Interstate 8 Culvert Rehabilitation

In San Diego County at various locations from 0.7 miles west of Flinn Springs Road Undercrossing to 0.2 miles east of Crestwood Road Undercrossing

District 11 – SD – 8 – PM R23.0/R61.3

Project ID: 1115000178, EA: 11-42210

SCH No: 2019059069

Initial Study with Mitigated Negative Declaration

Prepared by the

State of California Department of Transportation

June 2019

Caltrans

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11 – SD – 8 – PM R23.0 / PM R61.3
Project ID: 1115000178, EA: 11-42210

Rehabilitate culverts at various locations in San Diego County on Interstate 8 from 0.7 miles west of Flinn Springs Road Undercrossing to 0.2 miles east of Crestwood Road Undercrossing

INITIAL STUDY WITH PROPOSED MITIGATED NEGATIVE DECLARATION

Submitted Pursuant to: (State) Division 13, California Public Resources Code

THE STATE OF CALIFORNIA
Department of Transportation

5/9/2019
Date

Bruce April
Deputy District Director, Environmental
District 11
California Department of Transportation

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Mitigated Negative Declaration

Pursuant to: Division 13, Public Resources Code

Project Description

The California Department of Transportation (Caltrans) proposes to rehabilitate thirteen culverts at various locations on Interstate 8 from post mile R23.0 near Flinn Springs Road to post mile R61.3 near Crestwood Road in San Diego County.

Determination

Caltrans has prepared an Initial Study for this project and, following public review, has determined from this study that the proposed project would not have a significant effect on the environment for the following reasons.

The proposed project would have no impact on the following:

- Aesthetics
- Agriculture and Forest Resources
- Air Quality
- Geology and Soils
- Greenhouse Gas Emissions
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation/Traffic
- Utilities and Service Systems
- Wildfire

In addition, the proposed project would have no significant impact on the following:

- Hazards and Hazardous Materials
- Hydrology and Water Quality

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With the incorporation of the mitigation measures summarized below, the proposed project would have less than significant impacts on the following resources:

Biological Resources:

- Work windows at culvert locations 2 through 6 will be implemented to avoid impacts to listed species.
- If work extends into the nesting and breeding season, pre-construction surveys will be conducted by a qualified biologist and a no-work buffer will be determined if active nests are found.
- Environmentally Sensitive Areas (ESAs) will be established where listed species and their habitat may occur.
- Temporary stream diversions will be implemented when necessary during culvert work to preserve downstream habitat. Best Management Practice (BMP) measures shall be installed and maintained to prevent any discharge from flowing downstream.
- Wetland and riparian habitats anticipated to be temporarily impacted during construction will be reseeded with a native seed mix as soon as possible after work is completed in that area to prevent establishment of invasive species.
- Permanent impacts to wetland and riparian habitats will be credited at the Rancho San Diego Mitigation Bank.

Cultural Resources/Tribal Cultural Resources:

1. An ESA Action Plan will be implemented during construction to establish avoidance and buffer zones to prevent impacts to cultural resources.

Bruce April
Deputy District Director, Environmental
District 11
California Department of Transportation

6/27/19
Date

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Table of Contents:

Project Description and Background 1
CEQA Environmental Checklist 23
Additional Explanations for CEQA Environmental Checklist Questions 31
IV. Biological Resources 31
V. Cultural Resources 46
IX. Hazards and Hazardous Materials 49
X. Hydrology and Water Quality 50
XVIII. Tribal Cultural Resources 51

Figures:

Figure 1: Project Location Map 6
Figure 2: Project Vicinity Map 7
Figure 3: Project Features 8

Tables:

Table 1: Culvert Locations and Proposed Scope of Work 1
Table 2: Project Permits and Approvals 5
Table 3: Listed Species within Project Limits 31
Table 4: Wetland and Upland Impacts 44
Table 5: Permits and Approvals for Wetland/Waters of the U.S. Impacts 46

Appendices:

Appendix A: Distribution List 53
Appendix B: Title VI Policy Statement 59
Appendix C: SHPO Concurrence Letter 61
Appendix D: USFWS Biological Opinion 65
Appendix E: Comments and Responses 89
Appendix F: Environmental Commitments Record (ECR) 103

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Project Description and Background

Project Title

Interstate 8 Culvert Rehabilitation and Repair

Project Location

The project is located on Interstate 8 (I-8) near the communities of Flinn Springs, Los Terrenitos, Pine Valley, and Live Oak Springs in the eastern part of San Diego County. There are thirteen individual culvert locations across both eastbound and westbound I-8 between post mile R23.0 near Flinn Springs Road and post mile R61.3 near Crestwood Road in San Diego County.

Project Description

The California Department of Transportation (Caltrans) proposes to rehabilitate thirteen culverts at various locations on Interstate 8 from post mile R23.0 to post mile R61.3 in San Diego County. Work includes either invert paving the bottom of the culvert pipe or slip lining the culvert interior and streambed improvements and/or energy dissipation remediation at the outlet. No culvert replacement is proposed.

Temporary construction impacts include vegetation removal at the culvert ends, debris flushing to clean the inside of the culvert, temporary staging areas, and temporary access paths.

Table 1 lists the location and summary of work for each culvert.

Table 1: Culvert Locations and Proposed Scope of Work

Culvert Location No.	Post Miles	Description of Culvert	Proposed Scope of work
1	R23.73	This is a 13 feet diameter, corrugated steel pipe (CSP) culvert.	The inside of the culvert would be cleaned, and the bottom would be paved with concrete (i.e. invert paving). Excess deposits at the inlet would be removed. Rock slope protection (RSP) would be installed in eroded areas in the embankment and channel.
2	R37.35	This is a 24 inch and 48 inch diameter, double inlet CSP culvert.	The inside of the culvert would be cleaned and slip-lined. Debris would be removed at the outlet.
3A - 3B	R39.99 – R40.01	This culvert complex involves five multiple inlets	The inside of the five pipes will be cleaned and slip-lined. Debris would be removed at the single outlet.

		joining together into one outlet. The culverts are all CSP and vary from 24 inch to 48 inch in diameter.	
4	R41.19	This is a 36 inch diameter, CSP culvert.	The inside of the culvert would be cleaned and slip-lined. The bottom of the culvert outlet will be repaired.
5	R41.58	This is a 36 inch diameter, CSP culvert	The inside of the culvert would be cleaned and slip-lined.
6	R48.30	This is a double culvert complex. Both culverts are parallel side-by-side and are each 7 feet in diameter with individual inlets and outlets.	Debris would be removed at both inlets. The inside of both culverts would be cleaned and the bottoms would be paved with concrete.
7	R57.41	This is a 48 inch diameter, CSP culvert.	No work inside the culvert pipe is proposed. The outlet end requires remediation to better dissipate water energy and flow. A combination of solutions will be considered during design including: removing unstable soil and backfilling with imported material, installing rock slope protection (RSP) or gabion cages in the channel, drop structures, stilling basins, and/or mechanical dissipaters. Permanent work has the potential to extend outside of Caltrans right-of-way by approximately 100 feet into the La Posta Band of Diegueño Mission Indians (La Posta) Reservation. Access to the culvert end during construction will be from the highway.
8	R58.00	This is a 6 feet diameter, CSP culvert.	No work inside the culvert pipe is proposed. The outlet end requires remediation to better dissipate water energy and flow. A combination of solutions will be considered during design including: removing unstable soil and backfilling with imported material,

			installing rock slope protection (RSP) or gabion cages in the channel, drop structures, stilling basins, and/or mechanical dissipaters. Permanent work has the potential to extend outside of Caltrans right-of-way by approximately 100 feet into the La Posta Reservation. Access to the culvert end during construction will be from the highway. Existing guardrail will be removed and replaced with Midwest guardrail system (MGS).
9	R58.65	This is a 48 inch diameter, CSP culvert.	No work inside the culvert pipe is proposed. The outlet end requires remediation to better dissipate water energy and flow. A combination of solutions will be considered during design including: removing unstable soil and backfilling with imported material, installing rock slope protection (RSP) or gabion cages in the channel, drop structures, stilling basins, and/or mechanical dissipaters. Permanent work has the potential to extend outside of Caltrans right-of-way by approximately 100 feet into the La Posta Reservation. Access to the culvert end during construction will be from the highway.
10	R58.85	This is a 36 inch diameter, CSP culvert.	No work inside the culvert pipe is proposed. The outlet end requires remediation to better dissipate water energy and flow. A combination of solutions will be considered during design including: removing unstable soil and backfilling with imported material, installing rock slope protection (RSP) or gabion cages in the channel, drop structures, stilling basins, and/or mechanical dissipaters. Permanent work has the potential to extend outside of Caltrans right-of-way by approximately 100 feet into the La Posta Reservation. Access to the culvert end during construction will be from the highway.

11	R59.05	This is a 36 inch diameter, CSP culvert.	No work inside the culvert pipe is proposed. The outlet end requires remediation to better dissipate water energy and flow. A combination of solutions will be considered during design including: removing unstable soil and backfilling with imported material, installing rock slope protection (RSP) or gabion cages in the channel, drop structures, stilling basins, and/or mechanical dissipaters. Permanent work has the potential to extend outside of Caltrans right-of-way by approximately 100 feet into the La Posta Reservation. Access to the culvert end during construction will be from the highway. Existing guardrail will be removed and replaced with MGS.
12	R61.10	This is a 9 feet diameter, CSP culvert.	The inside of the culvert would be cleaned and the bottom would be paved with concrete. The outlet embankment would be stabilized with RSP and imported soil. Existing guardrail will be removed and replaced with MGS.

CSP: Corrugated steel pipe. RSP: Rock slope protection. MGS: Midwest guardrail system.

For locations 7-11, if work extends outside of Caltrans easement and onto tribal land, Caltrans will coordinate closely with the La Posta Band of Diegueño Mission Indians (La Posta) and the Bureau of Indian Affairs (BIA) to determine the appropriate approvals needed.

Adverse impacts to tribal land outside of the project area are not anticipated. Existing and future erosion on the La Posta Reservation outside of the project area will be addressed by one or more separate projects led by La Posta in coordination with other appropriate agencies.

Caltrans is the lead agency for both the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA). Caltrans is the NEPA lead agency on behalf of the Federal Highway Administration per 23 United States Code 326 because the proposed project has federal funding. The project is anticipated to be Categorically Excluded under NEPA.

Purpose and Need

The purpose of this project is to extend the service life of the roadway and to minimize additional erosion outside of Caltrans right-of-way. The culverts in this project either have deterioration inside the culvert pipe and/or erosion at the outlet.

This project is needed to prevent culvert failure which if not addressed may eventually lead to embankment destabilization and roadway failure.

Surrounding Land Uses and Setting

The project is located along a rural section of Interstate 8 between the communities of Flinn Springs and Live Oak Springs. Surrounding land uses include rural residential, open space, and agriculture.

Other Public Agencies Whose Approval is Required or Anticipated to be Required

Table 2: Project Permits and Approvals

Agency	Permit/Approval	Status
U.S. Fish and Wildlife Service	Federal Endangered Species Act Section 7 Consultation	Obtained 6/14/19
U.S. Army Corps of Engineers	Clean Water Act Section 404 Nationwide Permit	In progress
California Department of Fish and Wildlife	Fish and Game Code Section 1602 Lake and Streambed Alteration Agreement	In progress
Regional Water Quality Control Board	Clean Water Act Section 401 Certification	In progress
U.S. Environmental Protection Agency	Clean Water Act Section 401 Certification (locations 7-11 only)	In progress
Bureau of Indian Affairs	Right-of-Way Application (locations 7-11 only)	In Progress
Bureau of Indian Affairs	Archaeological Resources Protection Act Permit Waiver	Obtained 12/14/18
State Historic Preservation Officer	National Historic Preservation Act Section 106 Consultation Concurrence	Obtained 5/20/19

1:633,600

0 Miles 10

Figure 1
Project Location Map

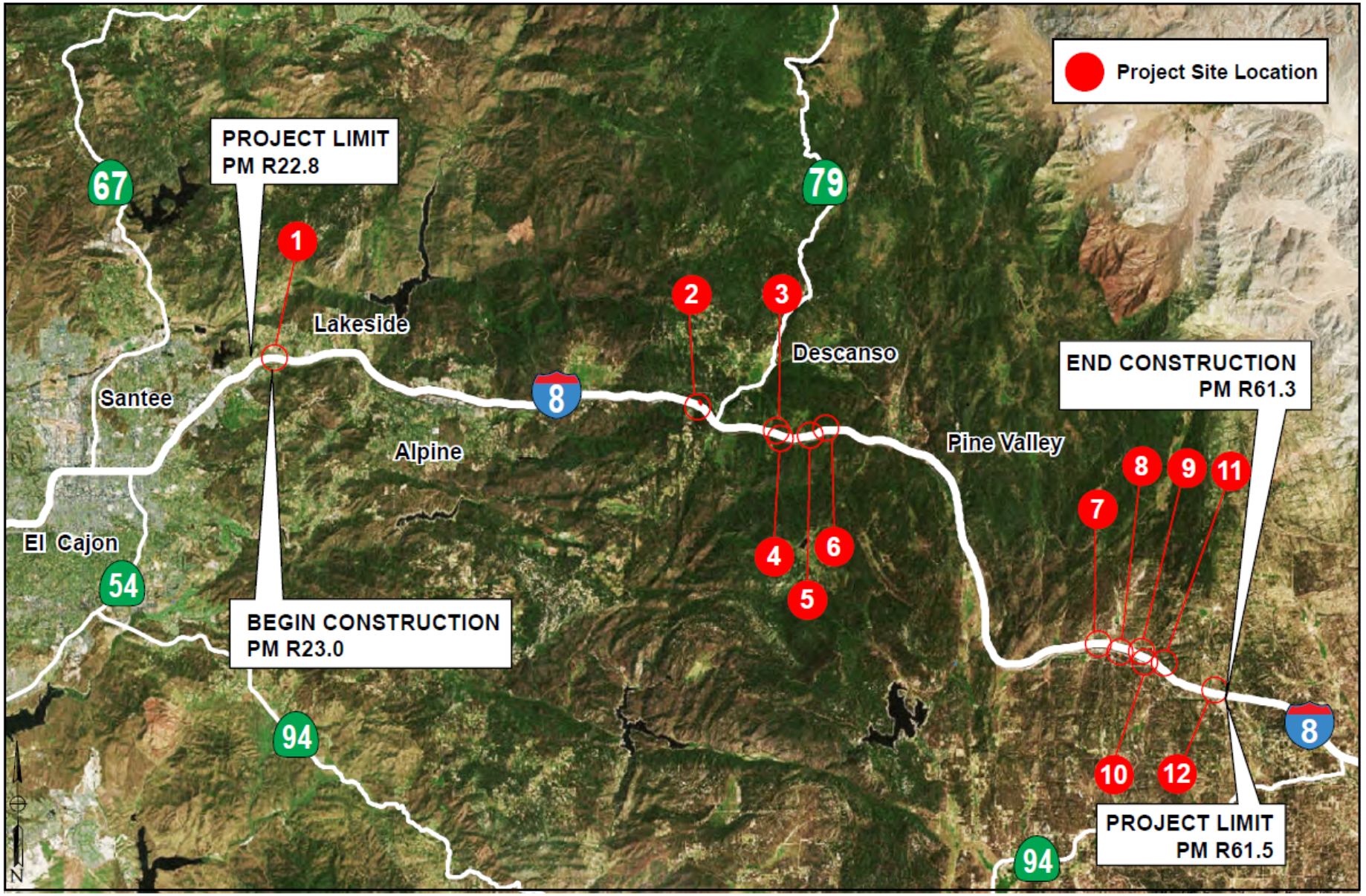


Figure 2
Project Vicinity Map

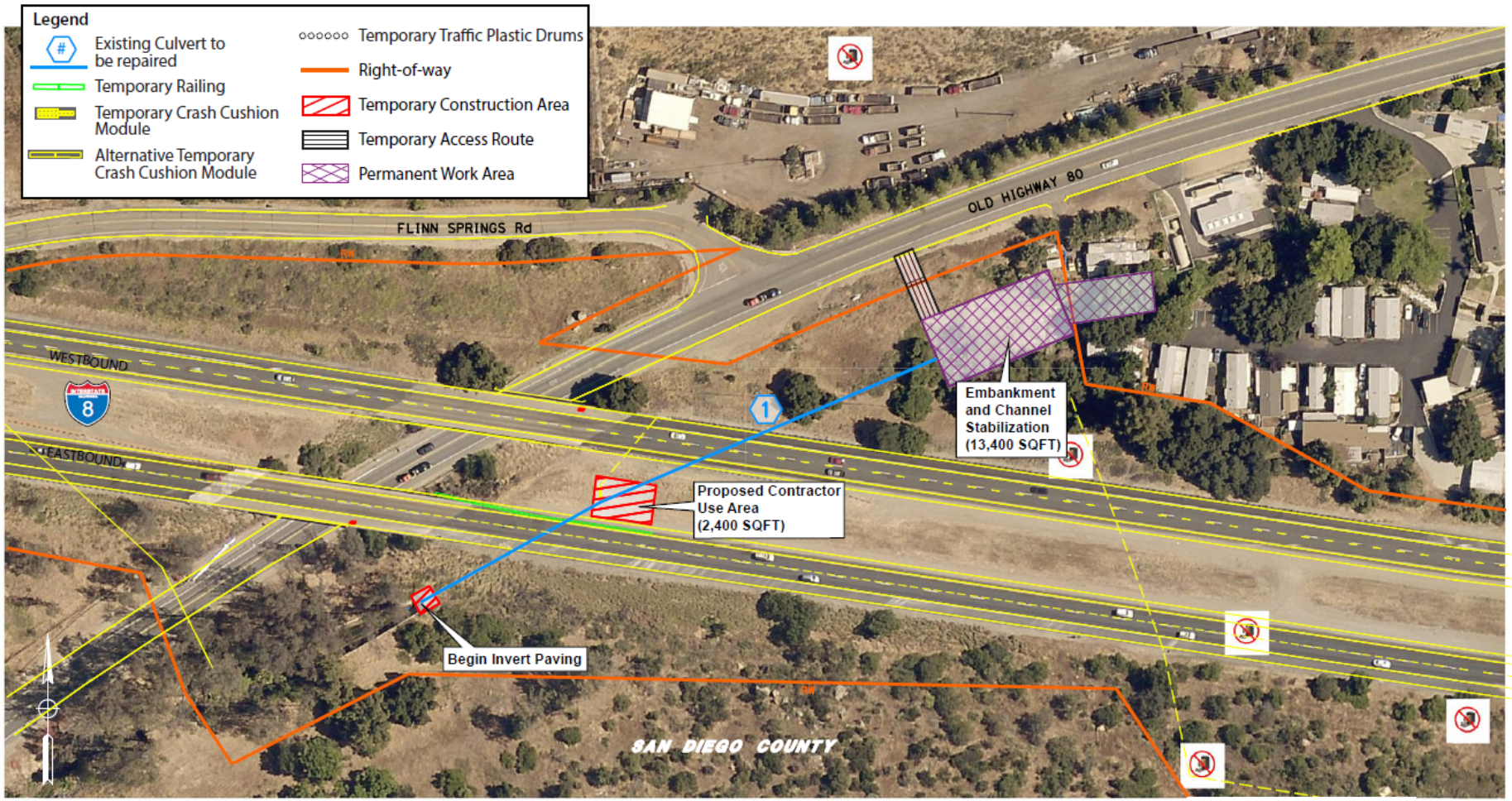


Figure 3
Project Features
Location 1 (1 of 13)

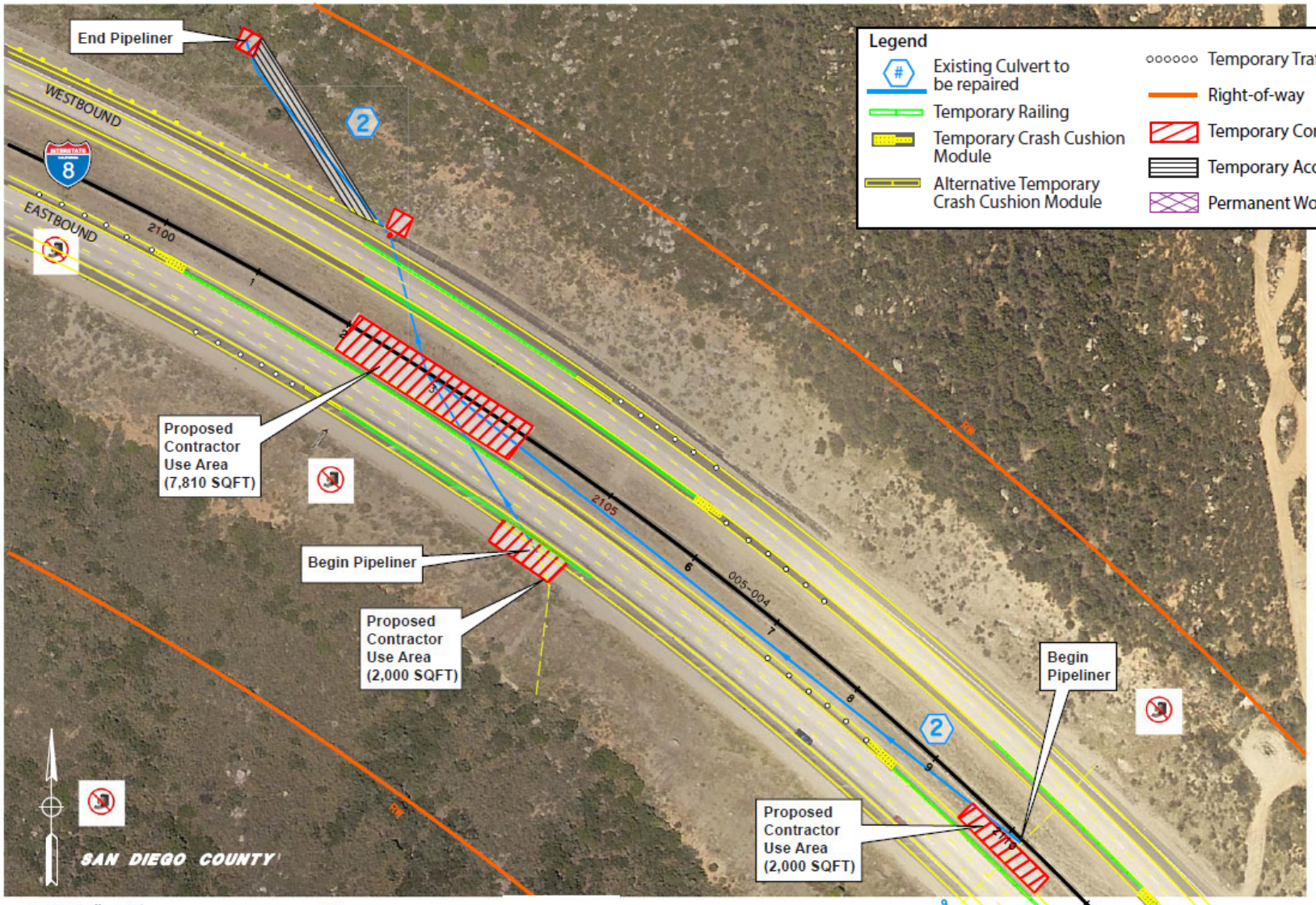


Figure 3
Project Features
Location 2 (2 of 13)

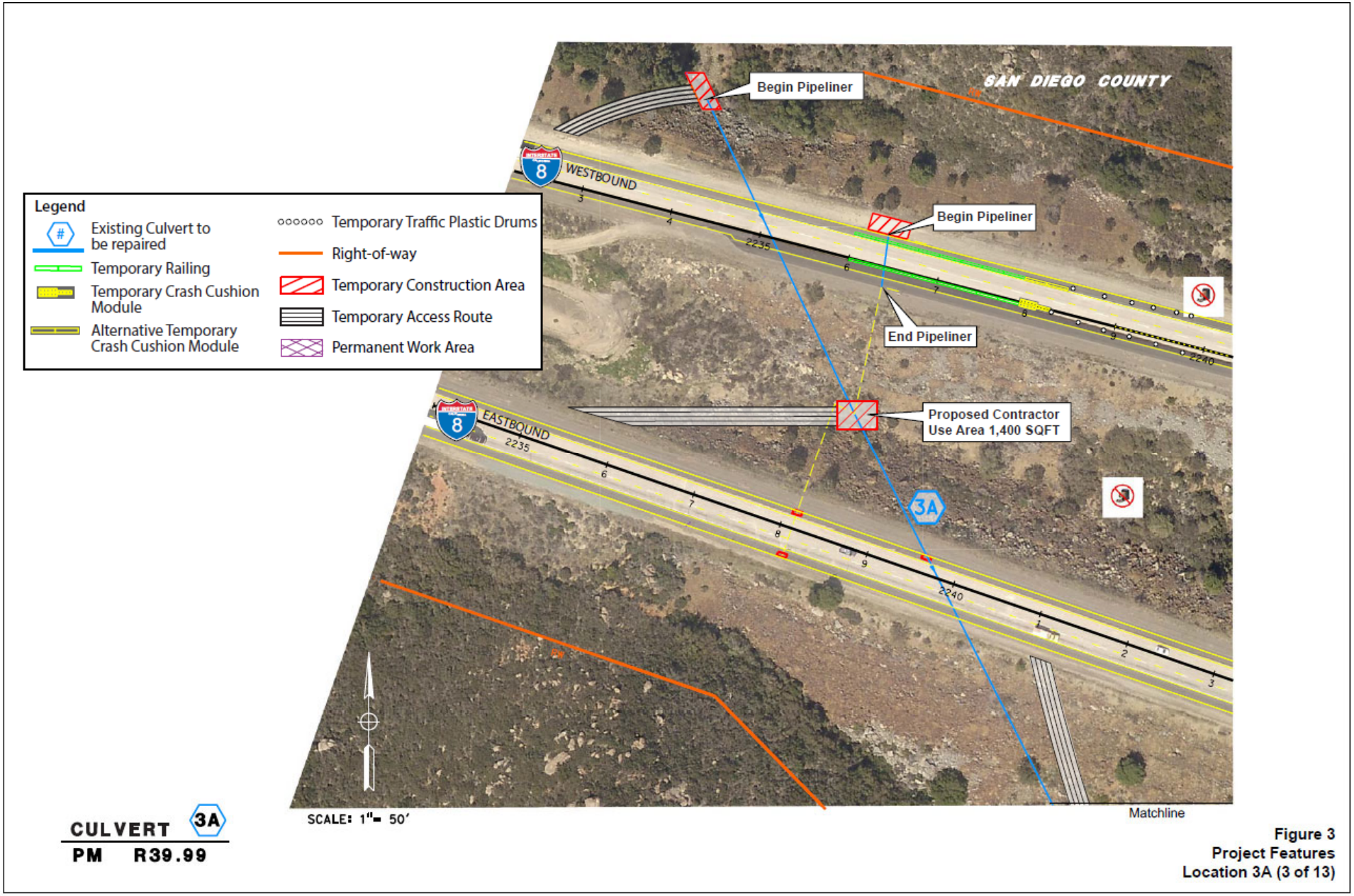
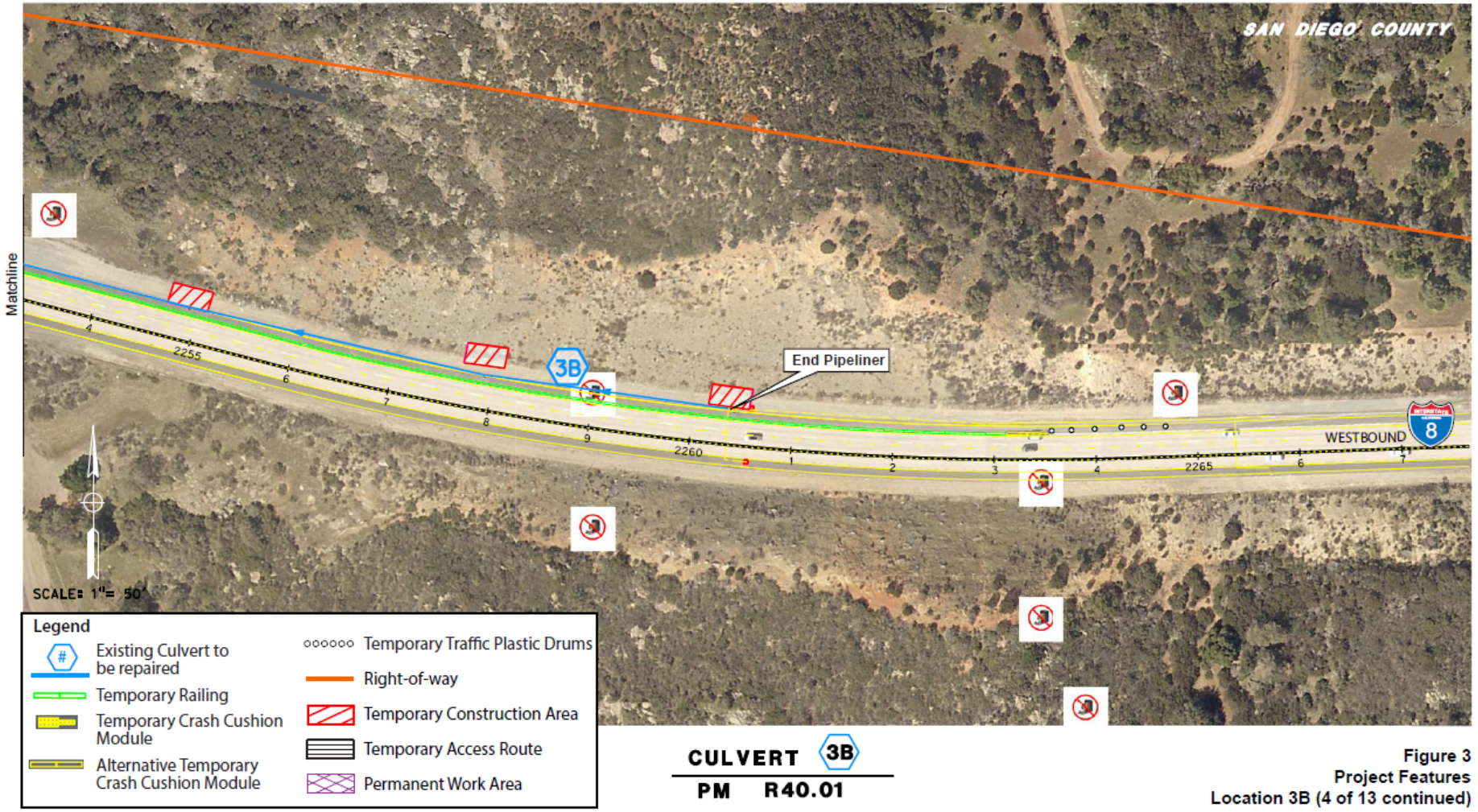


Figure 3
Project Features
Location 3A (3 of 13)

Figure 3
Project Features
Location 3B (4 of 13)



CULVERT 3B
PM R40.01

Figure 3
Project Features
Location 3B (4 of 13 continued)

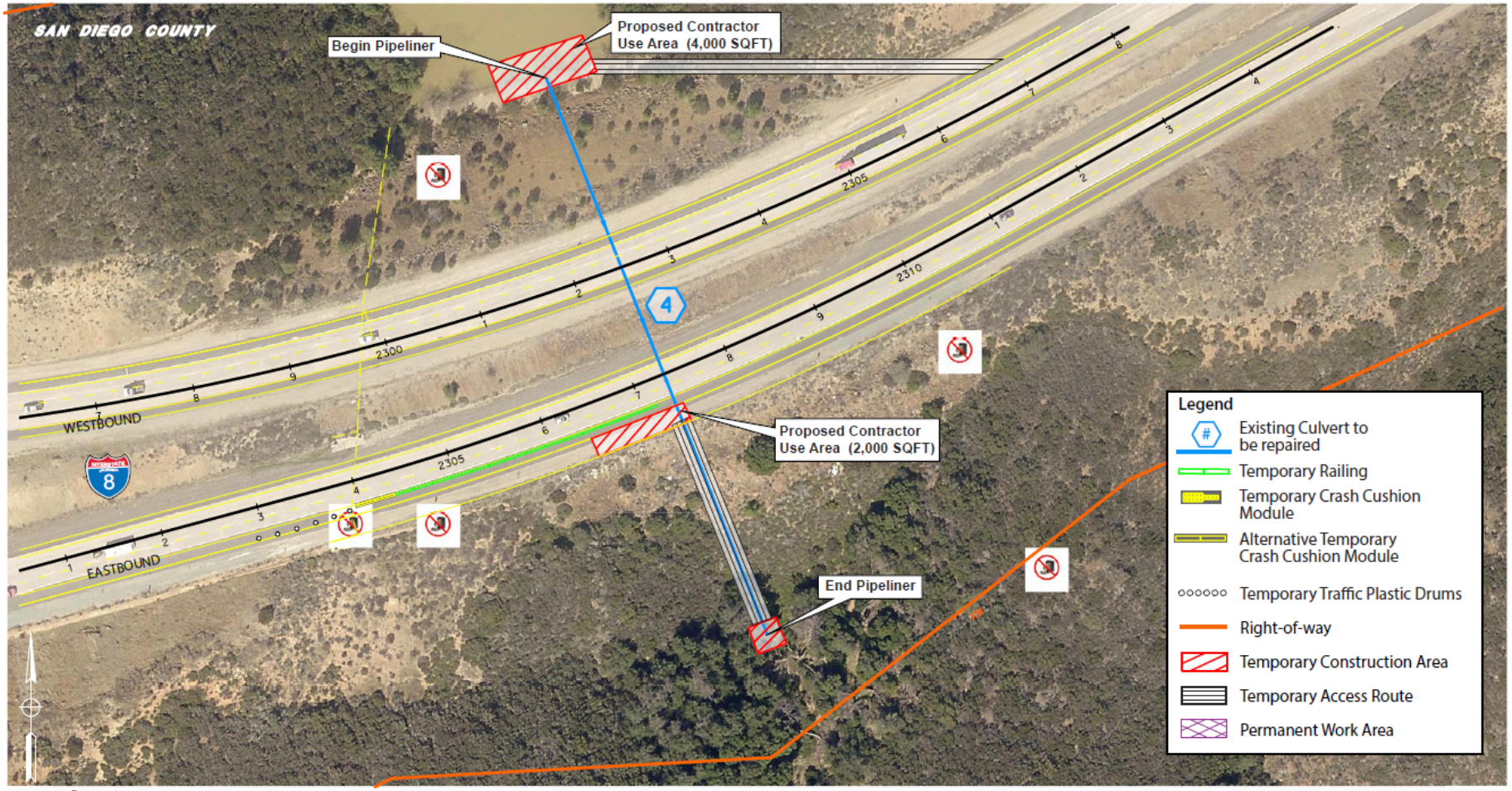


Figure 3
Project Features
Location 4 (5 of 13)

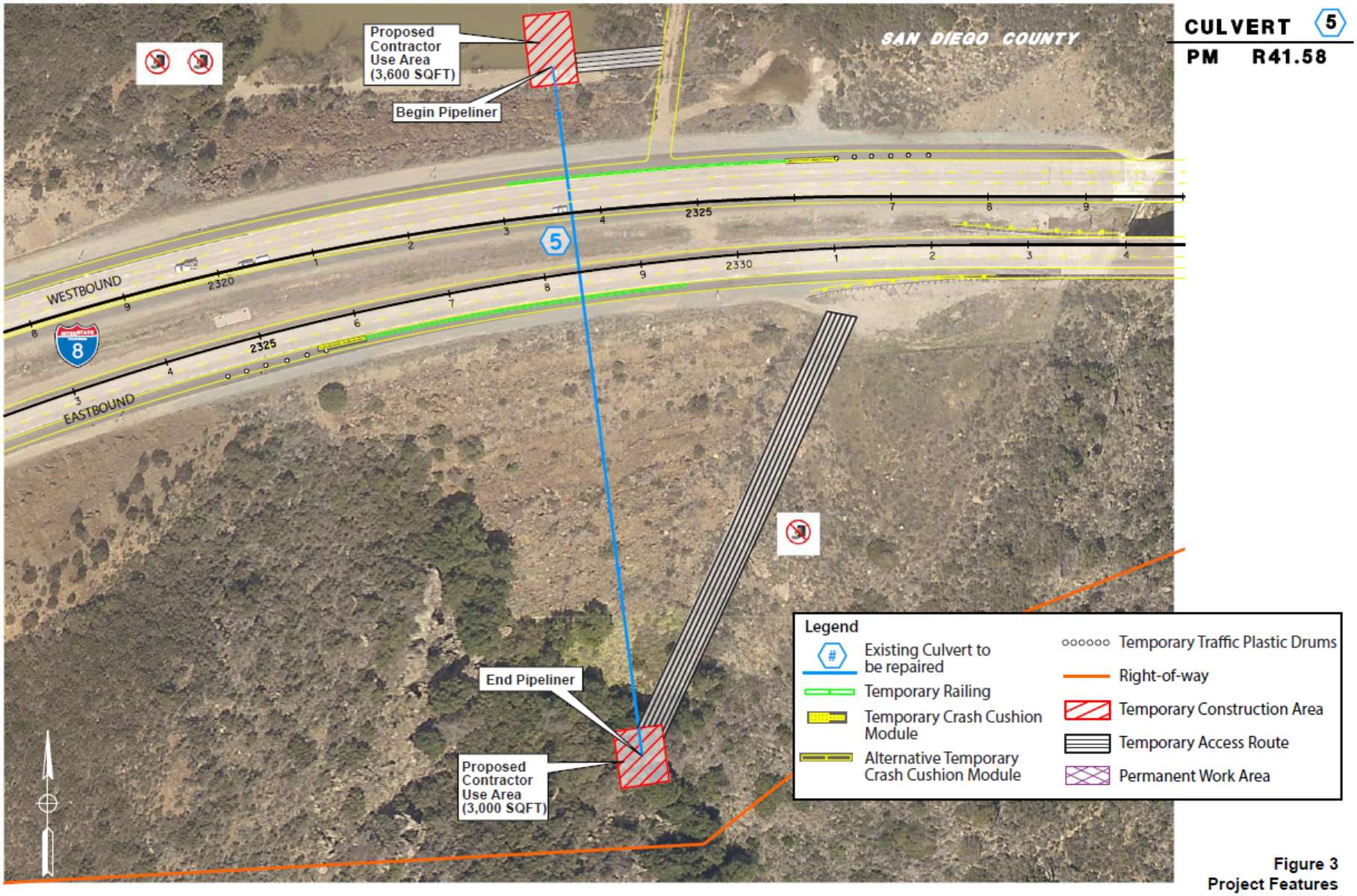


Figure 3
Project Features
Location 5 (6 of 13)

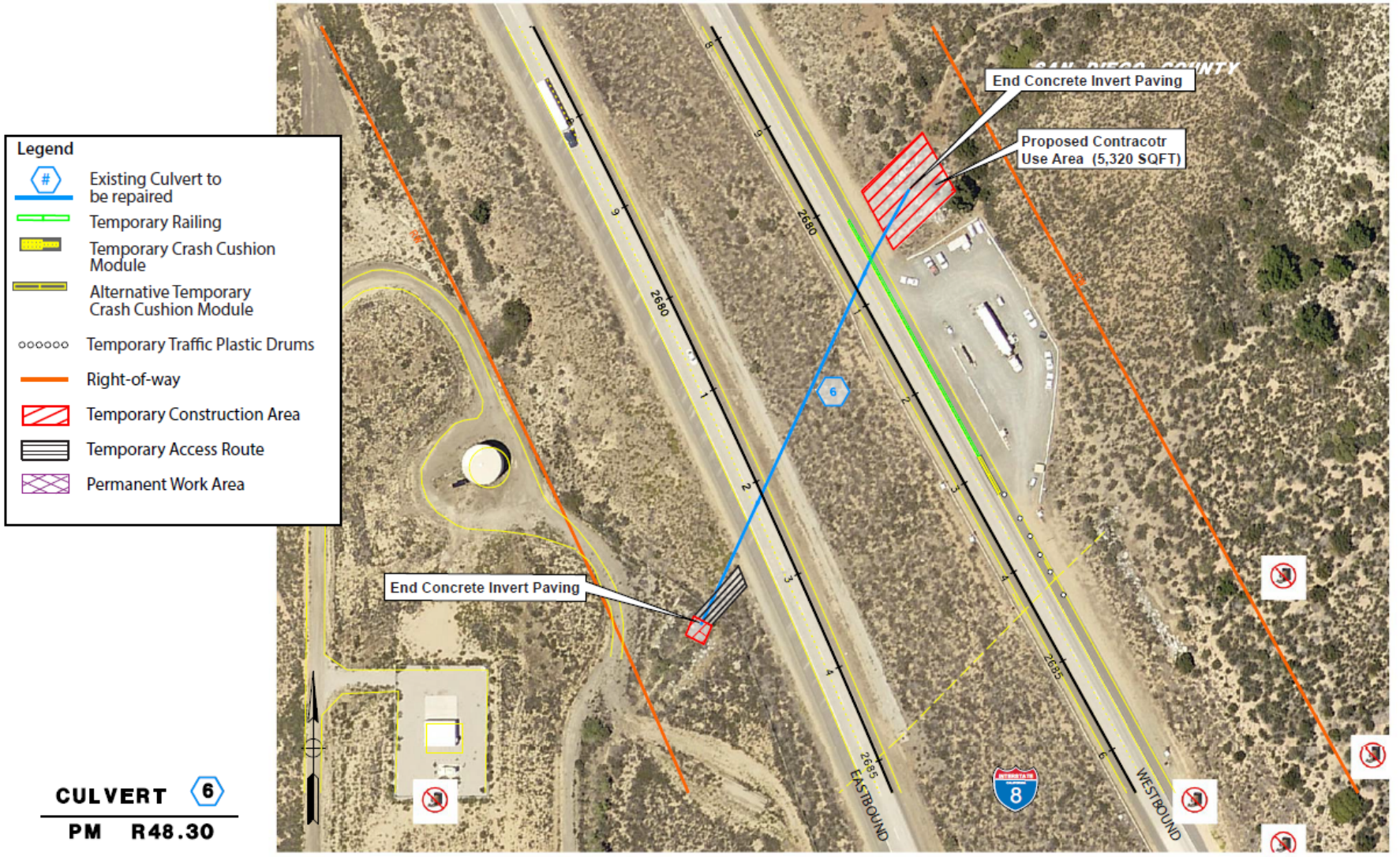


Figure 3
Project Features
Location 6 (7 of 13)

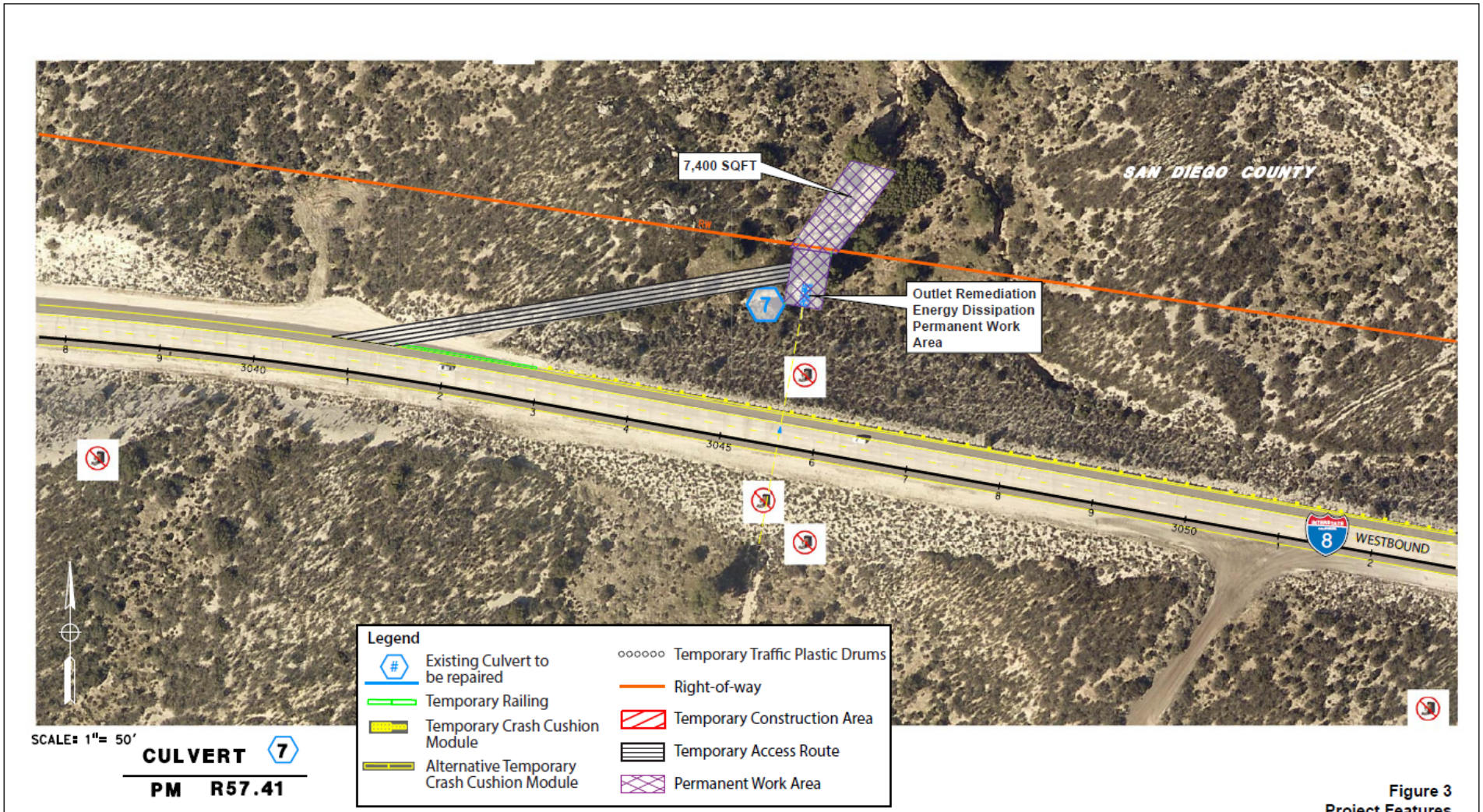


Figure 3
Project Features
Location 7 (8 of 13)

Figure 3
Project Features
Location 8 (9 of 13)

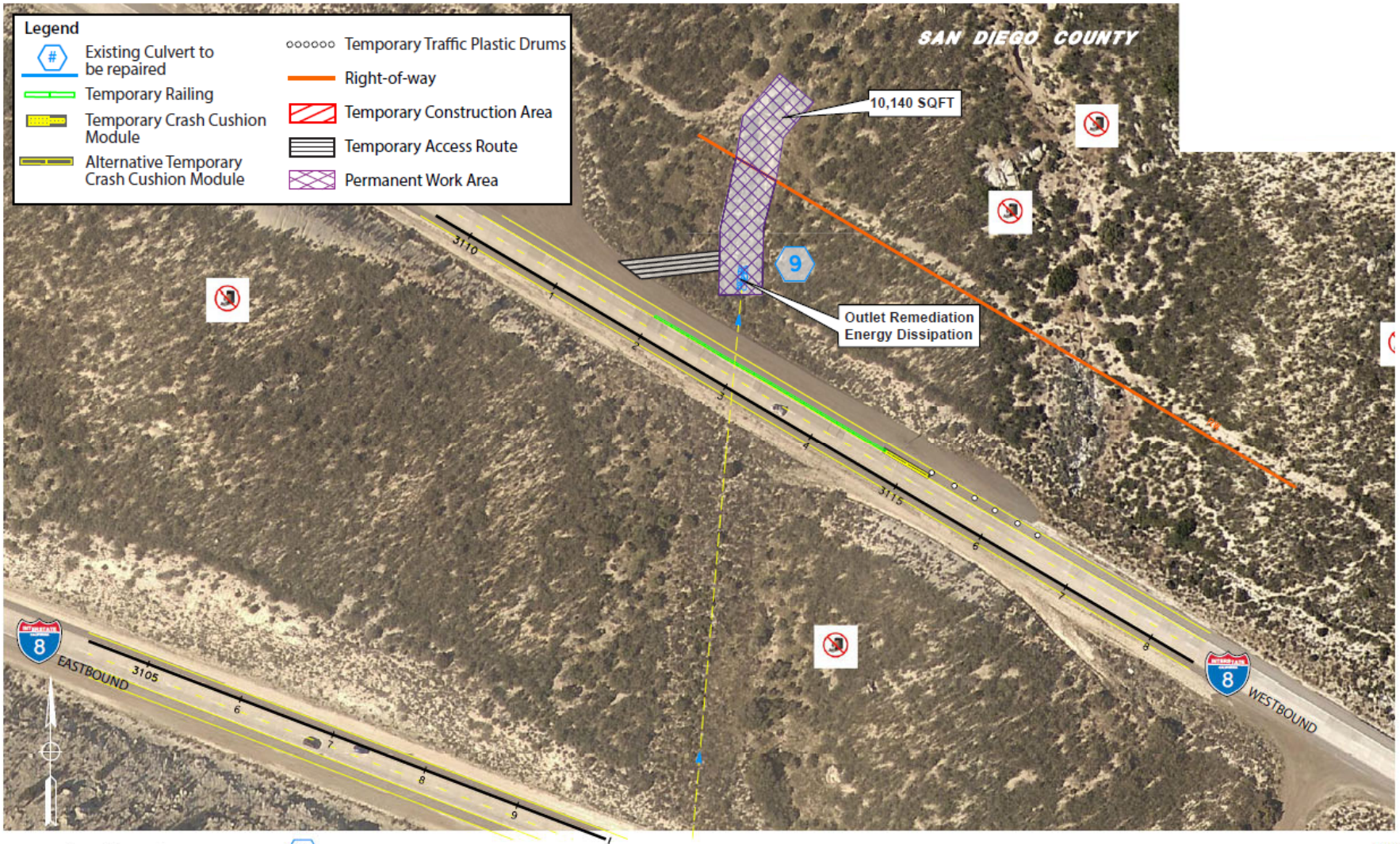


Figure 3
Project Features
Location 9 (10 of 13)

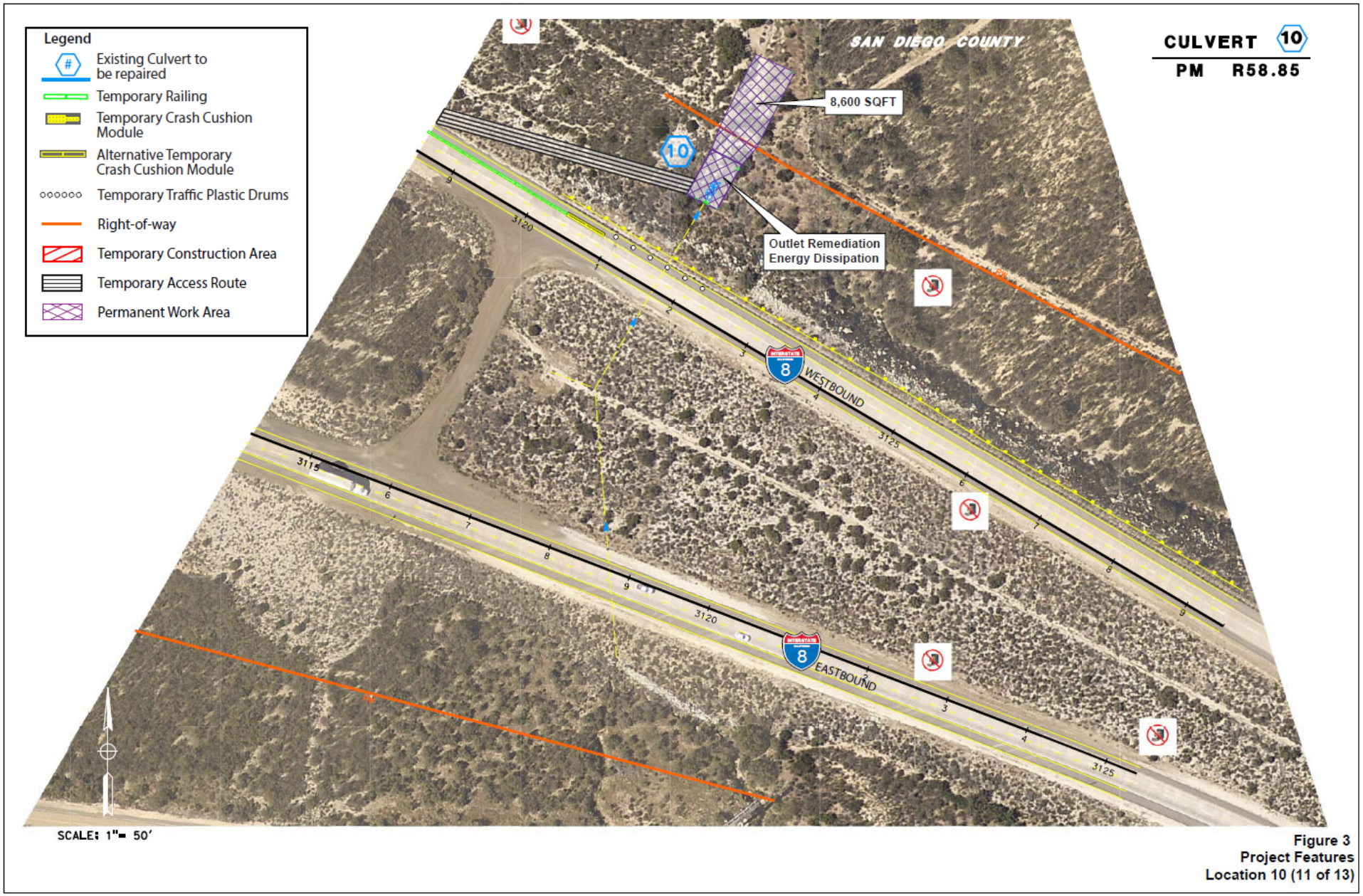


Figure 3
Project Features
Location 10 (11 of 13)

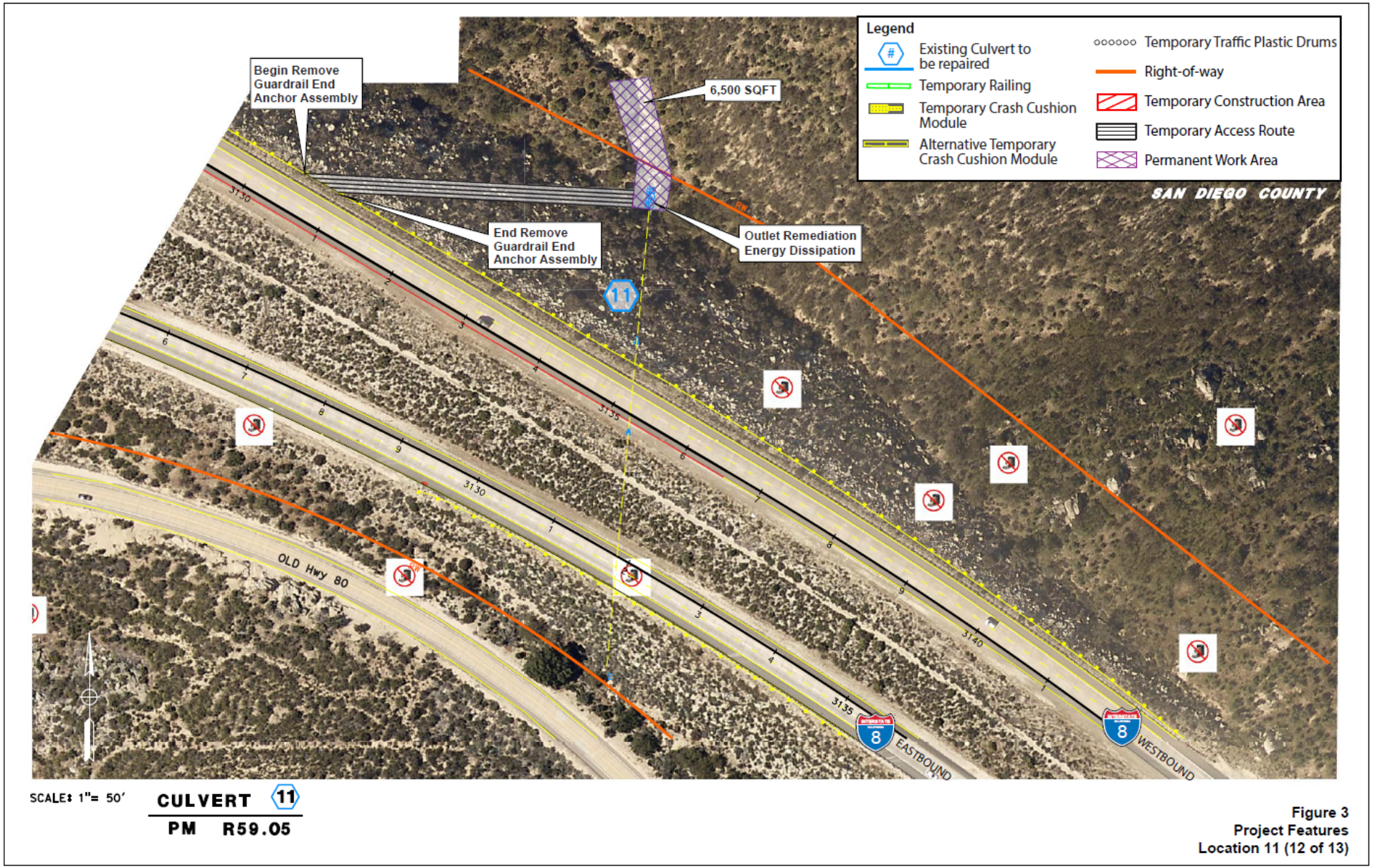


Figure 3
Project Features
Location 11 (12 of 13)

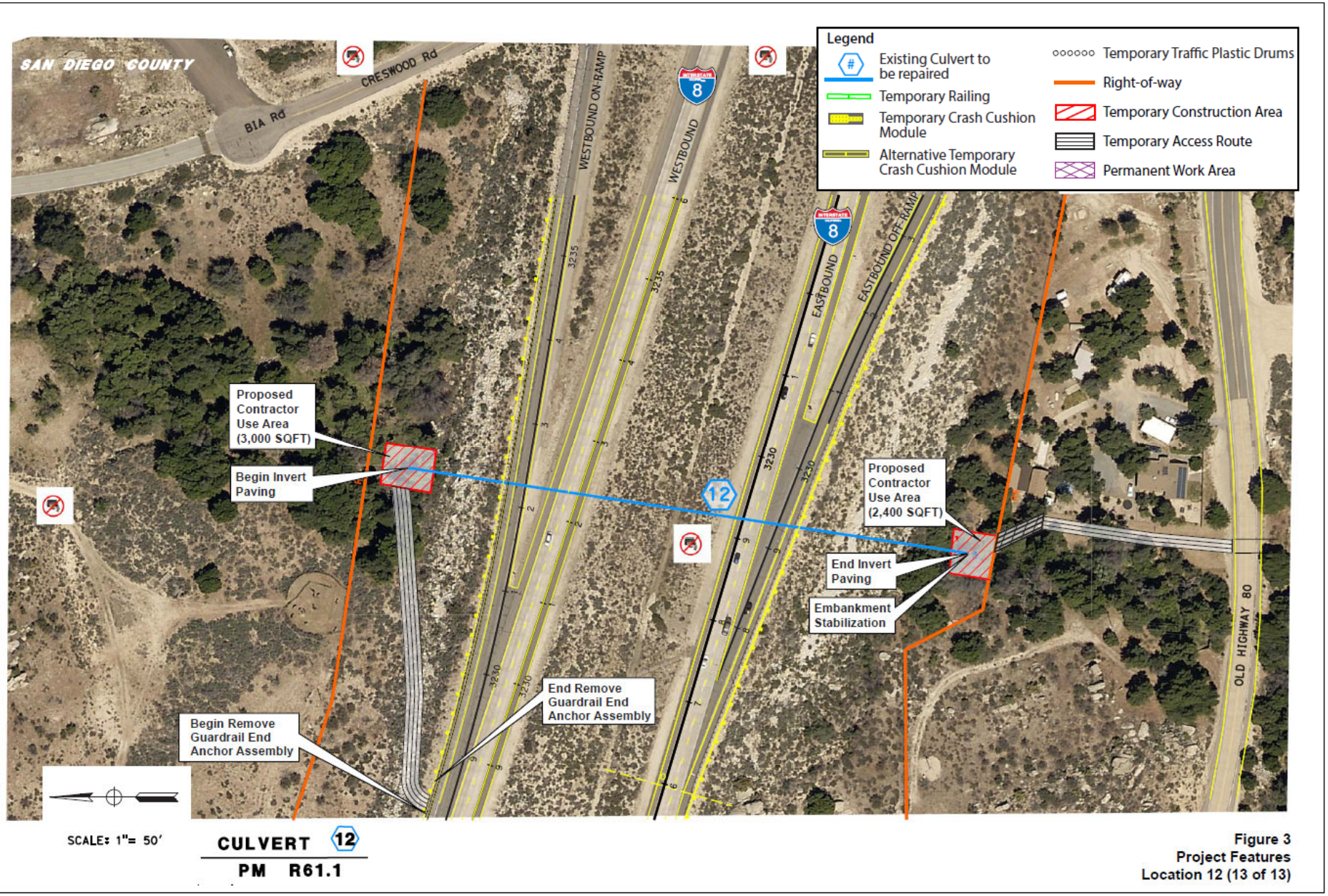


Figure 3
Project Features
Location 12 (13 of 13)

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CEQA Environmental Checklist

11 SD 8	R23.0/PM R61.3	11-42210
Dist.-Co.-Rte.	P.M/P.M.	E.A.

This checklist identifies physical, biological, social and economic factors that might be affected by the proposed project. In many cases, background studies performed in connection with the projects indicate no impacts. A NO IMPACT answer in the last column reflects this determination. Where there is a need for clarifying discussion, the discussion is included either following the applicable section of the checklist or is within the body of the environmental document itself. The words "significant" and "significance" used throughout the following checklist are related to CEQA, not NEPA, impacts. The questions in this form are intended to encourage the thoughtful assessment of impacts and do not represent thresholds of significance.

CEQA Environmental Checklist	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
I. AESTHETICS: Except as provided in Public Resources Code Section 21099, would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☐	☒
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☐	☒
II. AGRICULTURE AND FOREST RESOURCES: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and the forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒

CEQA Environmental Checklist	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒
III. AIR QUALITY: Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non- attainment under an applicable federal or state ambient air quality standard?	☐	☐	☐	☒
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☐	☒
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☐	☒
IV. BIOLOGICAL RESOURCES: Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife, U.S. Fish and Wildlife Service, or NOAA Fisheries?	☐	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☒	☐	☐
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☒
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

CEQA Environmental Checklist	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
V. CULTURAL RESOURCES: Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to in §15064.5?	☐	☐	☒	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☐	☒	☐
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☐	☐	☒
VI. ENERGY: Would the project:				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☐	☒
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☐	☒
VII. GEOLOGY AND SOILS: Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☒
ii) Strong seismic ground shaking?	☐	☐	☐	☒
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☐	☒
iv) Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☐	☒
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☐	☒
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☐	☒
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	☒

CEQA Environmental Checklist	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
VIII. GREENHOUSE GAS EMISSIONS: Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	Caltrans has used the best available information based to the extent possible on scientific and factual information, to describe, calculate, or estimate the amount of greenhouse gas emissions that may occur related to this project. The analysis included in the climate change section of this document provides the public and decision-makers as much information about the project as possible. It is Caltrans' determination that in the absence of statewide-adopted thresholds or GHG emissions limits, it is too speculative to make a significance determination regarding an individual project's direct and indirect impacts with respect to global climate change. Caltrans remains committed to implementing measures to reduce the potential effects of the project. These measures are outlined in the climate change section of the document.			
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?				
IX. HAZARDS AND HAZARDOUS MATERIALS: Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☐	☒
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☒
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☐	☒
X. HYDROLOGY AND WATER QUALITY: Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☐	☐	☒

CEQA Environmental Checklist	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such the project may impede sustainable groundwater management of the basin?	☐	☐	☐	☒
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
(i) result in substantial erosion or siltation on- or off-site;	☐	☐	☒	☐
(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☐	☐	☒	☐
(iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☒	☐
(iv) impede or redirect flood flows?	☐	☐	☐	☒
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☒
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☐	☒
XI. LAND USE AND PLANNING: Would the project:				
a) Physically divide an established community?	☐	☐	☐	☒
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒
XII. MINERAL RESOURCES: Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒
XIII. NOISE: Would the project result in:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☐	☒
b) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☐	☒

CEQA Environmental Checklist	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒
XIV. POPULATION AND HOUSING: Would the project:				
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
XV. PUBLIC SERVICES:				
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
Fire protection?	☐	☐	☐	☒
Police protection?	☐	☐	☐	☒
Schools?	☐	☐	☐	☒
Parks?	☐	☐	☐	☒
Other public facilities?	☐	☐	☐	☒
XVI. RECREATION:				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

CEQA Environmental Checklist	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
XVII. TRANSPORTATION: Would the project:				
a) Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☐	☒
b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	☐	☐	☐	☒
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
d) Result in inadequate emergency access?	☐	☐	☐	☒
XVIII. TRIBAL CULTURAL RESOURCES: Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	☐	☐	☒	☐
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☐	☒	☐
XIX. UTILITIES AND SERVICE SYSTEMS: Would the project:				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☐	☒
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☐	☒
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☐	☒
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☐	☒
XX. WILDFIRE: If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				

CEQA Environmental Checklist	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☐	☒
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☐	☒
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☐	☒
XXI. MANDATORY FINDINGS OF SIGNIFICANCE				
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☐	☒
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	☐	☒
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☐	☒

Additional Explanations for CEQA Environmental Checklist Questions

This section will focus only on environmental factors that either have less than significant impact or less than significant with mitigation including biological resources, cultural resources, hazards and hazardous material, hydrology and water quality, and tribal cultural resources. All other environmental factors have been determined to have no impact and do not warrant additional explanation.

IV. BIOLOGICAL RESOURCES

Threatened and Endangered Species (question a)

Affected Environment

The United States Fish and Wildlife Service (USFWS) and the California Department of Fish and Wildlife (CDFW) have regulatory responsibility for protection of federal and state threatened, endangered, proposed threatened, or proposed endangered species (listed species) and/or their designated habitat. Listed species are selected for protection because they are rare or subject to population and/or habitat declines. The highest level of protection is given to endangered or threatened species since these species are formally listed or proposed for listing under the Federal Endangered Species Act (FESA) and/or the California Endangered Species Act (CESA).

There are several listed species with the potential to occur within the project limits. The table below identifies all federal and state listed species that may occur within the project limits.

Table 3: Listed Species within Project Limits

Common Name	Scientific Name	Status
Peninsular bighorn sheep	*Ovis canadensis nelsoni*	FE
California condor	*Gymnogyps californianus*	FE
Coastal California gnatcatcher	*Polioptila californica californica*	FT
Least Bell's vireo	*Vireo bellii pusillus*	FE, SE
Southwestern willow flycatcher	*Empidonax traillii extimus*	FE
Arroyo toad	*Anaxyrus californicus*	FE, CH
Laguna Mountains skipper	*Pyrgus ruralis lagunae*	FE
Quino checkerspot butterfly	*Euphydryas editha quino*	FE
Hermes copper butterfly	*Lycaena Hermes*	FC
San Diego fairy shrimp	*Branchinecta sandiegonensis*	FE
Encinitas baccharis	*Baccharis vanessae*	FT
San Bernardino bluegrass	*Poa atropurpurea*	FE

San Diego ambrosia	*Ambrosia pumila*	FE
San Diego thornmint	*Acanthomintha ilicifolia*	FT
Willowy monardella	*Monardella viminea*	FE

Status: Federal Endangered (FE); Federal Threatened (FT); Federal Candidate (FC); State Endangered (SE)
Critical Habitat [CH]: Project footprint is located within a designated critical habitat unit but does not necessarily mean that appropriate habitat is present.

A Biological Assessment was completed in October 2018. Due to the potential for presence of listed species within the project's biological study area (BSA), preliminary habitat suitability assessments were conducted using vegetation maps, aerial photographs, and site visits to verify mapping. A habitat assessment was conducted in February 2018 to determine if there is potential habitat appropriate for least Bell's vireo and arroyo toad. This assessment was based on the composition of native vegetation communities and historic and current locations of the listed species in the vicinity of the proposed project area.

Environmental Consequences

The project is anticipated to impact both federally and state listed species. All other listed species within the BSA are not anticipated to be impacted by this project. See below for more information on impacts to listed species:

Least Bell's vireo (LBV):
LBV is listed as a federally and state endangered species. The project may affect, not likely to adversely affect, the least Bell's vireo (*Vireo bellii pusillus*). The species have historically been observed within the biological study area (BSA) of culvert locations 2-6.

Hermes copper butterfly:
The Hermes copper butterfly is a federal candidate species. The project may affect, not likely to adversely affect, the Hermes copper butterfly (*Lycaena hermes*). Chaparral habitat is present, and the species have historically been observed within the BSA of culvert locations 2-6

Arroyo toad:
The arroyo toad is a federally endangered species. The project may affect, likely to adversely affect, arroyo toad (*Anaxyrus californicus*). The species has been observed historically within the BSA of culvert locations 2-6. The BSA at culvert location 6 also includes designated critical habitat.

Consultation per Section 7 of the Federal Endangered Species Act (Section 7) with the United States Fish and Wildlife Service (USFWS) was initiated in October 2018. Consultation concluded when the Biological Opinion was received from USFWS on June 14, 2019 (Appendix D: USFWS Biological Opinion).

Avoidance, Minimization, and/or Mitigation Measures

Conservation measures required by the June 2019 USFWS Biological Opinion and the June 2019 NES are listed below:

Arroyo toad: *Conservation measures (CM) from the June 2019 USFWS Biological Opinion will be labeled at the end of the commitment.*

1. A biologist (Project Biologist) approved by the USFWS Carlsbad Office (CFWO) will be on site at culvert locations 2-6 during all vegetation clearing and grubbing and weekly during project construction within 500 feet of arroyo toad habitat to monitor compliance with all conservation measures. Caltrans will submit the Project Biologist's name, contact information, and work schedule on the project to the CFWO at least 15 working days prior to initiating project impacts. The Project Biologist will be provided with a copy of this consultation. The Project Biologist will be available during pre-construction and construction phases to address protection of sensitive biological resources, monitor ongoing work, and maintain communications with construction personnel to facilitate the appropriate and lawful management of issues relating to biological resources. The Project Biologist will report any non-compliance issue to the Resident Engineer and Caltrans Project Biologist such that work can be halted if necessary, and the issue can be discussed with the CFWO to ensure the proper implementation of species and habitat protection measures. The Caltrans Project Biologist will report all non-compliance issues to the CFWO within 1 business day of notification. (USFWS BO CM 1)

2. The names, permit resumes, and at least three references of people who are familiar with the relevant qualifications of the proposed biologist of all biologists who may need to handle, move, or monitor arroyo toads for the project will be submitted to the CFWO for approval at least 15 days prior to the initiation of arroyo toad surveys or monitoring efforts. The Project Biologist will be responsible for overseeing and coordinating the surveys and monitoring efforts of all other biologists working on the project.

3. Work within or adjacent to arroyo toad habitat (culvert locations 2-6) will occur between August 16 and February 28 to avoid the arroyo toad breeding season. Vegetation clearing may commence earlier in the fall if the Project Biologist demonstrates to the satisfaction of USFWS that all breeding is complete. (USFWS BO CM 2)

4. Temporary stream diversions will be implemented when necessary during culvert work to preserve downstream habitat. Best Management Practice (BMP) measures shall be installed and maintained to prevent any discharge from flowing downstream.

5. All native and sensitive habitat outside and adjacent to the permanent and temporary construction limits will be designated as an ESA on the project

plans. ESAs will be temporarily fenced during construction with orange plastic snow fence, orange silt fencing, or in areas of flowing water, with wire mesh, t-posts, and sand or gravel bags. This fencing may be combined with arroyo toad exclusionary fencing in areas where arroyo toad may occur. No personnel, equipment, or debris will be allowed within the ESA. Fencing and flagging will be installed in a manner that does not impact habitats to be avoided and such that is clearly visible to personnel on foot and operating heavy equipment. Caltrans Biology will submit to the CFWO for approval, at least 5 days prior to initiating project impacts (except for impacts resulting from clearing to install temporary fencing), the final plans for initial clearing and grubbing of habitat and project construction. These final plans will include photographs that show the fenced and flagged limits of impact and all areas to be impacted or avoided. If work occurs outside of these limits, the Project Biologist will request that the resident engineer halt work until the problem has been remedied. The Caltrans Project Biologist will notify the CFWO of the problem within 24 hours of its occurrence. Temporary construction fencing and markers will be maintained in good repair until the completion of project construction and removed upon project completion. (USFWS BO CM 4)

6. Construction personnel will be instructed to take care to avoid effects from activities including, but not limited to, trampling during construction activities and herbicide drift during restoration activities to areas with suitable arroyo toad habitat.

7. The Project Biologist will oversee installation of and inspect the arroyo toad fencing a minimum of once per week to ensure that any breaks in the fencing is repaired immediately.

8. Temporary impacts to 0.90 acres of streambed habitat and 1.46 acres of upland habitat capable of supporting arroyo toad will be revegetated and restored with native species. Duff and rare plants may be salvaged from the project impact footprint to the extent practicable to aid in revegetating temporary impacted areas. Temporary impact areas will be planted and seeded as soon as possible following regrading after completion of construction to prevent encroachment of nonnative plants.

9. Caltrans will submit a habitat restoration plan for temporary impact areas to the CFWO for review and approval at least 30 days prior to initiating project impacts. The plan will include the following information and conditions (USFWS BO CM 5):

    - All habitat restoration sites will be prepared for planting in a way that mimics natural habitat to the maximum extent practicable. All plantings will be installed in a way that mimics natural plant distribution and not in rows.

- Planting palettes (plant species, size, and number/acre) and seed mixes (plant species and pounds/acre) will be limited to locally native species (e.g., species found in or near the biological study area for the project). The source location of all plant material and seed will be provided to the CFWO prior to use in restoration activities.

- Container plant survival will be 80 percent of the initial plantings for the first 5 years. At the first and second anniversary of plant installation, all dead plants will be replaced unless their function has been replaced by plants from seed or natural recruitment. d. A final implementation schedule will indicate when all impacts, as well as restoration planting and irrigation will begin and end.

- The final restoration plan will include 5 years of success criteria for restoration areas including: percent cover, evidence of natural recruitment of multiple species for all habitat types, 0 percent coverage for all woody California Invasive Plant Council's (Cal-IPC's) "Invasive Plant Inventory" species (e.g., trees and shrubs), and no more than 10 percent coverage for other exotic/weed species.

- A minimum 5 years of maintenance and monitoring of restoration areas, unless success criteria are met earlier and all artificial water supplies have been off for at least 2 years.

- A qualitative and quantitative vegetation monitoring plan with a map of proposed sampling locations. Photo points will be used for qualitative monitoring and stratified-random sampling will be used for all quantitative monitoring.

- Contingency measures in the event of restoration failure

- Annual mitigation maintenance and monitoring reports will be submitted to the CFWO no later than December 1 of each year.

- To minimize impacts to arroyo toads during maintenance of restoration areas, the following measures will be implemented:

    - If restoration maintenance work is necessary within or directly adjacent to suitable arroyo toad breeding habitat during the active season for the arroyo toad (March 1 to August 15), while water is flowing or has ponded in the area, the Project Biologist will monitor potential arroyo toad breeding habitat to determine whether egg clutches, larvae, or juveniles are present. If eggs, larvae, or juvenile arroyo toads are found, restoration maintenance work will not occur in the area until signs of breeding are no longer evident.

- Restoration maintenance work during rain events will be avoided to the greatest extend feasible as arroyo toads may become active during rain events and work may result in sedimentation into breeding habitat. To ensure that restoration work is completed in a timely fashion, work may continue during a light or intermittent rain, if the Project Biologist, using his/her best judgment, determines that increased impacts to arroyo toads are unlikely.

- Either arroyo toad exclusion fencing will be maintained around restoration areas for the duration of restoration maintenance work, or the following measure will be implemented: All earth disturbing activities conducted for restoration work (e.g., irrigation repairs, replanting) where there is potential for the presence of aestivating arroyo toads (i.e., sandy, friable soils) will be monitored by the Project Biologist who will ensure that impacts to arroyo toads are avoided to the greatest extent feasible by either: 1) Overseeing earth disturbing activities (e.g., excavation of planting basins, irrigation repairs) in potential aestivation areas and ensuring that hand tools are used to a depth of 1 foot such that arroyo toads are detected and salvaged if present; or 2) Conducting preconstruction translocation surveys and directing work away from observed arroyo toads, or relocating arroyo toads to suitable habitat away from the immediate work area.

- If arroyo toad exclusion fence is removed, transportation of materials for restoration maintenance work within suitable habitat will be conducted on foot, or with lightweight all-terrain vehicles and/or small gators with trailers. If possible, equipment used will have soft tires with minimal tread and a wide wheel base to better distribute weight and reduce soil disturbance. Vehicle speed will not exceed 15 miles per hour.

10. Any culvert sliplining or other culvert work that may result in increased turbidity or material leakage downstream of the culvert will occur with no water flow present in the culverts and adjacent channels. If a noticeable spill occurs, the spill will immediately be contained, contaminated soil will be placed in barrels and removed from the site, and the spill will be documented and reported to the CFWO. (USFWS BO CM 6)

11. An employee education program will be developed and implemented by the Project Biologist. All personnel involved with construction will receive a training and awareness program prior to working on the proposed project. They will be advised of the potential impacts to the listed species and the potential penalties for species take. At a minimum, the project will include the following (USFWS BO CM 7):

- Occurrence of listed species in the area (including photographs), their general ecology, and sensitivity to human activities;
- The legal protection afforded to the listed species, penalties for non-compliance with Federal and State laws and reporting requirements;
- Project features designed to reduce the impacts to the listed species and promote continued successful occupation of the project area.

12. During project construction (excluding the plant establishment period, which will be addressed in the restoration plan) all invasive species included on the National Invasive Species Management Plan, the State of California Noxious Weed List, and the California Invasive Plant Council's Invasive Plant Inventory list (Cal-IPC 2006) found growing within the project impact area will be identified and removed at least once a month. Special care will be taken during transport, use, and disposal of soils containing invasive weed seeds and all weedy vegetation removed during construction will be properly disposed of to prevent spread into areas outside of the construction area. All heavy equipment will be washed and cleaned of debris prior to entering a new area to minimize the spread of invasive weeds. (USFWS BO CM 8)

13. Appropriate erosion and siltation controls will be installed prior to the onset of vegetation clearing and be maintained in good repair until the completion of project construction.

14. A construction Storm Water Pollution Prevention Plan (SWPPP) and soil erosion and sedimentation plan will be developed to identify best management practices that will be implemented during construction to minimize erosion, prevent sediment and debris from entering drainages, and maintain water quality. Sediment will not be stockpiled in areas where arroyo toads might burrow into the loose material, or where material could be washed into drainages by rainfall. Erosion and sediment control devices used for the proposed project, including fiber rolls and bonded fiber matrix, will be made from biodegradable materials such as jute, with no plastic mesh, to avoid creating a wildlife entanglement hazard. (USFWS BO CM 10)

15. All equipment maintenance, staging, and dispensing of fuel, oil, coolant, or any other such activities will be restricted to designated areas located within previously disturbed upland. They will be located such that runoff from the designated areas will not enter arroyo toad breeding habitat. (USFWS BO CM 11)

16. Impacts from fugitive dust will be avoided and minimized through watering and other appropriate best management practices (BMPs). (USFWS BO CM 12)

17. The project site will be kept as clean of debris as possible. All food-related trash items will be enclosed in sealed containers and regularly removed from the site. (USFWS BO CM 13)

18. If fill must be borrowed from or disposed of offsite, the construction contractor will identify any necessary borrow and disposal sites and provide this information to Caltrans for review. Caltrans will review borrow and disposal site information and submit the information to the CFWO. If borrow or disposal activities may affect a listed species or critical habitat, Caltrans will reinitiate Section 7 consultation. (USFWS BO CM 14)

19. If nighttime construction is necessary, all project lighting (e.g. staging areas, equipment storage sites, or the roadway) will be of the lowest illumination necessary for human safety, selectively placed, and directed onto the roadway or construction site and away from sensitive habitats. Light glare shields will be used to reduce the extent of illumination into sensitive habitats. (USFWS BO CM 9)

20. Project personnel will be prohibited from bringing domestic pets to construction sites to ensure that domestic pets do not disturb or depredate wildlife in adjacent native habitats. (USFWS BO CM 15)

21. The Project Biologist will submit monthly email reports (including photographs of impact areas) to the Caltrans Project Biologist during clearing of, and construction within, 500 feet of arroyo toad habitat. The monthly reports will document that authorized impacts were not exceeded and general compliance with all conditions. The reports will also outline the location of construction activities, the type of construction that occurred, and equipment used. These reports will specify numbers and locations, and sex of listed species (if observed), their observed behavior (especially in relation to construction activities), and remedial measures employed to avoid and minimize impacts to these species. Raw field notes should be available upon request by the CFWO. The Caltrans Project Biologist will review reports and forward them to the CFWO. (USFWS BO CM 16)

22. The Project Biologist will submit a final report to the Caltrans Project Biologist within 120 days of project completion including photographs of impact areas and adjacent habitat, documentation that authorized impacts were not exceeded, and documentation that general compliance with all conservation measures was achieved. The report will specify numbers and locations of listed species (if observed); observed listed species behavior (especially in relation to project activities); and remedial measures employed to avoid and minimize impacts to listed species and critical habitat. Raw field notes should be available upon request by the CFWO. The Caltrans Project Biologist will review the report and forward it to the CFWO within 15 days of receipt. (USFWS BO CM 17)

23. An Arroyo Toad Translocation Monitoring Program will be developed and implemented for work at culvert locations 2-6. The program will be provided to the CFWO for review and approval. The program will include the following requirements (USFWS BO CM 3):

- Prior to clearing, grubbing, and construction activities, the Project Biologist will monitor arroyo toad breeding activity in those project areas containing or adjacent to breeding habitat. The biologist will determine when egg clutches or larvae are no longer present in the waterway. When sign of breeding is no longer evident, an exclusionary fence will be installed and clearance surveys initiated.

- Prior to clearing, grubbing, and construction activities, arroyo toad exclusionary fencing will be installed around the perimeter of all work areas within potential arroyo toad habitat with the exception of areas where topography is such that the Project Biologist, using his or her best judgment, believes that occupancy by arroyo toads is unlikely, and installation of toad fencing is not practical. In areas without water flows, the arroyo toad exclusion fence will consist of woven nylon fabric or similar material at least 2 feet high, staked firmly to the ground. In areas where soils are suitable for aestivation, the lower 1 foot of material will stretch outward along the ground and be secured with a continuous line of sandbags to prevent burrowing beneath the fence. Doubling this line (i.e., stacking sand or gravel bags two-deep) may reduce maintenance and should be considered in order to improve the integrity of the fencing. In areas where soils are not suitable for aestivation, (i.e., hardpack soils), fencing may be buried to reduce maintenance concerns and improve the integrity of the fencing over time. Mechanized installation of buried portions of the fencing may be considered as it may reduce foot-traffic and disturbance of adjacent habitat. In areas where there is existing or potential inundation, wire mesh held in place with t-posts and secured with sand or gravel bags should be utilized to allow for the passage of water flows without compromising the integrity of the fencing. A small amount of vegetation may be removed to facilitate installation of the fencing, so long as it is conducted without disturbing the soil in areas where soils are suitable for aestivation, and does not impact habitats to be avoided. In areas with challenging topography where arroyo toad occupancy is deemed unlikely by the Project Biologist, the limits of work will be clearly delineated using other means (e.g., stakes with bright orange flagging). Fence ends will tie into areas with challenging topography in a manner designed to keep toads out of the project footprint. Decisions on the appropriate fencing installation method for a given reach will be made by the Project Biologist. Fencing will be clearly visible to personnel on foot and operating heavy equipment. Caltrans will submit to the CFWO for approval, at least 5 days prior to initiating project impacts (except for impacts resulting from clearing to

install arroyo toad exclusion fencing), the final plans for initial clearing and grubbing of habitat and project construction. These final plans will include photographs that show the fenced limits of impact, the flagged project limits in areas with challenging topography where occupancy was deemed unlikely, and all areas to be impacted or avoided. Arroyo toad exclusionary fencing will be maintained in good repair until the completion of project construction and removed upon project completion.

- Prior to the initiation of construction activities, but after exclusionary fencing has been installed, a minimum of 6 consecutive night surveys for arroyo toads will be conducted within the fenced project area by the Project Biologist. Surveys will continue until there have been 2 consecutive nights without toads inside the fence. Arroyo toads will be excluded from the fenced project footprint before large-scale vegetation removal efforts commence; however, some vegetation removal may occur to improve visibility for salvage of arroyo toads, so long as it is conducted without disturbing the soil and within the fenced project footprint. Surveys will be conducted during the appropriate climatic conditions and during the appropriate time of night to maximize the likelihood of encountering arroyo toads. If climatic conditions are not appropriate for arroyo toad movement during the surveys, the biologist may attempt to illicit a response from the arroyo toads, during nights (i.e., at least 1 hour after sunset) with temperatures above 10 degrees Celsius (50 degrees Fahrenheit), by spraying the project area with water to simulate a rain event. If it is not feasible to spray the entire project area with water then spraying would occur in the areas of greatest concern under the direction of the Project Biologist.

- Capture methods will follow commonly accepted techniques for amphibian field sampling, including capture by hand and pitfall trapping. All pitfall traps will be covered or removed when clearance surveys are not occurring. Arroyo toads will be handled in an expedient manner with minimal harm. Captured arroyo toads will not be handled for more than 15 minutes. Any arroyo toad exhibiting signs of physiological distress will be immediately released in the most proximal and safe suitable habitat. Any arroyo toads captured will be checked for a Passive Integrated Transponder (PIT) tag with a PIT-tag reader by the Project Biologist.

- If the exclusion fencing is found to be damaged during weekly monitoring conducted by the Project Biologist during the active season for the arroyo toad (March 1 to August 15), allowing arroyo toads access to the impact area, arroyo toad exclusion surveys will be repeated by the Project Biologist for a minimum of 3 consecutive

nights prior to any additional construction activities occurring in the area.

- The approved Project Biologist will monitor all groundbreaking activities that occur within areas demarcated with arroyo toad exclusion fencing to salvage and relocate arroyo toads and to quantify take of arroyo toads.

- To avoid transferring disease or pathogens between aquatic habitats during surveys and handling of arroyo toads, the Project Biologist will follow the Declining Amphibian Population Task Force's Fieldwork Code of Practice (DAPTF 1998), or newer version when available.

- American bullfrogs (*Lithobates catesbeianus*) and other exotic animal species that prey upon or compete with arroyo toads for resources will be excluded, destroyed, or otherwise permanently removed from the habitat by the Project Biologist if encountered.

- The Project Biologist will maintain a complete record of all arroyo toads encountered and relocated in association with the project. The date and time of observation, sex, physical dimensions, PIT-tag code, coordinates/specific location of capture and release, and photographs (when possible) will be recorded and provided to the CFWO, within 30 days of the completion of translocation.

Least Bell's vireo (LBV) and Hermes copper butterfly (HCB):

24. The Project Biologist will be on site at culvert locations 2-6 during initial clearing/grubbing and weekly during project construction to ensure compliance with all conservation measures. The Project Biologist will be familiar with LBV and HCB and their habitat and will have experience monitoring both species. Caltrans will submit the name, contact information, and work schedule of the Project Biologist on the project to CFWO at least five working days prior to initiating project impacts. The Project Biologist will have a copy of the BO during project construction.

25. LBV and HCB habitat outside of the construction area at culvert locations 2-6 will be designated as an ESA on the project plans and protected by installing temporary ESA fencing, if necessary, under the supervision of the Project Biologist. Construction personnel will be instructed to take care to avoid effects from activities including, but not limited to, trampling during construction activities and herbicide drift during restoration activities to areas with suitable LBV and HCB habitat. If work occurs beyond the fenced or demarcated limits of impact, all work will cease until the problem has been remedied to the satisfaction of the CFWO. Temporary construction fencing and markers will be removed upon project completion.

26. Work at culvert locations 2-6 will occur outside of the LBV nesting season, which occurs between March 15 and September 30. If work cannot occur outside the nesting season, a pre-construction nesting bird survey for birds, including LBV, will be conducted by the Project Biologist. If LBV are found, a no-work buffer zone will be placed around the nest until the adults or no longer using it or the young have fledged as determined by the Project Biologist. The extent of the no-work buffer shall be determined by the Project Biologist (coordinating with the CFWO and CDFW) 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.

27. Work at culvert location 2 will occur outside the HCB larval emergence and flight seasons, which occurs between mid-April and early July.

28. Spiny redberry (*Rhamnus crocea)* and California buckwheat (*Eriogonum fasciculatum)*, the host and nectar plants, respectively of the HCB, will be avoided to the extent practicable.

29. Temporary impacts to 0.90 acres of habitat suitable for LBV and 0.20 acres of habitat suitable for HCB will be revegetated and restored with native species. Duff and rare plants may be salvaged from the project impact footprint to the extent practicable to aid in revegetating temporary impact areas with native habitats. Temporary impact areas will be planted and seeded as soon as possible following regrading after completion of construction to prevent encroachment by nonnative plants.

30. All equipment maintenance, staging, and dispensing of fuel, oil, coolant, or any other such activities will be restricted to designated areas that are outside of habitat suitable for LBV and HCB at culvert locations 2-6 and at a minimum of 100 feet from drainages and associated plant communities.

31. The Project Biologist will submit a final report to CFWO within 120 days of project completion including photographs of impact areas and adjacent habitat, documentation that authorized impacts were not exceeded, and documentation that general compliance with all conservation measures was achieved. The report will specify numbers and locations of LBV and HCB, if observed. Raw field notes should be available upon request by CFWO.

All the conservation measures for Section 7 listed above also fulfill requirements under the California Endangered Species Act (CESA).

Since the impacts to arroyo toad are temporary, a Fish and Game Code 2081 Incidental Take Permit from CDFW will not be required.

Upland Riparian Communities and Wetlands and Other Waters of the U.S. (questions b and c)

Affected Environment

Both upland and wetland habitat exist within the project footprint. The United States Army Corps of Engineers (USACE) has jurisdiction over the federal waterways and CDFW has jurisdiction over streambed habitat.

Most locations include waterways or wetlands under the jurisdiction of both USACE and CDFW.

The project area also includes several upland habitats and natural communities of special concerns including:

- Southern coast live oak riparian forest habitat – This habitat community within the BSA consists primarily of coast live oak and is richer in herbs and poorer in understory shrubs than other riparian communities.

- Southern riparian scrub community – This habitat community within the BSA consists of a riparian zone dominated by willows and mulefat.

- Chaparral habitat community – This habitat community within the BSA consists of granitic northern mixed chaparral. This community consists of dense vegetation dominated by chamise, scrub oak, and chaparral whitethorn and granitic soils.

- Oak woodland – This habitat within the BSA consists of a variety of types between open and dense woodland and species between coast live oak and Englemann oak.

These communities provide good habitat for many animal species in this region including butterflies, reptiles, and birds.

Environmental Consequences

For locations with invert paving and culvert lining (locations 1-6, 12), all wetland impacts will be temporary and limited to the culvert ends, staging/storage areas, and access paths.

Locations that require streambed improvements (locations 7-11) will have both temporary and permanent wetland impacts. Temporary impacts include construction at the culvert ends, staging/storage areas, and access paths. Impacts beyond the culvert ends in the streambed will be permanent. This includes regrading the channel slope, fabric lining, and installing a combination of RSP and/or gabion cages in the streambed. The extent of streambed improvements will be determined during design but will not extend further than 100 feet past Caltrans' right-of-way.

The table below shows more information about wetland and upland habitat community impacts at certain culvert locations.

Table 4: Wetland and Upland Impacts

Culvert Location No.	PM	USACE Impacts	USACE Impacts	CDFW Impacts	CDFW Impacts	Habitat	Temporary Upland Impacts	Temporary Upland Impacts
-	-	Permanent	Temporary	Permanent	Temporary	-	CSS-Chaparral	Oak Woodland
1	23.73	0.08	0.10	0.25	0.26	Southern Coast Live Oak Riparian Forest	-	-
2	37.35	-	0.05	-	0.17	Streambed	0.20	-
3A, 3B	39.99 40.01	-	0.04, 0.04	-	0.10, 0.19	Streambed	0.05, 0.45	0.10, -
4	41.19	-	0.10	-	0.13	Streambed	0.39	0.05
5	41.58	-	0.14	-	0.21	Streambed	0.31	-
6	48.30	-	0.05	-	0.10	Streambed	0.11	-
7	57.41	0.08	-	0.08	-	Streambed	0.20	-
8	58.00	0.14	-	0.14	-	Streambed	0.12	0.05
9	58.65	0.07	-	0.07	-	Streambed	0.17	-
10	58.85	0.08	-	0.08	-	Streambed	0.20	-
11	59.05	0.06	-	0.06	-	Streambed	0.28	-
12	61.10	-, 0.04	0.05, 0.06	-, 0.06	0.10, 0.10	Southern Coast Live Oak Riparian Forest, Riparian Scrub	0.17	-
Totals	-	**0.55**	**0.63**	**0.74**	**1.36**	**Wetland Impacts**	**2.65**	**0.20**

Avoidance, Minimization, and/or Mitigation Measures

Measures proposed in the October 2018 Biological Assessment also mitigate for temporary impacts to wetlands and upland habitats.

In addition, the following avoidance and minimization measures were proposed in the May 2019 Natural Environmental Study (NES):

- Southern coast live oak riparian forest, southern riparian scrub, chaparral, and oak woodland habitat outside of the construction area will be designated as an environmentally sensitive area (ESA) and protected by temporary ESA fencing.

- All equipment maintenance, staging, and dispensing of fuel, oil, coolant, or any other such activities will be outside of areas with southern coast live oak riparian forest, southern riparian scrub, chaparral, and oak woodland habitat. The locations will also be where runoff cannot encounter southern coast live oak riparian forest habitat and southern riparian scrub habitat.

- If native vegetation relating to southern coast live oak riparian forest, southern riparian scrub, and chaparral habitat is within the access areas, it will be either trimmed back, cut above ground level, or driven over instead of completely removed. This will allow the vegetation a chance to grow back once maintenance activities are complete. Native trees over four inches diameter breast height (DBH) will be avoided to the maximum extent feasible.

- Impacts to oak trees will be avoided to the maximum extent possible and will be trimmed back instead of removed, when feasible, to minimize impacts.

- Temporary impacts to 0.36 acre of southern coast live oak riparian forest habitat, 0.96 acre of streambed habitat, 0.10 acre of southern riparian scrub habitat, 2.7 acres of chaparral habitat, and 0.2 acres of oak woodland habitat will be offset by restoring the temporarily impacted areas to pre-construction conditions. Native seed mix will be applied to the temporarily impacted areas as soon as possible following the completion of construction to prevent encroachment by nonnative plants.

- Appropriate erosion and siltation controls will be installed prior to construction and will be maintained until completion of construction.

- Impacts from fugitive dust will be avoided and minimized through watering, monitoring, and other appropriate measures.

- The project sites will be kept as clean of debris as possible.

The 0.25 acres of permanent impacts to southern coast live oak riparian forest habitat will be offset by a mitigation ratio of 3:1 and the debit of 0.75 acres of riparian woodland habitat from the Rancho San Diego Mitigation Bank.

The 0.43 acres of permanent impacts to streambed habitat will be offset by a mitigation ratio of 2:1 and the debit of 0.86 acres of riparian woodland habitat from the Rancho San Diego Mitigation Bank.

The 0.06 acres of permanent impacts to southern riparian scrub habitat will be offset by a mitigation ratio of 2:1 and the debit of 0.12 acres of riparian woodland habitat from the Rancho San Diego Mitigation Bank.

Permanent impacts to chaparral habitat are not anticipated.

Since there are impacts to wetlands and Waters of the U.S., Caltrans will be obtaining the following permits during the design phase:

Table 5: Permits and Approvals for Wetland/Waters of the U.S. Impacts

Agency	Permit/Approval
U.S. Army Corps of Engineers	Clean Water Act Section 404 Nationwide Permit
California Department of Fish and Wildlife	Fish and Game Code Section 1602 Lake and Streambed Alteration Agreement
Regional Water Quality Control Board	Clean Water Act Section 401 Certification
U.S. Environmental Protection Agency	Clean Water Act Section 401 Certification (locations 7-11 only)

V. CULTURAL RESOURCES

Archaeological Resources (questions a & b)

Affected Environment

The term "cultural resources," as used in this document, refers to the "built environment" (e.g., structures, bridges, railroads, water conveyance systems, etc.), places of traditional or cultural importance, and archaeological sites (both prehistoric and historic), regardless of significance. Under state laws, cultural resources that meet certain criteria of significance are referred to by various terms including "historical resources" and "tribal cultural resources." The California Environmental Quality Act (CEQA) requires the consideration of cultural resources that are historical resources and tribal cultural resources, as well as "unique" archaeological resources. California Public Resources Code (PRC) Section 5024.1 established the California Register of Historical Resources (CRHR) and outlined the necessary criteria for a cultural resource to be listed on, or considered eligible for listing in, the CRHR and, therefore, a historical resource. Historical resources are defined in PRC Section 5020.1(j). In 2014, Assembly Bill 52 (AB 52) added the term "tribal cultural resources" to CEQA, and AB 52 is commonly referenced instead of CEQA when discussing the process to identify tribal cultural resources (as well as identifying

measures to avoid, preserve, or mitigate effects to them). Defined in PRC Section 21074(a), a tribal cultural resource is a CRHR or local register listed or eligible site, feature, place, cultural landscape, or object which has a cultural value to a California Native American tribe. Tribal cultural resources must also meet the definition of a historical resource. Unique archaeological resources are referenced in PRC Section 21083.2.

PRC Section 5024 requires state agencies to identify and preserve, when prudent and feasible, state-owned historical resources that meet the National Register of Historic Places (NRHP) or the California Historical Landmarks (CHL) listing criteria. It further requires the Department to inventory state-owned structures in its rights-of-way. Sections 5024(f) and 5024.5 require state agencies to provide notice to and consult with the State Historic Preservation Officer (SHPO) before altering, transferring, relocating, or demolishing state-owned historical resources that are listed on or are eligible for inclusion in the NRHP or are registered or eligible for registration as CHLs.

Environmental Consequences

An archaeological survey identified seven archaeological resources within the vicinity of the project. Of the seven identified, four archaeological resources were identified within the project archaeological footprint (i.e. project area limits). The four archaeological resources are:

- CA-SDI-22,460
- CA-SDI-22,461
- CA-SDI-22,497
- CA-SDI-22,498

For the purpose of this project, these four resources will be considered eligible for the National Register of Historic Places (NRHP) without formal evaluations. Thus, impacts to these resources will be avoided.

Also, culvert locations 7-11 are located on an easement that runs through the La Posta Band of Diegueño Mission Indians (La Posta) Reservation. An Archaeological Resources Protection Act (ARPA) Permit Waiver was obtained from the Bureau of Indian Affairs (BIA) on 12/14/18 for survey work within tribal land.

Streambed improvements at culvert locations 7-11 have the potential to extend past Caltrans' easement and into reservation land. The extent of these improvements will be determined during the Design Phase but are anticipated to be less than 100 feet past Caltrans' right-of-way. Caltrans staff has conducted several field reviews of culvert locations 7-11 with La Posta including on January 16, 2019, February 26, 2019, and June 20, 2019. Caltrans also attended a teleconference with La Posta and several other state and federal agencies on November 27, 2018 to discuss this culvert

project and other erosion and streambed concerns related to one or more separate projects led by La Posta in coordination with other appropriate agencies. Caltrans also attended a second teleconference with La Posta and several external agencies again on June 20, 2019. Topics discussed included the Draft IS/MND, permits, and Caltrans' design process.

Coordination with La Posta and other external agencies will continue into the Design Phase.

Avoidance, Minimization, and/or Mitigation Measures

Below are proposed measures within the Historic Property Survey Report (HPSR) that were submitted to the State Historic Preservation Officer (SHPO) in May 2019. The HPSR also includes an Archaeological Survey Report (ASR) and Environmentally Sensitive Area (ESA) Action Plan.

To ensure avoidance of archaeological resources, an Action Plan was prepared by Caltrans Professionally Qualified Staff (PQS) for pre-historic archaeology. The Action Plan proposes the following avoidance and minimization measures:

Before Construction:

- ESAs will be established to avoid impacts to known cultural resources.

During Construction:

- ESA fencing will be installed prior to construction activities.
- If buried cultural resources are encountered during Project activities, it is Caltrans policy that work stop in that area until a qualified archaeologist can evaluate the nature and significance of the find.
- In the event that human remains are found, the county coroner shall be notified and all construction activities within 60 feet of the discovery shall stop. Pursuant to Public Resources Code 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).

After Construction:

- A field visit will be conducted to document the results.

SHPO concurred on the Finding of No Adverse Effect finding on May 20, 2019 (Appendix C: SHPO Concurrence Letter). Needs for archaeological monitoring during construction by a qualified archaeologist will be determined during the project design phase. Should an ARPA permit be required during construction, although not currently expected, Caltrans will obtain such a permit in coordination with BIA.

IX. HAZARDS AND HAZARDOUS MATERIALS

Hazardous Materials (question b)

Affected Environment

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

California regulates hazardous materials, waste, and substances under the authority of the CA Health and Safety Code and is also authorized by the federal government to implement the Resource Conservation and Recovery Act (RCRA) of 1976 in the state.

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

A Hazardous Waste Review Memo was prepared in April 2019. Per the memo, review of various databases including EnviroStor, GeoTracker, and historic aerials reveal that there are currently no corrective actions at hazardous waste facilities or site cleanup projects within the project limits. The GeoTracker review also revealed that no sites within the project limits would impact groundwater or have the potential to impact groundwater. No potentially hazardous waste concerns were identified on historic aerials either.

Aerially deposited lead (ADL) from the historical use of leaded gasoline, exists along roadways throughout California. If encountered, soil with elevated concentrations of lead as a result of ADL on the state highway system right of way within the limits of the project will be managed under the July 1, 2016, ADL Agreement between Caltrans and the California Department of Toxic Substances Control. This ADL Agreement allows such soils to be safely reused within the project limits as long as all requirements of the ADL Agreement are met.

Environmental Consequences

Earth material will be excavated and/or disturbed when constructing temporary roads to access the impact areas (e.g. culvert ends, streambed) from the state highway. Since surplus soil is anticipated, earth material were screened at these locations using a field portable x-ray fluorescence (XRF) instrument. The results confirmed that the soil in these areas are non-hazardous and are characterized as “clean.”

Minimal soil disturbance is anticipated for culvert invert paving/lining, erosion remediations, and guard rail replacement. Surplus soil is not anticipated, and all disturbed soil must be reused in the immediate area of disturbance and may not be transported elsewhere.

Avoidance, Minimization, and/or Mitigation Measures

A Certified Industrial Hygienist prepared Lead Compliance Plan (LCP) will be implemented during construction for all workers involved with excavation and soil disturbance.

Any excess soil that will need to be hauled off will be tested and analyzed before leaving the project area and will be disposed of at an appropriate permitted landfill.

All imported soil should be obtained from an established commercial source. If a commercial source within the State of California is not possible, then analytical test results for the imported soil will be required and must be "clean soil" as defined by the *July 2016 Caltrans and Department of Toxic Substances Control Soil Management Agreement for Aerially Deposited Lead-Contaminated Soils*.

X. HYDROLOGY AND WATER QUALITY

Drainage and Streambed Alterations (question c, i-iii)

Affected Environment

California's Porter-Cologne Act, enacted in 1969, provides the legal basis for water quality regulation within California. This act requires a "Report of Waste Discharge" for any discharge of waste (liquid, solid, or gaseous) to land or surface waters that may impair beneficial uses for surface and/or groundwater of the state. It predates the Clean Water Act (CWA) and regulates discharges to waters of the state.

The State Water Resources Control Board (SWRCB) and Regional Water Quality Control Boards (RWQCBs) are responsible for establishing the water quality standards (objectives and beneficial uses) required by the CWA and regulating discharges to ensure compliance with the water quality standards.

Environmental Consequences

There are several ephemeral drainages that are piped under the highway via culverts in this section of I-8. These culverts are needed to channel water down the stream to prevent flooding and water overtopping the highway. Most of the culverts are dry throughout the year except immediately after a rain event.

For culvert locations 7-11, there is severe incision and channel destabilization at the culvert outlets due to the large quantity of surface runoff that gets funneled through the pipes. The surrounding soils consists of a rocky, loamy, coarse sand soil that contains low amounts of silt. Combined with the lack of vegetation nearby, these soils are highly unstable and erodible even during short rain events.

For the culvert locations listed above, the channel will be regraded to a more natural channel shape within the project area. A combination of solutions will also be considered during design to slow down water flow and minimize future erosion at the culvert outlets including: removing unstable soil and backfilling with imported material, installing rock slope protection (RSP) or gabion cages in the channel, drop

structures, stilling basins, and/or mechanical dissipaters. At these culvert locations, some of the streambed improvements may extend past Caltrans right-of-way by approximately 100 feet and into the La Posta Reservation.

Existing and future erosion on the La Posta Reservation outside of the project area will be addressed by one or more separate projects led by La Posta in coordination with other appropriate agencies.

The remaining locations (culvert locations 1-6, 12) do not have severe erosion and channel restoration is not anticipated. For these locations, work will be limited to the culvert ends or the immediate areas.

Avoidance, Minimization, and/or Mitigation Measures

All work within the channels are anticipated to improve the hydrology and streambed conditions. No mitigation measures are needed for hydrology and water quality.

XVIII. TRIBAL CULTURAL RESOURCES *(questions a & b)*

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

Refer to Chapter V. Cultural Resources for a discussion of tribal cultural resources.

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Appendix A Distribution List

FEDERAL, STATE, AND LOCAL ELECTED OFFICIALS

Honorable Dianne Feinstein
U.S. Senator
880 Front Street, Suite 4236
San Diego, CA 92101

Honorable Kamala Harris
U.S. Senator
600 B Street, Suite 2240
San Diego, CA 92101

Honorable Juan Vargas
U.S. Representative
333 F Street, Suite A
Chula Vista, CA 91910

Honorable Duncan Hunter
U.S. Representative
1611 N. Magnolia Avenue, Suite 310
El Cajon, CA 92020

Honorable Gavin Newsom
Governor of California
1303 10th Street, Suite 1173
Sacramento, CA 95814

Honorable Brian W. Jones
State Senator, District 38
500 Fesler Street, #201
El Cajon, CA 92020

Honorable Ben Hueso
State Senator, District 40
303 H Street, Suite 200
Chula Vista, CA 91910

Honorable Randy Voepel
State Assembly, District 71
8760 Cuyamaca Street, Suite 201
Santee, CA 92071

Honorable Kevin Faulconer
Mayor of City of San Diego
202 C Street, 11th Floor
San Diego, CA 92101

Honorable Mark Arapostathis
Mayor of City of La Mesa
8130 Allison Avenue
La Mesa, CA 91942

Honorable Bill Wells
Mayor of City of El Cajon
200 Civic Center Way
El Cajon, CA 92020

Honorable John Minto
Mayor of City of Santee
10601 Magnolia Avenue
Santee, CA 92071

Honorable Dianne Jacob
San Diego County Board of
Supervisors, District 2
1600 Pacific Highway, Room 335
San Diego, CA 92101

Honorable William D. Gore
San Diego County Sherriff
9621 Ridgehaven Court
San Diego, CA 92123

Honorable Ernest J. Dronenburg, Jr.
County Assessor, Recorder, Clerk,
1600 Pacific Highway, Suite 100
San Diego, CA 92101

FEDERAL, STATE, AND LOCAL AGENCIES

Cleveland National Forest
10845 Rancho Bernardo Road,
Suite 200
San Diego, CA 92127

Bureau of Reclamation
Southern California Region
27226 Via Industria, Suite A
Temecula, CA 92590

U.S. Environmental Protection Agency
Region 9
610 West Ash Street, Suite 905
San Diego, CA 92101

U.S. Fish and Wildlife Service
Carlsbad Office
2177 Salk Avenue, Suite 250
Carlsbad, California 92008

Bureau of Land Management
El Centro Region
1661 S. 4th Street
El Centro, CA 92243

Bureau of Land Management
Palm Springs Region
1201 Bird Center Drive
Palm Springs, CA 92262

State Water Resources Control Board
P.O. Box 100
Sacramento, CA 95812

State Clearinghouse
Governor's Office of Planning and
Research
P.O. Box 3044
Sacramento, CA 95812

California Highway Patrol
Border Division
9330 Farnham Street
San Diego, CA 92123

Federal Transit Administration,
Region 9
90 7th Street, #15, Federal Building
San Francisco, CA 94103

Native American Heritage Commission
1550 Harbor Boulevard, Suite 100
West Sacramento, CA 95691

California Regional Water Quality
Control Board, Region 9
Attn: Michael Porter
2375 Northside Drive, Suite 100
San Diego, CA 92108

California Department of Toxic Substances Control
San Diego Field Office
2375 Northside Drive, Suite 100
San Diego, CA 92108

California Department of Fish and Wildlife, Region 5
3883 Ruffin Road
San Diego, CA 92123

California Department of Water Resources, South Central Region
770 Fairmont Avenue, #102
Glendale, CA 91203

California Transportation Commission
1120 N Street, MS-52 Room 2221
Sacramento, CA 95814

County Department of Public Works
Transportation Division
5510 Overland Avenue, Suite 410,
Room 470
San Diego, CA 92123

San Diego Association of Governments
Attn: Richard Chavez
401 B Street, #800
San Diego, CA 92101

San Diego County Air Pollution Control District
10124 Old Grove Road
San Diego, CA 92131

San Diego River Conservancy
1350 Front Street, Suite 3024
San Diego, CA 92101

Sweetwater Authority
505 Garrett Avenue
Chula Vista, CA 91910

Office of Historic Preservation
1725 23rd Street, Suite 100
Sacramento, CA 95816

U.S. Environmental Protection Agency
Region 9 Pacific Southwest
Attn: Clifton Meek
75 Hawthorne Street
San Francisco, CA 94105

Bureau of Indian Affairs
Pacific Region
Attn: Dan Hall
2800 Cottage Way
Sacramento, CA 95825

Bureau of Indian Affairs
Southern California Agency
1451 Research Park Drive, Suite 100
Riverside, CA 92507

U.S. Army Corps of Engineers
Los Angeles Office
Attn: Stephanie Hall
915 Wilshire Boulevard
Los Angeles, CA 90017

NATIVE AMERICAN GROUPS

Viejas Band of Kumeyaay Indians
1 Viejas Grade Road
Alpine, CA 91901

Ewiiaapaayp Band of Kumeyaay Indians
4054 Willows Road
Alpine, CA 91901

La Posta Band of Diegueño Mission Indians
8 Crestwood Road
Boulevard, CA 91905

Manzanita Band of Kumeyaay Nation
P.O. Box 1302
Boulevard, CA 91905

Campo Band of Diegueno Mission Indians
36190 Church Road, Suite 1
Campo, CA 91960

Jamul Indian Village
P.O. Box 612
Jamul, CA 91935

San Pasqual Band of Diegueno Mission Indians
P.O. Box 365
Valley Center, CA 92082

Sycuan Band of the Kumeyaay Nation
1 Kwaaypaay Court
El Cajon, CA 92019

Mesa Grande Band of Diegueno Mission Indians
P.O. Box 270
Santa Ysabel, CA 92070

Kwaaymii Laguna Band of Mission Indians
P.O. Box 775
Pine Valley, CA 91962

Inaia-Cosmit Band of Indians
2005 S. Escondido Boulevard
Escondido, CA 92025

Kumeyaay Cultural Repatriation Committee
P.O. Box 507
Santa Ysabel, CA 92070

Iipay Nation of Santa Ysabel
P.O. Box 130
Santa Ysabel, CA 92070

Barona Band of Mission Indians
1095 Barona Road
Lakeside, CA 92040

INTERESTED GROUPS AND INDIVIDUALS

Oak Glen Park, LLC
Attn: Norm Sangalang
5694 Mission Center Road, #400
San Diego, CA 92108

Kheyrsten N. Maasch
15105 Olde Highway 80, #11
El Cajon, CA 92021

Robert Pierce
15105 Olde Highway 80, #13
El Cajon, CA 92021

David & Marilyn J. Boulton
15105 Olde Highway 80, #10
El Cajon, CA 92021

Stanley Anderson
1030 Channel Road
Lakeside, CA 92040

John W. Shirley
15105 Olde Highway 80, #14
El Cajon, CA 92021

Gary Blount
15105 Olde Highway 80, #12
El Cajon, CA 92021

Mark E. Cropp
15105 Olde Highway 80, #6
El Cajon, CA 92021

David L. Miller
15105 Olde Highway 80, #5
El Cajon, CA 92021

Raul Quintana
15105 Olde Highway 80, #3
El Cajon, CA 92021

Dustin L. Hart
15105 Olde Highway 80, #1
El Cajon, CA 92021

Robert B. McCommins
3100 Calle Grande Ves
San Clemente, CA 92672

Christina Whipple
864 N. 2nd St, #122
El Cajon, CA 92021

Maria Hodson
36536 Old Hwy 80
Pine Valley, CA 91962

Resident
15105 Olde Highway 80, #7
El Cajon, CA 92021

LOCAL SCHOOLS AND LIBRARIES

Blossom Valley Elementary School
9863 Oakmont Terrace
El Cajon, CA 92021

Cajon Valley Union School District
750 E. Main Street
El Cajon, CA 92020

Alpine Union School District
2001 Tavern Road
Alpine, CA 91901

The Heights Charter School
2710 Alpine Blvd E.
Alpine, CA 91901

Dehesa Elementary School District
4612 Dehesa Road
El Cajon, CA 92019

Mountain Empire Unified School District
3291 Buckman Springs Road
Pine Valley, CA 91962

El Cajon Library
201 E. Douglas Avenue
El Cajon, CA 92020

Campo-Morena Village Library
31356 Highway 94
Campo, CA 91906

Appendix B Title VI Policy Statement

STATE OF CALIFORNIA—CALIFORNIA STATE TRANSPORTATION AGENCY EDMUND G. BROWN Jr., Governor

DEPARTMENT OF TRANSPORTATION
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Making Conservation a California Way of Life.

April 2018

NON-DISCRIMINATION POLICY STATEMENT

The California Department of Transportation, under Title VI of the Civil Rights Act of 1964, ensures *"No person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance."*

Related federal statutes and state law further those protections to include sex, disability, religion, sexual orientation, and age.

For information or guidance on how to file a complaint, please visit the following web page: http://www.dot.ca.gov/hq/bep/title_vi/t6_violated.htm.

To obtain this information in an alternate format such as Braille or in a language other than English, please contact the California Department of Transportation, Office of Business and Economic Opportunity, 1823 14th Street, MS-79, Sacramento, CA 95811. Telephone (916) 324-8379, TTY 711, email Title.VI@dot.ca.gov, or visit the website www.dot.ca.gov.

LAURIE BERMAN
Director

"Provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability"

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Appendix C SHPO Concurrence Letter

State of California • Natural Resources Agency
Edmund G. Brown Jr., *Governor*

DEPARTMENT OF PARKS AND RECREATION
OFFICE OF HISTORIC PRESERVATION
Lisa Ann L. Mangat, *Director*

Julianne Polanco, State Historic Preservation Officer
1725 23rd Street, Suite 100, Sacramento, CA 95816-7100
Telephone: (916) 445-7000 FAX: (916) 445-7053
calshpo.ohp@parks.ca.gov www.ohp.parks.ca.gov

May 20, 2019

VIA ELECTRONIC MAIL

Reply in Reference To: CATRA_2019_0509_001

Mr. Glenn Gmoser, Acting Office Chief
Department of Transportation
Division of Environmental Analysis
Cultural Studies Office
P.O. Box 942874, MS 27
Sacramento, CA 94273-0001

Subject: Historic Property Survey Report for the Interstate 8 Culvert Repair Project, San Diego County, California.

Dear Mr. Gmoser:

The Office of Historic Preservation (OHP) received a letter from the California Department of Transportation (Caltrans) on May 7, 2019 initiating consultation with the State Historic Preservation Officer (SHPO) regarding the above referenced undertaking in compliance with Section 106 of the National Historic Preservation Act of 1966 (54 U.S.C. 470f), as amended, and its implementing regulations 36 CFR 800. A portion of the above referenced undertaking is located on lands within the La Posta Indian Reservation, and therefore the Caltrans January 1, 2014 *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* (Section 106 PA) does not apply. Caltrans' Public Resources Code (PRC) 5024 responsibilities for this project are being conducted in accordance with the January 2015 *Memorandum of Understanding between the California Department of Transportation and the California State Historic Preservation Officer regarding Compliance with Public Resource Code Section 5024 and Governor's Executive Order W-26-92* (PRC 5024 MOU). Caltrans included a Historic Properties Survey Report (HPSR), and attached Archaeological Survey Report (ASR) and Environmentally Sensitive Area (ESA) Implementation Action Plan.

Caltrans proposes to repair a total of 13 culverts (12 locations) along Interstate 8 in San Diego County. A total of five culverts are located within the La Posta Indian Reservation. Project activities include temporary access roads, guardrail upgrades, deposit removal, slope stabilization, rock slope protection work, end treatment, and debris removal. Caltrans has

defined the area of potential effects (APE) to encompass all geographic areas where direct or indirect effects to historic properties could occur.

Caltrans' efforts to identify historic properties likely affected by the undertaking included a records search, archaeological pedestrian survey, and Native American consultation, including consultation with the La Posta Band of Mission Indians. Efforts resulted in the following four archaeological resources requiring evaluation according to the National Register of Historic Places (NRHP) criteria:

- CA-SDI-22,460/P-37-037626: a small bedrock milling feature with at least one highly deteriorated slick area.
- CA-SDI-22,461/P-37-037627: a single bedrock milling feature with at least one deteriorated slick area.
- CA-SDI-22,498/P-37-037776: at least five bedrock milling features.
- CA-SDI-22,497/P-37-037775: at least ten bedrock milling features and two surface artifacts.

Native American consultation included contacting the Native American Heritage Commission (NAHC) and requesting a record search of their sacred lands file, which was positive. Caltrans sent letters to the tribal entities identified by the NAHC as having ancestral ties to the APE, and followed up with emails, facsimile, and telephone calls. According to the documentation submitted, Caltrans has been in active consultation with the La Posta Band of Mission Indians and will continue to do so for the life of the undertaking. To date, Caltrans has not received comment from consulting Native American tribes, groups and individuals regarding potential historic properties with tribal religious and cultural significance.

For the purposes of this undertaking only, and pursuant to Stipulation VIII.C.4 of the PRC 5024 MOU, Caltrans will assume CA-SDI-22,460, -22,461, -22,498, and -22,497 as eligible for listing on the NRHP under Criterion D because effects to these properties will be avoided through the establishment of an Environmentally Sensitive Area (ESA).

In applying the criteria of adverse effect set forth in 36 CFR §800.5(a)(1) and Stipulation X.A of the PRC 5024 MOU, Caltrans has concluded that the undertaking as currently proposed will result in a finding of no adverse effect pursuant to 36 CFR§800.5(b) and Stipulation X.B.1 of the PRC 5024 MOU because effects will be avoided through the establishment of an ESA. Caltrans has requested SHPO review and comment on their finding of effect for the proposed undertaking. After reviewing the submitted materials, the following comments are provided:

- Pursuant to 36 CFR §800.4(a)(1), I find Caltrans' documentation of the APE to be sufficient.
- Pursuant to 36 CFR §800.4(b), I find Caltrans' efforts to identify historic properties within the APE to be sufficient, and I do not object to Caltrans' assumption of eligibility of CA-SDI-22,460, -22,461, -22,498, and -22,497 under Criterion D of the NRHP.
- Pursuant to 36 CFR 800.5(b), I concur that a finding of *no adverse effect* is appropriate given the protection measures.

Be advised that under certain circumstances, such as an unanticipated discovery or a change in project description, Caltrans may have additional future responsibilities for this undertaking under 36 CFR Part 800 or Stipulation XIV.B of the PRC 5024 MOU. If you require further information, please contact State Historian Natalie Lindquist at 916-445-7014 or Natalie.Lindquist@parks.ca.gov or Associate State Archaeologist Alicia Perez at 916-445-7020 or Alicia.Perez@parks.ca.gov.

Sincerely,

Julianne Polanco
State Historic Preservation Officer

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Appendix D USFWS Biological Opinion

United States Department of the Interior
U.S. FISH AND WILDLIFE SERVICE
Ecological Services
Carlsbad Fish and Wildlife Office
2177 Salk Avenue, Suite 250
Carlsbad, California 92008

In Reply Refer to:
FWS-SDG-19B0083-19F0597

June 14, 2019
Sent electronically

Mr. David L. Nagy
Chief, Environmental Stewardship and Ecological Studies
California Department of Transportation – District 11
4050 Taylor Street
San Diego, California 92110

Attention: Mr. Michael Galloway, Associate Biologist

Subject: Formal Section 7 Consultation for the Interstate 8 Culvert Rehabilitation Project (Post Mile 23.7 to Post Mile 61.1), San Diego County, California

Dear Mr. Nagy:

This is in response to correspondence from the California Department of Transportation (Caltrans) dated October 30, 2018, requesting formal consultation for the Interstate 8 (I-8) Culvert Rehabilitation Project [Post Mile (PM) 23.7 to PM 61.1] and its potential effects on the federally endangered arroyo toad {a. southwestern t. [*Anaxyrus californicus* (*Bufo microscaphus c.*)]; arroyo toad} in accordance with section 7 of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*). The project is receiving Federal funding through the Federal Highway Administration (FHWA). Caltrans has assumed FHWA's responsibilities under the Act for this consultation in accordance with Renewed 23 U.S.C. 326 and 23 U.S.C. 327 and as described in the National Environmental Policy Act assignment Memorandum of Understanding between FHWA and Caltrans (effective October 1, 2012). We initiated consultation on November 5, 2018, the day we received your request for consultation.

Based on conservation measures committed to by Caltrans, we concur with your determination that the proposed project is not likely to adversely affect the federally endangered least Bell's vireo (*Vireo bellii pusillus*); designated critical habitat for the arroyo toad, and the federal candidate Hermes copper butterfly (*Lycaena hermes*) (Appendices A and B). Therefore, these species and critical habitat are not addressed in this biological opinion.

This biological opinion is based on information provided in: 1) *Interstate 8 Culvert Rehabilitation Project Biological Assessment* (BA; Caltrans 2018); 2) your October 30, 2018, letter requesting initiation of formal consultation; and 3) other sources of information including survey reports and email correspondence. A complete project file of this consultation is maintained at the Carlsbad Fish and Wildlife Office (CFWO).

CONSULTATION HISTORY

Early coordination between Caltrans and the CFWO occurred on the project. The following chronology reflects a summary of significant events.

February 27, 2018	The CFWO provided Caltrans a list of federally threatened and endangered species and their critical habitats expected to be present in or near the proposed action area.
July 18, 2018	Caltrans coordinated with the CFWO, via email, on recent survey results for arroyo toad and other listed species near the project.
August 9, 2018	The CFWO provided Caltrans an updated list of federally threatened and endangered species and their critical habitats expected to be present in or near the proposed action area.
November 5, 2018	Caltrans provided the CFWO a letter dated October 30, 2018, and the BA, requesting initiation of formal consultation for project impacts to the arroyo toad.
March 5, 2019	The CFWO requested, via email, additional information from Caltrans on project impacts.
March 6, 2019	Caltrans provided the requested information via email to the CFWO.
April 8, 2019	The CFWO requested and received additional information on temporary impact areas and arroyo toad habitat within the project footprint.
May 30, 2019	The CFWO provided a draft project description to Caltrans for review, including conservation measures to avoid and minimize impacts to the arroyo toad.
June 6, 2019	Caltrans provided responses to the draft project description, which are addressed in this final biological opinion.

BIOLOGICAL OPINION

DESCRIPTION OF THE PROPOSED ACTION

The project will repair 12 culverts along I-8 between PM 23.7, 0.7 mile west of the Flinn Springs Road Undercrossing, and PM 61.1, 0.2 mile east of the Crestwood Road Undercrossing, in east San Diego County, California (Figure 1). Culvert 1 is located in the unincorporated community of Flinn Springs adjacent to a mobile home park and other urban development. Culvert 2 is located adjacent to the Sweetwater River near Descanso in the Cleveland National Forest. Culverts 3, 4, and 5 are located upstream of Pine Valley Creek within the Cleveland National

Forest and undeveloped private lands. Culvert 6 is located adjacent to Cottonwood Creek within the Cleveland National Forest and sparsely developed private lands. Culverts 7-12 are located within and adjacent to the La Posta Indian Reservation and undeveloped private lands.

The project will restore the serviceability of 12 existing deteriorated culvert systems to prevent further deterioration of each pipe and prevent damage to the highway system. Proposed work includes paving of the invert, or bottom of the culvert, for three pipe culvert systems, alternative pipe lining for five pipe culvert systems, and outlet remediation with channel scour repair for six pipe culvert outlets. Work proposed for each culvert is described below and in Table 1:

Invert paving at Culvert 1 (PM 23.72), Culvert 6 (PM 48.30), and Culvert 12 (PM 61.10):

1. A concrete pump, concrete truck, and grouting machine will be used to clean the host pipe, grout the bottom of the pipe where corrosion has occurred, place rebar, place at least 4 inches of concrete at the bottom, and grout any hollow space around the host pipe.

2. Temporary access roads will be constructed at Culvert 1 and the outlet sides of Culverts 6 and 12.

3. At Culvert 1, the channel flowline will be realigned, excess deposited material will be removed, one to two mature cottonwood trees (*Populus fremontii*) will be removed from the channel, and rock slope protection will be placed in the channel along the embankment.

4. At Culvert 6, debris (i.e., rock, gravel, brush, wood branches, silt deposits) will be removed to access the inlet and outlet.

Alternative pipe lining (sliplining) at Culvert 2 (PM 37.35), Culvert 3 (3A at PM 39.99 and 3B at PM 40.01), Culvert 4 (PM 41.19), and Culvert 5 (PM 41.58):

1. Spiral wound cleaning will occur at some of the above-listed culverts, which involves a liner spool, winding machine, and grouting machine hydraulically or mechanically cleaning the host pipe, new pipe extrusion, and new pipe internal bracing; grouting the space between the new pipe and host pipe; and removing bracings. The remainder of the above-listed culverts will require cured-in-place pipe lining using a refrigerator truck with a resin impregnated liner and installation equipment at one end of the culvert and a winch at the other end to hydraulically or mechanically clean the host pipe, new pipe inversion, and new pipe curing.

2. Temporary access roads will be constructed at all culverts.

3. At Culverts 2 and 3, debris will be removed to access the inlet and outlet.

4. At Culvert 3, a new inlet side end treatment will be constructed using a backhoe, dump truck, and concrete truck.

Outlet remediation/energy dissipation at Culvert 7 (PM 57.41), Culvert 8 (PM 58.00), Culvert 9 (PM 58.65), Culvert 10 (PM 58.85), Culvert 11 (PM 59.05), and Culvert 12 (PM 61.10):

1. Existing rock/rip rap will be removed, the channel surface will be backfilled in eroded sections, filter fabric will be placed, and rock/rip rap will be replaced for slope protection.

2. Temporary access roads will be constructed at Culverts 11 and 12, and the outlet sides of Culverts 7, 8, and 10.

3. At Culverts 7, 8, 10, 11, and 12, about 37.5 feet of metal beam guardrail at each location will be removed for culvert access and will be replaced with the slightly taller Midwest Guardrail System after work at each location is complete.

The project will permanently impact 0.74 acre of wetland habitat consisting of southern coast live oak riparian forest (SCLORF), southern riparian scrub (SRS), and streambed at Culverts 1 and 7-12 (Table 1). Caltrans will offset permanent impacts with 1.73 acres of wetland credits at the Rancho San Diego Mitigation Bank in Jamul. The project will temporarily impact 1.36 acres of wetland consisting of SCLORF, SRS, and streambed, and 2.85 acres of upland habitat consisting of coastal sage scrub (CSS), chaparral, and oak woodland at Culverts 1-12. Of these temporary impacts, 0.9 acre of streambed and 1.66 acres of upland habitat consist of aestivating, dispersal, and foraging habitat suitable for the arroyo toad at Culverts 2–6. All temporary impacts, including those within arroyo toad aestivating, dispersal, and foraging habitat, will be restored in-kind following project construction.

Table 1. Work Proposed at Each Culvert and Anticipated Habitat Impacts

Culvert	PM	Proposed Work	Perm Wetland Impacts	Temp Wetland Impacts	Wetland Habitat Type	CSS-Chaparral Temporary Upland Impacts	Oak Woodland Temporary Upland Impacts
1	23.73	Invert paving, bank and channel stabilization, temporary access road	0.25	0.26	SCLORF	--	--
2	37.35	Alternative pipe lining, debris removal, temporary access road	--	0.17	Streambed	0.20	--
3A	39.99	Alternative pipe lining, temporary access road	--	0.10	Streambed	0.05	0.10
3B	40.01	Alternative pipe lining, invert repair, add end treatment, temporary access road	--	0.19	Streambed	0.45	--
4	41.19	Alternative pipe lining, invert repair, temporary access road	--	0.13	Streambed	0.39	0.05
5	41.58	Alternative pipe lining, temporary access road	--	0.21	Streambed	0.31	--
6	48.30	Invert paving, debris removal, temporary access road at outlet	--	0.10	Streambed	0.11	--
7	57.41	Outlet remediation, energy dissipation, temporary access road at outlet	0.08	0	Streambed	0.20	--
8	58.00	Outlet remediation, energy dissipation, temporary access road at outlet	0.14	0	Streambed	0.12	0.05
9	58.65	Outlet remediation, energy dissipation	0.07	0	Streambed	0.17	--
10	58.85	Outlet remediation, energy dissipation, temporary access road at outlet	0.08	0	Streambed	0.20	--
11	59.05	Outlet remediation, energy dissipation, temporary access road	0.06	0	Streambed	0.28	--
12A	61.10	Invert paving, embankment stabilization, temporary access road at outlet, temporary access road	0	0.10	SCLORF	0.17	--
12B	61.10	Invert paving, embankment stabilization, temporary access road at outlet, temporary access road	0.06	0.10	SRS	*(see total in 12A above)*	--
Total			**0.74**	**1.36**		**2.65**	**0.20**

Conservation Measures

Caltrans has agreed to implement the following conservation measures (CM) as part of the proposed action to avoid and minimize impacts to arroyo toads:

CM 1. A biologist (Project Biologist)[1] approved by the CFWO will be on site at Culverts 2, 3, 4, 5, and 6: a) during all vegetation clearing/grubbing; and b) weekly during project construction within 500 feet of arroyo toad habitat to monitor compliance with all conservation measures. Caltrans will submit the biologist's name, contact information, and work schedule on the project to the CFWO at least 15 working days prior to initiating project impacts. The Project Biologist will be provided with a copy of this consultation. The Project Biologist will be available during pre-construction and construction phases to address protection of sensitive biological resources, monitor ongoing work, and maintain communications with construction personnel to facilitate the appropriate and lawful management of issues relating to biological resources. The Project Biologist will report any non-compliance issue to the Resident Engineer and Caltrans Project Biologist such that work can be halted if necessary, and the issue can be discussed with the CFWO to ensure the proper implementation of species and habitat protection measures. The Caltrans Project Biologist will report all non-compliance issues to the CFWO within 1 business day of notification.

CM 2. Work within or adjacent to arroyo toad habitat (Culverts 2, 3, 4, 5, and 6) will occur between August 16 and February 28 to avoid the arroyo toad breeding season. Vegetation clearing may commence earlier in the fall if the Project Biologist demonstrates to the satisfaction of the CFWO that all breeding within adjacent habitat is complete.

CM 3. An arroyo toad translocation monitoring program will be developed and implemented for project work at Culverts 2, 3, 4, 5, and 6. The program will be provided to the CFWO for review and approval. The program will include the following requirements:

a. Prior to clearing, grubbing, and construction activities, the Project Biologist will monitor arroyo toad breeding activity in those project areas containing or adjacent to breeding habitat. The biologist will determine when egg clutches or larvae are no longer present in the waterway. When sign of breeding is no longer evident, an exclusionary fence will be installed and clearance surveys initiated.

b. Prior to clearing, grubbing, and construction activities, arroyo toad exclusionary fencing will be installed around the perimeter of all work areas

[1] The Project Biologist will have at least 30 hours of documented experience with locating and observation of arroyo toads and a minimum of 20 hours of documented field experience involving capture or handling of arroyo toads. If necessary, more than one biologist may be used.

within potential arroyo toad habitat with the exception of areas where topography is such that the Project Biologist, using his or her best judgment, believes that occupancy by arroyo toads is unlikely, and installation of toad fencing is not practical. In areas without water flows, the arroyo toad exclusion fence will consist of woven nylon fabric or similar material at least 2 feet high, staked firmly to the ground. In areas where soils are suitable for aestivation, the lower 1 foot of material will stretch outward along the ground and be secured with a continuous line of sandbags to prevent burrowing beneath the fence. Doubling this line (i.e., stacking sand or gravel bags two-deep) may reduce maintenance and should be considered in order to improve the integrity of the fencing. In areas where soils are not suitable for aestivation, (i.e., hardpack soils), fencing may be buried to reduce maintenance concerns and improve the integrity of the fencing over time. Mechanized installation of buried portions of the fencing may be considered as it may reduce foot-traffic and disturbance of adjacent habitat. In areas where there is existing or potential inundation, wire mesh held in place with t-posts and secured with sand or gravel bags should be utilized to allow for the passage of water flows without compromising the integrity of the fencing. A small amount of vegetation may be removed to facilitate installation of the fencing, so long as it is conducted without disturbing the soil in areas where soils are suitable for aestivation, and does not impact habitats to be avoided. In areas with challenging topography where arroyo toad occupancy is deemed unlikely by the Project Biologist, the limits of work will be clearly delineated using other means (e.g., stakes with bright orange flagging). Fence ends will tie into areas with challenging topography in a manner designed to keep toads out of the project footprint. Decisions on the appropriate fencing installation method for a given reach will be made by the Project Biologist. Fencing will be clearly visible to personnel on foot and operating heavy equipment. Caltrans will submit to the CFWO for approval, at least 5 days prior to initiating project impacts (except for impacts resulting from clearing to install arroyo toad exclusion fencing), the final plans for initial clearing and grubbing of habitat and project construction. These final plans will include photographs that show the fenced limits of impact, the flagged project limits in areas with challenging topography where occupancy was deemed unlikely, and all areas to be impacted or avoided. Arroyo toad exclusionary fencing will be maintained in good repair until the completion of project construction and removed upon project completion.

c. Prior to the initiation of construction activities, but after exclusionary fencing has been installed, a minimum of 6 consecutive night surveys for arroyo toads will be conducted within the fenced project area by the Project Biologist. Surveys will continue until there have been 2 consecutive nights without toads inside the fence. Arroyo toads will be excluded from the fenced project footprint before large-scale vegetation removal efforts

commence; however, some vegetation removal may occur to improve visibility for salvage of arroyo toads, so long as it is conducted without disturbing the soil and within the fenced project footprint. Surveys will be conducted during the appropriate climatic conditions and during the appropriate time of night to maximize the likelihood of encountering arroyo toads. If climatic conditions are not appropriate for arroyo toad movement during the surveys, the biologist may attempt to illicit a response from the arroyo toads, during nights (i.e., at least 1 hour after sunset) with temperatures above 10 degrees Celsius (50 degrees Fahrenheit), by spraying the project area with water to simulate a rain event. If it is not feasible to spray the entire project area with water then spraying would occur in the areas of greatest concern under the direction of the Project Biologist.

d. Capture methods will follow commonly accepted techniques for amphibian field sampling, including capture by hand and pitfall trapping. All pitfall traps will be covered or removed when clearance surveys are not occurring. Arroyo toads will be handled in an expedient manner with minimal harm. Captured arroyo toads will not be handled for more than 15 minutes. Any arroyo toad exhibiting signs of physiological distress will be immediately released in the most proximal and safe suitable habitat. Any arroyo toads captured will be checked for a Passive Integrated Transponder (PIT) tag with a PIT-tag reader by the Project Biologist.

e. If the exclusion fencing is found to be damaged during weekly monitoring conducted by the Project Biologist during the active season for the arroyo toad (March 1 to August 15), allowing arroyo toads access to the impact area, arroyo toad exclusion surveys will be repeated by the Project Biologist for a minimum of 3 consecutive nights prior to any additional construction activities occurring in the area.

f. The approved Project Biologist will monitor all groundbreaking activities that occur within areas demarcated with arroyo toad exclusion fencing to salvage and relocate arroyo toads and to quantify take of arroyo toads.

g. To avoid transferring disease or pathogens between aquatic habitats during surveys and handling of arroyo toads, the Project Biologist will follow the Declining Amphibian Population Task Force's Fieldwork Code of Practice (DAPTF 1998), or newer version when available.

h. American bullfrogs (*Lithobates catesbeianus*) and other exotic animal species that prey upon or compete with arroyo toads for resources will be excluded, destroyed, or otherwise permanently removed from the habitat by the Project Biologist if encountered.

i. The Project Biologist will maintain a complete record of all arroyo toads encountered and relocated in association with the project. The date and time of observation, sex, physical dimensions, PIT-tag code, coordinates/specific location of capture and release, and photographs (when possible) will be recorded and provided to the CFWO, within 30 days of the completion of translocation.

CM 4. All native or sensitive habitats outside and adjacent to the permanent and temporary construction limits will be designated as Environmentally Sensitive Areas (ESAs) on project maps. ESAs will be temporarily fenced during construction with orange plastic snow fence, orange silt fencing, or in areas of flowing water, with wire mesh, t-posts, and sand or gravel bags. This fencing may be combined with arroyo toad exclusionary fencing (CM 3) in areas where arroyo toad may occur. No personnel, equipment or debris will be allowed within the ESAs. Fencing and flagging will be installed in a manner that does not impact habitats to be avoided and such that it is clearly visible to personnel on foot and operating heavy equipment. Caltrans will submit to the CFWO for approval, at least 5 days prior to initiating project impacts (except for impacts resulting from clearing to install temporary fencing), the final plans for initial clearing and grubbing of habitat and project construction. These final plans will include photographs that show the fenced and flagged limits of impact and all areas to be impacted or avoided. If work occurs outside of these limits, the Project Biologist will request that the resident engineer halt work until the problem has been remedied. The Caltrans Project Biologist will notify the CFWO of the problem within 24 hours of its occurrence. Temporary construction fencing and markers will be maintained in good repair until the completion of project construction and removed upon project completion.

CM 5. Caltrans will submit a habitat restoration plan for temporary impact areas to the CFWO for review and approval at least 30 days prior to initiating project impacts. The plan will include the following information and conditions:

a. All habitat restoration sites will be prepared for planting in a way that mimics natural habitat to the maximum extent practicable. All plantings will be installed in a way that mimics natural plant distribution and not in rows.

b. Planting palettes (plant species, size, and number/acre) and seed mixes (plant species and pounds/acre) will be limited to locally native species (e.g., species found in or near the biological study area for the project). The source location of all plant material and seed will be provided to the CFWO prior to use in restoration activities.

c. Container plant survival will be 80 percent of the initial plantings for the first 5 years. At the first and second anniversary of plant installation, all

dead plants will be replaced unless their function has been replaced by plants from seed or natural recruitment.

d. A final implementation schedule will indicate when all impacts, as well as restoration planting and irrigation will begin and end.

e. The final restoration plan will include 5 years of success criteria for restoration areas including: percent cover, evidence of natural recruitment of multiple species for all habitat types, 0 percent coverage for all woody California Invasive Plant Council's (Cal-IPC's) "Invasive Plant Inventory" species (e.g., trees and shrubs), and no more than 10 percent coverage for other exotic/weed species.

f. A minimum 5 years of maintenance and monitoring of restoration areas, unless success criteria are met earlier and all artificial water supplies have been off for at least 2 years.

g. A qualitative and quantitative vegetation monitoring plan with a map of proposed sampling locations. Photo points will be used for qualitative monitoring and stratified-random sampling will be used for all quantitative monitoring.

h. Contingency measures in the event of restoration failure

i. Annual mitigation maintenance and monitoring reports will be submitted to the CFWO no later than December 1 of each year.

j. To minimize impacts to arroyo toads during maintenance of restoration areas, the following measures will be implemented:

    i. If restoration maintenance work is necessary within or directly adjacent to suitable arroyo toad breeding habitat during the active season for the arroyo toad (March 1 to August 15), while water is flowing or has ponded in the area, the Project Biologist will monitor potential arroyo toad breeding habitat to determine whether egg clutches, larvae, or juveniles are present. If eggs, larvae, or juvenile arroyo toads are found, restoration maintenance work will not occur in the area until signs of breeding are no longer evident.

    ii. Restoration maintenance work during rain events will be avoided to the greatest extend feasible as arroyo toads may become active during rain events and work may result in sedimentation into breeding habitat. To ensure that restoration work is completed in a timely fashion, work may continue during a light or intermittent rain, if the Project Biologist, using his/her best judgment, determines that increased impacts to arroyo toads are unlikely.

iii. Either arroyo toad exclusion fencing will be maintained around restoration areas for the duration of restoration maintenance work, or the following measure will be implemented: All earth disturbing activities conducted for restoration work (e.g., irrigation repairs, replanting) where there is potential for the presence of aestivating arroyo toads (i.e., sandy, friable soils) will be monitored by the Project Biologist who will ensure that impacts to arroyo toads are avoided to the greatest extent feasible by either: 1) Overseeing earth disturbing activities (e.g., excavation of planting basins, irrigation repairs) in potential aestivation areas and ensuring that hand tools are used to a depth of 1 foot such that arroyo toads are detected and salvaged if present; or 2) Conducting preconstruction translocation surveys and directing work away from observed arroyo toads, or relocating arroyo toads to suitable habitat away from the immediate work area.

iv. If arroyo toad exclusion fence is removed, transportation of materials for restoration maintenance work within suitable habitat will be conducted on foot, or with lightweight all-terrain vehicles and/or small gators with trailers. If possible, equipment used will have soft tires with minimal tread and a wide wheel base to better distribute weight and reduce soil disturbance. Vehicle speed will not exceed 15 miles per hour.

CM 6. Any culvert sliplining or other culvert work that may result in increased turbidity or material leakage downstream of the culvert will occur with no water flow present in the culverts and adjacent channels. If a noticeable spill occurs, the spill will immediately be contained, contaminated soil will be placed in barrels and removed from the site, and the spill will be documented and reported to the CFWO.

CM 7. An employee education program will be developed and implemented by the Project Biologist. Each employee (including temporary, contractors, and subcontractors) will receive a training/awareness program prior to working on the proposed project. They will be advised of the potential impact to the listed species and the potential penalties for taking such species. At a minimum, the program will include the following topics: occurrence of the listed and sensitive species in the area (including photographs), their general ecology, sensitivity of the species to human activities, legal protection afforded these species, penalties for violations of Federal and State laws, reporting requirements, and project features designed to reduce the impacts to these species and promote continued successful occupation of the project area.

CM 8. During project construction (excluding the plant establishment period, which will be addressed in the restoration plan) all invasive species included on the National Invasive Species Management Plan, the State of California Noxious Weed List, and the California Invasive Plant Council's Invasive Plant Inventory list (Cal-IPC

2006) found growing within the project impact area will be identified and removed at least once a month. Special care will be taken during transport, use, and disposal of soils containing invasive weed seeds and all weedy vegetation removed during construction will be properly disposed of to prevent spread into areas outside of the construction area. All heavy equipment will be washed and cleaned of debris prior to entering a new area to minimize the spread of invasive weeds.

CM 9. If nighttime construction is necessary, all project lighting (e.g., staging areas, equipment storage sites, roadway) will be of the lowest illumination necessary for human safety, selectively placed, and directed onto the construction site and away from sensitive habitats. Light glare shields will be used to reduce the extent of illumination into sensitive habitats.

CM 10. A construction Storm Water Pollution Prevention Plan (SWPPP) and soil erosion and sedimentation plan will be developed to identify best management practices that will be implemented during construction to minimize erosion, prevent sediment and debris from entering drainages, and maintain water quality. Sediment will not be stockpiled in areas where arroyo toads might burrow into the loose material, or where material could be washed into drainages by rainfall. Erosion and sediment control devices used for the proposed project, including fiber rolls and bonded fiber matrix, will be made from biodegradable materials such as jute, with no plastic mesh, to avoid creating a wildlife entanglement hazard.

CM 11. All equipment maintenance, staging, and dispensing of fuel, oil, coolant, or any other such activities will be restricted to designated areas located within previously disturbed upland. They will be located such that runoff from the designated areas will not enter arroyo toad breeding habitat.

CM 12. Impacts from fugitive dust will be minimized through watering and other appropriate measures.

CM 13. The project site will be kept as clear of debris as possible. All food-related trash items will be enclosed in sealed containers and regularly removed from the site.

CM 14. If fill must be borrowed from, or disposed of offsite, the construction contractor will identify any necessary borrow and disposal sites and provide this information to Caltrans for review. Caltrans will review borrow and disposal site information and submit the information to the CFWO. If borrow or disposal activities may affect a listed species or critical habitat, Caltrans will reinitiate section 7 consultation.

CM 15. Project personnel will be prohibited from bringing domestic pets to construction sites to ensure that domestic pets do not disturb or depredate wildlife in adjacent native habitats.

CM 16. The Project Biologist will submit monthly email reports (including photographs of impact areas) to the Caltrans Project Biologist during clearing of, and

construction within, 500 feet of arroyo toad habitat. The monthly reports will document that authorized impacts were not exceeded and general compliance with all conditions. The reports will also outline the location of construction activities, the type of construction that occurred, and equipment used. These reports will specify numbers and locations, and sex of listed species (if observed), their observed behavior (especially in relation to construction activities), and remedial measures employed to avoid and minimize impacts to these species. Raw field notes should be available upon request by the CFWO. The Caltrans Project Biologist will review reports and forward them to the CFWO.

CM 17. The Project Biologist will submit a final report to the Caltrans Project Biologist within 120 days of project completion including photographs of impact areas and adjacent habitat, documentation that authorized impacts were not exceeded, and documentation that general compliance with all conservation measures was achieved. The report will specify numbers and locations of listed species (if observed); observed listed species behavior (especially in relation to project activities); and remedial measures employed to avoid and minimize impacts to listed species and critical habitat. Raw field notes should be available upon request by the CFWO. The Caltrans Project Biologist will review the report and forward it to the CFWO within 15 days of receipt.

Action Area

According to 50 CFR § 402.02 pursuant to section 7 of the Act, the "action area" means all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action. Subsequent analyses of the environmental baseline, effects of the action, and levels of incidental take are based upon the action area. For this project, we have defined the action area to be the project impact area at Culverts 2-6 and surrounding habitat within about 500 feet, which may be exposed to project-related effects such as increased noise, light, and dust levels and human activity during project construction.

STATUS OF THE SPECIES

An estimated 23 populations of arroyo toad are known in the United States, from Monterey County south to Baja California, Mexico (Service 2009). These populations persist primarily as small, isolated populations in the headwaters of streams. The current distribution of the arroyo toad in the United States is from the Salinas River Basin in Monterey County, south to the Tijuana River and Cottonwood Creek Basin along the Mexican Border. Arroyo toads are also known from a seemingly disjunct population in the Arroyo San Simeon River System, about 10 miles (mi) southeast of San Quintín, Baja California, Mexico (Gergus *et al*. 1997). Although the arroyo toad occurs principally along coastal drainages, it also has been recorded at several locations on the desert slopes of the Transverse range (Patten and Myers 1992; Jennings and Hayes 1994). In the vicinity of the action area, the arroyo toad is known to occur in the Sweetwater River, Pine Valley Creek, and Cottonwood Creek within the Southern Recovery Unit of the recovery plan (Service 2009, 2011).

Arroyo toads typically breed from February to July on streams with persistent water (Griffin *et al*. 1999). Eggs hatch in 4 to 5 days, and the larvae are essentially immobile for an additional 5 to 6 days. Larvae then begin to disperse from the pool margin into the surrounding shallow water, where they spend an average of 10 weeks. After metamorphosis (June-July), the juvenile toads remain on the bordering gravel bars until the pool no longer persists (usually from 8 to 12 weeks depending on site and yearly conditions; Sweet 1992).

During the non-breeding season, arroyo toads seek shelter during the day, and other periods of inactivity, by burrowing into the sandy areas of upland terraces. They also use the marginal zones between stream channels and upland terraces for burrowing, especially during late fall and winter (Sweet 1992). Upland habitats frequently used include, but are not limited to, chaparral, native and non-native grasslands, and oak woodlands (Service 1999). Disturbed areas with friable (loose) soils may also be used for aestivation/foraging. At night, arroyo toads forage in the habitat surrounding a watercourse for native ants and beetles (Service 1999). Juveniles and adult toads may range up to 1.2 miles from the watercourse into the surrounding uplands (Service 1999). In addition, arroyo toads have been observed to move 0.7-0.8 mile in a stream course within a season (Service 2005).

Threats to arroyo toad populations at the time of listing included stream alteration, urban and rural development, mining, recreation, grazing, drought, wildfire, large flood events, and presence of exotic animal and plant species (Service 1994). Threats to the arroyo toad identified subsequent to the listing are the amphibian chytrid fungus (*Batrachochytrium dendrobatidis*) and wildfire suppression activities (Service 2009). Conservation needs, as described in the arroyo toad recovery plan, include protecting and managing breeding and non-breeding habitat throughout the range of the species, monitoring existing populations to ensure recovery actions such as removal of exotic species are successful, identifying additional toad habitat and populations, obtaining research data to guide management efforts, and conducting outreach and public education regarding the toad.

For more detailed information on arroyo toad biology, ecology, rangewide status, threats, and conservation needs, please refer to the species' recovery plan (Service 1999) at and the most recent 5-year review for this species (Service 2009).

ENVIRONMENTAL BASELINE

Regulations implementing the Act (50 CFR §402.02) define the environmental baseline as the past and present impacts of all Federal, State, or private actions and other human activities in the action area. Also included in the environmental baseline are the anticipated impacts of all proposed Federal projects in the action area that have undergone section 7 consultation and the impacts of State and private actions that are contemporaneous with the consultation in progress.

Site Characteristics and Surrounding Land Uses

The action area is spread out over 5 culverts on the I-8 in mostly rural undeveloped areas within the Caltrans right-of-way and adjacent public and private lands (Figure 2). Culvert 2 occurs

adjacent to the Sweetwater River near Descanso in Cleveland National Forest. Culvert 3, 4, and 5 occur upstream of Pine Valley Creek within Cleveland National Forest and undeveloped private lands. Culvert 6 is located adjacent to Cottonwood Creek within Cleveland National Forest and sparsely developed private lands. Habitat types in the vicinity of Culverts 2-6 include freshwater ponds, chaparral, oak woodland, and developed habitats (Caltrans 2018).

Status of the Arroyo Toad within the Action Area

Arroyo toad surveys were not conducted for the project, but arroyo toads have been detected upstream and/or downstream of all the culverts within the action area (Figure 2). Auditory surveys in 2001 detected several arroyo toads adjacent to two proposed bridge replacement projects about 1.3 to 2 miles upstream of Culvert 2 (RECON 2001a, 2001b). During construction of one of the bridge replacement projects in 2008, 8 arroyo toads were found and translocated to unimpacted areas upstream or downstream (Cadre Environmental 2008).

Surveys in Pine Valley Creek and Horsethief Canyon have consistently detected arroyo toads upstream and downstream of I-8 in Cleveland National Forest about 1.5 mile, 0.5 mile, and 0.25 mile away from Culverts 3, 4, and 5, respectively (AMEC 2003, USFS 2001a, USFS 2002a). Surveys in 2000 and 2001 detected one adult in Horsethief Canyon and one adult in Pine Valley Creek about 5 miles downstream of Culvert 3 (USFS 2001a). One arroyo toad was detected in Pine Valley Creek in 2002 just downstream of the I-8 bridge over the creek, within about 0.25 mile of Culvert 5 (AMEC 2003). About 1 mile upstream of Culvert 5, surveys have detected 4 adults in 1998, one adult in 1999, 24 adults, in addition to eggs and juveniles, in 2001, and 6 adults in 2002 (Holland and Sisk 2001, USFS 2002a, 2002b).

Culvert 6 is located adjacent to Cottonwood Creek in an area about 2.5 to 3.5 miles upstream of several arroyo toad detections between 1999 and 2007 (Holland and Sisk 2001, USFS 2001b, USFS 2005, TAIC 2005, Helix 2008). Surveys about 3 miles downstream of Culvert 6 detected 29 arroyo toads in 1999 and 3 arroyo toads in 2000 (USFS 2001b, USFS 2005). Auditory surveys in 2005 and 2010 detected several adult arroyo toads along Cottonwood Creek near Buckman Springs Road about 3.5 miles downstream of Culvert 6 (TAIC 2005, Chambers Group, Inc. 2011). Surveys in 2007 detected adults within about 2.5 miles of Culvert 6 (HELIX 2008). Surveys in 2011 detected one arroyo toad juvenile just downstream of the Buckman Springs Road bridge, about 3.75 miles downstream of Culvert 6 (RECON 2011).

The project footprint at Culverts 2-6 supports suitable aestivation, dispersal, and foraging habitat for the arroyo toad. The wetland habitat within the project footprint is not considered to be suitable for arroyo toad breeding because it lacks shallow pools or surface water with slow-moving flows that persist at least 2 months (Service 1999). The culverts themselves are not likely to be used for arroyo toad dispersal because most are long and steeply inclined and/or do not support suitable habitat on each end (Galloway 2019, pers. comm.). However, the wetland and upland habitat within the action area supports potential arroyo toad aestivation, dispersal, and foraging habitat. Though occupied areas detected in past surveys are up to several miles upstream/downstream of Culverts 2-6, juvenile and adult arroyo toads may disperse to the project footprints at Culverts 2-6 in wet years.

EFFECTS OF THE ACTION

Effects of the action refer to the direct and indirect effects of an action on the species, together with the effects of other activities that are interrelated and interdependent with that action, which will be added to the environmental baseline. Interrelated actions are those that are part of a larger action and depend on the larger action for their justification. Interdependent actions are those that have no independent utility apart from the action under consideration. Indirect effects are those that are caused by the proposed action, are later in time, and still reasonably certain to occur.

Direct Effects

Though project surveys for arroyo toad have not been conducted, the action area is adjacent and connected to several arroyo toad detections upstream and/or downstream. Arroyo toads may occur within the project footprint for Culverts 2-6, especially in wet years when arroyo toads are more likely to disperse further from consistently occupied breeding habitat. The project will temporarily impact a total of 0.9 acres of wetland (streambed) and 1.66 acres of upland (CSS, chaparral, and oak woodland) habitat suitable for arroyo toad aestivation, dispersal, and foraging at Culverts 2-6 (Table 1), resulting in a temporary loss of arroyo toad habitat. However, impacts will be restored following construction, and will be maintained and monitored for at least 5 years.

Quantifying the number of arroyo toads within the project footprint is difficult for a number of reasons. The exact distribution and population size is difficult to estimate due to the dynamic conditions associated with their habitat. Suitable habitat may change from year to year depending on climatic conditions, flooding, or other natural or human-related events (Service 1999), which in turn influence reproductive success and juvenile survival. Therefore, it is anticipated that the arroyo toad population subject to impacts from the project will experience population fluctuations making it difficult to determine the precise number of arroyo toads that could be adversely affected at any given time.

In addition, except during the early juvenile stage (first 4-5 weeks), arroyo toads forage at night and burrow during the day. Nocturnal activity is usually associated with rainfall and moderate temperatures and some nights of very high relative humidity (Service 1999). Juveniles and adult toads may range up to 1.2 miles from the watercourse into the surrounding uplands (Service 1999). Therefore, detection of arroyo toads outside of the breeding season is very difficult, with limited ability for anticipating when the species may be active. Lastly, no reliable survey method exists for determining the locations or densities of arroyo toads that may be burrowed within upland habitat.

Due to these constraints, the precise number of arroyo toads that may be located within the project area is not known. As discussed in the *Environmental Baseline* section, protocol arroyo toad surveys have not been conducted within the project area, but arroyo toads have been detected either upstream or downstream of Culverts 2-6. Therefore, it is possible that the project footprint may support aestivating, dispersing, and/or foraging juvenile and adult arroyo toads following wet winters.

Because project work at Culverts 2-6 will occur outside the arroyo toad breeding season (March 1 to August 15), and most of the project footprint is not immediately adjacent to known breeding habitat, arroyo toads occurring within the project footprint are likely to be relatively dispersed. Based on the numbers of arroyo toads that have previously been detected about 1.3 miles upstream of Culvert 2 in Sweetwater River, and because Culvert 2 is only about 0.2 mile away from the river, we estimate that up to two arroyo toads may occur within the project footprint at Culvert 2. Culvert 3 is further away from previously documented arroyo toad breeding habitat in Pine Valley Creek and Horsethief Canyon (about 1.5 to 5 miles), and only low numbers of arroyo toads have been detected downstream. Therefore, we estimate that no more than one arroyo toad may occur within the project footprint at Culvert 3. Culverts 4 and 5 are located in close proximity to Pine Valley Creek (0.5 and 0.25 mile, respectively) where arroyo toad adults, eggs, and juveniles have been detected downstream and/or upstream of I-8. Therefore we estimate that up to two and three arroyo toads may occur within the project footprint at Culverts 4 and 5, respectively. Cottonwood Creek has also consistently supported occupied arroyo toad habitat about 2.5 to 3.5 miles downstream of Culvert 6. Based on the numbers of arroyo toads that have been detected downstream in previous surveys and the distance from known occupied habitat to Culvert 6, we estimate that up to two arroyo toads may occur within the project footprint at Culvert 6.

The project has incorporated measures to avoid and minimize impacts to arroyo toads. These measures include construction at Culverts 2-6 outside the arroyo toad breeding season, installation of arroyo toad exclusion fencing, surveys, and translocation of individuals out of the fenced project footprint to proximal and safe suitable habitat. In addition, if there is no natural rainfall, the Project Biologist will try to encourage toads within the fenced project footprint to surface by spraying the project area with water to simulate a rain event. If it is not feasible to spray the entire project area with water, spraying will occur in the areas of greatest concern under the direction of the approved Project Biologist. Up to 10 individual arroyo toads may be captured and relocated out of the project footprint. We estimate that up to three individuals in the project footprint (about a quarter of those present in the project footprint) will go undetected and will be killed or injured (i.e., crushed) during earth-disturbing activities and grading. However, because arroyo toads in the project footprint are likely to be burrowed underground, it will make it difficult to observe and document death or injury from construction activities. Therefore, we anticipate that no more than one individual will be observed killed or injured as a result of construction-related activity.

There is also the potential for arroyo toads to be killed, injured, or stressed during capture and relocation efforts. However, trapping and relocation efforts will be conducted by individuals familiar with arroyo toad biology and ecology, whose qualifications will be subject to review by the Service. The Project Biologist will also follow the Declining Amphibian Population Task Force's Fieldwork Code of Practice (DAPTF 1998) to avoid transferring disease or pathogens between aquatic habitats during surveys and handling of arroyo toads. Therefore, we anticipate that very few arroyo toads (no more than one) will be killed or injured during capture and relocation efforts. Because a large amount of suitable arroyo toad aestivation, dispersal, and foraging habitat will remain near the action area after project construction, the translocation of

toads within the impact area to adjacent suitable habitat is not anticipated to result in adverse impacts associated with intraspecific competition.

Based on the limited extent of the project footprint and the implementation of conservation measures, the number of individuals impacted by the project will be low and is not likely to result in an appreciable reduction in the reproduction, numbers, or distribution of the arroyo toad population in the project vicinity or the species as a whole. In addition, temporarily impacted habitat will be restored upon project completion, and because arroyo toads are not dependent on mature vegetation, we expect temporarily impacted areas to be re-occupied shortly following project completion.

Indirect Effects

Habitat suitable for arroyo toad breeding, aestivation, foraging, and dispersing is within the potential indirect impact area of project construction. Indirect impacts could result in degradation of occupied arroyo toad habitat, but arroyo toads are still anticipated to breed, forage, aestivate, and disperse in suitable habitat within the area of indirect effects.

Implementation of the project has the potential to increase pollution and siltation as a result of sediment moving, grading, and operating heavy equipment in proximity to adjacent waterways. Changes to water quality in adjacent arroyo toad breeding habitat could result due to construction-related sedimentation and pollution. Increased sedimentation has the potential to kill arroyo toad eggs and larvae through asphyxiation (Sweet 1992; Service 1999). Changes to the water quality (temperature and chemical composition) can lead to reduced oxygen uptake, reduced feeding, and a general decline in species health, which can lead to disease, decreased growth and reproduction, or death. To minimize the potential for water quality impacts to adjacent waterways from the project, measures will be implemented to prevent construction-related siltation and runoff from entering the creek. A SWPPP and soil erosion and sedimentation plan will be developed to identify best management practices that will be implemented during construction to minimize erosion, prevent sediment and debris from entering drainages, and maintain water quality. To avoid increases in pollution, staging areas will be located such that runoff from the designated areas will not enter arroyo toad breeding habitat. Culvert sliplining and other work that may result in increased turbidity or material leakage will occur when no water flow is present in the culvert or adjacent channels. In addition, sediment will not be stockpiled in areas where arroyo toads might burrow into the loose material, or where material could be washed into drainages by rainfall. Implementation of these conservation measures are anticipated to minimize the impacts of pollution and siltation resulting from project implementation on arroyo toad habitat to the point where such effects are insignificant.[2]

Some project work may be conducted at night and would use construction lighting that could impact the adjacent arroyo toad habitat. Light that alters natural light patterns in ecosystems can lead to increased predation, disorientation, and disruption of inter-specific interactions (Longcore

[2] For the purposes of section 7 consultation, an insignificant effect is one that is sufficiently small that a person would not be able to meaningfully measure, detect, or evaluate it.

and Rich 2004). Night lighting for construction will be of the lowest illumination necessary for human safety, directed at the immediate work area, and away from adjacent sensitive habitats. Light glare shields will be used to reduce the extent of illumination into sensitive habitats. With implementation of these measures we anticipate that the effects of lighting on arroyo toads will be minimized to the point where such effects are insignificant.

The project could result in an increase in the introduction of invasive plant species into native habitats adjacent to the facility. Invasive species are now recognized as a threat to biodiversity in native plant communities, second only to direct habitat loss and fragmentation (Pimm and Gilpin 1989; Scott and Wilcove 1998). Non-native, weedy species often out-compete and exclude native species, potentially altering the structure of the vegetation, degrading or eliminating habitat utilized by the arroyo toad, and providing food and cover for undesirable non-native animals (Bossard *et al*. 2000; Service 2009). The project has incorporated measures to prevent the spread of invasive species. During project construction, invasive species found growing within the project impact area will be identified and removed at least once a month, and landscaping for the project will be limited to locally native species. Implementation of these conservation measures are anticipated to minimize the impacts of invasive species introduction resulting from project implementation on arroyo toad habitat to the point where such effects are insignificant.

Additional indirect effects include increased construction noise and vibration, and human encroachment by construction personnel. Noise and vibration associated with the use of heavy equipment during construction has the potential to result in disruption of arroyo toad behaviors in adjacent habitat; however, this disturbance would be temporary and work at Culverts 2-6 will occur outside the arroyo toad breeding season. Human activity in the project area during construction may result in accumulation of trash and food, attracting predators that may prey on arroyo toads. However, the project measures require that trash and debris be removed from the site regularly to avoid attracting predators. Also, temporary fencing will be installed along the project footprint during construction which should limit encroachment into adjacent habitat by construction personnel. With implementation of these measures we anticipate that these effects will be minimized to the point where such effects are insignificant.

Habitat Restoration

Restoration of temporary impact areas will occur on a total of 2.56 acres of arroyo toad habitat suitable for aestivation, dispersal, and foraging. There is the possibility that arroyo toads could be killed or injured during restoration activities, such as planting container plants and weeding. The project has incorporated measures to minimize impacts to arroyo toads from restoration activities. If maintenance of restoration areas is necessary within or directly adjacent to suitable arroyo toad breeding habitat during the March 1 to August 15 arroyo toad active season while water is flowing or has ponded in the area, the Project Biologist will monitor potential arroyo toad breeding habitat to determine whether egg clutches, larvae, or juveniles are present. If eggs, larvae, or juvenile arroyo toads are found, restoration maintenance work will not occur in the area until signs of breeding are no longer evident. Restoration maintenance work will be avoided during rain events to limit sedimentation into breeding habitat. Restoration activities will be

conducted on foot, or with lightweight all-terrain vehicles and/or small gators with trailers, with soft tires with minimal tread and a wide wheel base and low vehicle speeds, to better distribute weight and reduce soil disturbance. In addition, either arroyo toad exclusion fencing will be maintained around restoration areas for the duration of restoration maintenance work, or earth disturbing activities conducted for restoration work (e.g., irrigation repairs, replanting) where there is potential for presence of aestivating arroyo toads (i.e., sandy, friable soils) will be monitored by the Project Biologist to ensure that impacts to arroyo toads are avoided to the greatest extent feasible.

As described in the *Direct Effects* section, it is difficult to predict the number of arroyo toads that may occur within the temporary impact areas. We anticipate that no more than one juvenile or adult arroyo toad (i.e., greater than 1 inch snout-vent-length) will be observed dead or injured as a result of the habitat restoration. The long-term benefit of the habitat restoration activities will substantially outweigh the potential death or injury of a small number of arroyo toads from these activities.

Effect on Recovery

The project will result not result in any permanent impacts to arroyo toad habitat, and will only temporarily impact a small amount (about 2.56 acres) of habitat suitable for aestivating, foraging, and dispersing within the Southern Recovery Unit. Temporary impacts will be restored following construction and maintained and monitored for a minimum of 5 years. Other potential impacts to the arroyo toad will be minimized by offsetting measures that are consistent with the recovery objectives identified in the recovery plan for the arroyo toad (Service 1999). The project will help accomplish the recovery task 1 of the arroyo toad recovery plan, which is to secure existing populations by "protecting, maintaining, restoring, and enhancing breeding and upland habitats" (Service 1999). This will be accomplished by translocating arroyo toads out of the project footprint to minimize direct impacts and restoring temporary impacts to arroyo toad habitat following construction.

CUMULATIVE EFFECTS

Cumulative effects include the effects of future State, Tribal, local, or private actions that are reasonably certain to occur in the action area considered in this biological opinion. Future Federal actions that are unrelated to the proposed action are not considered in this section because they require separate consultation pursuant to section 7 of the Act. We are unaware of any future non-Federal actions that are reasonably certain to occur within the action area and may affect arroyo toads.

CONCLUSION

After reviewing the current status of the arroyo toad, the environmental baseline for the action area, effects of the proposed action, and the cumulative effects, it is our biological opinion that the

proposed action is not likely to jeopardize the continued existence of the arroyo toad. We reached this conclusion by considering the following:

1. The project will only result in temporary impacts (about 2.56 acres) to arroyo toad habitat and impacts will be restored following project construction.

2. Injury and death of aestivating arroyo toads will be minimized by installing exclusionary fencing around the project impact area, surveying for arroyo toads within all fenced areas, and relocating any arroyo toads found within the fenced areas to suitable habitat outside of the project impact area.

3. The capture and translocation, death, or injury of the arroyo toads in the project footprint and the impact to 2.56 acres of arroyo toad habitat within the project area are not expected to appreciably reduce the numbers, reproduction, or distribution of the arroyo toad in the action area or throughout the species' range.

INCIDENTAL TAKE STATEMENT

Section 9 of the Act and Federal regulation pursuant to section 4(d) of the Act prohibit the take of endangered and threatened species, respectively, without special exemption. Take is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or attempt to engage in any such conduct. Harm is further defined to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing essential behavior patterns, including breeding, feeding, or sheltering. Harass is defined as intentional or negligent actions that create the likelihood of injury to listed species to such an extent as to significantly disrupt normal behavior patterns which include, but are not limited to, breeding, feeding, or sheltering. Incidental take is defined as take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity. Under the terms of Section 7(b)(4) and 7(o)(2) of the Act, taking that is incidental to and not intended as part of the proposed action is not considered to be prohibited taking under the Act provided that such taking is in compliance with the terms and conditions of this incidental take statement.

The measures described below are non-discretionary, and must be undertaken by Caltrans for the exemption in section 7(o)(2) to apply. Caltrans has the continuing duty to regulate the activity that is covered by this incidental take statement. If Caltrans fails to 1) adhere to the terms and conditions of the incidental take statement through enforceable terms that are added to the permit or grant document, and/or 2) retain oversight to ensure compliance with these terms and conditions, the protective coverage of section 7(o)(2) may lapse.

To monitor the impact of the incidental take, Caltrans must report the progress of the action and its impact on the species to the CFWO as specified in the incidental take statement [50 CFR §402.14(i)(3)].

AMOUNT OR EXTENT OF TAKE

The exact distribution and population size of arroyo toads is difficult to determine due to the dynamic conditions associated with their habitat and biology and because detection of arroyo toads outside of the breeding season is difficult. In addition, finding dead or injured arroyo toads within the construction area is unlikely as the individuals may be underground during construction activities, and the species is cryptic making them difficult to recognize or detect.

Because we do not have site specific data regarding the density of arroyo toads at this location, it is difficult to accurately quantify the amount of take that will occur. Nevertheless, based on the best available scientific information, we have established the following take thresholds for arroyo toad:

1. Death or injury of up to three adult arroyo toads from the temporary removal of 2.56 acres of arroyo toad aestivation, foraging, and dispersal habitat. Because it is likely that few, if any, of these arroyo toads will be observed, the amount or extent of incidental take will be exceeded if more than the specified amount of habitat is cleared/graded or if more than one arroyo toad is found dead or injured as a result of project activities; or

2. Capture and relocation of up to 10 arroyo toads within the construction footprint. Incidental take will be exceeded if more than 10 arroyo toads are captured and relocated; or if more than one arroyo toad is accidentally killed or injured as a direct result of capture and relocation efforts; or

3. Observed death or injury of up to one arroyo toad associated with restoration of temporary impact areas. Incidental take will be exceeded if more than one arroyo toad is observed dead or injured in association with restoration activities.

EFFECT OF TAKE

In the accompanying biological opinion, we determined that this level of anticipated take is not likely to result in jeopardy to the arroyo toad.

REASONABLE AND PRUDENT MEASURES

Caltrans is implementing significant conservation measures as part of the proposed action to minimize the incidental take of arroyo toads. In addition, the following reasonable and prudent measure is necessary to monitor and report the take of arroyo toads:

1. Caltrans will monitor and report any project-related incidental take of arroyo toads to the CFWO.

TERMS AND CONDITIONS

To be exempt from the prohibitions of section 9 of the Act, Caltrans must comply with the following terms and conditions, which implements the reasonable and prudent measure described above. These terms and conditions are non-discretionary.

1.1 Within 30 calendar days of the completion of project activities within arroyo toad habitat, Caltrans will provide the CFWO with a report documenting the area of arroyo toad habitat impacted, the number of dead or injured toads observed in the action area, and the number of arroyo toads captured and released. The report will include information on the gender, life history stage, and general condition of all arroyo toads that were killed, injured, and captured/released. It will also include an assessment of how or why arroyo toads may have been injured or killed and information on where toads were captured and released and observed physiological responses of relocated arroyo toads.

1.2 Caltrans will include any observations of arroyo toads and potential effects to arroyo toads in annual reports describing the progress of the temporary impact area restoration.

1.3 Caltrans will report incidences of take (observed death or injury or capture and relocation of arroyo toads) to the CFWO within 3 days. All field notes and other documentation generated by the biological monitor will be made available to the CFWO upon request.

1.4 If the level of take exempted in this biological opinion is exceeded at any time, the CFWO-approved biologist will immediately contact the CFWO.

DISPOSITION OF SICK, INJURED, OR DEAD SPECIMENS

Upon locating dead, injured, or sick individuals of threatened or endangered species, initial notification must be made to our Division of Law Enforcement in either San Diego, California, at 619-557-5063 or in Torrance, California, at 310-328-6307 within 3 working days. Notification should also be sent by telephone and writing to this office in Carlsbad, California, at 2177 Salk Avenue, Suite 250 Carlsbad, California 92008, 760-431-9440. Written notification must be made within 5 calendar days and include the collection date and time, the location of the animal, and any other pertinent information. Care must be taken in handling sick or injured animals to ensure effective treatment and care, and in handling dead specimens to preserve biological material in the best possible state. The remains of intact specimens shall be placed with educational or research institutions holding the appropriate State and Federal permits. Remains shall be placed with the San Diego Natural History Museum, San Diego. Arrangements regarding proper disposition of potential museum specimens shall be made with the institution by the authorized biologist prior to implementation of the action.

CONSERVATION RECOMMENDATIONS

Section 7(a)(1) of the Act directs Federal agencies to utilize their authorities to further the purposes of the Act by carrying out conservation programs for the benefit of endangered and threatened species. Conservation recommendations are discretionary agency activities to minimize or avoid adverse effects of a proposed action on listed species or critical habitat, to help implement recovery plans or to develop information. We have not identified any additional conservation recommendations that will further benefit the arroyo toad within the action.

REINITIATION NOTICE

This concludes formal consultation regarding the I-8 Culvert Rehabilitation Project (PM 23.7 to PM 61.1) as outlined in materials submitted to us. 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 agency action that may affect listed species or critical habitat in a manner or to an extent not considered in this opinion; and 3) the agency action is subsequently modified in a manner that causes an effect to the listed species or critical habitat not considered in this opinion; or 4) a new species is listed or critical habitat designated that may be affected by the action. 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 Lauren Kershek of this office at 760-431-9440, extension 208.

Sincerely,

SCOTT SOBIECH Digitally signed by SCOTT SOBIECH Date: 2019.06.14 06:29:04 -07'00'

Scott A. Sobiech
Acting Field Supervisor

Appendix E Comments and Responses

This appendix contains comments received during the public circulation and comment period from May 12, 2019 to June 11, 2019. Comments include both email inquiries and letters. A Caltrans response follows each comment presented.

Comments regarding requests for copies of the draft environmental document or technical studies and no comments on the draft environmental document or project are not included.

State Clearinghouse Letter and Response

STATE OF CALIFORNIA
Governor's Office of Planning and Research
State Clearinghouse and Planning Unit

Gavin Newsom
Governor

Kate Gordon
Director

June 17, 2019

San Li
Caltrans 11 (San Diego)
4050 Taylor Street MS-242
San Diego, CA 92110

Subject: Interstate 8 Culvert Rehabilitation
SCH#: 2019059069

Dear San Li:

The State Clearinghouse submitted the above named MND to selected state agencies for review. On the enclosed Document Details Report please note that the Clearinghouse has listed the state agencies that reviewed your document. The review period closed on 6/14/2019, and the comments from the responding agency (ies) is (are) available on the CEQA database for your retrieval and use. If this comment package is not in order, please notify the State Clearinghouse immediately. Please refer to the project's ten-digit State Clearinghouse number in future correspondence so that we may respond promptly.

Please note that Section 21104(c) of the California Public Resources Code states that:

> "A responsible or other public agency shall only make substantive comments regarding those activities involved in a project which are within an area of expertise of the agency or which are required to be carried out or approved by the agency. Those comments shall be supported by specific documentation."

Check the CEQA database for submitted comments for use in preparing your final environmental document: https://ceqanet.opr.ca.gov/2019059069/2 . Should you need more information or clarification of the comments, **we recommend that you contact the commenting agency directly**.

This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act. Please contact the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process.

Sincerely,

Scott Morgan
Director, State Clearinghouse

cc: Resources Agency

1400 TENTH STREET P.O. BOX 3044 SACRAMENTO, CALIFORNIA 95812-3044
TEL 1-916-445-0613 state.clearinghouse@opr.ca.gov www.opr.ca.gov

1

1. Receipt of this letter confirms that Caltrans has complied with the State Clearinghouse review requirements for draft environmental documents pursuant to CEQA.

Regional Water Quality Control Board Email and Response

Li, San@DOT

From: Porter, Mike@Waterboards <Mike.Porter@waterboards.ca.gov>
Sent: Monday, May 20, 2019 2:52 PM
To: Nagy Jr, David@DOT; Li, San@DOT
Cc: Becker, Eric@Waterboards
Subject: MND for I-8 Culvert Rehab Project

Good afternoon.

1 Is the I-8 Culvert Rehabilitation Project *TRANSNET funded*? I'm suspecting not.

Thank you, Mike

Mike Porter, Engineering Geologist
Wetand and Riparian Protection Unit
San Diego Water Board (aka RWQCB)
2375 Northside Drive
Suite 100
San Diego CA 92108
Phone 619.521.3967
E-mail mike.porter@waterboards.ca.gov

1

1. This project not funded by TRANSNET.

Sweetwater Authority Letter and Response

SWEETWATER AUTHORITY
505 GARRETT AVENUE
POST OFFICE BOX 2328
CHULA VISTA, CALIFORNIA 91912-2328
(619) 420-1413
FAX (619) 425-7469
http://www.sweetwater.org

June 11, 2019

San Li
Environmental Planner
California Department of Transportation
4050 Taylor Street, MS-242
San Diego, CA 92110

Subject: Notice of Intent to Adopt a Mitigated Negative Declaration, Interstate 8 Culvert Rehabilitation Project
SWA File: (Gen) Land Use and Environmental

Dear Ms. Li:

Thank you for providing Sweetwater Authority (Authority) with a copy of the Notice of Intent to adopt a Mitigated Negative Declaration for the Interstate 8 Culvert Rehabilitation Project (Project). The Authority understands that the California Department of Transportation (Caltrans) is proposing to rehabilitate culverts at various locations on Interstate 8 in San Diego County, including culverts within the boundaries of the Sweetwater River watershed.

The Authority owns and manages Loveland Reservoir, which is located within the Sweetwater River watershed and downstream of the Project area. Runoff from the Sweetwater River watershed is captured at Loveland Reservoir, primarily during spring and winter months. This captured runoff is then transferred to Sweetwater Reservoir via the Sweetwater River to augment water production for the Authority's service area, which includes National City, western and central Chula Vista, and the unincorporated communities of Bonita and Lincoln Acres. The Authority provides the following comments to ensure protection of the Sweetwater River watershed and Loveland Reservoir:

1. **Construction BMPs.** Construction activities during the rainfall season may result in unanticipated runoff from the construction site, increasing the potential for discharging pollutants to waterways and downstream reservoirs. To minimize potential discharges of polluted stormwater to Loveland Reservoir, the Authority requests that the appropriate stormwater BMPs are implemented during the duration of construction.

1

A Public Water Agency
Serving National City, Chula Vista and Surrounding Areas

1. BMPs shall be installed and maintained to prevent any discharge from flowing downstream.

Sweetwater Authority Letter and Response continued

San Li
Re: Notice of Intent to Adopt a Mitigated Negative Declaration, Interstate 8 Culvert Rehabilitation Project
June 11, 2019
Page 2 of 2

2. **Mitigation Measures.** Chapters 4 and 5 of the MND include bulleted lists of mitigation measures which are different than the measures in the Determination Section of the Initial Study. Due to this apparent conflict, it is not clear which mitigation measures Caltrans is planning to adopt for the proposed Project. The Authority recommends the development and adoption of a Mitigation Monitoring and Reporting Program that clearly identifies the Project's mitigation measures, responsible parties, and reporting mechanisms.

3. **Notification.** During the construction phase of the development, the Authority requests that the Storm Water Pollution Prevention Control Plan or the emergency response plan include provisions for immediate notification to the Authority in the event of a hazardous material spill or leak, via its 24-hour emergency telephone number at (619) 409-6800.

Thank you for including the Authority in the distribution list for the review of this Project. If you have any questions or concerns, please do not hesitate to contact Israel Marquez, Environmental Project Manager, at imarquez@sweetwater.org or (619) 409-6759.

Sincerely,

SWEETWATER AUTHORITY

Luis Valdez, P.E.
Engineering Manager

LV:IM:ah

cc: Israel Marquez, Sweetwater Authority
Cindy Pino, Sweetwater Authority

I:\engr\Gen\Land Use and Environmental\Watershed Review\Interstate 8 Culvert Rehabilitation Project\Ltr - response to MND, I-8 Culvert Rehabilitation - 6-11-19.docx

2

3

2. Clarification has been added to the MND to emphasize that the measures listed are summaries and not of the commitments in full. In lieu of a Mitigation, Monitoring and Reporting Program, a full list of avoidance, minimization, and mitigation measures are in **Appendix F:** Environmental Commitments Record.

3. Per NPDES Permit (Order No. 2012-0011-DWQ, NPDES No. CAS000003), Caltrans will notify the Water Quality Regional Water Board and local municipalities down stream of spills or leaks during construction.

La Posta Band of Mission Indians Email and Response

Li, San@DOT

From: Marta J. Burg <tribalaw@pacbell.net>
Sent: Tuesday, June 11, 2019 2:20 PM
To: Li, San@DOT
Cc: Vargas, Chi@DOT; Francisco, Sonnier F@DOT; April, Bruce@DOT; Eric LaChappa; James Hill; Stephanie Connolly
Subject: Re: I-8 Culvert Rehabilitation - Draft MND
Attachments: 42210 Final MND 06-2019 DRAFT to La Posta.pdf

Hi San ~

Thank you for giving the Tribe the opportunity to review the updated version of the document. Your revisions addressed certain of the Tribe's concerns, but we request that a few more be made for increased clarification and accuracy. In particular:

1 * On page 4, first full paragraph after the chart, please revise the last sentence to read "Existing and future erosion on the La Posta Reservation outside of the project area will be addressed by one or more separate projects led by the Tribe in consultation and coordination with CalTrans, the Bureau of Indian Affairs, the Bureau of Reclamation, the US Environmental Protection Agency, the US Army Corps of Engineers and other agencies as appropriate."

2 * Same page, under the heading of **Purpose and Need**, please revise the first sentence to read "The purpose of this project is to extend the service life of the roadway and to minimize ongoing erosion and related damage on the La Posta Indian Reservation outside the right-of-way."

3 * Same page and paragraph, please revise the last sentence to read "The culverts with erosion at the outlet need energy dissipation remediation to prevent slope failure adjacent to the shoulder and roadway and to prevent further damage to lands and associated resources of the La Posta Indian Reservation."

4 * On page 26, second full paragraph, please revise the first sentence to read "Also, culvert locations 7-11 are located along Interstate 8 within a right-of-way that runs through the La Posta Indian Reservation."

5 * Same page and paragraph, please delete the last sentence (the one that reads "The teleconference discussed both this culvert project and a separate Bureau of Reclamation project," as it's not quite accurate) and replace it with "Consultation with the La Posta Band of Mission Indians and relevant federal agencies will continue through the Design Phase."

6 * On page 27, please revise the new language under the bullet below the heading of After Construction to read as follows "Since a portion of the permanent work will take place within a right-of-way that runs through the La Posta Indian Reservation and may extend outside the right-of-way onto Reservation land, appropriate authorizations will be sought from both the Bureau of Indian Affairs and the La Posta Band of Mission Indians. CalTrans will be seeking to obtain these approvals during the Design Phase."

7 * On page 29, please revise the fourth paragraph to read "Existing and future erosion on the La Posta Indian Reservation outside of the project area will be addressed by one or more separate

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8

1. Upon request, Caltrans has provided a working copy of the Final IS/MND to La Posta Band of Mission Indians for review. The email to the left was regarding this working copy and not the Draft IS/MND that was circulated during public review.
2. The sentence has been revised to: Existing and future erosion on the La Posta Reservation outside of the project area will be addressed by one or more separate projects led by La Posta in coordination with other appropriate agencies.
3. This is a transportation project regarding culvert rehabilitation and the purpose and need shall accordingly address transportation deficiencies. For culvert locations 7-11, the main concern is the potential for embankment destabilization and roadway failure. Existing and future erosion on La Posta lands and resources are outside the purview of this project and should be addressed in one or more separate projects.
4. Same as #3.
5. The sentence has been revised to: Also, culvert locations 7-11 are located on an easement that runs through the La Posta Band of Diegueño Mission Indians (La Posta) Reservation.

La Posta Band of Mission Indians Email and Response continued

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projects led by the Tribe in consultation and coordination with CalTrans and various federal agencies."

We may request additional revisions after our meeting on June 20, but we think that these, coupled with the updates you've already made, address the majority of the Tribe's concerns and make the document more clear and accurate as to the relationship between the CalTrans project and Tribal lands, the work the Tribe will be seeking to undertake outside the right-of-way, and the intent of the parties to continue to consult throughout.

Please let me know if you have any questions or would like to discuss any of the above.

Thanks,
Marta

Office of Marta J. Burg
Attorney * Tribal Consultant
Post Office Box 411238
Eagle Rock, California 90041-9998
phone: 323-258-1009
fax: 323-258-1010
e-mail: tribalaw@pacbell.net

On Friday, June 7, 2019, 3:03:13 PM PDT, Li, San@DOT <san.li@dot.ca.gov> wrote:

Hi Marta,

I've attached a working draft of the IS/MND per your request. Please note that there will be changes between this version and the Final IS/MND. Also, since this is a working draft please do not distribute to outside parties.

Let me know if you have any questions or comments.

Thank you.

San Li

2

6. The sentence has been revised to: Caltrans also attended a teleconference with La Posta and several other state and federal agencies on November 27, 2018 to discuss this culvert project and other erosion and streambed concerns related to one or more separate projects led by La Posta in coordination with other appropriate agencies.
7. This sentence has been added: Since a portion of the permanent work at culvert locations 7-11 have the potential to extend past Caltrans right-of-way and into tribal land (i.e. the La Posta Reservation), temporary construction easements from both the Bureau of Indian Affairs (BIA) and La Posta may be needed. Caltrans will coordinate closely with BIA and La Posta during the design phase to determine the appropriate approvals needed.
8. The sentence has been revised to: Existing and future erosion on the La Posta Reservation outside of the project area will be addressed by one or more separate projects led by La Posta in coordination with other appropriate agencies.
9. The MND is anticipated to be finalized in June 2019. Any changes to the project will be addressed through environmental re-evaluations during design.

California Fish and Wildlife Department Letter and Response

State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
South Coast Region
3883 Ruffin Road
San Diego, CA 92123
(858) 467-4201
www.wildlife.ca.gov

GAVIN NEWSOM, Governor
CHARLTON H. BONHAM, Director

June 14, 2019

San Li
California Department of Transportation
4050 Taylor Street, MS 242
San Diego, CA 92110
San.li@dot.ca.gov

Subject: Comments on the Draft Initial Study with Proposed Mitigated Negative Declaration Project, San Diego County (SCH #2019059069)

Dear Ms. Li:

The California Department of Fish and Wildlife (Department) has reviewed the above-referenced Draft Initial Study with Proposed Mitigated Negative Declaration (IS/MND) for the Interstate 8 (I-8) Culvert Rehabilitation Project (Project) dated May 9, 2019.The Department has identified potential effects of this Project on wildlife and sensitive habitats. The following statements and comments have been prepared pursuant to the Department's authority as Trustee Agency with jurisdiction over natural resources affected by the proposed project (California Environmental Quality Act [CEQA], Guidelines § 15386) and pursuant to our authority as a Responsible Agency under CEQA Guidelines section 15381 over those aspects of the proposed project that come under the purview of the California Endangered Species Act (CESA; Fish and Game Code [FGC] § 2050 et seq.) and FGC section 1600 et seq. The Department also administers the Natural Community Conservation Planning (NCCP) program. The comments provided herein are based on the information provided in the IS/MND, the Natural Environment Study (NES) dated May 31, 2019, the Biological Assessment (BA) provided May 30, 2019, and our knowledge of sensitive and declining habitats.

The California Department of Transportation (Caltrans) Project involves restoring serviceability of 14 existing, deteriorated culverts along I-8 from the Los Coches Creek crossing to the Miller Creek crossing along approximately 40 miles of freeway between the City of El Cajon and the community of Boulevard, in San Diego County, California. The westernmost portion of the project is located directly north of the Department-owned Crestridge Ecological Reserve. Additionally, a significant portion of the project area is located within the draft East County Multiple Species Conservation Program (ECMSCP) area, whose western boundary intersects I-8 at Viejas Creek.

The rehabilitation efforts vary by culvert, and include clearing and grubbing for temporary access roads, removing debris deposited in the culverts and channels, paving some culvert inverts and lining others, channel erosion restoration, and armoring channel slopes.

The biological study area (BSA) includes the Project impact area and a 300-foot buffer and proposed staging/storage areas. A habitat assessment was conducted beginning in February 2017 to determine the potential for appropriate habitat for sensitive species including the state and federally listed least Bell's vireo (*Vireo bellii pusillus*), the state species of special concern (SSC) and federally listed endangered arroyo toad (*Anaxyrus californicus*), and the federal candidate species Hermes copper butterfly (*Lycaena hermes*). The NES reports positive detections for these three species within the Project area based on surveys conducted between

Conserving California's Wildlife Since 1870

1

1. Thank you for reviewing the Draft IS/MND for this project.

California Fish and Wildlife Department Letter and Response continued 2

1990 and 2008. It also discloses that the BSAs for Culverts 2 and 6 are located within designated critical habitat for arroyo toad. According to the NES, the BSA was inspected during multiple field visits from July 11, 2017 through March 12, 2019 to identify habitat types, potential wetlands, and evaluate the potential for presence of rare species. NES Table 2 indicates no special status species were detected during the BSA surveys; however, the IS/MND indicates that potential impacts to least Bell's vireo, arroyo toad, and Hermes copper butterfly will be mitigated through avoidance and minimization.

The IS/MND proposes to mitigate impacts to 0.75 acre of southern coast live oak riparian forest, riparian scrub, and streambed, through the purchase of 1.73 acres of "riparian woodland" credits at the Rancho San Diego Mitigation Bank (Bank), managed by U.S. Fish and Wildlife Service (USFWS).

The Department offers the following comments and recommendations to assist Caltrans in avoiding or minimizing potential project impacts on biological resources while implementing the Project.

1. According to Caltrans' Project Development Process, prior to preparation and approval of the IS/MND, technical support documents are prepared and provided to the Resource Agencies for review. The Department received the date stamped transmittal document and Summary Form with an attached compact disc on May 17, 2019. The disc included the Draft IS/MND but did not include any of the technical support. Upon request to Caltrans, the Department subsequently received the Biological Assessment for the USFWS on May 29, 2019, and the NES on May 31. The Department recommends that future projects be submitted to the State Clearinghouse bundled with all supporting documentation to enable the resource agencies and public to conduct an informed review.

2

2. The Department was unable to verify the record of species observed within the BSA because neither the IS/MND nor the supporting biotechnical report include an illustration of the BSA relative to the project and species observations. While the NES refers to Figure 2, this map does not contain the delineated BSA or the staging areas for the entirety of the project. To enable the Department to fully analyze the Project's potential impacts to species within the BSA, we recommend Caltrans revise the IS/MND to include a map showing not only the culvert locations but also the BSA overlay and impact areas, including storage and staging locations.

3

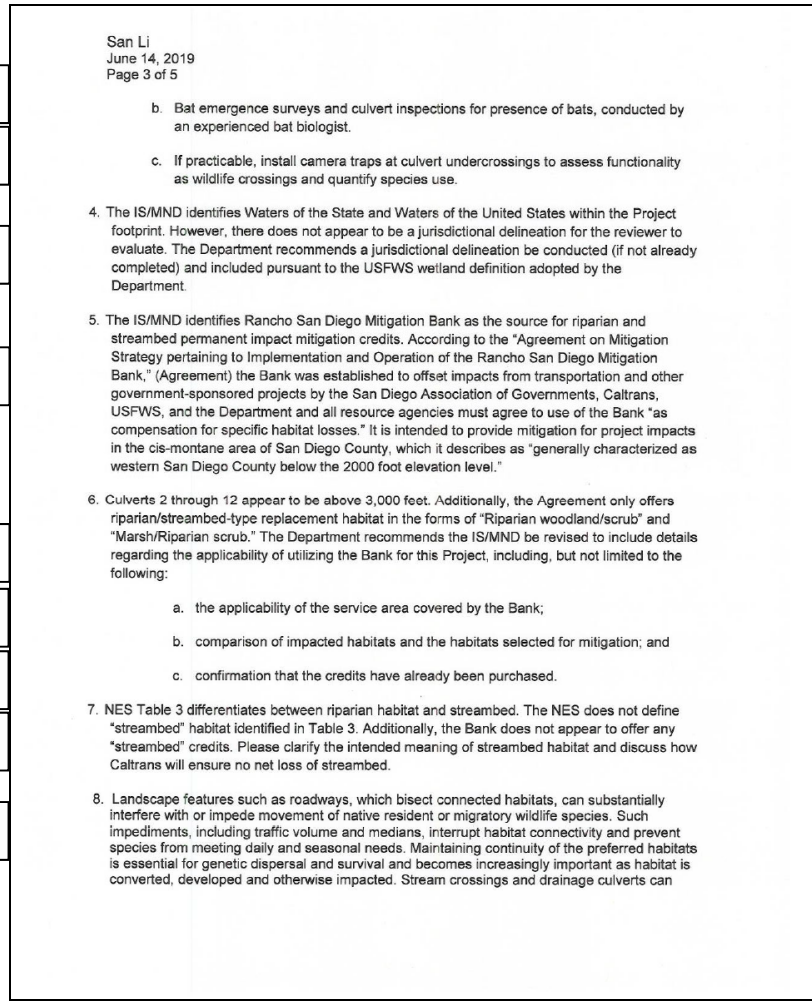
3. NES Table 2 provides a list of sensitive species evaluated for habitat and species presence. Although the table indicates species observed/not observed during surveys of the BSA, it is not clear if focused surveys for special-status species were conducted where suitable habitat is present since 2008. The Department recommends that seasonally appropriate surveys are conducted for all special-status species with habitat present within the final year prior to project commencement. This should include, but not necessarily limited to:

4

   a. Focused botanical surveys conducted according to the Department *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities* (https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=18959&inline)

2. Typically, Caltrans incorporates all technical studies by reference and they are to be made available on request. Given CDFW interest in reviewing the biological studies, the District will work with CDFW to ensure they receive a copy at the beginning of the document distribution.
3. Figure 3 shows all of the impact areas including staging and storage locations. The only culvert locations showing special status species listed by USFWS and CNDDB occurring within the 300-ft buffer of the BSA is:
   - Culvert 1: Abram's spurge (1963), Delicate clarkia (exact location unknown), Rosy boa (1926), Coast horned lizard (1929) and
   - Culvert 12: Southern jewelflower (exact location unknown).
4. No take of state-listed species is anticipated from the project. If project plans change, which may result in potential effects to state listed species; if state listed species are detected at either location before or during construction; or if additional information on the distribution of listed species becomes available that results in potential effects as a result of construction at either location, Caltrans will initiate a Section 2081 Incidental Take Permit consultation with CDFW. Seasonally appropriate surveys in the final year prior to project commencement would occur during the spring of 2020.

California Fish and Wildlife Department Letter and Response continued 3



San Li
June 14, 2019
Page 3 of 5

b. Bat emergence surveys and culvert inspections for presence of bats, conducted by an experienced bat biologist.

c. If practicable, install camera traps at culvert undercrossings to assess functionality as wildlife crossings and quantify species use.

4. The IS/MND identifies Waters of the State and Waters of the United States within the Project footprint. However, there does not appear to be a jurisdictional delineation for the reviewer to evaluate. The Department recommends a jurisdictional delineation be conducted (if not already completed) and included pursuant to the USFWS wetland definition adopted by the Department.

5. The IS/MND identifies Rancho San Diego Mitigation Bank as the source for riparian and streambed permanent impact mitigation credits. According to the "Agreement on Mitigation Strategy pertaining to Implementation and Operation of the Rancho San Diego Mitigation Bank," (Agreement) the Bank was established to offset impacts from transportation and other government-sponsored projects by the San Diego Association of Governments, Caltrans, USFWS, and the Department and all resource agencies must agree to use of the Bank "as compensation for specific habitat losses." It is intended to provide mitigation for project impacts in the cis-montane area of San Diego County, which it describes as "generally characterized as western San Diego County below the 2000 foot elevation level."

6. Culverts 2 through 12 appear to be above 3,000 feet. Additionally, the Agreement only offers riparian/streambed-type replacement habitat in the forms of "Riparian woodland/scrub" and "Marsh/Riparian scrub." The Department recommends the IS/MND be revised to include details regarding the applicability of utilizing the Bank for this Project, including, but not limited to the following:

a. the applicability of the service area covered by the Bank;

b. comparison of impacted habitats and the habitats selected for mitigation; and

c. confirmation that the credits have already been purchased.

7. NES Table 3 differentiates between riparian habitat and streambed. The NES does not define "streambed" habitat identified in Table 3. Additionally, the Bank does not appear to offer any "streambed" credits. Please clarify the intended meaning of streambed habitat and discuss how Caltrans will ensure no net loss of streambed.

8. Landscape features such as roadways, which bisect connected habitats, can substantially interfere with or impede movement of native resident or migratory wildlife species. Such impediments, including traffic volume and medians, interrupt habitat connectivity and prevent species from meeting daily and seasonal needs. Maintaining continuity of the preferred habitats is essential for genetic dispersal and survival and becomes increasingly important as habitat is converted, developed and otherwise impacted. Stream crossings and drainage culverts can

5. There are no historical occurrences of bats observed at any of the culvert locations, although there are some locations nearby (Tavern Road at post mile 28.46, Pine Valley Bridge at post mile 41.70, and Crestwood Bridge at post mile 61.18) where bats have been observed roosting. Roosting potential in corrugated steel pipe (CSP) culverts of 24 inch to 48 inches in diameter is likely very low, which would eliminate the majority of culverts in the project. Due to the CSP in the larger culverts, there is likely a low potential for bat roosting would occur at Culvert 1 (13 foot-diameter CSP), Culvert 6 (two-7 foot-diameter pipes), Culvert 8 (6 foot-diameter CSP), and Culvert 12 (9 foot-diameter CSP). A biologist will check for bat roosts at these locations prior to construction.
6. The only potential for wildlife crossing is at Culvert 1 (13 foot-diameter CSP), Culvert 6 (two-7 foot-diameter pipes), and Culvert 12 (9 foot-diameter CSP). The remainder of the culverts are unsuitable for wildlife movement, being very long with the inlets are at a much higher elevation than at the outlets, and, therefore, do not meet the criteria for wildlife movement. The proposed work at Culvert 1, Culvert 6, and Culvert 12 will not affect the movement of wildlife through these culverts.

California Fish and Wildlife Department Letter and Response continued 4

function as valuable corridors for wildlife movement between these habitats on either side of a freeway.

9. As discussed above, the Project is located within the ECMSCP. Although this plan is not finalized, the Project should be consistent with the conservation objectives of the ECMSCP. As stream crossings and other drainage structures reach a point of deterioration that requires repair, an opportunity is presented to assess the structures' effectiveness to provide a functional wildlife passage between segmented habitats. For example, Culverts 3, 4, and 5 are located on a segment of I-8 that bisects three areas identified in the ECMSCP as Highest Level of Ecological Protection, including Pine Creek Wilderness, Hauser Wilderness, and Cuyamaca Mountain State Wilderness. Enhancing functional corridors between these areas could benefit wildlife and reduce the safety risk of freeway collisions with wildlife. According to data from the UC Davis Road Ecology Center, between 2015 and 2017, at least 19 wildlife collisions occurred along the I-8 segment between Culverts 1 through 12,10 of which occurred in the immediate vicinity of the culverts in this Project (Waetjen and Shilling, 2017). The reported collisions involved mule deer and coyotes. Each of these incidents comes with high ecological and economic costs. Therefore, the Department recommends that Caltrans evaluate the culverts for their wildlife value and impacts to wildlife connectivity. Please identify culverts that may impede wildlife passage and provide potential feasible solutions to enhance wildlife mobility across I-8.

14

10. Uneven surfaces and steep drops may occur when adding riprap and/or gabion structures to stream inlets and outlets. These surfaces can impede wildlife use of the crossing. The Department recommends Caltrans revise the IS/MND to include the use of state-of-the-art techniques to smooth the armored slopes, maintain appropriate stream gradients, and revegetate armoring to provide accessibility for wildlife.

15

11. The culvert rehabilitation includes adding materials to the interior of the culverts. This could reduce the capacity of the culverts to pass high flows and debris. The Department recommends the IS/MND include an analysis of the effects of changing culvert sizes with respect to conveyance of 100-year flood flows and debris.

16

12. The IS/MND specifies that an Arroyo Toad Translocation Monitoring Program will be developed and implemented. FGC sections 1002, 1002.5, and 1003 authorize the Department to issue Scientific Collecting Permits for the capture of wildlife, including SSC. As noted above, arroyo toad is an SSC. The Department recommends Caltrans coordinate with Department staff to determine if a permit is required to be obtained for this Project.

17

13. The Department respectfully requests a site visit to observe the culvert locations and associated habitat and to better understand the scope of work, including gabion cages and riprap installation. The Department requests the site visit be conducted well in advance of finalizing the IS/MND.

18

7. Waters of the State/U.S. were determined by GPS wetland data of the area (shapefile provided by U.S. Fish and Wildlife Service delineating the area extent of wetlands and surface waters as defined by Cowardin et al. (1979). The National Wetlands Inventory (Version 2 Surface Waters and Wetlands Inventory) and the defined channels were field verified. In the future, Waters of the State will be identified on aerial maps for CDFW. If necessary, jurisdictional determinations would be conducted prior to submission of the permit applications.
8. Thank you for the information.
9. Rancho San Diego occurs in the Sweetwater River watershed, the same watershed as culvert location 2 and is the closest Caltrans mitigation bank with available riparian credits to the other culvert locations. There are no Caltrans mitigation banks occurring within the Cottonwood Creek or Tecate Creek Watersheds and no Caltrans mitigation banks with streambed habitat replacement available at elevations above 3,000 feet. Rancho San Diego has been used as mitigation for other projects, i.e. Robert's Ranch.

California Fish and Wildlife Department Letter and Response continued 5

19

San Li
June 14, 2019
Page 5 of 5

14. The CNDDB is a powerful tool used by environmental reviewers in scoping for potential listed and sensitive species and habitats, as evidenced by its use in the IS/MND. For this resource to remain relevant, it is essential that survey detection data be reported to CNDDB. An online reporting form is now available to help streamline reporting. The Department recommends that all relevant data collected related to this Project by reported to CNDDB annually.

15. We appreciate the opportunity to comment on the referenced DEIR. Questions regarding this letter and further coordination on these issues should be directed to Simona Altman at (858) 467-4283 or email at simona.altman@wildlife.ca.gov.

Sincerely,

for Gail K. Sevrens
Environmental Program Manager
South Coast Region

ec: State Clearinghouse, Sacramento
Simona Altman, CDFW
Jonathan Snyder, Division Chief, US Fish and Wildlife Service
jonathan_d_snyder@fws.gov

Literature Cited

Waetjen, D.P. and F.M. Shilling (2017) Large extent roadkill and wildlife observation systems as sources of reliable data. *Frontiers in Ecology and Evolution. doi: 10.3389/fevo.2017.00089*

10. Riparian woodland, defined as moderate-density riparian woodlands dominated by small trees or shrubs, with scattered taller riparian trees, should serve as sufficient mitigation for Southern Coast Live Oak Riparian Forest as it consists of a homogenous mixture of coast live oak woodland and southern riparian woodland. It provides a higher habitat quality than southern riparian scrub (dominated by small trees or shrubs, lacking taller riparian trees) and streambed habitat (many consisting of bed and bank, with scattered shrubs, and lacking riparian shrubs and trees).
11. Appendix D of the NES includes the ledger of riparian woodland habitat where the credits were already debited.
12. Streambed habitat usually refers to a defined bed and bank, with scattered shrubs, and lacking riparian shrubs and trees. Mitigating streambed habitat with Riparian woodland habitat at a 2:1 ratio at Rancho San Diego assures that a no net loss will occur by mitigating with much higher-quality habitat.

California Fish and Wildlife Department Letter and Response continued 6

13. The majority of culverts function only to convey water from one side of the highway to the other. The only potential for wildlife crossing is at Culvert 1 (13 foot-diameter CSP), Culvert 6 (two-7 foot-diameter pipes), and Culvert 12 (9 foot-diameter CSP). The remainder of the culverts are unsuitable for wildlife movement, being very long with the inlets are at a much higher elevation than at the outlets, and, therefore, do not meet the criteria for wildlife movement. Bridges already occur adjacent to these culvert locations (Chocolate Canyon at post mile 26.7, Sweetwater River Bridge at post mile 36.5, Pine Valley Creek Bridge at post mile 41.8, Cottonwood Creek at post mile 50.7, La Posta Creek Bridge at post mile 56.8, Campo Creek at post mile 62) that serve as much more effective wildlife crossings.	14. The East County Multi-species Conservation Plan was not finalized and although Caltrans is not a signatory, Caltrans tries to be consistent with Multi-species Conservation Plans. The majority of culverts function only to convey water from one side of the highway to the other. The only potential for wildlife crossing is at Culvert 1 (13 foot-diameter CSP), Culvert 6 (two-7 foot-diameter pipes), and Culvert 12 (9 foot-diameter CSP). The remainder of the culverts are unsuitable for wildlife movement, being very long with the inlets are at a much higher elevation than at the outlets, and, therefore, do not meet the criteria for wildlife movement. Bridges already occur adjacent to these culvert locations (Chocolate Canyon at post mile 26.7, Sweetwater River Bridge at post mile 36.5, Pine Valley Creek Bridge at post mile 41.8, Cottonwood Creek at post mile 50.7, La Posta Creek Bridge at post mile 56.8, Campo Creek at post mile 62) that serve as much more effective wildlife crossings. The project will not change the ability of wildlife to use Culvert 1, Culvert 6, or Culvert 12 once the bottom of the culverts are paved with concrete.

California Fish and Wildlife Department Letter and Response continued 7

15. The purpose of the project is to protect culverts conveying water from one side of the freeway to another, from collapsing, which can lead to road deterioration and collapse. As noted, the majority of the culverts do not support wildlife movement across the highway, while the proposed work at culvert locations 1, 6, and 12 will not change the ability of the wildlife to use those culverts as crossings. Larger mammals can go around the isolated riprap areas to access the pipes while the riprap could provide additional habitat for small mammals, amphibians, and reptiles. 16. Table 1 in the MND shows the work at Culvert 1, Culvert 6, and Culvert 12 involve cleaning the bottom of these large diameter culverts and paving the bottom of the culverts with concrete, which will lead to a very minimal change to culvert size. Work at Culvert 7 through Culvert 11 do not involve adding materials to the interior of the culverts, which will not affect a change in culvert size. Culvert 2 through Culvert 5, will involve slip-lining of the Culverts but the change in the culvert size is negligible. 17. The project will require a USFWS and CDFW approved Biologist which will have the required permits to conduct any necessary captures of wildlife.	18. Caltrans Biologist Michael Galloway met with Simona Altman at CDFW for a site visit on Thursday, June 20, 2019. 19. Any relevant observations by the approved Project Biologist will be submitted annually to CDFW.

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Appendix F Environmental Commitments Record

Prepared: 6/24/19
Environmental Coordinator: San Li
Phone No: 619-688-3139

ENVIRONMENTAL COMMITMENTS RECORD
(ECR)
Page 1 of 17

11-SD-8
PM R23.0/R61.3
EA: 11-42210
Project ID: 1115000178

Task and Brief Description	Reference	Construction Responsible Branch / Staff	Timing / Phase	NSSP, SSP, Bid Item	Action Taken to Comply/Remarks	Sign Off	
						Initial	Date
Environmental Document/Approval	CEQA MND and NEPA CE anticipated to be completed June 2019.						
Environmental PS&E Review							
Pre-construction Meeting							
Environmental Compliance Review							
Biological Environment: Arroyo Toad							
A biologist (Project Biologist) approved by the USFWS Carlsbad Office (CFWO) (Project Biologist) will be on site at culvert locations 2-6 during all vegetation clearing and grubbing and weekly during project construction within 500 feet of arroyo toad habitat to monitor compliance with all conservation measures.	USFWS BO CM1	Bio, ECL	Con				
Caltrans will submit the Project Biologist's name, contact information, and work schedule on the project to the CFWO at least 15 working days prior to initiating project impacts.	USFWS BO CM1	Bio	Pre-con				
The Project Biologist will be provided with a copy of the June 2019 U.S. Fish and Wildlife Biological Opinion (USFWS BO).	USFWS BO CM1	Bio, ECL	Con				
The Project Biologist will be available during pre-construction and construction phases to address protection of sensitive biological resources, monitor ongoing work, and maintain communications with construction personnel to facilitate the appropriate and lawful management of issues relating to biological resources.	USFWS BO CM1	Bio, ECL	Pre-con, Con				
The Project Biologist will report any non-compliance issue to the Resident Engineer and Caltrans Project Biologist such that work can be halted if necessary, and the issue can be discussed with the CFWO to ensure the proper implementation of species and habitat protection measures. The Caltrans Project Biologist will report all non-compliance issues to the CFWO within 1 business day of notification.	USFWS BO CM1	Bio, ECL, RE	Con				
The names, permit resumes, and at least three references of people who are familiar with the relevant qualifications of the proposed biologist of all biologists who may need to handle, move, or monitor arroyo toads for the project will be submitted to the CFWO for approval at least 15 days prior to the initiation of arroyo toad surveys or monitoring efforts. The Project Biologist will be responsible for overseeing and coordinating the surveys and monitoring efforts of all other biologists working on the project.	May 2019 NES	Bio, ECL	Pre-con, Con				

Task and Brief Description	Reference	Construction Responsible Branch / Staff	Timing / Phase	NSSP, SSP, Bid Item	Action Taken to Comply/Remarks	Sign Off	
						Initial	Date
Work within or adjacent to arroyo toad habitat (culvert locations 2-6) will occur between August 16 and February 28 to avoid the arroyo toad breeding season. Vegetation clearing may commence earlier in the fall if the Project Biologist demonstrates to the satisfaction of the CFWO that all breeding is complete.	USFWS BO CM2	Bio, ECL	Con				
Temporary stream diversions will be implemented when necessary during culvert work to preserve downstream habitat. Best Management Practice (BMP) measures shall be installed and maintained to prevent any discharge from flowing downstream	May 2019 NES	Bio, ECL	Pre-con, Con				
All native and sensitive habitat outside and adjacent to the permanent and temporary construction limits will be designated as an ESA on the project plans.	USFWS BO CM 4	Bio, ECL, Design	Design				
ESAs will be temporarily fenced during construction with orange plastic snow fence, orange silt fencing, or in areas of flowing water, with wire mesh, t-posts, and sand or gravel bags. This fencing may be combined with arroyo toad exclusionary fencing in areas where arroyo toad may occur. No personnel, equipment, or debris will be allowed within the ESA. Fencing and flagging will be installed in a manner that does not impact habitats to be avoided and such that is clearly visible to personnel on foot and operating heavy equipment.	USFWS BO CM 4	Bio, ECL	Con				
Caltrans Biology will submit to the CFWO for approval, at least 5 days prior to initiating project impacts (except for impacts resulting from clearing to install temporary fencing), the final plans for initial clearing and grubbing of habitat and project construction. These final plans will include photographs that show the fenced and flagged limits of impact and all areas to be impacted or avoided.	USFWS BO CM 4	Bio	Pre-con				
If work occurs outside of ESA limits, the Project Biologist will request that the resident engineer halt work until the problem has been remedied. The Caltrans Project Biologist will notify the CFWO of the problem within 24 hours of its occurrence.	USFWS BO CM 4	Bio, ECL, RE	Con				
Temporary construction fencing and markers will be maintained in good repair until the completion of project construction and removed upon project completion.	USFWS BO CM 4	Bio, ECL	Con				
Construction personnel will be instructed to take care to avoid effects from activities including, but not limited to, trampling during construction activities and herbicide drift during restoration activities to areas with suitable arroyo toad habitat.	May 2019 NES	Bio, ECL	Con				

Task and Brief Description	Reference	Construction Responsible Branch / Staff	Timing / Phase	NSSP, SSP, Bid Item	Action Taken to Comply/Remarks	Sign Off	
						Initial	Date
The Project Biologist will oversee installation of and inspect the arroyo toad fencing a minimum of once per week to ensure that any breaks in the fencing is repaired immediately.	May 2019 NES	Bio, ECL	Con				
Temporary impacts to 0.90 acres of streambed habitat and 1.46 acres of upland habitat capable of supporting arroyo toad will be revegetated and restored with native species. Duff and rare plants may be salvaged from the project impact footprint to the extent practicable to aid in revegetating temporary impacted areas. Temporary impact areas will be planted and seeded as soon as possible following regrading after completion of construction to prevent encroachment of nonnative plants.	May 2019 NES	Bio, ECL	Con				
Caltrans will submit a habitat restoration plan for temporary impact areas to the CFWO for review and approval at least 30 days prior to initiating project impacts. The plan will include the following information and conditions:	USFWS BO CM 5	Bio	Pre-con				
o All habitat restoration sites will be prepared for planting in a way that mimics natural habitat to the maximum extent practicable. All plantings will be installed in a way that mimics natural plant distribution and not in rows.							
o Planting palettes (plant species, size, and number/acre) and seed mixes (plant species and pounds/acre) will be limited to locally native species (e.g., species found in or near the biological study area for the project). The source location of all plant material and seed will be provided to the CFWO prior to use in restoration activities.							
o Container plant survival will be 80 percent of the initial plantings for the first 5 years. At the first and second anniversary of plant installation, all dead plants will be replaced unless their function has been replaced by plants from seed or natural recruitment. d. A final implementation schedule will indicate when all impacts, as well as restoration planting and irrigation will begin and end.							

Task and Brief Description	Reference	Construction Responsible Branch / Staff	Timing / Phase	NSSP, SSP, Bid Item	Action Taken to Comply/Remarks	Sign Off	
						Initial	Date
o The final restoration plan will include 5 years of success criteria for restoration areas including: percent cover, evidence of natural recruitment of multiple species for all habitat types, 0 percent coverage for all woody California Invasive Plant Council's (Cal-IPC's) "Invasive Plant Inventory" species (e.g., trees and shrubs), and no more than 10 percent coverage for other exotic/weed species.							
o A minimum 5 years of maintenance and monitoring of restoration areas, unless success criteria are met earlier and all artificial water supplies have been off for at least 2 years.							
o A qualitative and quantitative vegetation monitoring plan with a map of proposed sampling locations. Photo points will be used for qualitative monitoring and stratified-random sampling will be used for all quantitative monitoring.							
o Contingency measures in the event of restoration failure							
o Annual mitigation maintenance and monitoring reports will be submitted to the CFWO no later than December 1 of each year.							
o If restoration maintenance work is necessary within or directly adjacent to suitable arroyo toad breeding habitat during the active season for the arroyo toad (March 1 to August 15), while water is flowing or has ponded in the area, the Project Biologist will monitor potential arroyo toad breeding habitat to determine whether egg clutches, larvae, or juveniles are present. If eggs, larvae, or juvenile arroyo toads are found, restoration maintenance work will not occur in the area until signs of breeding are no longer evident.							
o Restoration maintenance work during rain events will be avoided to the greatest extend feasible as arroyo toads may become active during rain events and work may result in sedimentation into breeding habitat. To ensure that restoration work is completed in a timely fashion, work may continue during a light or intermittent rain, if the Project Biologist, using his/her best judgment, determines that increased impacts to arroyo toads are unlikely.							

Task and Brief Description	Reference	Construction Responsible Branch / Staff	Timing / Phase	NSSP, SSP, Bid Item	Action Taken to Comply/Remarks	Sign Off	
						Initial	Date
o Either arroyo toad exclusion fencing will be maintained around restoration areas for the duration of restoration maintenance work, or the following measure will be implemented: All earth disturbing activities conducted for restoration work (e.g., irrigation repairs, replanting) where there is potential for the presence of aestivating arroyo toads (i.e., sandy, friable soils) will be monitored by the Project Biologist who will ensure that impacts to arroyo toads are avoided to the greatest extent feasible by either: 1) Overseeing earth disturbing activities (e.g., excavation of planting basins, irrigation repairs) in potential aestivation areas and ensuring that hand tools are used to a depth of 1 foot such that arroyo toads are detected and salvaged if present; or 2) Conducting preconstruction translocation surveys and directing work away from observed arroyo toads, or relocating arroyo toads to suitable habitat away from the immediate work area.							
o If arroyo toad exclusion fence is removed, transportation of materials for restoration maintenance work within suitable habitat will be conducted on foot, or with lightweight all-terrain vehicles and/or small gators with trailers. If possible, equipment used will have soft tires with minimal tread and a wide wheel base to better distribute weight and reduce soil disturbance. Vehicle speed will not exceed 15 miles per hour.							
Any culvert slip lining or other culvert work that may result in increased turbidity or material leakage downstream of the culvert will occur with no water flow present in the culverts and adjacent channels. If a noticeable spill occurs, the spill will immediately be contained, contaminated soil will be placed in barrels and removed from the site, and the spill will be documented and reported to the CFWO.	USFWS BO CM 6	Bio, ECL	Con				

Task and Brief Description	Reference	Construction Responsible Branch / Staff	Timing / Phase	NSSP, SSP, Bid Item	Action Taken to Comply/Remarks	Sign Off	
						Initial	Date
An employee education program will be developed and implemented by the Project Biologist. All personnel involved with construction will receive a training and awareness program prior to working on the proposed project. They will be advised of the potential impacts to the listed species and the potential penalties for species take. At a minimum, the project will include the following: Occurrence of listed species in the area (including photographs), their general ecology, and sensitivity to human activities; the legal protection afforded to the listed species, penalties for non-compliance with Federal and State laws and reporting requirements; project features designed to reduce the impacts to the listed species and promote continued successful occupation of the project area.	USFWS BO CM 7	Bio, ECL	Pre-con				
During project construction (excluding the plant establishment period, which will be addressed in the restoration plan) all invasive species included on the National Invasive Species Management Plan, the State of California Noxious Weed List, and the California Invasive Plant Council's Invasive Plant Inventory list (Cal-IPC 2006) found growing within the project impact area will be identified and removed at least once a month. Special care will be taken during transport, use, and disposal of soils containing invasive weed seeds and all weedy vegetation removed during construction will be properly disposed of to prevent spread into areas outside of the construction area.	USFWS BO CM 8	Bio, ECL	Con				
All heavy equipment will be washed and cleaned of debris prior to entering a new area to minimize the spread of invasive weeds.	USFWS BO CM 8	Bio, ECL	Con				
Appropriate erosion and siltation controls will be installed prior to the onset of vegetation clearing and be maintained in good repair until the completion of project construction.	May 2019 NES	Bio, ECL	Pre-con				
A construction Storm Water Pollution Prevention Plan (SWPPP) and soil erosion and sedimentation plan will be developed to identify best management practices that will be implemented during construction to minimize erosion, prevent sediment and debris from entering drainages, and maintain water quality.	USFWS BO CM 10	Bio, NPDES, ECL	Con				
Sediment will not be stockpiled in areas where arroyo toads might burrow into the loose material, or where material could be washed into drainages by rainfall.	USFWS BO CM 10	Bio, ECL	Con				
Erosion and sediment control devices used for the proposed project, including fiber rolls and bonded fiber matrix, will be made from biodegradable materials such as jute, with no plastic mesh, to avoid creating a wildlife entanglement hazard.	USFWS BO CM 10	Bio, ECL	Con				

Task and Brief Description	Reference	Construction Responsible Branch / Staff	Timing / Phase	NSSP, SSP, Bid Item	Action Taken to Comply/Remarks	Sign Off	
						Initial	Date
All equipment maintenance, staging, and dispensing of fuel, oil, coolant, or any other such activities will be restricted to designated areas located within previously disturbed upland. They will be located such that runoff from the designated areas will not enter arroyo toad breeding habitat.	USFWS BO CM 11	ECL	Con				
Impacts from fugitive dust will be avoided and minimized through watering, monitoring, and other appropriate best management practices (BMPs).	USFWS BO CM 12	ECL	Con				
The project site will be kept as clean of debris as possible. All food-related trash items will be enclosed in sealed containers and regularly removed from the site.	USFWS BO CM 13	ECL	Con				
If fill must be borrowed from or disposed of offsite, the construction contractor will identify any necessary borrow and disposal sites and provide this information to Caltrans for review. Caltrans will review borrow and disposal site information and submit the information to the CFWO. If borrow or disposal activities may affect a listed species or critical habitat, Caltrans will reinitiate Section 7 consultation.	USFWS BO CM 14	ECL	Con				
If nighttime construction is necessary, all project lighting (e.g. staging areas, equipment storage sites, or the roadway) will be of the lowest illumination necessary for human safety, selectively placed, and directed onto the roadway or construction site and away from sensitive habitats. Light glare shields will be used to reduce the extent of illumination into sensitive habitats.	USFWS BO CM 9	ECL	Con				
Project personnel will be prohibited from bringing domestic pets to construction sites to ensure that domestic pets do not disturb or depredate wildlife in adjacent native habitats.	USFWS BO CM 15	ECL	Con				
The Project Biologist will submit monthly email reports (including photographs of impact areas) to the Caltrans Project Biologist during clearing of, and construction within, 500 feet of arroyo toad habitat. The monthly reports will document that authorized impacts were not exceeded and general compliance with all conditions. The reports will also outline the location of construction activities, the type of construction that occurred, and equipment used. These reports will specify numbers and locations, and sex of listed species (if observed), their observed behavior (especially in relation to construction activities), and remedial measures employed to avoid and minimize impacts to these species. Raw field notes should be available upon request by the CFWO. The Caltrans Project Biologist will review reports and forward them to the CFWO.	USFWS BO 16	Bio, ECL	Con				

Task and Brief Description	Reference	Construction Responsible Branch / Staff	Timing / Phase	NSSP, SSP, Bid Item	Action Taken to Comply/Remarks	Sign Off	
						Initial	Date
The Project Biologist will submit a final report to the Caltrans Project Biologist within 120 days of project completion including photographs of impact areas and adjacent habitat, documentation that authorized impacts were not exceeded, and documentation that general compliance with all conservation measures was achieved. The report will specify numbers and locations of listed species (if observed); observed listed species behavior (especially in relation to project activities); and remedial measures employed to avoid and minimize impacts to listed species and critical habitat. Raw field notes should be available upon request by the CFWO. The Caltrans Project Biologist will review the report and forward it to the CFWO within 15 days of receipt.	USFWS BO 17	Bio, ECL	Post-Con				
An Arroyo Toad Translocation Monitoring Program will be developed and implemented for work at culvert locations 2-6. The program will be provided to the CFWO for review and approval. The program will include the following requirements:	USFWS BO CM 3	Bio, ECL	Con				
o Prior to clearing, grubbing, and construction activities, the Project Biologist will monitor arroyo toad breeding activity in those project areas containing or adjacent to breeding habitat. The biologist will determine when egg clutches or larvae are no longer present in the waterway. When sign of breeding is no longer evident, an exclusionary fence will be installed and clearance surveys initiated.	USFWS BO CM 3						
o Prior to clearing, grubbing, and construction activities, arroyo toad exclusionary fencing will be installed around the perimeter of all work areas within potential arroyo toad habitat with the exception of areas where topography is such that the Project Biologist, using his or her best judgment, believes that occupancy by arroyo toads is unlikely, and installation of toad fencing is not practical.	USFWS BO CM 3						

Task and Brief Description	Reference	Construction Responsible Branch / Staff	Timing / Phase	NSSP, SSP, Bid Item	Action Taken to Comply/Remarks	Sign Off	
						Initial	Date
o In areas without water flows, the arroyo toad exclusion fence will consist of woven nylon fabric or similar material at least 2 feet high, staked firmly to the ground. In areas where soils are suitable for aestivation, the lower 1 foot of material will stretch outward along the ground and be secured with a continuous line of sandbags to prevent burrowing beneath the fence. Doubling this line (i.e., stacking sand or gravel bags two-deep) may reduce maintenance and should be considered in order to improve the integrity of the fencing.	USFWS BO CM 3						
o In areas where soils are not suitable for aestivation, (i.e., hardpack soils), fencing may be buried to reduce maintenance concerns and improve the integrity of the fencing over time. Mechanized installation of buried portions of the fencing may be considered as it may reduce foot-traffic and disturbance of adjacent habitat.	USFWS BO CM 3						
o In areas where there is existing or potential inundation, wire mesh held in place with t-posts and secured with sand or gravel bags should be utilized to allow for the passage of water flows without compromising the integrity of the fencing. A small amount of vegetation may be removed to facilitate installation of the fencing, so long as it is conducted without disturbing the soil in areas where soils are suitable for aestivation, and does not impact habitats to be avoided	USFWS BO CM 3						
o In areas with challenging topography where arroyo toad occupancy is deemed unlikely by the Project Biologist, the limits of work will be clearly delineated using other means (e.g., stakes with bright orange flagging). Fence ends will tie into areas with challenging topography in a manner designed to keep toads out of the project footprint.	USFWS BO CM 3						
o Decisions on the appropriate fencing installation method for a given reach will be made by the Project Biologist. Fencing will be clearly visible to personnel on foot and operating heavy equipment.	USFWS BO CM 3						

Task and Brief Description	Reference	Construction Responsible Branch / Staff	Timing / Phase	NSSP, SSP, Bid Item	Action Taken to Comply/Remarks	Sign Off	
						Initial	Date
o Caltrans will submit to the CFWO for approval, at least 5 days prior to initiating project impacts (except for impacts resulting from clearing to install arroyo toad exclusion fencing), the final plans for initial clearing and grubbing of habitat and project construction. These final plans will include photographs that show the fenced limits of impact, the flagged project limits in areas with challenging topography where occupancy was deemed unlikely, and all areas to be impacted or avoided. Arroyo toad exclusionary fencing will be maintained in good repair until the completion of project construction and removed upon project completion.	USFWS BO CM 3						
o Prior to the initiation of construction activities, but after exclusionary fencing has been installed, a minimum of 6 consecutive night surveys for arroyo toads will be conducted within the fenced project area by the Project Biologist. Surveys will continue until there have been 2 consecutive nights without toads inside the fence. Arroyo toads will be excluded from the fenced project footprint before large-scale vegetation removal efforts commence; however, some vegetation removal may occur to improve visibility for salvage of arroyo toads, so long as it is conducted without disturbing the soil and within the fenced project footprint.	USFWS BO CM 3						
o Surveys will be conducted during the appropriate climatic conditions and during the appropriate time of night to maximize the likelihood of encountering arroyo toads. If climatic conditions are not appropriate for arroyo toad movement during the surveys, the biologist may attempt to illicit a response from the arroyo toads, during nights (i.e., at least 1 hour after sunset) with temperatures above 10 degrees Celsius (50 degrees Fahrenheit), by spraying the project area with water to simulate a rain event. If it is not feasible to spray the entire project area with water then spraying would occur in the areas of greatest concern under the direction of the Project Biologist.	USFWS BO CM 3						

Task and Brief Description	Reference	Construction Responsible Branch / Staff	Timing / Phase	NSSP, SSP, Bid Item	Action Taken to Comply/Remarks	Sign Off	
						Initial	Date
o Capture methods will follow commonly accepted techniques for amphibian field sampling, including capture by hand and pitfall trapping. All pitfall traps will be covered or removed when clearance surveys are not occurring. Arroyo toads will be handled in an expedient manner with minimal harm. Captured arroyo toads will not be handled for more than 15 minutes. Any arroyo toad exhibiting signs of physiological distress will be immediately released in the most proximal and safe suitable habitat. Any arroyo toads captured will be checked for a Passive Integrated Transponder (PIT) tag with a PIT-tag reader by the Project Biologist	USFWS BO CM 3						
o If the exclusion fencing is found to be damaged during weekly monitoring conducted by the Project Biologist during the active season for the arroyo toad (March 1 to August 15), allowing arroyo toads access to the impact area, arroyo toad exclusion surveys will be repeated by the Project Biologist for a minimum of 3 consecutive nights prior to any additional construction activities occurring in the area.	USFWS BO CM 3						
o The approved Project Biologist will monitor all groundbreaking activities that occur within areas demarcated with arroyo toad exclusion fencing to salvage and relocate arroyo toads and to quantify take of arroyo toads.	USFWS BO CM 3						
o To avoid transferring disease or pathogens between aquatic habitats during surveys and handling of arroyo toads, the Project Biologist will follow the Declining Amphibian Population Task Force's Fieldwork Code of Practice, or newer version when available.	USFWS BO CM 3						
o American bullfrogs and other exotic animal species that prey upon or compete with arroyo toads for resources will be excluded, destroyed, or otherwise permanently removed from the habitat by the Project Biologist if encountered.	USFWS BO CM 3						

Task and Brief Description	Reference	Construction Responsible Branch / Staff	Timing / Phase	NSSP, SSP, Bid Item	Action Taken to Comply/Remarks	Sign Off	
						Initial	Date
o The Project Biologist will maintain a complete record of all arroyo toads encountered and relocated in association with the project. The date and time of observation, sex, physical dimensions, PIT-tag code, coordinates/specific location of capture and release, and photographs (when possible) will be recorded and provided to the CFWO, within 30 days of the completion of translocation.	USFWS BO CM 3						
Biological Environment: least Bell's vireo (LBV) and Hermes copper butterfly (HCB)							
The Project Biologist will be on site at culvert locations 2-6 during initial clearing/grubbing and weekly during project construction to ensure compliance with all conservation measures. The Project Biologist will be familiar with LBV and HCB and their habitat and will have experience monitoring both species.	May 2019 NES	Bio, ECL	Pre-con, Con				
LBV and HCB habitat outside of the construction area at culvert locations 2-6 will be designated as an ESA on the project plans and protected by installing temporary ESA fencing, if necessary, under the supervision of the Project Biologist.	May 2019 NES	Bio, Design, ECL	Design				
Construction personnel will be instructed to take care to avoid effects from activities including, but not limited to, trampling during construction activities and herbicide drift during restoration activities to areas with suitable LBV and HCB habitat.	May 2019 NES	Bio, ECL	Con				
Work at culvert locations 2-6 will occur outside of the LBV nesting season, which occurs between March 15 and September 30. If work cannot occur outside the nesting season, a pre-construction nesting bird survey for birds, including LBV, will be conducted by the Project Biologist.	May 2019 NES	Bio, ECL	Con				
If LBV are found, a no-work buffer zone will be placed around the nest until the adults or no longer using it or the young have fledged as determined by the Project Biologist. The extent of the no-work buffer shall be determined by the Project Biologist (coordinating with the CFWO and CDFW) 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.	May 2019 NES	Bio, ECL	Con				
Work at culvert location 2 will occur outside the HCB larval emergence and flight seasons, which occurs between mid-April and early July.	May 2019 NES	Bio, ECL	Con				
Spiny redberry and California buckwheat, the host and nectar plants, respectively of the HCB, will be avoided to the extent practicable.	May 2019 NES	Bio, ECL	Con				

Task and Brief Description	Reference	Construction Responsible Branch / Staff	Timing / Phase	NSSP, SSP, Bid Item	Action Taken to Comply/Remarks	Sign Off	
						Initial	Date
Temporary impacts to 0.90 acres of habitat suitable for LBV and 0.20 acres of habitat suitable for HCB will be revegetated and restored with native species.	May 2019 NES	Bio, ECL	Con				
All equipment maintenance, staging, and dispensing of fuel, oil, coolant, or any other such activities will be restricted to designated areas that are outside of habitat suitable for LBV and HCB at culvert locations 2-6 and at a minimum of 100 feet from drainages and associated plant communities.	May 2019 NES	Bio, ECL	Con				
The Project Biologist will submit a final report to CFWO within 120 days of project completion including photographs of impact areas and adjacent habitat, documentation that authorized impacts were not exceeded, and documentation that general compliance with all conservation measures was achieved. The report will specify numbers and locations of LBV and HCB, if observed. Raw field notes should be available upon request by CFWO.	May 2019 NES	Bio, ECL	Post-Con				
Biological Environment: Natural Communities							
Riparian and upland habitats (including Southern coast live oak, southern riparian scrub, chaparral, oak woodland) will be designated as ESA on plans. Areas will also be delineated with temporary ESA fencing, if needed.	May 2019 NES	Bio, ECL	Design, Coin				
All equipment maintenance, staging, and dispensing of fuel, oil, coolant, or any other related activities will be outside of riparian forest habitats.	May 2019 NES	ECL	Con				
If native riparian or upland habitat is present in access areas and cannot be avoided, vegetation will be either trimmed back, cut above ground level, or driven over instead of complete removal.	May 2019 NES	Bio, ECL	Con				
Native trees over 4 inches diameters breast height will be avoided.	May 2019 NES	Bio, ECL	Con				
Appropriate erosion and siltation controls will be installed prior to construction and maintenance until construction completion.	May 2019 NES	ECL	Con				
Impacts from fugitive dust will be avoided and minimized through watering, monitoring, and other appropriate BMPs.	May 2019 NES	ECL	Con				
Project site will be kept as clean of debris as possible.	May 2019 NES	ECL	Con				
Temporary impacts to 0.36 acres of southern coast live oak riparian forest habitat will be immediately reseeded with native seed mix after construction. See Table 4 (from the May 2019 NES) for proposed seed mix.	May 2019 NES	Bio, ECL	Con				
Temporary impacts to 0.10 acres of southern riparian scrub habitat will be immediately reseeded with native seed mix after construction. See Table 4 (from the May 2019 NES) for proposed seed mix.	May 2019 NES	Bio, ECL	Con				

Task and Brief Description	Reference	Construction Responsible Branch / Staff	Timing / Phase	NSSP, SSP, Bid Item	Action Taken to Comply/Remarks	Sign Off	
						Initial	Date
Temporary impacts to 2.7 acres of chaparral habitat will be immediately reseeded with native seed mix after construction. See Table 5 (from the May 2019 NES) for proposed seed mix.	May 2019 NES	Bio, ECL	Con				
Temporary impacts to 0.2 acres of oak woodland habitat will be immediately reseeded with native seed mix after construction. See Table 5 (from the May 2019 NES) for proposed seed mix.	May 2019 NES	Bio, ECL	Con				
Biological Environment: Compensatory Mitigation							
0.25 acres of permanent impacts to southern coast live oak riparian forest habitat will be offset by a mitigation ratio of 3:1 and debit of 0.75 acre of riparian woodland habitat from the Rancho San Diego Mitigation Bank.	May 2019 NES	Bio, Stewardship	Con				
0.43 acres of permanent impacts to streambed habitat will be offset by a mitigation ratio of 2:1 and debit of 0.86 acre of riparian woodland habitat from the Rancho San Diego Mitigation Bank.	May 2019 NES	Bio, Stewardship	Con				
0.06 acres of permanent impacts to southern riparian scrub habitat will be offset by a mitigation ratio of 2:1 and debit of 0.12 acres of riparian woodland habitat from the Rancho San Diego Mitigation Bank.	May 2019 NES	Bio, Stewardship	Con				
Water Quality / NPDES / Stormwater:							
A Stormwater Data Report will be required.		NPDES, Design	Design				
A Stormwater Pollution Prevention Plan (SWPPP) will be required during construction.		NPDES, RE	Con				
A Hydraulic Study will be prepared during design before RTL.		Hydraulics, Design	Design				
Cultural Resources:							
The resource location and appropriate buffer zone will be established (ESA).	April 2019 ESA Action Plan	ECL, PQS	Before construction				
ESA conditions will be incorporated into the ECR and will be part of the RE's pending file.	April 2019 ESA Action Plan	ECL, PQS	Before construction				
The locations of the ESA will be field-verified and staked on the ground.	April 2019 ESA Action Plan	ECL, PQS	Before construction				
At a pre-construction meeting, the Contractor will be notified of the presence of ESAs.	April 2019 ESA Action Plan	ECL, PQS	Before construction				

Task and Brief Description	Reference	Construction Responsible Branch / Staff	Timing / Phase	NSSP, SSP, Bid Item	Action Taken to Comply/Remarks	Sign Off	
						Initial	Date
An ESA fence will be installed at least one week prior to the start of construction and CA-SDI-22,460 and 22,461 will be avoided.	April 2019 ESA Action Plan	ECL, PQS	During construction				
A field visit will be conducted to ensure the effectiveness of the ESA fence.	April 2019 ESA Action Plan	ECL, PQS	During construction				
A field visit will be conducted to document the results.	April 2019 ESA Action Plan	ECL, PQS	After construction				
Hazardous Waste / Materials:							
XRF results show the soil is non-hazardous. For excavation or soil disturbance, implement SSP 7-1.02K(6)(j)(iii) Earth Material Containing Lead.	April 2019 Haz Waste Review	Haz	Con	SSP 7-1.02K(6)(j)(iii)			
For soil disturbance relating to culvert invert paving, outlet erosion remediation, and guard rail replacement, implement SSP 14-11.09 Minimal Disturbance of Material Containing Regulated Concentrations of ADL.	April 2019 Haz Waste Review	Haz	Con	SSP 14-11.09			
All earth material disturbed shall be wasted in the immediate area of disturbance.	April 2019 Haz Waste Review	Haz	Con				
A CIH prepared Lead Compliance Plan is required.	April 2019 Haz Waste Review	Haz	Con	LCP			
Imported material shall be obtained from an established commercial source within the State and defined as "clean soil" per the Caltrans/DTSC Agreement. If a commercial source is not available, then analytical tests must be conducted to demonstrate that the soil is "clean."	April 2019 Haz Waste Review	Haz	Con				
Permits, Licenses, Approvals, and Certifications (PLACs):							
A 1602 Streambed Alteration Agreement from California Department of Fish and Wildlife will be required prior to RTL.	June 2019 FED	Stewardship	Design				
A 401 Certification from the Regional Water Quality Control Board will be required prior to RTL.	June 2019 FED	Stewardship	Design				
A 401 Certification from the U.S. EPA will be required prior to RTL if there is work on tribal land.	June 2019 FED	Stewardship	Design				
A 404 Permit from U.S. Army Corps will be required prior to RTL.	June 2019 FED	Stewardship	Design				
Other:							

Task and Brief Description	Reference	Construction Responsible Branch / Staff	Timing / Phase	NSSP, SSP, Bid Item	Action Taken to Comply/Remarks	Sign Off	
						Initial	Date
If scope of work changes or if previously unidentified environmental resources are discovered, contact Caltrans Environ. Planner for further review.							

PROJECT PERSONNEL

Initial	Full Name	Title / Area	Phone Number	Remarks
	Engineering			
	Kazim Mamdani	Project Manager	(619) 718-7840	
	Solomon Tadesse	Project Engineer	(619) 767-2361	
	Melisa Wiedemeier	Hydraulics	(619) 688-3188	
		Resident Engineer (RE)		
	Environmental			
	San Li	Environmental Coordinator	619-688-3139	
	Koji Tsunoda	Archaeologist / Professionally Qualified Staff (PQS)	(619) 688-0188	
	Mike Galloway	Caltrans Biologist (Bio)	(619) 688-0191	
	Pauline Lamphere	Permit Coordinator (Stewardship)	(619) 688-0119	
	Tyler Ho	Environmental Engineer (Haz)	(619) 688-3180	
	Evan Torres	Landscape Architect	(619) 688-0226	
	Roy Santos	Stormwater Engineer	(619) 688-3645	
	Lauren Kemp	Env Construction Liaison (ECL)	858-518-2116	
	Jared Corbitt	Env Construction Liaison (ECL)	858-220-3986	
	Right Of Way			
	Darcy Gabel	Acquisitions Coordinator	(619) 688-6855	
	Elizabeth Robledo	Tribal Liaison	(619) 688-6912	
	Planning			
	Chi Vargas	Native American Liaison	(619) 688-6807	
	Consultant			
		Project Biologist		