

Attachment F
Environmental Commitments Record

[This page intentionally blank.]

Acronym List for the Environmental Commitments Record Table for the State Route 138 Widening Project

Acronym	Definition
AQMD	Mojave Desert Air Quality Management District
CIA	Community Impact Assessment
HPSR	Historic Property Survey Report
ISA	Initial Assessment (for Hazardous Materials)
NES	Natural Environment Study
PER	Paleontology Evaluation Report
PIR	Paleontology Identification Report
PMP	Paleontology Mitigation Plan
PS&E	Plans Specifications and Estimates
RE	Resident Engineer
SWDR	Stormwater Data Report
TDM	Traffic Design Manager
VIA	Visual Impact Assessment

Environmental Commitments Record

SR 138 Widening Project

SBD-138-PM (0.0/R15.2), LA-138-PM (69.4/74.9)

EA 3401U0

No.	Avoidance, Minimization, and/or Mitigation Measures	Responsible Party/Monitor	Timing/ Phasing	Task Completed (Sign and Date)	Commitment Source	Comments
Community Impacts						
Com-1	Prepare staging plan that will ensure that access to homes and businesses is available at all times with minimum disruption of traffic flow and increase in delays.	Design/RE	PS&E, Construction		Department Protocol	
Com-2	Design a public campaign through which the public will be advised of construction plans that may have impacts on traffic, and bus service.	Public Affairs/RE	Pre-Construction		Department Protocol/CIA	
Com-3	Keep emergency services providers informed of changes in traffic plans, and continue coordination on traffic management over the entire period of construction.	RE	Pre-Construction		Department Protocol/CIA	
Relocation and Real Property Acquisition						
RRA-1	All property owners shall be compensated for the acquired property.	Right of Way	Final Design		Federal Act	
Environmental Justice						
EJ-1	Complying with applicable federal requirements in regard to access to services for persons with limited English proficiency.	Environmental/Design/RE	Pre-Construction		CIA	
EJ-2	Ensure that methods used to disbursement of information and community involvement are useful to reach all segments of population in the affected communities.	Public Affairs	PA&ED, Construction		CIA	

No.	Avoidance, Minimization, and/or Mitigation Measures	Responsible Party/Monitor	Timing/ Phasing	Task Completed (Sign and Date)	Commitment Source	Comments
Utilities/Emergency Services						
U/ES-1	The Department will coordinate with the affected utility companies during the final design phase of the project to insure that services are not impacted.	Design/RE	PS&E, Construction			
U/ES-2	A Comprehensive Transportation Management Plan (TMP) will be prepared to minimize traffic inconveniences due to construction activities. The plan will include coordination with emergency services providers in the case of any road closures.	TDM/RE/Public Relations	PS&E, Construction		CIA	
Traffic & Transportation						
Tran-1	A comprehensive Transportation Management Plan (TMP) will be required to minimize the traffic impact due to construction activities. A detailed TMP will be developed during the PS&E phase of the project. Some of the general elements that will be included are Public Awareness Campaign (PAC), Construction Zone Enhancement Enforcement Program (COZEPP) and Enhanced COZEPP, Portable Changeable Message Signs (PCMS), Caltrans Highway Information Network (CHIN), and Radar Speed Message Sign	TDM/RE/Public Relations	PS&E, Construction		CIA	
Visual/Aesthetics (Landscape)						
Phase 1 Measures						
Land-1	Project construction shall retain the maximum amount of existing vegetation by minimizing the amount of clearing and	Design/RE	PS&E, Construction		VIA	

No.	Avoidance, Minimization, and/or Mitigation Measures	Responsible Party/Monitor	Timing/ Phasing	Task Completed (Sign and Date)	Commitment Source	Comments
Land-2	earthwork. The restoration of mountain and desert scrub vegetation shall include replanting of native vegetation on disturbed sites (including staging areas, borrow pits, and other areas of surface disturbance) and preventing soil loss and erosion on shoulders and slopes. Plant materials used for restoration and landscaping shall be indigenous to the area. Hydroseeding and seedling planting shall occur in the early fall, just prior to the rainy season.	Design/RE	PS&E, Construction		VIA	
Land-3	A vista point shall be developed at the intersection of SR 138 and Lone Pine Canyon Road, to provide a rest stop or turnout where travelers and visitors may get a closer and longer look at the Mormon Rocks near the highway.	Design/RE	PS&E, Construction		VIA	
Land-4	After cutting of rock outcroppings along the highway, the rock faces shall be provided with a similar surface as the Mormon Rocks formation, as possible. This will include over excavation to create vertical ridges, provision of a relatively smooth finish on the rock surface with shallow horizontal groves, and rock rounding to eliminate hard edges.	Design/RE	PS&E, Construction		VIA	
Land-5	Slopes shall be designed at lower grades to reflect the natural terrain. Disturbed or manufactured slopes shall be landscaped with native vegetation to reflect vegetation in the surrounding area and to mask the hard lines created by engineered cuts and embankments.	Design/RE	PS&E, Construction		VIA	

No.	Avoidance, Minimization, and/or Mitigation Measures	Responsible Party/Monitor	Timing/ Phasing	Task Completed (Sign and Date)	Commitment Source	Comments
Land-6	The bridge structures, signs and other highway appurtenances to be replaced shall be selected for their form, scale, color, aesthetic treatment, spacing, and configuration to enhance their compatibility with the rural community and mountain or desert landscape. Specifically, call box signs to be relocated shall consist of brown signs and green call boxes to reflect the natural landscape.	Design/RE	PS&E, Construction		VIA	
Land-7	Where existing developments about the highway, the highway pavement shall be blocked by planting trees and shrubs between the setback areas (front yards, parking areas, etc.) and the highway to reduce permanent views of the highway pavement.	Environmental/ Design/RE	PS&E, Construction		VIA	
Land-8	Joshua trees that would be removed shall be replanted away from the proposed pavement areas within the existing right-of-way. If on-site relocation is not feasible, Caltrans shall contact the San Bernardino County Building and Safety Office for a list of residents willing to adopt and care for the relocated trees. Transplantation standards shall follow best nursery practices.	Environmental/ Design/RE	PS&E, Construction		VIA/NES	
Land-9	The support structure for the CMS will have a non reflective finish or paint to blend into the surrounding natural landscaped.	Design/RE	PS&E, Construction		VIA	
Land-10	The height of the newly identified retaining walls will be minimized to the maximum extent feasible, and the surface treated with	Design/RE	PS&E, Construction		VIA	

No.	Avoidance, Minimization, and/or Mitigation Measures	Responsible Party/Monitor	Timing/ Phasing	Task Completed (Sign and Date)	Commitment Source	Comments
	a similar aesthetic treatment as proposed for the previously identified walls.					
Phase 2 Measures						
Land-11	Project construction shall retain the maximum amount of existing vegetation by minimizing the amount of clearing and earthwork. During construction, Environmentally Sensitive Area (ESA) fencing shall be provided around trees and vegetation to be preserved.	Environmental/ Design/RE	PS&E, Construction		VIA/NES	
Land-12	The restoration of desert scrub vegetation shall include replanting of native vegetation and Joshua trees on disturbed sites (including staging areas, borrow pits, and other areas of surface disturbance) and preventing soil loss and erosion on shoulders and slopes. Plant materials used for restoration and landscaping shall be indigenous to the area. Hydroseeding and seedling planting shall occur in the early fall, just prior to the rainy season.	Environmental/ Design/RE	PS&E, Construction		VIA/NES	
Land-13	Joshua trees that would be removed shall be replanted away from the proposed pavement areas. If on-site relocation is not feasible, Caltrans shall contact the San Bernardino County Building and Safety Office for a list of residents willing to adopt and care for the relocated trees. Transplantation standards shall follow best nursery practices.	Environmental/ Design/RE	PS&E, Construction		VIA/NES	
Land-14	The bridge structures, signs and other highway appurtenances shall be selected for their form, scale, color, aesthetic treatment, spacing, and configuration to	Design/RE	PS&E, Construction		VIA	

No.	Avoidance, Minimization, and/or Mitigation Measures	Responsible Party/Monitor	Timing/ Phasing	Task Completed (Sign and Date)	Commitment Source	Comments
Cultural Resources						
Cult-1	If buried cultural materials are encountered during construction, work in the area would halt until a Department archaeologist can evaluate the nature and significance of the find. A Native American Monitor shall be present during all ground disturbing activities to prevent any impact to any unknown cultural resources.	RE/Cultural	Pre-Construction		HPSR	
Cult-2	If human remains are exposed during construction, State Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County coroner has made the necessary findings as to origin and disposition, pursuant to Public Resources Code 5097.98.	RE/Cultural	Pre-Construction		HPSR	
Cult-3	California Historical Landmark NO. 577 Mormon Trail Monument will be relocated within the proposed right of way. The monument will be protected in place at its new location and any damage done during construction will be repaired in-kind. Thereafter, it is the Department's responsibility to keep the monument in good repair pursuant to Public Resources Code 5023.	Design/RE	Construction/ Post-Construction		HPSR/Public Resources Code 5023	
Water Quality and Stormwater Runoff						
SW-1	Existing vegetation will be preserved in place when possible. Additional	Storm Water/RE/Biologist	Construction		SWDR	

No.	Avoidance, Minimization, and/or Mitigation Measures	Responsible Party/Monitor	Timing/ Phasing	Task Completed (Sign and Date)	Commitment Source	Comments
	appropriate landscape and vegetated surfaces will be incorporated in project design. Other permanent erosion control on all disturbed surfaces and bare soils will be applied.					
SW-2	Fiber rolls will be placed along the contours of the new slopes at appropriate intervals.	Storm Water/RE	Construction		SWDR	
SW-3	Bio-filtration swales and/or strips will be constructed. When possible, they will be constructed early in the construction stages to also function as a construction BMP.	Storm Water/RE	Construction		SWDR/Permits	
SW-4	Rock slope protection will be constructed as part of the project. It will be put in place as soon as possible during construction to prevent scour of upstream facilities.	Storm Water/RE/Biologist	Construction		SWDR/Permits	
SW-5	The contractor will develop a separate SWPPP that will detail all construction storm water pollution protection measures that will be used on the project. The SWPPP will be consistent with the Department's State Water Resources Control Board permit. This plan would incorporate the resource agency approved methodology as well as all other appropriate techniques for reducing impacts to water quality.	Storm Water/RE/Biologist	Construction		SWDR/Permits/ NES	

No.	Avoidance, Minimization, and/or Mitigation Measures	Responsible Party/Monitor	Timing/ Phasing	Task Completed (Sign and Date)	Commitment Source	Comments
SW-6	If needed, a Clear Water Diversion may be used to divert water for the construction of the Cajon Creek Bridge and/or the Sheep Creek Bridge.	Storm Water/RE/Biologist	Construction		Caltrans Stormwater Quality Handbooks, Construction Site Best Management Practices Manual, Section 7. 1602 Streambed Alteration Permit	
Geology/Soils/Seismic/Topography						
Soil-1	Install brow ditch, erosion mats at the entire slope face, or install asphalt concrete dikes at the top of embankments, as recommended by District Landscape Architects for the various slopes.	Design/RE	Construction		Geotechnical Report	
Soil-2	At the Mormon Rocks cut location, a 4.5 m wide catchment area should be graded between the toe of the cut and the edge of the traveled way. The catchments area should be graded uniformly from the edge of shoulder to the toe of cut, and the toe of the cut slope should be 0.5 m below the edge of traveled way.	Design/RE	Construction		Geotechnical Report	
Soil-3	Construction of the proposed bridge improvements and/or structures replacement may require additional subsurface exploration during the design stage that would permit assessment of seismic effects such as liquefaction. All improvements would be designed to resist the maximum credible earthquake without collapse, structural damage or traffic	Design/RE	Construction		Geotechnical Report	

No.	Avoidance, Minimization, and/or Mitigation Measures	Responsible Party/Monitor	Timing/ Phasing	Task Completed (Sign and Date)	Commitment Source	Comments
Soil-4	obstruction. Blasting shall conform to standard specifications and control measures so it will not cause damage to nearby buildings and bridges, including any highway fixtures. It shall also be controlled so it will not cause undue annoyance to the nearby residents or danger to the employees on the project. Traffic controls shall be coordinated with the District's Traffic Management Unit to ensure safety and reduce construction impacts on traffic.	Design/RE	Construction		Geotechnical Report	
Paleontology						
Paleo-1	<u>Monitoring:</u> A qualified principal paleontologist that meets the qualifications of the Department will be assigned to the project. The principal investigator will be responsible to implement the mitigation plan and maintain professional standards of work, including monitoring, reporting, and recovering of resources. The principal investigator will designate the project team to include a qualified field supervisor and qualified monitors.	RE/Cultural	Construction		Paleontological Identification and Evaluation Report. Paleontological Mitigation Plan.	
Paleo-2	<u>Construction Phase:</u> The Contractor shall provide the Resident Engineer with a schedule of ground-disturbing activities to be conducted within the project limits in writing at least 15 working days prior to construction and update the schedules as needed. The Resident Engineer will make arrangements for the Paleo Monitoring Team to be at the work sites in accordance with these requirements. Qualified	RE/Cultural	Pre-Construction/ Construction		(PIR/PER/PMP)	

No.	Avoidance, Minimization, and/or Mitigation Measures	Responsible Party/Monitor	Timing/ Phasing	Task Completed (Sign and Date)	Commitment Source	Comments
	monitors will perform full-time monitoring of construction grading and excavation in the sensitive formations outline above. Personnel must be on call to respond to unanticipated discoveries in other portions of the project area.					
Paleo-3	<u>Communication:</u> Monitors will act to protect potentially significant paleontological resources (including direct notification to construction personnel on site to redirect earthmoving to permit recovery of potentially significant fossils) and by notifying the earthmoving contractor's job supervisor and the paleontological field supervisor of the find. The monitor will estimate the time required to recover the fossil as part of that notification. If work will be diverted for more than two hours or if the construction personnel are not cooperative with the monitor, the paleontological field supervisor will discuss the situation with the Resident Engineer. The Resident Engineer will make final decisions regarding formal Suspend Work orders and disputes between parties.	RE/Cultural	Pre-Construction/Construction		(PIR/PER/PMP)	
Paleo-4	<u>Training:</u> All project personnel shall receive training prior to commencement of work. Paleontological Personnel will receive a copy of the paleontological resources management plan, daily forms and appropriate maps. In addition, all paleontological personnel will receive any mandated safety training and	RE/Cultural	Pre-Construction/Construction		(PIR/PER/PMP)	

No.	Avoidance, Minimization, and/or Mitigation Measures	Responsible Party/Monitor	Timing/ Phasing	Task Completed (Sign and Date)	Commitment Source	Comments
	environmental awareness training before performing any field work on the project. Construction Field Personnel, including all earthmoving personnel and their supervisors, shall be required to attend presentation by the principal paleontologist on possible paleontological resources.					
Paleo-5	Discovery and Recovery: When fossils are discovered, the paleontologist (or paleontological monitor) will recover them. Construction work in these areas will be halted or diverted to allow recovery of fossil remains in a timely manner. Fossil remains collected during the monitoring and salvage portion of the mitigation program will be cleaned, repaired, sorted, and cataloged. Prepared fossils, along with copies of all pertinent field notes, photos, and maps, will then be deposited in a scientific institution with paleontological collections.	RE/Cultural	Construction		(PIR/PER/PMP)	
Paleo-6	Reports: A weekly email summary will be submitted to the Resident Engineer. If fossils are recovered, additional documentation regarding lab work will also be incorporated. These records and the field notes will be used to prepare a monthly letter report. The monthly reports will summarize the monitoring activities of the previous period, discoveries made, earthmoving, a Paleontological Mitigation Report will be completed that outlines the results of the mitigation program.	RE/Cultural	Construction		(PIR/PER/PMP)	

No.	Avoidance, Minimization, and/or Mitigation Measures	Responsible Party/Monitor	Timing/ Phasing	Task Completed (Sign and Date)	Commitment Source	Comments
Hazardous Waste/Materials						
HW-1	Prior to demolition activities, a licensed asbestos abatement firm should be contracted to remove and dispose of ACM. This work should be completed in accordance with the South Coast Air Quality Management District (SCAQMD) guidelines.	Contractor/RE	Pre-Construction		Department Protocol/Site Investigation Reports (SIR)	
HW-2	Any traffic striping and/or pavement markers shall be removed and disposed of in accordance with Department's Special Provisions.	Contractor/RE	Pre-Construction		Department Protocol / SIR	
HW-3	If hazardous wastes/materials and/or groundwater contamination is suspected during construction activities, the Department's Unknown Hazards Procedures will be implemented, the contractor shall stop work in the vicinity of the suspect find, cordon off the area and contact district construction hazardous waste coordinator, district environmental hazardous waste coordinator, maintenance hazardous spill coordinator and district Proposition 65 coordinator. Coordination with the appropriate regulatory agencies will be initiated immediately to develop an investigation plan and remediation plan for the expedited protection of public health and the environment.	Constructor/RE	Construction		Department Protocol / ISA	
HW-4	Asbestos containing materials (ACM) are present in subsurface concrete water pipes (Transite Pipe). Notification shall be provided to the	Constructor/RE	Construction		Department Protocol / ISA	

No.	Avoidance, Minimization, and/or Mitigation Measures	Responsible Party/Monitor	Timing/ Phasing	Task Completed (Sign and Date)	Commitment Source	Comments
	Mojave Desert Air Quality Management District (MDAQMD) as required by the National Emission Standards for Hazardous Air Pollutants (NESHAPS) 40 CFR Part 61, Subpart M, California Health and Safety Code Section 39658(b)(1), and the California Air Resources Board regulations. Notification shall take place a minimum of 10 working days prior to starting removal activities (mdqamd.ca.gov).					
Air Quality						
AQ-1	General contractors shall maintain and operate construction equipment so as to minimize exhaust emissions. During construction, trucks and vehicles in loading and unloading queues would have their engines turned off when not in use, to reduce vehicle emissions. Construction emissions should be phased and scheduled to avoid emissions peaks and discontinued during second-stage smog alerts.	Contractor/RE	Construction		AQ Analysis Report/AQMD Rules	
AQ-2	All equipment shall be properly tuned and maintained in accordance with manufacturer's specifications.	Contractor/RE	Construction		AQ Analysis Report	
AQ-3	Use electricity from power poles, rather than temporary diesel or gasoline powered generators if or where feasible.	Contractor/RE	Construction		AQ Analysis Report	
AQ-4	Use on-site mobile equipment powered by alternative fuel sources (i.e., methanol, natural gas, propane or butane) as feasible.	Contractor/RE	Construction		AQ Analysis Report	
AQ-5	Develop a construction traffic management plan that includes, but is not limited to: (1) consolidating truck deliveries; (2)	Contractor/RE	Construction		AQ Analysis Report	

No.	Avoidance, Minimization, and/or Mitigation Measures	Responsible Party/Monitor	Timing/ Phasing	Task Completed (Sign and Date)	Commitment Source	Comments
	providing a rideshare or shuttle service for construction workers; and (3) providing dedicated turn lanes for movement of construction trucks and equipment on-and off-site.					
AQ-6	Use periodic watering for short-term stabilization of disturbed surface area to minimize visible fugitive dust emissions. For purposes of this rule, use of a water truck to maintain moist disturbed surfaces and actively spread water during visible dusting episodes shall be considered sufficient to maintain compliance;	Contractor/RE	Construction		AQ Analysis Report/AQMD	
AQ-7	Take actions sufficient to prevent project-related track out onto paved surfaces;	Contractor/RE	Construction		AQ Analysis Report	
AQ-8	Cover loaded haul vehicles while operating on publicly maintained paved surfaces;	Contractor/RE	Construction		AQ Analysis Report/AQMD	
AQ-9	Stabilize graded site surfaces upon completion of grading when subsequent development is delayed or expected to be delayed more than 30 days, except when such a delay is due to precipitation that dampens the disturbed surface sufficiently to eliminate visible fugitive dust emissions;	Contractor/RE	Construction		AQ Analysis Report/AQMD	
AQ-10	Clean up project-related trackout or spills on publicly maintained paved surfaces within 24 hours; and	Contractor/RE	Construction		AQ Analysis Report/AQMD	
AQ-11	Reduce nonessential earth-moving activity under high wind conditions. For purposes of this rule, a reduction in earth-moving activity when visible dusting occurs from moist and dry surfaces due to wind erosion shall be considered sufficient to maintain compliance	Contractor/RE	Construction		AQ Analysis Report/AQMD	

No.	Avoidance, Minimization, and/or Mitigation Measures	Responsible Party/Monitor	Timing/ Phasing	Task Completed (Sign and Date)	Commitment Source	Comments
AQ-12	According to Caltrans Standard Specification Provisions, idling time for lane closure during construction is restricted to ten minutes in each direction; in addition, the contractor must comply with South Coast Air Quality Management District's rules, ordinances, and regulations in regards to air quality restrictions. Two lanes will be open to traffic at all times during construction.	Contractor/RE	Construction		AQ Analysis Report/AQMD	
AQ-13	Notify the Air Pollution Control District (APCD) or Air Quality Management District (AQMD) identified below as required by the National Emission Standards for Hazardous Air Pollutants (NESHAP) at 40 CFR Part 61, Subpart M, and California Health and Safety Code section 39658(b)(1). Notification must take place no less than 14 days before starting demolition or renovation activities as defined in the NESHAP regulations.	Contractor/RE	Construction		AQ Analysis Report/AQMD	
Noise						
Noise-1	All equipment will have sound-control devices that are no less effective than those provided on the original equipment. No equipment will have an unmuffled exhaust.	Contractor/RE	Construction		Noise Study Report	
Noise-2	As directed by the Department, the contractor will implement appropriate additional noise mitigation measures, including changing the location of stationary construction equipment, turning off idling equipment, rescheduling construction activity, notifying adjacent	Contractor/RE	Construction		Noise Study Report	

No.	Avoidance, Minimization, and/or Mitigation Measures	Responsible Party/Monitor	Timing/ Phasing	Task Completed (Sign and Date)	Commitment Source	Comments
	residents in advance of construction work, and installing acoustic barriers around stationary construction noise sources.					
Biological Environment						
Natural Communities:						
Bio-1	Construct two Wild Life Crossings at two locations	Design/RE/Biologist	Design/ Construction		NES/Agreement with FS	
Bio-2	Conduct Wildlife study to monitor movement of wildlife across the highway, and the utilization of the crossing..	Design/RE/Biologist	Design/ Construction		NES/Agreement with FS	
Bio-3	Establish and ESA to protect in place Joshua trees and all other vegetation that is outside the work limits. Vegetation removal within footprints shall be minimized to the extent practicable.	Design/RE/Biologist	Design/ Construction		NES/permis	
Bio-4	Vegetation removal shall be limited to the project footprint. Vegetation removal within footprints shall be minimized to the extent practicable.	Design/RE/Biologist	Design/Pre-Construction, Construction		NES/ Permits	
Bio-5	Follow appropriate process for the relocation of Joshua trees, in coordination with CDFG.	Design/RE/Biologist	Design/Pre-Construction, Construction		NES/ Permits	
Bio-6	Compensatory Mitigation: Impacts to riparian vegetation would be offset through compensation as required with CDFG 1602 Streambed Alteration Agreement process at a minimum of a 1:1 ratio.	Design/RE/Biologist	Design/ Construction		NES/ Permits	
Waters of the United States/ Waters of the State						
Bio-7	Section 404 permits applications shall be submitted to the ACOE.	Biologist	Design/ Construction		NES/ Permits	
Bio-8	In conjunction with the 404 permits, Section 401 application shall be submitted	Biologist	Design/ Construction		NES/ Permits	

No.	Avoidance, Minimization, and/or Mitigation Measures	Responsible Party/Monitor	Timing/ Phasing	Task Completed (Sign and Date)	Commitment Source	Comments
Bio-9	to the applicable RWQCBs. Construction activities must demonstrate compliance with National Pollutant Discharge Elimination System (NPDES) Permit regulated by Section 402 of the Clean Water Act.	Biologist/RE	Design/ Construction		NES/ Permits	
Bio-10	Submit applications for 1602 Streambed Alteration Agreement with CDFG.	Biologist	Design/ Construction		NES/ Permits	
Plant Species						
Bio-11	Short-joint beavertail cacti, which would be directly impacted by construction of the proposed project, would be relocated outside of the proposed project impact area prior to the on-set of construction activities. The relocation will comply with the provisions of the Desert Native Plants Act.	RE/Biologist	Design/ Construction		NES/ Permits	
Bio-12	Impacts to riparian areas will be avoided to the maximum extent practicable. Efforts will be coordinated with ACOE, RWQCB, and CDFG during the aquatic permitting process.	RE/Biologist	Design/ Construction		NES/ Permits	
Animal Species						
Bio-13	Burrowing Owls. -Pre-construction surveys for burrowing owls would take place within 30 days prior to the on-set of proposed project construction activities.	RE/Biologist	Design/Pre-Construction/ Construction		NES/ Permits	
Bio-14	- If burrowing owls are found on site during the pre-construction sweep, coordination with CDFG will be conducted to determine the appropriate avoidance and minimization measures required for the project.	RE/Biologist	Design/Pre-Construction/ Construction		NES/ Permits	

No.	Avoidance, Minimization, and/or Mitigation Measures	Responsible Party/Monitor	Timing/ Phasing	Task Completed (Sign and Date)	Commitment Source	Comments
Bio-15	- A Burrowing Owl Mitigation and Monitoring Plan would need to be submitted to CDFG for review and approval prior to passive relocation of owls. The Burrowing Owl Mitigation and Monitoring Plan shall describe proposed relocation and monitoring plans. The plan shall include the number and location of occupied burrow sites and details on adjacent or nearby suitable habitat available to owls for relocation. If no suitable habitat is available nearby for relocation, details regarding the creation of artificial burrows (numbers, location, and type of burrows) shall also be included in the plan. The Plan shall also describe proposed off-site areas to compensate for impacts to burrowing owls/occupied burrows at the project site as required under Compensation Measures described below. Following are measures that could be included in the mitigation and monitoring plan: • Occupied burrows shall not be disturbed during the nesting season of February 1 and August 31, unless a biologist can verify through non-invasive methods that either the owls have not begun egg laying and incubation or that juveniles from the occupied burrows are foraging independently and are capable of independent flight. • Owls must be passively relocated	RE/Biologist	Design/Pre-Construction/Construction		NES/ Permits	

No.	Avoidance, Minimization, and/or Mitigation Measures	Responsible Party/Monitor	Timing/ Phasing	Task Completed (Sign and Date)	Commitment Source	Comments
	from any occupied burrows that will be impacted by project activities, by a qualified biologist. Suitable habitat must be available adjacent or near the disturbance site or artificial burrows would need to be provided nearby. Once the biologist has confirmed that the owls have left the burrow, burrows would be excavated using hand tools and filled to prevent reoccupation. All passive relocation shall be approved by CDFG. The permitted biologist shall monitor the relocated owls a minimum of three days per week for a minimum of three weeks. A report summarizing the results of the relocation and monitoring shall be submitted to CDFG within 30 days following completion of the relocation and monitoring of the owls.					
Bio-16	As compensation for any direct loss of occupied burrowing owl nesting and foraging habitat, the Department shall mitigate by acquiring and permanently protecting known burrowing owl nesting and foraging habitat at the following ratio or as determined by CDFG: a. Replacement of occupied habitat with occupied habitat at 1.5 times, and 6.5 acres per pair or single bird. b. Replacement of occupied habitat with habitat contiguous with occupied habitat at 2 times, 6.5 acres per pair or single bird, and/or c. Replacement of occupied habitat	Biologist	Prior to end of construction		NES/ Permits	

No.	Avoidance, Minimization, and/or Mitigation Measures	Responsible Party/Monitor	Timing/ Phasing	Task Completed (Sign and Date)	Commitment Source	Comments
	with suitable unoccupied habitat at 3 times, 5.5 acres per pair or single bird. The Department shall establish a non-wasting endowment account for the long-term management of the preservation site for burrowing owls. The site shall be managed for The benefit of burrowing owls. The preservation site, site management shall be approved by CDFG.					
Bio-17	Other Species: - Avoid the take of active nests. All nests will be excluded from bridge structures that will be affected by project construction prior to the migratory bird nesting period (February 1 through September 1). An onsite biological monitor will coordinate during construction activities in the nesting season to ensure that active nests are not taken.	RE/Biologist	Design/Pre-Construction/Construction		NES/ Permits	
Bio-18	- Vegetation removal shall be limited to the project footprint. Vegetation removal within footprints shall be minimized to the extent practicable, and it will be coordinated with ACOE, RWQCB, and CDFG during the aquatic permitting process.	RE/Biologist	Design/Pre-Construction/Construction		NES/ Permits	

No.	Avoidance, Minimization, and/or Mitigation Measures	Responsible Party/Monitor	Timing/ Phasing	Task Completed (Sign and Date)	Commitment Source	Comments
Bio-19	A pre-construction sweep will be conducted within 48 hours prior to commencement of the project activities to ensure the avoidance of Le Conte's thrasher and other nesting birds within the project impact area, and to avoid or relocate any nests found. All required measures should be implemented pursuant to the Federal Migratory Bird Treaty Act (MBTA).	RE/Biologist	Design/Pre-Construction/Construction		NES/Permits	
Bio-20	Department of Fish and Game (DFG)-approved biologist shall install exclusionary devices, approved by DFG, to prevent bats and birds from utilizing bridges/culverts before construction activities begin. Exclusionary devices shall be installed on all bridges prior to the initiation of nesting season (February 15) and shall cover both the sides and bottom of each bridge without impeding the passage underneath the bridges. If bats are found using any bridge, roost entrances shall be fitted with one-way doors that allow exits but prevent entrance for a period of several days to encourage the bats to relocate.	RE/Biologist	Pre-construction/construction		NES/Permits	
Bio-21	Bridge widening designs shall contain and be constructed with similar structural features to encourage continued roosting by bats. Replacement roosts shall have comparable thermal stability and durability, the same or similar search image, and the same cryptic roosting conditions as the roosts they replace.	Design/RE/Biologist	Design/construction		NES	

No.	Avoidance, Minimization, and/or Mitigation Measures	Responsible Party/Monitor	Timing/ Phasing	Task Completed (Sign and Date)	Commitment Source	Comments
Bio-22	Alternate bat roosting structures (i.e., light-weight concrete panels) shall be installed on bridges not anticipated to be impacted by construction within the vicinity of the project area at the Santa Ana River. Construction and installation of roosting structures shall be supervised by a DFG-approved biologist. The total length of the roosting structures shall be no less than one-half the total length of the expansion joints that will be impacted during construction. The roosting structures shall remain in place following construction and shall not be removed.	Design/RE	Design/Construction		NES	
Bio-23	No gasoline or diesel engines shall be stored or operated under any bridge, unless the bridge has been cleared of all bats	RE/Biologist	Construction		NES	
Bio-24	If night work (dusk until dawn) in the vicinity of the structure (i.e., roadway widening, resurfacing, lighting, land-closure setup, etc.) is planned between March 1 and September 1, project proponent shall have concurrence from DFG and the Caltrans biologist prior scheduling of any construction activities	RE/Biologist	Construction		NES	
Threatened and Endangered Species						

No.	Avoidance, Minimization, and/or Mitigation Measures	Responsible Party/Monitor	Timing/ Phasing	Task Completed (Sign and Date)	Commitment Source	Comments
Bio-25	Least Bell's Vireo (LBV) As an avoidance measure, impacts to riparian areas shall be avoided to the maximum extent practicable. All areas temporarily affected by surface disturbance within Cajon Creek would be re-vegetated with native plant species present in the area.	RE/Biologist	Design/Pre-Construction/Construction		NES/ Permits	
Bio-26	As required by the USFWS, pre-construction surveys for LBV would be conducted within one year of the on-set of construction activities associated with the proposed project. If LBV were to be detected during these pre-construction surveys, Section 7 consultation would be reinitiated.	RE/Biologist	Design/Pre-Construction/Construction		NES/ Permits	
Bio-27	Arroyo Toad Pre-construction surveys for AT would be conducted within one year of the on-set of construction activities associated with the proposed project. If AT were to be detected during these pre-construction surveys, Section 7 consultation would be reinitiated.	RE/Biologist	Design/Pre-Construction/Construction		NES/ Permits	
Bio-28	Exclusionary fencing, which will also denote the site as an environmentally sensitive area, would be installed to prevent arroyo toads from entering the proposed project site during construction activities.	RE/Biologist	Design/Pre-Construction/Construction		NES/ Permits	
Bio-29	Biological monitoring would be conducted during construction activities by a USFWS-authorized arroyo toad biologist.	RE/Biologist	Design/Pre-Construction/Construction		NES/ Permits	

No.	Avoidance, Minimization, and/or Mitigation Measures	Responsible Party/Monitor	Timing/ Phasing	Task Completed (Sign and Date)	Commitment Source	Comments
Bio-30	Proposed project impacts to riparian areas would be avoided to the maximum extent practicable. All disturbed habitat shall be restored to previous conditions with similar native vegetation present in the disturbed areas. A plant inventory of the project site shall be prepared for the restoration plan of the disturbed area prior commencing activities.	RE/Biologist	Design/Pre-Construction/Construction		NES/ Permits	
Bio-31	Vegetation removal would be minimized to the maximum extent practicable.	RE/Biologist	Design/Pre-Construction/Construction		NES/ Permits	
Bio-32	All applicable Best Management Practices (BMPs) in the Caltrans Construction Site Best Management Practices Manual (2003) would be followed. The contractor would be required to submit a Storm Water Pollution Prevention Plan (SWPPP) to address water quality Caltrans Stormwater unit would assess the effectiveness of the BMPs.	RE/Biologist	Design/Pre-Construction/Construction		NES/ Permits	
Bio-33	Construction activities would cease in rainy weather conditions.	RE/Biologist	Design/Pre-Construction/Construction		NES/ Permits	
Bio-34	No debris, soil, silt, sand, bark, slash, sawdust, rubbish, cement or concrete or washings thereof, oil or petroleum products or other organic or earthen material from any construction or associated activity of whatever nature shall be allowed to enter into or be placed where it may be washed by rainfall or runoff into washes or culverts that cross the project area.	RE/Biologist	Design/Pre-Construction/Construction		NES/ Permits	

No.	Avoidance, Minimization, and/or Mitigation Measures	Responsible Party/Monitor	Timing/ Phasing	Task Completed (Sign and Date)	Commitment Source	Comments
Bio-35	Raw cement/concrete or washing thereof, asphalt, paint or other coating material, oil or other petroleum products, or any other substances which could be hazardous to aquatic-life, resulting from project related activities, shall be prevented from contaminating the soil and/or entering washes or culverts that cross the project area.	RE/Biologist	Design/Pre-Construction/Construction		NES/ Permits	
Bio-36	No equipment maintenance/parking or fueling shall be done within or near any stream, harbor or channel margin, including drainages and washes, where petroleum products or other pollutants from equipment shall enter these areas under any flow condition.	RE/Biologist	Design/Pre-Construction/Construction		NES/ Permits	
Bio-37	Excess materials, debris and trash shall be controlled on site and removed as soon as possible.	RE/Biologist	Design/Pre-Construction/Construction		NES/ Permits	
Bio-38	Caltrans Standard Specifications dust control measures shall be implemented.	RE/Biologist	Design/Pre-Construction/Construction		NES/ Permits	
Bio-39	Any temporary disturbance to the bank or channel shall be re-contoured to existing conditions.	RE/Biologist	Design/Pre-Construction/Construction		NES/ Permits	
Bio-40	Desert tortoise. Construction activities would be limited to previously established access roads and to areas that would be directly impacted by the proposed project footprint. Desert tortoise awareness and education program shall be provided for all contractors, subcontractors and personnel involved with the construction activities of the proposed	RE/Biologist	Design/Pre-Construction/Construction		NES/ Permits	

No.	Avoidance, Minimization, and/or Mitigation Measures	Responsible Party/Monitor	Timing/ Phasing	Task Completed (Sign and Date)	Commitment Source	Comments
	project. Trash Abatement plan shall be adopted for the construction period to avoid attracting predators of tortoises to the construction area					
Bio-41	Vegetation removal would be minimized to the maximum extent practicable.	RE/Biologist	Design/Pre-Construction/Construction		NES/ Permits	
Bio-42	A desert tortoise clearance survey would take place within any suitable desert tortoise habitat occurring on site, 30 days prior to the on-set of construction activities associated with the proposed project.	RE/Biologist	Design/Pre-Construction/Construction		NES/ Permits	
Bio-43	A USFWS Authorized biologist would remain on-call during all proposed project-related construction activities. All construction activities shall stop if desert tortoise is detected or wanders into the project site and the Department shall immediately contact CDFG and USFWS and initiate formal Section 7 Consultation. The detected tortoise shall only be handled by CDFG and USFWS authorized biologist according the guidelines established by the agencies.	RE/Biologist	Design/Pre-Construction/Construction		NES/ Permits	

No.	Avoidance, Minimization, and/or Mitigation Measures	Responsible Party/Monitor	Timing/ Phasing	Task Completed (Sign and Date)	Commitment Source	Comments
Bio-44	Mohave ground squirrel. All personnel involved in the construction project shall receive Mohave ground squirrel protection training. Training shall include discussion of the fragility of desert habitats, the importance of the Mohave ground squirrel to the environment, the protections afforded to the Mohave ground squirrel by the California Endangered Species Act, and the correct protocol to follow should Mohave ground squirrel be encountered.	RE/Biologist	Design/Pre-Construction/Construction		NES/ Permits	
Bio-45	Pre-construction surveys will be conducted to locate and avoid Mohave ground squirrels that may be present within the project area.	RE/Biologist	Design/Pre-Construction/Construction		NES/ Permits	RE/Biologist
Bio-46	Monitoring shall take place to avoid any direct take of individual Mohave ground squirrels that may enter the project site during construction activities.	RE/Biologist	Design/Pre-Construction/Construction		NES/ Permits	RE/Biologist
Bio-47	No firearms or pets shall be allowed at the work area. Firearms carried by authorized security and law enforcement personnel are exempt from this term and condition.	RE/Biologist	Design/Pre-Construction/Construction		NES/ Permits	RE/Biologist
Bio-48	Minor changes may develop through coordination efforts with CDFG as a portion of the 2081 Permit process, which will be obtained after completion of the final environmental document.	RE/Biologist	Design/Pre-Construction/Construction		NES/ Permits	RE/Biologist

No.	Avoidance, Minimization, and/or Mitigation Measures	Responsible Party/Monitor	Timing/ Phasing	Task Completed (Sign and Date)	Commitment Source	Comments
Bio-49	Compensatory Mitigation: Permanent impacts to Mohave ground squirrel habitat would likely be mitigated at a ratio of 3:1 through consultation with CDFG during an inter-agency meeting held on September 22, 2009.	Biologist	Prior to end of construction		NES/Permits	
Bio-50	Southwestern Willow Flycatcher A pre-construction survey for SWWFC would be conducted within one year of the on-set of construction activities associated with the proposed project. If SWWFC were to be detected during these pre-construction surveys, Section 7 consultation would be reinitiated	Biologist	Pre-construction		NES	
Invasive Species						
Bio-51	The landscaping and erosion control included in the project will not use species listed as noxious weeds.	RE/Biologist	Design/ Construction		NES/ Permits	
Bio-52	In areas of particular sensitivity, extra precautions will be taken if invasive species are found in or adjacent to the construction areas. These include the inspection and cleaning of construction equipment and eradication strategies to be implemented should an invasion occur.	RE/Biologist	Design/ Construction		NES/ Permits	