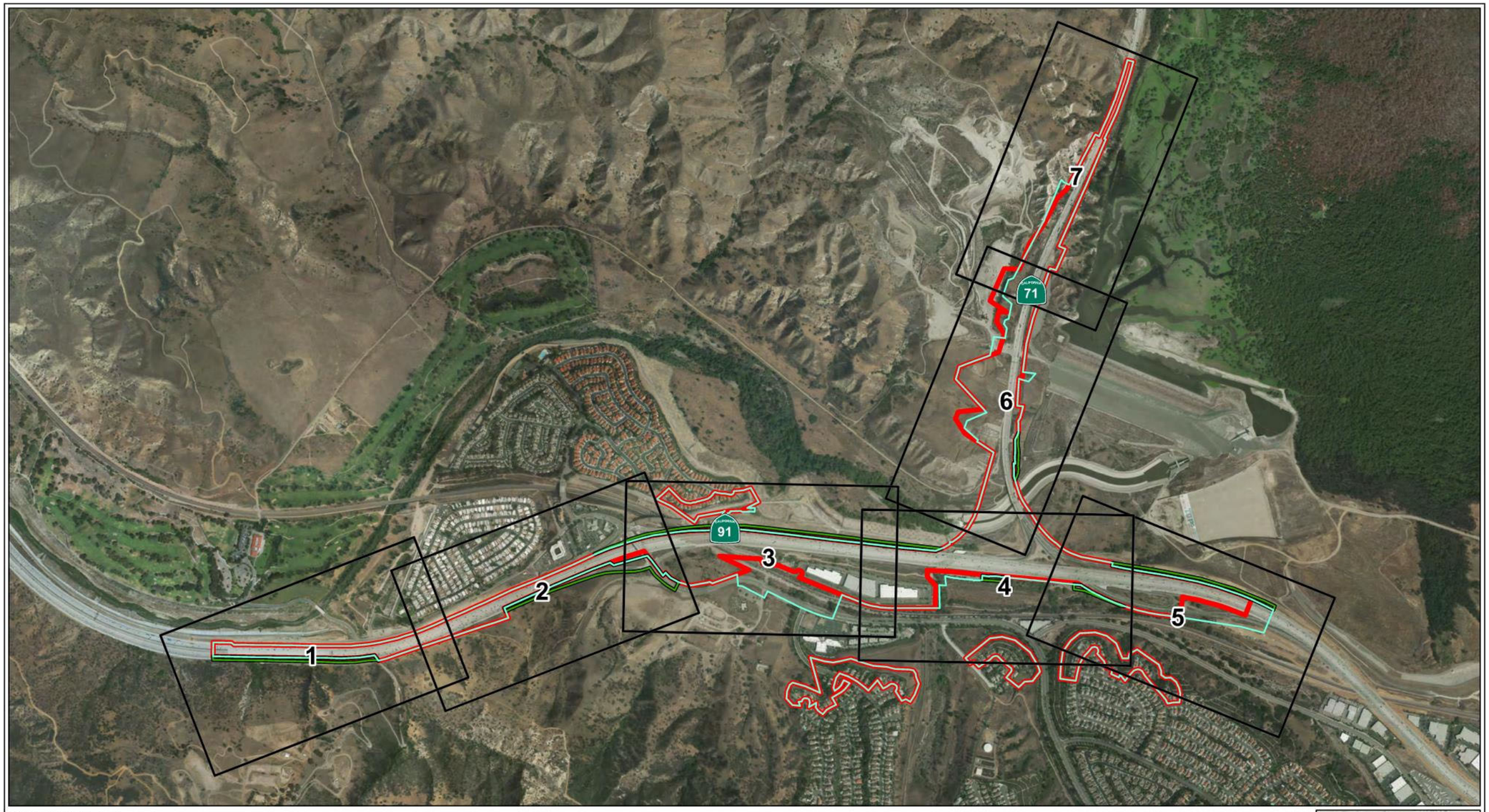
iv. Proposed noise generating land uses affecting the MSHCP Conservation Area shall incorporate setbacks, berms or walls to minimize the effects of noise on MSHCP Conservation Area resources pursuant to applicable rules, regulations and guidelines related to land use noise standards.

v. Consider the invasive, non-native plant species listed in *Table 6-2* of the MSHCP in approving landscape plans to avoid the use of invasive species for the portions of the project that are adjacent to the MSHCP Conservation Area. Considerations in reviewing the applicability of this list shall include proximity of planting areas to the MSHCP Conservation Areas, species considered in the planting plans, resources being protected within the MSHCP Conservation Area and their relative sensitivity to invasion, and barriers to plant and seed dispersal, such as walls, topography and other features.

vi. Proposed land uses adjacent to the MSHCP Conservation Area shall incorporate barriers, where appropriate in individual project designs to minimize unauthorized public access, domestic animal predation, illegal trespass, or dumping into the MSHCP Conservation Areas. Such barriers may include native landscaping, rocks/boulders, fencing, walls, signage, and/or appropriate mechanisms. Manufactured slopes associated with the proposed site development shall not extend into the MSHCP Conservation Area.

SNS/ST

APPENDIX E REVISED AREA OF POTENTIAL EFFECTS (APE)



SR-71/91 Interchange Improvement Project

Riverside / San Bernardino County, California
SR 91 R0.9 to R2.6 and SR 71 1.9 to R3.0
EFIS ID 0F5411

APE Map - Index

Source: ESRI; Parsons 2020
Map Creation On: 5/14/2020

Legend

- 2020 APE Revision
- 2014 Revised APE
- Original PA/ED APE

	5/15/20
Caltrans District 8 Project Manager	Date
Gary Jones	5/15/20
Caltrans District 8 Professionally Qualified Staff (PQS)	Date

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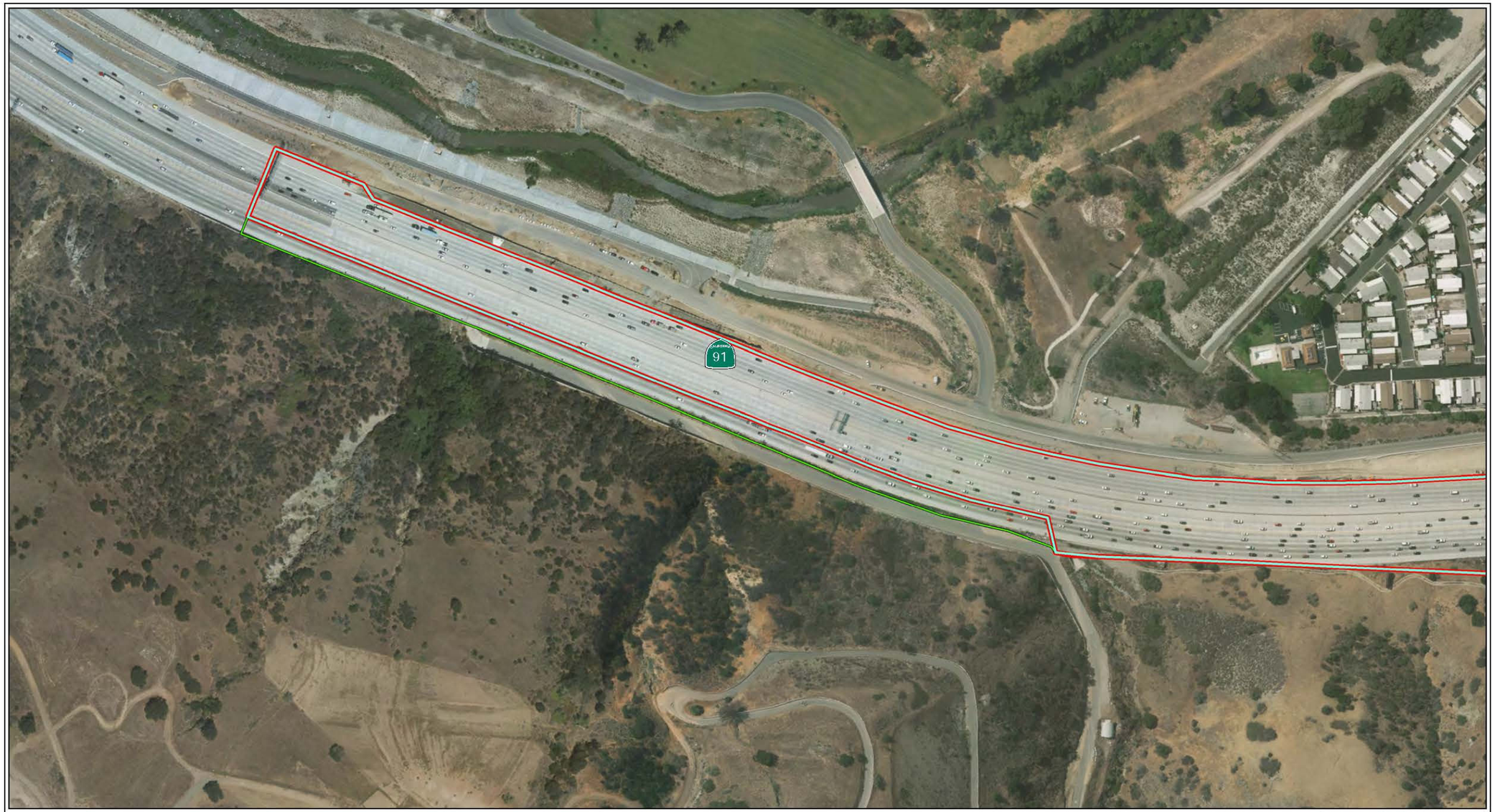

SR-71/91 Interchange Improvement Project

Riverside / San Bernardino County, California
SR 91 R0.9 to R2.6 and SR 71 1.9 to R3.0
EFIS ID 0F5411

APE Map - Sheet 1 of 7

Source: ESRI; Parsons 2020
Map Creation On: 5/14/2020

Legend

- 2020 APE Revision
- 2014 Revised APE
- Original PA/ED APE
- Striping

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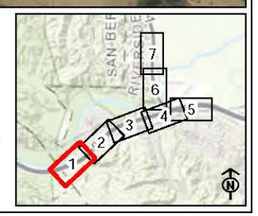

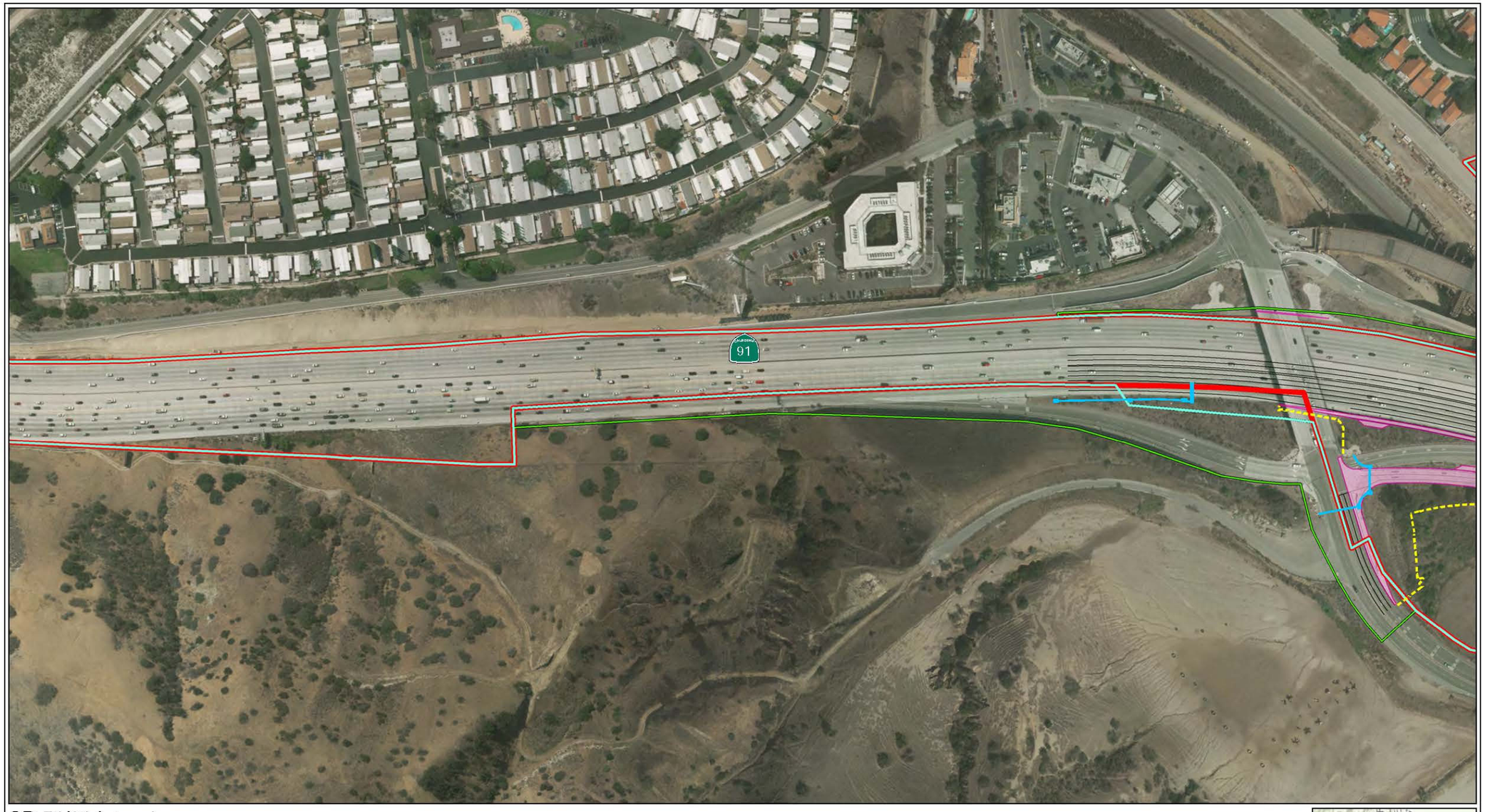
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SR-71/91 Interchange Improvement Project
Riverside / San Bernardino County, California
SR 91 R0.9 to R2.6 and SR 71 1.9 to R3.0
EFIS ID 0F5411
APE Map - Sheet 2 of 7
Source: ESRI; Parsons 2020
Map Creation On: 5/14/2020
Legend
2020 APE Revision
2014 Revised APE
Original PA/ED APE
Striping
Cut/Fill Line
Proposed Electrical
Proposed Roadway Improvements
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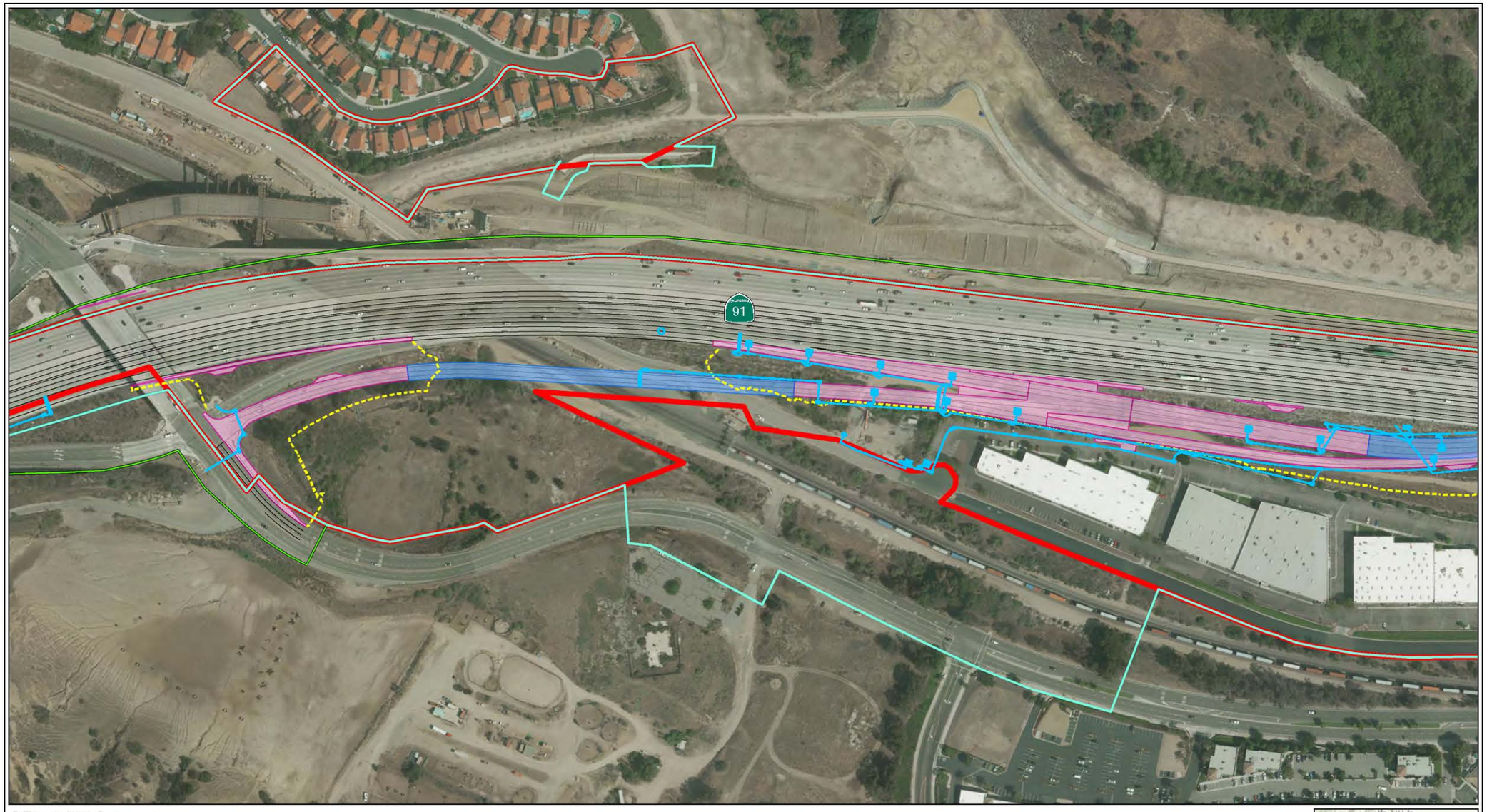

SR-71/91 Interchange Improvement Project

Riverside / San Bernardino County, California
SR 91 R0.9 to R2.6 and SR 71 1.9 to R3.0
EFIS ID 0F5411

APE Map - Sheet 3 of 7

Source: ESRI; Parsons 2020
Map Creation On: 5/14/2020

Legend

- 2020 APE Revision
- 2014 Revised APE
- Original PA/ED APE
- Striping
- Cut/Fill Line
- Proposed Electrical
- Proposed Roadway Improvements
- Proposed Structure
- Bridge Piers

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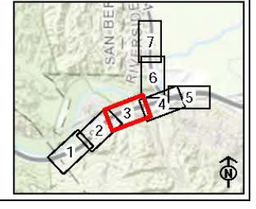

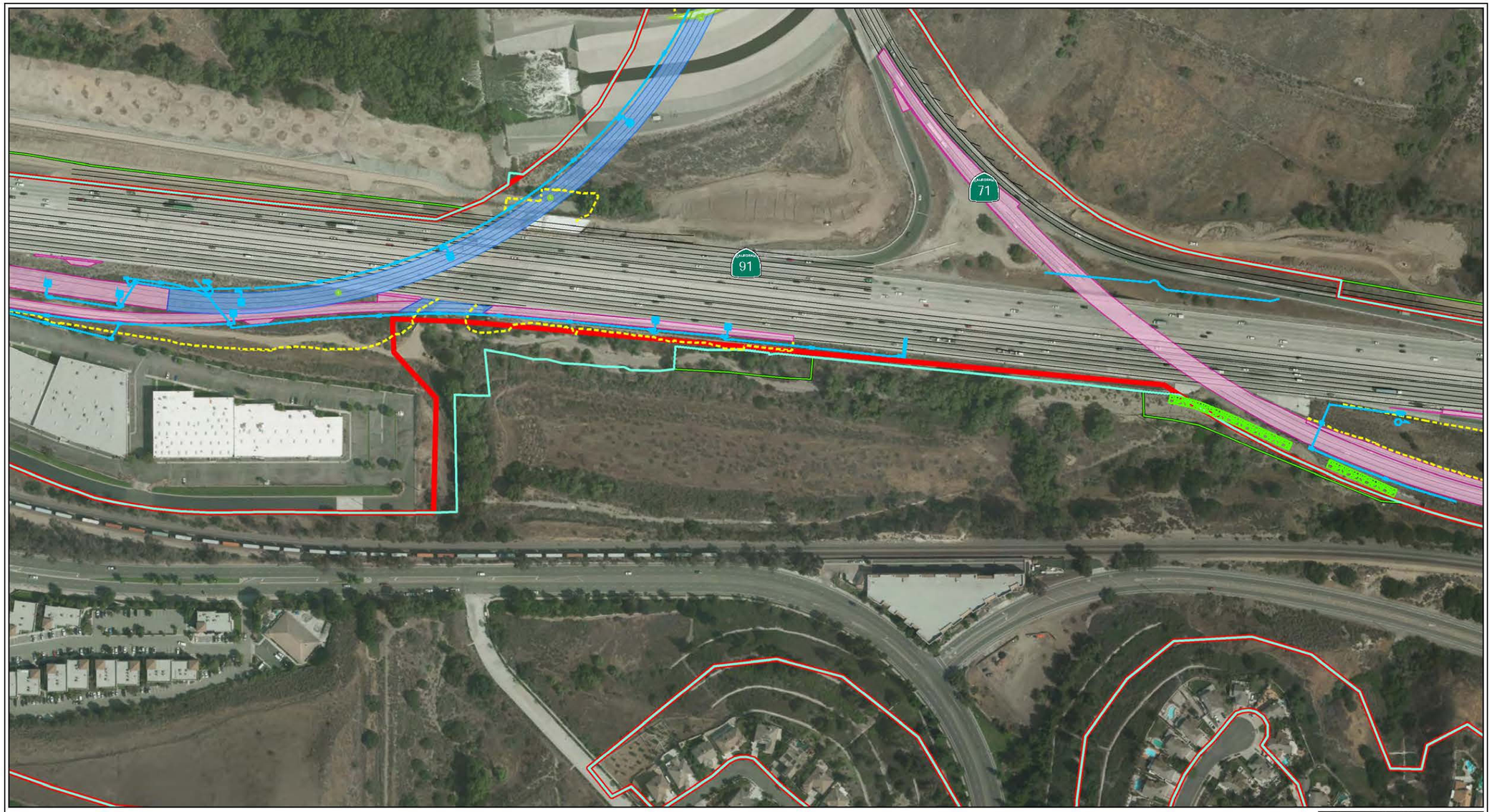

SR-71/91 Interchange Improvement Project

Riverside / San Bernardino County, California
SR 91 R0.9 to R2.6 and SR 71 1.9 to R3.0
EFIS ID 0F5411

APE Map - Sheet 4 of 7

Source: ESRI; Parsons 2020
Map Creation On: 5/14/2020

Legend

- 2020 APE Revision
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- Original PA/ED APE
- Striping
- Cut/Fill Line
- Proposed Electrical
- Proposed Rock Slope Installation
- Proposed Roadway Improvements
- Proposed Structure
- Bridge Piers

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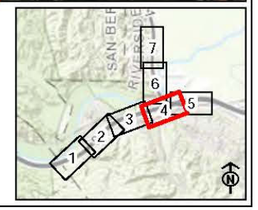

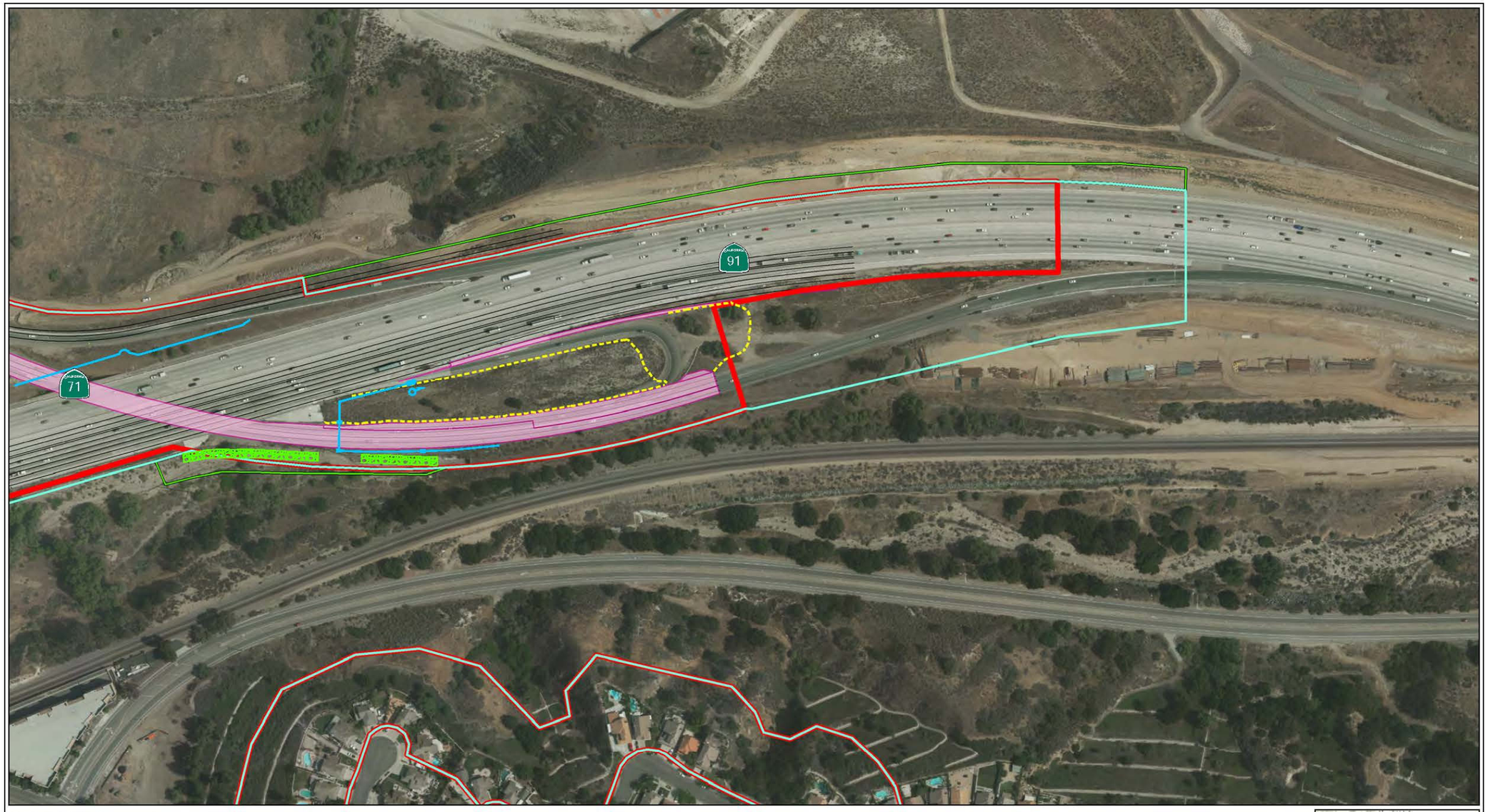

SR-71/91 Interchange Improvement Project

Riverside / San Bernardino County, California
SR 91 R0.9 to R2.6 and SR 71 1.9 to R3.0
EFIS ID 0F5411

APE Map - Sheet 5 of 7

Source: ESRI; Parsons 2020
Map Creation On: 5/14/2020

Legend

- 2020 APE Revision
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- Proposed Rock Slope Installation
- Proposed Roadway Improvements

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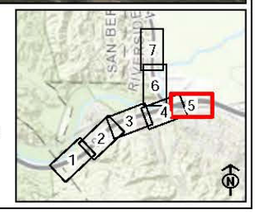

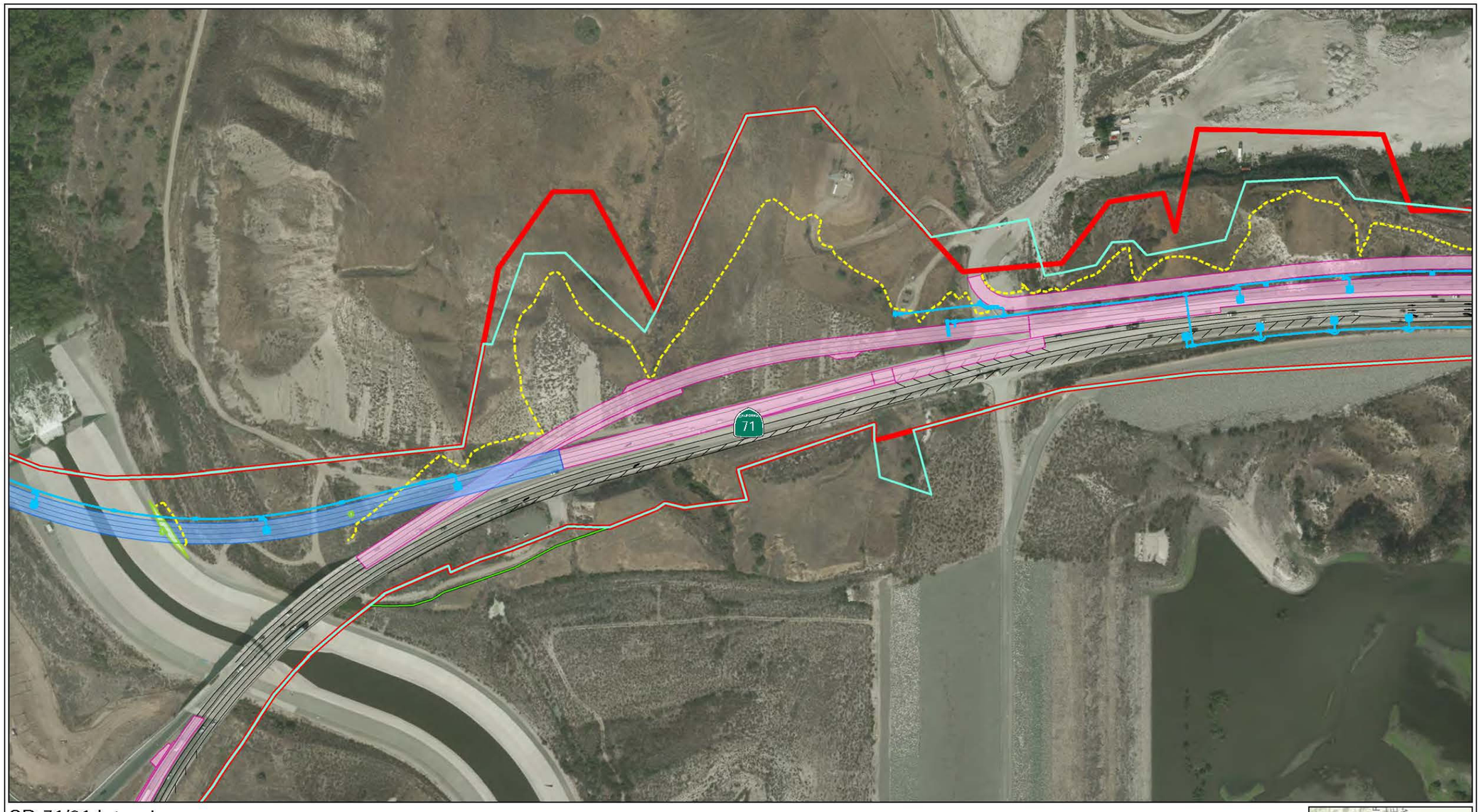

SR-71/91 Interchange Improvement Project

Riverside / San Bernardino County, California
SR 91 R0.9 to R2.6 and SR 71 1.9 to R3.0
EFIS ID 0F5411

APE Map - Sheet 6 of 7

Source: ESRI; Parsons 2020
Map Creation On: 5/14/2020

Legend

- 2020 APE Revision
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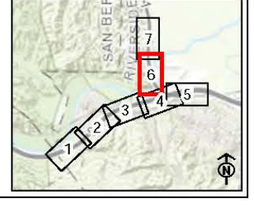

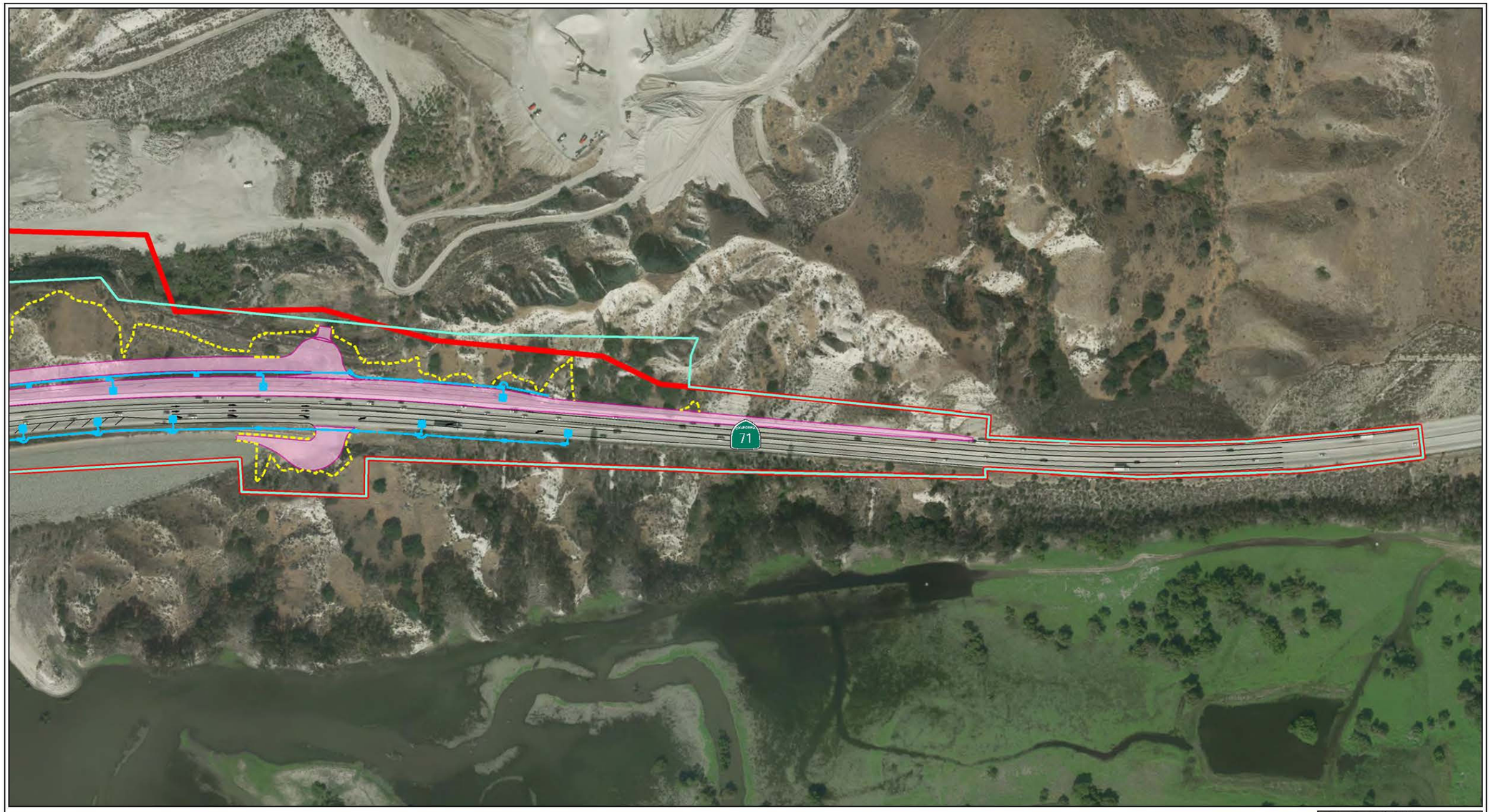

SR-71/91 Interchange Improvement Project

Riverside / San Bernardino County, California
SR 91 R0.9 to R2.6 and SR 71 1.9 to R3.0
EFIS ID 0F5411

APE Map - Sheet 7 of 7

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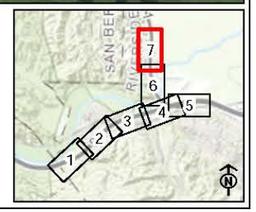

APPENDIX F CULTURAL RESOURCES TECHNICAL MEMORANDUM

STATE ROUTE 71/STATE ROUTE 91 INTERCHANGE IMPROVEMENT PROJECT REVALIDATION

Cultural Resources Technical Memorandum

May 2020

Prepared by: Christopher W. Purtell 5/14/20

Christopher Purtell, RPA Date

Parsons

1.0 PURPOSE OF THE TECHNICAL MEMORANDUM

The State Route (SR) 71/SR-91 Interchange Improvement Project is currently undergoing final design (Plans, Specifications, and Estimate [PS&E]) (see Attachment 1). The Initial Study/ Mitigated Negative Declaration (IS/MND) and Categorical Exclusion (CE) for this project were approved by the California Department of Transportation (Caltrans) in June 2011. A Revalidation for the project, which analyzed the impacts associated with various design changes since the 2011 IS/MND and CE were completed, was approved in November 2014. Because there has been an extended period of time since the Revalidation and recently proposed project changes, this Cultural Resources Technical Memorandum serves to verify that the previous analyses in the Historic Property Survey Report (HPSR) prepared in October 2010 and the Supplemental HPSR (SHPSR) prepared in August 2014 are still valid and/or to provide an updated analysis to reflect any changes that may have occurred to the project design, environmental setting, circumstances, impacts, or avoidance, minimization, or mitigation measures since the IS/MND, CE, and 2014 Revalidation were approved. This Technical Memorandum assesses the change in project impacts due to changes in the project, the environmental setting, and circumstances in support of a second Revalidation for the project in compliance with the California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA).

2.0 CHANGES IN PROJECT DESIGN

Since approval of the 2011 IS/MND and CE and 2014 Revalidation, there have been some minor modifications in the project design. These changes include:

- The Sukut property driveway knuckle will be widened to provide space for adequate turning movements. In addition, a secondary access opening will be created at the knuckle for emergency vehicle access.

- The proposed extension of drainage Culvert #33 from 435 to 531 feet documented in the 2014 Revalidation is no longer required. This culvert will maintain its existing length of 435 feet while Culvert #36 will be extended an additional 2 feet for a total length of 478 feet.

- Approximately 8,400 square feet of new rock slope protection will be added to the southern side of the SR-71 to eastbound SR-91 connector ramp along the Wardlow Wash channel.

- A right turn pocket will be added to northbound Green River Road in order to address peak hour traffic queues that extend south of the on-ramp to eastbound SR-91. The 12-foot wide by 150-foot long turn pocket will be constructed by widening Green River Road to the east. Construction will require fill grading and modifications to the existing slope at the edge of the road.

3.0 CHANGES IN ENVIRONMENTAL SETTING

Based on review of aerial photographs and a field survey, no new land uses or developments have occurred in the surrounding area, although the Initial Phase of the SR-91 Corridor Improvement Project (CIP), which included improvements on SR-91 from approximately the Orange/Riverside county line to the Interstate 15 (I-15) interchange, has been constructed. No additional cultural (i.e., prehistoric or historic) resources have been identified within the project's Area of Potential Effects (APE) since the project's SHPSR was approved in August 2014. However, there are two properties located within a 0.5-mile radius of the project's APE that have surpassed the 45 years of age threshold. These properties are identified as:

1. 4109 Green River Road (Assessor's Parcel Number [APN] 101180033). Green River Village Manufactured Home Park (Built in1971)
2. 4714 Green River Road (APN 101290016). Brandon's Diner (Built in 1972)

A preliminary assessment of these resources indicates that the Green River Village Manufactured Home Park is a deliberately planned subdivision, and Brandon's Diner may have been extensively remodeled. Thus, they do not appear to be eligible for listing in the National Register for Historic Places (NRHP), the California Register for Historic Resources (CRHR), or for listing as a Landmark under Title 17 of the Corona Municipal Code (Chapter 17.63.050).

4.0 CHANGES IN ENVIRONMENTAL CIRCUMSTANCES

In 2015, the City of Corona added a segment of Palisades Drive to its historic resources inventory as an historic district. Designated as HD-010, the district extends along Palisades Drive from Green River Drive East to the Wardlow Wash. This district is located approximately 1.2 miles east of the Green River Road exit on SR-91, south of the freeway corridor. This historic district is located outside but within a 0.5-mile radius of the project's APE.

In 2016, Caltrans entered into a new Programmatic Agreement (PA) for Section 106 of the National Historic Preservation Act (NHPA). The principal changes in the PA include expanded authority for Caltrans to develop action plans to avoid adverse effects on historic resources and a streamlining of the review process. None of the changes to the PA relate to, nor would they affect, the project.

5.0 CHANGES IN ENVIRONMENTAL IMPACT

Since the APE for the project was approved in 2010, design refinements required changes to the APE boundaries. The boundaries were expanded on the northwestern portion to include additional maintenance easements and south of SR-91 to include updated project features and grading activities, while pulling back the APE along the west side of SR-71. These changes have been reflected in the revised APE that was approved as part of the SHPSR in 2014.

Two of the proposed project changes extend beyond the existing APE. The first change is the addition of a right turn pocket along Green River Road and associated paving and striping modifications. The APE boundary has been expanded along Green River Road to include the proposed construction of the 12-foot wide by 150-foot long right turn pocket. The second project change is the installed of approximately 8,400 square foot rock slope protection along the southbound SR-71 to eastbound SR-91 connector ramp adjacent Wardlow Wash to reinforce existing slope protection recently installed by Caltrans. The APE boundary has been expanded to the south to include the additional area needed for the rock slope protection. See Attachment 2 for the Revised APE Map.

In addition, the APE boundary has been expanded along the northern and southern edges of SR-91 to accommodate project related striping changes along SR-91. The original APE boundary was based on the configuration of SR-91 prior to implementation of the SR-91 Corridor Improvement Project (CIP), which included widening of SR-91 between SR-241 and I-15. The boundary has also been revised to accommodate use of the existing USACE maintenance road located along the east side of SR-71 just north of the Santa Ana River channel during construction.

A review of the 2014 analysis conducted for this Cultural Resources Memorandum and the 2020 site survey found that there are no known cultural (prehistoric or historic) resources located within the expanded APE. The expanded APE areas are areas that have been previously disturbed by prior roadway construction activities. Further, the analysis concluded that the areas have a low potential to encounter cultural (prehistoric or historic) resources as a result of modern construction activities in the recent past. Therefore, no new or revised impacts to cultural resources would occur within the boundaries of the new APE as a result of project activities.

Completion of the Initial Phase of the SR-91 CIP would not change the impacts of the project on cultural (i.e., prehistoric or historic) resources. In addition, the additional properties that have surpassed 45 years of age and Corona's historic district on Palisades Drive are located outside of the project's APE and would not be impacted directly or indirectly by the proposed project. No new or revised impacts would occur because of changes in the environmental setting.

The project's new APE and study area are situated within the Counties of Riverside, San Bernardino, and Orange; therefore, separate California Historic Resources Inventory System (CHRIS) Record Searches were conducted at the Eastern Information Center (EIC) and the South Central Coastal Information Center (SCCIC). The record searches reviewed all previously recorded archaeological and historic resources located within a 1.0-mile radius of the project's APE.

Eastern Information Center

On January 7, 2020, Christopher Purtell, M.A., RPA, conducted a record search of the study area at the EIC. The results of this effort indicate that there have been 46 studies/reports conducted within a 1.0-mile radius of the APE; however, since 2014, the record search shows that there have been 5 new studies/reports that identified 2 newly recorded historic resources (P-33-019802 and P-33-24551/CA-RIV-12171H). These two historic resources are identified as a historic highway (P-33-019802) and foundations/water conveyance features (P-33-24551/ CA-RIV-12171H). Based on Department of Parks and Recreation (DPR) Forms for these resources, both do not appear to be eligible for listing in the NRHP or the CRHR. Brief descriptions of these historic resources are provided below.

P-33-019802 (HP 37: Highway/Trail)

This historic highway segment is the original alignment of Green River Road. It is located less than 0.25 mile from the project. The segment is approximately 2,800 feet in length and is parallel to the Atkinson Topeka and Santa Fe Railway tracks. The road segment was originally constructed between 1938 and 1939 and has been extensively altered. The resource contains two concrete culverts; one covered culvert is a poured-in-place concrete structure that used 1-inch by 6-inch boards as forms; the second culvert is the same size, but it has been altered and repaired. A date of construction (1939) is cast into the upper middle south face of the culvert. This resource does not appear to be eligible for listing in the NRHP because of its loss of integrity and extensive alterations. While the western portion of this historic resource is within the project APE, the project would not have an adverse effect on this resource because it is not eligible for the NRHP.

P-33-24551/CA-RIV-12171H (AH2: Foundations and AH6: Water Conveyance Features)

These foundations and water conveyance features are located at 4602 Green River Road, which is less than 0.25 mile from the project's APE. The site is a former agricultural complex that dates back to the 1940s–1950s. The resource consists of the remnants of an agricultural complex, including water conveyance features, two outbuilding slabs, and a cinderblock shed. Documentation that was prepared in 2015 concluded that the resource lacked potential as a significant archaeological or historic resource and was not eligible for the NRHP. The limits of this historic resource are located on the southern edge of the project APE. Because these resources are not eligible for listing in the NRHP or the CRHR, the project would not adversely affect these resources.

South Central Coastal Information Center

On February 12, 2020, Christopher Purtell, M.A., RPA, conducted a record search of the study area at the SCCIC. The results of this effort indicate that there have been 33 studies/reports conducted within a 1.0-mile radius of the APE; however, since 2014, the record search indicates

that there have been 5 new studies/reports that identified 2 previously recorded cultural resources (P-30-001073 and P-30-100301) located within a 1.0-mile radius of the APE.

Cultural resource P-30-001073 (bedrock milling feature) was not evaluated for listing in the NRHP or the CRHR. Cultural resource P-30-100301 (prehistoric lithic scatter) is classified as an isolate and is not eligible for listing in either the NRHP or the CRHR. These two resources are located outside of the project's APE and would not be impacted by the proposed project.

No new or revised impacts would occur because of new cultural studies that have been completed and new cultural resources that have been identified in the study area.

6.0 CHANGES TO AVOIDANCE, MINIMIZATION, AND MITIGATION MEASURES SINCE REVALIDATION WAS APPROVED

No new or revised impacts are expected to occur with the project over those identified in the 2011 IS/MND and CE and 2014 Revalidation. The additional project changes analyzed as part of this memorandum found no new or revised impacts to cultural resources would occur within the boundaries of the new APE.

Because no change in project impacts is expected, the avoidance, minimization, and mitigation measures specified in the project's IS/MND and CE and 2014 Revalidation remain valid. No new or additional avoidance, minimization, and mitigation measures are required as a result of the analysis in this Cultural Resources Technical Memorandum.

7.0 CHANGES TO ENVIRONMENTAL COMMITMENT SINCE REVALIDATION WAS APPROVED

No changes in environmental commitments concerning cultural (i.e., prehistoric or historic) resources have occurred since approval of the 2011 IS/MND and CE and 2014 Revalidation.

8.0 LIST OF PREPARERS

Christopher Purtell, RPA, Cultural Resources Specialist/Archaeologist, Master in Anthropology (Emphasis in Archaeology), 15 years of experience, Co-Author.

Jill Vesci, Architectural Historian, Master of Architecture, Historic Preservation, 19 years of experience, Co-Author.

Angela Schnapp, Environmental Lead, Master of Science, Environmental Engineering, 20 years of experience, Reviewer.

9.0 REFERENCES

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———. 2014. Supplemental Historic Property Survey Report, District 8, Riverside/San Bernardino, SR 91/SR 71 PM R0.9/R2.6 and PM 1.9/3.0. August 15.

ATTACHMENTS

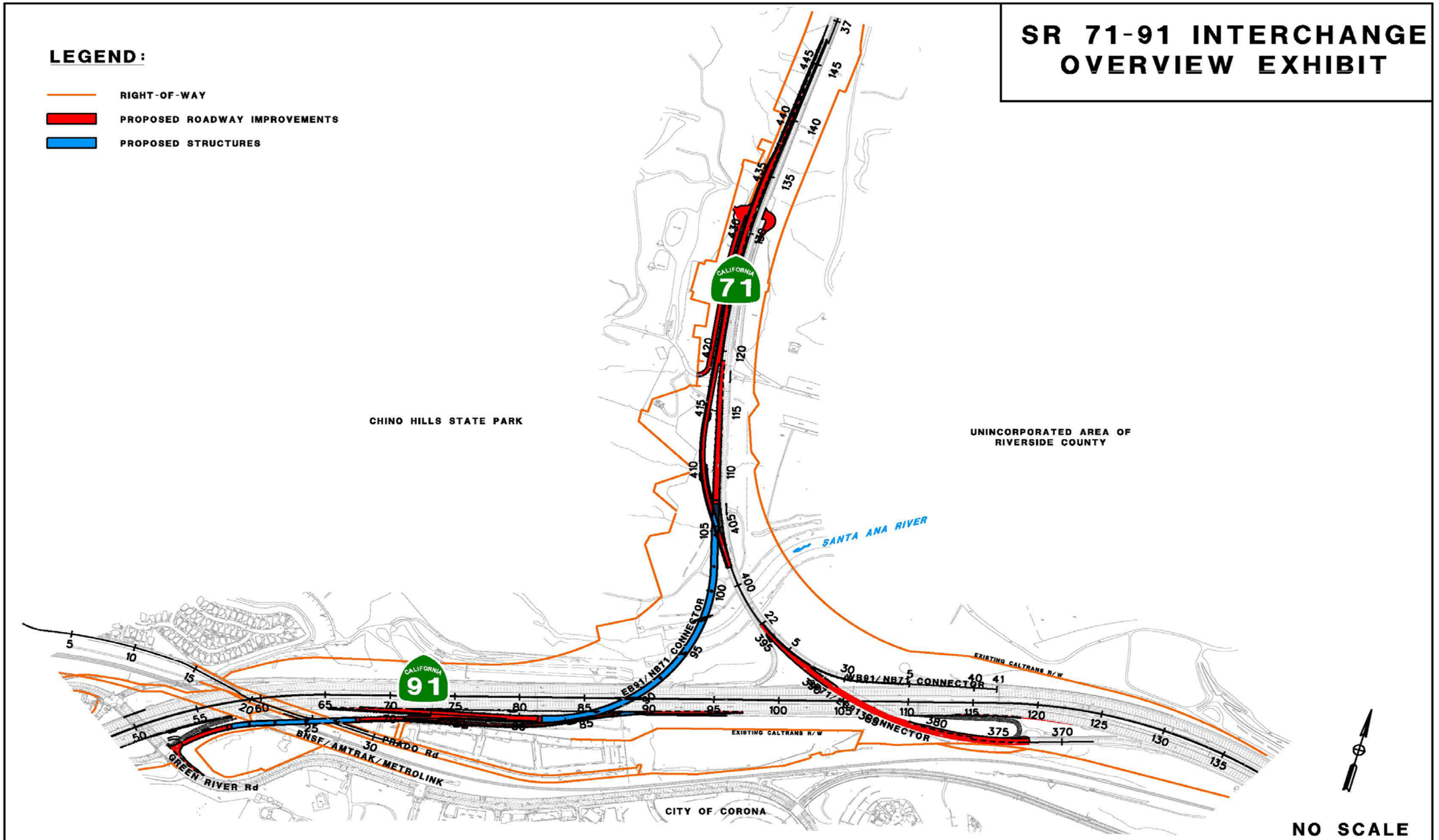
1. SR-71/91 Interchange Improvement Project Overview Exhibit
2. Revised Area of Potential Effect Mapbook
3. Christopher Purtell Resume

ATTACHMENT 1: SR-71/91 INTERCHANGE IMPROVEMENT PROJECT

SR 71-91 INTERCHANGE OVERVIEW EXHIBIT

LEGEND:

- RIGHT-OF-WAY
- PROPOSED ROADWAY IMPROVEMENTS
- PROPOSED STRUCTURES



NO SCALE

ATTACHMENT 2: REVISED AREA OF POTENTIAL EFFECT MAPBOOK

SR-71/91 Interchange Improvement Project

Riverside / San Bernardino County, California
SR 91 R0.9 to R2.6 and SR 71 1.9 to R3.0
EFIS ID 0F5411

APE Map - Index

Source: ESRI; Parsons 2020
Map Creation On: 5/14/2020

Legend

- 2020 APE Revision
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Caltrans District 8 Project Manager	Date
Gary Jones	5/15/20
Caltrans District 8 Professionally Qualified Staff (PQS)	Date

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SR-71/91 Interchange Improvement Project

Riverside / San Bernardino County, California
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APE Map - Sheet 1 of 7

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Map Creation On: 5/14/2020

Legend

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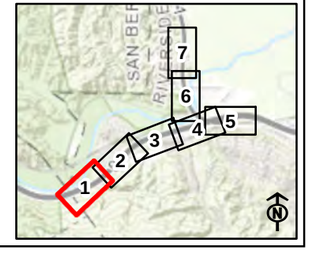

SR-71/91 Interchange Improvement Project

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APE Map - Sheet 2 of 7

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- 2020 APE Revision
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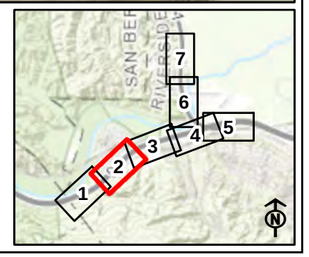

SR-71/91 Interchange Improvement Project

Riverside / San Bernardino County, California
SR 91 R0.9 to R2.6 and SR 71 1.9 to R3.0
EFIS ID 0F5411

APE Map - Sheet 3 of 7

Source: ESRI; Parsons 2020
Map Creation On: 5/14/2020

Legend

- 2020 APE Revision
- 2014 Revised APE
- Original PA/ED APE
- Striping
- Cut/Fill Line
- Proposed Electrical
- Proposed Roadway Improvements
- Proposed Structure
- Bridge Piers

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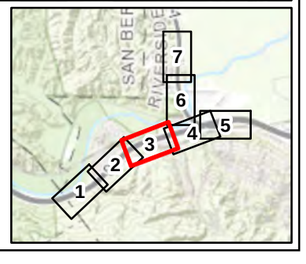

SR-71/91 Interchange Improvement Project

Riverside / San Bernardino County, California
SR 91 R0.9 to R2.6 and SR 71 1.9 to R3.0
EFIS ID 0F5411

APE Map - Sheet 4 of 7

Source: ESRI; Parsons 2020
Map Creation On: 5/14/2020

Legend

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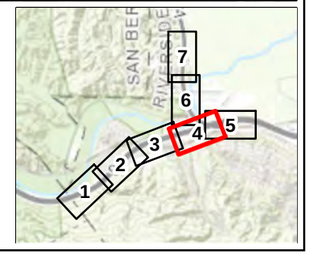

SR-71/91 Interchange Improvement Project

Riverside / San Bernardino County, California
SR 91 R0.9 to R2.6 and SR 71 1.9 to R3.0
EFIS ID 0F5411

APE Map - Sheet 5 of 7

Source: ESRI; Parsons 2020
Map Creation On: 5/14/2020

Legend

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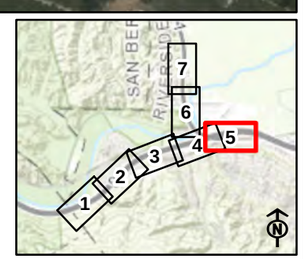

SR-71/91 Interchange Improvement Project

Riverside / San Bernardino County, California
SR 91 R0.9 to R2.6 and SR 71 1.9 to R3.0
EFIS ID 0F5411

APE Map - Sheet 6 of 7

Source: ESRI; Parsons 2020
Map Creation On: 5/14/2020

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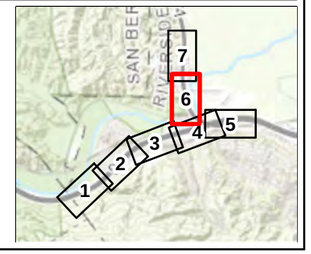

SR-71/91 Interchange Improvement Project

Riverside / San Bernardino County, California
SR 91 R0.9 to R2.6 and SR 71 1.9 to R3.0
EFIS ID 0F5411

APE Map - Sheet 7 of 7

Source: ESRI; Parsons 2020
Map Creation On: 5/14/2020

Legend

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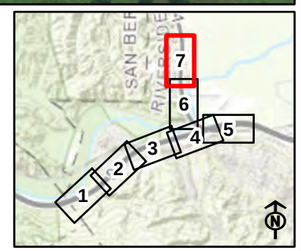

ATTACHMENT 3: CHRISTOPHER PURTELL RESUME

PARSONS

CHRISTOPHER W. PURTELL, M.A., RPA

SENIOR ARCHAEOLOGIST

Mr. Christopher W. Purtell is a cultural resources director/senior archaeologist and cultural resources project manager with over fourteen years of professional experience in project management, environmental compliance, subcontracting, archaeological survey, excavation, monitoring, data recovery, laboratory analysis, and in the development of mitigation and treatment plans. He has undertaken and contributed to work efforts for prehistoric and historic archaeological and paleontological investigations in the Great Basin, Mojave Desert, Central, Southern, and Northern California pursuant to the California Environmental Quality Act (CEQA), the National Environmental Policy Act (NEPA), and Sections 106 and 110 of the National Historic Preservation Act (NHPA).

Mr. Purtell has authored and co-authored Cultural Resources Management Plans, developed Workers Environmental Awareness Programs (WEAP), AB 52 administrative and consultation management assistance, tribal and non-tribal treatment plans, preserved in-place burials, tribal monitoring agreements, and cultural analyses for Fatal Flaw studies as well as environmental compliance documents, such as Initial Studies, General Plans, Environmental Assessments, Environmental Impact Reports, and Cultural Resources Management Plans, and Cultural Resources Technical Reports.

Mr. Purtell is a Registered Professional Archaeologist (RPA) and his training and background meet the U.S. Secretary of the Interior's Professional Qualifications Standards as a Principle Investigator and Field Director for prehistoric and historic archaeology.

RELEVANT WORK EXPERIENCE

Cultural Resources Assessment for the Proposed Inland Center Drive Storm Drain Improvement Project. City of San Bernardino, County of San Bernardino, California (2019)
Role: Senior Archaeologist
Client: U.S. Army Corps of Engineers-Los Angeles Office and the City of San Bernardino
Project Description: The project proposes the new construction of a warehouse building totaling 102,375 square feet that requires storm water to be captured on-site and collected in an underground infill basin before being discharged into the Lytle Cajon Channel within the San Bernardino County Flood Control right-of-way. The USACE has determined that the project is an undertaking subject to Section 106 of the National Historic Preservation Act (NHPA), 16 USC 470(f), and its implementing regulations under 36 CFR Part 800 (Section 106).
Responsible for overall project management and principle investigator duties to include: project scheduling, budgeting, client interface, Class I Cultural Resources Literature Review and Archival Research, Class II intensive field survey, and Technical report of the Area of Potential Effect to determine the potential impacts to cultural resources for the purpose of complying with the National Environmental Policy Act (NEPA) and Section 106 of the National Historic Preservation Act (NHPA). At the City's request, provided AB 52 administrative services to include verifying the City's Tribal Notification List, drafting and mailing the AB 52 Tribal Notification Letter, and preparation of the AB 52 Compliance Check List; and, consultation services to include AB 52 regulatory review, protocols and procedures, cultural resource mitigation measures, and consultation completion and documentation. As the City's Cultural Resource Consultant, took an active role in AB 52 government to government consultations.

FIRM

Parsons

YEARS OF EXPERIENCE

Total: 15

With Parsons: 1

EDUCATION

- Bachelor of Arts, Anthropology/Archaeology, Minor in Geography: California State University, Dominguez Hills, 2005. Graduated with honors.
- Master of Arts, Anthropology (Emphasis in Archaeology), California State University, Fullerton, 2013.

PQS (PRINCIPAL INVESTIGATOR – PREHISTORIC/HISTORIC ARCHAEOLOGY)

- Registered Professional Archaeologist, which requires 52 weeks of field and lab experience

AWARDS

Professional Enhancement Award: for Archaeological Field or Laboratory Analysis, California State University, Fullerton, Graduate School of Anthropology, 2007-2008.

CERTIFICATIONS

- Register of Professional Archaeologist (ID No. 990027)
- OSHA 8-hr Annual HazWaste Operations Refresher Certification May 2019.
- 5-Phase Project Management, UCLA Extension, Department of Engineering, Information Systems, and Technical Management 2008.

RELEVANCE

- Current areas of expertise: Archaeological investigations, Cultural resource management, Native American Consultation, and project administration.
- Over 15 years of experience in CEQA, NEPA, and NHPA projects throughout Northern and Southern California.

Phase 1 Cultural Resources Assessment De Anza Sewer Force Main Project. City of San Jacinto, County of Riverside, California (2017).
Role: Cultural Resources Director / Senior Archaeologist for MIG
Client: Eastern Municipal Water District
Project Description: The new construction of 7,500 linear feet of a new 15-inch diameter sewer force main from the De Anza Lift Station to the headworks of the San Jacinto Valley Regional Water Reclamation Facility. Responsible for overall project management and principle investigator duties to include: project scheduling, budgeting, client interface, Phase I Cultural Resources Assessment, intensive field survey, Native American scoping, and technical report of the project area to determine the potential impacts to cultural resources for the purpose of complying with the California Environmental Quality Act and local regulations.

Cultural Resources Assessment for the Proposed North Davis Meadows Water Consolidation Project. City of Davis, Yolo County, California (2017).
Role: Cultural Resources Director / Senior Archaeologist for MIG
Client: Yolo County, Engineering Department and the State Water Resources Control Board
Project Description: The State Water Resources Control Board is seeking funding for the proposed North Davis Meadows Water Consolidation Project (Undertaking) through the EPA's Clean Water State Revolving Fund program under 40 CFR Part 35. The proposed project would include the installation of approximately 1.5-mile long, 6-inch buried water pipeline to provide potable water to residents who can no longer use two existing subsurface wells due to agricultural condemnation. Responsible for overall project management and principle investigator duties to include: project scheduling, budgeting, client interface, Class I Cultural Resources Literature Review and Archival Research, Class II intensive field survey, and Technical report of the Area of Potential Effect to determine the potential impacts to cultural resources for the purpose of complying with the National Environmental Policy Act (NEPA) and Section 106 of the National Historic Preservation Act (NHPA).

Phase 1 Cultural Resources Assessment of the Proposed Groundwater Production Well No. 204 Project. City of Perris, County of Riverside, California (2016).
Role: Senior Archaeologist for MIG
Client: Eastern Municipal Water District
Project Description: The new construction and operation of a new portable groundwater production facility identified as Well No. 204, on 2.3-arces of land that includes: well head facilities and appurtenances, a new field office, water supply line, water discharge pump, settling tanks, drill rig, dog house, mud tank, blow off pond, pipe trailer, material and cutting storage area, and laydown yards. Responsible for overall project management and principle investigator duties to include: project scheduling, budgeting, client interface, Phase I Cultural Resources Assessment, Native American scoping, intensive field survey, and technical report of the project area to determine the potential impacts to cultural resources for the purpose of complying with the California Environmental Quality Act and local regulations.

Pipeline Safety Enhancement Plan (PSEP) SL32-21 Pasadena Hydro-test Project. City of Pasadena, County of Los Angeles, California (2015).
Role: Archaeological Specialist
Client: Southern California Gas Company
Project Description: To pressure test natural gas transmission pipelines that have not been tested to modern standards. Responsible for a Phase I Cultural Resources Assessment, technical report, and archaeological construction monitoring of the project area to reduce potential impacts to unknown cultural resources for the purpose of complying with the California Environmental Quality Act and local regulations.

Cultural Resources Assessment for the Proposed North San Diego County Recycled Water Project. San Diego County, California (2015).
Role: Senior Archaeologist / Project Manager for PCR Service, Inc.
Client: RMC Water and Environment, Inc.
Project Description: the development of a regional recycled water infrastructure that includes interagency connections to increase the capacity and connectivity of the recycled water storage and distribution systems of the Coalition. Responsible for a comprehensive Phase I Cultural Assessment and technical report to reduce potential impacts to unknown cultural resources for the purpose of complying with the California Environmental Quality Act.

Cultural and Paleontological Resources Assessment New Model Colony (NMC) Storm Drains. Ontario, San Bernardino County, California (2014).
Role: Senior Archaeologist and Project Manager for Duke Cultural Resources Management, LLC.
Client: The County of Riverside, Planning Department
Responsible for preparing the project's Cultural Resources Technical report to document and to comply with the California Environmental Quality Act (CEQA) for the proposed construction of four storm water outlets within the Cucamonga Creek's water system. Responsible for the cultural assessment to include: a cultural records search at the San Bernardino Archaeological Information Center (SBAIC), records search request for paleontology resources and unique geological features from the San Bernardino County Museum (SBCM), and a Sacred Lands File (SLF) search through the California Native American Heritage Commission (NAHC) and follow-up Native American consultation. In addition, a cultural and paleontological field survey was conducted throughout the project area and finally, the preparation of the Cultural Resources Technical report.

Alameda Corridor East Trench Project (ACE) at Mission Street. City of San Gabriel, California, 2014.
Role: Cultural Specialist I for SWCA Environmental Consultants.
Client: Alameda-East Construction Authority.
Responsible for the humane excavation, removal, and repatriation of human remains and grave goods discovered during the construction of a sewer line associated with the ACE Trench Project. The human burials were located in an unmapped cemetery area associated with the San Gabriel Mission. The human remains consisted of both Native Americans and Europeans, with grave goods ranging from shell and glass beads and necklaces, various sizes and types of buttons, metal buckles, and clothing fragments. As a result of these efforts, over thirty human remains were humanely and respectful removed, analyzed, and repatriated into the San Gabriel Mission cemetery.

Grounding Rods and Laterals Installation at San Fernando Substation. City of Los Angeles, California (2014).
Role: Archaeological Monitor for SWCA Environmental Consultants.
Client: Southern California Edison Company.
Responsible for the archaeological cultural resources monitoring of all ground distributing activities associated with the installation of ground rods and lateral cables as specified in the project's Cultural Resources Management Plan. Additional duties included on-going Worker Environmental Awareness Training involving the recognition, protection and procedures for the unanticipated discovery of cultural resources both prehistoric and historic. The construction team was trained and participated in SCE's safety protocols and safe work practices. No significant cultural resources were discovered and no construction workers were injured during construction.

Owens Lake PM10 Planning Area Demonstration of Attainment State Implementation Plan.
Inyo County, California (2007-2010).
Role: Archaeological Resources Coordinator for Sapphos Environmental, Inc.
Client: Great Basin Unified Air Pollution Control District (GBUAPCD).
Conducted pedestrian surveys on approximately 12,000 acres of the 70,000-acre dry Owens Lake dried lake bed that resulted in the identification and recording of 50 prehistoric sites and historic archaeological sites associated with late 1890's silver mining and early 20th century raw material processing and chemical manufacturing facilities. Provided quality assurance and over site on-behalf of the GBUAPCD and the California State Lands Commission for the Phase VII construction (Water & Sewer Lines) mitigation measures at Owens Lake were compliant with the project's final EIR.

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APPENDIX G SECTION 106 PROGRAMMATIC AGREEMENT

FIRST AMENDED

PROGRAMMATIC AGREEMENT AMONG THE FEDERAL HIGHWAY ADMINISTRATION, THE ADVISORY COUNCIL ON HISTORIC PRESERVATION, THE CALIFORNIA STATE HISTORIC PRESERVATION OFFICER, AND THE CALIFORNIA DEPARTMENT OF TRANSPORTATION REGARDING COMPLIANCE WITH SECTION 106 OF THE NATIONAL HISTORIC PRESERVATION ACT, AS IT PERTAINS TO THE ADMINISTRATION OF THE FEDERAL-AID HIGHWAY PROGRAM IN CALIFORNIA

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ATTACHMENTS:

1. Caltrans Professionally Qualified Staff Standards
2. Screened Undertakings
3. Area of Potential Effects Delineation
4. Properties Exempt from Evaluation
5. Findings of No Adverse Effect with Standard Conditions
6. Standard Treatment of Archaeological Sites: Data Recovery Plan
7. Local Bridge Seismic Safety Retrofit Program

FIRST AMENDED

PROGRAMMATIC AGREEMENT AMONG THE FEDERAL HIGHWAY ADMINISTRATION, THE ADVISORY COUNCIL ON HISTORIC PRESERVATION, THE CALIFORNIA STATE HISTORIC PRESERVATION OFFICER, AND THE CALIFORNIA DEPARTMENT OF TRANSPORTATION REGARDING COMPLIANCE WITH SECTION 106 OF THE NATIONAL HISTORIC PRESERVATION ACT, AS IT PERTAINS TO THE ADMINISTRATION OF THE FEDERAL-AID HIGHWAY PROGRAM IN CALIFORNIA

WHEREAS, the Federal Highway Administration (FHWA), under the authority of 23 USC § 101, implements the Federal-aid Highway Program (Program) in the state of California by funding approved state and locally-sponsored transportation projects (Local Assistance) that are administered by the California Department of Transportation (Caltrans); and

WHEREAS, Title 23 United States Code Section 327 (23 USC § 327) allows the United States Department of Transportation (USDOT) Secretary, acting through FHWA, to assign responsibilities for compliance with the National Environmental Policy Act of 1969 (NEPA) and other federal environmental laws to a State Department of Transportation through a memorandum of understanding; and

WHEREAS, Title 23 United States Code Section 326 (23 USC § 326) allows the USDOT Secretary, acting through FHWA, to assign responsibilities for Categorical Exclusion (CE) determinations to a State Department of Transportation through a memorandum of understanding; and

WHEREAS, Caltrans and FHWA, entered into a NEPA Assignment Memorandum of Understanding and a CE Assignment Memorandum of Understanding (collectively MOUs) concerning the State of California's participation in the Program in which FHWA assigned and Caltrans assumed FHWA's responsibilities under NEPA and Section 106 of the National Historic Preservation Act of 1966, as amended (NHPA) and associated implementing regulations at 36 CFR Part 800; and

WHEREAS, pursuant to the MOUs, Caltrans is deemed to be a federal agency for all Federal-aid Highway projects it has assumed, and in that capacity Caltrans assigned the role of "agency official" to the Caltrans Division of Environmental Analysis (DEA) Chief for the purpose of compliance with 36 CFR Part 800, and to provide for effective compliance, the DEA Chief delegated day-to-day responsibilities to the Cultural Studies Office (CSO) Chief; and

WHEREAS, FHWA California Division Administrator retains responsibility for environmental review, consultation and decision-making for specific undertakings identified in the MOUs and therefore shall be the "agency official" for those specific undertakings; and

WHEREAS, the United States Army Corps of Engineers' (Corps) Sacramento, San Francisco, and Los Angeles Districts (collectively Corps Districts) may also have Section 106 of the NHPA responsibilities since it administers a permit program under the authority of Section 10 of the Rivers and Harbors Act of 1899, as amended (33 USC § 403), and Section 404 of the Clean Water Act of 1972 as amended (33 USC § 1344) (DA Permits) to which Federal-aid Highway projects in California may be subject and therefore has participated in this consultation and is an invited signatory to this Programmatic Agreement (Agreement); and

WHEREAS, FHWA and the Corps, as federal agencies, have a unique legal relationship with Indian tribes as set forth in the Constitution of the United States, treaties, statutes, executive orders, and court decisions, and while an Indian tribe may agree to work directly with Caltrans as part of the 36 CFR Part 800 compliance process, the FHWA and the Corps Districts remain legally responsible for government-to-government consultation with Indian tribes; and

WHEREAS, Caltrans, FHWA, and the Corps Districts have determined that implementation of the Program in California, including issuance of DA Permits for a Program undertaking, may have an effect upon properties included in or eligible for inclusion in the National Register of Historic Places (NRHP), hereafter referred to as historic properties, and have consulted with the California State Historic Preservation Officer (SHPO), and the Advisory Council on Historic Preservation (ACHP) pursuant to 36 CFR § 800.14(b); and

WHEREAS, pursuant to the consultation conducted under 36 CFR § 800.14(b), the signatories (defined below) developed this Agreement in order to establish an efficient and effective program alternative for taking into account the effects of the Program on historic properties in California and for affording the ACHP a reasonable opportunity to comment on undertakings covered by this Agreement; and

WHEREAS, FHWA and Caltrans notified 114 federally recognized Indian tribes with ancestral lands in California through mail about this proposed amended Agreement, requested their comments, and took any comments received into account; and

WHEREAS, Caltrans also notified 131 non-federally recognized tribes, groups and individuals, 264 individuals on the California Native American Heritage Commission contact list, and 26 Tribal Historic Preservation Officers, requested their comments, and took any comments received into account; and

WHEREAS, Caltrans also notified 64 Certified Local Governments, 68 historic preservation organizations, Federal agencies with jurisdiction over lands in California, and members of the California State Association of Counties, and invited their comments on the proposed amended Agreement and took any comments received into account; and

WHEREAS, the *Programmatic Agreement among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and California Department of Transportation regarding compliance with Section 106 of the National Historic Preservation Act as it pertains to the administration of the Federal-aid Highway Program in California* (2004) is superseded by this Agreement; and

WHEREAS, the *Programmatic Agreement regarding the Seismic Retrofit of Bridge Structures in California* among the FHWA, ACHP, SHPO and Caltrans executed in 1995 is superseded by this Agreement;

NOW, THEREFORE, FHWA, the SHPO, the ACHP, and Caltrans (collectively signatories) agree that the Program shall be carried out in accordance with the following stipulations in order to take into account the effects of the Program on historic properties in California and that these stipulations shall govern compliance of the Program with Section 106 of the NHPA until this Agreement expires or is terminated.

STIPULATIONS

Caltrans, either as assigned by FHWA under the MOUs or under FHWA's authority through this Agreement, shall ensure that the following stipulations are carried out. Where FHWA's responsibilities have not been assigned to and assumed by Caltrans, FHWA, in coordination with Caltrans, shall ensure that the following stipulations are carried out.

I. APPLICABILITY

A. This Agreement shall apply to all federal undertakings administered under the Program in California for which FHWA or Caltrans is the lead federal agency, including Federal-aid emergency relief projects, defined in 23 CFR Part 668 subpart A, and any DA Permits-associated with such Program undertakings.

B. The Agreement shall not apply to undertakings that occur on or affect tribal lands as defined in 36 CFR § 800.16(x) and FHWA and Caltrans shall follow the procedures in 36 CFR Part 800, unless an Indian tribe elects to become a party to this Agreement in accordance with Stipulation I.E.

C. Except as specified in the recitals above, this Agreement does not negate or supersede any agreements between FHWA or Caltrans and Indian tribes in effect at the time the Agreement is executed, nor does it negate or supersede any agreement documents executed between or among FHWA, the SHPO, the ACHP, the Corps Districts, or Caltrans pursuant to 36 CFR Part 800.

D. Other federal agencies may issue permits and otherwise provide assistance for undertakings covered by this Agreement, including those involving federal land, and in such circumstances, Caltrans, or FHWA as appropriate, as lead federal agency may request that such agencies fulfill their NHPA Section 106 responsibilities in coordination with Caltrans or FHWA by using applicable provisions of this Agreement. Such federal agencies may designate Caltrans, or FHWA as appropriate, as lead federal agency pursuant to 36 CFR § 800.2(a)(2) to fulfill their responsibilities. Other federal agencies participating in Caltrans undertakings that have not designated Caltrans or FHWA as the lead federal agency may use studies and background documentation developed by Caltrans to support their own findings and determinations under 36 CFR Part 800.

E. Should other federal agencies or Indian tribes not already party to this Agreement request in writing to participate, Caltrans will notify the signatories and invited signatories and consider the request to participate. Should the signatories agree to the request, the Agreement shall be amended following the procedures in stipulation XX.D.

F. For any Program undertaking in California that involves the need for a DA Permit(s), the Corps Districts programmatically designate FHWA as lead federal agency for compliance with Section 106 of the NHPA. This designation does not apply to Program undertakings on Federal land managed by the Corps or that would alter or modify a completed Corps project pursuant to 33 USC § 408. Pursuant to its authority under 23 USC § 326 and 23 USC § 327, Caltrans is deemed to be the federal agency and, by this Agreement, the lead agency for Federal-aid Highway projects. Caltrans will provide summary notification of compliance with this Agreement to the Corps District when applying for a DA Permit. If, for any undertaking, the Corps District should become the lead federal agency under Section 106 of the NHPA in accordance with Stipulation XX.D, the Corps District shall be responsible for compliance with

Section 106 of the NHPA for the permit area within their scope of analysis. To the extent that the Corps District deems applicable, the Corps District may use studies, findings, and determinations previously completed by Caltrans to document its own findings.

II. DEFINITIONS

For purposes of this Agreement, the definitions provided in 36 CFR § 800.16(a) through (y) inclusive shall apply.

III. PROFESSIONAL QUALIFICATION STANDARDS

All actions prescribed by this Agreement that involve the identification, evaluation, analysis, recording, treatment, monitoring, or disposition of historic properties, or that involve the reporting or documentation of such actions in the form of reports, forms, or other records, shall be carried out by or subject to the approval of Caltrans staff who meet the Professional Qualifications Standards in the appropriate discipline as set forth in Attachment 1 to this Agreement. Hereinafter, such Caltrans staff shall be referred to as Professionally Qualified Staff (PQS). However, nothing in this stipulation may be interpreted to preclude FHWA or Caltrans or any agent or contractor thereof from using the services of persons who do not meet the standards, as long as their activities are overseen by Caltrans PQS in the appropriate discipline.

IV. CONSULTATION WITH INDIAN TRIBES

A. FHWA, Caltrans, the Corps, SHPO, and ACHP recognize the unique knowledge and expertise Indian tribes may possess regarding their ancestral lands and will consider that knowledge in making determinations and findings.

B. FHWA shall retain responsibility for government-to-government consultation with Indian tribes for Program undertakings. FHWA and the Corps Districts shall retain responsibility for government-to-government consultation with Indian tribes for DA Permit applications for Program undertakings. Caltrans recognizes the government-to-government relationship between the federal government and Indian tribes and shall conduct 36 CFR Part 800 consultations in a sensitive manner respectful of tribal sovereignty.

C. In accordance with 36 CFR § 800.2(c)(2)(ii)(E), FHWA and Caltrans may enter into agreements with Indian tribes that specify how they will carry out their responsibilities with regard to tribal participation in 36 CFR Part 800 review.

D. Notwithstanding any other provision of this stipulation, FHWA, and the Corps Districts shall honor the request of any Indian tribe at any time in the 36 CFR Part 800 process for government-to-government consultation regarding an undertaking covered by this Agreement. If a tribal request for government-to-government consultation with the federal government comes to Caltrans, Caltrans shall immediately inform FHWA, or the Corps District as applicable. If any Indian tribe requests government-to-government consultation with FHWA, or the Corps District, FHWA and the applicable Corps District shall conduct the government-to-government consultation, and, if the Indian tribe agrees, involve Caltrans in that consultation process. Caltrans, however, shall continue to carry out the remainder of responsibilities under this Agreement that are not the subject of government-to-government consultation.

E. To provide for an effective and efficient consultation process, when Caltrans is deemed to be a federal agency pursuant to 23 USC § 326 and 23 USC § 327, Caltrans shall conduct 36 CFR Part 800 consultation with Indian tribes for undertakings covered by this Agreement and shall assist FHWA, and the Corps District as applicable, in project specific government-to-government consultation, if an Indian tribe does not object. Each Caltrans District Director, and when Caltrans deems it appropriate, the Caltrans Director, shall be responsible for ensuring that any Caltrans consultation with Indian tribes complies with this stipulation.

1. In accordance with 36 CFR § 800.2(c), Caltrans Districts shall consult with the representatives designated or identified by the tribal government and shall commence consultation early in the project planning process in order to identify and discuss relevant preservation issues, resolve concerns about the confidentiality of information on historic properties, and allow adequate time for consideration of such concerns.
2. Caltrans Districts have the responsibility to ensure that consultation continues with Indian tribes throughout the 36 CFR Part 800 process prescribed by this Agreement whenever such Indian tribes express a concern about an undertaking or about historic properties that may be affected by an undertaking.
3. If FHWA determines that any project-specific tribal issues or concerns will not be satisfactorily resolved by Caltrans when Caltrans is deemed to be a federal agency, then FHWA may reassume all or part of the federal responsibilities for environmental review pursuant to the MOUs.
4. Nothing shall limit the ability of Indian tribes to consult directly with parties to this Agreement when they have a concern about an undertaking or about historic properties that may be affected by an undertaking, including properties to which they might ascribe religious or cultural significance.

V. PARTICIPATION OF OTHER CONSULTING PARTIES AND THE PUBLIC

A. Consulting Parties

Consulting parties shall be identified pursuant to, and their participation in undertakings covered under this Agreement shall be governed by 36 CFR §§ 800.2(c)(5) and 800.3(f).

B. Public Involvement

Public involvement in planning and implementation of undertakings covered by this Agreement shall be governed by FHWA's and Caltrans' environmental compliance procedures, as set forth in the Caltrans Standard Environmental Reference (SER) Environmental Handbook, Caltrans Project Development Procedures Manual, FHWA's technical advisories, ACHP guidance, and similar and subsequent guidance documents. Public involvement and the release of information shall be consistent with 36 CFR §§ 800.2(d)(1-2), 800.3(e), and 800.11(c)(1 and 3), 5 USC § 552 as amended (Freedom of Information Act), section 304 of NHPA (16 USC § 470w-3(a), and California Government Code section 6254(r).

VI. DELEGATION OF FHWA AND CALTRANS ACTIONS UNDER THIS AGREEMENT

A. Responsibility

Consistent with the requirements of 36 CFR §§ 800.2(a) and 800.2(c)(4), Caltrans when deemed to be a federal agency, and FHWA where Caltrans has not assumed responsibility for environmental review and compliance, remains legally responsible for ensuring that the terms of this Agreement are carried out and for all findings and determinations made pursuant to this Agreement.

B. Actions under 36 CFR §§ 800.3 through 800.5

Caltrans Districts shall carry out the following steps with respect to undertakings covered by this Agreement. Each Caltrans District Director, or where Caltrans may deem it appropriate, the Caltrans Director, shall be responsible for ensuring that PQS in the appropriate discipline carry out the following actions:

1. Determine whether its proposed federal action is an undertaking as defined in 36 CFR § 800.16(y).
2. Determine under 36 CFR § 800.2(a)(2) whether another federal agency is involved in the undertaking and establish lead agency.
3. Determine under 36 CFR § 800.3(a) whether the undertaking is a type of activity that has the potential to affect historic properties.
4. Determine under 36 CFR § 800.3(c) and (d) whether the undertaking may occur on or has the potential to affect historic properties on tribal lands as defined in 36 CFR § 800.16(x).
5. Solicit public comment and involvement, as described in 36 CFR §§ 800.2(d), 800.3(e), and subject to confidentiality requirements of § 800.11(c).
6. Identify additional consulting parties, including Indian tribes, as described in 36 CFR § 800.3(f), and invite them to participate in the process covered by this Agreement.
7. Request, as appropriate, expedited consultation as described in 36 CFR § 800.3(g).
8. Determine under 36 CFR § 800.4 the undertaking's Area of Potential Effects (APE), identify and evaluate properties within the APE in order to determine their eligibility for the NRHP, and determine whether historic properties may be affected by the undertaking.
9. Apply the Criteria of Adverse Effect as described in 36 CFR § 800.5 and propose "No Adverse Effect with Standard Conditions" findings where imposing the standard conditions set forth in Stipulation X.B.1 will avoid adverse effects.

C. Actions under 36 CFR §§ 800.5(b) and 800.6

1. When a Caltrans District proposes a finding of "No Adverse Effect without conditions" or a finding of "No Adverse Effect with conditions other than the Standard Conditions" set forth in Stipulation X.B.1, Caltrans shall proceed in accordance with Stipulation X.B.2.
2. When a Caltrans District proposes a finding of "Adverse Effect," Caltrans shall proceed in accordance with Stipulation X.C.

VII. SCREENED UNDERTAKINGS EXEMPT FROM FURTHER REVIEW

In consultation with the other signatories to this Agreement, FHWA and Caltrans have identified classes of undertakings that will be addressed in accordance with Attachment 2 to this Agreement. The undertakings classified in Attachment 2 as Screened Undertakings will require no further review under this Agreement when the requirements of Attachment 2 have been satisfactorily completed and it is determined that no feature of the undertaking necessitates further review pursuant to this Agreement.

VIII. IDENTIFICATION AND EVALUATION OF POTENTIAL HISTORIC PROPERTIES

A. APE

Caltrans PQS shall determine and document the APE for undertakings covered by this Agreement in accordance with Attachment 3 to this Agreement. Nothing in this paragraph or in Attachment 3 shall preclude Caltrans from consulting with the SHPO, Indian tribes, or the applicable Corps District on determining and documenting an APE. Caltrans may establish a study area for use in conducting identification activities until an APE can formally be delineated.

B. Identification

Caltrans shall identify historic properties that may be located within an undertaking's APE in accordance with 36 CFR §§ 800.4(a)(2-4) and 800.4(b). Identification of historic properties should be consistent with the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation (48 FR page 44716), the guidance in the SER Volume 2, SHPO guidance, FHWA guidance, ACHP guidance, and any other guidance, methodologies, agreements, or protocols that the signatories agree should be used to identify historic properties. Nothing in this paragraph precludes seeking consistency with any other pertinent guidance such as that provided by Indian tribes or other federal agencies. Caltrans Districts shall make a reasonable and good faith effort to identify and consult with any affected Indian tribes to assist in identifying properties to which they may attach religious and cultural significance that may be located within an undertaking's APE or study area.

C. Evaluation

1. Properties Exempt from Evaluation: Attachment 4 to this Agreement lists the properties that the signatories agree shall be exempt from evaluation provided the Caltrans PQS in the appropriate discipline determines all terms and conditions in Attachment 4 are satisfactorily met. All other identified properties shall be evaluated in accordance with Stipulation VIII.C.2.
2. Evaluating Identified Properties: Caltrans shall evaluate the historic significance of identified properties in accordance with 36 CFR § 800.4(c)(1) following the guidance in the SER Volume 2, SHPO guidance, National Register Bulletins, FHWA guidance, or any other guidance, methodologies, agreements, or protocols that the signatories agree may be used to determine whether identified properties are historic properties. During the evaluation process, Caltrans Districts shall make a reasonable and good faith effort to identify and consult with any Indian tribe on the evaluation of any identified property to which they attach religious and cultural significance, or other interested party.

3. Special Consideration for Certain Archaeological Properties: If archaeological properties within an undertaking's APE are protected from any potential effects by establishment and effective enforcement of an Environmentally Sensitive Area (ESA), as described in Attachment 5 to this Agreement, the signatories agree that Caltrans may consider such properties to be NRHP eligible for the purposes of that undertaking. Caltrans shall consult with Indian tribes that may attach religious or cultural significance to the historic property to determine if the site has values that may qualify it as NRHP eligible under Criterion A, B, or C in addition to, or instead of, Criterion D. This consideration of NRHP eligibility without formal evaluation shall not extend to other undertakings whose APE includes the archaeological property, unless through consultation Caltrans and the SHPO agree otherwise.
4. Assumption of Eligibility: Subject to CSO approval, Caltrans Districts may consider properties NRHP eligible for the purposes of an undertaking when special circumstances preclude their complete evaluation, such as restricted access, large property size, or limited potential for effects.
5. Previously Evaluated Properties: When previously evaluated properties are identified within an undertaking's APE, Caltrans PQS shall review those previous evaluations to determine whether the previous evaluations are still valid or re-evaluate as appropriate. Indian tribes shall be consulted during the review and re-evaluation process when properties to which those tribes may attach religious or cultural significance are involved. The passage of time, changing perceptions of significance, eligibility under previously unconsidered NRHP criteria, new information, incomplete or erroneous prior evaluation, and errors of fact warrant such review and may require Caltrans to re-evaluate the properties.
6. Consulting the SHPO: The Caltrans District shall submit determinations of NRHP eligibility and supporting documentation to the SHPO for comment in accordance with 36 CFR § 800.4(c)(2), with concurrent submittal to CSO. For projects where responsibilities have not been assigned to and assumed by Caltrans, the Caltrans District shall also concurrently submit the determinations and supporting documentation to FHWA.
    a. If the SHPO has not responded to Caltrans within 30-calendar days after receipt, Caltrans may either extend the review period in consultation with the SHPO or proceed to the next step prescribed by this Agreement, based upon Caltrans' determination of NRHP eligibility. Confirmation of date of receipt as the basis for determining the 30-day review period may be provided through the SHPO database, a mail delivery receipt, or written or documented oral communication from the SHPO. If the 30-day period expires without SHPO comment or agreement to extend the review period, the Caltrans District may move forward upon notification to the SHPO and CSO via e-mail or other written communication.
    b. Agreements or disagreements regarding the NRHP eligibility of properties shall be governed by 36 CFR § 800.4(c)(2), except that in the event of a disagreement, the Caltrans District shall promptly notify CSO, and FHWA as appropriate, whereupon the Caltrans District, CSO, the SHPO, and any Indian tribe or other consulting party shall consult to resolve the disagreement in accordance with a mutually acceptable time frame. If the disagreement is resolved, Caltrans shall proceed in accordance with those requirements of this Agreement that apply to the resolution. If the disagreement is not resolved or if a mutually acceptable time frame to resolve the disagreement is not

reached, CSO shall comply with 36 CFR § 800.4(c)(2). If consultation with the Secretary of the Interior is required, CSO shall ensure that all concerns, including the views of FHWA, the SHPO and any Indian tribe or any other consulting party, and the Corps as appropriate, are included.

7. Notifying Indian tribes: When a Caltrans District has been in consultation with an Indian tribe on the NRHP eligibility of a property, the Caltrans District shall notify the Indian tribe of Caltrans' eligibility determination concurrent with submittal to the SHPO and provide documentation to the Indian tribe, unless the Indian tribe has indicated it does not wish to receive such documentation.

IX. FINDINGS OF EFFECT

A. Finding of No Historic Properties Affected Pursuant to 36 CFR § 800.4(d)(1)

1. Where Caltrans has consulted with Indian tribes or other consulting parties concerning historic properties, Caltrans shall consult with those Indian tribes or other consulting parties on the potential effects of the undertaking. Caltrans shall take their views into account in making its findings.
2. If the Caltrans District finds either that no historic properties are present, or that historic properties are present but the undertaking will have no effect on them, the Caltrans District shall document and retain records of that finding in accordance with Stipulation XVIII. The Caltrans District shall notify any consulting parties cited in Stipulation IX.A.1 of the finding and make documentation available to them unless they have indicated that they do not wish to receive such documentation. Following satisfactory completion of these steps, no further review pursuant to this Agreement is required.

B. Finding of Historic Properties Affected

If the Caltrans District finds there are historic properties that may be affected by the undertaking, the Caltrans District shall apply the Criteria of Adverse Effect in accordance with Stipulation X.

X. ASSESSMENT OF EFFECTS

A. Application of Criteria

The Caltrans District shall apply the Criteria of Adverse Effect set forth in 36 CFR § 800.5(a)(1) to findings made pursuant to Stipulation IX.B, taking into account views provided by any Indian tribe and other consulting parties or the public. When any Indian tribe attaches religious or cultural significance to identified historic properties, the Caltrans District shall apply the criteria in consultation with those Indian tribes. Nothing in this stipulation shall override or supersede any Indian tribe's ability to request government-to-government consultation with FHWA or the Corps, as described in Stipulation IV.

B. Finding of No Adverse Effect

The Caltrans District may make a finding of "No Adverse Effect with Standard Conditions" when standard conditions that will avoid adverse effects to historic properties are imposed in accordance with Attachment 5 to this Agreement. The Caltrans District may propose a finding of "No Adverse Effect" if none of the undertaking's anticipated effects meet the Criteria of Adverse

Effect under 36 CFR § 800.5(a)(1), non-standard conditions are imposed to avoid adverse effects, or when the Caltrans District has developed a plan for managing any post-review discoveries, including decision thresholds and procedures for consultation with the SHPO, that would be implemented in accordance with Stipulation XV.

1. Finding of No Adverse Effect with Standard Conditions (NAE-SC)

The Caltrans District shall submit its finding and supporting documentation to CSO for review. Where FHWA's responsibilities for environmental review and compliance have not been assumed by Caltrans, the Caltrans District shall provide concurrent submittal to CSO and FHWA. The Caltrans District shall concurrently provide documented notification of the finding to any consulting parties that have expressed views regarding potential effects to historic properties. If within 15 days of receipt CSO or FHWA does not object to the proposed NAE-SC finding, the undertaking shall not be subject to further review under this Agreement. CSO shall provide summary notification to the SHPO of all NAE-SC findings in accordance with Stipulation XX.G(3).

   a. Environmentally Sensitive Areas (ESAs): A finding of NAE-SC-ESA is appropriate when an undertaking's effects to historic properties, or properties considered to be eligible pursuant to Stipulation VIII.C.3 or 4, will be avoided by designation and enforcement of ESAs as described in Attachment 5 to this Agreement. Caltrans will consult with Indian tribes that attach religious or cultural significance to the property or other interested parties, if any, to determine whether an ESA will adequately protect those values without other conditions or mitigation. The results of that consultation will determine whether a NAE-SC-ESA applies.

   b. Secretary of the Interior's Standards for the Treatment of Historic Properties (SOIS): A finding of NAE-SC-SOIS is appropriate when an undertaking's effects to historic properties may be considered to be not adverse if the work is consistent with the SOIS (36 CFR Part 68) and carried out in accordance with Attachment 5 to this Agreement.

   c. Additional Standard Conditions: CSO may propose the adoption of additional standard conditions that have proven effective in avoiding adverse effects to historic properties. CSO shall provide documentation supporting the proven effectiveness to the SHPO for review. Attachment 5 may be revised to include any new standard condition in accordance with Stipulation XX.D(2).

2. Finding of No Adverse Effect

   a. When Caltrans proposes a No Adverse Effect finding other than a finding of NAE-SC specified in Stipulation X.B.1, the Caltrans District shall submit its proposed finding and supporting documentation to CSO for review. If CSO agrees with the proposed finding, CSO shall consult with the SHPO pursuant to 36 CFR § 800.5(c). Where FHWA's responsibilities for environmental review and compliance have not been assumed by Caltrans, CSO shall concurrently notify FHWA of the finding. The Caltrans District shall concurrently provide documented notification of the finding to any consulting parties that have expressed views regarding potential effects to historic properties, including a request that any comments be directed to CSO, or FHWA as appropriate, within 30 days of receipt of notification.

b. If within 30-calendar days of receipt, neither SHPO nor any consulting party objects to the "No Adverse Effect" finding, the undertaking shall not be subject to further review under this Agreement. CSO, or FHWA where FHWA's responsibilities for environmental review and compliance have not been assumed by Caltrans, and the SHPO may agree to extend the 30-day time frame for SHPO review specified in 36 CFR § 800.5(c). Confirmation of date of receipt as the basis for determining the 30-day review period may be provided through the SHPO database, a mail delivery receipt, or written or documented oral communication from the SHPO. If the 30-day period expires without SHPO comment or agreement to extend the review period, Caltrans may move forward upon notification to the SHPO via e-mail or other written communication. Disagreements or objections to a finding of "No Adverse Effect" will be addressed in accordance with Stipulation X.D.

3. Re-assessment of Effects

If the undertaking will not be implemented as proposed in relation to any historic property, Caltrans will re-open consultation under Stipulation X of this Agreement.

C. Finding of Adverse Effect

1. Where adverse effects cannot be avoided pursuant to Stipulation X.B, or for any other reason, the Caltrans District shall propose to CSO a finding of "Adverse Effect" and shall submit to CSO documentation supporting the proposed finding in accordance with Stipulation XVIII.

   a. Upon CSO's agreement with the finding, CSO shall forward the finding of "Adverse Effect" to the SHPO. Where Caltrans has not assumed responsibility for environmental review and compliance, CSO shall concurrently provide FHWA with the finding of "Adverse Effect" and supporting documentation. The Caltrans District shall provide notice of the finding to Indian tribes and other consulting parties and interested members of the public, as appropriate, and shall assist CSO with the resolution of adverse effects pursuant to Stipulation XI.

   b. If the SHPO has not responded to Caltrans within 30-calendar days after receipt, Caltrans, or FHWA where FHWA's responsibilities for environmental review and compliance have not been assumed by Caltrans, may either extend the review period in consultation with the SHPO or proceed to the next step prescribed by this Agreement. Documentation of date of receipt as the basis for determining the 30-day review period may be provided through the SHPO database, a mail delivery receipt, or other documented communication from the SHPO. If the 30-day period expires without SHPO comment or agreement to extend the review period, Caltrans may move forward upon notification to the SHPO via e-mail or other written communication.

2. When an undertaking affects archaeological properties listed in or eligible for listing in the NRHP exclusively under Criterion D of the NRHP criteria, the Caltrans District shall concurrently notify CSO, FHWA as appropriate, the SHPO, and consulting parties as appropriate, of the proposed finding of "Adverse Effect" with documentation supporting that finding in accordance with Stipulation XVIII. These parties shall have 30-calendar days following receipt of notification to comment to the Caltrans District on the proposed finding. If the 30-day period expires without SHPO comment or agreement to extend the review

period, Caltrans may move forward upon notification to the SHPO via e-mail or other written communication.

3. Caltrans CSO shall notify the ACHP of an adverse effect finding and invite its participation in accordance with 36 CFR § 800.6(a) under any of following conditions:
   a. When the undertaking affects a National Historic Landmark. Under this condition, the CSO shall also notify the Secretary of the Interior.
   b. When the effects to historic properties are highly controversial or there is substantial public interest in the undertaking's effects on historic properties.
   c. When Caltrans, FHWA, as appropriate, and the SHPO are unable to reach agreement on the resolution of adverse effects.
   d. When the SHPO or another consulting party requests that the ACHP be invited to participate in consultation.
4. Caltrans shall file any Memorandum of Agreement (MOA) executed for any undertaking with the ACHP prior to proceeding with the undertaking.

D. Resolving Disagreements Regarding Assessment of Effects

Disagreements that may arise within the review periods established under the terms of Stipulation X shall be addressed in accordance with the process described below.

1. CSO, or FHWA where Caltrans has not assumed responsibility for environmental review and compliance, shall consult with the SHPO and/or any Indian tribe or other consulting party for no more than 30-calendar days to resolve the disagreement. If at any time during this consultation period, CSO, or FHWA as appropriate, determines that the disagreement cannot be resolved through such consultation, CSO, or FHWA as appropriate, shall request the ACHP to review the disagreement and CSO's, or FHWA's as appropriate, proposed resolution. In addition, an Indian tribe that attaches religious or cultural significance to an identified historic property may specify the reason for its disagreement within the 30-day consultation period and directly request the ACHP to review the disagreement. Within 30-calendar days following receipt of CSO's, or FHWA's as appropriate, or an Indian tribe's request and receipt of supporting documentation, the ACHP will exercise one of the following options:
   a. Advise CSO, or FHWA as appropriate, that the ACHP concurs in the proposed response to the disagreement whereupon CSO, or FHWA as appropriate, may proceed accordingly; or
   b. Provide CSO, or FHWA as appropriate, with recommendations, that will be taken into account in reaching a final decision regarding its response to the disagreement; or
   c. Notify CSO, or FHWA as appropriate, that the disagreement will be referred for comment pursuant to 36 CFR § 800.7(c)(4) and proceed to refer the disagreement for comment. In this event, the Caltrans Director, or FHWA where Caltrans has not assumed responsibility for environmental review and compliance, shall take the resulting comment into account in accordance with 36 CFR § 800.7(c)(4) and Section 110(1) of the NHPA. Responsibilities under this Agreement that are not the subject of the disagreement shall remain unchanged.

2. Should the ACHP not exercise one of the foregoing options within 30-calendar days after receipt of all pertinent documentation, the agency official's responsibilities under Section 106 of the NHPA are fulfilled upon implementation of the proposed response to the disagreement.
3. CSO, or FHWA as appropriate, shall take into account any ACHP recommendation or comment and any comments from the SHPO or any consulting party in reaching a final decision regarding the disagreement.
4. CSO, or FHWA as appropriate, shall provide the SHPO, ACHP, and any consulting parties with a written copy of its final decision regarding resolution of any disagreement addressed hereunder. Thereafter, CSO, or FHWA as appropriate, may proceed in accordance with the terms of its resolution.
5. CSO's, or FHWA's as appropriate, resolution of any disagreement addressed hereunder shall be conclusive.

XI. RESOLUTION OF ADVERSE EFFECTS

A. CSO, or FHWA where Caltrans has not assumed responsibility for environmental review and compliance, with the cooperation and assistance of the Caltrans District, shall consult pursuant to 36 CFR §§ 800.6(a) and 800.6(b)(1) to resolve adverse effects that may result from undertakings covered by this Agreement. The Caltrans District shall consult with the Indian tribes that ascribe religious or cultural significance to affected historic properties and other consulting parties in determining appropriate measures to resolve adverse effects. Caltrans, or FHWA as appropriate, shall also include the ACHP as part of the consultation when the ACHP has notified the agency official that it will participate in the consultation.

B. When resolution of adverse effects includes proposals to conduct data recovery on historic properties, a data recovery proposal shall be developed in accordance with Attachment 6 to this Agreement.

C. Nothing in this Agreement shall override or supersede an Indian tribe's ability to request government-to-government consultation with FHWA or the Corps District related to possible issuance of a DA Permit for a Program undertaking as described in Stipulation IV.

D. Where FHWA's responsibilities for environmental review and compliance have not been assumed by Caltrans, FHWA retains the right to reverse at any time for reasonable cause any decision allowing Caltrans certain actions prescribed in 36 CFR § 800.6.

E. If DEA, FHWA where Caltrans has not assumed responsibilities for environmental review and compliance, the SHPO, and the Caltrans District are unable to agree on measures to resolve the adverse effects of an undertaking pursuant to this stipulation, they shall invite the ACHP to participate in the resolution process pursuant to 36 CFR § 800.6(b)(1)(v). If the involved parties agree to a resolution, they shall execute an MOA. If the involved parties fail to agree to measures to resolve the adverse effects, DEA, the SHPO, FHWA as appropriate, or the ACHP may terminate consultation pursuant to 36 CFR § 800.7(a). Upon termination, the signatories shall comply with the remaining requirements of 36 CFR § 800.7.

XII. PHASED APPROACH TO IDENTIFICATION, EVALUATION, AND FINDINGS OF EFFECT

A. Consistent with 36 CFR §§ 800.4(b)(2) and 800.5(a)(3), and subject to CSO approval, the Caltrans District may approve the phasing of identification, evaluation, and application of the Criteria of Adverse Effect for undertakings covered by this Agreement. As specific aspects or locations of an alternative are refined or access gained, the Caltrans District shall proceed with the identification and evaluation of historic properties and with application of the Criteria of Adverse Effect in accordance with applicable provisions of this Agreement.

B. CSO may approve phasing when minor access restrictions preclude completion of identification efforts, evaluation of a potential historic property, and/or effects determination until after a NEPA decision document is signed but prior to implementation of the undertaking. The Caltrans District shall establish that a "No Historic Properties Affected" or "No Adverse Effect" finding is likely based on documentation of identification and evaluation efforts within the accessible portion(s) of the APE and background research on the inaccessible portion(s). In addition to the above documentation, the Caltrans District shall submit a plan for completion of identification and evaluation that includes a schedule and provisions for notification or consultation with CSO and SHPO. Consultation with SHPO on this finding shall follow the process established in Stipulation X.B.2.

XIII. NATIVE AMERICAN HUMAN REMAINS AND RELATED CULTURAL ITEMS

A. Treatment on Federal Lands

On federal land where the federal land managing agency has designated Caltrans lead pursuant to 36 CFR § 800.2(a)(2), if human remains and/or cultural items as defined by the Native American Graves Protection and Repatriation Act of 1979 (NAGPRA) are anticipated to be found during archaeological excavation or construction, the Caltrans District shall assist the federal land managing agency, in consultation with the appropriate Indian tribes to develop, in accordance with NAGPRA regulations 43 CFR § 10.3, the NAGPRA Plan of Action (NAGPRA POA). The NAGPRA POA outlines the consultation process and the treatment of any human remains and cultural items upon discovery.

B. Treatment on Non-Federal Lands

If human remains or associated items are encountered during archaeological surveys or excavations or during construction activities, Caltrans shall follow California Health and Safety Code section 7050.5 and Public Resources Code section 5097.98. The Caltrans District shall consult with the most likely descendant(s), as identified by the California Native American Heritage Commission (NAHC), on the sensitive and dignified treatment and disposition of Native American human remains and associated items.

XIV. CURATION

A. Collections from Federal Lands

Where the federal land managing agency has designated Caltrans lead pursuant to 36 CFR § 800.2(a)(2), the Caltrans District shall comply with the federal land-managing agency's curation

policies and make every reasonable effort to ensure that cultural materials and records resulting from excavation or surface collection pursuant to this Agreement conducted on federal lands are curated in accordance with Curation of Federally-owned and Administered Archaeological Collections (36 CFR Part 79), or as may be stipulated in any agreement document pertaining to an undertaking covered by this Agreement. Native American human remains and cultural items determined in consultation with Indian tribe(s) to be associated funerary objects, sacred objects and objects of cultural patrimony, as defined by NAGPRA, shall be prepared for disposition pursuant to NAGPRA POA and any other requirements agreed to by the federal land managing agency.

B. Collections from Non-Federal Lands

The Caltrans District shall ensure that cultural materials and records resulting from excavations or surface collections on non-federal land are curated in accordance with the Secretary of the Interior's Standards for Archaeological Documentation and the California Guidelines for the Curation of Archaeological Collections (1993), or as outlined in an agreement document pertaining to the undertaking covered by this Agreement. Native American human remains and associated items shall not be curated but addressed in consultation with the most likely descendent(s) designated by California's NAHC pursuant to California Public Resources Code section 5097.98. Sacred objects and objects of cultural patrimony, as defined by NAGPRA, shall not be curated but addressed in consultation with Indian tribe(s), consistent with 43 CFR § 10.3.

XV. POST-REVIEW DISCOVERIES

A. Planning for Subsequent Discoveries

When Caltrans' identification efforts in accordance with Stipulation VIII.B indicate that historic properties are likely to be discovered during implementation of an undertaking, the Caltrans District shall include in any finding of No Adverse Effect or MOA a plan for treatment of such properties, should they be discovered. The Caltrans District shall consult with any Indian tribe that may attach religious or cultural significance to potentially affected properties, or any other consulting party that may have a demonstrated interest in potentially affected properties, and take their concerns into account in developing, modifying, and implementing the plan. The plan will be implemented as originally proposed, or modified as necessary as a result of the occurrences and the nature and extent of the properties discovered.

B. Discoveries Without Prior Planning

1. If a plan for subsequent discoveries is not in place and an undertaking affects a previously unidentified property or affects a known historic property in an unanticipated manner, the Caltrans District shall promptly stop construction activity in the vicinity of the property and implement all reasonable measures needed to avoid, minimize, or mitigate further harm to the property.
2. Within 48 hours of the discovery, the Caltrans District shall assess the discovery and, if determined to be potentially eligible, provide initial notification to CSO, the SHPO, FHWA where responsibility for environmental review has not been assigned, any Indian tribe that might attach religious or cultural significance to the affected property, the federal agency if federal lands are involved and the federal agency has designated Caltrans lead pursuant to 36 CFR § 800.2(a)(2), the Corps District if within a DA Permit area, or any other consulting

party that may have a demonstrated interest in potentially affected properties. Notification shall include, to the extent such information is available: description of the nature and extent of the property or properties, assessment of NRHP eligibility of any properties, the type and extent of any damage to the property, the proposed action, any prudent and feasible treatment measures that would take any effects into account, and a request for comments. Caltrans may furnish this information through correspondence, hard copy, electronic media, telephone, or meetings, at its discretion taking into account the capabilities of the consulting parties and must document this process for the administrative record. Caltrans may assume eligibility of any potentially affected property and proceed with the provisions of this sub-part.

3. Should any of the notified parties respond with comments within 72 hours of the initial notification of the discovery or indicate that they wish to be involved in resolving the situation, the Caltrans District shall take into account their comments or continue consultation with any commenting parties. Caltrans shall provide any remaining information specified in subpart 2, above, as it becomes available. The Caltrans District shall determine the time frame for any further consultation, taking into account the qualities of the property, consequences of construction delays, and interests of consulting parties. Following the conclusion of any further consultation, Caltrans shall take all comments received into account and may carry out actions to resolve any effects. Failure of any notified party to respond within 72 hours of the notification shall not preclude Caltrans from proceeding with their proposed actions.
4. If a National Historic Landmark is affected, the Caltrans District shall include the Secretary of the Interior and the ACHP in the notification process.

XVI. EMERGENCY SITUATIONS

A. Pursuant to 36 CFR § 800.12(d), this stipulation applies only to undertakings that will be implemented within 30-calendar days after the disaster or emergency has been formally declared. The President, California Governor, Caltrans Director or District Director may declare an emergency situation exists. Caltrans may request an extension of the period of applicability from the SHPO prior to the 30-days. Caltrans shall follow Stipulations VII through XI for all undertakings to be initiated more than 30-days following declaration of an emergency, unless an extension has been approved by SHPO.

B. The Caltrans District PQS shall determine whether the emergency undertaking has the potential to affect historic properties. If historic properties are likely to be affected by the emergency undertaking, the Caltrans District shall notify CSO, the SHPO, FHWA where responsibilities have not been assumed, and any Indian tribes that might attach religious or cultural significance to the affected property and afford them an opportunity to comment within seven calendar days of the notification. Notification shall include, to the extent such information is available: description of the nature and extent of the property or properties, assessment of NRHP eligibility of any properties, the type and extent of any damage to the property, the proposed action, any prudent and feasible treatment measures that would take any effects into account, and a request for comments. If the Caltrans District determines that circumstances do not permit seven days for comment, the Caltrans District shall notify the parties and invite any comments within the time available.

C. The Caltrans District shall provide the SHPO, CSO, and any additional consulting parties, including the Corps District if a DA Permit is required, a narrative report documenting the actions taken in accordance with this expedited consultation process within six (6) months following the initiation of expedited consultation.

XVII. LOCAL BRIDGE SEISMIC SAFETY RETROFIT PROGRAM

In 1995, FHWA, Caltrans, SHPO and ACHP entered into a Programmatic Agreement to programmatically implement compliance with Section 106 of the NHPA under the California Seismic Retrofit of Bridge Structures Program, which is considered an emergency program. Since the implementation of the Seismic Retrofit Programmatic Agreement, the State-owned bridges and toll bridges have been retrofitted, but the Local Bridge Seismic Safety Retrofit Program is still in effect. In that the federal regulations at 36 CFR Part 800 have changed since 1995, the Seismic Retrofit Programmatic Agreement is superseded by this Agreement and the relevant provisions that provide for expedited compliance are updated to comply with the current regulations in 36 CFR Part 800 and incorporated as Attachment 7 to this Agreement. Caltrans shall follow applicable stipulations in this Agreement to determine the seismic retrofit project's potential to affect historic properties. This stipulation will remain in effect until CSO notifies the SHPO, the ACHP and other consulting parties that all actions under the Local Bridge Seismic Safety Retrofit Program have been completed or this Agreement is terminated.

XVIII. DOCUMENTATION

A. All documentation that supports findings and determinations made under this Agreement shall be consistent with 36 CFR § 800.11 and attachments to this Agreement, shall be peer-reviewed by Caltrans PQS in the appropriate discipline, and shall be in accordance with the SER Volume 2 and its subsequent revisions or editions.

B. Documentation prepared by local agencies or their consultants in support of such findings shall be submitted to the Caltrans District for review and approval by Caltrans PQS in the appropriate discipline. The Caltrans District shall transmit all documentation cited herein to CSO, FHWA, and/or the SHPO as stipulated by this Agreement. The Caltrans District shall not transmit to CSO, FHWA, the SHPO, and/or any consulting party any documentation that has not been reviewed and approved by Caltrans PQS in the appropriate discipline.

C. All documentation prepared under this Agreement shall be kept on file at Caltrans District offices and made available to consulting parties and the public as stipulated by this Agreement, consistent with applicable confidentiality requirements.

XIX. TRAINING REQUIREMENTS

CSO shall, with the assistance of FHWA, the ACHP, and the SHPO, provide training for Caltrans personnel relative to implementation of this Agreement and 36 CFR Part 800. Caltrans PQS responsible for making, reviewing, or approving findings and determinations made under this Agreement and 36 CFR Part 800 shall receive such training prior to being certified as PQS in the appropriate discipline and prior to implementing activities under this Agreement, and shall receive periodic refresher training as determined by CSO and SHPO. Caltrans Districts shall work with their consultants and local governments to identify areas where training can improve

performance under this Agreement and CSO shall work with the Caltrans Districts to make such training available, subject to funding availability. CSO and Caltrans Districts, in consultation with the SHPO, shall identify needs and provide training to project management responsible for undertakings under this program.

XX. ADMINISTRATIVE STIPULATIONS

A. Resolving Objections

1. Should any signatory object in writing to Caltrans, or FHWA when it is the agency official, regarding the manner in which the terms of this Agreement are carried out, Caltrans or FHWA will immediately notify the other signatories and invited signatories of the objection and proceed to consult with the objecting party to resolve the objection. Caltrans or FHWA will honor the request of any other signatory to participate in the consultation and will take any comments provided by such parties into account. Caltrans or FHWA as appropriate shall establish a reasonable time frame for such consultation.
2. If the objection is resolved through consultation, Caltrans or FHWA may authorize the disputed action to proceed in accordance with the terms of such resolution.
3. If after initiating such consultation, Caltrans or FHWA determines that the objection cannot be resolved through consultation, Caltrans, or FHWA shall forward all documentation relevant to the objection to the ACHP, including Caltrans' or FHWA's proposed response to the objection. Within 30-calendar days after receipt of all pertinent documentation, the ACHP shall exercise one of the following options:
    a. Advise Caltrans or FHWA that the ACHP concurs in Caltrans' or FHWA's proposed response to the objection, whereupon Caltrans or FHWA will respond to the objection accordingly; or
    b. Provide Caltrans or FHWA with recommendations, which Caltrans or FHWA shall take into account in reaching a final decision regarding its response to the objection; or
    c. Notify Caltrans or FHWA that the objection will be referred for comment consistent with 36 CFR § 800.7(a)(4) and proceed to refer the objection for comment. In this event, Caltrans or FHWA shall take the resulting comments into account consistent with 36 CFR § 800.7(c)(4). Caltrans responsibilities under this Agreement that are not the subject of the disagreement shall remain unchanged.
4. Should the ACHP not exercise one of the foregoing options within 30 days after receipt of submitted pertinent documentation, the agency official's responsibilities under Section 106 of the NHPA are fulfilled upon implementation of the proposed response to the objection.
5. Caltrans or FHWA shall take into account any ACHP recommendation or comment and any comments from the other signatories and invited signatories to this Agreement in reaching a final decision- regarding the objection. Caltrans' or FHWA's responsibility to carry out all actions under this Agreement that are not the subjects of the objection shall remain unchanged.

6. Caltrans or FHWA shall provide all other signatories and invited signatories to this Agreement with a written copy of its final decision regarding any objection addressed pursuant to Stipulation XX.A.
7. Caltrans or FHWA may authorize any action subject to objection under items 1-6 of Stipulation XX.A to proceed, provided the objection has been resolved in accordance with the terms of items 1-6 of Stipulation XX.A.

B. Public Objection

At any time during implementation of the terms of this Agreement, should any member of the public raise an objection in writing pertaining to such implementation to any signatory to this Agreement, that party shall immediately notify Caltrans. Caltrans shall immediately notify the other signatory parties in writing of the objection. Any signatory may choose to comment on the objection to Caltrans. Caltrans shall establish a reasonable time frame for this comment period. Caltrans shall consider the objection, and in reaching its decision, Caltrans will take all comments from the other parties into account. Within 15-calendar days following closure of the comment period, Caltrans will render a decision regarding the objection and respond to the objecting party. Caltrans will promptly notify the other parties of its decision in writing, including a copy of the response to the objecting party. Caltrans' decision regarding resolution of the objection will be final. Following issuance of its final decision, Caltrans may authorize the action subject to dispute hereunder to proceed in accordance with the terms of that decision.

C. Exclusionary Provision

1. Probation
    a. The DEA Chief may place an individual Caltrans District, Division, Office or Branch on probation at the request of the CSO Chief in consultation with the Office of Historic Preservation (OHP) Review and Compliance Unit Supervisor. Probation means loss of specific authority delegated under the Agreement, as determined by the CSO Chief in consultation with the OHP Review and Compliance Unit Supervisor. Probation may result from a pattern of compliance deficiencies identified during CSO and OHP project review or an Agreement review or annual report, or failing to maintain the PQS necessary to implement the provisions of the Agreement. Examples of deficient compliance actions that may be cause for probation include, but are not limited to, inappropriate APE delineation, inappropriate application of the screening process, insufficient identification efforts resulting in post-review discovery, ESA violations and inadequate consultation efforts.
    b. The DEA Chief shall provide written notice of probationary action to the administrative unit losing authority and the SHPO. The DEA Chief, in consultation with the CSO Chief, the OHP Review and Compliance Unit Supervisor, and appropriate level Caltrans District representative (Director, Deputy, Office Chief or Branch Chief), will develop and approve a Plan of Corrective Action (POCA) to be implemented by the Caltrans District, Division, Office or Branch. The POCA will describe the deficiencies, provide a corrective plan specific to the identified deficiencies, indicate the duration of probation and provide performance or reporting criteria to document improvement. Upon expiration of the probation, the DEA Chief, in consultation with the above parties, shall determine whether the POCA has been adequately implemented and the deficiencies corrected. CSO

and the OHP Review and Compliance Unit may perform program reviews to ensure compliance with the POCA. Failure to correct the deficiencies or identification of additional deficiencies during the term may result in extension of the POCA with or without additional restrictions, suspension, or removal from the Agreement.

2. Suspension
   a. The DEA Chief may suspend an individual Caltrans District, Division, Office or Branch at the request of the CSO Chief in consultation with the OHP Review and Compliance Unit Supervisor. Suspension may result from failure to successfully correct the deficiencies that resulted in placement on probation or suspension may be immediate if the DEA Chief determines the violations were egregious, such as numerous ESA violations where cultural resources were impacted. Suspension means substantial or total loss of authority delegated under the Agreement. CSO review and approval of specified compliance actions under the Agreement will be required.
   b. The DEA Chief, in consultation with the CSO Chief, the OHP Review and Compliance Unit Supervisor, and appropriate level Caltrans District representative (Director, Deputy, Office Chief, Branch Chief), will approve a POCA to be implemented by the Caltrans District, Division, Office or Branch. The POCA will describe the deficiencies, provide a corrective plan specific to the identified deficiencies, indicate the duration of suspension and provide performance or reporting criteria to document improvement. Upon expiration of the suspension, the DEA Chief, in consultation with the above parties, shall determine whether the POCA has been adequately implemented and the deficiencies corrected. Failure to correct the deficiencies or identification of additional deficiencies during the term may result in extension of the POCA with or without additional restrictions, or removal from the Agreement.
3. Removed Status
   a. At the request of the DEA Chief, in consultation with the SHPO and the Caltrans District Director, the Caltrans Director may remove an individual Caltrans District, Division, Office or Branch from the Agreement based on failure to successfully comply with a POCA or for additional egregious non-compliance actions beyond the scope, but within the term of an existing POCA. Removal from the Agreement will require all Section 106 of the NHPA compliance documents to route through CSO who will consult with the SHPO, as appropriate, under 36 CFR Part 800.
   b. A POCA, to be developed in conjunction with but not necessarily prior to the removal, will specify the term of removal and a pathway to restoration. The pathway to restoration will likely proceed back through suspension and probation prior to regaining full status.

D. Amendment

1. Any signatory and/or invited signatory to this Agreement may at any time propose amendments, whereupon all signatories and invited signatories shall consult to consider such amendment. This Agreement may be amended only upon written concurrence of all signatories.
2. Each attachment to this Agreement may be individually revised or updated through consultation and agreement in writing of the signatories without requiring amendment of the

Agreement, unless the signatories through such consultation decide otherwise. Upon revising any attachment or appendix, Caltrans shall append any revised document to this Agreement and share the final revised document to the other parties to this Agreement.

E. Corps District Withdrawal from this Agreement

If at any time a Corps District disagrees with the manner in which the terms of an individual undertaking or the terms of this Agreement are carried out, the Corps District may object in writing to DEA. DEA shall follow Stipulation XX.A in resolving the objection. Caltrans responsibility to carry out all actions under this Agreement not the subject of objection shall remain unchanged. If the Corps District and Caltrans are unable to come to agreement, the Corps District may withdraw from participation in an individual undertaking or from this Agreement entirely upon 30-days written notification to all signatories, leaving the Agreement in full force and effect for Program undertakings.

F. Termination

1. Only the signatories may terminate this Agreement. If this Agreement is not amended as provided for in Stipulation XX.D, or if any signatory proposes termination of this Agreement for other reasons, the signatory proposing termination shall notify the other signatories and invited signatories in writing, explain the reasons for proposing termination, and consult with the other parties to seek alternatives to termination.
2. Should such consultation result in an agreement on an alternative to termination, the signatories shall proceed in accordance with that agreement.
3. Should such consultation fail, the signatory proposing termination may terminate this Agreement by promptly notifying the other signatories, invited signatories, and concurring parties in writing.
4. Beginning with the date of termination, Caltrans or FHWA shall ensure that until and unless a new agreement is executed for the actions covered by this Agreement, such undertakings shall be reviewed individually in accordance with 36 CFR §§ 800.4-800.6.

G. Review and Reporting

1. DEA, FHWA, SHPO, the Corps Districts, and ACHP may review activities carried out pursuant to this Agreement. Caltrans Districts shall facilitate this review by compiling specific categories of information to document the effectiveness of the Agreement and by making this information available to DEA, FHWA, SHPO, Corps Districts, and ACHP in the form of a written report. Categories of information shall include, but are not limited to, a summary of actions taken under the Agreement, including all findings and determinations, accomplishments, public objections, any corrective actions implemented under Stipulation XX.C, ESA violations, inadvertent effects, or foreclosures. The range and type of information included by Caltrans Districts in the written report and the manner in which this information is organized and presented must be such that it facilitates the ability of the reviewing parties to assess accurately the degree to which this Agreement and its manner of implementation constitute an efficient and effective program alternative under 36 CFR § 800.14, and to determine whether this Agreement should remain in effect, and if so, whether and how it should be improved through appropriate amendment.

2. CSO shall prepare an annual written report of activities performed under this Agreement for its duration, unless the signatories agree to amend the reporting schedule. The initial report shall be prepared following completion of the first full State fiscal year under this Agreement. CSO shall submit the annual reports to the SHPO, FHWA, Corps Districts, and the ACHP no later than three (3) months following the end of the State fiscal year.
3. In accordance with Stipulation X.B.1, CSO shall provide a quarterly report to the SHPO summarizing findings of No Adverse Effect with Standard Conditions, and include FHWA for undertakings where FHWA has retained responsibility for environmental review and compliance. After the first year of this Agreement, the SHPO and CSO shall consult to determine if the reporting period should be modified and determine a new schedule. The reporting period may be modified without requiring amendment of the Agreement.
4. CSO shall provide notice to the public that the annual report is available for public inspection and ensure that potentially interested members of the public are made aware of its availability and that the public may comment to the signatories on the report.
5. At the request of any other signatory to this Agreement, CSO shall ensure that one or more meetings are held to facilitate review of, and comment on, the report to address questions, issues, or adverse comments.
6. In conjunction with the review of the reports prepared by Caltrans pursuant to this stipulation, the signatories and invited signatories may consult to review the overall effectiveness and benefits of the Agreement, determine if its requirements are being met, decide if amendments to the Agreement are warranted, review the reporting format and categories for adequacy, and identify any other actions that may be needed in order to take into account the effects of the Program on historic properties in California.

H. Confidentiality

All parties to this Agreement acknowledge that information about historic properties, prospective historic properties, or properties considered historic for purposes of this Agreement are or may be subject to the provisions of NHPA section 304, 36 CFR § 800.11(c), and California Government Code section 6254.10 and 6254(r) (Public Records Act), relating to the disclosure of sensitive information, and having so acknowledged, will ensure that all actions and documentation prescribed by this Agreement are, where necessary, consistent with the requirements of NHPA section 304, 36 CFR § 800.11(c), 5 USC § 552 as amended (Freedom of Information Act), and California Government Code section 6254.10 and 6254(r).

I. Duration of this Agreement

This Agreement shall remain in effect for a period of ten (10) years after the date it takes effect and shall automatically expire and have no further force or effect at the end of this ten-year period unless it is terminated prior to that time. No later than 18 months prior to the expiration date of the Agreement, Caltrans shall initiate consultation to determine if the Agreement should be allowed to expire automatically or whether it should be extended for an additional term, with or without amendments, as the signatories may determine. Unless the signatories unanimously agree through such consultation on an alternative to automatic expiration of this Agreement, this Agreement shall automatically expire and have no further force or effect in accordance with the timetable stipulated herein.

J. Effective Date of this Agreement and of Additional Attachments and Amendments

This Agreement shall take effect January 1, 2014, following execution by FHWA, the SHPO, the ACHP, and Caltrans. Additional attachments or amendments to this Agreement shall take effect on the dates they are fully executed by FHWA, the SHPO, the ACHP, and Caltrans.

Execution and implementation of this Agreement evidence that FHWA, Caltrans, when it is deemed to be a federal agency, and the Corps have afforded the ACHP a reasonable opportunity to comment on the Program and its individual undertakings in California, that FHWA, Caltrans and the Corps have taken into account the effects of the Program and its individual undertakings on historic properties, and that FHWA, Caltrans and the Corps have complied with Section 106 of the NHPA and 36 CFR Part 800 for the Program and its individual undertakings.

FIRST AMENDED

PROGRAMMATIC AGREEMENT AMONG THE FEDERAL HIGHWAY ADMINISTRATION, THE ADVISORY COUNCIL ON HISTORIC PRESERVATION, THE CALIFORNIA STATE HISTORIC PRESERVATION OFFICER, AND THE CALIFORNIA DEPARTMENT OF TRANSPORTATION REGARDING COMPLIANCE WITH SECTION 106 OF THE NATIONAL HISTORIC PRESERVATION ACT, AS IT PERTAINS TO THE ADMINISTRATION OF THE FEDERAL-AID HIGHWAY PROGRAM IN CALIFORNIA

SIGNATORY PARTIES

Federal Highway Administration

By: _____ Date: 12/18/13
Vincent Mammano, California Division Administrator

California State Historic Preservation Officer

By: _____ Date: 12-19-13
Carol Roland-Nawi, State Historic Preservation Officer

Advisory Council on Historic Preservation

By: _____ Date: 12/23/13
John M. Fowler, Executive Director

California Department of Transportation

By: _____ Date: 12/19/2013
Malcolm Dougherty, Director

FIRST AMENDED

PROGRAMMATIC AGREEMENT AMONG THE FEDERAL HIGHWAY ADMINISTRATION, THE ADVISORY COUNCIL ON HISTORIC PRESERVATION, THE CALIFORNIA STATE HISTORIC PRESERVATION OFFICER, AND THE CALIFORNIA DEPARTMENT OF TRANSPORTATION REGARDING COMPLIANCE WITH SECTION 106 OF THE NATIONAL HISTORIC PRESERVATION ACT, AS IT PERTAINS TO THE ADMINISTRATION OF THE FEDERAL-AID HIGHWAY PROGRAM IN CALIFORNIA

INVITED SIGNATORY PARTIES:
UNITED STATES ARMY CORPS OF ENGINEERS

United States Army Corps of Engineers, Sacramento District

By: _____ Date: 1/22/14
Michael J. Farrell
Colonel, U.S. Army
District Commander

United States Army Corps of Engineers, Los Angeles District

By: _____ Date: 1/22/14
Kimberly M. Colloton, PMP
Colonel, US Army
Commander and District Engineer

United States Army Corps of Engineers, San Francisco District

By: _____ Date: 22 JAN 2014
John K. Baker, P.E.
Lieutenant Colonel, US Army
District Engineer

FIRST AMENDED

PROGRAMMATIC AGREEMENT AMONG THE FEDERAL HIGHWAY ADMINISTRATION, THE ADVISORY COUNCIL ON HISTORIC PRESERVATION, THE CALIFORNIA STATE HISTORIC PRESERVATION OFFICER, AND THE CALIFORNIA DEPARTMENT OF TRANSPORTATION REGARDING COMPLIANCE WITH SECTION 106 OF THE NATIONAL HISTORIC PRESERVATION ACT, AS IT PERTAINS TO THE ADMINISTRATION OF THE FEDERAL-AID HIGHWAY PROGRAM IN CALIFORNIA

CONCURRING PARTIES:

By: Katrina C. Pierce Date: 12/19/13
Chief, Division of Environmental Analysis

By: [signature] Date: 12-19-2013
Chief, Cultural Studies Office

By: [signature] Date: 12/19/2013
District 1 District Director

By: [signature] Date: 12/19/13
District 2 District Director

By: Jody Jones Date: 12/19/13
District 3 District Director

By: [signature] Date: 12/19/13
District 4 District Director

By: [signature] Date: 12/19/13
District 5 District Director

By: Sharri Bender Ellert Date: 12-19-2013
District 6 District Director

FIRST AMENDED

PROGRAMMATIC AGREEMENT AMONG THE FEDERAL HIGHWAY ADMINISTRATION, THE ADVISORY COUNCIL ON HISTORIC PRESERVATION, THE CALIFORNIA STATE HISTORIC PRESERVATION OFFICER, AND THE CALIFORNIA DEPARTMENT OF TRANSPORTATION REGARDING COMPLIANCE WITH SECTION 106 OF THE NATIONAL HISTORIC PRESERVATION ACT, AS IT PERTAINS TO THE ADMINISTRATION OF THE FEDERAL-AID HIGHWAY PROGRAM IN CALIFORNIA

By: Carrie A. Bowen Date: 12/19/13
Atms District 7 District Director

By: _____ Date: 12/19/13
District 8 District Director

By: T.C. Hallenbeck Date: 12/19/13
District 9 District Director

By: Margaret S. Bemptel Date: 12/19/13
District 10 District Director

By: _____ Date: 12/19/13
District 11 District Director

By: _____ Date: 12/19/13
District 12 District Director

ATTACHMENT 1
CALTRANS PROFESSIONALLY QUALIFIED STAFF STANDARDS

As outlined in Stipulation III of this Agreement, all cultural resources studies carried out by Caltrans or its consultants must be conducted by or under the direct supervision of individuals who meet the Secretary of the Interior's Professional Qualifications Standards for the relevant field of study. The standards are designed to ensure program quality and satisfy federal mandates associated with compliance with Section 106 of the National Historic Preservation Act.

Caltrans meets these standards by certifying its cultural resources staff as Professionally Qualified Staff (PQS). In order to take full advantage of the provisions of this Agreement, Caltrans PQS must meet the standards in the appropriate field. Those not fully qualified as archaeological Principal Investigators (PI) or Principal Architectural Historians (PAH) may accomplish many important tasks with oversight, generally in the form of peer review or under direct supervision by qualified staff. The Chief of the Cultural Studies Office in the Headquarters Division of Environmental Analysis is responsible for certifying the qualifications of all Caltrans PQS. Minimum qualifications are listed below for cultural resources staff conducting various tasks.

ARCHAEOLOGICAL QUALIFICATIONS STANDARDS

Archaeological Crew Member

Qualified to participate in archaeological surveys and excavations under the direction of a qualified Lead Archaeological Surveyor or higher. Minimum qualifications:

- A minimum of six weeks of supervised field training (including at least three weeks each of excavation and field survey) in time blocks of at least one week duration (field school or equivalent)

and

- A minimum of two upper division college courses in archaeology.

Lead Archaeological Surveyor

Qualified to conduct and report archaeological surveys, and to prepare other compliance documents, with peer review provided by a qualified Prehistoric or Historical Archaeology PI to ensure document quality. Minimum qualifications:

- A bachelor's degree in anthropology with emphasis in archaeology or closely related discipline (such as history or earth sciences) and subsequent coursework in archaeology (a minimum of four upper division or graduate courses in archaeology required)

and

- At least six months of professional archaeological experience in California or Great Basin, including at least 12 weeks of California field survey experience

and

- Demonstrated ability to organize and conduct archaeological surveys, complete site record forms, and report on survey findings dealing with both prehistoric and historical archaeological resources.

Co-Principal Investigator—Prehistoric Archaeology

Qualified as a Construction Monitor, PI for Extended Phase I studies, Co-PI for Phase II and III excavations for work involving prehistoric archaeological resources, and to conduct consultant oversight and contract management, under the direction of a Prehistoric Archaeology PI. May author proposals, reports for Extended Phase I studies, and other compliance documents, with peer review from a Prehistoric Archaeology PI to ensure document quality. Minimum qualifications:

- Qualification as a Lead Archaeological Surveyor for Caltrans

and

- At least 12 months of professional experience or specialized training in prehistoric archaeology, including: 1) at least 10 weeks of California or Great Basin excavation experience under the supervision of a Prehistoric Archaeology PI; 2) at least four weeks of supervised laboratory experience on collections from prehistoric California or Great Basin sites; and 3) at least four weeks of excavation experience in a supervisory capacity on prehistoric California or Great Basin sites

and

- Demonstrated ability to carry archaeological research to completion, as evidenced by the timely completion of an excavation report or comparable study involving a prehistoric site or sites

and

- Understanding of the Section 106 process and familiarity with cultural resources policies, procedures, and goals, as demonstrated in reports and/or past performance.

Co-Principal Investigator—Historical Archaeology

Qualified as a Construction Monitor and as Co-PI for Extended Phase I, Phase II, and Phase III excavations involving historical archaeological resources, and to conduct consultant oversight and contract management, under the direction of a Historical Archaeology PI. May author reports that evaluate historical archaeological resources where no excavation is required to reach a conclusion about their eligibility and other compliance documents. That work must be peer reviewed by a Historical Archaeology PI to ensure document quality. Minimum qualifications:

- Qualification as a Lead Archaeological Surveyor for Caltrans

and

- At least 12 months of professional archaeological experience or specialized training dealing with historic-period resources including: 1) at least 10 weeks of excavation experience under the supervision of a Historical Archaeology PI; 2) at least four weeks of

supervised laboratory experience on collections from historic sites; and 3) at least four weeks of excavation experience in a supervisory capacity on historic sites

and

- Demonstrated familiarity with California or Western U.S. history, documentary research, and oral history, as evidenced by upper division course work or a major research report or publication based on original research

and

- Demonstrated ability to carry archaeological research to completion, as evidenced by the timely completion of an evaluation or excavation report addressing a historic-period site or sites

and

- Understanding of the Section 106 process and familiarity with cultural resources policies, procedures, and goals, as demonstrated in reports and/or past performance.

Principal Investigator—Prehistoric Archaeology

Fully qualified under the Secretary of the Interior's standard for prehistoric archaeology to conduct all types of studies, including Extended Phase I, Phase II, and Phase III excavations, involving prehistoric archaeological resources and traditional cultural properties or cultural landscapes of a prehistoric or ethnographic nature. May author proposals, reports for Extended Phase I, II, and III studies, and other compliance documents, with peer review to ensure document quality. May conduct consultant oversight and contract management. Minimum qualifications:

- Graduate degree in anthropology, archaeology, or cultural resources management with an emphasis in prehistoric archaeology, as evidenced by appropriate coursework

and

- At least 16 months of professional archaeological experience involving prehistoric sites, including a minimum of one year of field experience, as follows: 1) at least 24 weeks of fieldwork under the supervision of a Prehistoric Archaeology PI, of which at least 12 weeks must be excavation work; 2) at least eight weeks of laboratory experience on collections from California or Great Basin sites supervised by a Prehistoric Archaeology PI; and 3) at least 20 weeks of field work in a supervisory capacity, of which at least eight weeks must be on California or Great Basin sites

and

- Demonstrated ability to carry out archaeological research to completion, as evidenced by the completion of a thesis, dissertation, or other comparable major study focusing on a prehistoric site or sites

and

- Ability to carry out the more complex and difficult aspects of the Section 106 process

and

- Understanding of Caltrans cultural resources policies, procedures and goals, as demonstrated in reports and/or past performance

and

- Familiarity with Caltrans cultural resources contracting policies and procedures.

Principal Investigator—Historical Archaeology

Fully qualified under the Secretary of the Interior's standard for historical archaeology to conduct all types of studies, including Extended Phase I, Phase II, and Phase III excavations, involving historical archaeological resources and historic-period traditional cultural properties or cultural landscapes. May author proposals, reports for Extended Phase I, II, and III studies, and other compliance documents, with peer review to ensure document quality. May conduct consultant oversight and contract management. Minimum qualifications:

- Graduate degree in anthropology, archaeology, cultural resources management, or a closely related field with an emphasis in historical archaeology, as evidenced by a minimum of 12 upper division semester units (or equivalent) in history and the theory and methods of historical archaeology, or equivalent knowledge as shown in a thesis or dissertation or major report evaluating historical archaeological properties

and

- At least 16 months of professional archaeological experience involving historical sites, including a minimum of one year of field experience, as follows: 1) at least 12 weeks of fieldwork under the supervision of a Historical Archaeology PI, of which at least 6 weeks must be excavation work; 2) at least 4 weeks of laboratory experience on collections from California sites, supervised by a Historical Archaeology PI; and 3) at least 20 weeks of field work in a supervisory capacity, of which at least eight weeks must be on California sites

and

- Demonstrated familiarity with California or Western U.S. history, documentary research, and oral history techniques, as evidenced by upper division course work or a major research report or publication based on original research

and

- Demonstrated ability to carry out archaeological research to completion, as evidenced by the completion of a thesis, dissertation, or other comparable major study focusing on a historic-period site or sites

and

- Ability to carry out the more complex and difficult aspects of the Section 106 process

and

- Understanding of Caltrans cultural resources policies, procedures, and goals, as demonstrated in reports and/or past performance

and

- Familiarity with Caltrans cultural resources contracting policies and procedures.

ARCHITECTURAL HISTORIAN QUALIFICATIONS STANDARDS

Architectural Historian

Qualified to evaluate historic properties, other than archaeological resources. May prepare evaluation reports for all types of non-archaeological resources and other compliance documents, and conduct consultant oversight and contract management, with peer review by a Principal Architectural Historian to ensure document quality. Minimum qualifications:

- A graduate degree in architectural history, art history, architecture, or a closely related field, with a concentration in American architecture; or a graduate degree in American history, public history, historic preservation, American studies, or a closely related field; or a bachelor's degree in one of the above disciplines, plus 12 months of full-time related professional experience in research, writing, teaching, interpretation, or other related professional activity

and

- Demonstrated ability to apply the practices of architectural history in the identification, evaluation, and documentation of historic properties in California or the United States; or demonstrated familiarity with U.S. history, documentary research, and oral history techniques, as evidenced by upper division course work or a major research report or publication based on original research

and

- Demonstrated ability to carry historical research to completion, as evidenced by the timely completion of a major research report or publication based on original research

and

- Understanding of the Section 106 process and familiarity with cultural resources policies, procedures, and goals, as demonstrated in reports and/or past performance.

Principal Architectural Historian

Fully qualified under the Secretary of the Interior's standard for architectural historians. Able to conduct all types of studies involving historic-period resources, including traditional cultural properties and cultural landscapes, other than archaeological properties. May author evaluation reports and other compliance documents, with peer review to ensure document quality. May conduct consultant oversight and contract management. May determine applicability of Environmentally Sensitive Areas as described in Attachment 5. Minimum qualifications:

- A graduate degree in architectural history, art history, architecture, or a closely related field, with a concentration in American architecture; or a graduate degree in American history, public history, historic preservation, American studies, or a closely related field, and at least 24 months of full-time related professional experience in research, writing, teaching, interpretation, or other related professional activity; or a bachelor's degree in one of the above disciplines, plus 24 months of full-time related professional experience in research, writing, teaching, interpretation, or other related professional activity

and

- Demonstrated ability to apply the practices of history or architectural history in the identification, evaluation, and documentation of historic properties in California or the United States; or demonstrated familiarity with U.S. history, documentary research, and oral history techniques, as evidenced by upper division course work or a major research report or publication based on original research

and

- Demonstrated ability to carry historical research to completion, as evidenced by the timely completion of a thesis, dissertation, or other comparable major study consisting of the design and execution of a historical study concerning a historic-period property or properties

and

- Ability to carry out the more complex and difficult aspects of the Section 106 process

and

- Understanding of Caltrans cultural resources policies, procedures, and goals, as demonstrated in reports and/or past performance

and

- Familiarity with Caltrans cultural resources contracting policies and procedures.

ATTACHMENT 2
SCREENED UNDERTAKINGS

Screened undertakings are classes of undertakings that have the potential to affect historic properties, but following appropriate screening, may be determined exempt from further Section 106 review under this Agreement.

This Attachment applies only when the undertaking is limited exclusively to one or more of the activities listed below. If the Caltrans PQS determines that the undertaking has potential to affect historic properties, additional Section 106 review will be required following the steps outlined in Stipulation VIII of this Agreement.

The Caltrans PQS is responsible for screening individual undertakings that fall into one or more of the classes of screened undertakings listed below to determine if the individual undertaking requires further consideration, or if it may be determined exempt from further review under the terms of this Agreement, as prescribed by Stipulation VII. Only Caltrans PQS may determine that an undertaking is exempt from further review as a result of screening.

Except for minor maintenance on historic bridges and tunnels, the undertaking will not qualify as exempt from further review if there may be historic properties present that could be affected. An undertaking will not qualify as exempt from review if conditions must be imposed to ensure that potential historic properties would not be affected.

All features of the undertaking, including the identification of mandatory and/or designated storage, disposal, or borrow areas, depth of disturbance, and construction easements, must be identified prior to the screening process. If additional features are added to a screened undertaking, the undertaking must be rescreened.

THE SCREENING PROCESS

The screening process may include one or more of the following procedures. The process is not limited to the procedures below, nor are all these procedures required for all undertakings. Screening should be appropriate to the specific complexity, scale, scope, and location of the undertaking. Screening may include:

- Literature/records review to determine potential for involvement of historic properties.
- Contacting Indian tribes who may have concerns within the project area.
- Field review of project area.
- Reviewing detailed project plans.
- Contacting non-federally recognized Native American organizations and individuals, local historical societies, or other potential consulting parties who may have concerns.
- Reviewing aerial photographs, Caltrans photologs, historic maps, or as-built records.
- Reviewing right-of-way, assessment parcel, or ownership data.
- Reviewing character-defining features of historic bridges and tunnels.

Based on the outcome of the screening process, the Caltrans PQS may determine that individual undertakings are exempt from further review as there is no potential to affect historic properties.

The Caltrans PQS prepares a Screening Memo to the project planner for inclusion in the Caltrans District project file to document completion of the Section 106 process for applicable classes of screened undertakings and no further review will be necessary.

CLASSES OF SCREENED UNDERTAKINGS

1. Pavement reconstruction, resurfacing, shoulder backing, or placement of seal coats.
2. Minor widening of less than one-half-lane width, adding lanes in the median, or adding paved shoulders.
3. Channelization of intersections or addition of auxiliary lanes.
4. Establishment of chain control areas, park-and-ride lots, or maintenance pullouts.
5. Minor modification of interchanges and realignments of on/off ramps.
6. Minor utility installation or relocation.
7. Installation of noise barriers or retaining walls.
8. Addition of bicycle lanes or pedestrian walkways.
9. Storm damage repairs, such as culvert clearing or repair, disposal or stockpile locations, shoulder reconstruction, or slide or debris removal.
10. Repair of the highway and its facilities.
11. Modification of existing features, such as slopes, ditches, curbs, sidewalks, driveways, dikes, or headwalls, within or adjacent to the right of way.
12. Minor operational improvements, such as culvert replacements and median or side-ditch paving.
13. Addition or replacement of devices, such as glare screens, median barriers, fencing, guardrails, safety barriers, energy attenuators, guide posts, markers, safety cables, ladders, lighting, hoists, or signs.
14. Installation, removal or replacement of roadway markings, such as painted stripes, raised pavement markers, thermoplastic tape, or raised bars, or installation of sensors in existing pavements.
15. Abandonment, removal, reconstruction, or alteration of railroad grade crossings or separations or grade crossing protection.
16. Minor alteration or widening of existing grade separations where the primary function and utility remain unaltered.
17. Additions or alterations to existing buildings, such as work on or in office or equipment buildings, maintenance stations, warehouses, roadside rests, vista points, minor transit facilities, weigh and inspection stations, toll facilities, or state-owned rentals.
18. Restoration or rehabilitation of deteriorated or damaged structures, facilities, or mechanical equipment to meet current standards of public health and safety.

19. Any work on Category 5 bridges, including rehabilitation or reconstruction.
20. Modification of traffic control systems or devices utilizing existing infrastructure, including installation, removal, or modification of regulatory, warning, or informational signs or signals.
21. Installation of freeway surveillance or ramp metering equipment.
22. Replacement of existing highway signs.
23. Removal or control of outdoor advertising.
24. Projects that eliminate non-fixed hazards, such as removal of objects on roadway, traffic accident cleanup, hazardous waste removal, or fire control.
25. Establishment, replacement, or removal of landscaping, vegetation, or irrigation systems on state or local public property, including highway and local roads rights of way and building sites.
26. Construction or repair of fish screens or ladders, springs, waterholes, or stream channels (e.g., clearing of debris from streams, ditches, or culverts).
27. Right-of-way activities such as hardship acquisition or acquisition of scenic or conservation easements.
28. Joint or multiple use permits with other agencies or encroachment permits.
29. Preliminary engineering tests, such as seismic, geologic, or hazardous materials testing that involve buildings or structures or require trenching or ground boring.
30. Minor maintenance on historic bridges and tunnels.

ATTACHMENT 3
AREA OF POTENTIAL EFFECTS DELINEATION

In accordance with the Stipulations VI.B.8 and VIII.A of this Agreement, Caltrans will establish the Area of Potential Effects (APE) for undertakings covered by this Agreement. The Caltrans PQS and project manager are jointly responsible for describing and establishing an APE and will sign any maps or plans that define or redefine an APE.

When the guidelines below are followed, specific consultation with the SHPO regarding APE and level of effort will typically not be necessary. Consultation with the SHPO may be needed for large and complex undertakings, when there are issues of access for inventory and evaluation, when there is potential for visual or indirect effects, when there are concerns over delineating whole properties, or when there is public controversy such as potential for litigation, concerns expressed by outside parties, or issues related to Native American consultation. Caltrans shall consider the results of consultation with Indian tribes regarding identification of properties when delineating the APE.

APE DEFINITION

As defined in 36 CFR § 800.16(d), an 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 any such properties exist. The area of potential effects is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking." An APE therefore depends on an undertaking's potential for effects. Effects to be considered may include, but are not limited to, physical damage or destruction of all or part of a property; physical alterations; moving or realigning a historic property; isolating a property from its setting; visual, audible, or atmospheric intrusions; shadow effects; vibrations; and change in access or use.

APE BOUNDARIES

An APE delineates the boundaries within which it can be reasonably expected that a proposed undertaking has the potential to affect historic properties, should any be present. It may be the right of way itself or an area either more or less than the right of way, depending on the scope and design of the undertaking.

An APE may extend well beyond the right of way. It must include all construction easements, such as slope and drainage easements, stormwater detention basins, off-site biological mitigation sites requiring ground disturbance, and mandatory or designated borrow and disposal sites. It may include project-related activity areas such as utility relocations, access roads, equipment storage or staging areas, or conservation or scenic easements. Consideration should be given for other jurisdictional areas, such as the U.S. Army Corps of Engineers (Corps) permit area. The Corps permit area consists of those areas comprising the waters of the United States that will be affected by the proposed work and structures and uplands directly affected as a result of authorizing the work or structure.

INDIRECT EFFECTS AND BOUNDARIES

An APE addresses indirect effects when warranted. Indirect effects may extend beyond the right of way to encompass visual, audible, or atmospheric intrusions; shadow effects; vibrations from construction activities; or change in access or use. Delineation of an indirect APE must be considered carefully, particularly for potential audible and visual effects, taking into account proximity and use of adjoining properties, the surrounding topography, and other aspects of a property's setting.

1. Noise: When considering potential noise effects, there must be a reasonable basis for predicting an effect based on an increase over existing noise level. Noise effects should be considered when a project would result in a new through lane or a substantial change in vertical or horizontal alignment.
2. Visual: Highways on new alignments, multi-level structures, or elevated roadways are considered to have potential for visual effects if they could be out of character with or intrude upon a historic property or isolate it from its setting. Projects for improvement or expansion of existing transportation facilities that will not substantially deviate from existing alignment or profile are not expected to involve visual impacts.

APES AND PROPERTY TYPES

Different APEs may be established for archaeological, cultural and built-environment properties:

1. For archaeological properties, an APE is typically established based on an undertaking's potential for direct effects from ground-disturbing activities. On occasion, archaeological sites may also have qualities that could be affected indirectly.
2. Buildings, structures, objects, districts, cultural sites as well as sites of religious or cultural significance are more likely to be subject to indirect, as well as direct effects, thus an APE for the built and cultural environment is usually broader than an archaeological APE in order to include the potential for such effects. For instance, the first row of potential properties beyond the right of way may be subject to such effects and thus included in an indirect APE when warranted.

In delineating the APE, consideration must always be given to the undertaking's potential effects on a historic property as a whole. If any part of a property may be affected, the APE will generally encompass the entire property, including the reasonably anticipated or known boundaries of archaeological sites. However, it is rarely necessary to extend an APE to include entire large districts or landscapes, large rural parcels, extensive functional systems, or long linear features if potential effects on the whole would clearly be negligible.

The guiding principle on delineating an APE is that it should be commensurate with, and provide for, an appropriate level of effort to take into account an undertaking's potential for effects on historic properties.

While an APE will generally encompass an entire property, physical intrusion such as testing of archaeological sites should be focused on areas subject to reasonably foreseeable effects of the undertaking and must be guided by a project- or site-specific research design. Areas of an archaeological site that are unlikely to be affected by an undertaking should not be tested unless compelling reasons to conduct such testing are provided in the research design.

STUDY AREAS

In order to encourage consideration of historic properties early in the planning and design of an undertaking, Caltrans PQS may designate a study area for use in conducting historical studies until an APE can be delineated. A study area should encompass all land that could potentially be included in the final APE. Establishing a study area is especially pertinent to those undertakings subject to a phased identification and evaluation process.

PROJECT CHANGES AND APE REVISIONS

Whenever an undertaking is revised (e.g., design changes, utility relocation, or additional off-site mitigation areas), including during construction, Caltrans PQS will determine whether the changes require modifying the APE. If an APE needs to be modified, either increased or decreased in scope, Caltrans is responsible for informing any consulting parties consistent with the Stipulations of this Agreement. The APE shall be revised commensurate with the nature and scope of the changed potential effects.

ATTACHMENT 4
PROPERTIES EXEMPT FROM EVALUATION

Section 106 regulations require a "reasonable and good faith effort" to identify historic properties (36 CFR § 800.4[b][1]). The procedures in this attachment enable Caltrans PQS to concentrate their efforts on properties that have the potential to be historic properties by identifying categories of properties that have no potential to be a historic property.

Properties should be evaluated only if Caltrans PQS or appropriately qualified consultants reasonably determine that the property has potential for historic significance. Evidence of such potential consists of associations with significant historic events or individuals (Criterion A or B); engineering, artistic, design, or aesthetic values (Criterion C); information value (Criterion D); the presence of tribal or community concerns; or inclusion as a potential contributing element within a larger property requiring evaluation, such as a historic district.

This attachment defines categories of properties that do not warrant evaluation pursuant to Stipulation VIII. C.1 of this Agreement. Exempted properties may be documented, if documentation is warranted, at a level commensurate with the nature of the property [e.g., Primary Record form, Location Map, Memo, or Caltrans Cultural Resources Database (CCRD)].

ARCHAEOLOGICAL PROPERTIES (PREHISTORIC AND HISTORICAL)

Only Caltrans PQS or consultants who meet the Caltrans Archaeological Qualification Standards (Attachment 1) for Co-Principal Investigator and above are authorized to determine that the archaeological property types or features listed below may be exempted from evaluation. Professional judgment should be used as to the level of identification and recordation. This exemption process does not include archaeological sites or other cultural remains or features that may qualify as contributing elements of districts.

Archaeological Property Types and Features Exempt from Evaluation:

- Isolated prehistoric finds consisting of fewer than three items per 100 square meters
- Isolated historic finds consisting of fewer than three artifacts per 100 square meters (e.g., several fragments from a single glass bottle are one artifact)
- Refuse scatters less than 50 years old (scatters containing no material that can be dated with certainty as older than 50 years old)
- Features less than 50 years old (those known to be less than 50 years old through map research, inscribed dates, etc.)
- Isolated refuse dumps and scatters over 50 years old that lack specific associations
- Isolated mining prospect pits
- Placer mining features with no associated structural remains or archaeological deposits

- Foundations and mapped locations of buildings or structures more than 50 years old with few or no associated artifacts or ecofacts, and with no potential for subsurface archaeological deposits

ARCHITECTURAL AND HISTORICAL PROPERTIES

Certain architectural and historical property types are exempt from evaluation; additional types may be exempt from evaluation after review by a qualified Architectural Historian.

Architectural and Historical Property Types Exempt from Evaluation:

Historical Property Types 1, 2, and 3 will not require evaluation, except as noted. Only Caltrans PQS or consultants who meet the Caltrans Professional Qualifications Standards (Attachment 1) for Architectural Historian and above or Lead Archaeological Surveyor and above are authorized to determine which architectural and historical properties fall under Property Types 1, 2, or 3 and are therefore exempt from evaluation.

Property Type 1: Minor, ubiquitous, or fragmentary infrastructure elements

Note: The following list does not apply to properties 50 years old or older that could be potentially important, nor does it apply to properties that may contribute to the significance of larger historic properties such as districts or cultural landscapes.

Water Conveyance and Control Features:

- natural bodies of water providing a water source, conveyance, or drainage
- modified natural waterways
- concrete-lined canals less than 50 years old and fragments of abandoned canals.
- roadside drainage ditches and secondary agricultural ditches
- small drainage tunnels
- flood storage basins
- reservoirs and artificial ponds
- levees and weirs
- gates, valves, pumps, and other flow control devices
- pipelines and associated control devices
- water supply and waste disposal systems

Recent Transportation or Pedestrian Facilities:

- railroad grades converted to other uses, such as roads, levees, or bike paths
- light rail systems, including shelters, benches, and platforms
- bus shelters and benches

- airstrips and helicopter landing pads
- vista points and rest stops
- toll booths
- truck scales and inspection stations
- city streets, alleys, and park strips
- sidewalks, curbs, berms, and gutters
- bike paths, off-road vehicle trails, equestrian trails, and hiking trails
- parking lots and driveways

Highway and Roadside Features:

- isolated segments of bypassed or abandoned roads
- retaining walls
- curbs, gutters, and walkways
- highway fencing, soundwalls, guard rails, and barriers
- drains and culverts, excluding culverts assigned a Caltrans bridge number
- cattle crossing guards
- roadside, median, and interchange landscaping and associated irrigation systems
- street furniture and decorations
- signs and reflectors
- parking meters
- street lighting and controls
- traffic lights and controls
- highway operation control, maintenance, and monitoring equipment
- telecommunications services, including towers, poles, dishes, antennas, boxes, lines, cables, transformers, and transmission facilities
- utility services, including towers, poles, boxes, pipes, lines, cables, and transformers
- oil and gas pipelines and associated control devices

Adjacent Features:

- fences, walls, gates, and gateposts
- isolated rock walls and stone fences
- telephone booths, call boxes, mailboxes, and newspaper receptacles

- fire hydrants and alarms
- markers, monuments, signs, and billboards
- fragments of bypassed or demolished bridges
- temporary roadside structures, such as seasonal vendors' stands
- pastures, fields, crops, and orchards
- corrals, animal pens, and dog runs
- open space, including parks and recreational facilities
- building and structure ruins and foundations less than 50 years old.

Movable or Minor Objects:

- movable vehicles
- stationary vehicles less than 50 years old or moved within the last 50 years
- agricultural, industrial and commercial equipment and machinery
- sculpture, statuary, and decorative elements less than 50 years old or moved within the last 50 years.
- isolated mobile homes not within a mobile home park.

Property Type 2: Buildings, structures, objects, districts, and sites less than 30 years old

Properties less than 30 years old may be exempted from evaluation. If the age of a property is not readily discernible the date of construction may be confirmed by checking assessor's records or other sources, such as USGS quadrangle maps or building permits, or by consulting a qualified Architectural Historian.

Property Type 3: Buildings, structures, objects, districts, and sites so altered as to appear less than 30 years old

Substantially altered properties that appear to be contemporary structures may be exempted from evaluation. A qualified Architectural Historian should review altered properties if they are listed in a local survey of historical properties, or if the extent of alterations or the age of a property is not readily discernible.

Architectural and Historical Property Types Exempt from Evaluation after Review by Qualified Architectural Historians:

Historical Property Types 4, 5, 6, and 7, described below, may be exempted from evaluation after review by one of the following qualified professionals: Caltrans Architectural Historians or Principal Architectural Historians, or Caltrans consultants who have been certified as meeting Caltrans architectural historian professional standards.

Property Type 4: Buildings, structures, objects, districts, and sites 30 to 50 years old

Properties between 30 and 50 years old may be exempted from further evaluation. Consideration will be given to properties that may have achieved exceptional significance within the last 50 years, in accordance with National Register Bulletin 22.

Property Type 5: Buildings, structures, and objects moved within the past 50 years

Properties which have been moved are not usually eligible for the National Register, with the exceptions noted in "Criteria Consideration B: Moved Properties" of National Register Bulletin 15. Therefore properties that were moved within the past 50 years may be exempted from evaluation. Properties moved more than 50 years ago shall be formally evaluated, unless they also qualify as property types exempted from evaluation (e.g., a building moved before its period of significance but which has since lost integrity through alterations). Caltrans qualified Architectural Historians have discretion to identify and evaluate properties moved less than 50 years ago when there is demonstrable evidence to indicate that such identification and evaluation are warranted.

Property Type 6: Altered buildings, structures, objects, districts, and sites that appear to be more than 30 years old

Properties more than 30 years old that have been substantially altered may be exempted from evaluation. Such properties may include roads and highways with associated features other than bridges, and railroads with associated features other than buildings or bridges. However, altered properties should be documented if they are listed in a local survey of historical properties or if eligibility conclusions might be controversial.

Property Type 7: Post-World War II builders' houses and housing tracts

Builders' houses or tract houses (not including unique, architect-designed houses) and housing tracts constructed after World War II may be exempted from evaluation when sufficient historical research and reconnaissance survey have been conducted to determine that:

1. The tract as a whole has no demonstrable potential to meet any of the National Register criteria as a historic district, and
2. No portion of the tract has demonstrable potential to meet any of the National Register criteria as a historic district, and
3. The individual houses have no demonstrable potential to meet any of the National Register criteria.

Consideration of potential significance should be based on *Tract Housing in California, 1945-1973: A Context for National Register Evaluation* (Caltrans 2011).

ATTACHMENT 5
FINDINGS OF NO ADVERSE EFFECT WITH STANDARD CONDITIONS

This attachment identifies two standard conditions that can be used to make a finding of "No Adverse Effect with Standard Conditions" in accordance with Stipulation X.B.1(a-b). Caltrans may propose that additional standard conditions be included by revision of this attachment in accordance with Stipulation X.B.1(c).

1. ENVIRONMENTALLY SENSITIVE AREAS AS A STANDARD CONDITION

Environmentally Sensitive Areas (ESAs) are locations of archaeological sites, cultural sites or built-environment properties within the APE that are to be protected by avoidance or restrictions on Program activities. ESAs typically use fencing, flagging, signing, or monitoring to protect properties from direct physical damage by project activities.

Caltrans PQS in the appropriate discipline (or local agency with Caltrans PQS oversight) will develop and provide ESA information to Project Development, Construction, and Maintenance Division personnel to protect properties during project activities through implementation of an ESA Action Plan. Project Development shall include ESA information in construction plans, contract provisions, the Environmental Commitment Record (ECR) and the Pending File of the project's Resident Engineer (RE). During construction, the project RE shall ensure that contractors comply with the ESA requirements in the contract provisions. The Caltrans District Environmental Branch shall monitor construction and maintain contact with the RE on ESA compliance. For Local Assistance projects, Caltrans PQS shall ensure the local agency monitor their construction contractor to ensure compliance with all ESA requirements.

Archaeological sites that can be protected by ESA's may be considered eligible for the purposes of the undertaking without subsurface excavation and/or surface collection in accordance with Stipulation VIII.C.3. Cultural sites that can be protected by ESA's may be considered eligible for the purposes of the undertaking in accordance with Stipulation VIII.C.4.

Archaeological and cultural sites may have values other than information potential under Criterion D. ESAs may be applied to sites with cultural values that may qualify them as eligible under Criteria A, B, or C in addition to, or instead of, Criterion D only where the ESA protects those values from all adverse effects. That determination must be made by a Principal Investigator in the applicable discipline (Prehistoric or Historical Archaeology), and as appropriate, after consultation with Indian tribes that may attach religious or cultural values to the property or other consulting parties.

Built-environment properties, regardless of ESA protection, must be evaluated for National Register eligibility unless approved in consultation with CSO pursuant to Stipulation VIII.C.4. As ESA's are designed to protect properties from direct effects, they may only be applied to built-environment properties when a PQS Principal Architectural Historian determines that the undertaking will not indirectly affect the built-environment property. If there is potential for indirect effects, the Caltrans District shall proceed in accordance with Stipulation X.B.2.

The delineation of an ESA may be used to determine a finding of "No Adverse Effect with Standard Conditions" in accordance with Stipulation X.B.1(a), provided that all of the following conditions are met and have been approved by the appropriate Caltrans PQS:

A. Adequate information is available to accurately delineate the property boundary in relation to the anticipated project impacts and to identify contributing features of the property. This information may be obtained from literature review, surface survey, subsurface testing, historical research, and/or consultation with Indian tribes.

B. The scope and design of the undertaking are sufficiently developed and detailed to ensure that the property will be protected from all adverse effects.

C. All protection measures are defined (e.g., signing, staking, fencing, monitoring provisions) and included in the final construction plans, contract provisions, Environmental Commitment Record (ECR) and RE's Pending File. For Local Assistance projects, Caltrans PQS shall ensure the local agency complies with all ESA requirements.

D. A clear chain of command is established identifying specific tasks, responsibilities and contact information for each Caltrans or local agency staff, consultant or other party in the chain.

E. An ESA Action Plan is developed to ensure that provisions for protection are carried out and will be documented in accordance with Stipulation XVIII. This ESA Action Plan shall be attached to the "No Adverse Effect with Standard Conditions- ESA" finding.

Delineation of an ESA may also be used as an element of protection for a historic property when specifically provided for by a condition in a finding of "No Adverse Effect" pursuant to Stipulation X.B.2, or as part of resolution of adverse effects when specifically provided for in an MOA developed pursuant to Stipulation XI, Resolution of Adverse Effects.

Caltrans District PQS shall report all ESA violations to CSO within 48 hours. Caltrans Districts shall report ESA violations where properties are impacted in accordance with Stipulation XV.B. Post-Review Discoveries.

2. Secretary of the Interior's Standards for the Treatment of Historic Properties as a Standard Condition

Use of the Secretary of the Interior's Standards for the Treatment of Historic Properties (SOIS) to avoid adverse effects may be considered a standard condition when an undertaking's activities are limited to stabilization, maintenance, repairs, rehabilitation, or alterations and these activities are completed in a manner consistent with the SOIS, the applicable SOIS guidelines, National Park Service Preservation Briefs, and applicable Caltrans guidance.

Because the SOIS are used mainly to avoid adverse effects to historic built-environment properties, they must be reviewed and approved by a Caltrans Principal Architectural Historian. Although rarely used for archaeological and cultural sites that are listed on or eligible for listing on the National Register of Historic Places (NRHP), use of the SOIS may be applied only when deemed appropriate by a Principal Investigator in Prehistoric or Historical Archaeology.

Application of the SOIS may be used to determine a finding of "No Adverse Effect with Standard Conditions" in accordance with Stipulation X.B.1(b), provided that all of the following conditions are met and have been approved by the Caltrans PQS Principal Architectural Historian:

A. Adequate information is available to identify the character-defining features of the historic property and accurately determine the scope of construction activities and their

impacts on the property. Information on the historic property's character defining or essential physical features may be obtained from the NRHP nomination form for a listed property, the NRHP determination of eligibility documentation, including the property's DPR 523 form(s), or character defining features summary form, if one has been prepared.

B. The scope and design of the undertaking are sufficiently developed and detailed to ensure that the proposed work can meet the SOIS, and an analysis of the proposed work and how it meets the specific SOIS is reviewed and approved by a Caltrans PQS Principal Architectural Historian.

C. All appropriate protection and avoidance measures are defined, including whether any materials testing is necessary, in sufficient detail in the plans and specifications provided, or to be provided for PQS review, and this information included in the final construction plans, contract provisions, Environmental Commitment Record and RE's Pending File. For Local Assistance projects, Caltrans PQS shall ensure the local agency complies with all ESA requirements.

D. A clear chain of command is established identifying specific tasks, responsibilities and contact information for each Caltrans or local agency staff, consultant or other party in the chain.

E. A SOIS Action Plan is developed to ensure that provisions for protection are carried out and will be documented in accordance with Stipulation XVIII. This SOIS Action Plan shall be attached to the "No Adverse Effect with Standard Conditions– SOIS" finding.

During construction, the project RE shall ensure that contractors comply with the SOIS Action Plan guidelines in the contract provisions. The Caltrans District Environmental Branch shall monitor construction and maintain contact with the RE on the SOIS Action Plan compliance. For Local Assistance projects, Caltrans PQS shall ensure the local agency complies with all SOIS Action Plan requirements.

ATTACHMENT 6
STANDARD TREATMENT OF ARCHAEOLOGICAL SITES:
DATA RECOVERY PLAN

In accordance with Stipulation XI.B of this Agreement, potential adverse effects to an archaeological property may be resolved through data recovery to recover important information that would have been otherwise lost as a result of an undertaking. A Caltrans Principal Investigator in the appropriate discipline shall determine applicability of data recovery, and as applicable, the appropriate level of documentation for a data recovery plan.

A data recovery plan shall, at a minimum, include the following:

- Discussion of the National Register significance of a property.
- Research questions that are directly pertinent to those data sets that qualify the property for inclusion in the National Register under Criterion D.
- A discussion that explains why it is in the public interest to pursue answers to these research questions. The discussion should indicate whether, why, and how the public may benefit from the scope and nature of the information developed through data recovery, and demonstrate that the costs of proceeding with the data recovery are prudent and reasonable.
- Results of previous research relevant to the property type.
- Proposed investigations (data needed to address research questions and the proposed methods and techniques to acquire that data, including any special studies).
- Field methods and techniques that will clearly and cost-effectively address the property's structure and content in the context of the defined research questions and the property's stratigraphic and geomorphic context.
- Laboratory processing and analyses, with justification of their cost-effectiveness and of their relevance to the property and its research values.
- Methods and techniques used in artifact, data, and other record management.
- Provisions for ongoing Native American consultation, monitoring, and coordination, if Native American values or concerns are present or are likely to be present.
- Qualifications of key personnel.
- Disposition, including curation, of recovered materials and records resulting from implementation of the data recovery plan.
- Cost proposal.
- All required permits
- Report preparation schedule, including the names of parties to whom reports will be distributed upon completion.
- Monitoring provisions and procedures for evaluating and treating discoveries of unexpected finds during the course of the project, which may include consultation with other parties.
- Explicit provisions for disseminating research findings to professional peers in a timely manner.
- Plan for public involvement and educational or interpretive programs, focusing particularly on the community or communities that may have interest in the results.

ATTACHMENT 7
CALTRANS LOCAL BRIDGE SEISMIC SAFETY RETROFIT PROGRAM

In accordance with Stipulation XVII, Caltrans shall comply with the following provisions for undertakings under the Caltrans Local Bridge Seismic Safety Retrofit Program (Seismic Retrofit Program). Caltrans shall follow applicable stipulations in this Agreement to determine the seismic retrofit project's potential to affect historic properties.

APPLICABILITY

Activities covered under the Seismic Retrofit Program include seismic retrofit work that is funded wholly or in part with monies from FHWA and that involve either the structural modification of an existing bridge structure or the replacement of a bridge structure by a newly constructed structure and any associated activities within the APE of an undertaking.

UNDERTAKINGS NOT REQUIRING SHPO OR ACHP REVIEW

The Caltrans District may approve the undertaking without further review by SHPO when the Caltrans District PQS determines that an undertaking under the Seismic Retrofit Program meets the below criteria. The Caltrans District PQS will document these determinations in writing and retain them in the files. CSO will include a record of such determinations in annual reports to SHPO pursuant to Stipulation XX.F.2.

A. Will affect only Category 5 bridges or the types of properties that are exempt from evaluation as described in Attachment 4 to this Agreement; or
B. Will be limited exclusively to those activities listed below limited only to the bridge itself:

1. **SHEAR BLOCKS/CATCHER BLOCKS:** The addition of concrete extensions to existing abutments and bents to prevent the bridge superstructure from moving laterally (Shear Blocks), or to prevent the superstructure from slipping off the abutment in the case of longitudinal movement (Catcher Blocks). [Reference: National Highway Institute "Seismic Design of Highway Bridges -- Training Course," Figures 6.3-8, 6.3-9b.]
2. **CIDH PILINGS:** The addition of concrete pilings, cast in holes drilled through existing abutments in order to strengthen bridge footings. [Reference: Caltrans Plan Sheet "Abutment Longitudinal Anchorage Details, Bridge No. 53-1854, 07-LA-90, P.M. 2.67."]
3. **FIBER WRAPPING:** The wrapping of existing columns in fiberglass, which is then painted to match existing concrete.
4. **BASE ISOLATION WITH NO GROUND DISTURBANCE:** The replacement of existing rocker bearings with an elastomeric shock-absorbing system (base isolators) at the bearing points between the superstructure and substructure of bridges. [Reference: National Highway Institute "Seismic Design of Highway Bridges -- Training Course," Figure 6.3-9]
5. **PRE-STRESSING BENT CAPS:** The addition of pre-stressing reinforcement to existing concrete bent caps.

6. **RESTRAINER SYSTEMS:** The addition of pipe seat extensions or cable restrainers to prevent lateral or longitudinal movement of the bridge superstructure off the substructure. [Reference: National Highway Institute "Seismic Design of Highway Bridges -- Training Course," Figures 6.3-9b, 6.3-30, 6.3-31, and Caltrans Plan Sheet "Part Plans 'C' and 'D', Exposition OH - Earthquake Upgrade, Bridge No. 53-704K, 07-LA-405, P.M. 29,85."]]
7. **STEEL JACKETING:** The placement of steel jackets around existing concrete columns, when the work conforms to the *Secretary of the Interior's Standards for the Treatment of Historic Properties (SOIS Standards*) and has been approved by a Caltrans PQS Principal Architectural Historian as meeting these standards. [Reference: National Highway Institute "Seismic Design of Highway Bridges -- Training Course," Figure 6.3-27, Caltrans Plan Sheets "Earthquake Upgrading, Bent Retrofit Details No. 6, Bridge No. 33-303H, 04-ALA-24/680/980," "Earthquake Retrofit Phase II, Southbound Connector Overcrossing, Bent Details, Bridge No. 35-219, 04-SM-280, P.M. 20.9," and "Earthquake Upgrading, Confinement Plate Details No. 1, 04-ALA-24/580/980."]
8. **COLUMN REPLACEMENT:** In-kind replacement of existing column elements of bridges, when the work conforms to the *SOIS Standards* and has been reviewed by a Caltrans PQS Principal Architectural Historian as meeting these standards.
9. **STEEL BRACING:** The addition of steel cross-bracing between columns in multi-column bents.

DETERMINATION OF ELIGIBILITY: EXPEDITED RESOLUTION WITH SHPO

For properties not previously evaluated or that have been reevaluated, the Caltrans District will forward its written determination of eligibility and supporting documentation concurrently to CSO, FHWA where FHWA's responsibilities have not been assigned to and assumed by Caltrans, and SHPO for review, pursuant to Stipulation VIII.C.6, and VIIC.6.a and b. except that if SHPO objects to the determination of eligibility within 30 days of receipt of adequate documentation, the Caltrans District and CSO or FHWA as applicable, and any consulting parties shall consult further with SHPO to reach agreement. If agreement cannot be reached within 15 days after receipt of the objection, CSO, or FHWA as applicable, shall obtain a final determination of eligibility from the Keeper pursuant to 36 CFR Part 63. The Keeper's decision shall be final.

FINDING OF NO ADVERSE EFFECT

A. The Caltrans District shall submit a finding of "No Adverse Effect with Standard Conditions" to CSO for review pursuant to Stipulation X.B.1.

B. The Caltrans District shall submit a finding of "No Adverse Effect" pursuant to Stipulation X.B.2.

C. If SHPO objects within 30 days following receipt of the finding, CSO will notify the Caltrans District and any consulting parties and consult further with SHPO, as necessary, for a period not to exceed 15 days to determine whether there are feasible alternatives that may avoid adverse effects to the affected historic property. If the parties agree that it is feasible to modify the undertaking to avoid adverse effects, the Caltrans District shall ensure that the undertaking is modified appropriately and may request that CSO approve the modified

undertaking without further review. If CSO or SHPO cannot agree that an adverse effect can be avoided, CSO shall initiate consultation pursuant to Stipulation X.D.

FINDING OF ADVERSE EFFECT-EXPEDITED DISAGREEMENT RESOLUTION

If the Caltrans District determines that the Seismic Retrofit Program undertaking will adversely affect a historic property or if an objection to a finding of "No Adverse Effect" cannot be resolved within 15 days, the Caltrans District will proceed in accordance with Stipulation X.C. If disagreements arise, the Caltrans District will proceed in accordance with Stipulation X.D, except consultation response times shall be 15 days instead of 30 days.

RESOLUTION OF ADVERSE EFFECT-STANDARD MITIGATION MEASURES

CSO, or FHWA where FHWA's responsibilities have not been assigned to and assumed by Caltrans, is required to use Stipulation XI if one or more of the following apply:

1. SHPO objects to the use of Standard Mitigations Measures identified below to resolve adverse effects.
2. SHPO withdraws from consultation.
3. The undertaking has known public opposition.
4. The undertaking's APE includes archaeological properties that will be adversely affected.
5. The undertaking will adversely affect a National Historic Landmark.

If CSO, or FHWA as applicable, elects to enter into consultation as set forth Stipulation XI, or is required to as described in 1 through 5 above, CSO will submit to SHPO documentation supporting the finding of "Adverse Effect" and enter the consultation process set forth in Stipulation XI.

The Caltrans District, in consultation with CSO, SHPO and other consulting parties, may implement the Standard Mitigation Measures (SMMs) listed below to take into account the adverse effects of an undertaking on any NRHP eligible or listed bridge, building, structure, or object. Where the SMMs do not apply or other properties are adversely affected, the Caltrans District shall follow Stipulation XI. When the finding of "Adverse Effects" submittal includes appropriate provisions for completion of SMMs and no other non-standard mitigation measures are included, a Memorandum of Agreement (MOA) will not be required. Where SMMs provisions are not included, CSO and SHPO will consult to establish time frames for their completion and will prepare a MOA.

A. Recordation

Caltrans and SHPO may mutually agree to waive the recordation requirement if the affected historic property will be retrofitted in substantial conformance to *SOIS Standards*.

A recordation plan will not be required if the Caltrans District records the historic property using the procedures set forth in the Standard Environmental Reference Volume 2-Cultural Resources and Exhibit 7.6: Heritage Documentation, Caltrans District shall keep the original archivally-safe documentation and provide electronic copies on CD/DVD to SHPO, the Caltrans Headquarters Transportation Library and History Center, the California History Room of the California State

Library, and the appropriate local historical society or local repository as determined by the Caltrans District.

Otherwise, the Caltrans District will complete the following:

1) The Caltrans District shall ensure that historic properties are recorded prior to their demolition or alteration according to a recordation plan developed in consultation with SHPO and Caltrans. At a minimum, this recordation plan will establish recordation methods and standards and designate the appropriate archives for the deposit of this material.

2). The recordation plan shall consist of: i) large format archival photographs, prepared in accordance with the most current versions of *Photographic Specifications, Historic American Buildings Survey, Historic American Engineering Record* (National Park Service); and ii) written historical documentation, including photocopies of original plans and drawings when available and not deemed to be confidential information, prepared in accordance with the standards set forth in the most current versions of *Historic American Buildings Survey: Guidelines for Preparing Written Historical and Descriptive Data* (National Park Service) or *Historic American Engineering Record: Guidelines for Preparing Written Historical and Descriptive Data* (National Park Service). The Caltrans District shall keep the original archivally-safe documentation and provide electronic copies on CD/DVD to SHPO, the Caltrans Headquarters Transportation Library and History Center, the California History Room of the California State Library, and the appropriate local historical society or local repository as determined by the Caltrans District.

B. Marketing Plan

If the proposed undertaking requires the demolition or replacement of a NRHP eligible or listed bridge, building, structure, or object, the Caltrans District shall consult with CSO and SHPO, and if appropriate, the property owner for a period not to exceed ten (10) days to determine if that property can be relocated and a marketing plan implemented. If the parties determine that a marketing plan is feasible, CSO, the Caltrans District and SHPO will review the advertising schedule to ensure that notice is provided in appropriate publications and that the property is offered for no less than forty-five (45) days after its initial advertisement. CSO, in consultation with the Caltrans District and SHPO, shall evaluate all relocation and reuse offers prior to acceptance. If no acceptable offers are received that conform to the requirements for rehabilitation and maintenance as set forth in *SOIS Standards* and relevant SOIS guidance, the historic property, or portions of it, may be transferred without preservation covenants or restrictions, or the Caltrans District may authorize its demolition following recordation and salvage, if appropriate. The Caltrans District shall document this determination in its files and provide CSO and SHPO with written notification.

C. Salvage

If the property will be demolished, the Caltrans District will consult with CSO and SHPO to determine whether the property contains significant architectural features that could be reused, displayed, interpreted, or curated. If such features exist, the Caltrans District in consultation with CSO and SHPO, and the property owner will develop measures to ensure that the selected features are removed in a manner that minimizes damage and are delivered to an appropriate party for curation and reuse.

D. National Register Reevaluation

Within ninety (90) days after relocation of a property that is eligible or listed in the NRHP, the Caltrans District shall consult with SHPO regarding the property's continued eligibility. For properties listed in the NRHP or determined eligible by the Keeper of the NRHP, the Caltrans District shall include the Keeper in the consultation. In the case of demolition of a property that is listed in the NRHP, the Caltrans District shall concurrently notify CSO and the SHPO to initiate the process for removal of the property from the NRHP as outlined in 36 CFR § 60.15.

MEMORANDUM OF UNDERSTANDING BETWEEN THE FEDERAL HIGHWAY ADMINISTRATION AND THE CALIFORNIA DEPARTMENT OF TRANSPORTATION CONCERNING THE STATE OF CALIFORNIA'S PARTICIPATION IN THE SURFACE TRANSPORTATION PROJECT DELIVERY PROGRAM PURSUANT TO 23 U.S.C. 327

THIS MEMORANDUM OF UNDERSTANDING (hereinafter "MOU"), made and entered into by and between the FEDERAL HIGHWAY ADMINISTRATION (hereinafter "FHWA"), an administration in the UNITED STATES DEPARTMENT OF TRANSPORTATION (hereinafter "USDOT"), and the CALIFORNIA DEPARTMENT OF TRANSPORTATION (hereinafter "Caltrans"), a department of the State of California, hereby provides as follows:

WITNESSETH:

Whereas, Section 327 of Title 23 of the U.S. Code (U.S.C.) establishes the Surface Transportation Project Delivery Program (hereafter "Program") that allows the Secretary of the United States Department of Transportation (hereafter "USDOT Secretary") to assign and States to assume the USDOT Secretary's responsibilities under the National Environmental Policy Act of 1969 (42 U.S.C. 4321, et seq.) (hereafter "NEPA"), and all or part of the USDOT Secretary's responsibilities for environmental review, consultation, or other actions required under any Federal environmental law with respect to highway public transportation, railroad, and multimodal projects within the State; and

Whereas, the Program was initially established as a pilot called the Surface Transportation Project Delivery Pilot Program (hereafter "Pilot Program") by the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (Pub. L. 109-59 [Aug. 10, 2005]) (hereinafter "SAFETEA-LU") with a termination date that was six years after the date of enactment of SAFETEA-LU; and

Whereas, 23 U.S.C. 327(b)(2) requires a State to submit an application in order to participate in the Program; and

Whereas, on May 18, 2007, Caltrans submitted its application to the FHWA for participation in the Surface Transportation Project Delivery Pilot Program (hereafter "Pilot Program"); and

Whereas, the FHWA solicited the views of other appropriate Federal agencies concerning Caltrans' application as required by 23 U.S.C. 327(b)(5); and

Whereas, the USDOT Secretary, acting by and through the FHWA pursuant to 49 C.F.R. 1.85(a)(3), approved Caltrans' Pilot Program application, finding that Caltrans met all of the requirements of 23 U.S.C. 327 and 23 C.F.R. Part 773; and

Whereas, following the FHWA's approval of Caltrans' Pilot Program application, on July 1, 2007, the FHWA and Caltrans entered into a Memorandum of Understanding

(hereinafter "Original MOU") under which Caltrans assumed and carried out the assigned duties and responsibilities of the USDOT Secretary under NEPA and other Federal environmental laws under the auspices of the Pilot Program; and

Whereas, Section 13.1.1 of the Original MOU established an August 10, 2011, termination date, which was six years after the enactment of SAFETEA-LU; and

Whereas, Section 2203(c) of the Continuing Appropriations and Surface Transportation Extensions Act of 2011 (Pub. L. 111-322 [Dec. 22, 2010]) extended the Pilot Program's termination date to August 10, 2012, which was seven years after the enactment of SAFETEA-LU; and

Whereas, on August 10, 2011, the FHWA and Caltrans entered into Amendment 1 to the Original MOU (hereinafter "Amended MOU"); and

Whereas, Section 5D of the Amended MOU provided that should Congress enact legislation extending the termination date of the Pilot Program, the August 10, 2012, termination date would automatically be replaced with the appropriate termination date of the Pilot Program as specified in Federal law; and

Whereas, Section 7 of the Amended MOU provided that as soon as practicable following the potential reauthorization of SAFETEA-LU by Congress, the FHWA and Caltrans shall review the Original MOU, the Amended MOU, and other applicable MOU amendments, to determine if any further changes were required or desirable as a result of changes in legislation; and

Whereas, Section 101(e) of the Temporary Surface Transportation Extension Act of 2012 (Pub. L. 112-140 [June 29, 2012]) extended the duration of the Pilot Program until September 30, 2012; and

Whereas, the FHWA conducted audits as required by SAFETEA-LU semiannually during the first two-year period (2007, 2008) and annually during the next two-year period (2009 and 2010) of the State's participation in the Program; and

Whereas, the FHWA has made the audit reports available to the public for comment through publication of notices in the *Federal Register*; and

Whereas, Caltrans has also conducted self-assessments and quarterly reports on its performance on the Program; and

Whereas, FHWA's audit reports and Caltrans's self-assessments are publicly available for inspection at http://www.dot.ca.gov/hq/env/nepa/html/documents_reports.htm; and

Whereas, on July 6, 2012, President Obama signed into law the Moving Ahead for Progress in the 21st Century Act (Pub. L. 112-141) (hereafter, "MAP-21"), which became effective on October 1, 2012; and

Whereas, Section 1313 of MAP-21 amended 23 U.S.C. 327, making the Pilot Program permanent; and

Whereas, MAP-21 amended 23 U.S.C. 327(b)(2) to require the USDOT Secretary to amend, as appropriate, the Program's application regulations; and

Whereas, on September 25, 2012, the FHWA and Caltrans entered into a Memorandum of Understanding allowing Caltrans to continue to participate in the Program under the terms of the Original MOU and Amended MOU by extending the term of Caltrans' participation to eighteen months from the effective date of the final Program application regulations (April 16, 2016); and

Whereas, on September 16, 2014, FHWA issued final Program application regulations implementing the changes from MAP-21 and these regulations became effective October 16, 2014; and

Whereas, on February 27, 2015, Caltrans notified FHWA of its intent to renew participation in the Program with respect to highway projects, and the State of California's legislature has enacted laws to allow the State to participate in the Program; and

Whereas, pursuant to 23 C.F.R. 773.115(b), Caltrans coordinated with the FHWA to determine if significant changes have occurred or new assignment responsibilities would be sought that would warrant a statewide notice and comment opportunity prior to the State's submission of the renewal package; and

Whereas, on June 16, 2015, after coordination between the agencies, FHWA determined that a statewide notice and comment opportunity was unnecessary prior to the State's submission of the renewal package; and

Whereas, pursuant to 23 U.S.C. 773.115(d), Caltrans submitted a renewal package to the FHWA on June 17, 2015 for approval to continue the assigned duties and responsibilities for highway projects pursuant to the Program; and

Whereas, on December 4, 2015, President Obama signed into law Pub. L. 114-94, the Fixing America's Surface Transportation (FAST) Act, with a retroactive effective date of October 1, 2015; and

Whereas, on November 16, 2016, FHWA published a *Federal Register* Notice and provided an opportunity for comment on Caltrans's renewal request and solicited the views of the public and other Federal agencies concerning Caltrans' renewal request as required by 23 CFR 773.115(f); and

Whereas, the USDOT Secretary, acting by and through FHWA, has considered the renewal package, comments received as a result of the *Federal Register* Notice, auditing reports, and the State's overall performance in the Program as required by 23 CFR

773.115(g) and has determined that Caltrans' renewal package meets all the requirements of 23 CFR part 773 and 23 USC 327; and

Whereas, on June 6, 2010, the FHWA and Caltrans executed a Memorandum of Understanding assigning Caltrans the USDOT Secretary's responsibilities for environmental reviews of highway projects that qualify for categorical exclusions (CE) pursuant to 23 U.S.C. 326 (hereinafter sec. 326 CE MOU); and

Whereas, on April 1, 2016, FHWA extended the terms of the NEPA assignment MOU, under the authority of 23 C.F.R. 773.115(h), from the expiration date of April 16, 2016, to December 31, 2016, to allow additional time for negotiation of the terms of the renewal MOU and to be consistent with the changes of the FAST Act; and

Whereas, on May 31, 2016, the FHWA and Caltrans renewed the sec. 326 CE MOU and Caltrans intends to maintain this MOU.

Now, therefore, the FHWA and Caltrans agree as follows:

PART 1. PURPOSE OF MEMORANDUM OF UNDERSTANDING

1.1 Purpose

1.1.1 This MOU officially approves Caltrans' request to renew participation in the Program and is the written agreement required pursuant to 23 U.S.C. 327(a)(2)(A) and (c) under which the USDOT Secretary may assign, and Caltrans may assume, the responsibilities of the USDOT Secretary for Federal environmental laws with respect to one or more highway projects within the State of California.

1.1.2 The FHWA's decision to execute this MOU is based upon the information, representations, and commitments contained in Caltrans' June 17, 2015, renewal package, the auditing and monitoring reports, consideration of comments received during the comment period, and the State's overall performance in the Program since July 1, 2007. This MOU incorporates by reference the June 17, 2015, renewal package. However, this MOU shall control to the extent there is any conflict between this MOU and the June 17, 2015, renewal package.

1.1.3 This MOU shall be effective upon the date of final execution by both parties (hereinafter the "Effective Date").

1.1.4 Pursuant to 23 U.S.C. 327(d), and subpart 4.3 of this MOU, third parties may challenge Caltrans' actions in carrying out environmental review responsibilities assigned under this MOU. Otherwise, this MOU is not intended to, and does not, create any new right or benefit, substantive or procedural, enforceable at law or in equity by any third party against the State of California, its departments, agencies, or entities, its officers, employees, or agents. This MOU is not intended to, and does not, create any new right or benefit, substantive or procedural, enforceable at law or in equity by any third party

against the United States, its departments, agencies, or entities, its officers, employees, or agents.

PART 2. [RESERVED]

PART 3. ASSIGNMENTS AND ASSUMPTIONS OF RESPONSIBILITY

3.1 Assignments and Assumptions of NEPA Responsibilities

3.1.1 Pursuant to 23 U.S.C. 327(a)(2)(A), on the Effective Date, the FHWA assigns, and Caltrans assumes, subject to the terms and conditions set forth in 23 U.S.C. 327 and this MOU, all of the USDOT Secretary's responsibilities for compliance with the National Environmental Policy Act of 1969 (NEPA), 42 U.S.C. 4321 et seq. with respect to the highway projects specified under subpart 3.3. This includes statutory provisions, regulations, policies, and guidance related to the implementation of NEPA for highway projects such as 23 U.S.C. 139, 40 CFR parts 1500–1508, DOT Order 5610.1C, and 23 CFR Part 771 as applicable.

3.1.2 On the cover page of each environmental assessment (EA), finding of no significant impact (FONSI), environmental impact statement (EIS), and record of decision (ROD) prepared under the authority granted by this MOU, and for any 23 U.S.C. 327 CE determination it makes, Caltrans shall insert the following language in a way that is conspicuous to the reader or include it in a CE project record:

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

3.1.3 Caltrans shall disclose to the public and agencies, as part of agency outreach and public involvement procedures, including any notice of intent or scoping meeting notice, the disclosure in subpart 3.1.2 above.

3.1.4 The assignment under this part does not alter the scope and terms of the sec. 326 CE MOU between FHWA and Caltrans.

3.2 Assignments and Assumptions of Federal Environmental Laws Other Than NEPA

3.2.1 Pursuant to 23 U.S.C. 327(a)(2)(B), on the Effective Date, the FHWA assigns and Caltrans assumes, subject to the terms and conditions set forth in 23 U.S.C. 327 and this MOU, all of the USDOT Secretary's responsibilities for environmental review, reevaluation, consultation, or other action pertaining to the review or approval of highway projects specified under subpart 3.3 required under the following Federal environmental laws:

Air Quality

- Clean Air Act, 42 U.S.C. 7401-7671q, with the exception of any conformity determinations

Noise
- Noise Control Act of 1972, 42 U.S.C. 4901-4918
- FHWA noise regulations at 23 CFR Part 772

Wildlife
- Endangered Species Act of 1973, 16 U.S.C. 1531-1544
- Marine Mammal Protection Act, 16 U.S.C. 1361–1423h
- Anadromous Fish Conservation Act, 16 U.S.C. 757a-757f
- Fish and Wildlife Coordination Act, 16 U.S.C. 661-667d
- Migratory Bird Treaty Act, 16 U.S.C. 703-712
- Magnuson-Stevens Fishery Conservation and Management Act of 1976, as amended, 16 U.S.C. 1801-1891d

Historic and Cultural Resources
- National Historic Preservation Act of 1966, as amended, 54 U.S.C. 300101 et seq.
- Archeological Resources Protection Act of 1979, 16 U.S.C. 470aa-470mm
- Archeological and Historic Preservation Act, 54 U.S.C. 312501-312508
- Native American Grave Protection and Repatriation Act, 25 U.S.C. 3001-3013; 18 U.S.C. 1170

Social and Economic Impacts
- American Indian Religious Freedom Act, 42 U.S.C. 1996
- Farmland Protection Policy Act, 7 U.S.C. 4201-4209

Water Resources and Wetlands
- Clean Water Act, 33 U.S.C. 1251-1387: (Sections 319, 401, and 404)
- Coastal Barrier Resources Act, 16 U.S.C. 3501-3510
- Coastal Zone Management Act, 16 U.S.C. 1451-1466
- Safe Drinking Water Act, 42 U.S.C. 300f—300j-26
- Rivers and Harbors Act of 1899, 33 U.S.C. 403
- Wild and Scenic Rivers Act, 16 U.S.C. 1271-1287
- Emergency Wetlands Resources Act, 16 U.S.C. 3901 and 3921
- Wetlands Mitigation 23 U.S.C. 119(g), 133(b)(14)
- FHWA wetland and natural habitat mitigation regulations at 23 CFR part 777
- Flood Disaster Protection Act, 42 U.S.C. 4001-4130

Parklands and Other Special Land Uses

- Section 4(f), 23 U.S.C. 138 and 49 U.S.C. 303
- FHWA/FTA Section 4(f) Regulations at 23 CFR Part 774
- Land and Water Conservation Fund, 54 U.S.C. 200302-200310

Hazardous Materials

- Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. 9601-9675
- Superfund Amendments and Reauthorization Act of 1986, 42 U.S.C. 9671-9675
- Resource Conservation and Recovery Act, 42 U.S.C. 6901-6992k

Executive Orders Relating to Highway Projects

- E.O. 11990 - Protection of Wetlands
- E.O. 11988 - Floodplain Management (except approving design standards and determinations that a significant encroachment is the only practicable alternative under 23 CFR sections 650.113 and 650.115)
- E.O. 12898 - Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations
- E.O. 13112 - Invasive Species

FHWA-Specific

- Planning and Environmental Linkages, 23 U.S.C. 168, with the exception of those FHWA responsibilities associated with 23 U.S.C. 134 and 135.
- Programmatic Mitigation Plans, 23 U.S.C. 169 with the exception of those FHWA responsibilities associated with 23 U.S.C. 134 and 135

3.2.2 Any FHWA environmental review responsibility not explicitly listed above and assumed by Caltrans shall remain the responsibility of the FHWA unless the responsibility is added by written agreement of the parties through the amendment process established in Part 13 and pursuant to 23 CFR 773.113(b). This provision shall not be interpreted to abrogate Caltrans' responsibilities to comply with the requirements of any Federal environmental law that apply directly to Caltrans independent of the FHWA's involvement (through Federal assistance or approval).

3.2.3 The USDOT Secretary's responsibilities for government–to–government consultation with Indian tribes, as defined in 36 C.F.R. 800.16(m), are not assigned to or assumed by Caltrans under this MOU. The FHWA remains responsible for all government–to–government consultation, including initiation of government–to–government consultation consistent with Executive Order 13175—Consultation and Coordination with Indian Tribal Governments, unless otherwise agreed as described in this Part. A notice from Caltrans to an Indian tribe advising the tribe of a proposed activity is not considered "government–to–government consultation" within the meaning of this MOU. If a project-related concern or issue is raised in a government–to–government consultation process with an Indian tribe, as defined in 36 CFR 800.16(m),

and is related to NEPA or another Federal environmental law for which Caltrans has assumed responsibilities under this MOU, and either the Indian tribe or the FHWA determines that the issue or concern will not be satisfactorily resolved by Caltrans, then the FHWA may withdraw the assignment of all or part of the responsibilities for processing the project. In this case, the provisions of subpart 9.1 concerning the FHWA initiated withdrawal of assignment shall apply. This MOU is not intended to abrogate, or prevent future entry into, any agreement among Caltrans, the FHWA, and a tribe under which the tribe agrees to permit Caltrans to administer government–to–government consultation activities for the FHWA. However, such agreements are administrative in nature and do not relieve the FHWA of its legal responsibility for government–to–government consultation.

3.2.4 Nothing in this MOU shall be construed to permit Caltrans' assumption of the USDOT Secretary's responsibilities for conformity determinations required under section 176 of the Clean Air Act (42 U.S.C. 7506) or any responsibility under 23 U.S.C. 134 and 135, or under 49 U.S.C. 5303 or 5304 (23 U.S.C. 327(a)(2)(B)(iv)(II)).

3.2.5 The assignment under this part does not alter the scope and terms of the sec. 326 CE MOU between FHWA and Caltrans. Caltrans will engage in all environmental reviews authorized under the terms of that MOU if it elects to process the highway projects under the sec. 326 CE MOU.

3.2.6 On the cover page of each biological assessment, historic properties or cultural resources report, Section 4(f) evaluation, or other analyses prepared under the authority granted by this MOU, Caltrans shall insert the following language in a way that is conspicuous to the reader:

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

3.2.7 Caltrans shall disclose to the public and agencies, as part of agency outreach and public involvement procedures, the disclosure in stipulation 3.2.6 above.

3.2.8 Caltrans will continue to adhere to the original terms of Biological Opinions (BOs) coordinated between the FHWA, Caltrans, and either the U.S. Fish and Wildlife Service (USFWS) or National Marine Fisheries Service (NMFS) or both USFWS and NMFS prior to the Pilot Program so long as the original BO terms are not amended or revised. Any revisions or amendments to a BO made under assumption of FHWA's environmental responsibilities would be Caltrans' responsibility. Caltrans agrees to assume the FHWA's environmental review role and responsibilities as identified in existing interagency agreements among Caltrans, USFWS, NMFS, and the FHWA. Caltrans agrees to continue to assume the FHWA's ESA Section 7 responsibilities of consultations (formal and informal).

3.2.9 Caltrans will not make any determination that an action constitutes a constructive use of a publicly owned park, public recreation area, wildlife refuge, waterfowl refuge, or historic site under 49 U.S.C. 303/23 U.S.C. 138 (Section 4(f)) without first consulting with the FHWA and obtaining the FHWA's approval of such determination.

3.3 Highway Projects

3.3.1 Except as provided by subpart 3.3.2 below or otherwise specified in this subpart, the assignments and assumptions of the USDOT Secretary's responsibilities under subparts 3.1 and 3.2 above shall apply with respect to the environmental review, consultation, or other action pertaining to the review or approval of the following classes of highway projects located within the State of California. The definition of "highway project" is found at 23 CFR 773.103, and for purposes of this MOU, "highway project" includes eligible preventative maintenance activities. Prior to approving any CE determination under this MOU, FONSI, final EIS, or final EIS/ROD, the State of California shall ensure and document that for any proposed project the design concept, scope, and funding are consistent with the current Transportation Improvement Plan (TIP), Regional Transportation Plan (RTP), or Metropolitan Transportation Plan (MTP).

A. Projects requiring an EIS, both on the state highway system (SHS) and Local Assistance projects off the SHS that are funded by the FHWA or require FHWA approvals. This assignment does not include the environmental review associated with the development and approval of the Draft EIS, Final EIS, and ROD for the following projects:

   i. District 1: Eureka/Arcata Corridor Improvement

Caltrans will be responsible for any additional environmental review of this project after the expiration of the statute of limitations for this project in accordance with 23 U.S.C. 139(l).

B. Projects qualifying for CEs, both on the SHS and Local Assistance projects off the SHS that are funded by the FHWA or require FHWA approvals, and that do not qualify for assignment of responsibilities pursuant to the June 7, 2013 23 USC 326 MOU.

C. Projects requiring EAs, both on the SHS and Local Assistance projects off the SHS that are funded by the FHWA or require FHWA approvals with the exception of the following projects:

   i. District 5: Highway 1 Congestion Management–Santa Cruz HOV Lanes
   ii. District 9: Inyo–395 Olancha to Cartago 4 Lane

Caltrans will be responsible for any additional environmental review of these projects after the expiration of the statute of limitations for these projects in accordance with 23 U.S.C. 139(l).

D. Projects funded by other Federal agencies [or projects without any Federal funding] that also require FHWA approvals. For these projects, Caltrans would not assume the NEPA responsibilities of other Federal agencies. However, Caltrans may use or adopt other Federal agencies' NEPA analyses consistent with 40 CFR parts 1500–1508, and USDOT and FHWA regulations, policies, and guidance.

3.3.2 The following are specifically excluded from the list in subpart 3.3.1 of highway projects and classes of highway projects:

A. Any highway projects authorized under 23 U.S.C. 202, 203, and 204 unless such projects will be designed and constructed by Caltrans; and

B. Any project that crosses State boundaries and any project that crosses or is adjacent to international boundaries. For purposes of this agreement a project is considered "adjacent to international boundaries" if it requires the issuance of a new or the modification of an existing Presidential Permit by the U.S. Department of State.

3.4 Limitations

3.4.1 As provided at 23 U.S.C. 327(e), Caltrans shall be solely responsible and solely liable for carrying out all of the responsibilities it has assumed under part 3 of this MOU.

3.4.2 As provided at 23 U.S.C. 327(a)(2)(D), any highway project or responsibility of the USDOT Secretary that is not explicitly assumed by Caltrans under subpart 3.3.1 in this MOU remains the responsibility of the USDOT Secretary.

PART 4. CERTIFICATIONS AND ACCEPTANCE OF JURISDICTION

4.1 Certifications

4.1.1 Caltrans hereby makes the following certifications:

A. Caltrans has the legal authority to accept all the assumptions of responsibility identified in part 3 of this MOU;

B. Caltrans has the legal authority to take all actions necessary to carry out all of the responsibilities it has assumed under this MOU;

C. Caltrans has the legal authority to execute this MOU;

D. The State of California currently has laws and regulations in effect that are comparable to 5 U.S.C. 552, which are located at California Government Code § 6250, et seq.; and

E. With respect to the public availability of any document under California Government Code § 6250, et seq., any decision regarding its release or

public availability may be legally challenged or reviewed in the courts of the State of California.

4.2 State Commitment of Resources

4.2.1 As provided at 23 U.S.C. 327(c)(3)(D), Caltrans will maintain the financial resources necessary to carry out the responsibilities it is assuming. Caltrans believes, and the FHWA agrees, that the financial resources contained in the renewal package appear to be adequate for this purpose. Should the FHWA determine, after consultation with Caltrans, that Caltrans' financial resources are inadequate to carry out the USDOT Secretary's responsibilities, Caltrans will take appropriate action to obtain the additional financial resources needed to carry out these responsibilities. If Caltrans is unable to obtain the necessary additional financial resources, Caltrans shall inform the FHWA, and this MOU will be amended to assign only the responsibilities that are commensurate with Caltrans' financial resources.

4.2.2 Caltrans will maintain adequate organizational and staff capability, including competent and qualified consultants where necessary or desirable, to effectively carry out the responsibilities it has assumed under this MOU. This includes, without limitation:

A. Using appropriate environmental technical and managerial expertise;

B. Devoting adequate staff resources; and

C. Demonstrating, in a consistent manner, the capacity to perform Caltrans' assumed responsibilities under this MOU and applicable Federal laws.

Should the FHWA determine, after consultation with Caltrans, that Caltrans' organizational and staff capability is inadequate to carry out the USDOT Secretary's responsibilities, Caltrans will take appropriate action to obtain adequate organizational and staff capability to carry out these responsibilities. If Caltrans is unable to obtain adequate organizational and staff capability, Caltrans shall inform the FHWA and the MOU will be amended to assign only the responsibilities that are commensurate with Caltrans' available organizational and staff capability. Should Caltrans choose to meet these requirements, in whole or in part, with consultant services, including outside counsel, Caltrans shall maintain on its staff an adequate number of trained and qualified personnel, including counsel, to oversee the consulting work.

4.2.3 When carrying out the requirements of Section 106 of the National Historic Preservation Act (NHPA), as amended, Caltrans staff (including consultants) shall comply with 36 C.F.R. 800.2(a)(1). All actions that involve the identification, evaluation, analysis, recording, treatment, monitoring, or disposition of historic properties, or that involve the reporting or documentation of such actions in the form of reports, forms, or other records, shall be carried out by or under the direct supervision of a person or persons who meet the Secretary of Interior's Professional Qualifications Standards (published at 48 FR 44738-44739, Sept. 29, 1983). Caltrans shall ensure that all documentation required under 36 C.F.R. 800.11 is reviewed and approved by a staff member or consultant who meets the Professional Qualifications Standards.

4.3 Federal Court Jurisdiction

4.3.1 As provided at 23 U.S.C. 327(c)(3)(B), the State of California hereby consents to, and accepts, the exclusive jurisdiction of the Federal courts for the compliance, discharge, and enforcement of any responsibilities of the USDOT Secretary assumed by Caltrans under this MOU. This consent to Federal court jurisdiction shall remain valid after termination of this MOU, or FHWA's withdrawal of assignment of the USDOT Secretary's responsibilities, for any decision or approval made by Caltrans pursuant to an assumption of responsibility under this MOU. The State of California understands and agrees that this acceptance constitutes a waiver of the State's immunity under the Eleventh Amendment to the U.S. Constitution for the limited purposes of addressing matters arising out of this MOU and carrying out the USDOT Secretary's responsibilities that have been assumed under this MOU.

PART 5. APPLICABILITY OF FEDERAL LAW

5.1 Procedural and Substantive Requirements

5.1.1 As provided at 23 U.S.C. 327(a)(2)(C), in assuming the USDOT Secretary's responsibilities under this MOU, Caltrans shall be subject to the same procedural and substantive requirements that apply to the USDOT Secretary in carrying out these responsibilities. Such procedural and substantive requirements include, but are not limited to, Federal statutes and regulations, Executive Orders issued by the President of the United States, USDOT Orders, Council on Environmental Quality (CEQ) Regulations for Implementing the Procedural Provisions of NEPA (40 CFR parts 1500 -1508), FHWA Orders, official guidance and policy issued by the CEQ, Office of Management and Budget (OMB), USDOT, or the FHWA (e.g. Guidance Establishing Metrics for the Permitting and Environmental Review of Infrastructure Projects), and any applicable Federal court decisions, and, subject to subpart 5.1.4 below, interagency agreements such as programmatic agreements, memoranda of understanding, memoranda of agreement, and other similar documents that relate to the environmental review process [e.g., the 2015 Red Book – Synchronizing Environmental Reviews for Transportation and Other Infrastructure Projects, etc.].

Caltrans has reviewed the 2014 MOA between the US Coast Guard (USCG) and FHWA and understands that by accepting FHWA's NEPA responsibilities, it also agrees to perform FHWA's obligations set forth in the MOU between the USDOT and the USCG and the MOA between FHWA and the USCG.

5.1.2 Official USDOT and FHWA formal guidance and policies relating to environmental review matters are posted on the FHWA's website, contained in the FHWA *Environmental Guidebook*, published in the *Federal Register*, or sent to Caltrans electronically or in hard copy.

5.1.3 After the Effective Date of this MOU, the FHWA will use its best efforts to ensure that any new or revised Federal policies and guidance that are final and applicable to the FHWA's responsibilities under NEPA and other environmental laws and that are assumed by Caltrans under this MOU are communicated to Caltrans within ten (10) calendar days of issuance. Delivery may be accomplished by e-mail, Web posting (with email or mail to Caltrans notifying of Web posting), mail, or publication in the *Federal Register* (with email or mail notifying Caltrans of publication). If communicated to Caltrans by e-mail or mail, such material will be sent to the Chief of Caltrans' Division of Environmental Analysis. In the event that a new or revised FHWA policy or guidance is not made available to Caltrans as described in the preceding sentence, and if Caltrans had no actual knowledge of such policy or guidance, then a failure by Caltrans to comply with such Federal policy or guidance will not be a basis for termination under this MOU.

5.1.4 Caltrans will work with all other appropriate Federal agencies concerning the laws, guidance, and policies that such other Federal agencies are responsible for administering.

5.1.5 Upon termination of this MOU, the FHWA and Caltrans shall contact the relevant third party to any interagency agreement and determine whether the interagency agreement should be amended or reinstated as in effect on the termination date of this MOU.

5.2 Rulemaking

5.2.1 As provided at 23 U.S.C. 327(f), nothing in this MOU permits Caltrans to assume any rulemaking authority of the USDOT Secretary. Additionally, Caltrans may not establish policy and guidance on behalf of the USDOT Secretary or FHWA for highway projects covered in this MOU. Caltrans authority to establish State regulations, policy, and guidance concerning the State environmental review of State highway projects shall not supersede applicable Federal environmental review regulations, policy, or guidance established by or applicable to the USDOT Secretary or FHWA.

5.3 Effect of Assumption

5.3.1 For purposes of carrying out the responsibilities assumed under this MOU, and subject to the limitations contained in 23 U.S.C. 327 and this MOU, Caltrans shall be deemed to be acting as the FHWA with respect to the environmental review, consultation, and other actions required under those responsibilities.

5.4 Other Federal Agencies

5.4.1 As provided at 23 U.S.C. 327(a)(2)(E), nothing in this MOU preempts or interferes with any power, jurisdiction, responsibility, or authority of an agency, other than the USDOT (including the FHWA), under applicable law and regulations with respect to a project.

PART 6. LITIGATION

6.1 Responsibility and Liability

6.1.1 As provided in 23 U.S.C. 327(e), Caltrans shall be solely responsible and solely liable for carrying out all of the USDOT Secretary's responsibilities it has assumed under this MOU. The FHWA and USDOT shall have no responsibility or liability for the performance of the responsibilities assumed by Caltrans, including any decision or approval made by Caltrans while participating in the Program.

6.2 Litigation

6.2.1 Nothing in this MOU affects the United States Department of Justice's (hereinafter "DOJ") authority to litigate claims, including the authority to approve a settlement on behalf of the United States if either FHWA or another agency of the United States is named in such litigation, or if the United States intervenes pursuant to 23 U.S.C. 327(d)(3). In the event FHWA or any other Federal agency is named in litigation related to matters under this MOU, or the United States intervenes in the litigation, Caltrans agrees to coordinate with DOJ in the defense of that action.

6.2.2 Caltrans shall defend all claims brought in connection with the discharge of any responsibility assumed under this MOU. In the event of litigation, Caltrans shall provide qualified and competent legal counsel, including outside counsel if necessary. Caltrans shall provide the defense at its own expense, subject to 23 U.S.C. 327(a)(2)(G) concerning Federal-aid participation in attorney's fees for outside counsel hired by Caltrans. Caltrans shall be responsible for opposing party's attorney's fees and court costs if a court awards those costs to an opposing party, or in the event those costs are part of a settlement agreement.

6.2.3 Caltrans will notify the FHWA's California Division Office and DOJ's Assistant Attorney General for the Environment and Natural Resources Division, within seven (7) calendar days of Caltrans Legal Division's receipt of service of process of any complaint, concerning its discharge of any responsibility assumed under part 3 of this MOU. Caltrans' notification to the FHWA and USDOJ shall be made prior to its response to the complaint. In addition, Caltrans shall notify the FHWA's California Division Office within seven (7) calendar days of receipt of any notice of intent to sue concerning its discharge of any responsibility assumed under part 3 of this MOU.

6.2.4 Caltrans will provide the FHWA's California Division Office and DOJ copies of any motions, pleadings, briefs, and other such documents filed in any case concerning its discharge of any responsibility assumed under part 3 of this MOU. Caltrans will provide such copies to the FHWA and DOJ within seven (7) calendar days of receipt of service of any document or, in the case of any documents filed by or on behalf of Caltrans, within seven (7) calendar days of the date of filing.

6.2.5 Caltrans will notify the FHWA's Division Office and DOJ prior to settling any lawsuit, in whole or in part, and shall provide the FHWA and DOJ with a reasonable amount of time of at least ten (10) calendar days, to be extended, if feasible based on the context of the lawsuit, up to a maximum of thirty (30) total calendar days, to review and comment on the proposed settlement. Caltrans will not execute any settlement agreement until FHWA and DOJ have provided comments on the proposed settlement, indicated that they will not provide comments on the proposed settlement, or the review period has expired, whichever occurs first.

6.2.6 Within seven (7) calendar days of receipt by Caltrans, Caltrans will provide notice to FHWA's Division Office and DOJ of any court decision on the merits, judgment, and notice of appeal arising out of or relating to the responsibilities Caltrans has assumed under this MOU. Caltrans shall notify FHWA's Division Office and DOJ within five (5) days of filing a notice of appeal of a court decision. Caltrans shall confer with FHWA and DOJ regarding the appeal at least forty-five (45) days before filing an appeal brief in the case.

6.2.7 Caltrans's notifications to FHWA and DOJ in subparts 6.2.3, 6.2.5, and 6.2.6 shall be made by electronic mail to *FHWA_assignment_lit@dot.gov,* and *NRSDOT.enrd@usdoj.gov,* unless otherwise specified by FHWA and DOJ. For copies of motions, pleadings, briefs, and other documents filed in a case, as identified in subpart 6.2.4, Caltrans may opt to either send the materials to the email addresses identified above, send hardcopies to the mail address below, or add to the distribution list in the court's electronic filing system (e.g., PACER) the following two email addresses: *FHWA_assignment_lit@dot.gov* and *efile_nrs.enrd@usdoj.gov.* FHWA and DOJ's comments under subpart 6.2.5 and 6.2.6 shall be made by electronic mail to Caltrans Chief Counsel, unless otherwise specified by Caltrans. In the event that regular mail is determined necessary, mail should be sent by overnight mail service to:

For DOJ: Assistant Attorney General for the Environment and Natural Resources Division at 950 Pennsylvania Avenue, NW, Room 2143, Washington, DC, 20530.

For FHWA: Division Administrator for the FHWA California Division, 650 Capitol Mall, Ste. 4-100, Sacramento, CA 95814-4708.

6.3 Conflict Resolution

6.3.1 In discharging any of the USDOT Secretary's responsibilities under this MOU, Caltrans agrees to comply with any applicable requirements of USDOT and FHWA statute, regulation, guidance or policy regarding conflict resolution. This includes the USDOT Secretary's responsibilities for issue resolution under 23 U.S.C. 139(h), with the exception of the USDOT Secretary's responsibilities under 23 U.S.C. 139(h)(6) regarding financial penalties.

6.3.2 Caltrans agrees to follow 40 CFR part 1504 in the event of pre-decision referrals to CEQ for Federal actions determined to be environmentally unsatisfactory. Caltrans also agrees to coordinate and work with CEQ on matters brought to CEQ with regards the environmental review responsibilities for highway projects Caltrans has assumed.

PART 7. INVOLVEMENT WITH OTHER AGENCIES

7.1 Coordination

7.1.1 Caltrans agrees to seek early coordination with all appropriate Federal, State, and local agencies in carrying out any of the responsibilities and highway projects assumed under this MOU.

7.2 Processes and Procedures

7.2.1 Caltrans will ensure that it has appropriate processes and procedures in place that provide for proactive and timely consultation, coordination, and communication with all appropriate Federal agencies in order to carry out any of the responsibilities assumed under this MOU, including the submission of all environmental impact statements together with comments and responses to the Environmental Protection Agency (EPA) as required at 40 C.F.R. 1506.9 and for EPA's review as required by section 309 of the Clean Air Act. These processes and procedures shall be formally documented. Such formal documentation may be in the form of a formal executed interagency agreement or in other such form as appropriate.

PART 8. INVOLVEMENT WITH FHWA

8.1 Generally

8.1.1 Except as specifically provided otherwise in this MOU, the FHWA will not provide any project-level assistance to Caltrans in carrying out any of the responsibilities it has assumed under this MOU. Project-level assistance shall include any advice, consultation, or document review with respect to the discharge of such responsibility for a particular highway project. However, project–level assistance does not include process or program level assistance as provided in subpart 8.1.4, discussions concerning issues addressed in prior projects, interpretations of any applicable law contained in titles 23 or 49 of the United States Code, interpretations of any FHWA or USDOT regulation, or interpretations of FHWA or USDOT policies or guidance.

8.1.2 The FHWA will not intervene, broker, act as intermediary, or be otherwise involved in any issue involving Caltrans' consultation or coordination with another Federal agency with respect to Caltrans' discharge of any of the responsibilities it has assumed under this MOU for any particular highway project. However, the FHWA may attend meetings between Caltrans and other Federal agencies and submit comments to Caltrans and the other Federal agency in the following extraordinary circumstances:

A. The FHWA reasonably believes that Caltrans is not in compliance with this MOU;

B. The FHWA determines that an issue between Caltrans and the other Federal agency concerns emerging national policy issues under development by the USDOT; or

C. Upon request by either Caltrans or the other Federal agency and agreement by the FHWA.

The FHWA will notify both Caltrans and the relevant Federal agency prior to attending any meetings between Caltrans and such other Federal agency.

8.1.3 Other Federal agencies may raise program- or policy-level concerns regarding the compliance by Caltrans with this MOU and may communicate these concerns to the FHWA. The FHWA will review the program- or policy-level concerns and any other information provided to FHWA by such other Federal agency. If, after such review, the FHWA and such other Federal agency still have concerns regarding Caltrans' compliance, the FHWA will notify Caltrans in a timely manner of the potential compliance issue and will work with both Caltrans and the relevant Federal agency to resolve the issue and, if necessary, take appropriate action to ensure compliance with this MOU.

8.1.4 At Caltrans' request, the FHWA may assist Caltrans in evaluating its environmental program and developing or modifying any of its processes or procedures to carry out the responsibilities it has assumed under this MOU, including, but not limited to, those processes and procedures concerning Caltrans' consultation, coordination, and communication with other Federal agencies.

8.1.5 Caltrans' obligations and responsibilities under 23 CFR 1.5 are not altered in any way by executing this MOU.

8.2 MOU Monitoring and Oversight

8.2.1 Pursuant to 23 U.S.C. 327(h), the FHWA shall monitor Caltrans' performance in order to ensure Caltrans' compliance with the MOU and all applicable Federal laws and policies, and to evaluate whether Caltrans is meeting the performance measures listed in Part 10 of the MOU. The FHWA's monitoring program will consist of monitoring reviews, which will be coordinated with Caltrans and take into account Caltrans' self-monitoring and the FHWA California Division's annual risk assessments.

8.2.2 In order to minimize the impact of the monitoring reviews on Caltrans' day-to-day project delivery workload, the FHWA and Caltrans will coordinate when scheduling joint monitoring reviews. Normally, the FHWA expects to complete two monitoring reviews during the term of the MOU, although the FHWA may conduct additional reviews if deemed necessary. Caltrans and the FHWA California Division Office will

each designate a point of contact, who will be responsible for coordinating monitoring review schedules, requests for information and organizing meetings.

8.2.3 In order to evaluate whether Caltrans is meeting the performance measures listed in Part 10 of this MOU, Caltrans shall make available for inspection by the FHWA any project files, general administrative files, and letters or comments received from governmental agencies and the public which pertain to Caltrans' discharge of the responsibilities it has assumed under this MOU. Caltrans will work with the FHWA to provide documents electronically to the extent it does not create an undue burden. Caltrans environmental staff will be available for interviews as part of the monitoring reviews.

8.2.4 Pursuant to 23 U.S.C. 327(c)(4), Caltrans is responsible for providing to the FHWA any information the FHWA reasonably considers necessary to ensure that Caltrans is adequately carrying out the responsibilities assigned. At the request of the FHWA, Caltrans will (within five business days or a mutually agreeable time frame), provide the FHWA with any information the FHWA considers necessary to ensure that Caltrans is adequately carrying out the responsibilities assigned to Caltrans.

8.2.5 Annually from the Effective Date of this MOU, Caltrans shall provide a report to the FHWA California Division Office listing any approvals and decisions Caltrans has made with respect to the responsibilities Caltrans has assumed under part 3 of this MOU.

8.2.6 In carrying out the responsibilities assumed under Part 3 of this MOU, Caltrans agrees to carry out regular quality assurance and quality control (QA/QC) activities to ensure the assumed responsibilities are being conducted in accordance with applicable laws and this MOU. At a minimum, Caltrans' QA/QC activities will include the review and monitoring of its processes relating to project decisions, environmental analysis, project file documentation, checking for errors and omissions, legal sufficiency reviews, and taking appropriate corrective action as needed.

8.2.7 Caltrans shall perform annual monitoring of its QA/QC process to determine whether the process is working as intended, to identify any areas needing improvements in the process, and to take any corrective actions necessary to address the areas needing improvement. Caltrans shall transmit a report on the results of this self-monitoring to the FHWA California Division office and make the report available for public inspection.

8.2.8 Monitoring review reports, be they prepared by the FHWA or Caltrans, shall include a description of the scope of the monitoring reviews, the compliance areas reviewed, a description of the monitoring process, a list of areas identified as needing improvement. The FHWA reports shall identify findings that require corrective actions and the Caltrans reports shall discuss corrective actions that have been or will be implemented.

8.2.9 Prior to making any monitoring review report available to the public, the FHWA will transmit to Caltrans a draft of the report and allow Caltrans at least 14 calendar days to respond in writing. The FHWA will grant any reasonable request by Caltrans to extend this response period up to a total of 30 calendar days. The FHWA will review the comments and revise the draft monitoring report, as appropriate.

8.2.10 Caltrans agrees to post all monitoring reports on the Caltrans Division of Environmental Analysis website in order to make them available to the public.

8.3 Record Retention

8.3.1 Caltrans will retain project files and general administrative files pertaining to its discharge of the responsibilities it has assumed under this MOU in accordance with 2 CFR 200.333 and the provisions below.

8.3.2 In addition to the period of time specified in subpart 8.3.1, 2 CFR 200.333(b), Caltrans will ensure that the following retention periods are maintained for each specified type of record:

A. **Environmental Correspondence Files**: Environmental correspondence files include correspondence between the FHWA and Caltrans relative to the interpretation, administration, and execution of environmental aspects of the Federal–aid Highway Program. Environmental correspondence files shall be maintained by Caltrans for a period of three years after the resolution of the particular issue for which the file is created. After three years, Caltrans shall transmit environmental correspondence files to the FHWA to be stored at the Federal Records Center.

B. **Environmental Impact Statements and/or Section 4(f) Statements-FHWA**: Files containing reviews and approval of EIS's and Section 4(f) statements for which Caltrans, in assuming the FHWA's responsibilities, is the lead agency shall be maintained by Caltrans for a period of eight years after approval of the final statement. After eight years, Caltrans shall transmit its EIS and/or section 4(f) files to the FHWA.

C. **Environmental Impact Statements–Other Agencies:** Files containing reviews and comments furnished by Caltrans to other Federal agencies following reviews of an EIS for which another Federal agency is the lead agency shall be maintained by Caltrans for a period of five years. After five years, Caltrans may destroy these files when no longer needed.

D. **Fish and Wildlife Coordination**: Files containing correspondence with the fish and wildlife resource agencies early in project development may be destroyed by Caltrans after three years.

E. **Noise Barriers**: To comply with 23 CFR 772.13(f) regarding noise abatement measures reporting, files containing correspondence, publications, presentations, installation reports for wall barriers, and design of different types of wall barriers by private industry shall be

maintained by Caltrans for a period of four years after the end of the Federal fiscal year in which the particular file is closed.

8.3.3 Nothing contained in the MOU is intended to relieve Caltrans of its recordkeeping responsibilities under 2 CFR 200.333 or other applicable laws or regulations.

8.4 Federal Register

8.4.1 For any documents to be published in the *Federal Register*, such as the Notice of Intent under 23 C.F.R. 771.123(a) and Notice of Final Agency Action under 23 U.S.C. 139(l), Caltrans shall transmit such document to the FHWA's California Division Office, and the FHWA will cause such document to be published in the *Federal Register* on behalf of Caltrans and will submit such document to the *Federal Register* within five calendar days of receipt of such document from Caltrans. To the extent that the operating procedures of the Government Printing Office and the *Federal Register* permit, Caltrans will take over the procedures described above from the FHWA California Division Office.

8.5 Participation in Resource Agency Reports

8.5.1 Caltrans agrees to provide data and information requested by the FHWA Office of Project Development and Environmental Review and resource agencies for the preparation of national reports to the extent that the information relates to determinations, findings, and proceedings associated with projects processed under this MOU. Such reports include but are not limited to:

A. Information on the completion and time for completion of NEPA environmental documentation of all types (EIS, EA, CE);

B. Archeology Reports requested by the National Park Service;

C. Endangered Species Act Expenditure Reports requested by the U.S. Fish and Wildlife Service and the National Marine Fisheries Service;

D. NEPA Litigation Reports requested by the CEQ; and

E. Environmental Conflict Resolution reports, requested by the Office of Management and Budget, and the CEQ.

8.6 Conformity Determinations

8.6.1 Pursuant to 23 U.S.C. 327(a)(2)(B)(iv)(II), for any project requiring a project–level conformity determination under the Federal Clean Air Act and its implementing regulations, the FHWA's California Division Office will document the project level conformity determination by transmitting a letter to Caltrans to be included in the Final

EIS or EA. The FHWA's California Division Office will restrict its review to only that data, analyses, applicable comments and responses, and other relevant documentation that enable the FHWA to make the project level conformity determination. For CE projects that have not been assumed pursuant to the 326 MOU, Caltrans shall rely upon FHWA for the project level conformity determinations. Caltrans shall rely upon a documented FHWA project-level conformity determination prior to approval of the CE by Caltrans.

8.7 Certification of NEPA Compliance

8.7.1 For projects funded by the FHWA, prior to the execution of any Federal–aid project agreement for a physical construction contract, a design-build contract, or a contract for final design services, the Director of Caltrans will submit a certification for each individual project to the FHWA California Division Office specifying that Caltrans has fully carried out all responsibilities assumed under this MOU in accordance with this MOU and applicable Federal laws, regulations, and policies. The Director of Caltrans may delegate the certification required under this subpart to other qualified and duly authorized Caltrans personnel.

8.8 Enforcement

8.8.1 Should the FHWA determine that Caltrans is not in compliance with this MOU, then the FHWA shall take appropriate action to ensure Caltrans' compliance, including appropriate remedies provided at 23 CFR 1.36 for violations of or failure to comply with Federal law or the regulations in 23 CFR Part 771 with respect to a project, withdrawing assignment of any responsibilities that have been assumed as provided in part 9 of this MOU, or terminating Caltrans' participation in the Program as provided in part 12 of this MOU.

PART 9. WITHDRAWAL OF RESPONSIBILITIES OF ASSIGNED PROJECTS

9.1 FHWA-Initiated Withdrawal of Assigned Projects

9.1.1 The FHWA may, at any time, withdraw the assignment of all or part of the USDOT Secretary's responsibilities that have been assumed by Caltrans under this MOU for any highway project or highway projects upon the FHWA's determination that:

A. With respect to that particular highway project or those particular highway projects, Caltrans is not in compliance with a material item of this MOU or applicable Federal laws or policies; and Caltrans has not taken sufficient corrective action to the satisfaction of the FHWA;
B. The highway project or highway projects involve significant or unique national policy interests for which Caltrans' assumption of the Secretary's responsibilities would be inappropriate; or
C. Caltrans cannot satisfactorily resolve an issue or concern raised in a government–to–government consultation process, as provided in subpart 3.2.3.

9.1.2 Upon the FHWA's determination to withdraw assignment of the USDOT Secretary's responsibilities under subpart 9.1.1, the FHWA will notify Caltrans of the FHWA's determination. After notifying Caltrans of its determination, the FHWA will provide Caltrans written notice of its determination including the reasons for its determination. Upon receipt of this notice, Caltrans may submit any comments or objections to the FHWA within 30 calendar days, unless an extended period of time is agreed to by the FHWA. Upon receipt of Caltrans' comments or objections, the FHWA will make a final determination within 30 calendar days, unless extended by the FHWA for cause, and notify Caltrans of its decision. In making its determination, the FHWA will consider Caltrans' comments or objections, the effect the withdrawal of assignment will have on the Program, amount of disruption to the project concerned, the effect on other projects, confusion the withdrawal of assignment may cause to the public, the potential burden to other Federal agencies, and the overall public interest.

9.1.3 The FHWA shall withdraw assignment of the responsibilities Caltrans has assumed for any highway project when the preferred alternative that is identified in the environmental assessment or final environmental impact statement is a highway project that is specifically excluded in subpart 3.3.2. In such case, subpart 9.1.2 shall not apply.

9.2 Caltrans-Initiated Withdrawal of Assignment of Projects

9.2.1 Caltrans may, at any time, request the FHWA to withdraw all or part of the USDOT Secretary's responsibilities it has assumed under this MOU for any existing or future highway project or highway projects.

9.2.2 Upon Caltrans' decision to request the FHWA withdraw the assignment of the USDOT Secretary's responsibilities under subpart 9.2.1; Caltrans shall informally notify the FHWA of its desire for the FHWA to withdraw assignment of its responsibilities. After informally notifying the FHWA of its desire, Caltrans will provide the FHWA written notice of its desire, including the reasons for wanting the FHWA to withdraw assignment of the responsibilities. Upon receipt of this notice, the FHWA will have 30 calendar days, unless extended by the FHWA for cause, to determine whether it will withdraw assignment of the responsibilities requested. In making its determination, the FHWA will consider the reasons Caltrans desires the FHWA to withdraw assignment of the responsibilities, the effect the withdrawal of assignment will have on the Program, amount of disruption to the project concerned, the effect on other projects, confusion the withdrawal of assignment may cause to the public, the potential burden to other Federal agencies, and the overall public interest.

PART 10. PERFORMANCE MEASURES

10.1 General

10.1.1 Both the FHWA and Caltrans have determined that it is desirable to mutually establish a set of performance measures that the FHWA can take into account in its

evaluation of Caltrans' administration of the responsibilities it has assumed under this MOU.

10.1.2 Caltrans attainment of the performance measures indicated in this Part 10 will be considered through FHWA monitoring, which is required for FHWA to comply with 23 U.S.C. 327.

10.1.3 Caltrans shall collect and maintain all necessary and appropriate data related to the attainment of the performance measures. In collecting this data, Caltrans shall monitor its progress toward meeting the performance measures and include its progress in the monitoring report provided under subpart 8.2.5 of this MOU. Caltrans shall make the monitoring report available to FHWA and the public as provided in subpart 8.2.5.

10.2 Performance Measures

10.2.1 The performance measures applicable to Caltrans in carrying the responsibilities it has assumed under part 3 of this MOU are as follows:

A. Compliance with NEPA and other Federal laws and regulations:

i. Maintain documented compliance with procedures and processes set forth in the MOU for the environmental responsibilities assumed under the Program.
ii. Maintain documented compliance with requirements of all Federal statutes and regulations being assumed (Section 106 of the NHPA, Section 7 of the ESA, etc.).

B. Quality Control and Assurance for NEPA decisions:

i. Maintain and apply internal quality control and assurance measures and processes, including a record of:
   a. Legal sufficiency determinations made by counsel;
   b. Compliance with FHWA and Caltrans environmental document content standards and procedures, including those related to QA/QC; and
   c. Completeness and adequacy of documentation of project records for projects done under the Program.

C. Relationships with agencies and the general public:

i. Assess change in communication among Caltrans, Federal and state resource agencies, and the public resulting from assumption of responsibilities under this MOU.
ii. Maintain effective responsiveness to substantive comments received from the public, agencies and interest groups on NEPA documents and environmental concerns.

iii. Maintain effective NEPA conflict resolution processes whenever appropriate.

D. Increased efficiency and timeliness in completion of NEPA process:

i. Compare time of completion for NEPA approvals before and after assumption of responsibilities under this MOU.

ii. Compare time to completion for key interagency consultation formerly requiring FHWA participation (e.g., Section 7 biological opinions) before and after assumption of responsibilities under this MOU.

PART 11. TRAINING

11.1 Training

11.1.1 The FHWA will provide Caltrans available training, to the extent the FHWA and Caltrans deem necessary, with respect to the environmental responsibilities that Caltrans has assumed. Such training may be provided by either the FHWA or another Federal agency or other parties as may be appropriate. Caltrans agrees to have all appropriate employees (including consultants hired for the purpose of carrying out the USDOT Secretary's responsibilities) attend such training.

11.1.2 A training plan will be updated annually by Caltrans and the FHWA during the term of this MOU. While Caltrans and the FHWA may take other agencies' recommendations into account in determining training needs, Caltrans and the FHWA will jointly determine the training required under this MOU.

PART 12. TERM, TERMINATION AND RENEWAL

12.1 Term

12.1.1 This MOU has a term of five years from the Effective Date.

12.2 Termination by the FHWA

12.2.1 As provided at 23 U.S.C. 327(j)(1), the FHWA may terminate Caltrans' participation in the Program, in whole or in part, at any time subject to the procedural requirements in 23 U.S.C. 327 and subpart 13.2.2 below. Failure to adequately carry out the responsibilities of the Program may include, but not be limited to:

A. Persistent neglect of, or noncompliance with, any Federal laws, regulations, and policies;

B. Failure to cooperate with the FHWA in conducting any oversight or monitoring activity;

C. Failure to secure or maintain adequate personnel and financial resources to carry out the responsibilities assumed;

D. Substantial noncompliance with this MOU; or

E. Persistent failure to adequately consult, coordinate, and/or take the concerns of other relevant Federal and state agencies into account in carrying out the responsibilities assumed.

12.2.2 If the FHWA determines that Caltrans is not adequately carrying out the responsibilities assigned to Caltrans, then:

A. The FHWA shall provide to Caltrans a written notification of its determination.

B. Caltrans shall have a period of not less than 120 days to take such corrective action as FHWA determines to be necessary to comply with this MOU.

i. On the request of the Governor, FHWA shall provide a detailed description of each responsibility in need of corrective action.

C. If, after the notification and the period to take corrective action Caltrans has failed to take satisfactory corrective action as determined by FHWA, FHWA shall provide Caltrans with a notice of termination. Any responsibilities identified to be terminated in the notice that have been assumed by Caltrans pursuant to this MOU shall transfer to the FHWA.

12.3 Termination by Caltrans

12.3.1 Caltrans may terminate its participation in the Program, in whole or in part, at any time by providing to FHWA a notice at least 90 calendar days prior to the date that Caltrans seeks to terminate its participation in this Program, and subject to such terms and conditions, as the FHWA may provide.

12.3.2 California's consent to Federal court jurisdiction and waiver of sovereign immunity currently sunsets on January 1, 2017. Affirmative action by the State of California will be necessary to extend the State's consent and waiver. If California does not consent to Federal court jurisdiction and waive sovereign immunity, then Caltrans' participation in the Program will be suspended on January 1, 2017 for a period of up to 90 calendar days. If adequate certification (as required by 23 CFR 773.109(a)(6) and 773.115(c)(2)) is not provided within this time period, then this MOU and California's participation in the Program shall be terminated

A. During the period of suspension, Caltrans will not make any NEPA decisions or implement any of the environmental review responsibilities assigned under Part 3 of this MOU.

B. If the necessary actions are taken to authorize a new consent to Federal court jurisdiction and waiver of sovereign immunity during the period of suspension, then California's participation in the Program will resume on the day the FHWA acknowledges receipt of adequate certification provided by Caltrans as required by 23 CFR 773.109(a)(6) and 773.115(c)(2).

12.3.3 The California State Legislature may, at any time, terminate Caltrans participation in the Program by withdrawing the State's consent to Federal court jurisdiction and waiver of sovereign immunity or taking any other legislative action withdrawing authority to Caltrans to participate in the Program.

12.3.4 The FHWA and Caltrans shall have a plan to transition the responsibilities that Caltrans has assumed back to FHWA in the event that Caltrans' participation in the program is terminated. This plan shall be developed to minimize disruption to projects, confusion to the public, and burdens on other affected Federal, State, and local agencies. The plan shall be approved by both FHWA and Caltrans.

12.4 Validity of Caltrans' Actions

12.4.1 Any environmental approvals made by Caltrans pursuant to the responsibilities Caltrans has assumed under this MOU shall remain valid after termination of Caltrans' participation in the Program or withdrawal of assignment by the FHWA. As among the USDOT Secretary, FHWA and Caltrans, and in accordance with subpart 4.3.1 and part 6, Caltrans shall remain solely responsible and solely liable for any environmental approvals it makes pursuant to any of the responsibilities it has assumed while participating in the Program.

12.5 Renewal

12.5.1 This MOU is renewable in accordance with 23 U.S.C. 327 and 23 C.F.R. 773.115.

A. Caltrans shall notify FHWA at least 12 months before the expiration of this MOU of its intent to renew its participation in the Program.

B. Prior to requesting renewal, Caltrans shall coordinate with FHWA to determine if significant changes have occurred or if new assignment responsibilities are being sought that would warrant a statewide notice and opportunity for public comment prior to Caltrans' submittal of the renewal package.

C. Caltrans shall meet the requirements in 23 CFR 773.115(c); and

D. Caltrans shall submit the renewal package no later than 180 days prior to the expiration date of the MOU.

PART 13. AMENDMENTS

13.1 Generally

13.1.1 This MOU may be amended at any time upon mutual agreement by both the FHWA and Caltrans pursuant to 23 CFR 773.113(b).

13.2 Additional Projects, Classes of Projects and Environmental Review Responsibilities

13.2.1 Caltrans may assume responsibility for additional projects and additional environmental review responsibilities beyond those identified in part 3 of this MOU by executing an amendment to this MOU.

13.2.2 Should Caltrans decide to request this MOU be amended to add responsibility for additional projects or classes of projects, or additional environmental review responsibilities beyond those identified in part 3 of this MOU, then such request shall be treated as an amendment to Caltrans' renewal package that was submitted to the FHWA pursuant to 23 U.S.C. 327 and 23 CFR Part 773.115. In developing the amendment, Caltrans shall identify the additional responsibilities and projects it wishes to assume and make any appropriate adjustments to the information contained in Caltrans' renewal package, including the verification of personnel and financial resources. Upon receipt of Caltrans' amendment, the FHWA will consult with, and solicit the views of, other appropriate Federal agencies.

IN WITNESS THEREOF, the parties hereto have caused this MOU to be duly executed in duplicate as of the date of the last signature written below. This MOU is effective on the Effective Date as specified in subpart 1.1.4.

Date: December 23, 2016

Gregory G. Nadeau
Administrator
Federal Highway Administration

Date: Dec. 20, 2016

Malcolm Dougherty
Director
California Department of Transportation

Date: December 19, 2016

Jeanne Scherer
Chief Counsel
California Department of Transportation only as to the certifications required under subpart 4.1.1 of this MOU and as to form.

APPENDIX H HISTORIC PROPERTY SURVEY REPORT

State of California Department of Transportation

HISTORIC PROPERTY SURVEY REPORT

1. UNDERTAKING DESCRIPTION AND LOCATION

District	County	Route *(Local Agency)*	*Local Assistance Project Prefix*	Post Miles *(Project No.)*	Charge Unit *(Agreement)*	Expenditure Authorization *(Location)*
8	Riverside/ San Bernardino	SR 91/ SR 71	n/a	R0.6/R2.6 1.6/3.0		0F541

Project Description:

This document is being prepared to Section 106 standards due to anticipated federal involvement. The Riverside County Transportation Commission (RCTC), in cooperation with the California Department of Transportation (Caltrans) District 8 proposes to improve the State Route (SR) 91/71 interchange by constructing a new direct flyover connector from eastbound SR 91 to northbound SR 71 and adding other roadway improvements (Project) (see Figures 1 and 2 in Exhibit 1). In addition to the No Build Alternative, there is only one Build Alternative under consideration; one additional Build Alternative was included in the Project Study Report but was eliminated in the PA/ED phase from further consideration.

The Build Alternative includes the following features:

- Construct a direct two-lane flyover connector from EB SR 91 to NB SR 71.
- Replace the existing Green River Road EB SR 91 on-ramp with a slip on-ramp to the SR 91/71 flyover.
- Realign SR 71 to accommodate the new flyover connector and modified connectors.
- Restripe the SR 91 EB lanes from the 11-ft width to the 12-ft standard width between PM R0.6 to PM R2.6.
- Modify or construct new drainage facilities.
- Construct retaining walls along portions of the Green River Road on-ramp south of SR 91, along SR 71, and at the abutment ends of the flyover connector.
- Relocate the U.S. Army Corps of Engineers (USACE) driveway approximately 0.3-mile north of its current location.
- Install freeway signage within the project area for the new flyover connector and for the Green River Road on-ramp. Ramp metering may be installed on the Green River Road on-ramp prior to merging with EB SR 91.

2. AREA OF POTENTIAL EFFECTS

The Area of Potential Effects (APE) for the Project was established in consultation with Andrew Walters, Associate Environmental Planner, Gary Jones, Associate Environmental Planner, and Daniel Ciacchella, Project Manager on October 18 and 19, 2010. The project area is located within the Prado Dam and Black Star Canyon, CA United States Geological Survey (USGS) 7.5-minute topographic quadrangles in Sections 25, 28, 29, and 30 of Township 3 South, Range 7 West, San Bernardino Base and Meridian (SBBM).The APE maps (Figure 3) are located in Exhibit 1 in this Historic Property Survey Report.

The Project APE includes the direct study area, where construction activities would occur, and the indirect study area, where potential visual impacts may occur. The Project APE encompasses 54.55 acres (ac) (21.82 hectares [ha]) (see Figure 2 in Exhibit 1). In regards to the vertical APE, structural improvements for the proposed new bridges, such as column placements and associated footings, will also be part of the proposed project. Estimated pile depths are expected to reach approximately 110 feet (ft) below the

For the federal undertaking described in Part 1: To minimize redundancy and paperwork for the California Department of Transportation and the State Historic Preservation Officer, and in the spirit intended under the federal Paperwork Reduction Act (U.S.C. 44 Chapter 35), this document also satisfies consideration under California Environmental Quality Act Guidelines Section §15064.5(a) and, as appropriate, Public Resources Code §5024 (a)(b) and (d).

existing ground surface. The Project also proposes to realign a portion of the existing northbound and southbound lanes of SR 71 just north of the existing Santa Ana River crossing. Realignment of the southbound lanes will require cut excavation into the existing hillside located immediately to the west of SR 71. Based on preliminary design, the maximum depth of cut is expected to range up to 35 ft.

3. CONSULTING PARTIES / PUBLIC PARTICIPATION

X Local Government *(Head of local government, Preservation Office / Planning Department)*

- City of Corona, Department of Community Development
- Riverside County, Planning Department
- San Bernardino County, Department of Community Development and Housing

Letters were sent via US postal service to local government agencies on August 12, 2008. No responses were received as of March 4, 2010 (see Exhibit 4).

X Native American Tribes, Groups and Individuals

Cahuilla Band of Indians: Anthony Madrigal, Jr., Chairperson. 7/15/2008 – Initial letter sent. 9/17/08 – Tribe requested copy of cultural resources inventory report and a Native American monitor during construction. 5/18/09 – Copy of ASR sent to Tribe. 7/10/09 – Tribe indicated that they had no concerns regarding this Project; however, they requested to be updated on any findings in the Project area that pertain to any discoveries of Native American artifacts.

Pechanga Band of Mission Indians: Paul Macarro, Cultural Resource Center and Mark Macarro, Chairperson. 7/15/2008 – Initial letter sent. 8/4/08 – Tribe recommended a Pechanga monitor to participate in the cultural resources survey. 8/5/08 – Tribe invited to participate in cultural resources survey; Tribe did not respond to invitation. 9/22/08 – Tribe requested that a Pechanga Monitor be present during Project-related construction. Pechanga also requested to be notified in the event that cultural resources are identified during Project construction, and to be consulted regarding the treatment and disposition of all artifacts discovered during construction. In addition, Pechanga requested to be notified by the Lead Agency once the entitlement and/or CEQA/NEPA process commences for the Project to enable the Tribe the opportunity to participate in the Project's environmental review process. The Tribe also requested copies of all archaeological reports, site records, and environmental documents once they are completed. Finally, the Tribe requested formal government-to-government consultation with the Project's Lead Agency (Caltrans). Caltrans initiated government-to-government consultation after receipt of this letter. 5/18/09 – Copy of ASR sent to Tribe. 3/4/10 – Under the auspices of the Federal guidelines for Section 106, Native American government-to-government consultation was completed between the Caltrans District 8 Native American Coordinator (DNAC), Gwyn Alcock, and the Pechanga Band of Mission Indians. The tribe indicated they have no further comments or concerns at this time. However, if the sensitivity appears to rise above the level of low concern for prehistoric resources, they want to be contacted.

Ti'At Society: Cindi Alvitre. 7/15/2008 - Initial letter sent. 9/17/08 – Follow-up phone call to Ms. Alvitre; no response received.

Gabrieleno/Tongva San Gabriel Band of Mission Indians: Anthony Morales, Chairperson. 7/15/2008 - Initial letter sent. 7/30/08 – Mr. Morales stated that he had concerns regarding the sensitive nature of the proposed Project and recommended that an archeological and Native American monitor be present during Project-related ground disturbing activities. 5/18/09 – Copy of ASR sent to Tribe. 5/19/09 – The Tribe had concerns that Caltrans did not agree to their

request for Native American monitoring during construction. However, after explaining why the Project APE had little to no potential for containing intact buried Native American cultural deposits – the Tribe agreed with the findings and recommendations for no Native American monitoring during construction.

Gabrielino/Tongva Council/Gabrielino Tongva Nation: Sam Dunlap, Tribal Secretary. 7/15/2008 - Initial letter sent. 9/17/08 – Follow-up phone call to Mr. Dunlap; no response received.

Soboba Band of Luiseño Indians: Erica Helms, Cultural Resource Manager. 7/15/2008 - Initial letter sent. 8/4/08 – Mr. Joe Ontiveros, a Cultural Resources Manager for the Tribe, recommended that they have a Native American Monitor present during the cultural resources survey. 8/5/08 – Tribe invited to participate in cultural resources survey; Tribe assisted in survey. 5/18/09 – Copy of ASR sent to Tribe. 6/18/09 – Tribe contacted Caltrans to discuss the Project and results of the cultural resources identification efforts. While the Tribe has concerns regarding Native American resources and the Project area, they stated that Caltrans may move forward on the Project.

Juaneño Band of Mission Indians: Sonia Johnston, Tribal Vice Chairperson. 7/15/2008 - Initial letter sent. 9/17/08 – Ms. Johnston stated that the Tribe has no concerns regarding the proposed Project.

For additional detail on the Native American Consultation, please refer to the Exhibit 5 of the HPSR and Section 4.2 of the ASR.

X Native American Heritage Commission

In accordance with Section 106 of the National Historic Preservation Act, a request was made to the Native American Heritage Commission (NAHC) for a review of the Sacred Lands Inventory on June 10, 2008. The NAHC responded on June 16, 2008, stating that Native American cultural resources are known to exist in the immediate Project area. The NAHC requested that eight Native American individuals and organizations be contacted to solicit any information or concerns regarding cultural resources issues related to the project (see Exhibit 3).

X Local Historical Society / Historic Preservation Group *(also if applicable, city archives, etc.)*

- Corona Public Library, Heritage Room
- Corona Historic Preservation Society
- Pioneer Historical Society of Riverside
- San Bernardino County Museum

Letters were sent via US postal service to local historical societies on August 12, 2008. No responses were received to date (see Exhibit 4).

4. SUMMARY OF IDENTIFICATION EFFORTS

X	National Register of Historic Places	Month & Year: 1979-2002 & supplements
X	California Register of Historical Resources	Year: 1992 & supplemental information to date
X	California Inventory of Historic Resources	Year: 1976
X	California Historical Landmarks	Year: 1995 & supplemental information to date

X California Points of Historical Interest Year: 1992 & supplemental information to date

_ State Historic Resources Commission Year: 1980-present, minutes from quarterly meetings

X Caltrans Historic Highway Bridge Inventory (see exhibit 2) Year: 2006 & supplemental information to date

X Archaeological Site Records [*List names of Institutions & date below*]

- Eastern Information Center, University of California, Riverside- June 18, 2008;
- San Bernardino Archaeological Information Center, San Bernardino County Museum- June 13, 2008; and
- South Central Coastal Information Center- July 9, 2008.

X Other sources consulted *[e.g., historical societies, city archives, etc. List names and dates below]*

- Corona Public Library- June 3, 2008

X Results**:** *(provide a brief summary of records search and research results, as well as inventory findings)*

In summary, the cultural resources literature and records search conducted at the Eastern Information Center (EIC), the San Bernardino Archaeological Information Center (SBAIC), and the South Central Coastal Information Center (SCCIC) indicate that a total of 67 cultural resources studies have been completed previously within a one mile radius of the Project study area; four additional studies were documented by the SCCIC – however, due to insufficient locational information in these documents it is unclear whether they were located within a one mile radius of the Project study area or not. The EIC and SBAIC also indicated that there are a total of 12 general overview reports for the Project study area (5 and 7, respectively). Of the 55 area-specific investigations, the EIC reported that 17 studies were within the Project APE, while two were immediately adjacent to the APE. The SCCIC also reported that two area-specific studies were within the Project APE.

These previous studies resulted in the identification and documentation of a total of 19 archaeological resources, including 18 historical-period sites and one prehistoric site. Of these, one historical-period site, the extant Prado Dam and its appurtenant features (CA-RIV-4730H), is located within and adjacent to the Project APE. In addition, two historical-period sites, the former location of a railroad grade (CA-RIV-5522H) and the remains of the historical-period town of Alta Vista/Green River Camp (CA-RIV-6532H), are/were located immediately adjacent to but not located within the Project APE. Established sometime between the periods of 1910 and 1920, Alta Vista/Green River Camp was recorded and subjected to subsurface testing in 2000. Although approximately 1,400 historic-period artifacts were recovered during testing, the integrity of the cultural deposits at the site was described as very poor. As mentioned, CA-RIV-6532H was formally evaluated and determined ineligible for listing in the National Register of Historic Places (NRHP) by the US Army Corp of Engineers (ACOE). The State Historic Preservation Office (SHPO) concurred with this determination in 2001. In addition, the site no longer exists within the paved segment of SR 91 that will be used for Project-related signage during construction. The remaining 16 cultural resources recorded within a one mile radius of the Project study area are all located north of the Project APE. No additional cultural resources are listed in the other California Historical Resources Information System (CHRIS) data sources consulted.

Site CA-RIV-4730H, recorded in 1992 as an archaeological site, is the existing Prado Dam and its appurtenant features. The Historic American Engineering Record (HAER) documentation, No. CA-178 (Roger Hathaway et al and Greenwood and Associates), prepared in 1996, indicates Prado Dam, and its associated structures, were eligible for listing in the National Register of Historic Places. The HAER documentation was prepared to mitigate USACE improvements to the site, which included construction of a new spillway, constructed in the late 1990s. Documentation received from EIC does not indicate the State Historic Preservation Officer (SHPO) concurred on the above finding, and it appears the United States Army Corps of Engineers (USACE) treated the site as a historic property without formal concurrence from

SHPO. The 1990s spillway is the only component within the APE and does not appear to be a contributing feature to the Prado Dam site because it was constructed well after the original dam and associated features were originally constructed. In addition, the spillway has not achieved 50 years of age. Based on the information available, the late 1990s spillway meets the criteria for exemption for Section 106 PA Attachment 4 (Properties Exempt from Evaluation).

Other CHRIS Sources Consulted

Other sources consulted by the CHRIS Information Centers include: *National Register of Historic Properties; Survey of Surveys: A Summary of California's Historical and Architectural Resources*; *Five Views: An Ethnic Sites Survey for California*; and *Historical Landmarks of San Bernardino County*. As well, listing in the *Determinations of Eligibility Records* and *Directory of Historic Properties* entered into the Office of Historic Preservation (OHP) computer files. No additional cultural resources are listed in these data sources.

In 1988, Susan Goldberg and Jeanne Arnold prepared a detailed research design and regional context for evaluating the prehistoric sites in the Prado Basin (Goldberg and Arnold 1988). In this document, the authors recommended that, from a management and research standpoint, the prehistoric sites in the Prado Basin be consider as part of an archaeological district for purposes of evaluating the NRHP eligibility. Due to its unique geographical and hydrologic features, and the resultant resource base that may account for a concentration of prehistoric occupation in the Basins (see Section 5.2 of the ASR in Exhibit 3 for additional information on the Goldberg Arnold survey).

5. PROPERTIES IDENTIFIED

X Carrie Chasteen, who meets the Professionally Qualified Staff Standards in Section 106 Programmatic Agreement Attachment 1 as a Principal Architectural Historian, has determined that the only/only other properties present within the APE meet the criteria for Section 106 PA Attachment 4 (**Properties Exempt from Evaluation**).

X **Bridges listed as Category 5** in the Caltrans Historic Highway Bridge Inventory are present within the APE. Appropriate pages from the Caltrans Historic Bridge Inventory are attached (see Exhibit 2).

6. LIST OF ATTACHED DOCUMENTATION

X Project Vicinity, Location, and APE Maps (Exhibit 1)

X California Historic Bridge Inventory sheet (Exhibit 2)

X Archaeological Survey Report (ASR) (Exhibit 3) Susan Goldberg, "*Archaeology Survey Report for State Route 91/ State Route 71 Interchange Project*", October 2010.

X Other *(Specify below)*

- Public participation correspondence (Exhibit 4)
- Native American Consultation (Exhibit 5)

7. HPSR to File

X **No properties requiring evaluation** are present within the Project APE.

X As assigned by FHWA, Caltrans has determined a Finding of **No Historic Properties Affected**, according to Section 106 PA Stipulation IX.A and 36 CFR 800.4(d)(1), is appropriate for this undertaking.

8. HPSR to SHPO

X Not applicable.

9. Findings for State-Owned Properties

X Caltrans has determined that **all the State-owned resources** (built environment and archaeological resources) within the Project APE **are exempt from evaluation** because they meet the criteria set forth in the Section 106 Programmatic Agreement (Section 106 PA)

HISTORIC PROPERTY SURVEY REPORT

Attachment 4 (Properties Exempt from Evaluation) **or were previously determined not eligible** for inclusion in the National Register of Historic Places and/or registration as a California Historical Landmark and that determination is still valid.

10. CEQA IMPACT FINDINGS

X Caltrans has determined a **finding of no impact** is appropriate because there are no historical resources within the Project Area limits, or there are no impacts to historical resource(s), pursuant to CEQA Guidelines §15064.5(b)(3).

11. HPSR PREPARATION AND DEPARTMENT APPROVAL

Prepared by: *(sign on line)* 10/27/2010

Consultant / discipline: Carrie Chasteen, Principal Architectural Historian — Date

Affiliation: Parsons, 100 W. Walnut St., Pasadena, CA 91124

Reviewed for approval by: *(sign on line)* 10/28/10

District 8 Caltrans PQS discipline/level: *Andrew Walters, Architectural Historian* — Date

Approved by: *(sign on line)* 10/25/10

District 8 EBC: for *Olufemi Odufalu, Branch Chief, Cultural Studies* — Date

Exhibit 1: Project Vicinity, Location, and APE Maps



Regional Location Map *Figure 1*

State Route 71/91 New Interchange Project

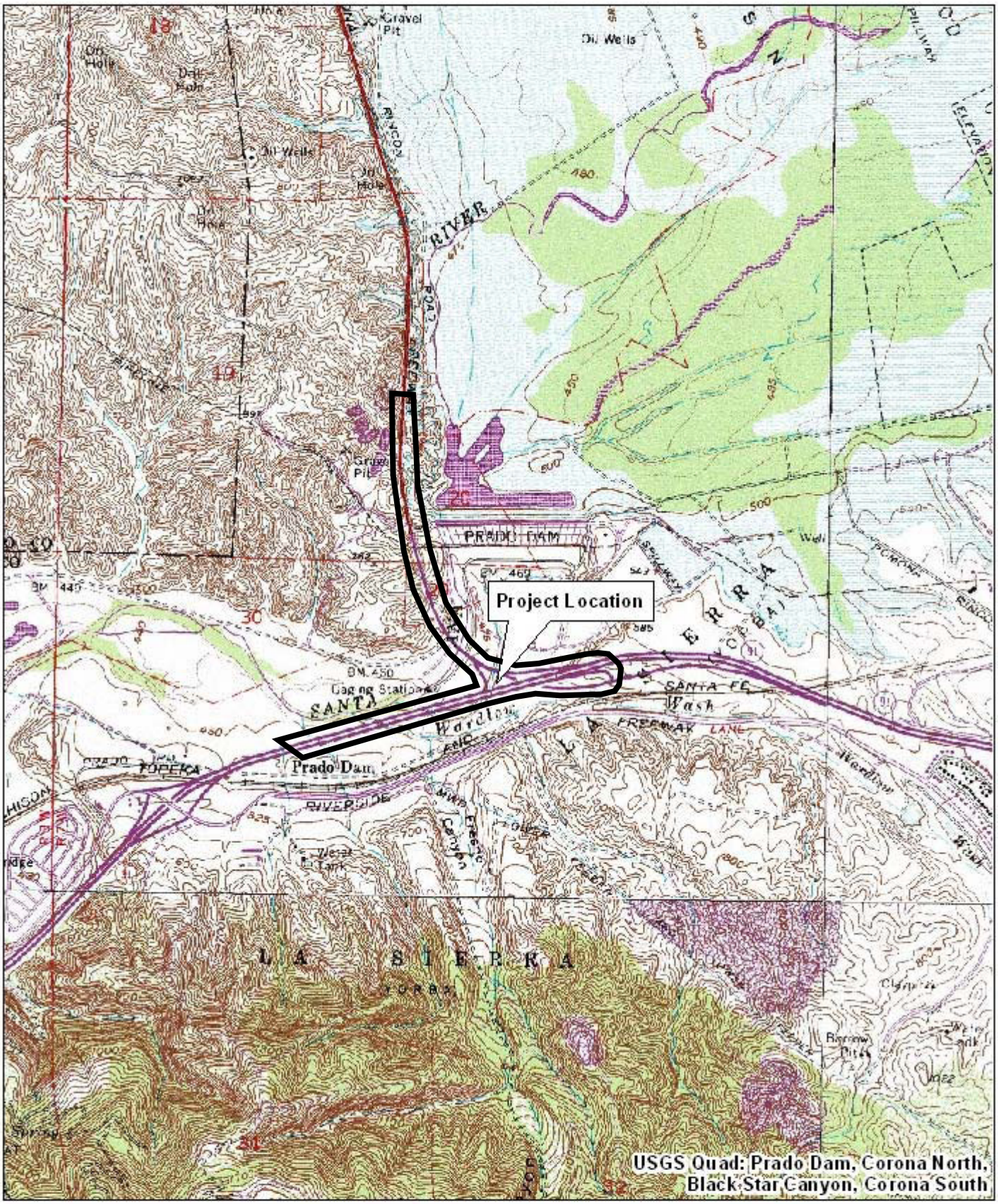
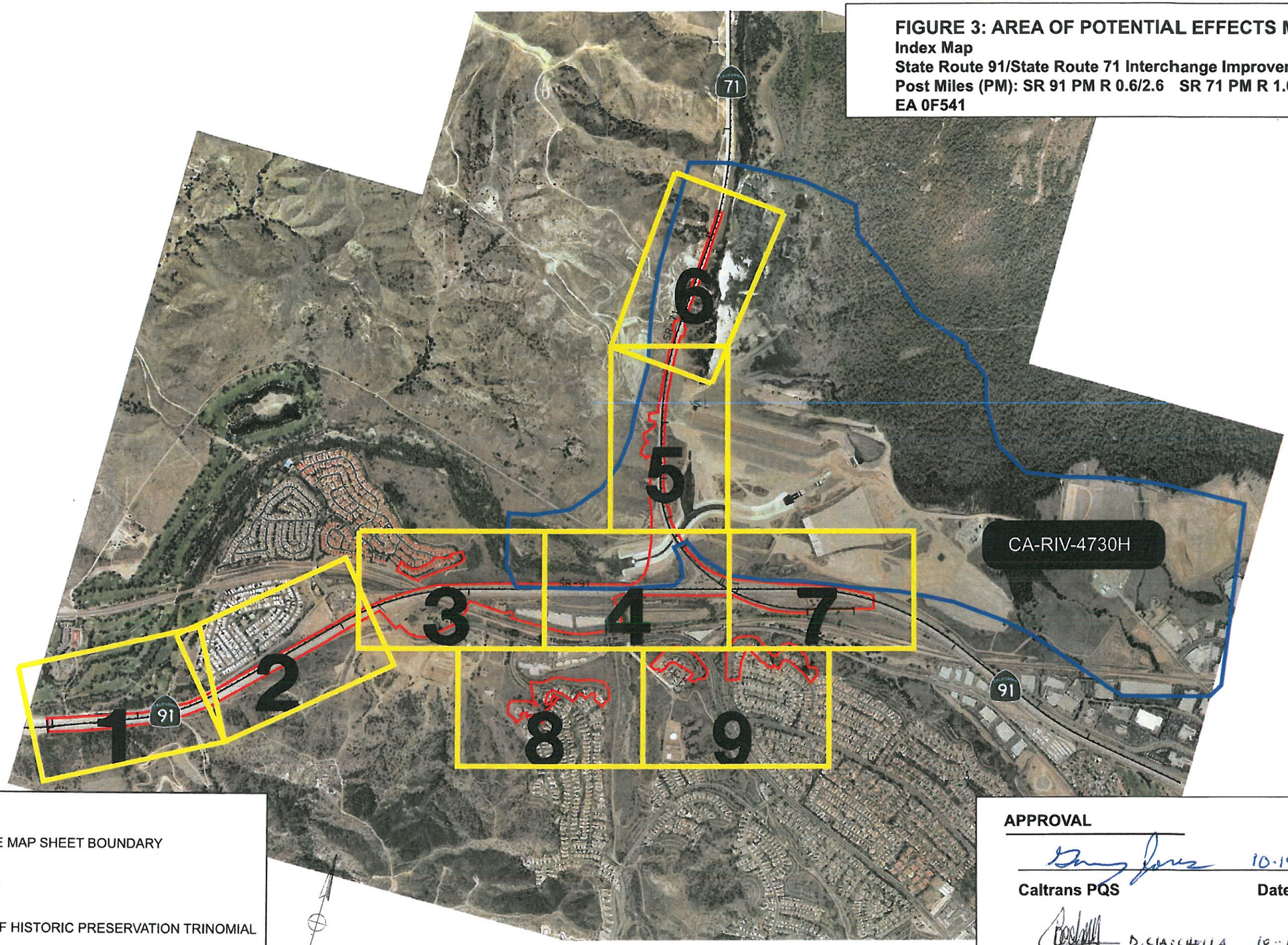


Figure 2: Project Location Map

State Route 71/91 New Interchange Project

0 750 1,500 3,000 4,500 6,000 Feet

FIGURE 3: AREA OF POTENTIAL EFFECTS MAP
Index Map
State Route 91/State Route 71 Interchange Improvement Project
Post Miles (PM): SR 91 PM R 0.6/2.6 SR 71 PM R 1.6/3.0
EA 0F541



LEGEND

- APPROXIMATE MAP SHEET BOUNDARY
- 91 STATE ROUTE
- CA-RIV_#### OFFICE OF HISTORIC PRESERVATION TRINOMIAL
- AREA OF POTENTIAL EFFECT
- APPROXIMATE SITE BOUNDARY OF PRADO DAM

NOT TO SCALE

APPROVAL

Barry Jones 10-18-10
Caltrans PQS **Date**

D. CIACCHELLA 10-19-10
Caltrans Project Manager **Date**

Figure 3: Area of Potential Effects Map
Sheet 1 of 9



LEGEND

- AREA OF POTENTIAL EFFECT
- PROPOSED STRUCTURE
- PROPOSED RETAINING WALL
- TOE OF SLOPE/TOP OF CUT LINE
- POTENTIAL SOUNDWALL
- POTENTIAL CONSTRUCTION STAGING AREA
- TEMPORARY CONSTRUCTION EASEMENT
- APPROXIMATE LOCATION OF DRAINAGE IMPROVEMENTS
- STRUCTURE COLUMN
- PROPOSED ROADWAY
- REMOVE PAVEMENT
- PROPOSED ACQUISITION
- CONSTRUCTION AREA
- EXISTING CALTRANS R/W
- XXX-XX-XXX ASSESSOR'S PARCEL NUMBER
- APPROXIMATE SITE BOUNDARY OF PRADO DAM
- CA-RIV-#### OFFICE OF HISTORIC PRESERVATION TRINOMIAL
- PROPOSED ACCESS ROAD
- APPROXIMATE LOCATION OF PROPOSED FREEWAY SIGNAGE

0 200 300

SCALE 1:200

Figure 3: Area of Potential Effects Map
Sheet 2 of 9



0 200 300
SCALE 1:200

LEGEND

- AREA OF POTENTIAL EFFECT
- PROPOSED STRUCTURE
- PROPOSED RETAINING WALL
- TOE OF SLOPE/TOP OF CUT LINE
- POTENTIAL SOUNDWALL
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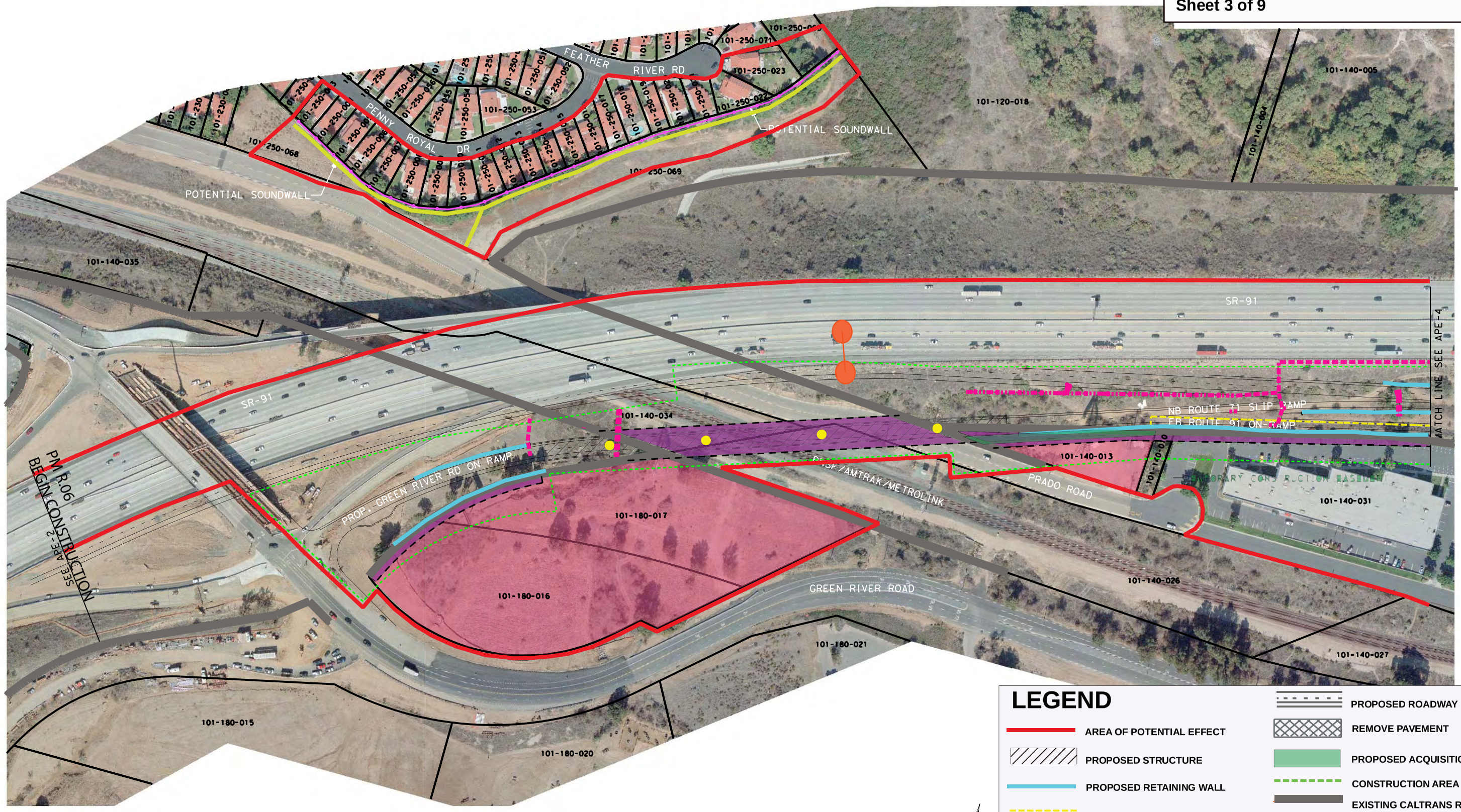
- PROPOSED ACCESS ROAD
- APPROXIMATE LOCATION OF PROPOSED FREEWAY SIGNAGE

Figure 3: Area of Potential Effects Map
Sheet 3 of 9



LEGEND

- AREA OF POTENTIAL EFFECT
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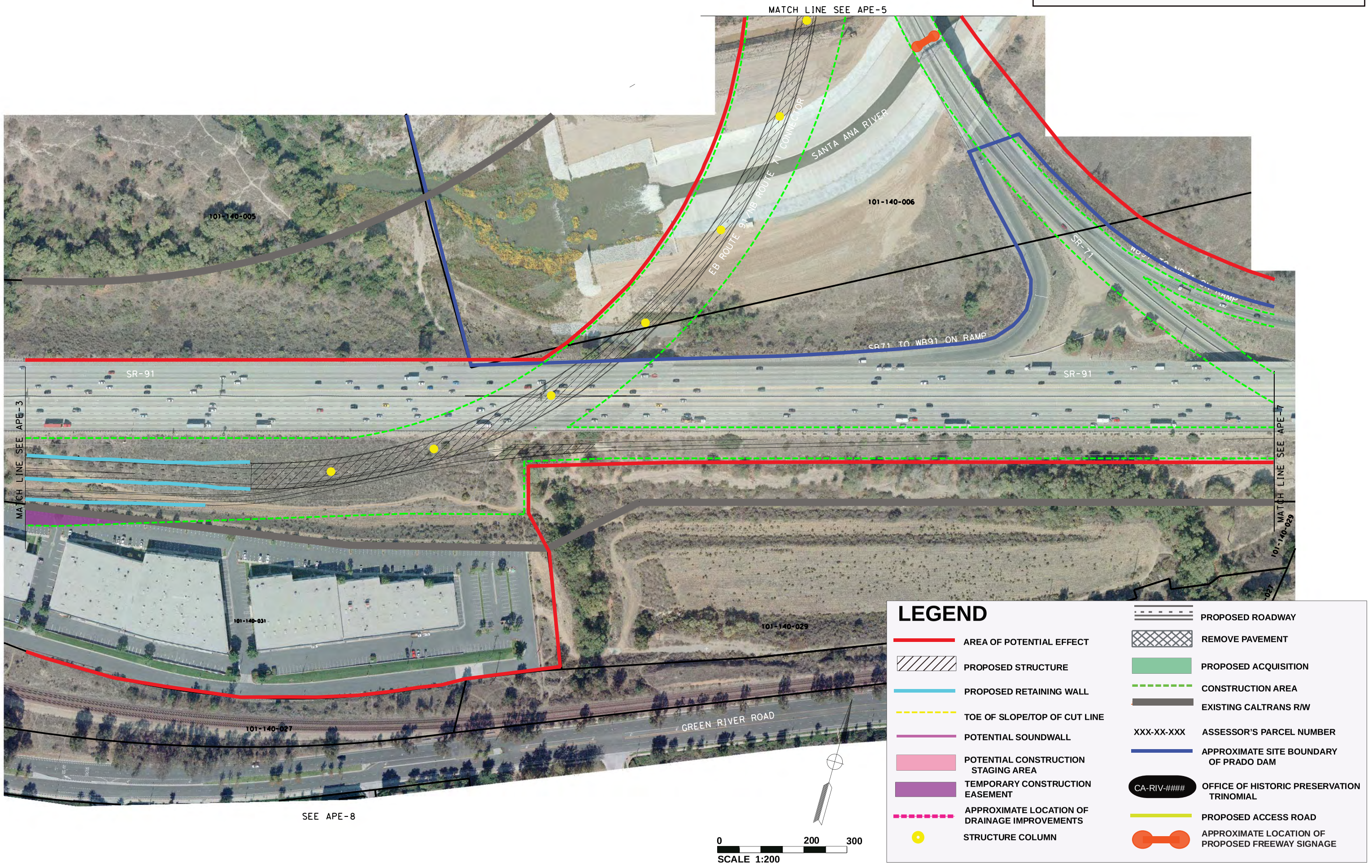
- PROPOSED ACCESS ROAD
- APPROXIMATE LOCATION OF PROPOSED FREEWAY SIGNAGE

0 200 300
SCALE 1:200

Figure 3: Area of Potential Effects Map
Sheet 4 of 9



LEGEND

- AREA OF POTENTIAL EFFECT
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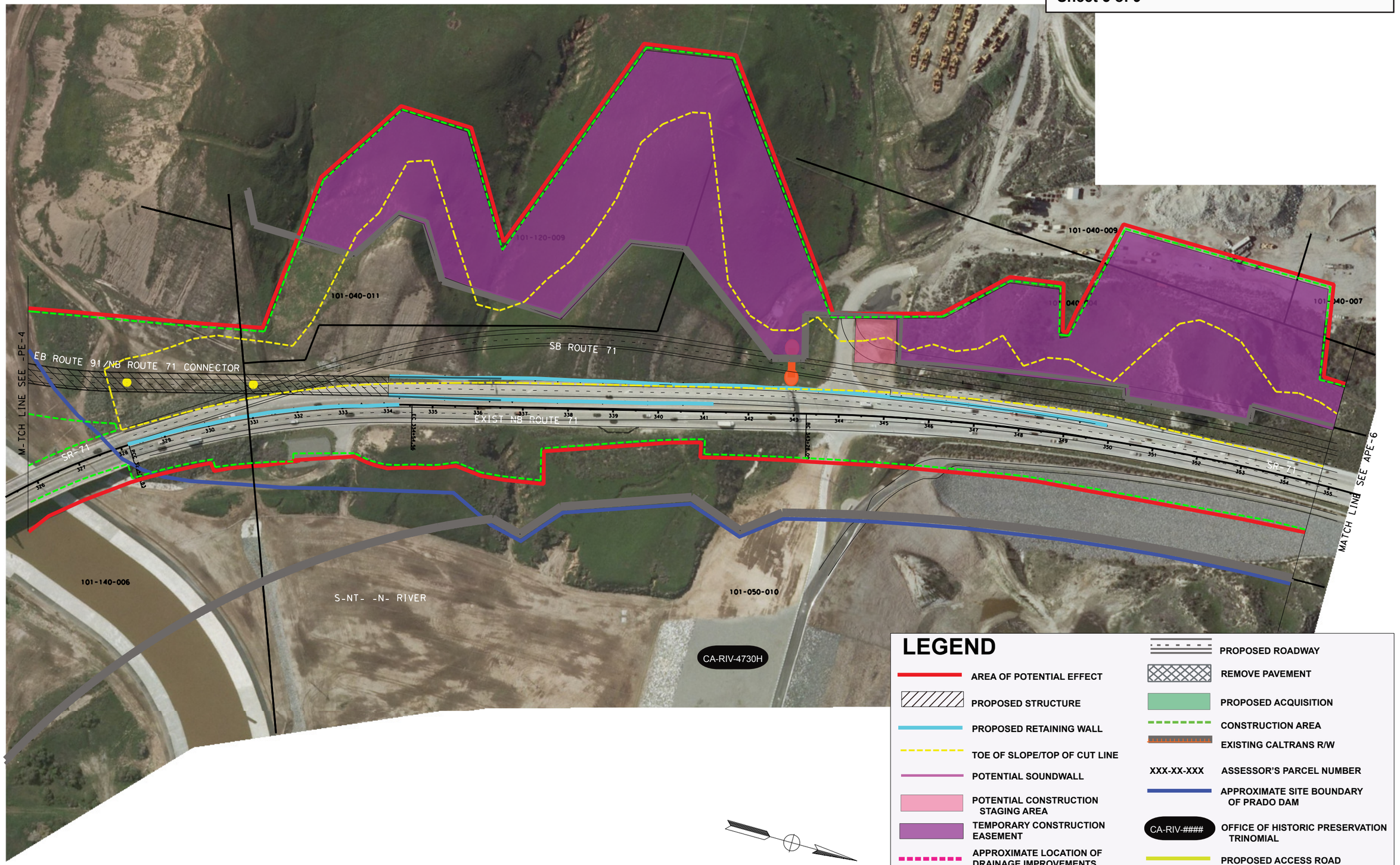
Figure 3: Area of Potential Effects Map
Sheet 5 of 9



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SCALE 1:200

LEGEND

- AREA OF POTENTIAL EFFECT
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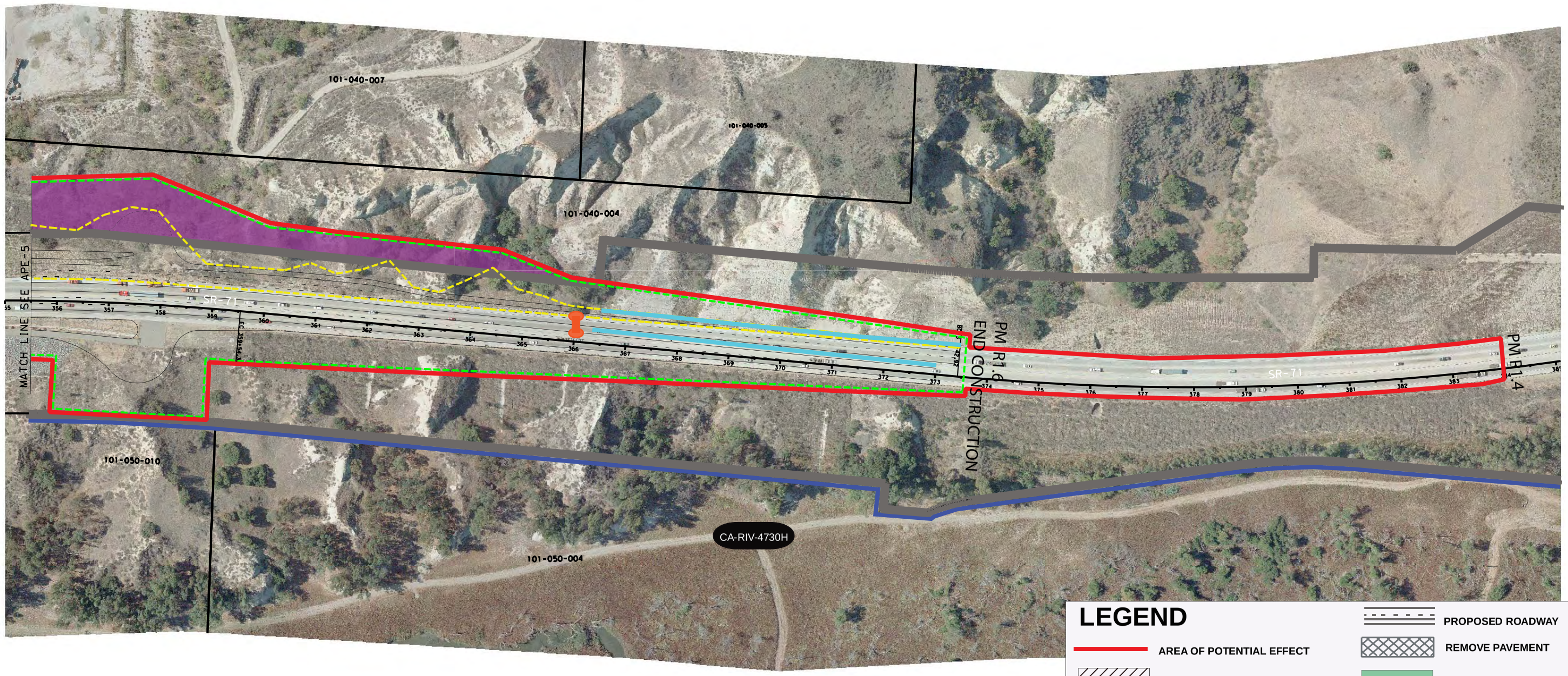
Figure 3: Area of Potential Effects Map
Sheet 6 of 9



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SCALE 1:200

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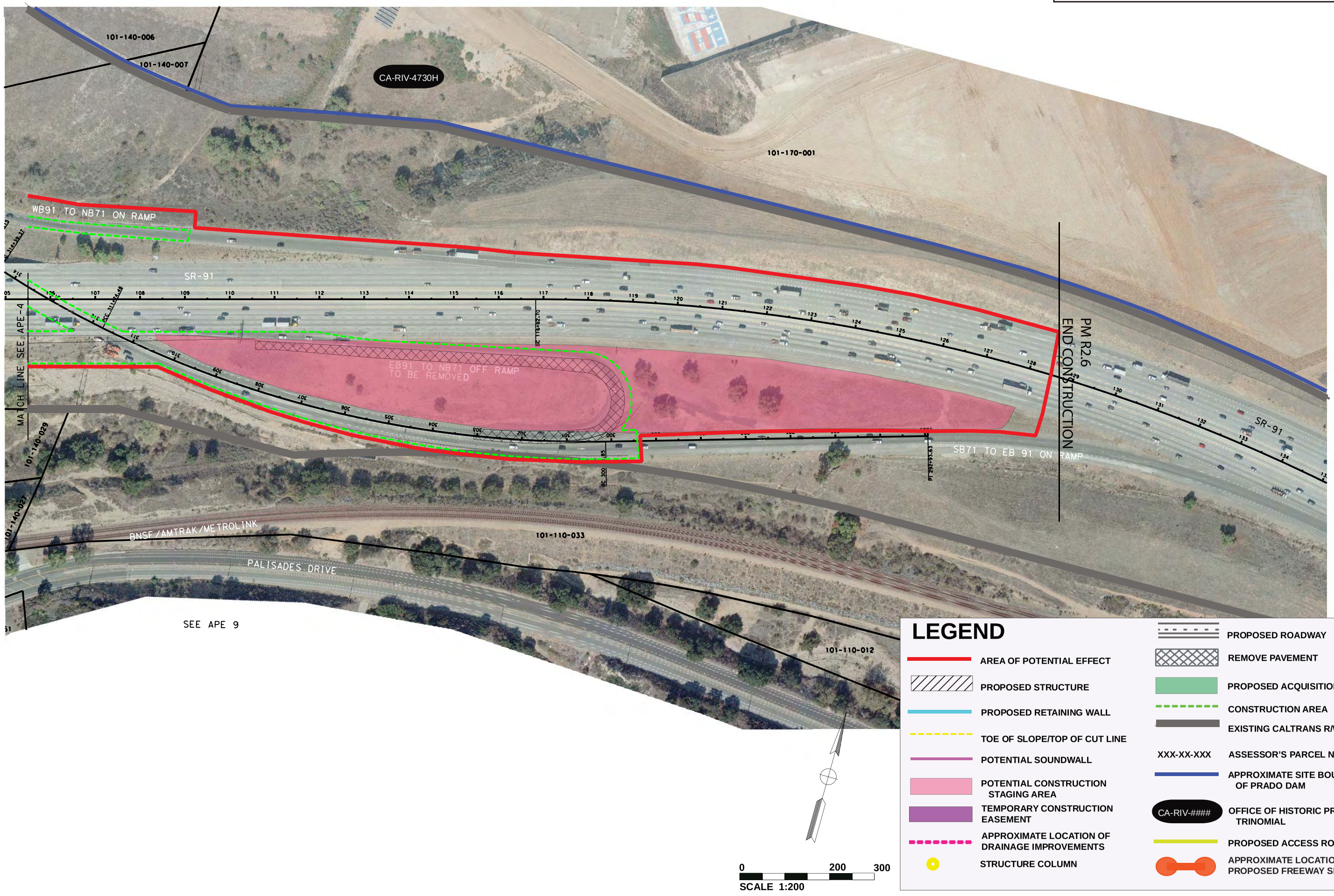
- APPROXIMATE LOCATION OF PROPOSED FREEWAY SIGNAGE

Figure 3: Area of Potential Effects Map
Sheet 7 of 9



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- PROPOSED ACCESS ROAD
- APPROXIMATE LOCATION OF PROPOSED FREEWAY SIGNAGE

Figure 3: Area of Potential Effects Map
Sheet 8 of 9

GREEN RIVER ROAD
DOMINGUEZ RANCH RD
DOMINGUEZ RANCH RD
MT CANTARA CIRCLE
SAN PONTE RD
SAN ALMADA RD
SAN VISCAYA CIRCLE
POTENTIAL SOUNDWALL
POTENTIAL SOUNDWALL
101-140-026
101-140-027
101-140-027
101-180-021
101-180-020
101-180-020
101-440-013
101-440-011
101-440-010
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LEGEND

- AREA OF POTENTIAL EFFECT
- PROPOSED STRUCTURE
- PROPOSED RETAINING WALL
- TOE OF SLOPE/TOP OF CUT LINE
- POTENTIAL SOUNDWALL
- POTENTIAL CONSTRUCTION STAGING AREA
- TEMPORARY CONSTRUCTION EASEMENT
- APPROXIMATE LOCATION OF DRAINAGE IMPROVEMENTS
- STRUCTURE COLUMN
- PROPOSED ROADWAY
- REMOVE PAVEMENT
- PROPOSED ACQUISITION
- CONSTRUCTION AREA
- EXISTING CALTRANS R/W
- XXX-XX-XXX ASSESSOR'S PARCEL NUMBER
- APPROXIMATE SITE BOUNDARY OF PRADO DAM
- CA-RIV-#### OFFICE OF HISTORIC PRESERVATION TRINOMIAL
- PROPOSED ACCESS ROAD
- APPROXIMATE LOCATION OF PROPOSED FREEWAY SIGNAGE

Figure 3: Area of Potential Effects Map
Sheet 9 of 9

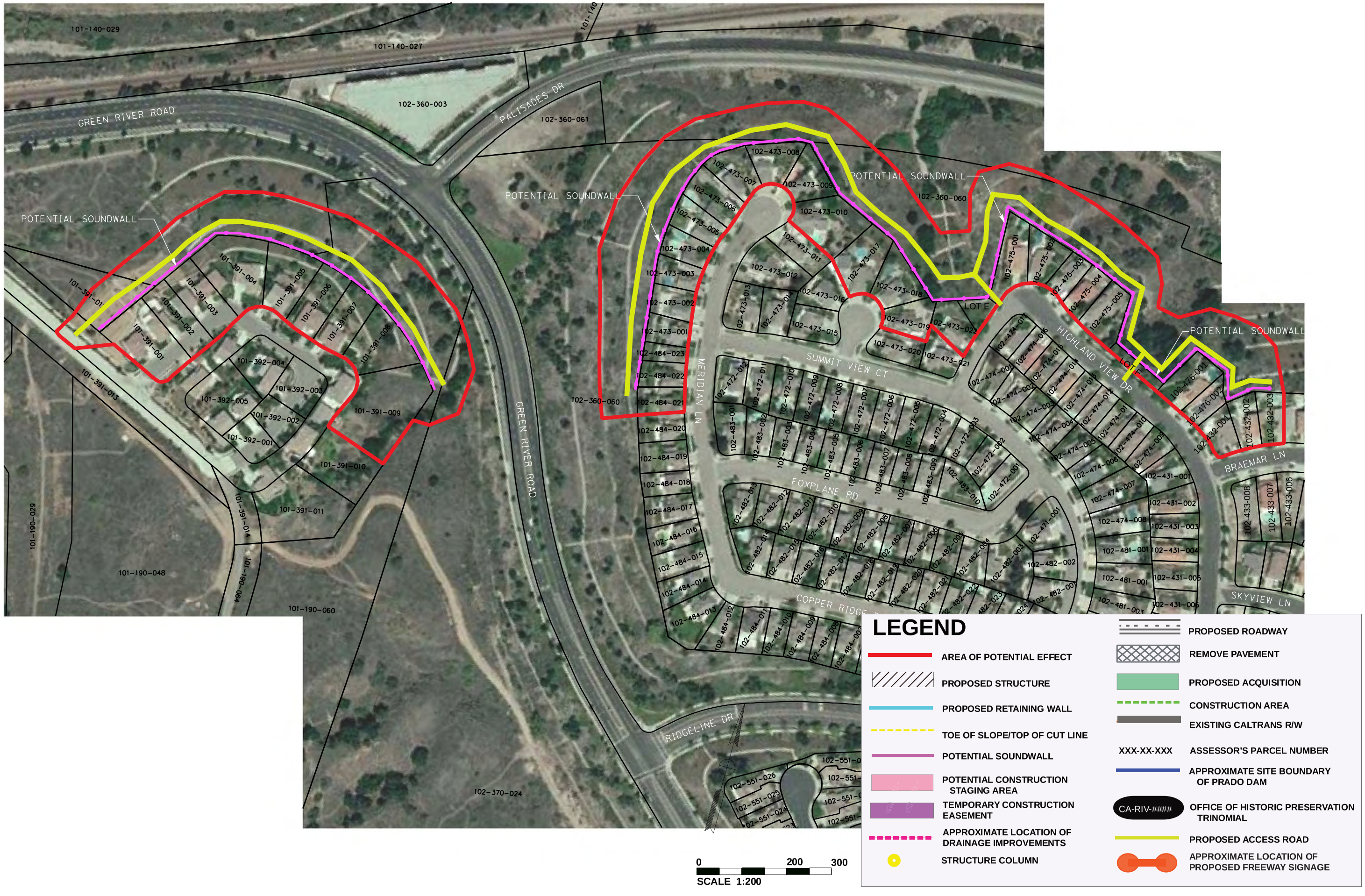

Exhibit 2: California Historic Bridge Inventory sheet

Structure Maintenance & Investigations



Historical Significance - State Agency Bridges

District 08

Riverside County

Bridge Number	Bridge Name	Location	Historical Significance	Year Built	Year Wid/Ext
56 0607	RANGE CREEK	08-RIV-079-R8.94	5. Bridge not eligible for NRHP	1948	
56 0610L	THOUSAND PALMS WASH	08-RIV-010-R53.8-IND	5. Bridge not eligible for NRHP	1972	
56 0610R	THOUSAND PALMS WASH	08-RIV-010-R53.8-IND	5. Bridge not eligible for NRHP	1972	
56 0611	MONROE STREET OC	08-RIV-010-R54.74-IND	5. Bridge not eligible for NRHP	1972	
56 0612	JACKSON STREET OC	08-RIV-010-R55.74-IND	5. Bridge not eligible for NRHP	1972	
56 0613L	44TH AVENUE UC	08-RIV-010-R56.57-IND	5. Bridge not eligible for NRHP	1972	
56 0613R	44TH AVENUE UC	08-RIV-010-R56.57-IND	5. Bridge not eligible for NRHP	1972	
56 0614	ROUTE 111/10 SEPARATION	08-RIV-111-L27.8-IND	5. Bridge not eligible for NRHP	1972	
56 0617L	DILLON R0AD UC	08-RIV-010-R58.89-COA	5. Bridge not eligible for NRHP	1972	
56 0617R	DILLON ROAD UC	08-RIV-010-R58.89-COA	5. Bridge not eligible for NRHP	1972	
56 0618	ANTHONY UC	08-RIV-010-R60.37	5. Bridge not eligible for NRHP	1972	
56 0620G	ROUTE 86 S/10 SEPARATION	08-RIV-086-R22.94-COA	5. Bridge not eligible for NRHP	1972	
56 0621	OPAL STREET PUC	08-RIV-060-8.16	5. Bridge not eligible for NRHP	1962	
56 0622	SPRING BROOK	08-RIV-060-11.33-RIV	5. Bridge not eligible for NRHP	1962	
56 0627K	NORTH INDIO ON-RAMP OC	08-RIV-010-R52.69-IND	5. Bridge not eligible for NRHP	1972	
56 0628Y	OLD MORONGO ROAD DRAIN	08-RIV-062-R1.85	5. Bridge not eligible for NRHP	1966	
56 0629Y	PIERSON BLVD DRAIN	08-RIV-062-R3.32	5. Bridge not eligible for NRHP	1966	
56 0630	DESERT VISTA DRAIN	08-RIV-062-R4.71	5. Bridge not eligible for NRHP	1966	
56 0633	GREEN RIVER DRIVE OC	08-RIV-091-R1.03	5. Bridge not eligible for NRHP	1970	
56 0634	WEST PRADO OH	08-RIV-091-R1.14	5. Bridge not eligible for NRHP	1970	1992
56 0635	E91-N71 CONNECTOR UC	08-RIV-091-R1.77-COR	5. Bridge not eligible for NRHP	1970	1992
56 0637	PRADO OVERHEAD	08-RIV-091-R2.84-POM	5. Bridge not eligible for NRHP	1970	1992
56 0638	SERFAS DRIVE UC	08-RIV-091-R3.71	5. Bridge not eligible for NRHP	1970	1992
56 0639L	DESERT CENTER DITCH	08-RIV-010-R104.43	5. Bridge not eligible for NRHP	1967	1983
56 0639R	DESERT CENTER DITCH	08-RIV-010-R104.43	5. Bridge not eligible for NRHP	1967	1983
56 0640L	LARRY DITCH	08-RIV-010-R104.72	5. Bridge not eligible for NRHP	1967	
56 0640R	LARRY DITCH	08-RIV-010-R104.72	5. Bridge not eligible for NRHP	1967	
56 0643	COUNTRY VILLAGE ROAD OC	08-RIV-060-R3.03	5. Bridge not eligible for NRHP	1971	
56 0644L	OLD TEMESCAL ROAD UC	08-RIV-015-39.4	5. Bridge not eligible for NRHP	1975	
56 0644R	OLD TEMESCAL ROAD UC	08-RIV-015-39.4	5. Bridge not eligible for NRHP	1975	
56 0645	SAN SEVAINE CHANNEL	08-RIV-060-R2.63	5. Bridge not eligible for NRHP	1970	1975
56 0646L	NEWPORT ROAD OC	08-RIV-215-R18.53	5. Bridge not eligible for NRHP	2000	
56 0646R	NEWPORT ROAD OC	08-RIV-215-R18.52	5. Bridge not eligible for NRHP	1979	
56 0647L	SALT CREEK	08-RIV-215-R18.92	5. Bridge not eligible for NRHP	1979	
56 0647R	SALT CREEK	08-RIV-215-R18.92	5. Bridge not eligible for NRHP	1979	
56 0649	SCOTT ROAD OC	08-RIV-215-R15.52	5. Bridge not eligible for NRHP	1979	
56 0651	CLINTON KEITH ROAD OC	08-RIV-215-R12.51-MRTA	5. Bridge not eligible for NRHP	1979	
56 0652L	KELLER ROAD UC	08-RIV-215-R14.5	5. Bridge not eligible for NRHP	1979	
56 0652R	KELLER ROAD UC	08-RIV-215-R14.5	5. Bridge not eligible for NRHP	1979	
56 0653L	ROUTE 15/79 SEPARATION	08-RIV-015-3.42-TMCA	5. Bridge not eligible for NRHP	1976	
56 0653R	ROUTE 15/79 SEPARATION	08-RIV-015-3.42-TMCA	5. Bridge not eligible for NRHP	1976	
56 0654	SANTIAGO ROAD OC	08-RIV-015-4.12-TMCA	5. Bridge not eligible for NRHP	1976	
56 0655	RANCHO CALIFORNIA OC	08-RIV-015-4.98-TMCA	5. Bridge not eligible for NRHP	1976	

Structure Maintenance & Investigations



Historical Significance - State Agency Bridges

District 08

Riverside County

Bridge Number	Bridge Name	Location	Historical Significance	Year Built	Year Wid/Ext
56 0575L	EAGLE MOUNTAIN ROAD UC	08-RIV-010-R102.01	5. Bridge not eligible for NRHP	1967	
56 0575R	EAGLE MOUNTAIN ROAD UC	08-RIV-010-R102.01	5. Bridge not eligible for NRHP	1967	
56 0576L	TEX WASH	08-RIV-010-R102.63	5. Bridge not eligible for NRHP	1967	
56 0576R	TEX WASH	08-RIV-010-R102.63	5. Bridge not eligible for NRHP	1967	
56 0577L	ROUTE 10/177 SEPARATION	08-RIV-010-R105.09	5. Bridge not eligible for NRHP	1967	
56 0577R	ROUTE 10/177 SEPARATION	08-RIV-010-R105.09	5. Bridge not eligible for NRHP	1967	
56 0579L	AQUEDUCT WASH	08-RIV-010-R75.04	5. Bridge not eligible for NRHP	1965	
56 0579R	AQUEDUCT WASH	08-RIV-010-R75.04	5. Bridge not eligible for NRHP	1965	
56 0580L	SAD GULCH	08-RIV-010-R76.55	5. Bridge not eligible for NRHP	1965	
56 0580R	SAD GULCH	08-RIV-010-R76.55	5. Bridge not eligible for NRHP	1965	
56 0581L	HOPE ARROYO	08-RIV-010-R77.66	5. Bridge not eligible for NRHP	1965	
56 0581R	HOPE ARROYO	08-RIV-010-R77.66	5. Bridge not eligible for NRHP	1965	
56 0582L	RESURRECTION WASH	08-RIV-010-R78.94	5. Bridge not eligible for NRHP	1965	
56 0582R	RESURRECTION WASH	08-RIV-010-R78.94	5. Bridge not eligible for NRHP	1965	
56 0583G	E91-N15 CONNECTOR OC	08-RIV-091-7.49-COR	5. Bridge not eligible for NRHP	1989	
56 0585F	W91-S15 CONNECTOR OC	08-RIV-091-7.54-COR	5. Bridge not eligible for NRHP	1989	
56 0586G	N15-W91 CONNECTOR OC	08-RIV-015-41.52-COR	5. Bridge not eligible for NRHP	1988	
56 0587	ROUTE 91/71 SEPARATION	08-RIV-091-R2.08-COR	5. Bridge not eligible for NRHP	1970	1992
56 0588L	RANNELLS DRAIN	08-RIV-010-R148.53-BLY	5. Bridge not eligible for NRHP	1969	
56 0588R	RANNELLS DRAIN	08-RIV-010-R148.53	5. Bridge not eligible for NRHP	1969	
56 0589	ARROWHEAD BLVD OC	08-RIV-010-R150.16-BLY	5. Bridge not eligible for NRHP	1972	
56 0590	DEFRAIN BLVD OC	08-RIV-010-R151.15-BLY	5. Bridge not eligible for NRHP	1972	
56 0592L	LOVEKIN BLVD UC	08-RIV-010-R152.15-BLY	5. Bridge not eligible for NRHP	1972	
56 0592R	LOVEKIN BLVD UC	08-RIV-010-R152.15-BLY	5. Bridge not eligible for NRHP	1972	
56 0593L	BLYTHE OH	08-RIV-010-R152.43-BLY	5. Bridge not eligible for NRHP	1972	
56 0593R	BLYTHE OH	08-RIV-010-R152.43-BLY	5. Bridge not eligible for NRHP	1972	
56 0595L	BROADWAY UC	08-RIV-010-R152.65-BLY	5. Bridge not eligible for NRHP	1972	
56 0595R	BROADWAY UC	08-RIV-010-R152.65-BLY	5. Bridge not eligible for NRHP	1972	
56 0596	BLYTHE POC	08-RIV-010-R152.86-BLY	5. Bridge not eligible for NRHP	1972	
56 0597L	SEVENTH AVENUE UC	08-RIV-010-R153.16-BLY	5. Bridge not eligible for NRHP	1972	
56 0597R	SEVENTH AVENUE UC	08-RIV-010-R153.16-BLY	5. Bridge not eligible for NRHP	1972	
56 0598L	ROUTE 10/95 SEPARATION	08-RIV-010-R154.15	5. Bridge not eligible for NRHP	1972	
56 0598R	ROUTE 10/95 SEPARATION	08-RIV-010-R154.15-BLY	5. Bridge not eligible for NRHP	1972	
56 0601L	WINEVILLE ROAD UC	08-RIV-060-R.99	5. Bridge not eligible for NRHP	1973	
56 0601R	WINEVILLE ROAD UC	08-RIV-060-R.99	5. Bridge not eligible for NRHP	1973	
56 0602L	MIRA LOMA OH	08-RIV-060-R1.80	5. Bridge not eligible for NRHP	1973	
56 0602R	MIRA LOMA OH	08-RIV-060-R1.8	5. Bridge not eligible for NRHP	1973	
56 0603L	ETIWANDA AVENUE UC	08-RIV-060-R1.99	5. Bridge not eligible for NRHP	1973	
56 0603R	ETIWANDA AVENUE UC	08-RIV-060-R1.99	5. Bridge not eligible for NRHP	1973	
56 0604L	KEIM ACCESS ROAD UC	08-RIV-010-R146.9	5. Bridge not eligible for NRHP	1972	
56 0604R	KEIM ACCESS ROAD UC	08-RIV-010-R146.9-BLY	5. Bridge not eligible for NRHP	1972	
56 0605L	COTTONWOOD CREEK	08-RIV-010-R25.44	5. Bridge not eligible for NRHP	1967	
56 0605R	COTTONWOOD CREEK	08-RIV-010-R25.44	5. Bridge not eligible for NRHP	1967	

Exhibit 3: Archaeological Survey Report (ASR)

ARCHAEOLOGICAL SURVEY REPORT

For

State Route 91/71 Interchange Project, Riverside County, California (08-Riv-91 - P.M. R0.6/R2.6; 08-Riv-71 – P.M. 1.6/3.0) EA 0F541

Reviewed by:

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Approved by:

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Caltrans District 8, Cultural Studies Division
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San Bernardino, California 92401-1400

October 2010

NADB data: Total acres surveyed ~54.55 ac (21.82 ha);
Prado Dam and Black Star Canyon 7.5-minute USGS Topographic Maps; No Cultural Resources Identified

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1
SUMMARY OF FINDINGS

This document is being prepared to Section 106 standards due to anticipated federal involvement.

Riverside County Transportation Commission (RCTC), in cooperation with the State of California Department of Transportation (Caltrans), District 8, proposes to improve the State Route (SR) 91/71 Interchange (Project) by constructing a new direct flyover connector from eastbound SR 91 to northbound SR 71, reconstruction of the Green River Road onramp, and realignment of SR 71 (see Figures 1 and 2 in Exhibit 1 of the HPSR). The proposed Project will also include the following features: drainage improvements, retaining walls, utility relocation, signage, potential sound walls, and relocation of local access. Two alternatives are being considered for the project: a No Build Alternative and a Build Alternative.

The proposed Project will need to acquire minimal amounts of Right-of-Way for construction of the Green River on ramp and storm water facilities. Temporary construction easements will be needed along the commercial business park south of SR 91, within the U.S. Army Corps of Engineer (USACE) Prado Dam/Santa Ana River property, west of SR 71 and within private property for potential sound walls near the Green River Road Interchange.

The purpose of the Archaeological Survey Report (ASR) is to document the methods and results of the archaeological survey of the Project Area of Potential Effects (APE). The Project is located partially within the City of Corona limits at the western edge of Riverside County and northeastern edge of Orange County, California.

The Project APE encompasses 54.55 acres (ac) (21.82 hectares [ha]) (see Figures 1 and 2 in Exhibit 1 of the HPSR). In addition to a no Build Alternative, the Project APE includes only one Build Alternative (see Figure 3 in Exhibit 1 of the HPSR). In regards to the vertical APE, structural improvements for the proposed new bridges, such as column placements and associated footings, will also be part of the proposed project. Estimated pile depths are expected to reach approximately 110 feet (ft) below the existing ground surface. The Project also proposes to realign a portion of the existing northbound and southbound lanes of SR 71 just north of the existing Santa Ana River crossing. Realignment of the southbound lanes will require cut excavation into the existing hillside located immediately to the west of SR 71. Based on preliminary design, the maximum depth of cut is expected to range up to 35 ft.

Because the proposed Project may affect archaeological resources, an archaeological literature and records search and a pedestrian survey of portions of the Project APE that have not been highly disturbed or paved over was completed. A reconnaissance survey was completed on those portions of the Project APE that have been highly disturbed or paved over. Therefore, to gather information on all previous cultural resources studies and archaeological sites recorded previously within a one mile radius of the Project study area was completed (see Figure 1 – Study Area Map in Chapter 4.1). This task included searches at the Eastern Information Center (EIC), the San Bernardino Archaeological Information Center (SBAIC), and the South Central Coastal Information Center (SCCIC). The searches indicate that a total of 67 cultural resources studies have been completed previously within a one mile radius of the Project study area; four

additional studies were documented by the SCCIC—however, due to insufficient locational information in these documents, it is unclear whether they were located within a one mile radius of the Project study area or not.

The EIC and SBAIC also indicated that there is a total of 12 general overview reports for the study area (5 and 7, respectively). Of the 55 area-specific investigations, the EIC reported that 17 studies were within the Project APE, while two were immediately adjacent to the APE. The SCCIC also reported that two area-specific studies were within the Project APE. These previous studies resulted in the identification and documentation of a total of 19 archaeological resources, including 18 historical-period sites and one prehistoric site. Of these, two historical-period sites, the former location of a railroad grade (CA-RIV-5522H) and the remains of the historical-period town of Alta Vista/Green River Camp (CA-RIV-6532H), are/were located immediately adjacent to but not within the Project APE. One historical-period site, the extant Prado Dam and its appurtenant features (CA-RIV-4730H), is located within and adjacent to the Project APE.,. The remaining 16 cultural resources recorded within a one mile radius of the Project study area are all located north of the Project APE. No additional cultural resources are listed in the other California Historical Resources Information System (CHRIS) data sources consulted.

Following completion of the literature and records searches, one Applied EarthWorks (*Æ*) archaeologist and one Parsons architectural historian conducted an archaeological pedestrian survey of portions of the SR 91/71 APE on July 5, 2008. The survey was concentrated on areas of the Project APE that have not been previously disturbed by construction/maintenance of the existing SR 91 and SR 71 freeways, by the construction/maintenance of the Prado Dam, located immediately north and east of the Project APE, or by the construction of modern residences and associated erosion diversion features (e.g., terraced hillsides). There is no evidence of two of the three previously recorded sites located immediately adjacent to the Project APE (CA-RIV-5522H and CA-RIV-6532H) during the pedestrian survey; the Prado Dam and its appurtenant features (CA-RIV-4730H) are still present within and adjacent to the Project APE. In addition, no new prehistoric or historic archaeological resources were identified within or immediately adjacent to the APE as a result of the pedestrian survey; therefore, no further Section 106 studies addressing archaeological cultural resources should be necessary for this undertaking unless Project plans change to include unsurveyed areas.

It is Caltrans' policy to avoid cultural resources whenever possible. Therefore, if buried cultural materials are encountered during construction, it is Caltrans' policy that work stop in that area until a qualified archaeologist can evaluate the nature and significance of the find. Additional survey will be required if the Project changes to include areas not previously surveyed.

2
INTRODUCTION

RCTC, in cooperation with Caltrans, proposes to improve the SR 91/71 interchange by constructing a new direct flyover connector from eastbound SR 91 to northbound SR 71, reconstruction of the Green River Road onramp, and re-alignment of SR 71. The purpose of the Project is to improve capacity and to provide less delay for commuters by removing the bottleneck at the SR91/71 interchange.

Currently, the existing eastbound SR 91 to northbound SR 71 connector consists of a single lane, tight loop ramp which passes under the SR 91/71 separation to join the westbound SR 91 to the northbound SR 71 connector. Additionally, the southbound SR 71 to eastbound SR 91 connector passes under the SR 91/71 Separation Bridge (Bridge No. 560587) as a single lane ramp, paralleling the eastbound SR 91 to northbound SR 71 connector and opening to two lanes to provide storage for connector ramp metering prior to merging onto eastbound SR 91 within an existing auxiliary lane. The existing westbound SR 91 to northbound SR 71 connector diverges from SR 91 as a two lane ramp and merges to a single lane prior to joining the single lane eastbound SR 91 to northbound SR 71 connector, forming the two lane northbound SR 71 expressway that crosses the Santa Ana River on an existing four lane structure shared by the two lane southbound SR 71 expressway. The existing southbound SR 71 to westbound SR 91 connector diverges from SR 71 as a single lane and opens to two lanes to provide storage for ramp metering prior to entering westbound SR 91 as an added through lane.

The Project APE is located in both Riverside County and Orange County, portions of which are located within the City of Corona limits. On SR 91, the construction APE begins at post-mile (PM) R0.6 and ends at PM R2.6; on SR 71 the APE begins at PM 1.6 and ends at PM 3.0; signage on SR 91 will be located within PM R0.0 to PM R2.6. Within the limits of the proposed Project, SR 91 has five general purpose lanes and one high occupancy vehicle (HOV) lane in each direction with varying shoulder widths, ranging from 11 to 12 ft (3.3 to 3.6 meters [m]), while SR 71 is a four lane divided highway with 12 ft (3.6 m) lanes and 5 ft (1.5 m) inside and 8 ft (2.4 m) outside shoulders. The Project APE encompasses parts of SR 91, SR 71, the Green River Road interchange, and residential homes in the vicinity. The APE is depicted on the Prado Dam and Black Star Canyon CA, United States Geological Survey (USGS) 7.5-minute topographic quadrangles in Sections 25, 28, 29, and 30 of Township 3 South, Range 7 West (San Bernardino Baseline and Meridian [S.B.B.M.]) (see Figures 1, 2, and 3 in Exhibit 1 of the HPSR).

The archaeological field studies were conducted by Dennis McDougall, who attended the UCLA Field School in 1974/1975 and has more than 35 years of archaeological field experience in California under the direct supervision of Melinda Horne. Ms. Horne received her B.A. and M.A. in Anthropology/Geography from the University of Utah in 1980 and 1984, respectively; Ms. Horne has more than 24 years of archaeological experience in California. Mr. McDougall was assisted during field studies of the Project APE by Carrie Chasteen, a Senior Architectural Historian at Parsons who received her M.S. at the School of the Art Institute of Chicago in 2001; Ms. Chasteen has more than eight years experience conducting Section 106 and CEQA built environment surveys and preparing supporting documentation.

3
HIGHWAY PROJECT LOCATION AND DESCRIPTION

As stated previously, RCTC, in cooperation with Caltrans District 8, proposes to improve the SR 91/71 interchange by constructing a new direct flyover connector from eastbound SR 91 to northbound SR 71 and adding other roadway improvements. In addition to the No Build Alternative, there is only one Build Alternative under consideration; one additional Build Alternative was included in the Project Study Report but was eliminated in the Project Approval and Environmental Document phase from further consideration.

3.1 BUILD ALTERNATIVE

Features of the Build Alternative include the following:

3.1.1 Eastbound SR 91 to Northbound SR 71 Flyover Connector

The main feature of the Project will include a two lane direct flyover connector between eastbound SR 91 and northbound SR 71. The flyover connector would have two 12-ft lanes and 10-ft shoulders. In addition, to the two main connector lanes, the flyover structure would carry an outside, auxiliary lane extending along the connector from the Green River Road onramp. The flyover connector ramp will begin on eastbound SR 91, east of the existing Green River Road interchange, and will span SR 91, the Santa Ana River, and the southbound lanes of SR 71. The two lanes of the eastbound to northbound flyover connector will form the inside two lanes of northbound SR 71. The proposed two-lane westbound SR 91 to northbound SR 71 connector will merge to a single lane and join northbound SR 71 as an outside auxiliary lane before merging to a two lane facility. Structural features for the proposed new bridges, such as abutments, columns and associated footings, will also be part of the proposed Project.

3.1.2 Southbound SR 71 to Eastbound SR 91 Connector

The existing eastbound SR 91 to northbound SR 71 loop connector will be closed to traffic and pavement on this segment may be removed. Currently, a concrete barrier exists to separate the single lane of the southbound SR 71 to eastbound SR 91 connector and the single lane of the eastbound SR 91 to northbound SR 71 connector. With the Project, the southbound SR 71 to eastbound SR 91 connector is proposing to remove the existing barrier to accommodate the restriping of 1,900 ft of pavement from a single lane to three lanes from just south of the Santa Ana River Bridge.

3.1.3 Westbound SR 91 to Northbound SR 71 Connector

Currently, the westbound SR 91 to northbound SR 71 connector is two lanes and merges to one lane just south of the Santa Ana River Bridge. The proposed Project will re-stripe the connector to extend the two lanes approximately 1,200 ft to merge into a single lane just north of the Santa Ana River Bridge.

3.1.4 Reconstruction of Green River Road Onramp

To accommodate the new flyover connector ramp, the Green River Road onramp to eastbound SR 91 will be realigned as a two lane onramp which will span over the Burlington Northern Santa Fe (BNSF) Railway parallel to the West Prado Overhead Bridge (Bridge No. 56-0634). The inside lane of the ramp will continue as a slip ramp to the SR 91/71 flyover, joining the

connector as an auxiliary lane before merging into the two lane section on the flyover structure. The outside lane of the Green River onramp will diverge to the right and will run parallel to the SR 91/71 flyover prior to converging with the eastbound SR 91 mainline. Ramp metering may be installed on this ramp prior to the point where it merges with eastbound SR 91. The Fresno Canyon Wash Bridge (E91-N71 Connector UC; Bridge No. 56-0635) will be widened to accommodate the realigned ramp and shoulder. It should be noted that the existing West Prado Overhead Bridge (Bridge No. 56-0634) is constructed atop foundations consisting of Class 70 and Class 100 driven piles with estimated tip depths of 70 to 80 ft below the finished ground surface. Based on the Preliminary Foundation Report, the abutment footings for the proposed two-lane West Prado Onramp overhead structure are expected to require foundations with Class 140 driven piles. bents on the West Prado Onramp overhead are proposed to be supported on single shaft concrete piles. The flyover connector is expected to have longer piles for the bent footings than the West Prado Overhead Bridge, due to larger dead loads and added seismic and wind forces. Before subsurface investigations have been performed, pile depths are estimated to extend to approximately 110 ft (33 m) below the existing ground surface.

3.1.5 SR-91 Restriping

To comply with design standards, the proposed SR 91/71 Interchange Project intends to restripe the eastbound lanes from the 11-ft width to the 12-ft standard width between PM R0.6 to PM R2.6. In addition, 10-ft right shoulders will be constructed in the eastbound direction between these limits.

3.1.6 Realignment of SR 71

The existing southbound SR 71 lanes will be realigned to the west to allow adequate spacing for the SR 91/71 flyover to touch down and form the inside lanes of northbound SR 71. The proposed Project would realign the existing USACE driveway approximately 1/3 mile to the north with wider shoulders to allow right ingress and egress movements from the northbound SR 71 mainline to the USACE driveway. The approximate limits of realignment of the existing southbound SR 71 lanes will be from Station 334+00, the northern end of the SR 71 Santa Ana River Bridge (Bridge No. 56-0379), to Station 373+35 at the north end of the realignment.

The area adjacent to SR 71 consists of large hillside slopes and valleys. To accommodate the realignment, several cut slopes and fill areas are proposed west of SR 71. The cut slopes will be approximately 2,600 ft in length and will result in removal of approximately 430 cubic yards of soil. The cuts will be made with 2:1 slopes with benches constructed at 10 ft vertical intervals. In addition, approximately 678 cubic yards of soil will be used to fill in two valleys west of SR 71 that range in depth from 10 to 14 ft.

3.1.7 Drainage

Additional improvements include modification or construction of new drainage facilities. Hillside drainage along SR 71 may be improved through construction of new concrete ditches that would run along the top of any proposed retaining walls and convey drainage to new or existing culverts. Permanent water quality treatment features will be designed based on the anticipated volumes of storm water to be produced by the Project. These features may include biofiltration swales along the toes of slopes and retention/detention basins within the project limits.

3.1.8 Retaining Walls

Based on preliminary designs, it is anticipated that retaining walls would be constructed along portions of the Green River Road onramp south of SR 91, along SR 71, and at the abutment ends of the flyover connector. In addition, the retaining walls may be constructed with any of the five standard-type Caltrans' retaining walls, soil nail walls, and/or tie-back walls.

3.1.9 Local Access

The existing USACE driveway is proposed to be relocated approximately 1/3 mile north of its current location. Similarly, an intersection exists on SR 71 just north of the interchange and currently allows access to the Sukut property (currently operated by Dan Copp Materials, a small-scale concrete crushing and recycling operation) on the west and to USACE Prado Dam property on the east. As part of the Project, the intersection will be relocated to Station 358+00, approximately 1/3 mile north of its current location along SR 71.

3.1.10 Signage/Ramp Metering

Freeway signage will be installed within the project area for the new flyover connector and for the Green River onramp. Ramp metering may be installed on the Green River onramp prior to merging with eastbound SR 91.

3.1.11 Right-of-Way Acquisition

The main Project features will require only minor right of way acquisition south of SR 91 and west of SR 71. A portion of the Chino Hills State Park, owned by the California Department of Parks and Recreation, may be acquired through a slope easement. Temporary construction easements will be needed along the commercial business park south of SR 91, within the USACE Prado Dam/Santa Ana River property and west of SR 71.

3.2 NO BUILD ALTERNATIVE

With the No Build Alternative, the existing interchange would remain in its existing condition. This alternative avoids the potential environmental and Right-of-Way impacts associated with the Build Alternative. With the exception of normal maintenance, there are no committed improvements to be considered as part of the No Build Alternative. This alternative will not meet the objective of the proposed Project and is not consistent with the goals of the Measure A Implementation Plan.

4
SOURCES CONSULTED

4.1 CULTURAL RESOURCES LITERATURE AND RECORDS SEARCH

A cultural resources literature and records search was conducted to gather information on all previous cultural resources studies and cultural resources sites recorded previously within a one mile radius of the Project study area (see Figure 1 Study Area Map). This one mile radius includes portions of three southern California counties: Riverside County, San Bernardino County, and Orange County. Thus, the literature and record searches were completed at three different offices of the CHRIS. Results of these searches are described below.

4.1.1 Eastern Information Center (EIC)

The CHRIS office at the EIC includes data for Riverside, Inyo, and Mono counties. The search for a one mile radius of the Project APE, conducted on June 18, 2008 by Rachel Williams (EIC Information Officer), indicates that 48 cultural resources studies, including 43 area-specific studies and five general overviews, have been completed within a one mile radius of the Project study area. Of these, 17 area-specific studies were within the Project APE, two additional area-specific studies were immediately adjacent to the Project APE.

The search also indicated that 18 cultural resources have been recorded previously within a one mile radius of the Project study area; of these, three resources are/were located within or immediately adjacent to the APE. These three resources include sites CA-RIV-4730H, CA-RIV-5522H, and CA-RIV-6532H. Site CA-RIV-4730H, located within and adjacent to the Project APE, was recorded in 1992 and consists of the existing Prado Dam and its appurtenant features (see below for more details concerning the Prado Dam). Site CA-RIV-5522H, located adjacent to the Project APE, was recorded in 1995 and is reportedly an old railroad grade that has since been destroyed. Site CA-RIV-6532H, recorded in 2000, is the remains of the historical-period town of Alta Vista, located immediately north and adjacent to the Project APE. This site is also known as Green River Camp, which was established sometime between the periods of 1910 and 1920. The site record states that "Many of the structures in the town were removed during improvements to the Riverside Freeway (SR 91) and the construction of the Green River Gulf Course. No structural remains exist with the exception of a concrete patio and brick barbeque at the extreme eastern end of the site." Subsurface testing conducted at the same time the site was recorded revealed the presence of approximately 1,400 historic-period artifacts, including ceramic fragments, glass shards, cans, and miscellaneous metal fragments and construction materials; integrity is described as very poor. The site was formally evaluated by USACE for the National Register of Historic Places (NRHP) eligibility and considered ineligible for listing. The State Historic Preservation Office (SHPO) concurred with this determination in 2001. CA-RIV-6532H no longer exists within the paved segment of SR 91 that will be used for Project-related signage during construction.

The Prado Dam, CA-RIV-4730H, was recorded in 1992 as an archaeological site. Pursuant to the Historic Property Management Plan as required by the 1993 Programmatic Agreement for the Santa Ana River Project by the Advisory Council on Historic Preservation, Historic American Engineering Record (HAER) documentation, No.CA-178, was prepared by Roger

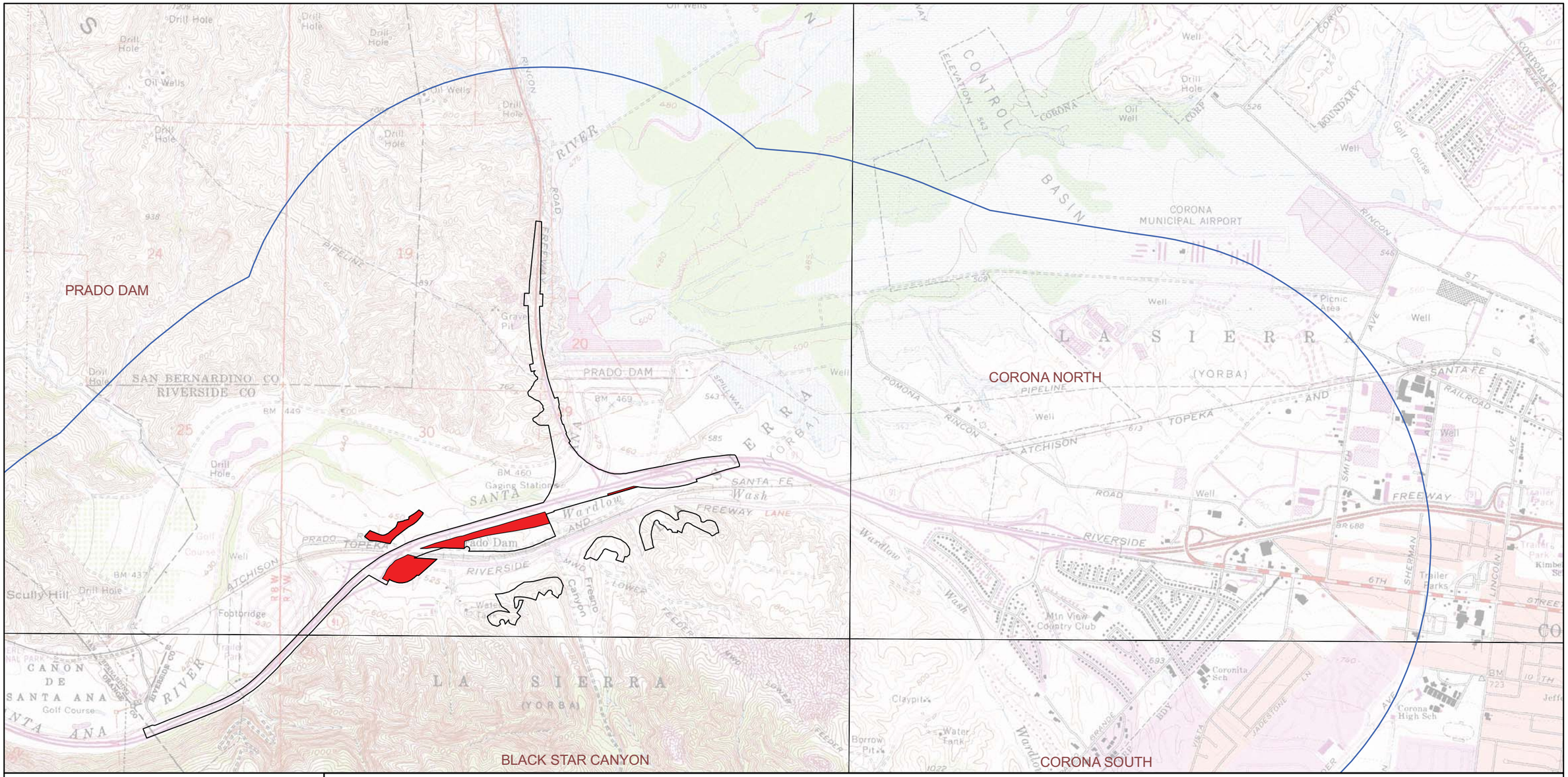


Figure 1a **Study Area Map showing areas surveyed for cultural resources within the Project APE.**

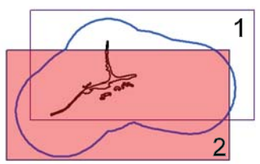
PRADO DAM

CORONA NORTH

BLACK STAR CANYON

CORONA SOUTH

KEY



Legend

- Study Area
- Surveyed Area of APE
- Reconnaissance Survey Area of APE

SCALE 1:24,000

1 0.5 0 1 2 Miles

1,000 0 1,000 2,000 3,000 4,000 5,000 6,000 7,000 8,000 9,000 10,000 11,000 Feet

1 0.5 0 1 2 Kilometers

Sheet 2

Black Star Canyon (1967-1982), Corona North (1967-1981), Corona South (1967-1982), and Prado Dam (1967-1981), CA 7.5' USGS Quadrangles

Figure 1b Study Area Map showing areas surveyed for cultural resources within the Project APE.

Hathaway *et al.* and Greenwood and Associates in 1996 to mitigate potential adverse effects on a historic property from the construction of a new spillway (GandA and Infotec 1989). The HAER record indicates Prado Dam, and its associated structures, are eligible for listing in the National Register of Historic Places under Criterion A as an integral part of one of the largest flood-control projects in Southern California and under Criterion C because it was the largest single component in the flood control system for Orange County, and remains the second largest earthen dam in southern California [at the time the HAER report was prepared]. Documentation received from EIC does not indicate the SHPO concurred on the above findings, and it appears the USACE treated the site as a historic property without formal concurrence from the SHPO. The HAER documentation was prepared to mitigate USACE improvements to the site, which included construction of a new spillway in the late 1990s.

The late 1990s spillway is the only component of the Prado Dam site located within the Project APE. The 1990s spillway does not appear to be a contributing feature to the Prado Dam site because it was constructed well after the original dam and associated features were originally constructed. In addition, the spillway has not achieved 50 years of age. Based on the information available, the late 1990s spillway is considered exempt pursuant to the criteria of Attachment 4 of the *Section 106 Programmatic Agreement among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and Caltrans* (Section 106 PA).

The remaining 16 cultural resources recorded within a one mile radius of the Project study area are all located north of the APE and include historical-period ranch/farm remains, clay roofing tile fragments, the historic-era townsite of Rincon, a historical-period cemetery associated with the townsite of Rincon, an adobe ruin, a historical-period bridge abutment, and a prehistoric scatter of ground stone implements (manos, metates, and ground stone fragments). Many of these resources have since been destroyed during the development of the Prado Dam and its appurtenant features. It should also be noted that the prehistoric site, CA-RIV-1801 (recorded in 1979), is the only prehistoric resource previously recorded within the entire Project study area.

4.1.2 San Bernardino Archaeological Information Center (SBAIC)

The CHRIS office at the SBAIC includes data for San Bernardino County. The search for a one mile radius of the Project study area, conducted on June 13, 2008 by Robin Laska (SBAIC Assistant Center Coordinator), indicates that three area-specific cultural resources studies and seven general overviews have been completed previously within a one mile radius of the study area; none of these studies fall within or immediately adjacent to the Project APE. This search also indicates that one historical-period dirt road, CA-SBR-7010H, within the Project study area, was recorded in 1991. This site is described as a dirt road that was first depicted on a 1902 USGS topographic map. The dirt road (CA-SBR-7010H) runs southwest along Slaughter Canyon to Aliso Canyon, then southward to the Santa Ana River drainage, and is not within or immediately adjacent to the Project APE.

4.1.3 South Central Coastal Information Center (SCCIC)

The CHRIS office at the SCCIC includes data for Los Angeles, Orange, and Ventura counties. The search for a one mile radius of the Project study area, conducted on July 9, 2008 by Michelle Galaz (SCCIC Staff Researcher), indicates that three area-specific cultural resources studies and seven general overviews have been completed previously within a one mile radius of the Project study area; two of the area-specific studies fall within the APE (these two studies are also listed by the EIC). Four additional studies were documented by the SCCIC – however, due to

insufficient locational information in these documents it is unclear whether they were located within a one mile radius of the Project study area or not. This search also indicates that no cultural resources have been previously recorded within a one mile radius of the Project study area.

4.1.4 Other CHRIS Sources Consulted

Other sources consulted by the CHRIS Information Centers include: *National Register of Historic Properties; Survey of Surveys: A Summary of California's Historical and Architectural Resources*; *Five Views: An Ethnic Sites Survey for California*; and *Historical Landmarks of San Bernardino County*. As well, listing in the *Determinations of Eligibility Records* and *Directory of Historic Properties* entered into the Office of Historic Preservation (OHP) computer files. No additional cultural resources are listed in these data sources.

4.1.5 Summary of CHRIS Results

In summary, the cultural resources literature and records search conducted at the EIC, the SBAIC, and the SCCIC indicate that a total of 67 cultural resources studies have been completed previously within a one mile radius of the Project study area; four additional studies were documented by the SCCIC – however, due to insufficient locational information in these documents it is unclear whether they were located within a one mile radius of the Project study area or not. The EIC and SBAIC also indicated that there are a total of 12 general overview reports for the Project study area (5 and 7, respectively). Of the 55 area-specific investigations, the EIC reported that 17 studies were within the Project APE, while two were immediately adjacent to the APE. The SCCIC also reported that two area-specific studies were within the Project APE.

These previous studies resulted in the identification and documentation of a total of 19 archaeological resources, including 18 historical-period sites and one prehistoric site. Of these, one historical-period site, the extant Prado Dam and its appurtenant features (CA-RIV-4730H), is located within and adjacent to the Project APE. In addition, two historical-period sites, the former location of a railroad grade (CA-RIV-5522H) and the remains of the historical-period town of Alta Vista/Green River Camp (CA-RIV-6532H), are/were located immediately adjacent to but not located within the Project APE. Established sometime between the periods of 1910 and 1920, Alta Vista/Green River Camp was recorded and subjected to subsurface testing in 2000. Although approximately 1,400 historic-period artifacts were recovered during testing, the integrity of the cultural deposits at the site was described as very poor. As mentioned, CA-RIV-6532H was formally evaluated and determined ineligible for listing in the NRHP by the ACOE. SHPO concurred with this determination in 2001. In addition, the site no longer exists within the paved segment of SR 91 that will be used for Project-related signage during construction. The remaining 16 cultural resources recorded within a one mile radius of the Project study area are all located north of the Project APE. No additional cultural resources are listed in the other CHRIS data sources consulted.

4.2 NATIVE AMERICAN CONSULTATIONS

In accordance with Section 106 of the National Historic Preservation Act, a request was made to the Native American Heritage Commission (NAHC) for a review of the *Sacred Lands Inventory* on June 10, 2008 to determine if any known cultural properties are present within or adjacent to

the Project APE. The NAHC responded on June 16, 2008, stating that Native American cultural resources are known to exist in the immediate Project study area. The NAHC also stated that the Project study area is shared by four tribal cultures: The Gabrielino/Tongva, the Luiseño, the Juaneño, and to a lesser extent, the Cahuilla. However, the NAHC indicated that their data suggest a strong Gabrielino/Tongva presence. The NAHC requested that eight Native American individuals and organizations be contacted to solicit any information or concerns regarding cultural resources issues related to the Project (see Exhibit 5 in the HPSR). These individuals and organizations were contacted by letter on July 15, 2008. Table 1 in Exhibit 5 of the HPSR lists the eight Native American individuals/organizations contacted and their subsequent responses.

Of those contacted, Mr. Anthony Morales, Chairperson of the Gabrielino/Tongva San Gabriel Band of Mission Indians, called on July 30, 2008 and stated that he had concerns regarding the sensitive nature of the proposed Project and recommended that an archeological and Native American monitor be present during Project-related ground disturbing activities. Pursuant to a request by Caltrans District 8 Native American Coordinator (DNAC), Gwyn Alcock regarding a request for Native American Monitoring during construction, Æ provided a revised draft ASR to Mr. Morales on May 18, 2009. On May 19, 2009, Mr. Morales called Æ and was concerned that Caltrans did not agree to his request for Native American monitoring during construction. However, after explaining why the Project APE had little to no potential for containing intact buried Native American cultural deposits due to its geomorphic setting and documented prehistoric settlement patterns in the overall Prado Basin – Mr. Morales agreed with Æ's and Caltrans' findings and recommendations for no Native American Monitoring during construction.

On August 1, 2008 Æ received an email from Ms. Anna Hoover, Cultural Resources Analyst for the Pechanga Band of Mission Indians requesting that a Pechanga monitor be present during the cultural resources survey of the Project APE. Æ invited the Tribe to participate in the August 5, 2008 cultural resources survey of the Project APE; however, no Tribal representative showed up for the survey. In a letter dated September 22, 2008, the Pechanga Band of Mission Indians requested to be notified in the event that cultural resources are identified during Project construction, and to be consulted regarding the treatment and disposition of all artifacts discovered during construction. In addition, the Pechanga Band of Mission Indians requested to be notified by the Lead Agency once the entitlement and/or CEQA/NEPA process commences for the Project to enable the Tribe the opportunity to participate in the Project's environmental review process. The Tribe also requested copies of all archaeological reports, site records, and environmental documents once they are completed. Lastly, the Pechanga Band of Mission Indians requested formal government-to-government consultation with the Project's Lead Agency (see Exhibit 5 in the HPSR). Caltrans initiated government-to-government consultation after receipt of this letter. Pursuant to a request by Caltrans DNAC, Gwyn Alcock regarding a request for Native American monitoring during construction, Æ provided a revised draft ASR to Ms. Hoover on May 18, 2009. On March 4, 2010, Ms. Alcock received a call from Ms. Hoover to discuss the Project. Ms. Hoover stated that after reviewing the Project, they have no further comments and no concerns at this time. However, if the sensitivity appears to rise above the level of low concern for prehistoric resources, they want to be contacted. Therefore, under the auspices of the Federal guidelines for Section 106, Native American government-to-government consultation has been completed between the DNAC, Gwyn Alcock, and the Pechanga Band of Mission Indians.

Mr. Joe Ontiveros, Cultural Resources Manager for the Soboba Band of Mission Indians, in a telephone call on August 4, 2008, recommended that a Native American Monitor present during the cultural resources survey of the Project APE. Æ invited the Tribe to participate in the cultural resources survey of the Project APE. On August 5, 2008, Soboba assisted with the archaeological survey of the Project APE. Pursuant to a request by Caltrans DNAC, Gwyn Alcock regarding a request for Native American Monitoring during construction, Æ provided a revised draft ASR to the Tribe on May 18, 2009. On June 18, 2009 Mr. Ontiveros contacted Ms. Alcock to discuss the Project and results of the cultural resources identification efforts. While Mr. Ontiveros understands Caltrans Monitoring Policy, he has concerns that Native American artifacts may have washed into the project APE during one or more flooding episodes; it does not matter if they are out of context – they are still considered "sacred to a point." Mr. Ontiveros, however, stated that Caltrans may move forward on the Project.

The Cahuilla Band of Indians, in a telephone call on September 17, 2008, requested a copy of the cultural resources inventory report and that a Native American monitor be present during Project construction. Pursuant to a request by Caltrans DNAC, Gwyn Alcock regarding a request for Native American Monitoring during construction, Æ provided a revised draft ASR to the Tribe on May 18, 2009. On July 10, 2009, Æ received an email from Ms. Yvonne Markle, Assistant Director of Environmental Department for the Cahuilla Band of Indians, stating that currently the Cahuilla Band of Indians has no concerns regarding this Project; however, they requested to be updated on any findings in the Project area that pertain to any discoveries of Native American artifacts.

Æ contacted Cindi Alvitre of the Ti'At Society by phone on August 4, 2008 and September 17, 2008. Detailed messages regarding the Project were left during both attempts to contact Ms. Alvitre. No response was received.

Æ contacted Mr. Sam Dunlap, Tribal Secretary for the Gabrielino/Tongva Council/Gabrielino Tongva Nation, by phone on August 4, 2008. Mr. Dunlap stated he had not had the chance to read the letter yet and would get back to us when he does. On September 17, 2008 Æ left a detailed message regarding the Project for Mr. Dunlap. No response was received.

Æ left a detailed message regarding the Project for Ms. Sonia Johnston of the Juaneño Band of Mission Indians on August 4, 2008. On September 17, 2008 Æ called Ms. Johnston, who stated that the Tribe has no concerns regarding the proposed Project.

4.3 OTHER CONSULTATIONS

Ms. Chasteen, Parsons' Senior Architectural Historian, contacted the following organizations and agencies to solicit any additional information or concerns about built environment cultural resources within or immediately adjacent to the Project APE: City of Corona Department of Community Development; Riverside County Planning Department; San Bernardino County Department of Development and Housing; Corona Public Library Heritage Room Librarian; Corona Historic Preservation Society; Pioneer Historical Society of Riverside; and San Bernardino County Museum (see Exhibit 4 of the HPSR). To date, no response has been received from any of the organizations or agencies contacted.

5
BACKGROUND

5.1 INTRODUCTION

This chapter describes the environmental and cultural setting of the general Project region to provide a context for understanding the types, nature, and significance of the cultural resources that could be identified within or adjacent to the Project APE.

5.2 ENVIRONMENTAL SETTING

The Project APE is located at the northern edge of the Santa Ana Mountains; the Chino Hills border the Project study area to the north, while the Prado Basin borders the Project study area to the east and the narrow Santa Ana River Canyon is situated to the west. The Santa Ana River watershed includes much of Orange County, the northwestern corner of Riverside County, the southwestern corner of San Bernardino County, and a small portion of Los Angeles County. The watershed is located in the Peninsular Ranges and Transverse Ranges Geomorphic Provinces of southern California. The highest elevations (upper reaches) of the watershed occur in the San Bernardino Mountains (San Gorgonio Peak—11,485 ft above mean sea level [amsl] in elevation), in the eastern San Gabriel Mountains (Transverse Ranges Province; Mt. Baldy—10,080 ft amsl in elevation), and in the San Jacinto Mountains (Peninsular Ranges Province, Mt. San Jacinto—10,804 ft amsl). Further downstream, the Santa Ana Mountains and the Chino Hills form a topographic high before the river flows into the Coastal Plain of Orange County, and into the Pacific Ocean. Primary slope direction is northeast to southwest, with secondary slopes controlled by local topography (Santa Ana Watershed Project Authority website http://www.sawpa.org; accessed February 2009).

The climate of the Santa Ana River watershed is Mediterranean with hot, dry summers and cooler, wetter winters. Average annual precipitation ranges from 12 inches per year in the coastal plain to 18 inches per year in the inland alluvial valleys, reaching 40 inches or more in the San Bernardino Mountains (Santa Ana Watershed Project Authority website http://www.sawpa.org; accessed February 2009). Most of the precipitation occurs between November and March in the form of rain with variable amounts of snow in the higher elevations. The climatological cycle of the region results in high surface water flows in the spring and early summer, followed by low flows during the dry season. Winter and spring floods generated by storms are not uncommon in wet years. Similarly, during the dry season, infrequent summer storms can cause torrential floods in local streams.

Due to its proximity to the Santa Ana River, the Project APE is located within a hydrologically active area. Wardlow Wash transects the eastern portion of the Project APE and merges with the Santa Ana River. Several smaller creeks join the Santa Ana River from the Santa Ana Mountains to the south and the Chino Hills to the north. Sediments and geological formations underlying the Project APE are largely alluvial and are derived from these water systems and were deposited during the Quaternary period (1.8 million years ago to the present). Rock outcrops in the general area are derived from marine and non-marine sediments, primarily sandstone and conglomerates. Further south, the Santiago Peak Volcanic formation outcrops along the upper ridges of the Santa Ana Mountains and is composed of andesitic basalt, andesite,

dacite, and rhyolite that may have been quarried by prehistoric Native American groups for toolstone materials. North of the Project APE, in the Chino Hills, outcrops consist of several sandstone-conglomerate formations.

The easternmost portion of the Project APE is located on very old fan deposits, consisting of gravels, sands, and silts, and is incised by several waterways which are in-filled with Holocene-age sediments. The fan and channel sediments are derived from the northern end of the Santa Ana Mountains and potentially contain small volcanic and granitic stones.

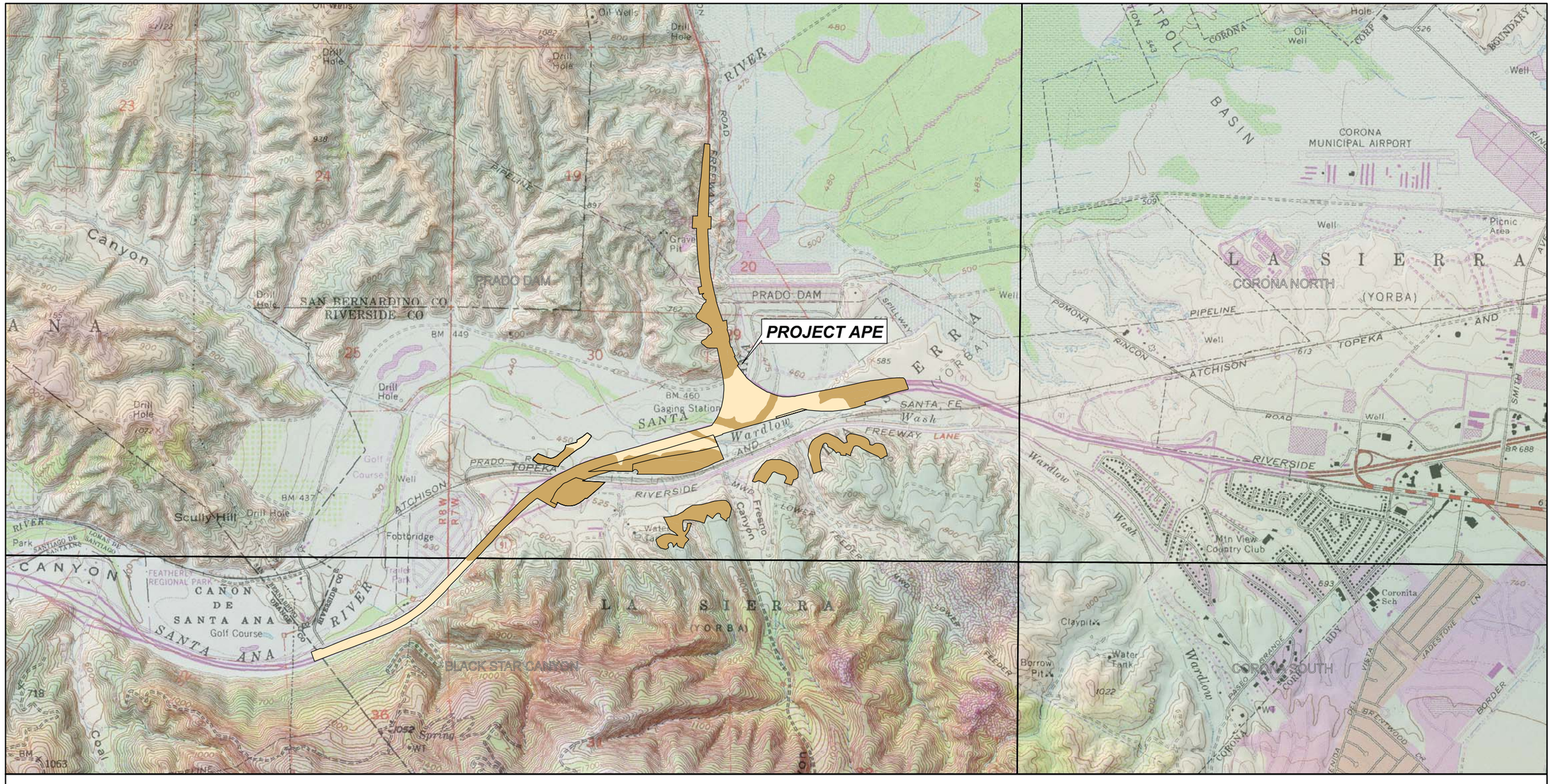
The central portion of the Project APE consists mostly of Holocene floodplain sediments of the Santa Ana River to the north and Quaternary period fan sediments to the south. In addition to fan deposits, several Holocene-age landslides also are present along the southern margin of the Project APE at the base of Sierra Peak.

The western portion of the Project APE is also composed of Holocene Santa Ana River flood plain sediments to the north and Quaternary period fan sediments to the south. A small ridge of residual Vaqueros and Sespe formations (interbedded sandstone and conglomerate), in addition to small outcrops of the Ladd, Silverado, and Santiago formations, which are composed of sandstone, conglomerate, shale, and siltstone, are found in the western portion of the Project APE. These outcrops represent the only rock formations in the Project APE

Figure 2 depicts the Project sensitivity for containing buried cultural resources in the Project APE; this figure is based on the available geologic and sedimentary data available for the Project study area. As shown, the Project APE is divided into areas of no sensitivity for buried significant prehistoric archaeological resources and areas of low sensitivity for buried significant prehistoric archaeological resources. These conclusions were derived from analysis of formations depicted the Santa Ana geological map and supporting descriptive text (Morton 2004). Much of the area classified as non sensitive is Tertiary deposits, including the Puente Formations, Silverado Formation, Vaqueros and Sespe Formation, and an unnamed sandstone and conglomerate formation. The formations generally consist of marine and non-marine sandstone and conglomerates deposited between early Pliocene and late Eocene (1.8 to 37.2 million years ago [mya]). Alluvial deposits classified as non-sensitive include wash deposits and very old alluvial fan deposits. Wash deposits are late Holocene unconsolidated bouldery to sandy alluvium of active washes. These high energy deposits are subject to constant reworking and prehistoric artifacts are usually found in a secondary context. The very old fan deposits are middle to early Pleistocene (130,000 to 1.8 mya) sand and gravel laid down prior to human arrival to the Project study area.

Areas within the Project APE classified as low sensitivity for buried significant prehistoric sites are young axial channel deposits and young alluvial fan deposits. Deposited during the Holocene and latest Pleistocene (present to ~50 mya), axial channel deposits are low to moderate energy alluvium deposited on canyon floors, consisting of unconsolidated sand, silts, and clay.

In terms of an archaeological site location model, Goldberg and Arnold (1988) examined 22 prehistoric sites in the Prado Basin, immediately north of the current Project study area; site types were predominately prehistoric lithic scatters and temporary camps. All of the sites are/were located on low knolls, ridges, bluffs, or terraces overlooking the Santa Ana River, or Mill Creek, or Chino Creek, or the confluences of Mill Creek with the Santa Ana River or Chino Creek with the Santa Ana River. No prehistoric sites were actually located in the basin itself.



Corona North (1967-1981), Corona South (1967-1982), Prado Dam (1967-1981), and Black Star Canyon Hemet (1953-PR1979), CA 7.5' USGS Quadrangles

Figure 2 **Sensitivity for significant buried prehistoric resources.**

Goldberg and Arnold's settlement model (1988) for the local area predicts that such low, frequently inundated, areas due to the periodic flooding events of the Santa Ana River have a very low potential for prehistoric cultural resources (see section 5.3, below for further detail Goldberg and Arnold's 1988 study). Further, previous catastrophic flood events during the 1860s and in 1916 have reworked canyon deposits making the likely presence of intact prehistoric sites in the Project APE highly improbable. Young alluvial fan deposits comprise a very small percentage of the Project area and consist of unconsolidated alluvial material situated at the mouth or within small canyons. These areas are generally high energy and the likelihood of buried significant intact prehistoric cultural deposits is therefore very low.

Currently, SR 91 serves as one of the major transportation corridors between Orange County and the Inland Empire. Residential, recreational, commercial, and industrial, as well as open space uses, characterize the overall Project study area. Prior to the extensive development of the Project APE, the native flora and fauna population was likely composed of species characteristic of the Riversidian Sage Scrub/Coast Sage Scrub communities, with riparian wetland species present along the Santa Ana River drainage. The Project APE ranges in elevation from 400 to 600 ft amsl. Flora observed during the archaeological survey of the Project APE include buckwheat, sumac, and chamise, with cottonwood-willow riparian along the drainages.

5.3 PREHISTORIC SETTING

It is generally believed that human occupation of the southern California coastal region and the southern California desert regions dates back to at least 10,000 before present (B.P.). Recent archaeological studies for the Eastside Reservoir Project and the Inland Feeder Pipeline Project, suggests that human occupation of the inland valley regions of southern California may date to as early as 7000 to 9000 B.P. (Goldberg et al. 2001; Horne and McDougall 2008). Four broad cultural periods of human settlement and subsistence strategies are believed to have operated in southern California during the past 10,000 years: the Early Holocene Interval (ca. 10,000–7500 years B.P.); the Middle Holocene Interval (ca. 7500 to 5000 B.P.); the Middle to Late Holocene Interval (ca. 5000 to 1500 B.P.); and the Late Horizon Period (ca. 2000 years B.P. to the initial period of European contact).

Both coastal and desert region designations (Wallace 1978; Warren 1980, 1984) for the early Holocene Interval refer to a long period of human adaptation to environmental changes brought about by the transition from the late Pleistocene to the early Holocene geologic periods. As climatic conditions became warmer and more arid, Pleistocene megafauna perished abruptly between 13,000 and 10,000 B.P. Human populations responded to these changing environmental conditions by focusing their subsistence efforts on the procurement of a wider variety of faunal, as well as floral, resources. These early occupants of southern California are believed to have been nomadic large-game hunters whose tool assemblage included percussion-flaked scrapers and knives; large, well-made stemmed, fluted, or leaf-shaped projectile points (e.g., Lake Mojave, Silver Lake); crescentics; heavy core/cobble tools; hammerstones; bifacial cores; and choppers and scraper planes.

Although sites assigned to the Middle Holocene Interval are similar in many respects, their content, structure, and age can vary. This variability is largely due to geographical differences between the coast and interior. The primary difference between the archaeological assemblages of coastal and inland sites appears to be related to subsistence. Coastal occupants gathered fish and plant resources, and hunting was generally less important (projectile points are rare). The

inland occupants primarily collected hard seeds and hunted small mammals; therefore, projectile points are more common in inland assemblages. King (1967:66–67) suggests that the coastal sites probably represent more permanent occupations than are found in the interior, since coastal inhabitants were sustained by more reliable and abundant food resources. A more mobile subsistence collection strategy was likely necessary for inland inhabitants. It is possible, too, that inland and coastal sites of this period represent seasonal movement by the same groups of people.

Overall, the general settlement-subsistence patterns of the Middle Holocene Interval were exemplified by a greater emphasis on seed gathering, with coastal and inland sites exhibiting shallow midden accumulations, suggesting seasonal camping. Midden accumulation at desert locals dating to this period is generally rare. Based on the distribution of sites assigned to this period, aboriginal groups likely followed a modified, central-based wandering pattern with an inferred shift toward enhanced logistical settlement organization (Binford 1980; Warren 1968). In this semisedentary pattern, a base camp was occupied during a portion of the year, while satellite camps were occupied by smaller groups of people to exploit seasonally available floral resources such as grass seeds, berries, tubers, and nuts. The exploitation of terrestrial faunal resources was also an important economic pursuit, especially in the inland and desert regions of southern California. The degree of population sedentism was based upon the availability of reliable water sources and the abundance of exploitable resources in the general locale; coastal occupants of this period are believed to have practiced a higher degree of sedentism than other southern California groups because of a more reliable and abundant resource base.

During the Middle to Late Holocene Interval, the subsistence base in southern California broadened. The technological advancement of the mortar and pestle may indicate the use of acorns, an important storable subsistence resource. Hunting presumably also gained in importance. An abundance of broad, leaf-shaped blades and heavy, often stemmed or notched projectile points have been found in association with large numbers of terrestrial and aquatic mammal bones. Other characteristic features of this period include the appearance of bone and antler implements and the occasional use of asphaltum and steatite. Most chronological sequences for southern California recognize the introduction of the bow and arrow by 1500 B.P., marked by the appearance of small arrow points and arrow shaft straighteners.

In general, cultural patterns remained similar in character to those of the preceding horizon. However, the material culture at many coastal sites became more elaborate, reflecting an increase in sociopolitical complexity and increased efficiency in subsistence strategies (e.g., the introduction of the bow and arrow for hunting). The settlement-subsistence patterns and cultural development during this period are not well understood because of a lack of large amounts of data; however, the limited data do suggest that the duration and intensity of occupation at the base camps increased, especially toward the latter part of this period. However, through time, southern California populations became increasingly diversified and economically specialized, especially among the coastal southern California cultures. Adaptation to various ecological niches and further population growth typify the subsequent periods of cultural history in southern California. This subsistence orientation, characterized by a heavy dependence on both hunting and plant gathering, continues into the historic period.

The Post 1500 B.P. Interval (Late Holocene to the time of Spanish settlement [approximately 1769]) is characterized by a reliance on the bow and arrow for hunting, along with the use of bedrock mortars and milling slicks. Late prehistoric coastal sites are numerous. Diagnostic

artifacts include small triangular projectile points, mortars and pestles, steatite ornaments and containers, perforated stones, circular shell fishhooks, and numerous and varied bone tools, as well as bone and shell ornamentation. Elaborate mortuary customs, as well as generous use of asphaltum and the development of extensive trade networks, are also characteristic of this period. During the latter half of this period in the southern coastal region, pottery, ceramic smoking pipes, cremation urns, rock paintings, and some European trade goods were added to the previous cultural assemblage (Meighan 1954). Increased hunting efficiency (through use of the bow and arrow) and widespread exploitation of acorns and other hard nuts and berries (indicated by the abundance of mortars and pestles) provided reliable and storable food resources. This, in turn, promoted greater sedentism. Related to this increase in resource utilization and sedentism are sites with deeper middens, suggesting central-based wandering or permanent habitation. These would have been the villages, or rancherias, noted by the early non-native explorers (True 1966, 1970). By about 500 B.P., strong ethnic patterns developed among native populations in southern California. This may reflect accelerated cultural change brought about by increased efficiency in cultural adaptation and diffusion of technology from the central coastal region of California and the southern Great Basin (Douglas et al. 1981:10).

In 1988, Susan Goldberg and Jeanne Arnold prepared a detailed research design and regional context for evaluating the prehistoric sites in the Prado Basin (Goldberg and Arnold 1988). In this document, the authors recommended that, from a management and research standpoint, the prehistoric sites in the Prado Basin be consider as part of an archaeological district for purposes of evaluating the National Register of Historic Places (NRHP) eligibility. Due to its unique geographical and hydrologic features, and the resultant resource base that may account for a concentration of prehistoric occupation in the Basins, they argue:

> By comparing and contrasting groups of both similar and different [prehistoric] sites in different loci, the physical and cultural interrelationships between them may be derived. By examining sets of sites from a generally homogeneous environment such as the Prado Basin, temporal changes in adaptation may be identified and synchronous variability in social and economic systems may be explored. Comparison among Prado Basin sites, combined with comparisons between Prado Basin sites and sets of sites from other localities, should permit meaningful study of seasonal and long-term fluctuations in land-use patterns, resource exploitation, social structures, exchange and external relations, technology, ethnicity, and demography; such research is not easily afforded by examination of individual sites [Goldberg and Arnold 1988:90].

During Goldberg and Arnold's study (1988), they examined 22 prehistoric sites. Site types were predominately prehistoric lithic scatters and temporary camps; however, one large village site (CA-RIV-653) was also examined. All of the sites are/were located on low knolls, ridges, bluffs, or terraces over looking the Santa Ana River, or Mill Creek, or Chino Creek, or the confluences of Mill Creek with the Santa Ana River or Chino Creek with the Santa Ana River. Where data was available, the sites dated to the Millingstone Horizon (ca. 5000 to 1000 B.C.), the Intermediate Period (ca. 1000 B.C. to A.D. 750), or to the Late Millingstone Horizon/Early Intermediate Period (ca. 2000–500 B.C.). Of the prehistoric sites examined during their study, 14 of which had been previously tested, they determined that 11 sites contain significant data potential and retain sufficient integrity to address a wide range of research issues related to prehistoric settlement pattern, subsistence strategies, trade and exchange practices, site formation processes, chronology, and paleoenvironmental reconstruction; therefore, these sites appear to be eligible for listing on the National Register of Historic Places (NRHP). Two additional sites also

appear to be eligible for listing on the NRHP, but little data was currently available to make an accurate determination. The remaining nine sites did not contain sufficient data potential and/or lacked integrity, and were assumed ineligible for listing on the NRHP.

The proposed Prado Basin Archaeological district boundaries were as follows:

> The confluence of Chino Creek and Mill Creek would form the heart of the district, which would be bounded on the south by the Santa Ana River. Northern, western, and eastern District boundaries would generally coincide with the boundary of the Prado Flood Control Basin, defined by the 566 ft amsl contour; the single exception to this elevation contour boundary occurs on the western margin where the boundary is drawn to include site CA-SBR-4032 [a prehistoric temporary camp and resources procurement and processing site] at an elevation of 570 to 585 ft amsl. At the southwestern margin the District boundary is drawn at a point where the Santa Ana River approaches the Chino Hills and turns abruptly southward. The Prado Flood Control Basin south of the Santa Ana River is not included in the District because of the absence of prehistoric sites in this area [Goldberg and Arnold 1988:91].

5.4 ETHNOGRAPHIC SETTING

As stated in Chapter 4.2, the NAHC stated that the Project APE is shared by four tribal cultures: the coastal groups of the Gabrielino/Tongva, the Luiseño, and the Juaneño, and to a lesser extent, the interior Cahuilla groups. However, the NAHC indicated that their data suggest a strong Gabrielino/Tongva presence. A brief discussion of the ethnography of the Gabrielino/Tongva and Luiseño peoples is presented below.

5.4.1 Gabrielino

During the protohistoric period, the greater Los Angeles plain and extending eastward into the inland valley region area was inhabited by the Gabrielino peoples. The Gabrielino, a Uto-Aztecan (or Shoshonean) group, may have entered the region as recently as 1500 B.P. from the southern Great Basin or interior California deserts; it is also possible that the Gabrielino peoples migrated into the region in successive waves over a lengthy period of time beginning as early as 4000 B.P. Gradually, these Uto-Aztecan peoples began to displace the previous Hokan occupants of the southern coastal region (Kroeber 1925:578–580). In the protohistoric period, the Gabrielino were flanked by speakers of Hokan languages: the Chumash to the north and the Diegueño to the south (Kroeber 1925:578–580).

It is believed that the total Gabrielino territory covered more than 1,500 square miles and included the watersheds of the Los Angeles River, San Gabriel River, Santa Ana River, and Rio Hondo. The Gabrielino also occupied the islands of Santa Catalina, San Clemente, and San Nicolas. Within this large territory were more than 50 residential communities with populations that ranged from approximately 50 to 150 individuals. Each community consisted of one or more lineages which maintained a permanent geographic territory that included a permanent settlement and a variety of hunting and gathering areas as well as ritual sites. A typical Gabrielino settlement contained a variety of structures used for religious, residential, and recreational purposes. In the larger communities, a sacred enclosure surrounded by the houses of the chief and other members of the elite community was generally located near the center of the community. Surrounding these structures were the smaller homes occupied by the rest of community. Other features common at residential sites were sweathouses, and level clearings

used as playing fields and dance grounds as well as cemeteries (McCawley 1996:32–33).

Gabrielino territory offered a rich and diverse resource. Subsistence items described in ethnohistorical sources include large numbers of native grass seeds, six or more types of acorns, pinyon pine nuts, seeds and berries from various shrubs, fresh greens and shoots, mule deer, pronghorn, mountain sheep, rabbits and rodents, quail and waterfowl, snakes, lizards, insects, and freshwater fish, plus a wide variety of marine fish, shellfish, and sea mammals in coastal zones. This wealth of resources, coupled with an effective technology and a well-developed trade and ritual system, resulted in a society that was among one of the most materially wealthy and culturally sophisticated cultural groups in California (McCawley 1996:141). The management of food resources by the chief was the heart of the Gabrielino economy; a portion of each day's hunting, fishing, or gathered food resources was given to the chief who was responsible for managing the community's food reserves. Each family also kept a food supply for use in lean times.

The material culture of the Gabrielino is elaborate and in many ways comparable to that of the Chumash. An excellent descriptive source is Blackburn's (1963) compendium of Gabrielino material culture, which is intended for an archaeological audience and exhaustively summarizes Padre Geronimo Boscana's accounts of the Juaneño farther south in the vicinity of San Juan Capistrano, Hugo Reid's (1852) letters to the *Los Angeles Star*, and Harrington's early twentieth-century interviews, among a number of other sources. Shell ornaments and beads, baskets, bone tools, flint weapons and drills, fishhooks, mortars and pestles, wooden bowls and paddles, shell spoons, wooden war clubs, and a variety of steatite items (cooking vessels, comals, ornaments) are among the many artifact types common in descriptions of Gabrielino culture (Blackburn 1963). Highly developed artisanship is particularly evident in the many technomic implements inlaid with shell (using asphaltum) and in the steatite items from production centers on Catalina Island.

Trade was an important element of the Gabrielino economy. While the principal Gabrielino-produced commodity—steatite vessels from centers on Catalina Island—originated well outside the defined study region, trade in steatite items was conducted throughout local territory and involved external relations with cultural groups beyond Gabrielino borders, including the Cahuilla, Serrano, Luiseño, Chumash, and Mojave. Additionally, *Olivella* shell callus beads, manufactured on the northern Channel Islands by the Chumash and their predecessors, were reportedly used quite frequently as a currency by the Gabrielino and other southern California groups, particularly in situations when bartering methods were inappropriate or ineffective.

In general, the Gabrielino cultivated alliances with other groups (a Chumash-Salinan-Gabrielino alliance, for one [Bean 1976:104]) and also maintained cult or ritual centers (such as the village *Povongna*, presumed to be located in the vicinity of Long Beach) where trade fairs, mourning ceremonies, and other sorts of social and economic interaction linked villages of many environmental zones into exchange and social partnerships. Strong (1929:98) indicates that there was a "loose ceremonial union" among the Cahuilla, Luiseño, Serrano, and Gabrielino, manifested in gifts of shell money sent by all to leaders of clans in which a death had occurred. Blackburn (1976:240) notes that ceremonialism in general provided a context for far-ranging social interaction, especially between the Gabrielino and several neighboring groups, and resulted in strong unity against external enemies. However, Bean and Smith (1978:546) conclude that the Gabrielino peoples quarreled constantly among themselves and that inter-village conflict was frequent and deadly, although rarely extended. Marriage ties usually

dictated affiliations during conflicts.

5.4.2 Luiseño

The Luiseño belonged to a cultural nationality speaking a language belonging to the Takic branch of the Shoshonean family, a part of the larger Uto-Aztecan language stock. The territory of the Luiseño encompassed approximately 1,500 square miles of coastal southern California (White 1963). Along the coast, Luiseño lands extended from about Agua Hedionda Creek in the south to Aliso Creek in the northwest. From there, the boundary extended inland to Santiago Peak, then across to the eastern side of the Elsinore Valley, then southward to the east of Palomar Mountain and around the southern slope of Palomar Mountain to the valley of San Jose. The boundary then turned west and returned to the sea along Agua Hedionda Creek. The Luiseño were, for the most part, hunters and gatherers. Luiseño groups often had fishing and gathering sites on the coast in addition to their inland sites, providing them with the resources of many different ecological niches. Villages were usually located in sheltered coves or canyons on the side of slopes in a warm thermal zone near good water supplies and in defensible locations (Bean and Shipek 1978).

5.5 HISTORICAL SETTING

The first direct contact between the Europeans and the Gabrielino is thought to have occurred in 1542 with the arrival of Cabrillo's small fleet at Santa Catalina Island, and later in 1602 when the Sebastian Vizcaino expedition visited San Clemente and Santa Catalina islands and the mainland near present-day San Pedro (McCawley 1996:207). The Cahuilla peoples had little contact with the European explorers during this time. Later in 1769, the Gaspar de Portolá expedition crossed the Gabrielino homeland twice. Mission San Gabriel was founded on September 8, 1771, at a location near the Whittier Narrows. Because of conflict, recruitment and conversion of the Native Americans remained slow for the first few years of the mission's existence. Sometime around 1774, Mission San Gabriel was moved to its present location to obtain more suitable land for agriculture. A second mission, San Fernando, was established within Gabrielino territory in 1797.

Mission life was highly regimented and contrasted sharply with the traditional Gabrielino lifestyle; as a result, colonization had a dramatic and negative effect on Gabrielino society, including fugitivism. The traditional Native American communities were depopulated and epidemics caused by the introduction of European diseases further reduced the Native American population. Between 1832 and 1834, the Mexican government implemented a series of Secularization Acts that were theoretically designed to turn over the mission lands to the native populations; however, most of this land was taken over by Mexican civilians. Thus, the primary result of secularization was increased fugitivism among the Gabrielino (McCawley 1996:208). The later American takeover of California brought further hardships to the Gabrielino who eventually settled at small Native American and Mexican settlements in the Eagle Rock and Highland Park districts of Los Angeles as well as in Pauma, Pala, Temecula, Pechanga, and San Jacinto.

In 1796, Father Juan Santiago explored the Temescal Valley, east of the Santa Ana Mountains in Riverside County and west of Lake Mathews, in an attempt to find a location for an inland mission for San Juan Capistrano. Since earlier Spanish explorations by Portola in 1769 and De

Anza in 1777 did not venture east of the Santa Ana Mountains, this appears to represent the first European contact in the vicinity of the Project APE (LeCount and Weber 1992).

The Yorba concession of 1810 appears to represent the first documented private use of land near the Project study area. Consisting of one of the largest land grants made in southern California during Spanish tenure (1771 to 1821), the Yorba concession covered a territory extending from Temescal Valley west to Newport Beach. One other large concession granted during Spanish tenure that in reality was no more than a grazing permit, was known as the San Jacinto grant. After secularization of the missions in 1834, Jose Antonio Estudillo, the mayordomo of San Luis Rey Mission, acquired title to the San Jacinto grant lands, and divided the tract into three ranchos: San Jacinto–El Sobrante, Nuevo, and Viejo. During this period, known as the Ranch Period, the entire area was almost constantly involved in political and military revolts. This tense situation ended when in 1847 California gained independence from Mexico during the "Bear Flag" revolt (Underbrink 2006:7). One year later, the United State gained control of the area as a result of the Mexican American War.

Although under the control of the United States since 1847, the American Period did not really begin in the vicinity of the Project APE until 1851, when the Land Act required rancho dons to confirm the ownership of their lands. Many rancho dons lacked funds and legal documents to confirm land ownership. Along with legal problems related to the Land Act and new taxes imposed by the U.S. government, many of these ranchos experienced a disastrous two-year drought. The combination of these factors resulted in many rancho families losing their lands.

With the introduction of the railroad and the Gold Rush in the Sierra Nevada foothills in the middle and later part of the nineteenth century, there was a steady influx of Euroamericans into southern California. These early settlers expanded commercial and land development primarily in farming and dairying. During the twentieth century, independent businesses began to dominate the economic strategy, much as they do today.

5.5.1 Prado Basin and the Development of the Prado Dam

The watershed of the Prado Basin, located above the Lower Santa Ana Canyon, contains the upper two-thirds of the Santa Ana watershed, an area of about 1,460 square miles. About half of this area is located in the mountains, where water percolation tends to be limited. The other half is on the main valley floor which consists of vast deposits of and gravel; this area stores most of the water that eventually forms the Santa Ana River in the Prado Basin. Most, if not all, the moisture that falls on the San Bernardino Mountains or in the upper Santa Ana River Canyon has to escape to the sea through the Prado Basin and the Lower Santa Ana River canyon, either in the Santa Ana River itself or as part of the underground flow that percolates through the pervious sand and gravel deposits above the shale and sandstone bedrock. Because of this constriction, underground water flow in the San Bernardino Valley is forced close to the surface as it enters the Prado Basin. As a result of this accumulation, the Prado Basin is far wetter than most areas upstream or below. All of this water, forced together at the Lower Santa Ana River Canyon, is of vital importance to the groundwater supply of the Orange County coastal plain (GandA and Infotec 1989:6-7).

Due to the concerns of catastrophic floods of the 1860s, and because future floods were anticipated that could potentially destroy property and human life in the lower Santa Ana River drainage, the initial expansion of the Orange County water interests into the Prado Basin helped lead to the creation of the Tri-County (Orange, Riverside, and San Bernardino) Water

Conservation Association in 1909. In many ways, however, the 1916 flood was the turning point in the brief era of tri-county cooperation. Most of the Santa Ana River floodplain below the Canyon was inundated as the river left its banks and washed overlarge expanses of northwest Orange County (GandA and Infotec 1989:8). Orange County had the most to gain from both flood control and river water conservation, and began to consider taming the wild Santa Ana River and regulating its flow. As its need for flood control and water increased, Orange County's water interests began to diverge from those of Riverside and San Bernardino counties.

Beginning in 1918 and culminating in the 1930s, a series of studies were completed to study the hydrological character of the Santa Ana River and the Prado Basin. Results of these studies indicated that one of 12 possible dam sites in the Prado Basin could be developed to control the mighty Santa Ana River. After a series of technical studies and political disputes, the current location of the Prado Dam was selected as the preferred dam alternative.

Construction of the Prado Dam (CA-RIV-4730H) finally began on November 1, 1938. Today, the Prado Dam is the third largest earthen dam in southern California, falling considerably behind the Metropolitan Water District's two immense earthen dams built in the late 1990s to construct Diamond Valley Lake. Designed and built as a flood control facility only, the Prado Dam is capable of holding 224,500 acre feet of water runoff from a watershed covering 2,264 square miles. The flood gates are normally open, except during periods of heavy rain, with automatic flood control during early flood stages. If flooding poses a serious threat, the dam operators can assume manual control of the gates and adjust the outflow as needed. The dam was constructed with an impervious core supported by additional pervious material. The spillway consists of an approach channel, an ogee control section, and a discharge channel that is sloped to the topography to reduce erosion below the concrete-lined section.

6
FIELD METHODS

6.1 FIELD METHODS

Based on the results of the literature and records search conducted at the SBAIC, available historical records and maps, and comparisons with similar environmental localities, the Project APE was deemed highly sensitive for prehistoric and historical-period cultural resources. However, as stated in Chapter 5.2, due to the high velocity, catastrophic flooding events of the Santa Ana River in the 1860s and 1916, there is very low probability that intact buried cultural resources exist within the Project APE.

A pedestrian archaeological survey of the Project APE was performed on August 5, 2008, by Dennis McDougall and Carrie Chasteen, under the supervision of Melinda Horne. The survey entailed crew members walking parallel transects ranging from 33 to 50 ft (10 to 15 m) apart. Only those portions of the Project APE that have not been extensively disturbed (e.g., cut embankments) or paved over by the existing SR 91 and SR 71 freeways, as well as by the construction and maintenance of the Prado Dam and its appurtenant features were intensively surveyed. Other disturbed portions of the Project APE include areas to the north and south of SR 91 where the construction of soundwalls are proposed surrounding modern residences; in these areas, the natural ground surface has been extensively graded and terraced in an effort to control erosion. Figure 1 depicts those areas of the Project APE that were surveyed. In addition, a reconnaissance survey was conducted on portions of the APE to verify the lack of potential for containing intact surficial archaeological deposits.

Three segments of the Project APE along SR 91 were inspected either by a pedestrian survey or by car: a western segment, a middle segment, and a eastern segment. In addition, the Project APE north of SR 91 and along and adjacent to SR 71 was also inspected. These areas are described in more detail below.

The western segment occurs on the graded and filled sideslope of SR 91 that meets the natural slope of a minor knoll. A short, deep ravine is directly adjacent to this segment. Ground surface visibility ranged from 30 to 50 percent. No archaeological materials were observed in this segment, and no indications of buried cultural deposits were noted in the profile of the adjacent ravine.

The middle segment encompasses natural topography bordered to the north by a graded/cut embankment that slopes down from the south side of SR 91, and to the south by fill bordering the northern edge of a parking lot associated with the business park. A two-track dirt road runs east-west through the more natural terrain. Additionally, a short, incised drainage is present in the western portion of the middle segment. Ground surface visibility ranged from 100 percent along the dirt road and 0-50 percent in areas outside of the dirt road. The soils in the undisturbed portions of the middle segment are sandy silts with abundant subangular and water-rounded cobble of metavolcanic, granitic, quartzite, sandstone, and rhyolitic materials. Extensive disturbance attributed to freeway construction was noted, as well as abundant deposits of modern refuse.

The eastern segment occurs on the cut/fill sideslope below SR 91 where there is no potential for intact, surficial cultural deposits.

The Project APE, along and adjacent to SR 71, is predominately situated on a cut/fill sideslope. Highly graded areas are located adjacent and north of the Prado Dam Spillway within the Project APE. South of the Spillway, the APE cuts across a graded and filled knoll top, along both the eastern and western sides of SR 71, and then continues along cut/fill sideslopes directly adjacent to the SR 71 and immediately north of the SR 91. Ground surface visibility was generally very good and ranged from 70 to 90 percent. In these areas, there is no potential for intact, surficial cultural deposits.

A Native American Monitor from the Soboba Band of Mission Indians, Mr. Kenneth Hurtado, also participated in the archaeological survey. A Native American Monitor from the Pechanga Band of Mission Indians was also invited to participate in the archaeological survey of the Project APE; the Pechanga did not respond to the invitation.

6.2 FIELD RESULTS

No evidence of the previously recorded sites CA-RIV-5522H (historical-period railroad grade) or CA-RIV-6532H (remains of the historical-period town of Alta Vista/Green River Camp) was noted in the Project APE. In addition, no contributing elements to CA-RIV-4730H (Prado Dam) were identified within the Project APE. The only portion of the Prado Dam located within the Project APE consists of the spillway constructed in the 1990s.

7
STUDY FINDINGS AND CONCLUSIONS

7.1 STUDY FINDINGS

No prehistoric or historical-period archaeological resources were encountered in the Project APE during the pedestrian and reconnaissance survey. As noted in Chapter 4.1.1, a HAER record indicates Prado Dam (CA-RIV-4730H), and its associated structures, is eligible for listing in the NRHP Criteria A and C (GandA 1989), although documentation received from the EIC does not indicate that the SHPO concurred with these findings. However, it does appear the USACE treated the site as a historic property without formal concurrence from the SHPO. Regardless, none of the contributing features of the Prado Dam are located within the Project APE.

7.2 OTHER RESOURCES

The late 1990s spillway is the only component of the Prado Dam site located within the Project APE. The 1990s spillway does not appear to be a contributing feature to the Prado Dam site because it was constructed well after the original dam and associated features were originally constructed. In addition, the spillway has not achieved 50 years of age. Based on the information available, the late 1990s spillway is considered exempt pursuant to the criteria of Attachment 4 of the Section 106 PA.

CA-RIV-5522H was recorded in 1995 and is the former location of a historical-period railroad grade. During the pedestrian survey of the Project APE, no evidence of the previously recorded site was noted. The site is no longer extant.

CA-RIV-6532H, the remains of the historical-period town of Alta Vista/Green River Camp, was recorded and subjected to subsurface testing in 2000. During the pedestrian survey of the Project APE, no evidence of the previously recorded site was noted. The site is no longer extant within the paved segment of SR 91 that will be used for Project-related signage during construction.

7.3 CONCLUSIONS

It is Caltrans' policy to avoid cultural resources whenever possible. Further investigations may be needed if buried cultural materials are encountered during construction, and it is Caltrans' policy that work stop in that area until a qualified archaeologist can evaluate the nature and significance of the find. Additional survey will be required if the Project changes to include areas not previously surveyed.

8
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2006 *Archaeological Survey Report for the Eastbound SR-91 Lane Addition Project from SR-241 to SR-71, Co8unty of Orange, and County of Riverside, California, 12-ORA-91 PM 15.9/18.9 (KP 25.629/32,034) – EA 0G0400; 8-RIV-91 PM 0/2.847 (KP 0/4.58) EA 0E8000*. Prepared by Chambers Group, Inc. Irvine, CA. Submitted to Caltrans District 8, San Bernardino, California A.

Wallace, W. J.
1978 Post Pleistocene Archaeology, 9000 to 2000 B.C. In *California Indians*, edited by R.F. Heizer and M. A. Whipple, pp. 186–210. University of California Press, Los Angeles, California.

Warren, C. N.
1968 Cultural Tradition and Ecological Adaptation on the Southern California Coast. *Eastern New Mexico University Contributions in Archaeology* 1(3):1–15.

1980 The Archaeology and Archaeological Resources of the Amargosa–Mojave Basin Planning Units. In *A Cultural Resources Overview for the Amargosa–Mojave Basin Planning Units*, by C. N. Warren, M. Knack, and E. von Till Warren. U.S. Bureau of Land Management, Cultural Resources Publications, Anthropology–History, Riverside, California.

1984 The Desert Region. In *California Archaeology*, by Michael J. Moratto, pp. 339–430. Academic Press, New York and London.

White, R. C.
1963 Luiseño Social Organization. *University of California Publications in American Archaeology and Ethnology* 48(2):91–194. Berkeley.

Exhibit 4: Public participation correspondence

Letters were sent via US postal service to the following local government agencies on August 12, 2008:

- City of Corona, Department of Community Development
- Riverside County, Planning Department
- San Bernardino County, Department of Community Development and Housing

Letters were sent via US postal service to the following local historical societies on August 12, 2008:

- Corona Public Library, Heritage Room
- Corona Historic Preservation Society
- Pioneer Historical Society of Riverside
- San Bernardino County Museum

PARSONS

100 West Walnut Street • Pasadena, California 91124 • (626) 440-6100 • Fax: (626) 440-6155 • www.parsons.com

August 12, 2008

Corona Public Library
Heritage Room Librarian
650 S. Main Street, Corona, CA 92882

RE: State Route 71 (SR 71) – State Route 91 (SR 91) Interchange Improvement Project

Dear Sir or Madam:

The Riverside County Department Commission (RCDC) proposes to improve the SR 71-SR 91 interchange through the construction of a flyover and various lane reconfigurations in the City of Corona. The proposed project will also consist of reconfiguring and/or constructing connector lanes, the realignment and widening of the westbound Serfas Club Drive on-ramp and extend the westbound auxiliary lane. The project location map is enclosed for your reference.

The project team is currently conducting environmental studies for the proposed project in accordance with applicable state and federal law, and is making every effort to be responsible stewards of potential historic resources within the project area. The purpose of this letter is to request your input regarding potential or designated historical resources, properties listed in or eligible for the National Register of Historic Places, the California Register of Historical Resources, or other cultural resources in the project area that have the potential be affected by the proposed project. Please notify us in writing if you have information, comments, or concerns regarding potential or identified historical resources in the project study area by no later than close of business on September 19, 2008. If we do not hear from you, your agency or organization, we will assume that you have no comments. Please contact me with any applicable information at:

- carrie.chasteen@parsons.com
- 100 West Walnut Street, B2, Pasadena, CA 91124

Thank you in advance for cooperation and participation.

Sincerely,

Carrie Chasteen

Carrie Chasteen
Senior Architectural Historian

Attachment: Project location map

Exhibit 5: Native American Consultation

Applied EarthWorks Inc.

3292 E. Florida Avenue
Suite A
Hemet, CA 92544-4941
(951) 766-2000
FAX (951) 766-0020

10 June 2008

Mr. David Singleton
Native American Heritage Commission
915 Capitol Mall, Room 364
Sacramento, CA 95814

Re: State Route 91/State Route 71 Interchange Project

Dear Mr. Singleton:

On behalf of Parsons and in support of the Riverside County Transportation Commission and Caltrans District 8, Applied EarthWorks, Inc. will be completing a cultural resources literature and records search and pedestrian archaeological surveys in support of the State Route 91/State Route 71 Interchange Project in western Riverside County. As shown on the enclosed topographic map composite, the project area is located on the Corona North, Prado Canyon and Black Star Canyon U.S.G.S. topographic maps (Sections and Townships/Ranges are listed on the map).

This letter is being submitted to formally request your agency to conduct a search of its *Sacred Lands File*. Your information will aid us in determining if any known cultural properties are present within the general vicinity of the proposed project, thereby assisting us in the environmental analysis of the proposed project. In addition, we are requesting the names and contact information for Native American individuals and organizations who may have an interest or concern regarding the proposed project.

Please do not hesitate to call me at (951) 766-2000 if you have any questions or require additional information. Thank you for your time and consideration in this matter.

Sincerely,

Melinda Horne
Senior Archaeologist
Applied EarthWorks, Inc.

Enclosure

STATE OF CALIFORNIA Arnold Schwarzenegger, Governor

NATIVE AMERICAN HERITAGE COMMISSION
915 CAPITOL MALL, ROOM 364
SACRAMENTO, CA 95814
(916) 653-6251
Fax (916) 657-5390
Web Site www.nahc.ca.gov
ds_nahc@pacbell.net

June 16, 2008

Ms. Melinda Horne, Senior Archaeologist
Applied EarthWorks, Inc.
3292 E. Florida Avenue, Suite A
Hemet, CA 92544-4941

Sent by FAX to: 951-766-0020
Number of Pages: 2

Re: Request for a Sacred Lands File records search for the proposed State Route 91/State Routh 71 Interchange Project; located in the eastern central area (close to the Orange County line) Riverside County, California

Dear Ms. Horne:

The Native American Heritage Commission was able to perform a record search of its Sacred Lands File (SLF) for the affected project area (APE). The SLF search did indicate the presence of Native American cultural resources in the immediate project area. This is a shared area for four tribal cultures; however, our data indicates a strong Gabrieleno Tongva presence, particularly for the identified cultural resources.

Early consultation with Native American tribes in your area is the best way to avoid unanticipated discoveries once a project is underway. Enclosed are the names of the nearest tribes that may have knowledge of cultural resources in the project area. In particular, we recommend that you contact Anthony Morales, Gabrieleno Tongva Tribe (San Gabriel Band) at (626) 256-1758 and the other persons on the attached list of Native American contacts may have knowledge as to whether or not the known cultural resources identified may be at-risk by the proposed project. The Commission makes no recommendation of a single individual or group over another. It is advisable to contact the person listed; if they cannot supply you with specific information about the impact on cultural resources, they may be able to refer you to another tribe or person knowledgeable of the cultural resources in or near the affected project area (APE).

Lack of surface evidence of archeological resources does not preclude the existence of archeological resources. In fact, a Native American tribe may be the only source of information about a cultural resource. Lead agencies should consider avoidance, as defined in Section 15370 of the California Environmental Quality Act (CEQA) when significant cultural resources could be affected by a project. Also, Public Resources Code Section 5097.98 and Health & Safety Code Section 7050.5 provide for provisions for accidentally discovered archeological resources during construction and mandate the processes to be followed in the event of an accidental discovery of any human remains in a project location other than a 'dedicated cemetery. Discussion of these should be included in your environmental documents, as appropriate.

If you have any questions about this response to your request, please do not hesitate to contact me at (916) 653-6251.

Sincerely,

Dave Singleton
Program Analyst

Attachment: Native American Contact List

Native American Contacts
Riverside County
June 18, 2008

Cahuilla Band of Indians
Anthony Madrigal, Jr., Chairperson
P.O. Box 391760 Cahuilla
Anza , CA 92539
tribalcouncil@cahuilla.net
(951) 763-2631

(951) 763-2632 Fax

Gabrielino/Tongva Council / Gabrielino Tongva Nation
Sam Dunlap, Tribal Secretary
761 Terminal Street; Bldg 1, 2nd floor Gabrielino Tongva
Los Angeles , CA 90021
office @tongvatribe.net
(213) 489-5001 - Office
(909) 262-9351 - cell
(213) 489-5002 Fax

Pechanga Band of Mission Indians
Paul Macarro, Cultural Resource Center
P.O. Box 1477 Luiseno
Temecula , CA 92593
(951) 308-9295 Ext 8106
(951) 676-2768
(951) 506-9491 Fax

Pechanga Band of Mission Indians
Mark Macarro, Chairperson
P.O. Box 1477 Luiseno
Temecula , CA 92593
tbrown@pechanga-nsn.gov
(951) 676-2768
(951) 695-1778 Fax

TI'At Society
Cindi Alvitre
6515 E. Seaside Walk, #C Gabrielino
Long Beach , CA 90803
calvitre@yahoo.com
(714) 504-2468 Cell

Soboba Band of Luiseno Indians
Erica Helms, Cultural Resources Manager
P.O. Box 487 Luiseno
San Jacinto , CA 92581
dhill@soboba-nsn.gov
(951) 654-2765
FAX: (951) 654-4198

Gabrieleno/Tongva San Gabriel Band of Mission
Anthony Morales, Chairperson
PO Box 693 Gabrielino Tongva
San Gabriel , CA 91778
ChiefRBwife@aol.com
(626) 286-1632
(626) 286-1758 - Home
(626) 286-1262 Fax

Sonia Johnston, Tribal Vice Chairperson
Juaneño Band of Mission Indians
P.O. Box 25628 Juaneno
Santa Ana , CA 92799
sonia.johnston@sbcglobal.net
(714) 323-8312

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 Resources Code and Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources for the proposed State Route 91/State Route 71 Interchange Project located in Riverside County, California for which a Sacred Lands File search and Native American Contacts list were requested.

Applied EarthWorks Inc.
3292 E. Florida Avenue
Suite A
Hemet, CA 92544-4941
(951) 766-2000
FAX (951) 766-0020

15 July 2008

Ms. Cindi Alvitre
Ti'At Society
6515 E. Seaside Walk, #C
Long Beach, CA 90803

Re: State Route 91/State Route 71 Interchange Project

Dear Ms. Alvitre:

On behalf of Parsons and in support of the Riverside County Transportation Commission (RCTC) and Caltrans District 8 (Caltrans), Applied EarthWorks, Inc. will be completing a cultural resources literature and records search and pedestrian archaeological surveys in support of the State Route 91 (SR 91)/State Route 71 (SR 71) Interchange Project in western Riverside County. As shown on the enclosed topographic map composite, the project area is located on the Corona North, Prado Canyon and Black Star Canyon U.S.G.S. topographic maps (Sections and Townships/Ranges are listed on the map).

Specifically, the Project proposes capacity, operational, and safety improvements on SR 91 at the junction with SR 71 in the City of Corona, in Riverside County. The proposed improvements consist of: replacing the existing eastbound SR 91 to northbound SR 71 (E-N) connector with a direct fly-over connector; providing a collector-distributor road in the eastbound direction between the Green River Road Interchange and the SR 91/SR 781 Junction; and extending the existing auxiliary lanes from the southbound SR 71 to eastbound SR 91 (S-E) connector to Serfas Club Drive, and from the westbound SR 91 to northbound SR 71 (W-N) connector to Serfas Club Drive, as well as extending the existing fifth general purpose lane from SR 71 to Serfas Club Drive in the eastbound direction. These proposed improvements are expected to reduce congestion, improve mobility and connectivity, and enhance the safety of the traveling public, by increasing the carrying capacity of the facility and by minimizing the recurring bottleneck at the SR 91/SR 71 Interchange

The cultural resources studies to be completed as part of the proposed Project include cultural resources investigations and consultation with interested parties. To date, the cultural resources literature and records search for a one-mile radius of the Project's Area of Potential Effect (APE), conducted at the San Bernardino Archaeological Information Center at the San Bernardino County Museum, the Eastern Information Center at the University of California – Riverside, and the South Central Coastal Information Center at California State University – Fullerton, indicate no cultural resources have been recorded previously in the Orange County portion of the search and one historical dirt road has been recorded previously in the San Bernardino County portion of the search.

Sixteen cultural resources have been recorded previously within a one-mile radius of the Project APE that falls within Riverside County, however. Of these 16 sites, 15 are historical archaeological sites consisting variously of former ranch sites, farm sites, town sites, foundations, a bridge, a rail road grade, and the Prado Dam; three of the historical archaeological sites fall partially within the Project APE. The single prehistoric archaeological site is described as a scatter of manos and metates; this site is not located within the Project APE.

The archaeological survey of the Project's APE will be completed later this summer once the Rights-of-Entry have been obtained.

As part of the Project, the Project proponents are interested in receiving input from the local Native American community regarding any concerns related to the proposed Project. Please inform me of any areas of cultural significance that we should take into account for the purpose of this Project. This letter will be followed shortly with a telephone call to discuss any issues and/or comments that you may have.

If you have any questions or comments regarding the proposed Project, please do not hesitate to contact me at (951) 766-2000, or by email at mhorne@appliedearthworks.com. We look forward to your response.

Respectfully yours,

Melinda Horne
Senior Archaeologist
Applied EarthWorks, Inc.

Map Enclosure

Applied EarthWorks Inc.
3292 E. Florida Avenue
Suite A
Hemet, CA 92544-4941
(951) 766-2000
FAX (951) 766-0020

15 July 2008

Mr. Sam Dunlap
Gabrieleno/Tongva Council /
Gabrieleno Tongva Nation
781 Terminal St., Bldg. 1, 2nd Floor
Los Angeles, CA 90021

Re: State Route 91/State Route 71 Interchange Project

Dear Mr. Dunlap:

On behalf of Parsons and in support of the Riverside County Transportation Commission (RCTC) and Caltrans District 8 (Caltrans), Applied EarthWorks, Inc. will be completing a cultural resources literature and records search and pedestrian archaeological surveys in support of the State Route 91 (SR 91)/State Route 71 (SR 71) Interchange Project in western Riverside County. As shown on the enclosed topographic map composite, the project area is located on the Corona North, Prado Canyon and Black Star Canyon U.S.G.S. topographic maps (Sections and Townships/Ranges are listed on the map).

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Respectfully yours,

Melinda Horne
Senior Archaeologist
Applied EarthWorks, Inc.

Map Enclosure

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3292 E. Florida Avenue
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(951) 766-2000
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15 July 2008

Ms. Erica Helms
Soboba Band of Luiseño Indians
P.O. Box 487
San Jacinto, CA 92581

Re: State Route 91/State Route 71 Interchange Project

Dear Ms. Helms:

On behalf of Parsons and in support of the Riverside County Transportation Commission (RCTC) and Caltrans District 8 (Caltrans), Applied EarthWorks, Inc. will be completing a cultural resources literature and records search and pedestrian archaeological surveys in support of the State Route 91 (SR 91)/State Route 71 (SR 71) Interchange Project in western Riverside County. As shown on the enclosed topographic map composite, the project area is located on the Corona North, Prado Canyon and Black Star Canyon U.S.G.S. topographic maps (Sections and Townships/Ranges are listed on the map).

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If you have any questions or comments regarding the proposed Project, please do not hesitate to contact me at (951) 766-2000, or by email at mhorne@appliedearthworks.com. We look forward to your response.

Respectfully yours,

Melinda Horne
Senior Archaeologist
Applied EarthWorks, Inc.

Map Enclosure

Applied EarthWorks Inc.
3292 E. Florida Avenue
Suite A
Hemet, CA 92544-4941
(951) 766-2000
FAX (951) 766-0020

15 July 2008

Ms. Sonia Johnston
Juaneño Band of Mission Indians
P.O. Box 25628
Santa Ana, CA 92799

Re: State Route 91/State Route 71 Interchange Project

Dear Ms. Johnston:

On behalf of Parsons and in support of the Riverside County Transportation Commission (RCTC) and Caltrans District 8 (Caltrans), Applied EarthWorks, Inc. will be completing a cultural resources literature and records search and pedestrian archaeological surveys in support of the State Route 91 (SR 91)/State Route 71 (SR 71) Interchange Project in western Riverside County. As shown on the enclosed topographic map composite, the project area is located on the Corona North, Prado Canyon and Black Star Canyon U.S.G.S. topographic maps (Sections and Townships/Ranges are listed on the map).

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Respectfully yours,

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Map Enclosure

Applied EarthWorks Inc.
3292 E. Florida Avenue
Suite A
Hemet, CA 92544-4941
(951) 766-2000
FAX (951) 766-0020

15 July 2008

Mr. Mark Macarro
Pechanga Band of Mission Indians
P.O. Box 1477
Temecula, CA 92593

Re: State Route 91/State Route 71 Interchange Project

Dear Mr. Macarro:

On behalf of Parsons and in support of the Riverside County Transportation Commission (RCTC) and Caltrans District 8 (Caltrans), Applied EarthWorks, Inc. will be completing a cultural resources literature and records search and pedestrian archaeological surveys in support of the State Route 91 (SR 91)/State Route 71 (SR 71) Interchange Project in western Riverside County. As shown on the enclosed topographic map composite, the project area is located on the Corona North, Prado Canyon and Black Star Canyon U.S.G.S. topographic maps (Sections and Townships/Ranges are listed on the map).

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If you have any questions or comments regarding the proposed Project, please do not hesitate to contact me at (951) 766-2000, or by email at mhorne@appliedearthworks.com. We look forward to your response.

Respectfully yours,

Melinda Horne
Senior Archaeologist
Applied EarthWorks, Inc.

Map Enclosure

Applied EarthWorks Inc.
3292 E. Florida Avenue
Suite A
Hemet, CA 92544-4941
(951) 766-2000
FAX (951) 766-0020

15 July 2008

Mr. Anthony Madrigal, Jr.
Cahuilla Band of Indians
P.O. Box 391760
Anza, CA 92539

Re: State Route 91/State Route 71 Interchange Project

Dear Mr. Madrigal:

On behalf of Parsons and in support of the Riverside County Transportation Commission (RCTC) and Caltrans District 8 (Caltrans), Applied EarthWorks, Inc. will be completing a cultural resources literature and records search and pedestrian archaeological surveys in support of the State Route 91 (SR 91)/State Route 71 (SR 71) Interchange Project in western Riverside County. As shown on the enclosed topographic map composite, the project area is located on the Corona North, Prado Canyon and Black Star Canyon U.S.G.S. topographic maps (Sections and Townships/Ranges are listed on the map).

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Sixteen cultural resources have been recorded previously within a one-mile radius of the Project APE that falls within Riverside County, however. Of these 16 sites, 15 are historical archaeological sites consisting variously of former ranch sites, farm sites, town sites, foundations, a bridge, a rail road grade, and the Prado Dam; three of the historical archaeological sites fall partially within the Project APE. The single prehistoric archaeological site is described as a scatter of manos and metates; this site is not located within the Project APE.

The archaeological survey of the Project's APE will be completed later this summer once the Rights-of-Entry have been obtained.

As part of the Project, the Project proponents are interested in receiving input from the local Native American community regarding any concerns related to the proposed Project. Please inform me of any areas of cultural significance that we should take into account for the purpose of this Project. This letter will be followed shortly with a telephone call to discuss any issues and/or comments that you may have.

If you have any questions or comments regarding the proposed Project, please do not hesitate to contact me at (951) 766-2000, or by email at mhorne@appliedearthworks.com. We look forward to your response.

Respectfully yours,

Melinda Horne
Senior Archaeologist
Applied EarthWorks, Inc.

Map Enclosure

Applied EarthWorks Inc.
3292 E. Florida Avenue
Suite A
Hemet, CA 92544-4941
(951) 766-2000
FAX (951) 766-0020

15 July 2008

Mr. Anthony Morales
Gabrieleno/Tongva San Gabriel Band of Mission Indians
P.O. Box 693
San Gabriel, CA 91778

Re: State Route 91/State Route 71 Interchange Project

Dear Mr. Morales:

On behalf of Parsons and in support of the Riverside County Transportation Commission (RCTC) and Caltrans District 8 (Caltrans), Applied EarthWorks, Inc. will be completing a cultural resources literature and records search and pedestrian archaeological surveys in support of the State Route 91 (SR 91)/State Route 71 (SR 71) Interchange Project in western Riverside County. As shown on the enclosed topographic map composite, the project area is located on the Corona North, Prado Canyon and Black Star Canyon U.S.G.S. topographic maps (Sections and Townships/Ranges are listed on the map).

Specifically, the Project proposes capacity, operational, and safety improvements on SR 91 at the junction with SR 71 in the City of Corona, in Riverside County. The proposed improvements consist of: replacing the existing eastbound SR 91 to northbound SR 71 (E-N) connector with a direct fly-over connector; providing a collector-distributor road in the eastbound direction between the Green River Road Interchange and the SR 91/SR 781 Junction; and extending the existing auxiliary lanes from the southbound SR 71 to eastbound SR 91 (S-E) connector to Serfas Club Drive, and from the westbound SR 91 to northbound SR 71 (W-N) connector to Serfas Club Drive, as well as extending the existing fifth general purpose lane from SR 71 to Serfas Club Drive in the eastbound direction. These proposed improvements are expected to reduce congestion, improve mobility and connectivity, and enhance the safety of the traveling public, by increasing the carrying capacity of the facility and by minimizing the recurring bottleneck at the SR 91/SR 71 Interchange

The cultural resources studies to be completed as part of the proposed Project include cultural resources investigations and consultation with interested parties. To date, the cultural resources literature and records search for a one-mile radius of the Project's Area of Potential Effect (APE), conducted at the San Bernardino Archaeological Information Center at the San Bernardino County Museum, the Eastern Information Center at the University of California – Riverside, and the South Central Coastal Information Center at California State University – Fullerton, indicate no cultural resources have been recorded previously in the Orange County portion of the search and one historical dirt road has been recorded previously in the San Bernardino County portion of the search.

Sixteen cultural resources have been recorded previously within a one-mile radius of the Project APE that falls within Riverside County, however. Of these 16 sites, 15 are historical archaeological sites consisting variously of former ranch sites, farm sites, town sites, foundations, a bridge, a rail road grade, and the Prado Dam; three of the historical archaeological sites fall partially within the Project APE. The single prehistoric archaeological site is described as a scatter of manos and metates; this site is not located within the Project APE.

The archaeological survey of the Project's APE will be completed later this summer once the Rights-of-Entry have been obtained.

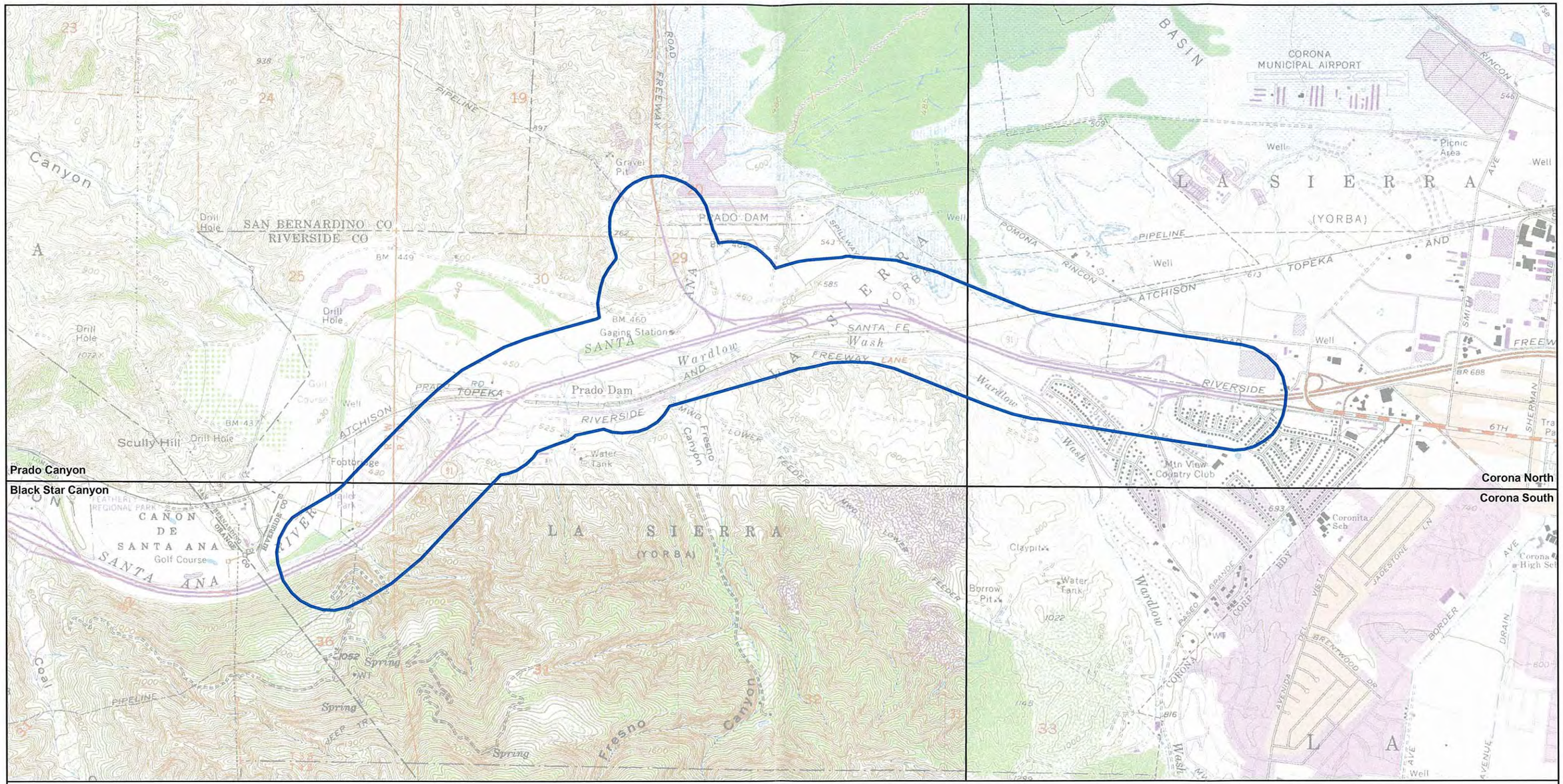
As part of the Project, the Project proponents are interested in receiving input from the local Native American community regarding any concerns related to the proposed Project. Please inform me of any areas of cultural significance that we should take into account for the purpose of this Project. This letter will be followed shortly with a telephone call to discuss any issues and/or comments that you may have.

If you have any questions or comments regarding the proposed Project, please do not hesitate to contact me at (951) 766-2000, or by email at mhorne@appliedearthworks.com. We look forward to your response.

Respectfully yours,

Melinda Horne
Senior Archaeologist
Applied EarthWorks, Inc.

Map Enclosure



Township 3S/Range 7W, Sections 19, 20, 29, 30, and 31; Township 3S/Range 8W, Section 36; La Sierra (Yorba) Landgrant
Corona North (1967-PR1981), Corona South (1967-PR1982), Prado Dam (1967-PR1981), and Black Star Canyon(1967-PR1982), CA 7.5' USGS Quadrangles

Native American Heritage Commission Sacred Lands File search for the State Route 74/91 project.

PECHANGA CULTURAL RESOURCES
Temecula Band of Luiseño Mission Indians

Post Office. Box 2183 • Temecula, CA 92593
Telephone (951) 308-9295 • Fax (951) 506-9491

Chairperson:
Germaine Arenas

Vice Chairperson:
Mary Bear Magee

Committee Members:
Evie Gerber
Darlene Miranda
Bridgett Barcello Maxwell

Director:
Gary DuBois

Coordinator:
Paul Macarro

Cultural Analyst:
Anna Hoover

Monitor Supervisor:
Aurelia Marruffo

September 22, 2008

VIA E-Mail and USPS

RE: Request for Information for State Route 91/State Route 71 Interchange Project (Applied Earthworks)

Dear Ms. Horne;

The Pechanga Band of Luiseño Indians ("the Tribe") appreciates your request for information regarding the above referenced project. After reviewing the provided maps and internal documents, we have determined that the project area is not within reservation lands although it is within our ancestral territory. At this time, we are interested in receiving additional information on the project as indicated below. Please note that the Tribe does not consider this letter completion of SB18 or Section 106 consultation.

Currently, the Tribe requests the following:

1) Notification by the Lead Agency once the entitlement and/or CEQA/NEPA process commences for the project to enable the Tribe the opportunity to participate in the environmental review process for the project;

2) Copies of all archaeological reports as soon as they are completed, applicable site records and environmental documents;

3) Government to government consultation with the Lead Agency on the project impacts to cultural resources and appropriate mitigation for such impacts; and

4) Participation in all archaeological surveys and proposed excavations through tribal monitoring and Tribal consultation concerning project impacts to cultural resources. Additionally, in the event that cultural resources are identified, the Tribe requests consultation with the project proponent and Lead Agency regarding the treatment and disposition of all artifacts.

As a sovereign governmental entity, the Tribe is entitled to appropriate and adequate government-to-government consultation regarding the proposed project. We would like you and your client to know that the Tribe does not consider initial inquiry letters from project consultants to constitute appropriate government-to-government consultation, but rather tools to obtain further information about the project area. Therefore, the Tribe reserves its rights to participate in the formal environmental review process, including government-to-government consultation with the Lead Agency, and requests to be included in all correspondence regarding this project.

Please note that we are interested in participating in surveys within Luiseño ancestral territory. Prior to conducting any surveys, please contact the Cultural Department to schedule specifics. If you have any additional questions or comments, please contact me at ahoover@pechanga-nsn.gov or 951-308-9295.

Sincerely,

Anna M. Hoover
Cultural Analyst

DEPARTMENT OF TRANSPORTATION
DISTRICT 8
ENVIRONMENTAL PLANNING (MS 825)
464 W. FOURTH STREET, 6TH FLOOR
SAN BERNARDINO, CA 92401-1400
PHONE (909) 383-4042
FAX (909) 383-6494
TTY (909) 383-6300

Flex your power!
Be energy efficient!

May 18, 2009

Mr. Mark Macarro
Chairman
Pechanga Band of Mission Indians
P.O. Box 1477
Temecula, CA 92593
Attn: Paul Macarro

08-Riv-71 PM 44.2/44.7
91/71 IC Improvements
EA 0F541

Dear Mr. Macarro:

State Route 91/71 Interchange Project: Request for Native American Monitoring

The California Department of Transportation (Caltrans) and the Riverside County Transportation Commission (RCTC) acknowledge your request to have a Native American Monitor present during the construction of the proposed State Route 91/State Route 71 Interchange Project (EA 0F541). Consultation for this Project is being conducted both by Caltrans' policy and in anticipation of possible future federal involvement.

It is Caltrans policy and practice to have Native American monitoring in three circumstances: (1) during archaeological excavations, (2) during construction and construction-related activities adjacent to known Native American archaeological or cultural sites, or such sites identified as Environmentally Sensitive Areas (ESAs), and (3) during construction or related activities in areas where there is a high probability that there may be a buried deposit based on the geomorphology of the area [Gary Winters memo, 2003].

Our identification efforts, however, summarized below and in the attached draft Archaeological Survey Report (ASR), did not identify either a historic property within or immediately adjacent to the Project Area of Potential Effect (APE), or a high probability of intact, buried cultural deposits (see ASR pages 7 – 11 for the results of the literature and records search; pages 14 – 17 detail the geomorphic setting of the Project APE; and page 28 provides the results of the survey). Therefore, Caltrans does not support Native American monitoring for this project.

The cultural resources literature and records search, and pedestrian archaeological surveys in support of the proposed Project have now been completed (see Figure 1 in the enclosed document). To date, the cultural resources literature and records search for a one-mile radius of the Project's APE resulted in the identification of 19 previously recorded cultural resources. Of these, 18 are historical archaeological sites. The single prehistoric archaeological site is

described as a scatter of manos and metates; this site is not located within or immediately adjacent to the Project APE. The pedestrian cultural resources survey of the Project APE, completed on August 5, 2008, failed to identify any archaeological resources or built environment resources within or adjacent to the Project APE.

Therefore, considering the disturbed condition of much of the Project APE, the low sensitivity for prehistoric cultural resources within the Project APE, and the negative results of archaeological survey and other identification efforts, Caltrans does not support use of archaeological or Native American construction monitoring.

If you have a concern regarding specific cultural resources within or immediately adjacent to the Project APE, please contact me and we will take it into account during project planning.

If you have any questions, please do not hesitate to contact me at (909) 383-4045, or by email at gwyn_alcock@dot.ca.gov. In return correspondence, please refer to this project by the EA number provided. We look forward to your response.

Respectfully yours,

GWYN ALCOCK
Associate Environmental Planner, Archaeology
District Native American Coordinator
Environmental Support/Cultural Studies

Report Enclosure

DEPARTMENT OF TRANSPORTATION
DISTRICT 8
ENVIRONMENTAL PLANNING (MS 825)
464 W. FOURTH STREET, 6TH FLOOR
SAN BERNARDINO, CA 92401-1400
PHONE (909) 383-4042
FAX (909) 383-6494
TTY (909) 383-6300

Flex your power!
Be energy efficient!

May 18, 2009

Anna Hoover
Cultural Analyst
Pechanga Band of Luiseno Mission Indians
P.O. Box 2183
Temecula, CA 92593

08-Riv-71 PM 44.2/44.7
91/71 IC Improvements
EA 0F541

Dear Ms. Hoover:

State Route 91/71 Interchange Project: Request for Native American Monitoring

The California Department of Transportation (Caltrans) and the Riverside County Transportation Commission (RCTC) acknowledge your request to have a Native American Monitor present during the construction of the proposed State Route 91/State Route 71 Interchange Project (EA 0F541). Consultation for this Project is being conducted both by Caltrans' policy and in anticipation of possible future federal involvement.

It is Caltrans policy and practice to have Native American monitoring in three circumstances: (1) during archaeological excavations, (2) during construction and construction-related activities adjacent to known Native American archaeological or cultural sites, or such sites identified as Environmentally Sensitive Areas (ESAs), and (3) during construction or related activities in areas where there is a high probability that there may be a buried deposit based on the geomorphology of the area [Gary Winters memo, 2003].

Our identification efforts, however, summarized below and in the attached draft Archaeological Survey Report (ASR), did not identify either a historic property within or immediately adjacent to the Project Area of Potential Effect (APE), or a high probability of intact, buried cultural deposits (see ASR pages 7 – 11 for the results of the literature and records search; pages 14 – 17 detail the geomorphic setting of the Project APE; and page 28 provides the results of the survey). Therefore, Caltrans does not support Native American monitoring for this project.

The cultural resources literature and records search, and pedestrian archaeological surveys in support of the proposed Project have now been completed (see Figure 1 in the enclosed document). To date, the cultural resources literature and records search for a one-mile radius of the Project's APE resulted in the identification of 19 previously recorded cultural resources. Of these, 18 are historical archaeological sites. The single prehistoric archaeological site is described as a scatter of manos and metates; this site is not located within or immediately

adjacent to the Project APE. The pedestrian cultural resources survey of the Project APE, completed on August 5, 2008, failed to identify any archaeological resources or built environment resources within or adjacent to the Project APE.

Therefore, considering the disturbed condition of much of the Project APE, the low sensitivity for prehistoric cultural resources within the Project APE, and the negative results of archaeological survey and other identification efforts, Caltrans does not support use of archaeological or Native American construction monitoring.

If you have a concern regarding specific cultural resources within or immediately adjacent to the Project APE, please contact me and we will take it into account during project planning.

If you have any questions, please do not hesitate to contact me at (909) 383-4045, or by email at gwyn_alcock@dot.ca.gov. In return correspondence, please refer to this project by the EA number provided. We look forward to your response.

Respectfully yours,

GWYN ALCOCK
Associate Environmental Planner, Archaeology
District Native American Coordinator
Environmental Support/Cultural Studies

Report Enclosure

PHONE RECORD

DATE: June 15, 2009
PERSON: Joe Ontiveros
TITLE: Cultural Resource Department
OF: Soboba Band of Luiseno Indians
PHONE NUMBER: (951) 654-2765 x4137

EA: 0F541
PROJECT: 91/71 IC

RE: Soboba requests and comments to consultant, June 2, 2009

1:35 pm: I called Mr. Ontiveros, in response to a phone conversation he had with Melinda Horne of Applied Earthworks in Hemet on June 2, 2009. I left a voice message referencing the project, and asked him to give me a call back.

Gwyn Alcock
California Department of Transportation
Associate Environmental Planner, Archaeologist
District Native American Coordinator

PHONE RECORD

DATE: June 16, 2009
PERSON: Joe Ontiveros
TITLE: Cultural Resource Department
OF: Soboba Band of Luiseno Indians
PHONE NUMBER: (951) 654-2765 x4137

EA: 0F541
PROJECT: 91/71 IC Improvements

RE: Soboba requests and comments to consultant, June 2, 2009

3:40 pm: I called Mr. Ontiveros, in response to a phone conversation he had with Melinda Horne of Applied Earthworks in Hemet on June 2, 2009. I left a voice message referencing the project, and asked him to give me a call back.

Gwyn Alcock
California Department of Transportation
Associate Environmental Planner, Archaeologist
District Native American Coordinator

PHONE RECORD

DATE: June 18, 2009
PERSON: Mr. Joe Ontiveros
TITLE: Cultural Resources Director
OF: Soboba Band of Luiseño Indians
PHONE NUMBER: (951) 654-5544 x4137

EA: 0F541
PROJECT: 91/71 Interchange Improvements

RE: Follow-up to Mr. Ontiveros's request for government-to-government consultation and monitoring, made during a telephone call to consultant.

10:02 am: Mr. Ontiveros called me back. I verified that he requested government-to-government consultation on this project. We discussed the issue of monitoring; he did not have information regarding specific resources in the project area. He said that Soboba had a monitor on the survey, and he spoke with the monitor as well as Applied Earthworks staff about the condition of the project area. Mr. Ontiveros understands Caltrans policy, and thinks it should be changed. In this project, he is concerned about artifacts washed into the project area; it does not matter if they are out of context, they are considered "sacred to a point." He said, however, that we may move forward on the project.

Gwyn Alcock
California Department of Transportation
Associate Environmental Planner, Archaeologist
District Native American Coordinator

PHONE RECORD

DATE: March 4, 2010
PERSON: Anna Hoover
TITLE: Cultural Resources
OF: Pechanga Band of Luiseno Indians
PHONE NUMBER:

EA: 0F541
PROJECT: 91/71 Interchange

RE: Consultation concerns

11:15 pm: After some preliminary emails for scheduling and agenda, Ms. Hoover called me. We discussed the project. She mentioned that they had requested to be on the survey; I said that the consultant had called them to notify them that the survey was going to take place but had received no response.

Ms. Hoover said that after reviewing the project, they have no further comments and no concerns at this time. It appears to be in an area of low sensitivity for prehistoric resources, and disturbed in the project area. Her records indicate that the only resources recorded in the area are historical-period.

If the sensitivity appears to rise above the level of low concern for prehistoric resources, they want to be contacted. They will check some more and contact us if something comes up on their search.

Gwyn Alcock
California Department of Transportation
Associate Environmental Planner, Archaeologist
District Native American Coordinator

STATE ROUTE 91/STATE ROUTE 71 INTERCHANGE PROJECT
LIST OF NATIVE AMERICAN CONTACTS AND RECORD OF RESPONSES

Name	Date & Time of Contacts	Responses
Anthony Madrigal, Jr. Chairperson, Cahuilla Band of Indians	Letter Sent 7/15/08	Called on 8/4/08 @ 0955 hours; no answer – left detailed message. Called on 9/17/08 @1345 hours and learned that Mr. Madrigal has been replaced by Andrea Helms, Assistant Director of Environmental Department; she requests a copy of the cultural resources inventory report; she also requests that a Native American Monitor be present during project construction. Pursuant to a request by Caltrans District 8 Native American Coordinator, Gwyn Alcock and regarding Cahuilla Band of Indians' request for Native American Monitoring during construction, Æ provided a revised draft ASR to Mr. Madrigal on May 18, 2009; the transmittal was on Æ Letterhead. On July 8, 2009, at 1315 hours, I called and asked to speak with Andrea Helms – I was informed that she no longer works for the Tribe and I was directed to speak with Yvonne Markle, the new Assistant Director of Environmental Department. Ms. Markle was not aware of the Draft ASR and said she would look in her files – I offered to send a replacement copy is she could not find the original one sent. On July 10, 2009, Applied EarthWorks received an email from Ms. Markel stating that currently the Cahuilla Band of Indians has no concerns regarding this project; however, they requested to be updated on any findings in the Project area that pertain to any discoveries of Native American artifacts (see attached).
Cindi Alvitre Ti'At Society	Letter Sent 7/15/08	Called on 8/4/08 @ 0957 hours; no answer – left detailed message. Called on 9/17/08 @1350 hours; no answer – left detailed message.
Sonia Johnston Tribal Vice Chairperson Juaneno Band of Mission Indians	Letter Sent 7/15/08	Called on 8/4/08 @ 1012 hours; no answer – left detailed message. Called on 9/17/08 @1400 hours; Ms. Johnson has no concerns regarding the project.

Name	Date & Time of Contacts	Responses
Anthony Morales Chairperson Gabrieleno/Tongva San Gabriel Band of Mission Indians	Letter Sent 7/15/08	Mr. Morales called on 7/30/08; has concerns about the project and recommends that an archaeological and Native American monitor be present during ground disturbing activities in previously undisturbed project areas. Pursuant to a request by Caltrans District 8 Native American Coordinator, Gwyn Alcock and regarding the Gabrieleno/Tongva San Gabriel Band of Mission Indians' request for Native American Monitoring during construction, Æ provided a revised draft ASR to Mr. Morales on May 18, 2009; the transmittal was on Æ Letterhead. On May 19, 2009, at 1430 hours, Ms. Horne, Æ Senior Archaeologist, received a telephone call from Mr. Morales. Initially, Mr. Morales was upset that Caltrans did not agree to his request for Native American Monitoring during construction; however, after explaining why the Project APE had little or no potential for containing intact buried Native American cultural deposits due to its geomorphic setting and documented prehistoric settlement patterns in the overall Prado Basin – Mr. Morales agreed with Æ's and Caltrans' findings and recommendations for no Native American Monitoring during construction.
San Dunlap Tribal Secretary Gabrielino/Tongva Council / Gabrielino Tongva Nation	Letter Sent 7/15/08	Called on 8/4/08 @ 1000 hours. Mr. Dunlap has not had the chance to ready the letter as of yet; he will get back to us when he has. Called on 9/17/08 @1355 hours; no answer – left detailed message.

Name	Date & Time of Contacts	Responses
Mark Macarro Chairperson Pechanga Band of Mission Indians	Letter Sent 7/15/08	Received email from Anna Hoover, Cultural Analyst for the Pechanga Cultural Resources Department, on 8/1/08 requesting that a Native American Monitor be present during the archaeological survey of the project area of potential effect. Æ invited Pechanga to assist during the survey on 8/5/08; however, no Tribal representative showed up for the survey. Received letter dated 9/22/08 from A. Hoover (see attached). Pursuant to a request by Caltrans District 8 Native American Coordinator, Gwyn Alcock and regarding Pechanga's request for Native American Monitoring during construction, Æ provided a revised draft ASR to Ms. Hoover on May 18, 2009; the transmittal was on Caltrans Letterhead. On March 4, 2010, at 11:15pm, Ms. Alcock, District 8 Native American Coordinator, received a call from Ms. Hoover to discuss the project. Ms. Hoover stated that after reviewing the project, they have no further comments and no concerns at this time. However, if the sensitivity appears to rise above the level of low concern for prehistoric resources, they want to be contacted.
Paul Macarro, Cultural Resource Center Pechanga Band of Mission Indians	Letter Sent 7/15/08	Received email from Anna Hoover, Cultural Analyst for the Pechanga Cultural Resources Department, on 8/1/08 requesting that a Native American Monitor be present during the archaeological survey of the project area of potential effect. Æ invited Pechanga to assist during the survey on 8/5/08; however, no Tribal representative showed up for the survey. Received letter dated 9/22/08 from A. Hoover (see attached). Pursuant to a request by Caltrans District 8 Native American Coordinator, Gwyn Alcock and regarding Pechanga's request for Native American Monitoring during construction, Æ provided a revised draft ASR to Mr. Macarro on May 18, 2009; the transmittal was on Caltrans Letterhead.

Name	Date & Time of Contacts	Responses
Erica Helms Cultural Resources Manager Soboba Band of Luiseno Indians	Letter Sent 7/15/08	Called on 8/4/08 @ 1005 hours; was transferred to Joe Ontiveros. Mr. Ontiveros requested that a Native American Monitor be present during the archaeological survey of the project area of potential effect. Tribal representative, Kenneth Hurtado, assisted Æ with the archaeological survey on 8/5/08. Pursuant to a request by Caltrans District 8 Native American Coordinator, Gwyn Alcock and regarding Soboba's request for Native American Monitoring during construction, Æ provided a revised draft ASR to Mr. Ontiveros on May 18, 2009; the transmittal was on Æ Letterhead. On June 2, 2009 at 1230 hours, Mr. Ontiveros called Æ and was dismayed that Caltrans did not agree with his recommendation for Native American Monitoring during Project construction. He then informed Æ that he would contact Gwyn Alcock, District 8 Native American Coordinator and request Government-to-Government consultation between the Soboba Band of Luiseno Indians and Caltrans District 8. On June 15, 2009, at 1335 hours and on June 16 at 1540 hours, Ms. Alcock, District 8 Native American Coordinator, attempted to contact Mr. Ontiveros by phone and left detailed messages. On June 18 at 1002 hours, Mr. Ontiveros returned Ms. Alcock's call and discussed the project and results of the cultural resources identification efforts. Mr. Ontiveros understands Caltrans Monitoring Policy and thinks it should be changed – he has concerns that Native American artifacts may have washed into the Project APE during one or more flooding episodes; it does not matter if they are out of context – they are still considered "sacred to a point." Mr. Ontiveros, however, stated that Caltrans may move forward on the project.

APPENDIX I CNDDB AND IPAC DATABASES RECORD SEARCHES

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Carlsbad Fish And Wildlife Office
2177 Salk Avenue - Suite 250
Carlsbad, CA 92008-7385
Phone: (760) 431-9440 Fax: (760) 431-5901
http://www.fws.gov/carlsbad/

In Reply Refer To:
Consultation Code: 08ECAR00-2020-SLI-1255
Event Code: 08ECAR00-2021-E-01469
Project Name: SR-71 and SR-91 Interchange Improvement Project

February 25, 2021

Subject: Updated list of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, and proposed species, designated critical habitat, and candidate species that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm; http://www.towerkill.com; and http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

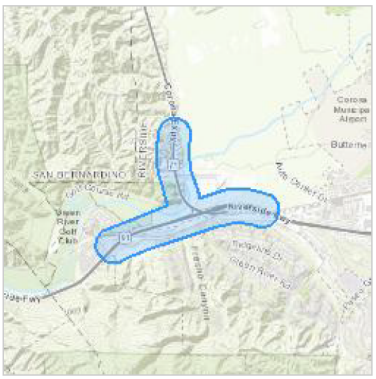
Carlsbad Fish And Wildlife Office
2177 Salk Avenue - Suite 250
Carlsbad, CA 92008-7385
(760) 431-9440

Project Summary

Consultation Code: 08ECAR00-2020-SLI-1255
Event Code: 08ECAR00-2021-E-01469
Project Name: SR-71 and SR-91 Interchange Improvement Project
Project Type: TRANSPORTATION
Project Description: The project proposes to improve the existing SR-71/SR-91 interchange by constructing a new direct flyover connector from eastbound SR-91 to northbound SR-71. In addition to the flyover, the Green River Road eastbound onramp will be re-constructed, the SR-71 realigned, and access to properties relocated.

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@33.88726690412026,-117.64526659104055,14z



Counties: Riverside County, California

Endangered Species Act Species

There is a total of 9 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
Stephens' Kangaroo Rat *Dipodomys stephensi (incl. D. cascus)* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/3495	Endangered

Birds

NAME	STATUS
Coastal California Gnatcatcher *Polioptila californica californica* There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/8178	Threatened
Least Bell's Vireo *Vireo bellii pusillus* There is **final** critical habitat for this species. Your location overlaps the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5945	Endangered
Southwestern Willow Flycatcher *Empidonax traillii extimus* There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/6749	Endangered

Fishes

NAME	STATUS
Santa Ana Sucker *Catostomus santaanae* Population: 3 CA river basins There is **final** critical habitat for this species. Your location overlaps the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/3785	Threatened

Insects

NAME	STATUS
Delhi Sands Flower-loving Fly *Rhaphiomidas terminatus abdominalis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1540	Endangered

Flowering Plants

NAME	STATUS
San Diego Ambrosia *Ambrosia pumila* There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/8287	Endangered
Santa Ana River Woolly-star *Eriastrum densifolium ssp. sanctorum* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6575	Endangered
Thread-leaved Brodiaea *Brodiaea filifolia* There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/6087	Threatened

Critical habitats

There are 2 critical habitats wholly or partially within your project area under this office's jurisdiction.

NAME	STATUS
Least Bell's Vireo *Vireo bellii pusillus* https://ecos.fws.gov/ecp/species/5945#crithab	Final
Santa Ana Sucker *Catostomus santaanae* https://ecos.fws.gov/ecp/species/3785#crithab	Final

CALIFORNIA DEPARTMENT OF FISH and WILDLIFE **RareFind**

Query Summary:
Quad IS (Prado Dam (3311786))

Print Close

CNDDB Element Query Results

Scientific Name	Common Name	Taxonomic Group	Element Code	Total Occs	Returned Occs	Federal Status	State Status	Global Rank	State Rank	CA Rare Plant Rank	Other Status	Habitats
Abronia villosa var. aurita	chaparral sand-verbena	Dicots	PDNYC010P1	98	1	None	None	G5T2?	S2	1B.1	BLM_S-Sensitive, SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, USFS_S-Sensitive	Chaparral, Coastal scrub, Desert dunes
Accipiter cooperii	Cooper's hawk	Birds	ABNKC12040	118	1	None	None	G5	S4	null	CDFW_WL-Watch List, IUCN_LC-Least Concern	Cismontane woodland, Riparian forest, Riparian woodland, Upper montane coniferous forest
Agelaius tricolor	tricolored blackbird	Birds	ABPBXB0020	955	3	None	Threatened	G1G2	S1S2	null	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_EN-Endangered, NABCI_RWL-Red Watch List, USFWS_BCC-Birds of Conservation Concern	Freshwater marsh, Marsh & swamp, Swamp, Wetland
Aimophila ruficeps canescens	southern California rufous-crowned sparrow	Birds	ABPBX91091	235	1	None	None	G5T3	S3	null	CDFW_WL-Watch List	Chaparral, Coastal scrub
Ammodramus savannarum	grasshopper sparrow	Birds	ABPBXA0020	27	1	None	None	G5	S3	null	CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern	Valley & foothill grassland
Aquila chrysaetos	golden eagle	Birds	ABNKC22010	323	3	None	None	G5	S3	null	BLM_S-Sensitive, CDF_S-Sensitive, CDFW_FP-Fully Protected, CDFW_WL-Watch List, IUCN_LC-Least Concern, USFWS_BCC-Birds of Conservation Concern	Broadleaved upland forest, Cismontane woodland, Coastal prairie, Great Basin grassland, Great Basin scrub, Lower montane coniferous forest, Pinon & juniper woodlands, Upper montane coniferous forest, Valley & foothill grassland
Asio otus	long-eared owl	Birds	ABNSB13010	48	1	None	None	G5	S3?	null	CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern	Cismontane woodland, Great Basin scrub, Riparian forest, Riparian woodland, Upper montane coniferous forest
Aspidoscelis hyperythra	orange-throated whiptail	Reptiles	ARACJ02060	369	2	None	None	G5	S2S3	null	CDFW_WL-Watch List, IUCN_LC-Least Concern, USFS_S-Sensitive	Chaparral, Cismontane woodland, Coastal scrub
Astragalus brauntonii	Braunton's milk-vetch	Dicots	PDFAB0F1G0	57	2	Endangered	None	G2	S2	1B.1	SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, SB_SBBG-Santa Barbara Botanic Garden	Chaparral, Coastal scrub, Limestone, Valley & foothill grassland
Athene cunicularia	burrowing owl	Birds	ABNSB10010	2011	10	None	None	G4	S3	null	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_LC-	Coastal prairie, Coastal scrub, Great Basin grassland, Great

											Least Concern, USFWS_BCC-Birds of Conservation Concern	Basin scrub, Mojavean desert scrub, Sonoran desert scrub, Valley & foothill grassland
Atriplex coulteri	Coulter's saltbush	Dicots	PDCHE040E0	121	1	None	None	G3	S1S2	1B.2	SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, SB_CRES-San Diego Zoo CRES Native Gene Seed Bank	Coastal bluff scrub, Coastal dunes, Coastal scrub, Valley & foothill grassland
Bombus crotchii	Crotch bumble bee	Insects	IIHYM24480	437	1	None	Candidate Endangered	G3G4	S1S2	null	null	null
Buteo swainsoni	Swainson's hawk	Birds	ABNKC19070	2535	1	None	Threatened	G5	S3	null	BLM_S-Sensitive, IUCN_LC-Least Concern, USFWS_BCC-Birds of Conservation Concern	Great Basin grassland, Riparian forest, Riparian woodland, Valley & foothill grassland
California Walnut Woodland	California Walnut Woodland	Woodland	CTT71210CA	76	9	None	None	G2	S2.1	null	null	Cismontane woodland
Calochortus weedii var. intermedius	intermediate mariposa-lily	Monocots	PMLIL0D1J1	140	4	None	None	G3G4T2	S2	1B.2	SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, USFS_S-Sensitive	Chaparral, Coastal scrub, Valley & foothill grassland
Calystegia felix	lucky morning-glory	Dicots	PDCON040P0	10	6	None	None	G1Q	S1	1B.1	null	Meadow & seep, Riparian scrub
Campylorhynchus brunneicapillus sandiegensis	coastal cactus wren	Birds	ABPBG02095	156	1	None	None	G5T3Q	S3	null	CDFW_SSC-Species of Special Concern, USFS_S-Sensitive, USFWS_BCC-Birds of Conservation Concern	Coastal scrub
Catostomus santaanae	Santa Ana sucker	Fish	AFCJC02190	28	1	Threatened	None	G1	S1	null	AFS_TH-Threatened, IUCN_VU-Vulnerable	Aquatic, South coast flowing waters
Centromadia pungens ssp. laevis	smooth tarplant	Dicots	PDAST4R0R4	126	1	None	None	G3G4T2	S2	1B.1	SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	Alkali playa, Chenopod scrub, Meadow & seep, Riparian woodland, Valley & foothill grassland, Wetland
Coccyzus americanus occidentalis	western yellow-billed cuckoo	Birds	ABNRB02022	165	3	Threatened	Endangered	G5T2T3	S1	null	BLM_S-Sensitive, NABCI_RWL-Red Watch List, USFS_S-Sensitive, USFWS_BCC-Birds of Conservation Concern	Riparian forest
Coturnicops noveboracensis	yellow rail	Birds	ABNME01010	45	1	None	None	G4	S1S2	null	CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern, NABCI_RWL-Red Watch List, USFS_S-Sensitive, USFWS_BCC-Birds of Conservation Concern	Freshwater marsh, Meadow & seep
Crotalus ruber	red-diamond rattlesnake	Reptiles	ARADE02090	192	2	None	None	G4	S3	null	CDFW_SSC-Species of Special Concern, USFS_S-Sensitive	Chaparral, Mojavean desert scrub, Sonoran desert scrub
Dudleya multicaulis	many-stemmed dudleya	Dicots	PDCRA040H0	154	3	None	None	G2	S2	1B.2	SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, USFS_S-Sensitive	Chaparral, Coastal scrub, Valley & foothill grassland
Elanus leucurus	white-tailed kite	Birds	ABNKC06010	180	3	None	None	G5	S3S4	null	BLM_S-Sensitive, CDFW_FP-Fully Protected, IUCN_LC-Least Concern	Cismontane woodland, Marsh & swamp, Riparian woodland, Valley & foothill grassland, Wetland
Empidonax traillii extimus	southwestern willow flycatcher	Birds	ABPAE33043	70	2	Endangered	Endangered	G5T2	S1	null	NABCI_RWL-Red Watch List	Riparian woodland

Emys marmorata	western pond turtle	Reptiles	ARAAD02030	1398	2	None	None	G3G4	S3	null	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_VU-Vulnerable, USFS_S-Sensitive	Aquatic, Artificial flowing waters, Klamath/North coast flowing waters, Klamath/North coast standing waters, Marsh & swamp, Sacramento/San Joaquin flowing waters, Sacramento/San Joaquin standing waters, South coast flowing waters, South coast standing waters, Wetland
Eriastrum densifolium ssp. sanctorum	Santa Ana River woollystar	Dicots	PDPLM03035	31	1	Endangered	Endangered	G4T1	S1	1B.1	SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	Chaparral, Coastal scrub
Eumops perotis californicus	western mastiff bat	Mammals	AMACD02011	296	1	None	None	G4G5T4	S3S4	null	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, WBWG_H-High Priority	Chaparral, Cismontane woodland, Coastal scrub, Valley & foothill grassland
Icteria virens	yellow-breasted chat	Birds	ABPBX24010	100	1	None	None	G5	S3	null	CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern	Riparian forest, Riparian scrub, Riparian woodland
Laterallus jamaicensis coturniculus	California black rail	Birds	ABNME03041	303	1	None	Threatened	G3G4T1	S1	null	BLM_S-Sensitive, CDFW_FP-Fully Protected, IUCN_NT-Near Threatened, NABCI_RWL-Red Watch List, USFWS_BCC-Birds of Conservation Concern	Brackish marsh, Freshwater marsh, Marsh & swamp, Salt marsh, Wetland
Lepidium virginicum var. robinsonii	Robinson's pepper-grass	Dicots	PDBRA1M114	142	1	None	None	G5T3	S3	4.3	null	Chaparral, Coastal scrub
Monardella australis ssp. jokerstii	Jokerst's monardella	Dicots	PDLAM18112	3	1	None	None	G4T1?	S1?	1B.1	USFS_S-Sensitive	Chaparral, Lower montane coniferous forest
Oncorhynchus mykiss irideus pop. 10	steelhead - southern California DPS	Fish	AFCHA0209J	20	1	Endangered	None	G5T1Q	S1	null	AFS_EN-Endangered	Aquatic, South coast flowing waters
Phrynosoma blainvillii	coast horned lizard	Reptiles	ARACF12100	784	1	None	None	G3G4	S3S4	null	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern	Chaparral, Cismontane woodland, Coastal bluff scrub, Coastal scrub, Desert wash, Pinon & juniper woodlands, Riparian scrub, Riparian woodland, Valley & foothill grassland
Polioptila californica californica	coastal California gnatcatcher	Birds	ABPBJ08081	915	10	Threatened	None	G4G5T3Q	S2	null	CDFW_SSC-Species of Special Concern, NABCI_YWL-Yellow Watch List	Coastal bluff scrub, Coastal scrub
Pseudognaphalium leucocephalum	white rabbit-tobacco	Dicots	PDAST440C0	62	1	None	None	G4	S2	2B.2	null	Chaparral, Cismontane woodland, Coastal scrub, Riparian woodland
Sidalcea neomexicana	salt spring checkerbloom	Dicots	PDMAL110J0	30	1	None	None	G4	S2	2B.2	USFS_S-Sensitive	Alkali playa, Chaparral, Coastal scrub, Lower montane coniferous forest, Mojavean desert scrub, Wetland
Southern California Arroyo Chub/Santa	Southern California Arroyo	Inland Waters	CARE2330CA	4	1	None	None	GNR	SNR	null	null	null

Ana Sucker Stream	Chub/Santa Ana Sucker Stream											
Southern Cottonwood Willow Riparian Forest	Southern Cottonwood Willow Riparian Forest	Riparian	CTT61330CA	111	3	None	None	G3	S3.2	null	null	Riparian forest
Southern Sycamore Alder Riparian Woodland	Southern Sycamore Alder Riparian Woodland	Riparian	CTT62400CA	230	5	None	None	G4	S4	null	null	Riparian woodland
Southern Willow Scrub	Southern Willow Scrub	Riparian	CTT63320CA	45	1	None	None	G3	S2.1	null	null	Riparian scrub
Spea hammondii	western spadefoot	Amphibians	AAABF02020	1409	5	None	None	G3	S3	null	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_NT-Near Threatened	Cismontane woodland, Coastal scrub, Valley & foothill grassland, Vernal pool, Wetland
Symphyotrichum defoliatum	San Bernardino aster	Dicots	PDASTE80C0	102	1	None	None	G2	S2	1B.2	SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, SB_CRES-San Diego Zoo CRES Native Gene Seed Bank, USFS_S-Sensitive	Cismontane woodland, Coastal scrub, Lower montane coniferous forest, Marsh & swamp, Meadow & seep, Valley & foothill grassland
Vireo bellii pusillus	least Bell's vireo	Birds	ABPBW01114	503	13	Endangered	Endangered	G5T2	S2	null	IUCN_NT-Near Threatened, NABCI_YWL-Yellow Watch List	Riparian forest, Riparian scrub, Riparian woodland

APPENDIX J ENVIRONMENTAL COMMITMENTS RECORD

Permit Type	Agency	Date Received	Expiration	Notes
1602 LSA	California Department of Fish & Wildlife			
401 WQC	Regional Water Quality Control Board			
404 NWP	United States Army Corps of Engineers			

Date of ECR: December 2020
Date: IS/EA June 2011

ENVIRONMENTAL COMMITMENTS RECORD
(SR-71/91 Interchange Improvement Project)

08-RIV-SR-71 PM 1.9/R3.0
08-RIV-SR-91 PM R0.9/R2.6

Project Phase:
☐ PA/ED (*DED/FED*)
☒ PS&E Submittal 95%
☐ Construction

EA 0F5411
PN 0800000137
Generalist: Vivian Ho
ECL: _____

Avoidance, Minimization, and/or Mitigation Measures	Page # in Env. Doc. Or Permit	Environmental Analysis Source (Technical Study, Environmental Document, and/or Technical Discipline)	Responsible for Development and/or Implementation of Measure	Timing/ Phase	If applicable, corresponding construction provision: (standard, special, non-standard)	Action(s) Taken to Implement Measure/if checked No, add Explanation here	PS&E Task Completed	Construction Task Completed	Environmental Compliance	
							Date / Initials	Date / Initials	YES	NO
CULTURAL RESOURCES										
CR-1: Though no archaeological resources are anticipated to be encountered during construction, it is Caltrans' policy if cultural materials are discovered during construction, all earth-moving activity within and around the immediate discovery area will be diverted until a qualified archaeologist can assess the nature and significance of the find.	2-99	Initial Study/ Categorical Exclusion Cultural Resources Technical Memorandum	Contractor	During construction	Caltrans Standard Specifications Section 14-2					
CR-2: If human remains are discovered, State Health and	2-99	Initial Study/ Categorical	Contractor	During construction	Caltrans Standard					

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Safety Code Section 7050.5 states that further disturbances and activities shall cease in any area or nearby area suspected to overlie remains, and the County Coroner contacted. Pursuant to PRC Section 5097.98, if the remains are thought to be Native American, the coroner will notify the Native American Heritage Commission (NAHC), who will then notify the Most Likely Descendent (MLD). At this time, the person who discovered the remains will contact the District Cultural Resources Environmental Branch so that they may work with the MLD on the respectful treatment and disposition of the remains. Further provisions of PRC 5097.98 are to be followed as applicable.		Exclusion Cultural Resources Technical Memorandum			Specifications Section 14-2					

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							Date / Initials	Date / Initials	YES	NO
UTIILITIES AND EMERGENCY SERVICES										
U/ES-1: To ensure that emergency response times are not disrupted, all affected public and private emergency responders will be informed of the project construction schedule, lane closures (if any), and detour plans (if any) well in advance of any detour plan or lane closure being implemented throughout the construction period.	2-47	Initial Study/ Categorical Exclusion	Contractor/ CM/RE Contractor/ CM/RE	Prior to construction During construction	Standard Special Provision 7					
U/ES-2: Area residents will be regularly informed of the project development and construction plans prior to and during the construction period so that they are aware of the construction timing, traffic detour plans, lane/road closures, and transit detour plans.	2-47	Initial Study/ Categorical Exclusion	RCTC Contractor Contractor	Final design Prior to Construction During Construction						
U/ES-3: All public utility lines, pipes, and cables that are disturbed or removed to accommodate the project will be replaced or relocated to continue to meet the needs of	2-47	Initial Study/ Categorical Exclusion	RCTC Contractor/ CM/RE	Final design During construction	Standard Special Provision 5-1.36					

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							Date / Initials	Date / Initials	YES	NO
surrounding residents and businesses. During construction, arrangements will be made to avoid disruption in utility services. If interruption in service is unavoidable, notice will be given and proper arrangements will be made with residents and businesses to minimize inconveniences.										
U/ES-4: To avoid conflicts during construction, emergency and other essential service providers, as well as other public services will be notified prior to construction. The Contractor will also establish a communication plan with each public service provider. Public service providers to be contacted include all of the following agencies: -Anaheim Police Department -Anaheim Fire Department -California Department of Forestry and Protection	2-47	Initial Study/ Categorical Exclusion	Contractor CM/RE Contractor/ CM/RE	Prior to construction During construction						

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							Date / Initials	Date / Initials	YES	NO
-Orange County Fire Authority -Corona Fire Department -Corona Police Department -Riverside County Sheriff -Riverside County Fire Department -San Bernardino County Fire Department -San Bernardino County Sheriff										
U/ES-5: A TMP Data Sheet and Traffic Handling Plans will be prepared for the project prior to construction. The TMP Data Sheet and Traffic Handling Plans will include requirements for the project area that must be implemented during project construction to ensure traffic safety and maintain access for emergency access vehicles at all times.	2-48	Initial Study/ Categorical Exclusion	RCTC	Final design						
U/ES-6: Coordination with California Department of Forestry and Fire Protection, Riverside	2-48	Initial Study/ Categorical Exclusion	RCTC	Prior to construction						

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							Date / Initials	Date / Initials	YES	NO
County Fire Department and other public service providers will occur at least 6 months prior to construction of the project.										
U/ES-7: To minimize the risk of wildfire during construction, the construction contractor shall ensure that all construction vehicles are equipped with fire extinguishers and shovels, as well as provide other fire- fighting equipment at the construction site. Inspection of all construction equipment is required to ensure compliance with minimum safety standards. Access to all fire hydrants, if any, and fire department vehicle access along the project site and Santa Ana River watershed area will be provided.	2-48	Initial Study/ Categorical Exclusion	Contractor	During construction						
U/ES-8: The Mitigation Monitoring Plan for the project will be provided to the California Department of Forestry and Fire Protection, Riverside County Fire Department	2-48	Initial Study/ Categorical Exclusion	RCTC	Prior to construction						

Date of ECR: December 2020
Date: IS/EA June 2011

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(SR-71/91 Interchange Improvement Project)

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							Date / Initials	Date / Initials	YES	NO
and other public service providers at least 6 months prior to commencement of construction activities.										
TRAFFIC AND TRANSPORTATION/BICYCLE AND PEDESTRIAN FACILITIES										
TC-1: Prior to project construction, a TMP Data Sheet and Detour and Traffic Handling Plans will be prepared to address the detours and traffic issues that may occur to the traveling public as a result of construction activities. The TMP Data Sheet and plans will address elements, such as signage, traffic controls, Construction Zone Enhanced Enforcement Program (COZEEP), and public awareness campaign.	2-71	Initial Study/ Categorical Exclusion	RCTC	Final design						
TC-2: During the design phase, the Riverside County Transportation Commission (RCTC) will coordinate with the City of Corona, United States Army Corps of Engineers (USACE), and other affected parties	2-71	Initial Study/ Categorical Exclusion	RCTC Contractor	Final design During construction	Caltrans Standard Specifications Section 7-1.03					

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Project Phase:
☐ PA/ED (*DED/FED*)
☒ PS&E Submittal 95%
☐ Construction

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							Date / Initials	Date / Initials	YES	NO
to ensure that access to their jurisdictions or properties will be maintained during construction.					Standard Special Provision 10-1.05					
VISUAL/AESTHETICS										
AES-1: Work with the community during preliminary design to implement the Aesthetics and Landscape Master Plan for the project improvements through a formalized structure that allows for community input.	2-91	Initial Study/ Categorical Exclusion	RCTC	Preliminary design						
AES-2: Develop Context-Sensitive Solutions for the aesthetic and landscape treatments of the project elements based on the SR-91 Corridor Improvement Project Aesthetic and Landscape Master Plan.	2-91	Initial Study/ Categorical Exclusion	RCTC	Final design						
AES-3: Apply architectural detailing to the bridges in the corridor, including textures, colors, and patterns. Potential bridge elements that might receive aesthetics	2-91	Initial Study/ Categorical Exclusion	RCTC Contractor	Final design During construction	Caltrans Standard Provisions Sections 51 and 53					

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treatments include columns, pier caps, parapets, fencing, abutment, and wing walls.										
AES-4: Apply architectural detailing to the retaining walls, including textures, colors, and patterns. Include caps that will provide shadow lines, as shown in the Aesthetics and Landscape Master Plan.	2-91	Initial Study/ Categorical Exclusion	RCTC Contractor	Final design During construction						
AES-5: Save and protect as much existing vegetation as feasible, especially trees.	2-91	Initial Study/ Categorical Exclusion	RCTC Contractor	Final design During construction						
AES-6: Replant the southeast quadrant of the SR-91/Green River Road interchange consistent with the plantings in the other quadrants of the interchange previously installed by the SR-91 Corridor Improvement Project. All planting must be reviewed and approved by the District Landscape Architect. Replacement planting will be funded	2-91	Initial Study/ Categorical Exclusion	RCTC Contractor	Final design During construction						

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with the project's construction and will include no less than 3 years of plant establishment. The Project Engineer will ensure that the replacement is under construction within 2 years of acceptance of the highway contract that damaged or removed the existing planting.										
AES-7: Utilize drainage and water quality elements, where required, that maximize the allowable landscape. Place any water quality or detention ponds out of clear view of the interchange or from the highway when feasible. If this is not possible, integrate these features into the Landscape Design when feasible.	2-91	Initial Study/ Categorical Exclusion	RCTC	Final design						
AES-8: To address potential impacts associated with views of construction access and staging areas, the Contractor will be required to construct the project in accordance with Caltrans Standard Specifications, including appropriate	2-92	Initial Study/ Categorical Exclusion	Contractor	During construction						

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measures to address visual impacts during construction.										
AES-9: To reduce glare, RCTC's Project Engineer will ensure that the project plans specify lighting fixtures with non-glare hoods and that lighting plans will require the review and approval of the Department and applicable city and county before construction to assure compliance with their applicable policies regarding public street lighting.	2-92	Initial Study/ Categorical Exclusion	RCTC	Final design						
HYDROLOGY AND FLOODPLAIN										
FP-1: To minimize impacts to the floodplain during construction, the Contractor will implement temporary construction measures as indicated under Section 2.2.2, Water Quality and Stormwater Runoff of the 2011 IS/MND.	2-103	Initial Study/ Categorical Exclusion	Contractor	During construction						

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FP-2: If construction is occurring within the Zone A floodplain, then the Contractor will ensure that the area will be returned to its original state after construction is completed to maintain the integrity of the floodplain.	2-103	Initial Study/ Categorical Exclusion	Contractor	During construction						
FP-3: The portion of the bridge spanning the channel will be constructed within the 6-month-long dry season (March 10 to October 1) to minimize potential effects on the operations of flood risk management facility. During construction of the falsework, heavy-duty vehicles (e.g., 250-ton crane) are prohibited from entering/ traversing on the bottom of the Santa Ana River channel and its lining. Construction equipment will not be stored or remain in the channel at the end of each workday for the duration of project construction. Construction equipment storage will be located at a USACE-approved location.	B-30	Environmental Assessment	Contractor	During construction	Standard Special Provisions 10-1.03					

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Additionally, the proponents will implement and follow conditions issued by USACE during construction.										
WATER QUALITY AND STORM RUNOFF										
WQ-1: Conform to the requirements of the Caltrans Statewide NPDES Storm Water Permit, Order No. 99-06-DWQ, NPDES No. CAS000003, adopted by the SWRCB on July 15, 1999, in addition to the BMPs specified in the Caltrans Storm Water Management Plan (SWMP) (Caltrans 2016). When applicable, the Contractor shall also conform to the requirements of the General NPDES Permit for Construction Activities, Order No. 2009- 0009-DWQ, NPDES No. CAS000002 and any subsequent General Permit in effect at the time of project construction.	2-116	Initial Study/ Categorical Exclusion	RCTC Contractor	Final design During construction	Caltrans Standard Specifications Section 13-1.01 Caltrans Statewide Stormwater Management Plan					

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WQ-2: Contractor will prepare and implement the SWPPP. The SWPPP shall address all State and Federal water control requirements and regulations. The SWPPP shall address all construction-related activities, equipment, and materials that have the potential to impact water quality. The SWPPP shall include BMPs to control pollutants, sediment from erosion, stormwater runoff, and other construction-related impacts. In addition, the SWPPP shall include the provisions of SWRCB Resolution No. 2001-046, which requires implementation of specific Sampling Analysis Procedures to ensure that the implemented BMPs are effective in preventing the exceedance of any water quality standards. The results of the risk-level determination indicate that the project has a Risk Level of 1, which directs the project	2-116	Initial Study/ Categorical Exclusion	Contractor Contractor	Prior to construction During construction	Caltrans Standard Specifications Section 13-3 Caltrans Statewide Stormwater Management Plan					

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to implement the following Risk Level 1 requirements: - Effluent Standards - Good Site Management "Housekeeping" - Non-Stormwater Management - Sediment Controls - Run-on and Runoff Controls - Inspection, Maintenance, and Repair Risk Level 1 Monitoring and Reporting Requirements specific implementation details regarding these requirements are found in Attachment C of the NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities Order No. 2009-0009-DWQ (September 2009).										
WQ-3: Contractor will file a Notice of Intent (NOI) with the SWRCB at	2-117	Initial Study/ Categorical Exclusion	Contractor	30 days prior to construction						

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least 30 days prior to any soil-disturbing activities.										
WQ-4: Conform all work to the Construction Site BMP requirements specified in the latest edition of the Caltrans SWMP to control and minimize the impacts of construction and construction-related activities, materials, and pollutants on the watershed. These include, but are not limited to, temporary sediment control, temporary soil stabilization, scheduling, waste management, materials handling, and other non-stormwater BMPs. For a complete list, refer to Appendix F of the Caltrans SWMP (2016).	2-117	Initial Study/ Categorical Exclusion	RCTC Contractor	Final design During construction	Caltrans Standard Specifications Section 13 Caltrans Stormwater Management Plan					
WQ-5: Contractor will give special attention to stormwater pollution control during the rainy season, which is defined by the SWRCB as year round. Appropriate soil stabilization and sediment controls will be implemented when rain is	2-117	Initial Study/ Categorical Exclusion	Contractor	During construction	Caltrans Standard Specifications Section 13 Caltrans Stormwater					

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predicted. Water Pollution Control BMPs will be used to minimize impacts to receiving waters. Measures would be incorporated to contain all vehicle loads and avoid any tracking of materials, which may fall or blow onto Caltrans right-of-way (ROW).					Management Plan					
WQ-6: If dewatering is necessary, then the Contractor will fully conform to Order No. R8- 2009-0003 (NPDES No. CAG998001), General Waste Discharge Requirements for Discharges to Surface Water which Pose an Insignificant (De Minimis) Threat to Water Quality, from the Santa Ana RWQCB. Dewatering BMPs will be used to control sediments and pollutants. An EPA- certified laboratory will test and monitor the discharge for compliance with the requirements of the RWQCB.	2-117	Initial Study/ Categorical Exclusion	Contractor	During construction	Caltrans Standard Specifications Section 13-4					

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WQ-7: The Caltrans SWMP describes BMPs and practices to reduce the discharge of pollutants associated with the stormwater drainage systems of State highways, facilities, and activities. The completed project plans will incorporate all necessary Maintenance BMPs (Category IA), Design Pollution BMPs (Category IB), and Treatment BMPs (Category III) to meet the Maximum Extent Practicable (MEP) requirements. A combination of BMPs from the following categories will be implemented as part of the project: • Maintenance BMPs – This category includes routine maintenance work, such as litter pickup, toxics control, street sweeping, drainage, and channel cleaning. • Design Pollution Prevention BMPs – Permanent soil stabilization systems will be	2-118	Initial Study/ Categorical Exclusion	RCTC	Final design	Caltrans Standard Specifications Section 13					

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incorporated into project design, such as preservation of existing vegetation, concentrated flow conveyance systems (e.g., drainage ditches, dikes, berms, swales), and slope/surface protection systems that utilize either vegetated or hard surfaces. Determination of Design Pollution Prevention BMPs will occur Final design. • Treatment BMPs – The applicability of all nine Caltrans-approved Treatment BMPs were analyzed as part of this project. This category of BMPs includes traction sand traps, infiltration devices, detention devices, biofiltration strips/swales, dry weather flow diversion, media filters, multi-chamber treatment trains, wet basins, and gross solids removal devices (GSRDs). Construction equipment will not be stored and/or remain within the			Contractor	During construction						

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Santa Ana River Channel after the conclusion of each work day throughout the duration of project construction.										
WQ-8: Prior to the disturbance of all jurisdictional drainages, the Contractor is required to: • Obtain and conform to CWA Section 404 permit issued by USACE prior to disturbance of all jurisdictional drainages. • Obtain and conform to CWA Section 401 Water Quality Certificate issued by Santa Ana RWQCB prior to disturbance of all jurisdictional drainages. • Obtain and conform to Streambed Alteration Agreement from CDFW prior to disturbance of all jurisdictional drainages. Compensatory mitigation measures for impacts to jurisdictional drainages shall adhere to	2-118	Initial Study/ Categorical Exclusion	Contractor Contractor	Prior to construction During construction						

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requirements contained within Section 2.3 of the 2011 IS/MND.										
PALEONTOLOGY										
P-1: A Paleontological Mitigation Plan (PMP) will be prepared by a qualified paleontologist in accordance with Caltrans' Standard Environmental Reference (SER) requirements.	2-129	Initial Study/ Categorical Exclusion Paleo Mitigation Plan	RCTC	Final design						
P-2: A qualified principal paleontologist (M.S. or Ph.D. in paleontology or geology familiar with paleontological procedures and techniques) will be retained by the Contractor to be present to consult with grading and excavation contractors at pre-grading meetings.	2-130	Initial Study/ Categorical Exclusion Paleo Mitigation Plan	Contractor	During construction						
P-3: A paleontological monitor, under the direction of the qualified principal paleontologist, will be onsite to inspect cuts for fossils at all times during original grading	2-130	Initial Study/ Categorical Exclusion Paleo Mitigation Plan	Contractor	During construction						

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involving sensitive geologic formations.										
P-4: When fossils are discovered, the paleontologist (or paleontological monitor) will recover them. Construction work in these areas will be halted or diverted to allow recovery of fossil remains in a timely manner.	2-130	Initial Study/ Categorical Exclusion Paleo Mitigation Plan	Contractor	During construction	Caltrans Standard Specification Section 14-7.03					
P-5: Fossil remains collected during the monitoring and salvage portion of the mitigation program will be cleaned, repaired, sorted, and cataloged.	2-130	Initial Study/ Categorical Exclusion Paleo Mitigation Plan	Contractor	During construction						
P-6: Prepared fossils, along with copies of all pertinent field notes, photos, and maps, will then be deposited in a scientific institution with paleontological collections.	2-130	Initial Study/ Categorical Exclusion Paleo Mitigation Plan	Contractor	During construction						
P-7: A Paleontological Mitigation Report (PMR) will be completed	2-130	Initial Study/ Categorical Exclusion Paleo Mitigation Plan	Contractor	During construction						

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that outlines the results of the mitigation program.										
P-8: Where feasible, selected road cuts or large finished slopes in areas of critically interesting geology may be left exposed as important educational and scientific features. This may be possible if no substantial adverse visual impact results.	2-130	Initial Study/ Categorical Exclusion Paleo Mitigation Plan	RCTC	During construction						
NOISE AND VIBRATION										
N-1: To minimize construction-generated noise, the Contractor will adhere to Standard Specification Section 14-8.02 "Noise Control" and Standard Special Provision S5-310 need to be followed. This Standard Special Provision will be edited specifically for the project during the PS&E phase. Construction noise control and noise monitoring must comply with Caltrans General "5-1 Noise	2-195	Initial Study/ Categorical Exclusion	RCTC Contractor	Final design During construction	Caltrans Standard Specifications Section 14-8.02					

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Control" standard special provisions. This section applies to equipment on the project or associated with the project, including trucks, transit mixers, stationary equipment, and transient equipment. Do not exceed 86 A- weighted decibels (dBA) at 50 ft from the project limits from 9:00 p.m. to 6:00 a.m. Do not operate construction equipment or run equipment engines from 7:00 p.m. to 7:00 a.m. or on Sundays, except you may operate within the project limits during these hours to: - Service traffic control facilities - Service construction equipment Noise Monitoring Provide 1 Type 1 sound-level meter and 1 acoustic calibrator to be used by the Department until contract acceptance.									

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08-RIV-SR-91 PM R0.9/R2.6

Project Phase:
☐ PA/ED (*DED/FED*)
☒ PS&E Submittal 95%
☐ Construction

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Provide training by a person trained in noise monitoring to 1 Department employee designated by the Engineer. The sound-level meter must be calibrated and certified by the manufacturer or other independent acoustical laboratory before delivery to the Department. Provide annual recalibration by the manufacturer or other independent acoustical laboratory. The sound-level meter must be capable of taking measurements using the A-weighting network and the slow response settings. The measurement microphone must be fitted with a windscreen. The Department returns the equipment to you at contract acceptance. The contract lump sum price paid for noise monitoring includes full compensation for furnishing all labor, material, tools, equipment, and incidentals and for									

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doing all work involved in noise monitoring.										
N-2: If possible, avoid using impact pile driving for bridge demolition/ reconstruction. Utilize less noise-intrusive piling techniques using vibratory pile driving or CIDH piling.	2-195	Initial Study/ Categorical Exclusion	Contractor	During construction						
N-3: In case of construction noise complaints by the public, the construction manager will be notified and noise monitoring will be conducted if necessary.	2-195	Initial Study/ Categorical Exclusion	Contractor	During construction						
N-4: All equipment will have sound-control devices no less effective than those provided on the original equipment. No equipment will have an unmuffled exhaust.	2-195	Initial Study/ Categorical Exclusion	Contractor	During construction						
N-5: Truck loading, unloading, and hauling operations will be conducted so that associated noise impacts are kept to a minimum by carefully	2-195	Initial Study/ Categorical Exclusion	Contractor	During construction						

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selecting routes to avoid going through residential neighborhoods to the greatest possible extent.										
N-6: Use and relocate temporary barriers, if warranted and practicable, to protect sensitive receptors from excessive construction noise. Such temporary noise barriers can be made of heavy plywood or moveable insulated sound blankets. They will be free of visible internal gaps, and the material will provide a transmission loss of at minimum 15 dBA (preferably at least 20 dBA) relative to the noise source requiring abatement so that it can provide a useful level of insertion loss when used as a barrier.	2-195	Initial Study/ Categorical Exclusion	Contractor	During construction						
N-7: As directed by the Department's resident engineer, the Contractor will implement appropriate additional noise abatement measures including, but	2-195	Initial Study/ Categorical Exclusion	Contractor	During construction						

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not limited to, changing the location of stationary construction equipment, turning off idling equipment, rescheduling construction activity, notifying adjacent residents in advance of construction work, or installing acoustic barriers around stationary construction noise sources.										
HAZARDOUS WASTE / MATERIALS										
HW-1: There is a possibility of encountering polychlorinated biphenyl (PCB)-containing liquids, asbestos-containing materials (ACMs), lead-based paint (LBP), and aerially deposited lead (ADL) during construction. Any hazardous materials encountered shall be managed accordingly.	2-134	Initial Study/ Categorical Exclusion Initial Site Assessment	Contractor	During construction	Caltrans Standard Specifications Section 14-11					
HW-2: Pole-top transformers with PCB-containing liquids shall be properly managed if they are to be removed or relocated.	2-134	Initial Study/ Categorical Exclusion Initial Site Assessment	Contractor	During construction						

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HW-3: Prior to the final environmental document, presumed ACM materials, including rails, bearing pads, support piers, expansion joint material of bridges, asphalt, and concrete, will be surveyed and assessed in compliance with 40 CFR (Code of Federal Regulations) 763. During construction, if bridge structures not previously tested for asbestos are anticipated to be disturbed or if suspect ACMs are discovered, the contractor shall stop work and these materials will be surveyed and assessed for asbestos prior to disturbance.	2-134	Initial Study/ Categorical Exclusion Initial Site Assessment	RCTC Contractor	PA/ED During construction	Standard Special Provision 14-11.16					
HW-4: Paint used for lane striping should be tested for LBP prior to demolition/removal to determine proper handling and disposal requirements.	2-134	Initial Study/ Categorical Exclusion Initial Site Assessment	Contractor	During construction	Caltrans Standard Specifications Section 14-11.12					

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HW-5: Any soils with ADL contamination shall be managed properly and disposed. During project construction, soil in the project limits may be reused within Caltrans right- of-way (ROW), provided it is placed a minimum of 5 feet (ft) above the maximum water table and is covered by pavement. Soil export will be minimized, and excess soil generated during project construction, if any, will be disposed of at a non- Resource Conservation and Recovery Act (RCRA) California hazardous waste at a Class I hazardous waste disposal facility.	2-134	Initial Study/ Categorical Exclusion Initial Site Assessment	Contractor	During construction	Standard Special Provisions 14-11.08					
HW-6: LBP, ACM, and ADL surveys shall be conducted if data has not already been collected in this area by previous projects.	2-134	Initial Study/ Categorical Exclusion Initial Site Assessment	RCTC RCTC	PA/ED Final Design						

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AIR QUALITY										
AQ-1: In addition to the South Coast Air Quality Management District (SCAQMD) rules, the following mitigation measures set forth a program of air pollution control strategies that will ensure that construction emissions will not exceed any applicable standard. Measures 1 and 2 include fugitive dust reduction strategies, in addition to Rule 403 requirements. Measures 3 through 5 provide reduction for other contaminants, including nitrogen oxide (NOx) emissions. 1. In addition to SCAQMD Rule 403 requirements, apply water to all excavation/grading activity areas as necessary to remain visibly moist during active operations. 2. Apply nontoxic soil stabilizers, as needed, to reduce offsite transport of fugitive dust from unpaved staging areas and unpaved road surfaces.	2-161	Initial Study/ Categorical Exclusion	Contractor	During construction	Caltrans Standard Specifications Section 10-5					

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3. Properly tune and maintain construction equipment and vehicles in accordance with manufacturer's specifications. Low-sulfur fuel shall be used in construction equipment per California Code of Regulations (CCR) Title 17, Section 93114. 4. During construction, keep trucks and vehicles in loading/ unloading queues with their engines off when not in use to reduce vehicle emissions. Phase construction activities to avoid emissions peaks, where feasible, and discontinue during second-stage smog alerts. 5. To the extent feasible, use construction equipment that is either equipped with diesel oxidation catalyst or is powered by alternative fuel sources (e.g., methanol, natural gas). 6. Active construction areas shall be watered regularly to control dust and minimize impacts to adjacent vegetation.										

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All measures provided above and included in SCAQMD Rule 403 and 1403 that are applicable to the project construction activities shall be implemented to the extent feasible to avoid adverse short-term air quality impacts.										
AQ-2: Active construction areas shall be watered regularly to control dust and minimize impacts to adjacent vegetation.	2-161	Initial Study/ Categorical Exclusion	Contractor	During construction	Caltrans Standard Specifications Section 10-5					
COMMUNITY IMPACTS										
COM-1: Public outreach will be conducted with affected area residents and businesses regarding construction schedules and potential temporary inconveniences during project construction.	2-38	Initial Study/ Categorical Exclusion	RCTC	Prior to construction						
COM-2: The project will be constructed in several stages to minimize impacts to the communities by avoiding concurrent	2-38	Initial Study/ Categorical Exclusion	RCTC Contractor	Final design During construction						

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ramp closures and traffic congestion during construction.										
COM-3: The effects of temporary construction- related disruptions to the local communities will be addressed through implementation of a TMP Data Sheet and a Ramp Closure Study for all ramps closed longer than 10 consecutive days.	2-38	Initial Study/ Categorical Exclusion	Contractor Contractor	Prior to construction During construction						
COM-4: Where appropriate and feasible, construction staging areas will be located inconspicuously to minimize adverse visual effects upon residential and recreational areas.	2-38	Initial Study/ Categorical Exclusion	RCTC Contractor	Final design During construction						
COM-5: Prior to beginning construction, RCTC, with concurrence of the Department, will submit a copy of the proposed construction schedule and detour information to all potentially affected emergency service providers, school districts, and municipal transportation departments so that school bus	2-39	Initial Study/ Categorical Exclusion	RCTC	Prior to construction						

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routes and emergency vehicle routes can be revised.										
RELOCATIONS AND REAL PROPERTY ACQUISITION										
COM-6: Property owners will be compensated at the fair market value for their property, determined on the basis of the highest and best use.	2-41	Initial Study/ Categorical Exclusion	RCTC	Final design						
COM-7: Maintaining access to affected properties will receive special consideration during the design and construction stages of the project.	2-41	Initial Study/ Categorical Exclusion	RCTC Contractor	Final design During construction						
COM-8: Potential impacts to utility services, such as stormwater channels, railroad tracks, or power lines, will be avoided or minimized to the extent feasible during the project design stage. When avoidance is not feasible, the Contractor will have close coordination with utility providers will be conducted to identify and	2-41	Initial Study/ Categorical Exclusion	RCTC Contractor	Final design During construction						

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address possible relocations and interruptions in service.										
PARKS & RECREATION										
PR-1: Contractor will clearly delineate the construction area with environmentally sensitive fencing. All construction activities, including staging and storage, will stay within the designated construction limits .	2-23	Initial Study/ Categorical Exclusion	Contractor Contractor	Prior to construction During construction	Caltrans Standard Specifications Section 14-1.02 Standard Special Provisions 14-1.02					
PR-2: After construction, the Contractor will re-seed the slope with native vegetation, including coastal sage scrub or other native species that is characteristic of the Chino Hills State Park flora. RCTC will confer with State Parks on the native seed mix prior to implementation of the project.	2-23	Initial Study/ Categorical Exclusion	RCTC Contractor	Final design Post construction						

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GEOLOGY/SOILS/SEISMIC/TOPOGRAPHY										
GEO-1: A site-specific geotechnical investigation will be completed ensuring that piles, retaining walls, and other structures will not impact geology and topography in the area. The final design will address any geotechnical hazards that are identified in the investigation.		Initial Study/ Categorical Exclusion	RCTC	Final design						
GEO-2: An erosion control plan will be prepared prior to construction of the project. The erosion control plan must specify measures such as soil stabilization. As described in the Caltrans Plans Preparation Manual: "The locations and details of the erosion control materials shall be shown on the erosion control plans. Erosion control materials may include, but are not limited to, compost, straw, fiber, stabilizing emulsion, and erosion control blankets/mats."	2-125	Initial Study/ Categorical Exclusion	RCTC	Final design						

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GEO-3: If slopes are going to be constructed steeper than 2:1 (H:V), then stability analyses should be performed during the final design phase.	2-125	Initial Study/ Categorical Exclusion	RCTC	Final design						
GEO-4: Final design, the most suitable pile type should be used based on the geotechnical data, site-specific investigation, cost considerations, and the latest Caltrans requirements by using Working Stress Design or Load and Resistance Factor Design methods for abutment and bent.	2-125	Initial Study/ Categorical Exclusion	RCTC	Final design						
GEO-5: Earthwork should conform to requirements of the Caltrans Standard Specifications, Section 19. Soil compaction should be accomplished in accordance with Section 19-5 of the Standard specification. The subgrade should be compacted to at least 95 percent of the laboratory maximum dry density. Fill placed during widening	2-126	Initial Study/ Categorical Exclusion	Contractor	Construction	Caltrans Standard Specifications Sections 19-5 and 19-6.1					

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of the embankments should be benched into the existing slopes as described in Section 19-6.1 of the Standard specifications. Actual depths and extend of toe-of-fill keyways will be determined during site-specific investigations.										
GEO-6: Import soils should have the minimum characteristics: • Non-reactive to Portland cement concrete, or cement type should reflect corrosivity test results. • Have shear values of a minimum cohesion equal to 100 pounds per square inch and friction angle of 30 degrees or a combination of strength parameters that will provide a safety factor of at least 1.5 static and 1.1 pseudostatic stability analysis results. • Expansion index should be equal to or less than 20.	2-126	Initial Study/ Categorical Exclusion	Contractor	During construction	Caltrans Standard Specifications Section Section 19					

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GEO-7: A minimum over-excavation should be performed within all areas to receive compacted fill. The over-excavation should extend horizontally a minimum distance equal to the depth of excavation from the edges of new fill.	2-126	Initial Study/ Categorical Exclusion	RCTC Contractor	Final design During construction	Caltrans Standard Specifications Section 19					
GEO-8: If soundwalls are determined feasible and reasonable on the hillside homes south of SR 91, then a geotechnical engineer will review the plans to ensure stability of these soundwalls.	2-126	Initial Study/ Categorical Exclusion	RCTC	Final design						
GEO-9: To address seismic concerns associated with placement of bridge columns on top of the Santa River Channel levees, a permanent steel isolation casing through the levee will be incorporated into the column design. A permanent steel isolation casing will isolate the levee from potential	B-3	Environmental Assessment	RCTC	Final design						

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Avoidance, Minimization, and/or Mitigation Measures	Page # in Env. Doc. Or Permit	Environmental Analysis Source (Technical Study, Environmental Document, and/or Technical Discipline)	Responsible for Development and/or Implementation of Measure	Timing/ Phase	If applicable, corresponding construction provision: (standard, special, non-standard)	Action(s) Taken to Implement Measure/if checked No, add Explanation here	PS&E Task Completed	Construction Task Completed	Environmental Compliance	
							Date / Initials	Date / Initials	YES	NO
column movement during a seismic event.										
NATURAL COMMUNITIES										
BIO-1: The limits of grading required for all aspects of the interchange and construction staging areas will be clearly marked, and all construction areas, including staging of construction equipment, will be surveyed.	2-213	Initial Study/ Categorical Exclusion	Contractor Contractor	Prior to construction During construction						
BIO-2: Planned roads will be located in the least environmentally sensitive location feasible, including disturbed and developed areas or areas that have been previously altered.	2-213	Initial Study/ Categorical Exclusion	RCTC	Final design						
BIO-3: Alignments will follow existing roads, easements, ROWs, and disturbed areas, as appropriate, to minimize habitat fragmentation. Implementation of BMPs, as discussed in Section 5.2.5 of the SR	2-213	Initial Study/ Categorical Exclusion	RCTC Contractor	Final design Pre-construction During construction						

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08-RIV-SR-91 PM R0.9/R2.6

Project Phase:
☐ PA/ED (*DED/FED*)
☒ PS&E Submittal 95%
☐ Construction

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							Date / Initials	Date / Initials	YES	NO
91 and SR 71 Interchange Improvement Project Habitat Assessment and MSHCP Consistency Analysis Report (Parsons/MBA 2010), preconstruction surveys, construction monitoring, and prescribed mitigation for impacts to riparian/riverine areas will reduce all potential impacts to sensitive species not considered adequately conserved under the MSHCP to less than substantial**.**			Contractor							
BIO-4: Incorporate measures to control the quantity and quality of runoff from the site entering the MSHCP Conservation Area. In particular, measures shall be put in place to avoid discharge of untreated surface runoff from developed and paved areas into MSHCP Conservation Areas. According to the Water Resources and Water Quality Technical Report	2-214	Initial Study/ Categorical Exclusion	Contractor Contractor	Prior to construction During construction						

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							Date / Initials	Date / Initials	YES	NO
(Parsons 2010), the construction of a new flyover connector will not generate any changes in existing runoff in the area, and an SWPPP will be prepared for construction on the site.										
BIO-5: The use of chemicals or generation of bioproducts (i.e., manure) that are potentially toxic or may adversely affect wildlife species, habitat, or water quality shall not result in discharge to the MSHCP Conservation Area. The greatest risk is from landscaping fertilization overspray and runoff. Contractor shall avoid the discharge of chemicals, generation of bioproducts and overspraying of landscaping fertilizer within the MSHCP Conservation Area.	2-214	Initial Study/ Categorical Exclusion	Contractor	During construction	Caltrans Standard Specifications Sections 13-4.03C and 21-2.03A					
BIO-6: Night lighting shall be directed away from the MSHCP Conservation Area to protect species within the MSHCP Conservation	2-214	Initial Study/ Categorical Exclusion	RCTC Contractor	Final design During construction						

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							Date / Initials	Date / Initials	YES	NO
Area from direct night lighting. Shielding shall be incorporated in project designs to ensure that ambient lighting in the MSHCP Conservation Area is not increased.										
BIO-7: Noise-generating land uses affecting the MSHCP Conservation Area shall incorporate setbacks, berms, or walls to minimize the effects of noise on MSHCP Conservation Area resources pursuant to applicable rules, regulations, and guidelines related to land use noise standards.	2-214	Initial Study/ Categorical Exclusion	RCTC Contractor	Final design During construction						
BIO-8: Land uses adjacent to the MSHCP Conservation Area shall incorporate barriers, where appropriate, in individual project designs to minimize unauthorized public access, domestic animal predation, illegal trespass, or dumping into the MSHCP Conservation Areas. Such barriers may include native landscaping,	2-214	Initial Study/ Categorical Exclusion	RCTC Contractor	Final design During construction						

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rocks/boulders, fencing, walls, signage, and/or appropriate mechanisms. Manufactured slopes associated with the site development shall not extend into the MSHCP Conservation Area.										
BIO-9: To maintain the integrity of the wildlife corridor, the design plans of culvert improvements in the Fresno Canyon area will be submitted to the wildlife agencies for review and approval.	2-215	Initial Study/ Categorical Exclusion	RCTC	Final design						
WETLANDS AND OTHER WATERS										
BIO-10: If jurisdiction is confirmed by USACE, RWQCB, and CDFW, then the following permits will be acquired: a Section 404 permit from USACE pursuant to Section 404 of the CWA; a Section 401 Water Quality Certification from the RWQCB; and a Section 1600 Streambed Alteration Agreement from CDFW pursuant to Section	2-224	Initial Study/ Categorical Exclusion	RCTC	Final design						

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							Date / Initials	Date / Initials	YES	NO
1600 of the California Fish and Game Code.										
BIO-11: To offset impacts to jurisdictional resources, RCTC will obtain mitigation credits at a minimum ratio of 2:1. Currently, there are three potential mitigation areas under consideration by RCTC for riparian/riverine and jurisdiction resources mitigation: (1) habitat restoration of lands within Chino Hills State Park (CHSP); (2) habitat restoration of lands within the Green River Golf Course; and(3) habitat restoration or creation of lands owned by the Regional Conservation Authority (RCA).	2-224	Initial Study/ Categorical Exclusion	RCTC	Final design						
BIO-12: Planned roads will avoid, to the greatest extent feasible, impacts to wetlands. If wetlands avoidance is not possible, then any impacts to wetlands will require issuance of and mitigation in accordance with a Federal Section	2-224	Initial Study /Categorical Exclusion	RCTC	Final design						

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404 and/or State Section 1600 permit.										
PLANT SPECIES										
BIO-13: To minimize direct impacts to special- status plant species, the limits of grading required for all aspects of the interchange and construction staging areas will occur entirely within Caltrans ROW or temporary construction easements and will be clearly marked.	2-231	Initial Study/ Categorical Exclusion	RCTC Contractor	Final design During construction						
BIO-14: Preconstruction surveys will be conducted by the Contractor for sensitive plants after the final construction ROW has been established. All appropriate plants will be tagged and moved to appropriate offsite locations prior to the start of grading. It may be possible that plants will be salvaged, stored, and replanted within disturbed areas subsequent to construction.	2-231	Initial Study/ Categorical Exclusion	Contractor	Prior to construction	Standard Special Provisions 14-6.03					

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BIO-15: The Contractor will complete appropriate biological surveys will be based on field conditions and recommendations of the project manager in consultation with a qualified biologist. The results of the biological resources investigations will be mapped and documented. The documentation will include preliminary conclusions and recommendations regarding potential effects of facility construction on MSHCP Conservation Area resources and methods to avoid and minimize impacts to these resources in conjunction with project siting, design, construction, and operation. The project biologist will work with facility designers during the design and construction phase to ensure implementation of feasible recommendations.	2-231	Initial Study/ Categorical Exclusion	RCTC Contractor	Final Design Prior to / during construction	Standard Special Provisions 14-6.03					

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							Date / Initials	Date / Initials	YES	NO
BIO-16: During the Design Phase, a habitat assessment and, as required, focused surveys for the Brand's phacelia (blooming period: March to June), San Diego ambrosia (blooming period: April to October), and San Miguel savory (blooming period: March to May) will be conducted during the appropriate blooming season. Subsequent to surveys, RCTC will update the information in the JPR and DBESP to address the additional surveys and, as necessary, presence of and impacts to these species. If the federally endangered San Diego ambrosia is identified onsite during the surveys, Caltrans will reinitiate Section 7 consultation with USFWS to amend the Biological Opinion (BO). Applicable mitigation will be determined through coordination with the resource agencies based on the survey results and project impacts. Potential mitigation measures listed below, or a	2-231	Initial Study/ Categorical Exclusion	RCTC	Final design							

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combination of the two measures, could be implemented. • Onsite conservation of existing Brand's phacelia, San Diego ambrosia, and San Miguel savory though avoidance and designation of environmentally sensitive areas. • Translocation of Brand's phacelia, San Diego ambrosia, and San Miguel savory individuals outside of the project ROW to areas of suitable habitat, as identified by a contractor-supplied plant biologist with knowledge of and experience with translocation of local flora species of the region.										
ANIMAL SPECIES										
BIO-17: Design of planned roads will consider wildlife movement requirements, as further outlined in Section 7.5.2, Guidelines for Construction of Wildlife Corridors, and any construction, maintenance,	2-246	Initial Study/ Categorical Exclusion	RCTC Contractor	Final design During construction	Standard Special Provisions 14-6.03					

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							Date / Initials	Date / Initials	YES	NO
and operation activities that involve clearing of natural vegetation will be conducted outside the active breeding season (February 15 through August 31).										
BIO-18: For the wildlife fencing on SR 91 and SR 71, consideration will be given during design to avoid disturbance of the fencing or movement of wildlife. If the project requires removal of the fencing, then biological monitoring will be required and replacement of any disturbed fencing will occur after construction. For PCL 2, the following measure shall be implemented to improve wildlife connectivity: ☐ For PCL 2, the project will improve the function of the Fresno Canyon/Wardlow Wash undercrossing bridge by removing most of the existing concrete revetment and regrading the slopes	2-246	Initial Study/ Categorical Exclusion	RCTC Contractor	Final design During construction						

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							Date / Initials	Date / Initials	YES	NO
of the crossing openings to a 4:1 slope. In addition, wildlife fencing will be installed to funnel the wildlife into the crossings, and native vegetation will be planted to provide habitat continuity. The Department and RCTC will continue its commitment to work with the RCA and Wildlife Agencies on incorporating measures to improve PCL 2 after completion of cumulative projects in the area (SR 91 Corridor Improvement Project [CIP]).										
BIO-19: An appropriate openness ratio of at least 0.6 (calculated in meters as [opening width X height/length of crossing]) and height for crossings intended for use by medium- and large-sized wildlife will be maintained. The openness ratio, which is a function of a structure's length [(height x width)/length], is important for	2-246	Initial Study/ Categorical Exclusion	RCTC Contractor	Final design During construction						

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larger animals when using culverts and highway undercrossings. To maintain the integrity of the wildlife corridor, the design plans of culvert improvements in the Fresno Canyon area will be submitted to the wildlife agencies for review and approval.										
BIO-20: Crossing facilities will be vegetated as naturally as possible to mimic the surrounding natural crossing area. In some instances, vegetation may need to be tailored to match the needs of the focused species. Natural objects, such as stumps, rocks, and other natural debris, will be used within the crossing facility to create cover for wildlife and to encourage the use of crossings. The landscaping plans near the wildlife corridor areas will be submitted to the wildlife agencies for review and approval.	2-247	Initial Study/ Categorical Exclusion	RCTC	Final design						

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							Date / Initials	Date / Initials	YES	NO
BIO-21: Sediment and erosion-control measures will be implemented by the Contractor until such time soils are determined to be successfully stabilized. In addition, the following measures will be implemented to areas within the MSHCP Conservation Areas: • Incorporate measures to control the quantity and quality of runoff from the site entering the MSHCP Conservation Area. In particular, measures shall be put in place to avoid discharge of untreated surface runoff from developed and paved areas into MSHCP Conservation Areas. According to the report, the construction of a new flyover connector will not generate any changes in existing runoff in the area, and an SWPPP will be prepared for construction of the site. • The use of chemicals or generation of bioproducts (i.e.,	2-247	Initial Study/ Categorical Exclusion	Contractor	During construction	Caltrans Standard Specifications Section 21-2					

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manure) that are potentially toxic or may adversely affect wildlife species, habitat, or water quality shall not result in discharge to the MSHCP Conservation Area. The greatest risk is from landscaping fertilization overspray and runoff.										
BIO-22: Contractor will ensure equipment storage, fueling, and staging areas will be sited on non-sensitive upland habitat types with minimal risk of direct discharge into riparian areas or other sensitive habitat types.	2-248	Initial Study/ Categorical Exclusion	Contractor	During construction	Caltrans Standard Specifications Section 13					
BIO-23: During construction, the placement of equipment within the stream or on adjacent banks or adjacent upland habitats occupied by Covered Species that are outside of the project footprint will be avoided by the Contractor.	2-248	Initial Study/ Categorical Exclusion	Contractor	During construction						
BIO-24: When work is conducted during the fire season, as identified by the Riverside County Fire	2-248	Initial Study/ Categorical Exclusion	Contractor	During construction	Standard Special Provision					

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Department, adjacent to coastal sage scrub or chaparral vegetation, appropriate fire-fighting equipment (e.g., extinguishers, shovels, water tankers) shall be available on the site during all phases of project construction to help minimize the chance of human-caused wildfires. Shields, protective mats, and/or other fire preventative methods shall be used during grinding, welding, and other spark-inducing activities. Personnel trained in fire hazards, preventive actions, and responses to fires shall advise contractors regarding fire risk from all construction-related activities.										
BIO-25: Active construction areas shall be watered regularly to control dust and minimize impacts to adjacent vegetation.	2-248	Initial Study/ Categorical Exclusion	Contractor	During construction	Caltrans Standard Specifications Sections 10-5 and 14-11.04					
BIO-26: All equipment maintenance, staging, and dispensing of fuel, oil, coolant, or	2-248	Initial Study/ Categorical Exclusion	Contractor	During construction	Caltrans Standard					

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any other toxic substances shall occur only in designated areas within the grading limits of the project site. These designated areas shall be clearly marked and located in such a manner as to contain runoff.					Specifications Section 13					
BIO-27: Waste, dirt, rubble, or trash shall not be deposited in the Conservation Area or on native habitat. No erodible materials will be deposited into water courses. Brush, loose soils, or other debris material will not be stockpiled within stream channels or on adjacent banks. Silt fencing or other sediment trapping materials will be installed at the downstream end of construction activities to minimize the transport of sediments offsite.	2-248	Initial Study/ Categorical Exclusion	Contractor	During construction						
BIO-28: Impacts to Species of Special Concern, such as the coast horned lizard, although adverse, are not considered substantial; however,	2-249	Initial Study/ Categorical Exclusion	Contractor	During construction	Standard Special Provision 14-6.03B					

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							Date / Initials	Date / Initials	YES	NO
to avoid any impacts to the coast horned lizard, a qualified biological monitor supplied by the Contractor will be onsite during the construction phase of the project to ensure that direct take of this species does not occur.										
BIO-29: To avoid impacts to bats and potentially suitable habitat for day, night, and maternity roosting, construction activities should avoid the maternity season (March through August). In addition, a qualified biologist supplied by the Contractor will conduct a preconstruction survey to determine if the construction area contains roosting or maternity colonies. If work must be conducted during the maternity period and roost locations are not occupied, exclusion devices will be installed in all potential roosting locations before March and maintained throughout construction. If work must be conducted during	2-249	Initial Study/ Categorical Exclusion	Contractor	During construction	Standard Special Provision 14-6.03A					

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(SR-71/91 Interchange Improvement Project)

08-RIV-SR-71 PM 1.9/R3.0
08-RIV-SR-91 PM R0.9/R2.6

Project Phase:
☐ PA/ED (*DED/FED*)
☒ PS&E Submittal 95%
☐ Construction

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the maternity period and roost locations are found to be occupied, then a sufficient buffer, in consultation with CDFW, will be maintained around any bat roosting or maternity colony. In addition, a qualified biological monitor will be onsite during the construction phase of the project to ensure that no direct take occurs and there is no nest abandonment due to excessive disturbance. Any active nurseries found onsite and mitigation to offset impacts to bat species will be coordinated with CDFW. To further address bat species protection, the following recommendations shall be implemented as part of the project: Bat Surveys: • A CDFW-approved biologist shall survey each structure and the surrounding area that may be impacted by the project for bats. A minimum of 30 days prior to									

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performing bat surveys Permittee shall submit qualifications of the bat biologist for CDFW approval. If bats are found using any bridges or culverts within the project area, the Biologist shall identify the bats to the species level, evaluate the colony to determine its size and significance, and the type of roost. The results of the bat survey shall be submitted to CDFW no later than 60 days prior to the initiation of construction activities. Seasonal/Nighttime Work Restrictions: • Construction activities on, under, around, or within close proximity to bridges/culverts will be limited to October 1 to March 1, unless all bats have been excluded from the structure and concurrence has been received from CDFW. • If any structures house a maternity colony of bats, construction										

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activities shall not occur during the recognized bat breeding season (March 1 to October 1). • Night work is not permitted on or within 200 feet of any occupied structures housing bats without prior concurrence from CDFW. Lighting and Noise Attenuation Plan: • If night work is required adjacent to jurisdictional areas, no later than 60 days prior to construction, Permittee shall submit to CDFW for review and approval a Lighting and Noise Attenuation Plan. • Night lighting should be used only on the portion of the structure actively being worked on, and focused on the direct area of work. • Airspace access to and from the roost features of the structure										

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should not be obstructed except in direct work areas. • Construction personnel should not be present in non-active areas beneath the structure. Installation of Alternate Bat Roosting Habitat: • Alternate bat roosting habitat structures shall be installed in the vicinity of any bridge or culvert containing roosting habitat that will be subject to impacts at least 9 months prior to starting construction at those structures. • The total length of the roosting structures shall be no less than one half the total length of the crevice habitat that will be subject to impacts from construction. • Construction and installation of roosting structures shall be									

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supervised by a CDFW-approved biologist. • A plan on the construction, placement, and timing of installation of the alternative roosting structures shall be submitted to CDFW for review and concurrence prior to construction. Integration of Bat Roosting Habitat into New Bridge Designs: • Bridge widening designs shall contain and be constructed with similar structural features to encourage continued roosting by bats. • Vegetation removal around structures shall be minimized. Humane Eviction/Exclusion of Roosting Bats: If bridge-dwelling wildlife is detected in bridges or culverts, the										

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following bridge-dwelling wildlife protection measures shall be implemented: • Bats will be temporarily and humanely excluded from the area of direct impacts, plus an additional buffer, for the duration of construction work at that structure. • A CDFW approved biologist shall design and direct implementation of exclusionary devices designed to prevent birds and bats from utilizing bridges/culverts before construction activities begin. Exclusionary devices shall be installed on all bridges prior to the initiation of nesting season. • If bats are found using any bridge, roost entrances shall be fitted with one-way doors that allows exits but prevent entrance for a period									

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of several days to encourage bats to relocate. Unexpected Discovery of Roosting Bats During Construction: • If any roosting bats are discovered during construction activities all work shall stop on, under, around, or within 500 ft of the structure, and CDFW will be consulted.										
BIO-30: During the Design Phase of the project, a habitat assessment will be completed in accordance with the Burrowing Owl Survey instructions for the Western Riverside MSHCP Survey Area. If suitable habitat is identified during the survey, additional focused surveys may be completed as applicable. To ensure that any burrowing owl that may occupy the project area in the future are not affected by construction activities, preconstruction surveys will be completed by the Contractor 30 days prior to construction and a	2-249	Initial Study/ Categorical Exclusion	RCTC Contractor	Final design 30 days prior to construction	Standard Special Provision 14-6.03A					

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report will be prepared and submitted in accordance with the requirements of the MSHCP 30-day Pre- Construction Burrowing Owl Survey Report Format identified. If preconstruction surveys determine that burrowing owl are present, one or more of the following mitigation measures may be required: (1) avoidance of active nests and surrounding buffer area during construction activities; (2) passive relocation of individual owls; (3) active relocation of individual owls; and (4) preservation of onsite habitat with long- term conservation value for the owl. The specifics of the required measures will be coordinated between the Caltrans District Biologist, RCTC, and the resource agencies.									

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BIO-31: In accordance with the Migratory Bird Treaty Act, to avoid effects to nesting birds, any native or exotic vegetation removal or tree-trimming activities will occur outside of the nesting bird season (i.e., February through September). If vegetation clearing is necessary during the nesting season, a qualified biologist will conduct a preconstruction survey to identify the locations of nests. Should nesting birds be found, an exclusionary buffer will be established by the biologist. This buffer will be clearly marked in the field by construction personnel under guidance of the biologist, and construction or clearing will not be conducted within this zone until the biologist determines that the young have fledged or the nest is no longer active.	2-250	Initial Study/ Categorical Exclusion	Contractor	Prior to construction	Standard Special Provisions 14-6.03B					

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THREATENED AND ENDANGERED SPECIES										
BIO-32: Timing of construction activities will consider seasonal requirements for breeding birds and migratory nonresident species. Habitat clearing will be avoided during species' active breeding season, which is generally defined as February to September.	2-259	Initial Study/ Categorical Exclusion	Contractor	During construction	Standard Special Provisions 14-6.03B					
BIO-33: To offset the permanent loss of 1.0-acre of the MSHCP PQP Lands, RCTC will commit to purchase 1.0-acre of land and relinquish it to a land conservation agency for long-term conservation, consistent with the requirements of the MSHCP.	2-260	Initial Study/ Categorical Exclusion	RCTC	Final design						
BIO-34: To offset permanent impacts to 0.86 acre of riverine and riparian areas, the project will purchase mitigation bank credits at a 3:1 ratio from the Riverside Corona Resource Conservation District.	2-260	Initial Study/ Categorical Exclusion	RCTC	Final design						

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INVASIVE SPECIES										
BIO-35: The invasive, non-native plant species listed in the MSHCP will be considered in approving landscape plans to avoid the use of invasive species for portions of the project that are adjacent to the MSHCP Conservation Area. Considerations in reviewing the applicability of this list shall include proximity of planting areas to the MSHCP Conservation Areas, species considered in the planting plans, resources being protected within the MSHCP Conservation Area and their relative sensitivity to invasion, and barriers to plant and seed dispersal, such as walls, topography, and other features.	2-261	Initial Study/ Categorical Exclusion	RCTC	Final design						
BIO-36: In compliance with the Executive Order on Invasive Species, EO 13112, and subsequent guidance from FHWA, the landscaping and erosion control included in the project will not use	2-261	Initial Study/ Categorical Exclusion	RCTC Contractor	Final design During construction	Caltrans Standard Specifications Section 20-1.03C(3)					

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species listed as noxious weeds. In areas of particular sensitivity, extra precautions will be taken if invasive species are found in or adjacent to the construction areas. These include the inspection and cleaning of construction equipment and eradication strategies to be implemented should an invasion occur.										
BIO-37: Implementation of the BMPs discussed in Section 5.2.5 of the SR 91 and SR 71 Interchange Improvement Project Habitat Assessment and MSHCP Consistency Analysis Report (2010) will limit the introduction of invasive species into the Conservation Area and will reduce any potential impacts to adjacent sensitive communities to less than substantial.	2-262	Initial Study/ Categorical Exclusion	RCTC Contractor	Final design During construction						