Commitment ID	Task and Brief Description	Responsible Branch / Staff	Timing / Phase	NSSP Req.	Action Taken to Comply with Task	Permits, Specs, Plans, References	Task Completed	Remarks	Environmental Compliance			
			Land Use –(all	minimization m	easures)							
LU-1			Design through Construction			EIR/EIS Section 3.1.1, Land Use						
	Parks and Recreation (minimization and avoidance)											
	Project construction BMPs would be employed to minimize dust and manage storm water runoff.	Caltrans Design; Resident Engineer (RE)/SWPPP	Construction			EIR/EIS Section 3.1.4, Parks and Recreation						
PARKS-2	Avoid impacts to the two Section 4(f) park/ recreation facilities; See Appendix B for more information. (Parcels # 3236001900 and # 3238027900)	RE	Final Design/Construction			EIR/EIS Section 3.1.4, Parks and Recreation and Appendix B						
			Farmland	s/ Timberlan	ds							
AG-1	In cases where farming is unlikely to continue, the small remainder parcels are to be identified as a farmland conversion, and Caltrans will acquire these property remainders and offer them to adjacent farmland property owners.	PE/Right-of-Way (ROW)	Pre-Construction			EIR/EIS Section 3.1.3						
AG-2	Caltrans will contribute to the California Farmland Conservancy Program's work to identify suitable agricultural land for mitigation of impacts to farmland and to fund the purchase of agricultural conservation easements from willing sellers. The performance standards for this measure are to preserve Important Farmland in an amount commensurate with the quantity and quality of the converted farmlands, within the same agricultural regions as the impacts occur, at a replacement ratio of not less than 2:1.	PE/ ROW	Construction			EIR/EIS Section 3.1.3						
AG-3	Upon approval of the project, and when sufficient design details are known, Caltrans ROW staff will contact any potentially affected livestock owner to discuss how the project may affect grazing operations and to address compensation strategies as part of the Relocation Assistance Program (RAP).	ROW	Final Design			EIR/EIS Section 3.1.3						
AG-4	Within a 100-foot buffer area from future property lines with farmland, disturbed surface areas will be stabilized utilizing native vegetation and soils clear of invasive plant species. Soil amendments, if used, must comply with the requirements in the California Food and Agricultural Codes. Soil amendment must not contain paint, petroleum products, pesticides, or any other chemical residues harmful to animal life or plant growth. The construction contract will include provisions to protect against the spread of invasive species.	PE/ Landscape Architecture	Pre- Construction			EIR/EIS Section 3.1.3						
AG-5	Infill material to be used in the project shall not be obtained from borrow sites comprised of Prime Farmland. When selecting sites for wetland mitigation Prime Farmland will be avoided to the extent possible.	RE	Construction			EIR/EIS Section 3.1.3						
			Community Impacts	S (avoidance an	d minimization)							

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COMM-1	Aesthetic treatments such as native landscaping, decorative sound walls, and energy efficient lighting fixtures would help minimize visual impact and reduce light pollution. Project design would be done in compliance with the Rural Outdoor Lighting District Ordinance of Los Angeles County.	Design; Landscape Architecture Final Design		EIR/EIS Section 3.1.4, Community Impacts, Community Character and Cohesion			
СОММ-2	Provide pedestrian overcrossings, minimize right-of-way width, and provide adequate signage to help minimize effects. The project would be designed to be sensitive to the existing environment in which it is constructed.	Caltrans Landscape; Final Design; Design; RE Construction		EIR/EIS Section 3.1.4, Community Impacts, Community Character and Cohesion			
		Relocation and Real Property Acquisition (	avoidance and minimization	on)			
RELOC-1	To ensure that persons displaced as a result of the project are treated fairly, consistently, and equitably, relocation services and benefits shall be administered according to Caltrans' Relocation Assistance Program (RAP).  As part of Caltrans' Relocation Assistance Program (RAP), advisory services would be provided to assist individuals and businesses displaced by the project.	Caltrans ROW Agent; Design		EIR/EIS Section 3.1.4, Community Impacts, Relocations and Real Property Acquisition			
RELOC-2	Land using corridor preservation would be acquired in compliance with the Department policy of Designation of Special Corridors for Priority Acquisition, codified as California Government Code Section 65081.3 and California Public Resources Code Section 33910 (Eaves). Designation of Special Corridors for Priority Acquisition shall also be in compliance with 23 U.S.C. 134 and 135; 42 U.S.C. 7410 et seq.;49 U.S.C. 5303 and 5304; 49 CFR 1.48, 1.51 and 613			EIR/EIS Section 3.1.4, Community Impacts, Relocations and Real Property Acquisition			
		Utilities / Emergency Services	(minimization)				
UT-1	Caltrans would coordinate with all affected private and public service utilities during the design stage to identify any potential conflicts with existing utilities. This process would include evaluation of ways to avoid utility relocations by refining the project design and/or protecting existing utilities in place. After seeking approval from utility providers, final relocation/protection in place measures would be incorporated into the final plans and specifications. Per Caltrans requirements, all linear underground utilities within Caltrans' ROW would be encased from ROW to ROW in either steel or concrete.	PE Final Design		EIR/EIS Section 3.1.5, Utilities / Emergency Services			
UT-2	All construction activities will adhere to LADWP's Standard Conditions for Construction.	PE/RE Construction		EIR/EIS Section 3.1.5, Utilities / Emergency Services			

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UT-3	Caltrans would coordinate the proposed project work with the emergency service providers in the area. Contractors would work closely with the Antelope Valley and Newhall CHP areas to determine the best time for closures and detours if necessary. Utilizing CHP officers for traffic control (COZEEP), potential temporary speed reductions, and proper signage would be utilized as needed.	PE/RE	Pre- Construction		EIR/EIS Section 3.1.5, Utilities / Emergency Services			
		Traffic and Transpo	rtation / Pedestrian and Bicycle	Facilities (avoidance and	d minimization)			
TRAF-1	Construction of the proposed improvements would be staged to minimize impacts to traffic on SR-138, I-5 and SR-14 during construction.	PE	Final Design		EIR/EIS Section 3.1.6, Traffic and Transportation			
TRAF-2	A minimum of two lanes would remain open during the construction period. Temporary detours are needed at several locations along the corridor where the proposed facility intersects the existing to avoid full closure of the highway.	PE	Final Design		EIR/EIS Section 3.1.6, Traffic and Transportation			
TRAF-3	Implement the Northwest 138 Corridor Improvement Project Revised Traffic Management Plan (TMP) to address specific short-term traffic impacts during construction of the proposed project. The TMP contains the following elements intended to reduce traveler delay and enhance traveler safety. These elements may be refined during final design for implementation during project construction.  • Public Information • Motorist Information Strategies • Incident Management • Construction Zone Enhanced Enforcement Program (COZEEP) • Alternate Route Strategies		Final Design/Construction		EIR/EIS Section 3.1.6, Traffic and Transportation / Pedestrian and Bicycle Facilities			
TRAF-4	Coordination between Caltrans and the County of Los Angeles would be required during construction to ensure that potential impacts where the trails converge at SR-138 and Ridge Route Road are minimized by avoiding concurrent construction at this intersection.	RE	Pre-Construction; Construction		EIR/EIS Section 3.1.6, Traffic and Transportation / Pedestrian and Bicycle Facilities			
TRAF-5	Temporary re-routing of bicycle traffic may be required during the second stage of construction. As such, bicycling advocacy groups would be included in the planning of detours which may affect bicycle traffic.	RE	Construction		EIR/EIS Section 3.1.6, Traffic and Transportation / Pedestrian and Bicycle Facilities			
			Visual / Aesthetics (minin	ization)				
VIS-1	To the extent practicable, preserve existing vegetation through thoughtful alignment of the route so that large areas of vegetation are not in the alignment's path.  During construction, minimize disturbance of and protect in place the existing native vegetation, such as native riparian vegetation, California juniper, and Joshua trees, as much as possible.	Caltrans Design; RE	Final Design; Construction		EIR/EIS Section 3.1.7, Visual / Aesthetics			

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	Use context sensitive street lighting designs. The project's lighting design shall be consistent with Caltrans and County lighting guidelines and standards and would be developed in coordination with Caltrans Landscape Architecture staff for areas within state right-of-way as well as with County staff.  To preserve the dark night sky as a natural resource in the								
VIS-2	desert region communities, dark-sky compliant lighting should be selected to minimize light pollution cast into the sky while maximizing light cast onto the ground, as appropriate. A lighting plan shall be developed that requires project lighting to be appropriately shielded. It is a goal of the Los Angeles County Specific Plan to preserve the dark night sky as a natural resource in the Desert Region communities. In accordance with the Antelope Valley Area Plan, Dark Sky Policies have been developed so that humans and wildlife may enjoy beautiful dark Antelope Valley skies unimpeded by light pollution. The lighting plan and context sensitive designs would help accomplish that goal.		Final Design			EIR/EIS Section 3.1.7, Visual / Aesthetics			
VIS-3	The project should consolidate signs to minimize visual clutter. Lack of visual obstructions, such as cables and billboards is desirable. To the extent practicable, place traffic control cabinets, irrigation controller cabinets, electrical systems cabinets, etc. so that are not in direct view of the public.	Traffic Design;PE	Final Design			EIR/EIS Section 3.1.7, Visual / Aesthetics			
VIS-4	Grading shall appear natural through slope rounding and geomorphic grading that facilitates a smooth and seamless transition from existing to new slopes.	Landscape Architecture/PE/RE	Final Design/Construction			EIR/EIS Section 3.1.7, Visual / Aesthetics			
VIS-5	To the extent practicable, keep elevated structures as low as possible or design to integrate them within the surrounding environment.	PE	Final Design			EIR/EIS Section 3.1.7, Visual / Aesthetics			
	Plant native vegetation to replace the vegetation that would be removed or affected by construction activity. It should be consistent with the character of the adjacent community landscape.								
VIS-6	Where feasible, vegetation would be planted between roadway and communities to provide a visual buffer.	Caltrans Landscape Architect;	Design			EIR/EIS Section 3.1.7, Visual / Aesthetics			
	Use context-sensitive aesthetic treatments on structures and architecture and provide context sensitive design through color incorporated into the project elements. The aesthetic features shall be developed in coordination with Caltrans Landscape Architecture.								
		Cultura	Resources - (avoidance,	minimization	n, & mitigation measures)				
CUL-1	the Antelope Valley that provides an archaeological context as well as prehistoric and historic-era research themes and	Caltrans Environmental Branch Chief; Caltrans Archaeologist	Pre-Construction			EIR/EIS Section 3.1.8, Cultural Resources			

Commitment ID	Task and Brief Description	Responsible Brancl / Staff	Timing / Phase	NSSP Req.	Action Taken to Comply with Task	Permits, Specs, Plans, References	Task Completed	Remarks	Environmental Compliance
	proper. The research design will serve as guidance for future archaeological investigations in the region.								
CUL-2	An Environmentally Sensitive Area (ESA) Action Plan will be developed to ensure the avoidance and protection of historic properties/historical resources during project construction. The ESA Action Plan details the protective measures to be employed at various states of the project (before, during, and after construction) and identifies the parties responsible for	RE; Caltrans Environmental Brancl Chief; Caltrans Archaeologist	Pre-Construction; Construction; Post- Construction			EIR/EIS Section 3.1.8, Cultural Resources			
CUL-3	discoveries occur during archaeological monitoring, Caltrans will implement the procedures outlined under the PRDM Plan.	Caltrans Environmental Brancl Chief; Caltrans Architectural Historian; RE	Pre-Construction; Construction			EIR/EIS Section 3.1.8, Cultural Resources			
CUL-4	Caltrans will provide project design plans to the State Historic Preservation Officer (SHPO) for review and comment for the retaining wall, fencing, and relocated driveway associated with the Kinsey Mansion to ensure conformance with the Secretary of Interior's Standards for the Treatment of Historic Properties. Specifically, fencing visually similar to the original fencing would be installed at the mansion and a retaining wall at this location would be treated with a rustic rock finish, including color.	Caltrans Environmental Brancl Chief; Caltrans Architectural Historian;	h Pre-Construction; Construction; Post- Construction			EIR/EIS Section 3.1.8, Cultural Resources			
CUL-5	Caltrans will create electronic content for a smartphone traveler application that describes and interprets the historic and cultural properties along the State Route 138, between Interstate 5 and State Route 14.	Caltrans Environmental Brancl Chief, Caltrans Architectural Historiar	Construction; Post-			EIR/EIS Section 3.1.8, Cultural Resources			
		Hydro	logy and Floodplain	(avoidance and	minimization measures)				
HYDRO-1	All storm drain outlets would have appropriate energy dissipation prior to discharging into natural water courses to minimize the potential for erosion. These energy dissipaters would consist of riprap aprons at the foot of all storm drain headwall outlets and down drains discharging to natural water courses. The riprap aprons would be appropriately sized based on the velocity of flow at the outlet and in accordance with the California Bank and Shore Rock Slope Protection Design Manual (October 2000).	PE	Final Design			EIR/EIS Section 3.2.1, Hydrology and Floodplain			
HYDRO-2	Protect River from Toxic Discharge. The contractor shall be required to follow pertinent paragraphs of the Caltrans manual, California Standard Specifications, Section, 7 – 1.01G which begins, "The contractor shall exercise every reasonable precaution to protect streams from pollution with fuels, oils, bitumen, calcium chloride, and other harmful materials". Construction byproducts and pollutants such as oil, cement, and wash-water shall be prevented from discharging into the stream and shall be collected and removed from the site. No equipment may	RE	Construction			EIR/EIS Section 3.2.1, Hydrology and Floodplain			

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	be parked within the immediate watershed of the stream channel. Equipment may be refueled and serviced at ar "equipment laydown" area out of the immediate watershed of the Santa Clara River or the canals that drain to a river								
HYDRO-3	Control Erosion. Silt fencing (or filter fabric) shall be used to catch any short-term erosion or sedimentation that may inadvertently occur. Measures may include but not be limited to the use of sediment basins, hay bales and/or silt fences. This requirement corresponds to California Standard Specifications, Section 7-1.01G, "Where working areas encroach on live streams, barriers to adequately protect the flow of muddy water into streams shall be constructed and maintained between working areas and streams" Ditches should be installed at the top of the cut/toe of fill areas and the bare slopes should be revegetated with non-invasive, native vegetation found within the project study area.	RE	Construction			EIR/EIS Section 3.2.1, Hydrology and Floodplain			
HYDRO-4	Build Cofferdams. Using non-erodable, clean materials, cofferdams or temporary berms shall be built to keep construction activities out of the live stream. Water from these construction envelopes shall be transported off-site or	RE	Construction			EIR/EIS Section 3.2.1, Hydrology and Floodplain			
		Water Qu	ality and Storm Water I	Runoff (ave	oidance and minimization	)			
WQ-1	The Temporary Construction Site BMP strategy for the project would consist of the following:  Soil Stabilization Measures  Sediment Control Measures  Tracking Control  Non-Storm Water Management Measures  General Construction Site Management  Storm Water Sampling and Analysis	RE	Construction			EIR/EIS Section 3.2.2, Water Quality			
WQ-2	The minimum erosion control measures considered for this project would include:  • Move-in/Move-out (Erosion Control)  • Fiber rolls  • Rolled Erosion Control Product (Netting) The move-in/move-out (erosion control) would be required due to the size and the three-year duration of the project construction and would be utilized to ensure permanent erosion control stabilization is in place. The fiber rolls would be placed on disturbed soils to remain unpaved or unlined. The rolled erosion control product (netting) would be placed in all drainage ditches and slopes greater than 4(H):1(V). Hard surfaces for the project drainage are anticipated to consist of rock slope protection and the end of pipe and culvert outlets.	RE	Construction			EIR/EIS Section 3.2.2, Water Quality			

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WQ-3	All work in waterways would be scheduled per regulatory requirements and would be detailed in the project's special provisions during the PS&E phase. Maintenance pullouts would be considered for the project, and side slopes would be specified as flat as possible to minimize erosion and for ease of maintenance. Concentrated flows would be collected into stabilized earth ditches or lined ditches.	RE	Construction		EIR/EIS Section 3.2.2, Water Quality			
WQ-4	No work would take place in flowing water, and all work areas in waterways would be reduced to the maximum extent feasible to minimize impacts.	RE	Construction		EIR/EIS Section 3.2.2, Water Quality			
WQ-5	Construction staging areas would be in upland areas outside waterways to reduce direct and indirect impacts on lakes, creeks, and drainages in the project area. Construction equipment would use existing roadways to the extent feasible.	RE	Pre-Construction; Construction		EIR/EIS Section 3.2.2, Water Quality			
WQ-6	ESA fencing would be installed around water resources, where feasible, to prevent unauthorized vehicles or equipment from entering or otherwise disturbing surface waters.	RE	Construction		EIR/EIS Section 3.2.2, Water Quality			
WQ-7	The contractor would implement appropriate hazardous material BMPs to reduce the potential for chemical spills or containment releases into water bodies, including any non-storm water discharge.	RE	Construction		EIR/EIS Section 3.2.2, Water Quality			
WQ-8	All equipment refueling and maintenance would be conducted in the upland staging area per standard	RE	Construction		EIR/EIS Section 3.2.2, Water Quality			
WQ-9	All trash and construction debris would be removed from channels and construction areas on a daily basis. All BMPs would be properly maintained during project construction and	RE	Construction		EIR/EIS Section 3.2.2, Water Quality			
WQ-10	Storm water from the project would discharge to Department of Water Resources (DWR)'s jurisdiction. Work within DWR's ROW at the California Aqueduct crossings would need to be conducted during winter months when the demand for water supply is relatively low. The proposed drainage and storm water treatment design would be reviewed by DWR during the design phase of the project.		Pre- Construction; Construction		EIR/EIS Section 3.2.2, Water Quality			
WQ-11	The following measures from the Preliminary Geotechnical Design Report prepared for the project would be implemented to minimize surficial instability and erosion for cut slopes with a gradient of 2H:1V:  The upper 4 feet of slope face would be covered with materials with a minimum internal friction angle of 30	RE; Caltrans Landscape Architect	Construction		EIR/EIS Section 3.2.2, Water Quality			

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	<ul> <li>degrees and a minimum cohesion of 180 psf. This Select Material should be properly keyed and benched into the sloping ground, and this would require overcutting the slope and re-building the slope with the above Select Material.</li> <li>The slope face would be covered with special man-made erosion control mats or geo-fabric.</li> <li>The slope face would be planted with low-maintenance ground cover that is adaptable to the desert-like arid conditions. A landscape architect specializing in arid environment should be consulted to select the proper ground cover.</li> <li>Slope benching would be used to flatten the overall gradient of the cut slope; the bench would also reduce the velocity of water flowing past the slope face. However, benching alone would not eliminate erosion of the slope face; treatment of the slope face using Select Material, slope planting or special matting is still required.</li> </ul>								
WQ-12	Following completion of construction activities, appropriate erosion control measures would be implemented to ensure that soils disturbed by construction are stabilized, to minimize non-storm water discharges into water bodies in the project area, and to meet the requirements of the Los Angeles and Lahontan RWQCB and project permits.	RE	Construction; Post- Construction			EIR/EIS Section 3.2.2, Water Quality			
WQ-13	Vegetation removed from the project area would be treated and disposed in a manner that would prevent the spread of invasive species on- or off-site. If erosion control seed mixes are used, they would be composed of non-invasive species, and all erosion control would be conducted in a manner that would not result in the spread of invasive species.	RE	Construction			EIR/EIS Section 3.2.2, Water Quality			
WQ-14	BMPs, such as silt fencing, fiber rolls, straw bales, or other measures, would be implemented during construction to minimize the potential for dust, debris, and construction materials to fall into waterways, or otherwise leave the construction area.	RE	Construction			EIR/EIS Section 3.2.2, Water Quality			
WQ-15	A Storm Water Management Plan (SWMP) would be prepared to reduce or eliminate pollutants in runoff discharging to drainage conveyances and waterways. The SWMP is the framework for developing and implementing guidance to meet permit requirements for storm water discharges.  Storm water quality mitigation is accomplished by complying with the Statewide Permit and the Storm Water Management Plan (SWMP). Avoidance and minimization measures for storm water are accomplished through implementation of approved BMPs, which are generally broken down into four categories; Pollution Prevention, Treatment, Construction, and Maintenance BMPs. The Storm Water Program contains guidance for implementation of each of these BMPs. Certain		Final Design			EIR/EIS Section 3.2.2, Water Quality			

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	projects may require installation and maintenance of permanent controls to treat storm water. Selection and design of permanent project BMPs is refined as the project progresses through the planning stage and into final design.								
WQ-16	Vegetation clearing would be minimized to the extent feasible. Where possible, existing vegetation would be mowed to allow vegetation to reestablish and prevent potential storm water impacts	RE	Pre-Construction/ Construction			EIR/EIS Section 3.2.2, Water Quality			
WQ-17	Following construction, all temporarily disturbed areas would be restored to pre-project conditions.	RE	Post-Construction			EIR/EIS Section 3.2.2, Water Quality			
WQ-18	Measures to mitigate for unavoidable impacts (both permanent and temporary) on jurisdictional features will be coordinated with USACE, RWQCB, and CDFW during the permitting process with consideration of onsite restoration, off-site mitigation, and in-lieu fees. In general, the ratios are based on the amount and quality of the impacted jurisdictional features of the agencies. In determining appropriate mitigation ratios for impacts to waters of the State, RWQCB staf considers Basin Plan requirements (minimum 1.5:1 mitigation ratio for impacts to wetlands) and utilizes 12501-SPD Regulatory Program Standard Operating Procedure for Determination of Mitigation Ratios published December 2012 by the USACE, South Pacific Division.	S V - d d e Caltrans Biologist f 1 s g	Construction; Post- Construction			EIR/EIS Section 3.2.2, Water Quality			
WQ-19	A qualified water quality monitor with experience and training in natural resources, geology, soils, hydrology ecology, or related discipline would be on site every day during project construction. The water quality monitor would have experience in storm wate management, erosion prevention, and erosion contro as evidenced by work experience or certifications such as Qualified Stormwater Practitioner, or Qualified Stormwater Designer.	, / / rRE; SWPPP   Coordinator	Construction			EIR/EIS Section 3.2.2, Water Quality			
WQ-20	A clear communication plan between project staff, Caltrans the County, environmental compliance monitors, and regulatory agencies would be developed and regularly updated to allow for efficient communication between all project personnel.	Biologist; SWPPP	Pre-Construction; Construction			EIR/EIS Section 3.2.2, Water Quality			
		Geology	/ Soils / Seismic / T	opography (a	voidance and minimization	)			
GEO-1	The proposed improvements would be designed to meet current standards, which would minimize the vulnerability of the roadway and supporting structures to damage from fault rupture.	PE	Final Design			EIR/EIS Section 3.2.3, Geology/ Soils/ Seismic/ Topography			

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	Special design considerations would be incorporated into the seismic design of retaining walls within the Alquist-Priolo Special Studies Zone to minimize potential impacts.								
GEO-2	During a seismic event, Quail Lake would be susceptible to the risk of seiches, which could result in flooding in the area of the proposed improvements. Therefore, seismic design features shall be incorporated into the project to minimize potential impacts on the risk of seiches.	PE	Final Design			EIR/EIS Section 3.2.3, Geology/Soils/Seismic/Topograp hy			
GEO-3	<ul> <li>distance of two feet from edges of new fills.</li> <li>Fill on sloping ground should be properly keyed and benched into existing ground and placed as specified in Caltrans Standard Specifications.</li> <li>Over excavations should be observed by qualified geotechnical personnel to verify that firm and unyielding bottoms are exposed.</li> </ul>	RE	Construction			EIR/EIS Section 3.2.3, Geology/Soils/Seismic/Topograp hy			
GEO-4	Settlement magnitude and settlement period should be evaluated using site-specific soil borings and laboratory test results during the PS&E phase. Settlement, global stability, and surficial stability of all fill slopes would be evaluated during the PS&E phase.	PE	Final Design			EIR/EIS Section 3.2.3, Geology/Soils/Seismic/Topograp hy			
GEO-5	<ul> <li>For cut slopes with a gradient of 4H: 1V or flatter, surficial stability is not a design concern. The following measures or a combination of the measures can be used to minimize surficial instability for cut slopes with a gradient of 2H: 1V:</li> <li>Cover the upper four feet of slope face using materials with a minimum internal friction angle of 30 degrees and a minimum cohesion of 180 psf. This Select Material should be properly keyed and benched into the sloping ground. This would require over-cutting the slope and rebuilding the slope with the above Select Material.</li> <li>Cover the slope face with special man-made erosion control mats or geo-fabric.</li> <li>Plant the slope face with low-maintenance ground cover that is adaptable to the desert-like arid conditions. A landscape architect specializing in arid environments should be consulted to select the appropriate ground cover.</li> <li>Use slope benching to flatten the overall gradient of the cut slope; the bench would also reduce the velocity of water flowing past the slope face. Treatment of the slope face using Select Material, slope planting, or special matting is required.</li> </ul>	PE	Final Design			EIR/EIS Section 3.2.3, Geology/Soils/Seismic/Topograp hy			

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GEO-6	Where steeper slopes are to be retained, modified standard plan design or special-design walls would be required.	PE	Final Design		EIR/EIS Section 3.2.3, Geology/Soils/Seismic/Topograp hy			
GEO-7	Modified standard plan design and/ or special-design walls would be needed for seismic design of all wall types within the San Andreas Fault zone. Large ground accelerations and lateral displacements could occur in this area and special designs must be considered.	PE	Final Design		EIR/EIS Section 3.2.3, Geology/Soils/Seismic/Topograp hy			
GEO-8	<ul> <li>The minimum erosion control measures considered for this project would include:</li> <li>Move-in/Move-out (Erosion Control)</li> <li>Fiber rolls</li> <li>Rolled Erosion Control Product (Netting)</li> <li>All work in waterways would be scheduled per regulatory requirements and would be detailed in the project's special provisions during the PS&amp;E phase. Maintenance pullouts would be considered for the project, and side slopes would be specified as flat as possible to minimize erosion and for ease of maintenance. Concentrated flows would be collected into stabilized earth ditches or lined ditches.</li> <li>See WQ-1 through WQ-16</li> </ul>	PE; RE	Design; Construction		EIR/EIS Section 3.2.3, Geology/Soils/Seismic/Topograp hy			
GEO-9	Given seismic concerns in the area adjacent to the San Andreas Fault, a fault study shall be completed during the design phase. Special structure design shall be incorporated into the new bridge location near Gorman Post Road to tolerate potential offset due to fault rupture.	PE	Final Design		EIR/EIS Section 3.2.3, Geology/Soils/Seismic/Topograp hy			
		1	Paleontology (avoidance, minimizatio	n, and mitigation)				
PALEO-1	sensitivity of the geologic units and the location and extent of the planned excavation activities.	Paleontology	Final Design		EIR/EIS Section 3.2.4, Paleontology			
PALEO-2	The qualified Principal Paleontologist would meet the qualifications outlined under preparer qualifications in the Caltrans Standard Environmental Reference, Volume 1, Chapter 8, Paleontology. The Principal Paleontologist would be responsible for implementing the mitigation plan and maintaining professional standards of work. The Principal Paleontologist would designate a project team that includes a qualified field supervisor and qualified monitors.		Construction		EIR/EIS Section 3.2.4, Paleontology			
PALEO-3	All paleontological personnel would receive a copy of the paleontological mitigation plan, daily forms and appropriate maps and would read and sign the Code of Safe Practices.  All paleontological personnel would receive any mandated safety training and environmental awareness training before performing any work.	RE	Construction		EIR/EIS Section 3.2.4, Paleontology			

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PALEO-4	excavations greater than 11 feet deep in the Holocene sediments would be monitored.	RE	Construction		EIR/EIS Section 3.2.4, Paleontology			
PALEO-5	All monitoring paperwork and photographs would be submitted to the Principal Paleontologist weekly. As needed, paperwork and photographs would be submitted to the Caltrans Task Manager/Paleontology Coordinator.	RE	Construction		EIR/EIS Section 3.2.4, Paleontology			
PALEO-6	Upon conclusion of earthmoving, a final Paleontological Mitigation Report (PMR) would be prepared. The report would be submitted to the Caltrans Task Manager/ Paleontology Coordinator for approval. Copies of the final report would go to Caltrans, the repository if scientifically valuable fossils have been collected, and other parties as requested.	Caltrans Paleontology Specialist	Construction		EIR/EIS Section 3.2.4, Paleontology			
PALEO-7	Paleontology Coordinator for the project. Agency personnel would be party to all discussions regarding recovery, documentation, analysis and curation.	RE; Caltrans Paleontology Specialist	Construction		EIR/EIS Section 3.2.4, Paleontology			
PALEO-8	Fossils meeting significance criteria would be curated in perpetuity at a Caltrans approved repository along with all project data and a copy of the final report. The repository will be identified in the Paleontological Resources Mitigation Plan.	RE; Caltrans Paleontology Specialist	Construction		EIR/EIS Section 3.2.4, Paleontology			
		Haza	ardous Waste / Materials (Avoidan	ce and Minimization)				
HW-1	<ul> <li>Additional field inspections/reconnaissance to identify environmental concerns would be required. The following investigations would be implemented:</li> <li>Site investigations (soil sampling);</li> <li>ADL investigation; and</li> <li>ACM/LBP surveys: Although ACM/LBP would be avoided to the extent practicable, there are approximately 7 structures, 195,000 linear feet of striping removal, and 22,500 linear feet of underground utilities that would require surveys and investigation. \$50,000 should be allotted to perform the investigations.</li> <li>Treated Wood Waste (TWW): \$210,000 should be allotted for the investigations and removal of approximately 1,400 tons of material.</li> </ul>	PE; Caltrans Hazardous Waste Specialist	Pre- Construction		EIR/EIS Section 3.2.5, Hazardous Waste / Materials			
HW-2	disposed of in accordance with federal, State, and local	PE; Caltrans	Pre- Construction		EIR/EIS Section 3.2.5, Hazardous Waste / Materials			

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	\$200-\$300/ton of excavated (impacted) soil shall be allocated.							
HW-3	and contaminant materials testing methods, mitigation and contaminant management requirements, and health and safety requirements for construction workers. Approximately \$200-\$300/ton of excavated (impacted) soil shall be allocated for this project.	Hazardous Waste Specialist	Final Design		EIR/EIS Section 3.2.5, Hazardous Waste / Materials			
HW-4	If dewatering is required, conduct a groundwater evaluation to assess disposal alternatives and to comply with the requirements of the National Pollutant Discharge Elimination System (NPDES), during the preparation of Plans, Specifications, and Estimates (PS&E). Whenever possible, adjust the alignment to avoid areas of contaminated groundwater. To avoid or minimize exposure to contaminated groundwater, containerize, sample, and/or treat groundwater for disposal, discharge into the stormdrain system through an NPDES permit, or dispose in a recycling facility. Approximately \$2-\$3/ gallon needs to be allocated for dewatering purposes.	Specialist	Pre- Construction		EIR/EIS Section 3.2.5, Hazardous Waste / Materials			
HW-5	Prior to the completion of full or partial acquisition of properties that have not been fully assessed, conduct additional site investigations to identify RECs. As required by	PE; Caltrans Hazardous Waste Specialist	Pre- Construction; Construction		EIR/EIS Section 3.2.5, Hazardous Waste / Materials			
HW-6	for TPH, VOCs and metals at ranches with farming operations. Approximately \$20,000-\$30,000 needs to be allocated for additional investigations for each farmland with USTs/ASTs.	PE; Caltrans Hazardous Waste Specialist	Pre- Construction; Construction		EIR/EIS Section 3.2.5, Hazardous Waste / Materials			
HW-7	systems for netroleum TPH VOCs PCRs and metals	PE; Caltrans Hazardous Waste Specialist	Pre- Construction		EIR/EIS Section 3.2.5, Hazardous Waste / Materials			
			Air Quality (Avoidance and Mi	nimization)				
AQ-1	During clearing, grading, earthmoving, or excavation operations, excessive fugitive dust emissions would be controlled by regular watering or other dust preventive measures using the following procedures, as specified in the South Coast Air Quality Management District (SCAQMD)	RE	Construction		EIR/EIS Section 3.1.3, Air Quality			

Commitment ID	Task and Brief Description	Responsible Branch / Staff	Timing / Phase	Action Tokon to	Permits, Specs, Plans, References	Task Completed	Remarks	Environmental Compliance
	<ul> <li>Rule 403. These control techniques would be indicated in project specifications.</li> <li>All material excavated or graded would be sufficiently watered to prevent excessive amounts of dust.</li> <li>Watering would occur at least twice daily with complete coverage, preferably in the late morning and after work is done for the day.</li> <li>All material transported on site or off site would be either sufficiently watered or securely covered to prevent excessive amounts of dust.</li> <li>The area disturbed by clearing, grading, earthmoving, or excavation operations would be minimized so as to prevent excessive amounts of dust.</li> <li>Visible dust beyond the property line emanating from the project would be prevented to the maximum extent feasible.</li> <li>Additionally, the Best Available Control Measures (BACMs) and Reasonably Available Control Measures (RACMs)</li> </ul>							
AQ-2	specified in SCAQMD's Rule 403 Implementation Handbook shall be incorporated into the project construction.  Project grading plans would show the duration of construction. Ozone precursor emissions from construction equipment vehicles would be controlled by maintaining equipment engines in good condition and in proper tune per	PE; RE	Construction		EIR/EIS Section 3.1.3, Air Quality			
AQ-3	manufacturers' specifications.  All trucks that are to haul excavated or graded material on site would comply with State Vehicle Code Section 23114, with special attention to Sections 23114(b)(F), (e)(2), and (e)(4), as amended, regarding the prevention of such material spilling onto public streets and roads.	RE	Construction		EIR/EIS Section 3.1.3, Air Quality			
AQ-4	The contractor would adhere to the California Department of Transportation (Caltrans) Standard Specifications for Construction (Sections 14.9-02 and 14-9.03).	RE	Construction		EIR/EIS Section 3.1.3, Air Quality			
AQ-5	Should the project geologist determine that asbestos- containing materials (ACMs) are present at the project study area during final inspection prior to construction, the appropriate methods would be implemented to remove ACMs.	RE Caltrans Hazardous Waste Specialist	Construction		EIR/EIS Section 3.1.3, Air Quality			
AQ-6	All construction vehicles both on- and off-site shall be prohibited from idling in excess of 5 minutes.	RE	Construction		EIR/EIS Section 3.1.3, Air Quality			
AQ-7	Landscaping reduces surface warming, and through photosynthesis, decreases CO2. Landscaping would be provided where necessary within the corridor to provide aesthetic treatment, replacement planting, or mitigation planting for the project. The landscape planting would help offset any potential CO2 emissions increase.	PE; Caltrans Landscape Architect	Final Design		EIR/EIS Section 3.1.3, Air Quality			
AQ-8	The project would recommend the use of energy-efficient lighting, such as light emitting diode (LED) traffic signals. LED bulbs—or balls, in the stoplight vernacular—cost \$60 to \$70 apiece but last five to six years, compared to the one-year average lifespan of the incandescent bulbs previously	PE	Design		EIR/EIS Section 3.1.3, Air Quality			

Commitment ID Task and Brief Description	Responsible Branch / Staff	Timing / Phase NSSP Req.	Action Taken to Comply with Task  Permits, Specs, Plans, References  Task Com	oleted Remarks	Environmental Compliance			
used. The LED balls themselves consume 10 percent of the electricity of traditional lights, which would also help reduce the project's CO2 emissions.								
According to Caltrans Standard Special Provisions, idling time for lane closure during construction is restricted to 10 minutes in each direction. In addition, the contractor must comply with Title 13, California Code of Regulations (CCR) Section 2449(d)(3) that was adopted by the ARB on June 15, R 2008. This regulation restricts idling of construction vehicles to no longer than 5 consecutive minutes. Compliance with this regulation reduces harmful emissions from diesel-powered construction vehicles.	RE	Construction	EIR/EIS Section 3.1.3, Air Quality					
Pursuant to 40 CFR 93.115 and 93.117, construction activities would be required to comply with the mitigation and control measures included in Appendix IV-A of the 2007 AQMP.	RE	Construction	EIR/EIS Section 3.1.3, Air Quality					
		Noise and Vibration (Avoidance an	d Minimization)					
NOISE-1 Control noise from construction activities in accordance with Caltrans Standard Specifications and Standard Special Provisions for "Noise Control."	RE	Construction	EIR/EIS Section 3.1.4, Noise and Vibration					
NOISE-2  Use newer equipment with improved noise muffling and ensure that all equipment items have the manufacturers' recommended noise abatement measures, such as mufflers, engine enclosures, and engine vibration isolators intact and operational. Newer equipment would generally be quieter in operation than older equipment.	RE	Construction						
Construction activities shall be limited to the hours specified by applicable local noise ordinances, Monday through Friday, excluding weekends and holidays. If construction is needed outside those hours, coordination with the affected local jurisdiction would be necessary.	RE	Construction	EIR/EIS Section 3.1.4, Noise and Vibration					
		Energy (Minimization meas	ıres)					
As part of the Plans, Specifications, and Estimates (PS&E), a construction efficiency plan would be prepared, which may include the following:  Reuse of existing rail, steel, and lumber wherever possible, such as for falsework, shoring, and other applications during the construction process.  Recycling of asphalt taken up from roadways, if practicable and cost-effective.  Use of newer, more energy-efficient equipment where feasible, and maintenance of older construction equipment to keep in good working order.  Scheduling of construction operations to efficiently use construction equipment (i.e., only haul waste when haul trucks are full and combine smaller dozer operations into a single comprehensive operation, where possible).  Promotion of construction employee carpooling.	PE	Final Design	EIR/EIS Section 3.1.5, Energy					
Biology- Natural Communities (Avoidance, Minimization, and/or Mitigation)								

Commitment ID	Task and Brief Description	Responsible Branch / Staff	Timing / Phase	NSSP Req.	Action Taken to Comply with Task	Permits, Specs, Plans, References	Task Completed	Remarks	Environmental Compliance
	Note: BIO-1 through BIO-6 relate to Southern Cottonwood Willow Riparian Forest, Southern Willow Scrub, California juniper woodland, and Joshua tree woodland. All sensitive vegetation communities shall be will be designated as an Environmentally Sensitive Area (ESA) and have the following avoidance, minimization, and mitigation measures.								
	Caltrans will employ the use of a qualified biologist to implement avoidance and minimization measures with the guidance of CDFW staff. Section 3.3.6 addresses weed abatement plan measures as additional avoidance and minimization measures to offset impacts to these sensitive plant communities.								
BIO-1	All sensitive vegetation communities shall be preserved in place. An approved biologist shall protect these vegetation communities by establishing an environmentally sensitive area (ESA) prior to the onset of ground disturbance, using brightly colored fencing and monitoring any clearing and grubbing related construction activities. An approved biologist and licensed arborist will oversee the placement and design of this fencing.	RE/Caltrans Biologist(	Construction			Section 3.3.1 of the EIR/EIS			
BIO-2	When impacts to these sensitive vegetation communities are unavoidable, trees and large shrubs shall be trimmed under the direction of a licensed arborist.	RE/Caltrans Biologist	Construction; Post- Construction			Section 3.3.1 of the EIR/EIS			
BIO-3	Standard BMPs will be implemented by Caltrans to protect ecologically important resources in the construction zone. General stormwater BMPs and conservation measures shall be implemented during project construction to avoid any potential for downstream sedimentation effects on all riparian habitat. The BMPs of the storm water pollution prevention plan (SWPPP) will be designed to avoid potential indirect effects to all riparian habitat.	SWPP Coordinator (	Construction			Section 3.3.1 of the EIR/EIS			
BIO-4	Native habitat will be revegetated on site in accordance with a Habitat Mitigation and Monitoring Plan (HMMP) that will be developed for the Project in coordination with CDFW and USFWS. If it is deemed that on-site revegetation within Caltrans ROW is not possible, then off-site mitigation shall be completed within the region and shall preserved in perpetuity. Efforts will be made to acquire lands adjacent to the project limits with equal habitat, equal hydrology, and equal soil conditions. Caltrans anticipates off-site mitigation for permanent impacts will be at least a 2:1 ratio and	Caltrans Biologist;	Construction; Post- Construction			Section 3.3.1 of the EIR/EIS			

Commitment ID	Task and Brief Description	Responsible Branch / Staff	Timing / Phase	NSSP Req.	Action Taken to Comply with Task	Permits, Specs, Plans, References	Task Completed	Remarks	Environmental Compliance
	temporary impacts at least a 1:1 ratio for sensitive vegetation communities and shall be coordinated further with CDFW.								
BIO-5	If on-site relocation of individuals or on-site plantings within Caltrans ROW are not possible for riparian habitat after construction is complete, off-site mitigation shall be completed and shall be coordinated with CDFW, USACE, and SWRCB DWQ. Efforts will be made to acquire riparian habitat within LA County's San Andreas Rift Zone SEA. Mitigation ratios for riparian habitat shall be determined in coordination with the appropriate regulatory agencies to assess the quantity and quality of the riparian habitat.	RE/Caltrans Biologist	Post-Construction			Section 3.3.1 of the EIR/EIS			
BIO-6	On-site mitigation plantings within Caltrans ROW shall have a separate landscape contract with a 2 year plant propagation period, 3 year plant establishment period, and 5 year monitoring period. On-site mitigation plantings shall be monitored by a qualified biologist seasonally to determine health and viability. Surveys shall be performed every few months within the 2 year plant propagation period. If it is determined that an on-site planting is in poor health, it shall be replaced by a healthy individual within 2 weeks and shall continue to be monitored during the 5 year monitoring period.	Caltrans Biologist	Post- Construction			Section 3.3.1 of the EIR/EIS			
BIO-7	Note: BIO-7 through BIO-8 relate to wildlife movement. Impacts to wildlife movement should be minimized to the extent feasible through freeway design. The final project design shall include design features such as appropriate sized culverts to facilitate wildlife movement. The following measures, as well as further studies prior to construction are recommended.  Use wildlife underpasses or use large, at-grade culverts under the new freeway where drainages bisect the Project corridor. Wildlife species are more likely to utilize at-grade culverts during travel when they can see across to the other side. In addition, where the road may include medians requiring long culverts, the culverts shall be day lighted in the median to encourage wildlife travel and to allow vegetation to grow underneath the crossing (Penrod et al. 2012). Suitable habitat for local wildlife shall be preserved and/or constructed within and on either side of the crossing structure to promote wildlife use (Penrod et al. 2012). Examples of this include natural substrates, native vegetation, rocks, and other features similar to the surrounding areas.  a. In the western portion of the Project corridor, use of the existing culverts for wildlife travel has been well documented. It is recommended that these culvert locations be preserved and expanded in width so that		Final Design; Construction			Section 3.3.1 of the EIR/EIS			

Commitment ID	Task and Brief Description	Responsible Branch / Staff	Timing / Phase	NSSP Req.	Action Taken to Comply with Task	Permits, Specs, Plans, References	Task Completed	Remarks	Environmental Compliance
	they encourage and are more								
	accommodating for wildlife travel. Culverts								
	are not as abundant in the eastern portion of								
	the Project corridor; therefore, it is more								
	crucial to design and construct crossing								
	structures in some of the high use areas in								
	this area to prevent or substantially reduce								
	collisions between vehicles and wildlife								
	traveling across the freeway.								
	b. The following existing culverts are currently								
	being used as wildlife crossings, T-06, C-38,								
	T-09, T-71, C-02, C-24, C-13/C-14/C-19/C-								
	20/T-30A, and shall be enhanced with								
	appropriate substrate leading up to the								
	culverts with ledges or small gravel to								
	continue the use of the culverts for crossing								
	beneath the widened highway.								
	<ul> <li>c. Wildlife crossings at or adjacent to the</li> </ul>								
	following wildlife study stations, T-60, T-18,								
	T-06, C-37, T-61, T-21, T-54, C-32, T-11, T-								
	63, T-27, T-64, T-68 will be established to								
	prevent collisions between vehicles and								
	wildlife crossing the freeway.								
	<ul> <li>d. When designing wildlife-specific crossing</li> </ul>								
	structures in the eastern portion of the								
	Project corridor, research on the future plans								
	for regional development north and south of								
	SR-138 shall be conducted to ensure that								
	the open areas on either side of the road								
	connected by the crossing structure would								
	not be developed in the near future. A								
	crossing structure would be rendered								
	relatively useless for large wildlife if the								
	structure did not connect two areas of open								
	land and native habitat on either side.								
	Ideally, a crossing should connect two land								
	areas that are permanently conserved or at								
	least have plans in place for long-term								
	conservation.								
	e. Bridges and culverts constructed to cross								
	drainage features shall be constructed high								
	enough and wide enough to allow large								
	wildlife to travel underneath (Bank et al.								
	2002). The freeway design shall also include								
	culverts as crossing structures that are								
	specifically designed for wildlife travel								
	(Penrod et al. 2012).								
	f. Focus wildlife crossing structures on								
	drainages, washes, canyons, gullies, and								
	established dirt roads that cross the new								
	freeway. It also may be more cost-effective								
	for the Project and valuable to wildlife to								
	focus the placement of wildlife crossings on								
	or around the existing features utilized as								

Commitment ID	Task and Brief Description	Responsible Branch / Staff	Timing / Phase	NSSP Req.	Action Taken to Comply with Task	Permits, Specs, Plans, References	Task Completed	Remarks	Environmental Compliance
	travel routes (washes, canyons, gullies, drainages, and roads).								
	g. Vegetation in the immediate vicinity of								
	wildlife crossing structures shall be								
	maintained in a way that helps funnel wildlife								
	through crossing structures and helps								
	improve site distance and visibility for wildlife								
	(Clevenger and Huijser 2011; Bank et al.								
	2002). An example of this would be								
	maintaining denser vegetation near the								
	crossing structure that guides wildlife away								
	from traveling on or near roadways and into								
	the crossing structure instead (Ascensao								
	and Mira 2007).								
	h. Aprons of culverts shall be maintained to								
	prevent scouring and hanging culverts, and								
	shall be replaced with like materials.								
	Vegetation at the aprons of culverts shall be								
	cleared to maintain wildlife crossings.								
	<ol> <li>Human activity shall be restricted in the</li> </ol>								
	vicinity of each crossing structure, especially								
	at night, to further promote use of the								
	crossing structure by wildlife (Clevenger and								
	Huijser 2011).								
	<li>j. One-way gates and ramps that provide</li>								
	escape routes for wildlife trapped on the								
	freeway shall be included in the freeway								
	design to further reduce wildlife-motorist								
	collisions (Clevenger and Huijser 2011;								
	Banff National Park of Canada 2002).								
	k. Install wildlife drift fencing along busy								
	roadways with natural under- or over-								
	crossings for wildlife. Fences shall be constructed of a chain-link fence from the								
	project limits at I-5/SR-138 to 300 <sup>th</sup> St and a								
	mesh fence from 300 <sup>th</sup> St to SR-14/SR-138.								
	Heights of the fencing shall be at an								
	appropriate height, at a minimum of 8 feet or								
	flat ground, and at a minimum of 12 feet on								
	slopes, and wings leading into each culvert								
	or crossing to channel wildlife safely through								
	the designated crossing areas (Penrod et al.								
	2012; Yanes et al. 1994). A portion of the								
	fence should also be buried underground to								
	prevent wildlife from digging underneath the								
	fence (Clevenger and Huijser 2011).								
	Additionally, fences should never be								
	constructed in areas where they would block								
	crossing features (Penrod et al. 2012; Yanes								
	et al. 1994). Fencing should also be								
	constructed in such a way that it helps funne	I							
	wildlife through crossing structures.								
	<ol> <li>In areas where wildlife drift fencing</li> </ol>								
	terminates, care should be taken to design								

Commitment ID	Task and Brief Description	Responsible Branch / Staff	Timing / Phase	NSSP Req.	Action Taken to Comply with Task	Permits, Specs, Plans, References	Task Completed	Remarks	Environmental Compliance
	the fence termination at a wildlife crossing structure (Clevenger and Huijser 2011). If this is not feasible, fence terminations should be in areas where animals are not likely to travel across roadways, such as areas containing rugged terrain or high levels of human activity.  m. Wildlife fencing shall be maintained to ensure any damages or gaps are repaired to prevent wildlife from entering the freeway.  n. Human activity should be restricted in the vicinity of each crossing structure, especially at night, to further promote use of the crossing structure by wildlife (Clevenger and Huijser 2011).								
BIO-8	Caltrans has identified 20 locations along SR-138 as potential wildlife crossings to mitigate for impacts to wildlife genetic diversity and wildlife movement. These 20 locations were evaluated and nine of these locations shown (Table 113) are feasible within the current project footprint. These sites include areas of road-related mortality provided by Caltrans data, local observations during biological surveys, local resident's concerns, and areas where land-use was compatible with the wildlife crossings locations such as adjacent known open space parcels and conservation parcels. The locations and design of crossing enhancements will be coordinated between Caltrans project team and resource agencies during final design. The specific design of wildlife crossing structures will perform according to standards outlined in this memorandum, as additionally set forth in the FHWA Wildlife Crossing Structure handbook (2011) and in a manner as natural and easy for wildlife to cross such that they will promote use by local wildlife.		inal Design			Section 3.3.1 of the EIR/EIS			
BIO-9	Use lighting in areas only where necessary for safety and signage. Eliminate all lighting in other areas. All lighting should be downcast to minimize lighting of natural areas, particularly rivers, washes and drainages.	Caltrans Biologist; RE th	inal Design and nrough Construction			Section 3.3.1 of the EIR/EIS			
			Biology – Wetla	ind and Othe	r Waters				
BIO-10	BIO-10 through BIO-13 relate to USACE and SWRCB DWQ Jurisdiction  Gorman Creek is expected to have a clear-span bridge structure, requiring no fill or equipment access below the OHWM. This will avoid permanent and temporary direct impacts to jurisdictional areas.		inal Design			Section 3.3.2 of the EIR/EIS			
BIO-11	Quail Lake is outside of the proposed construction zone will be designated as an Environmentally Sensitive Area (ESA) and no work will be conducted within the areas to avoid	Caltrans Biologist/ RE	inal Design/Construction			Section 3.3.2 of the EIR/EIS			

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	potential impacts to potential open water and riparian habitat. The areas will be fenced off clearly by the use of obvious, orange ESA exclusion fencing along the California Department of Water Resources (DWR) chain-link fence prior to the onset of ground disturbance. An approved avian biologist will oversee the placement and design of this fencing.						
BIO-12	Most of the unnamed drainages have bridge structures and culverts that will maintain hydrologic integrity and support habitat functions and values. These will be further analyzed during design refinement with proposals for full-span or non-embedded culverts above the OHWM to avoid permanent impacts to the extent feasible. Beneficial impacts include cooler temperatures and shelter within the box culverts for wildlife species and their movement.	Caltrans Biologist; PE Final Design		Section 3.3.2 of the EIR/EIS			
BIO-13	Any work within the ephemeral washes would be conducted when there is no flow during the dry season (April 15-October 31).	RE/Caltrans Biologist Construction		Section 3.3.2 of the EIR/EIS			
BIO-14	Temporary construction staging areas and access roads would be strategically placed to avoid and/or minimize impacts to CDFW, USACE and SWRCB jurisdictional features and shall be enhanced to pre-project conditions.	RE Construction		Section 3.3.2 of the EIR/EIS			
BIO-15	BIO-15 through BIO-18 relate to CDFW Jurisdiction  During the final design phase, a full span feasibility analysis shall be conducted for areas that may impact jurisdictional features. If full span culverts are not feasible, then multiple, large, cross-culverts of approximate 16 ft. height x 45 ft. width shall be implemented to maintain the hydrological integrity of jurisdictional features and support wildlife movement. Limits of jurisdictional features to be avoided will be demarcated by a qualified resource specialist with experience in jurisdictional delineation.	PE Final Design		Section 3.3.2 of the EIR/EIS			
BIO-16	Isolated unnamed washes are expected to have culverts designed to maintain hydrologic integrity and support habitat functions and values. These concrete box culverts will be further analyzed during final design phases with proposals for full-span or non-embedded culverts above the bed, bank and channels to avoid permanent direct impacts to the extent feasible. Beneficial impacts include cooler temperatures and shelter within the box culverts for wildlife species and their movement.			Section 3.3.2 of the EIR/EIS			
BIO-17	Approximately 47 existing cross culverts will be maintained or expanded. Approximately 25 cross culverts will be abandoned and an additional 93 cross culverts will be constructed to maintain hydrologic integrity and support habitat functions and values during the operational phase of the Preferred Alternative. The operational phase will have culverts ranging in size from 24 inches to 10 ft. by 10 ft. and vary between reinforced concrete pipes, reinforced concrete boxes, and corrugated metal pipes. These reinforced concrete pipe culverts would be further analyzed during the PS&E phase with proposals for non-embedded culverts	Caltrans Biologist; PE Final Design		Section 3.3.2 of the EIR/EIS			

Commitment ID	Task and Brief Description	Responsible Branch / Staff	Timing / Phase	NSSP Req.	Action Taken to Comply with Task	Permits, Specs, Plans, References	Task Completed	Remarks	Environmental Compliance
	above the bed, bank and channels to avoid permanent direct impacts to jurisdictional features.								
BIO-18	Any work within the jurisdictional features shall be conducted when there is no flow during the dry season (April 15-October 31).	Caltrans Biologist; RE	Construction			Section 3.3.2 of the EIR/EIS			
BIO-19	Temporary construction staging areas and access roads shall be strategically placed to avoid and/or minimize impacts to all jurisdictional features to the extent feasible and are expected to be enhanced to pre-project conditions.	RE	Construction			Section 3.3.2 of the EIR/EIS			
BIO-20	Early coordination with USACE, SWRCB DWQ, and CDFW is currently ongoing for mitigation of impacts to jurisdictional features. Unavoidable impacts (both permanent and temporary) impacts to jurisdictional features of USACE, SWRCB DWQ, and CDFW will be mitigated for and would be determined during the permitting process with the agencies with considerations to on-site restoration, off-site mitigation, and in-lieu fees. In general, the mitigation proposals and mitigation ratios shall be determined using the California Rapid Assessment Method (CRAM) method approved by resource agencies to assess the quantity and quality of jurisdictional features and riparian habitat are based on the amount and quality of the permanently and directly impacted jurisdictional features of the agencies. All unavoidable permanent impacts to WSC must be mitigated and the Basin Plan requirements (minimum 1.5 to 1 ratio) will be considered for impacts to wetlands. All unavoidable permanent impacts to WUS must be mitigated and mitigation ratios will be determined utilizing 12501-SPD Regulatory Program Standard Operating Procedure for Determination of Mitigation Ratios, published December 2012 by the US Army Corps of Engineers, South Pacific Division. Once PS&E begins, coordination will continue with USACE, SWRCB DWQ, and CDFW to determine the appropriate compensatory mitigation for the Preferred Alternative.	Caltrans Biologist	Final Design			Section 3.3.2 of the EIR/EIS			
BIO-21	Pre-construction surveys shall be conducted to provide the numbers of individual rare plants and to ground truth areas with strong potential for occurrences due to soil type.	Caltrans Biologist	Pre-Construction			EIR/EIS Section 3.3.3			
BIO-22	Known occurrences of rare plants shall be preserved in place. A qualified biologist shall protect known occurrences of rare plants by establishing an environmentally sensitive area (ESA), using brightly colored fencing and monitoring any clearing and grubbing related construction activities.	Caltrans Biologist	Pre-Construction			EIR/EIS Section 3.3.3			
BIO-23	If impacts cannot be avoided, then individuals of each rare plant species shall have its seeds and bulbs collected and propagated at preapproved nurseries and replanted onsite. If it is determined that an on-site re-planting is in poor health, it shall be replaced by a healthy individual and shall continue to be monitored during the 5 year monitoring period.	1	Construction; Post- Construction			EIR/EIS Section 3.3.3			
BIO-24	8-12 inches of topsoil salvage will be used to help facilitate the germination and growth of harvested seeds in the on-restoration areas of the Project, and to account for rare plant seeds that may be within the topsoil.	Caltrans Biologist/ RE	Construction			EIR/EIS Section 3.3.3			

Commitment ID	Task and Brief Description	Responsible Branch / Staff	Timing / Phase NSSP Req.	Action Taken to Comply with Task	Permits, Specs, Plans, References	Task Completed	Remarks	Environmental Compliance
BIO-25	On-site mitigation plantings within Caltrans ROW shall have a separate landscape contract with a 2 year plant propagation period, 3 year plant establishment period, and 5 year monitoring period. On-site mitigation plantings shall be monitored by a qualified biologist seasonally to determine health and viability. If it is determined that an on-site planting is in poor health, it shall be replaced by a healthy individual and shall continue to be monitored during the 5 year monitoring period.	Caltrans Biologist/PE/RE	Final Design/Post- Construction		EIR/EIS Section 3.3.3			
BIO-26	If impacts to the Round-Leaved Filaree ( <i>California macrophylla</i> ) species and/or Alkali Mariposa Lily ( <i>Calochortus striatus</i> ) species are unavoidable, mitigation will be required. Efforts will be made to acquire lands adjacent to the project limits with equal habitat, equal hydrology, and equal soil conditions. Caltrans anticipates off-site mitigation for permanent impacts at a 2:1 ratio and temporary impacts at a 1:1 ratio for rare plant species and shall be coordinated with CDFW. Specifics related to revegetation performance measures and success criteria will be determined in a subsequent HMMP in coordination with resource agencies.	Caltrans Biologist	Construction; Post-Construction		EIR/EIS Section 3.3.3			
BIO-27	During the final design phase of the project, an onsite mitigation feasibility analysis shall be conducted. If it is deemed that on-site relocation of individuals or on-site plantings within Caltrans ROW are not possible after construction is complete, off-site mitigation shall be completed within the region and shall preserved in perpetuity. Efforts will be made to acquire lands adjacent to the project limits with equal habitat, equal hydrology, and equal soil conditions. Caltrans anticipates off-site mitigation for permanent impacts at a 2:1 ratio and temporary impacts at a 1:1 ratio for rare plant species and shall be coordinated with CDFW. With the use of avoidance and minimization measures, on-site mitigation plantings and the purchase of mitigation parcels it is anticipated at this time that this project would not result in a net loss of this sensitive plant species. When combined with other approved projects in the region of the BSA, the cumulative effect on this sensitive plant is expected to remain low.		Final Design		EIR/EIS Section 3.3.3			
			Biology - Animal Spec	cies				
BIO-29 to BIO-31 relate to the Golden Eagle (Aquila chrysaetos) BIO-29	Foraging individuals do occur within the BSA. Surveys for foraging individuals will be conducted prior to construction to identify sensitive foraging areas. These areas will be protected and appropriate buffers would be in place to protect individuals from construction related disturbances; such as impacts from dust and noise. Once individuals are confirmed to no longer be present, construction would resume within those protected areas, with a biological monitor present. Caltrans would implement a trash abatement program throughout the project's construction, per USFWS informal consultation for California condors, to reduce the likelihood of this species to land or forage within the project area.	RE, Caltrans Biologist	Pre–Construction/ Constrcution		EIR/EIS Section 3.3.4		Bald Eagle	

Develop and implement a worker awareness program to increase the on-site recognition of and commitment to golde eagle protection.  Direct impacts to the golden eagle are not expected to occur as a result of the proposed project. However, the proposed project would result in the direct loss of foraging habitat for raptor species. To reduce the impacts to foraging habitat, similar habitat within the region should be preserved in perpetuity. Caltrans would develop the appropriate level of off-site mitigation for this project through consultation with USFWS and CDFW, as well as restore disturbed habitat to preconstruction conditions with the use of native vegetation for landscaping. The HMMP that will be prepared for the project will cover agency coordination and approved compensatory mitigation plan for golden eagle foraging habitat.  Preconstruction presence/absence surveys will be conducted prior to any ground disturbing activities within suitable habitat. Avoid disturbing occupied burrows during the nestin period of February 1 through August 31. Avoid impacts to burrows occupied by migratory individuals during the non-breeding season. Develop and implement a worker awareness program to increase the on-site recognition of and commitment to burrowing owl protection. Placement of visible markers near burrows to ensure that machinery does not collapse the burrows. Protect active burrows in place by setting up appropriate buffer zones (50m-500m) and visual screens during construction. Site specific monitoring by a qualified biologist throughout the project's construction to reduce the likelihood of re-colonization of areas disturbed by the proposed project. The most recognized way to mitigate for impacts to nesting burrowing owls is to purchase suitable inhabited lands offsite and preserve it in perpetuity. Caltrans will develop the appropriate level of mitigation for this project strough consultation with CDFW prior to construction, when the exact number of individuals with the potential to be impacted has been det	Responsible Branch / Staff Timing / Phase NSSP Req.	Action Taken to Comply with Task  Permits, Specs, Plans, References  Task Completed	Remarks Environmental Compliance
as a result of the proposed project. However, the proposed project would result in the direct loss of foraging habitat for raptor species. To reduce the impacts to foraging habitat, similar habitat within the region should be preserved in perpetuity. Caltrans would develop the appropriate level of off-site mitigation for this project through consultation with USFWS and CDFW, as well as restore disturbed habitat to preconstruction conditions with the use of native vegetation for landscaping. The HMMP that will be prepared for the project will cover agency coordination and approved compensatory mitigation plan for golden eagle foraging habitat.  Preconstruction presence/absence surveys will be conducted prior to any ground disturbing activities within suitable habitat. Avoid disturbing occupied burrows during the nestin period of February 1 through August 31. Avoid impacts to burrows occupied by migratory individuals during the nonbreeding season. Develop and implement a worker awareness program to increase the on-site recognition of and commitment to burrowing owl protection. Placement of visible markers near burrows to ensure that machinery does not collapse the burrows. Protect active burrows in place by setting up appropriate buffer zones (50m-500m) and visual screens during construction. Site specific monitoring by a qualified biologist throughout the project's construction to reduce the likelihood of re-colonization of areas disturbed by the proposed project. The most recognized way to mitigate for impacts to nesting burrowing owls is to purchase suitable inhabited lands offsite and preserve it in perpetuity. Caltran: will develop the appropriate level of mitigation for this project through consultation with CDFW prior to construction, when the exact number of individuals with the potential to be impacted has been determined through protocol level surveys. Based on the 2012 CDFW Staff Report on Burrowing Owl Mitigation there are additional ways to mitigate for the impacts to burrowing owl, in addition to th	en RE, Caltrans Biologist Post- Construction	EIR/EIS Section 3.3.4	Bald Eagle
prior to any ground disturbing activities within suitable habitat. Avoid disturbing occupied burrows during the nestin period of February 1 through August 31. Avoid impacts to burrows occupied by migratory individuals during the non-breeding season. Develop and implement a worker awareness program to increase the on-site recognition of and commitment to burrowing owl protection. Placement of visible markers near burrows to ensure that machinery does not collapse the burrows. Protect active burrows in place by setting up appropriate buffer zones (50m-500m) and visual screens during construction. Site specific monitoring by a qualified biologist throughout the project's construction to reduce the likelihood of re-colonization of areas disturbed by the proposed project. The most recognized way to mitigate for impacts to nesting burrowing owls is to purchase suitable inhabited lands offsite and preserve it in perpetuity. Caltrans will develop the appropriate level of mitigation for this project through consultation with CDFW prior to construction, when the exact number of individuals with the potential to be impacted has been determined through protocol level surveys. Based on the 2012 CDFW Staff Report on Burrowing Owl Mitigation there are additional ways to mitigate for the impacts to burrowing owl, in addition to the purchasing of conservation lands. Restore disturbed habitat to preconstruction condition, including decompacting soil and the use of native vegetation for landscaping. Augmenting the project site with artificial burrows with the enhancement and maintenance of occupied areas. Enhancement and maintenance activities includes keeping lands grazed or mowed, as well as limiting and preventing human activity		EIR/EIS Section 3.3.4	Golden Eagle
burrowing owl breeding pair would be to preserve suitable habitat and manage it for the benefit of burrowing owl in perpetuity. CDFW guidelines suggest that such land should be of similar type and of equal or greater quality to ensure a no net loss. 2016 protocol level burrowing owl surveys were	PE, Caltrans Biologist Construction	EIR/EIS Section 3.3.4	Burrowing Owl

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Commitment ID	Task and Brief Description	Responsible Branch / Staff	Timing / Phase	NSSP Req.	Action Taken to Comply with Task	Permits, Specs, Plans, References	Task Completed	Remarks	Environmental Compliance
	completed and will be used to coordinate with CDFW to calculate acreage amounts of suitable burrowing habitat to be preserved. This projects HMMP will include an agency approved mitigation plan for burrowing owls.								
BIO-33 – BIO-44 relate to Special Status Paaserine Birds including the following:									
Tricolored Blackbird (Agelaius tricolor), Yellow Warbler (Setophaga petechial), Grasshopper Sparrow (Ammodramus savannarum), Loggerhead Shrike (Lanius Iudovicianus)						EIR/EIS Section 3.3.4			
BIO-33	Preconstruction presence/absence surveys will be conducted prior to any ground disturbing activities within suitable habitat.	RE, Caltrans Biologist	Pre-Construction						
BIO-34	All riparian areas within Quail Lake are outside of the proposed construction zone and will be designated as an Environmentally Sensitive Area (ESA) and no work will be conducted within the areas to avoid potential impacts to potential tricolored blackbird habitat. The areas will be fenced off clearly by the use of obvious, orange ESA exclusion fencing along the California Department of Water Resources (DWR) chain-link fence prior to the onset of ground disturbance. An approved avian biologist will oversee the placement and design of this fencing.		Pre-Construction			EIR/EIS Section 3.3.4			
BIO-35	Caltrans shall monitor construction activities during tricolored blackbird nesting season to monitor for potential noise impacts to nesting tricolored blackbirds.	RE, Caltrans Biologist	Construction			EIR/EIS Section 3.3.4			
BIO-36	Develop and implement a worker awareness program to increase the on-site recognition of and commitment to tricolored blackbird protection.	RE, Caltrans Biologist	Pre-Construction			EIR/EIS Section 3.3.4			
BIO-37	Permanent impacts to tricolored blackbird foraging habitat shall be mitigated off-site at a 2:1 ratio with consideration to the lands' proximity to Holiday Lake and Quail Lake as well as consideration to the lands within the San Andreas Rift Zone SEA and Antelope Valley IBA. Efforts shall be made to preserve foraging habitat with agricultural conservation easements. Off-site mitigation shall be preserved in perpetuity.		Construction, Post Construction			EIR/EIS Section 3.3.4			

Commitment ID	Task and Brief Description	Responsible Branch / Staff	Timing / Phase	NSSP Req.	Action Taken to Comply with Task	Permits, Specs, Plans, References	Task Completed	Remarks	Environmental Compliance
BIO-38	Temporary impacts to tricolored blackbird foraging habitat shall be mitigated onsite at a 1:1 mitigation ratio within Caltrans ROW. Caltrans would restore disturbed habitat to preconstruction conditions with the use of native vegetation for landscaping using a Habitat Mitigation Monitoring Plan during PS&E.	PE; Caltrans Biologist; RE	Final Design, Construction, Post Construction			EIR/EIS Section 3.3.4			
BIO-39	Permanent impacts to tricolored blackbird nesting habitat at Quail Lake shall be mitigated for at Holiday Lake. Coordination shall occur with the Antelope Valley Audubon Society, West Valley County Water District, LA County Fire Department and the California Department of Fish and Wildlife to maintain water levels to support tricolored blackbird nesting habitat at Holiday Lake and to conduct controlled burns to refresh the riparian habitat.	Caltrans Biologist	Construction; Post- Construction			EIR/EIS Section 3.3.4			
BIO-40	A qualified biologist shall conduct a survey for breeding individuals, no sooner than two weeks prior to any construction activities, which have the potential to impact nesting birds.	Caltrans Biologist	Pre-Construction			EIR/EIS Section 3.3.4			
BIO-41	If nesting individuals are found to be within the BSA prior to construction, the appropriate avoidance measures, such as buffer zones, would be established with guidance from CDFW.	RE, Caltrans Biologist	Pre-Construction and Construction			EIR/EIS Section 3.3.4			
BIO-42	A biological monitor shall be present for any clearing or grubbing related activities, which has the potential to impact foraging individuals of this species.	RE, Caltrans Biologist	Pre-Construction, Construction			EIR/EIS Section 3.3.4			
BIO-43	Direct impacts to yellow warbler habitat is expected to occur as a result of the proposed project. To reduce the impacts to foraging and breeding habitat, similar habitat within the region should be preserved in perpetuity, which would be done for multiple species found within the Quail Lake area of the BSA. Habitat preserved should consist of Fremont cottonwood forest ( <i>Populus fremontii</i> ), black willow thickets ( <i>Salix gooddingii</i> ), sandbar willow thickets ( <i>Salix exigua</i> ), mulefat thickets ( <i>Baccharis salicifolia</i> ), and Baltic and Mexican rush marshes ( <i>Juncus articus var. balticus, mexicanus</i> ) Caltrans would develop the appropriate level of off-site mitigation for this project through consultation with CDFW. Caltrans would restore disturbed habitat to preconstruction conditions with the use of native vegetation for landscaping.		Final Design, Construction, Post- Construction			EIR/EIS Section 3.3.4		Yellow Warbler	
BIO-44	Surveys for nesting grasshopper sparrows and loggerhead shrikes would be conducted by a qualified biologist no sooner than two weeks prior to construction. If nesting individuals are observed, a 150 ft buffer would be put in place under the guidance of CDFW. Should nesting occur within the proposed construction area, a biological monitor would be present during the nesting season for this species.	RE, Caltrans Biologist	Pre-Construction			EIR/EIS Section 3.3.4		Grasshopper Sparrow	

Commitment ID	Task and Brief Description	Responsible Branch / Staff	Timing / Phase	NSSP Req.	Action Taken to Comply with Task	Permits, Specs, Plans, References	Task Completed	Remarks	Environmental Compliance
BIO-45 – BIO-50 is related to Raptor species including the following:  Northern Harrier (Circus cyancus), White-Tailed Kite (Elanus leucurus), Peregrine Falcon (Falco peregrinus)  BIO-45	Pre-construction surveys for nesting raptors shall be conducted by a qualified biologist to ensure that no nests would be disturbed during project implementation. Multiple surveys should be conducted no more than 15 days prior to the initiation of construction activities. During this survey, the biologist should inspect all trees, tall structures, utility poles/towers within 500 feet of the proposed project area for raptor nests. Large ground nests in vegetation and grasses shall also be inspected for northern harrier nests. Subsequent verification surveys would be conducted by a qualified biologist no more than 3 days prior to construction work.	RE, Caltrans Biologist	Pre-Construction			EIR/EIS Section 3.3.4			
BIO-46	Pre-construction survey/sweep would be conducted immediately preceding construction work. If an active raptor nest is found within 500 ft. protective radius of the construction area to be disturbed by these activities, the biologist (in consultation with the CDFW and USFWS) shall determine the extent of a construction-free buffer zone to be established around the nest.	RE, Caltrans Biologist	Pre-Construction			EIR/EIS Section 3.3.4			
BIO-47	The nesting raptor survey areas will include all locations where construction is scheduled including a 500 foot survey buffer for construction staging and utility relocations. If utility relocation is anticipated and/or a helicopter will be used for work during the nesting raptor season, the nest surveys would include all areas of transmission poles/towers/lines and would include the helicopter work flight paths to the extent feasible.	RE, Caltrans Biologist	Pre-Construction			EIR/EIS Section 3.3.4			
BIO-48	If all necessary approvals have been obtained, potential nesting substrate (e.g., shrubs, trees, structures, and transmission poles/towers) that will be removed by the	RE, Caltrans Biologist	Pre-Construction			EIR/EIS Section 3.3.4			
BIO-49	Develop and implement a worker awareness program to increase the on-site recognition of and commitment to raptor protection.	Caltrans Biologist	Pre-Construction			EIR/EIS Section 3.3.4			
BIO-50		PE, RE, Califans	Final Design, Construction, Post- Construction			EIR/EIS Section 3.3.4			

Commitment ID	Task and Brief Description	Responsible Branch / Staff Timing / Phase NSSP Req.	Action Taken to Comply with Task	Permits, Specs, Plans, References	Task Completed	Remarks	Environmental Compliance
	site mitigation for this project through consultation with CDFW and restore disturbed habitat to preconstruction conditions with the use of native vegetation for landscaping.						
	Conduct proconstruction proconco/absonco survoys to	RE, Caltrans Biologist Pre-Construction		EIR/EIS Section 3.3.4		Tehachapi Pocket Mouse	
BIO-52	Develop and implement a worker awareness program to increase the on-site recognition of and commitment to sensitive rodent protection.	RE, Caltrans Biologist Pre-Construction		EIR/EIS Section 3.3.4		Tehachapi Pocket Mouse	
BIO_53	Placement of visible markers near active burrows to ensure that machinery does not collapse the burrows.	RE, Caltrans Biologist Pre-Construction		EIR/EIS Section 3.3.4		Tehachapi Pocket Mouse	
	Protect active burrows in place by setting up appropriate buffer zones with ESA fencing.	RE, Caltrans Biologist Pre-Construction		EIR/EIS Section 3.3.4		Tehachapi Pocket Mouse	
	Site specific monitoring by a qualified biologist throughout the project's construction to reduce the likelihood project related impacts.			EIR/EIS Section 3.3.4		Tehachapi Pocket Mouse	
	Conduct preconstruction presence/absence surveys to ensure the absence of individuals.	RE, Caltrans Biologist Pre-Construction		EIR/EIS Section 3.3.4		American Badger	
BIO-56	Daviden and implement a worker awareness program to						
BIO-57	American badger protection.	RE, Caltrans Biologist Pre-Construction		EIR/EIS Section 3.3.4		American Badger	
BIO-58	Placement of visible markers near active burrows to ensure that machinery does not collapse the burrows.	RE, Caltrans Biologist Pre-Construction		EIR/EIS Section 3.3.4		American Badger	
	Protect active burrows in place by setting up appropriate buffer zones with ESA fencing.	RE, Caltrans Biologist Pre-Construction		EIR/EIS Section 3.3.4		American Badger	
BIO-60	Site specific monitoring by a qualified biologist throughout the project's construction to reduce the likelihood project related impacts.			EIR/EIS Section 3.3.4		American Badger	
BIO-61	This species has the potential to reside within Quail Lake. Quail Lake would not be impacted by any of the project alternatives; as such impacts to the western pond turtle are not anticipated at this time. Caltrans would employ a qualified biologist to delineate the area around Quail Lake with environmentally sensitive area (ESA) fencing. Caltrans will also use a qualified biologist to monitor all construction related activities performed adjacent to Quail Lake and ensure stormwater best management practices and SWPPP are implemented to minimize impacts to water quality.	RE, Caltrans Biologist Construction,		EIR/EIS Section 3.3.4		Western Pond Turtle	
hammondii)	Further studies for western spadefoot toad should be conducted, preferably during a year in which drought conditions are absent.	Caltrans Biologist Design Phase, Pre- Construction		EIR/EIS Section 3.3.4		Western Spadefoot Toad	

Commitment ID	Task and Brief Description	Responsible Branch / Staff Timing / Phase NSSP Req.	Action Taken to Comply with Task	Permits, Specs, Plans, References	Task Completed	Remarks	Environmental Compliance
BIO-63	demarcated with the use of ESA fencing.	RE, Caltrans Biologist Pre-Construction		EIR/EIS Section 3.3.4		Western Spadefoot Toad	
BIO-64	Construction shall not occur near areas with suitable western spadefoot habitat within 48 hours of a rain event.	RE Construction		EIR/EIS Section 3.3.4		Western Spadefoot Toad	
BIO-65	Habitat temporarily impacted by the proposed project shall be restored to its original condition. Landscaping for the proposed project shall utilize native and non-invasive plant species.	RE, Caltrans Biologist Post-Construction		EIR/EIS Section 3.3.4		Western Spadefoot Toad	
BIO-66	western spadefoot toad protection.	RE, Caltrans Biologist Pre-Construction		EIR/EIS Section 3.3.4		Western Spadefoot Toad	
BIO-67	Caltrans shall implement site specific monitoring by a qualified biologist throughout the project's construction to reduce the likelihood project related impacts.	RE, Caltrans Biologist Construction		EIR/EIS Section 3.3.4		Western Spadefoot Toad	
pulchara)	Develop and implement a worker awareness program to increase the on-site recognition of and commitment to silvery legless lizard and their protection.	RE, Caltrans Biologist Pre-Construction		EIR/EIS Section 3.3.4		Silvery Legless Lizard	
BIO-68 BIO-69	Caltrans shall implement site specific monitoring by a qualified biologist throughout the project's construction to reduce the likelihood project related impacts, particularly during clearing and grubbing activities.	RE, Caltrans Biologist Construction		EIR/EIS Section 3.3.4		Silvery Legless Lizard	
BIO-70	Habitat temporarily impacted by the proposed project shall be restored to its original condition. Landscaping for the proposed project shall utilize native plant species.	RE, Caltrans Biologist Post Construction		EIR/EIS Section 3.3.4		Silvery Legless Lizard	
BIO-71 – BIO-73 relates to the Coast Horned Lizard ( <i>Pharynosoma</i> blainvilii)	Conduct preconstruction presence/absence surveys to	RE, Caltrans Biologist Pre-Construction		EIR/EIS Section 3.3.4		Coast Horned Lizard	
	Develop and implement a worker awareness program to increase the on-site recognition of and commitment to coast horned lizard protection.	RE, Caltrans Biologist Pre-Construction		EIR/EIS Section 3.3.4		Coast Horned Lizard	
BIO-73	Site specific monitoring by a qualified biologist throughout the project's construction to reduce the likelihood project related impacts, with the relocation of individuals found within the project limits.	RE, Caltrans Biologist Construction		EIR/EIS Section 3.3.4		Coast Horned Lizard	
nammonum	Conduct preconstruction presence/absence surveys to ensure the absence of individuals.	RE, Caltrans Biologist Pre-Construction		EIR/EIS Section 3.3.4		Two-Striped Garter Snake	
BIO-74 BIO-75	Develop and implement a worker awareness program to increase the on-site recognition of and commitment two-striped garter snake protection.	RE, Caltrans Biologist Pre-Construction		EIR/EIS Section 3.3.4		Two-Striped Garter Snake	

Commitment ID	Task and Brief Description	Responsible Branch / Staff Timing / Phase NSSP Req.	Action Taken to Comply with Task	Permits, Specs, Plans, References	Task Completed	Remarks	Environmental Compliance
BIO-76	Site specific monitoring by a qualified biologist throughout the project's construction to reduce the likelihood project related impacts, with the relocation of individuals found within the project limits.	RE, Caltrans Biologist Construction		EIR/EIS Section 3.3.4		Two-Striped Garter Snake	
BIO-77 – BIO-79 relate to the Coastal Whiptail (Aspeidoscelis tigris stejnegeri)	Conduct preconstruction presence/absence surveys to ensure the absence of individuals.	RE, Caltrans Biologist Pre-Construction		EIR/EIS Section 3.3.4		Coastal Whiptail	
BIO-77							
BIO-78	coastal whiptail protection.	RE, Caltrans Biologist Pre-Construction		EIR/EIS Section 3.3.4		Coastal Whiptail	
BIO-79	Site specific monitoring by a qualified biologist throughout the project's construction to reduce the likelihood project related impacts, with the relocation of individuals found within the project limits.	RE, Caltrans Biologist Construction		EIR/EIS Section 3.3.4		Coastal Whiptail	
to the Monarch Butterfly (Danaus plexippus plexippus)	Caltrans would employ a qualified biologist to identify, delineate, and preserve existing larval monarch habitat (milkweed, Asclepias fascicularis) with environmentally sensitive area (ESA) fencing. Where preservation of individual milkweed plants is not feasible, these individual	RE, Caltrans Biologist Pre-Construction, Construction		EIR/EIS Section 3.3.4		Monarch Butterfly	
	plants shall be relocated to the nearest suitable area. A						
BIO-81	qualified biologist shall monitor these relocation efforts.  To make up for larval monarch habitat impacts, milkweed (Asclepias fascicularis) would be incorporated into a pollinator blend hydroseed mix for areas adjacent to impacted monarch habitat. These same areas and areas within rubber rabbitbush (Ericameria nauseosa) habitat would also receive placement of groupings of 9-10 onegallon container plants of milkweed every tenth of a mile, which would be propagated from on-site materials 3 months in advance of placement. Plants and hydroseed would go in the first November/December after construction.  Replacement numbers for one gallon container plants would be at a ratio of 2:1 based on the number of individual milkweed plants impacted. Specifics related to revegetation performance measures and success criteria will be determined in a subsequent HMMP in coordination with resource agencies.	RE, Caltrans Biologist Post Construction		EIR/EIS Section 3.3.4		Monarch Butterfly	
BIO-82	Fish and Wildlife Service in support of the Presidential Policy on Pollinators. CDFW and the Xerces Society would also receive copies.	RE, Caltrans Biologist Post Construction		EIR/EIS Section 3.3.4		Monarch Butterfly	
BIO-83	Develop and implement maintenance worker mowing practices to increase the on-site recognition of milkweed habitat and commitment to monarch habitat protection.	RE, Caltrans Biologist Pre-Construction		EIR/EIS Section 3.3.4		Monarch Butterfly	
BIO-84 - BIO-88 relate to the Desert Kitfox	Conduct preconstruction presence/absence surveys to ensure the absence of sensitive rodent species.	RE, Caltrans Biologist Pre-Construction		EIR/EIS Section 3.3.4		Desert Kitfox	

Commitment ID	Task and Brief Description	Responsible Branch / Staff Timing / Phase NSSP Req.	Action Taken to Comply with Task	Permits, Specs, Plans, References	Task Completed	Remarks	Environmental Compliance
(Vulpes macrotis arsipus)							
BIO-84							
BIO-85	sensitive rodent protection.	RE, Caltrans Biologist Pre-Construction		EIR/EIS Section 3.3.4		Desert Kitfox	
	Placement of visible markers near active burrows to ensure that machinery does not collapse the burrows.	RE, Caltrans Biologist Pre-Construction		EIR/EIS Section 3.3.4		Desert Kitfox	
	Protect active burrows in place by setting up appropriate buffer zones with ESA fencing.	RE, Caltrans Biologist Pre-Construction		EIR/EIS Section 3.3.4		Desert Kitfox	
BIO-88	Site specific monitoring by a qualified biologist throughout the project's construction to reduce the likelihood project related impacts. Desert kit fox habitat and natal dens will be assessed pre-construction.	RE, Caltrans Biologist Construction		EIR/EIS Section 3.3.4		Desert Kitfox	
		Biology – Threatened and Endan	gered Species				
to the Swainson's Hawk ( <i>Buteo swainsoni</i> )  BIO-89	poles/towers within five miles of the proposed project area for Swainson's hawk nests. Subsequent verification surveys would be conducted by a qualified biologist no more than 3 days prior to construction work.	RE, Califans Biologist Pre-Construction		EIR/EIS Section 3.3.5, Threatened and Endangered Species		Swainson's Hawk	
BIO-90	Pre-construction survey/sweep would be conducted immediately preceding construction work. If an active raptor nest is found within the 500-foot protective radius of the construction area to be disturbed by construction activities, the biologist shall consult with CDFW and USFWS to determine additional avoidance measures.	RE, Caltrans Biologist Pre- Construction		EIR/EIS Section 3.3.5, Threatened and Endangered Species		Swainson's Hawk	
BIO-91	The nesting Swainson's hawk survey areas would include all locations where construction is scheduled including survey buffers for construction staging and utility relocations. If utility relocation is anticipated and/or a helicopter would be used for work during the nesting raptor season, the nest surveys would include all areas of transmission poles/towers/lines and will include the helicopter work flight paths to the extent feasible.	RE, Caltrans Biologist Construction,		EIR/EIS Section 3.3.5, Threatened and Endangered Species		Swainson's Hawk	
BIO-92	If all necessary approvals have been obtained, potential nesting substrate (e.g., ground vegetation, shrubs, trees, structures, and transmission poles/towers) that will be removed by the project shall be removed before the onset of the raptor nesting season (January 1 through September 1). This would help preclude nesting and substantially decrease the likelihood of direct impacts.	RE, Caltrans Biologist Construction,		EIR/EIS Section 3.3.5, Threatened and Endangered Species		Swainson's Hawk	
BIO 93	Develop and implement a worker awareness program to increase the on-site recognition of and commitment to Swainson's hawk protection. Prior to the initiation of construction activities, all project personnel will be educated	RE Pre- Construction		EIR/EIS Section 3.3.5, Threatened and Endangered Species		Swainson's Hawk	

Commitment ID	Task and Brief Description	Dagnangible Branch	Timing / Phase	NSSP Req.	Action Taken to Comply with Task	Permits, Specs, Plans, References	Task Completed	Remarks	Environmental Compliance
	regarding the species, their habitat within and adjacent to the project area and will be provided with an information handout with photos of Swainson's hawk, species description, avoidance, minimization measures, Caltrans biologist contact information and the environmental commitments.								
BIO-94	Permanent impacts to Swainson's hawk foraging habitat shall be mitigated off-site at a 2:1 ratio with consideration to the lands' proximity to Holiday Lake and Quail Lake as well as consideration to the lands within the San Andreas Rift Zone SEA, Joshua Tree Woodland SEA and Antelope Valley IBA. Efforts shall be made to preserve foraging habitat with agricultural conservation easements. Off-site mitigation shall be preserved in perpetuity.	RE, Caltrans Biologist Po	ost Construction			EIR/EIS Section 3.3.5, Threatened and Endangered Species		Swainson's Hawk	
to the California Condor ( <i>Gymnogyps</i> californianus)	As California condors are a scavenger species, Caltrans would implement a trash abatement program throughout the project's construction, to reduce the likelihood of this species to land or forage within the project area. This would include the use of a qualified biologist to monitor all construction related activities for compliance.	RE, Caltrans Biologist Co	onstruction			EIR/EIS Section 3.3.5, Threatened and Endangered Species		California Condor	
	The implementation of a 24-hour roadkill removal protocol shall be implemented during the operational phase of the Preferred Alternative.	RE C	onstruction					California Condor	
BIO-97	Develop and implement a worker awareness program to increase the on-site recognition of and commitment to California condor protection. Prior to the initiation of construction activities, all project personnel will be educated regarding California condor within and adjacent to the project area and will be provided with an information handout with photos of California condor, species description, avoidance, minimization measures, Caltrans biologist contact information and the environmental commitments.	RE, Caltrans Biologist Pi	re- Construction			EIR/EIS Section 3.3.5, Threatened and Endangered Species		California Condor	
BIO-98 – BIO-102 relate to the Southwestern Willow Flycatcher (Epidonax traillii extimus) BIO-98	All riparian areas within Quail Lake are outside of the proposed construction zone will be designated as an Environmentally Sensitive Area (ESA) and no work will be conducted within the areas to avoid potential impacts to potential Southwestern Willow Flycatcher (SWWF) habitat. The areas will be fenced off clearly by the use of obvious, orange ESA exclusion fencing along the California Department of Water Resources (DWR) chain-link fence prior to the onset of ground disturbance. An approved avian biologist will oversee the placement and design of this fencing.	RE, Caltrans Biologist C	re-Construction, onstruction			EIR/EIS Section 3.3.5, Threatened and Endangered Species		Southwestern Willow Flycatcher	
BIO-99	All other riparian areas will have an approved avian biologist monitoring all clearing and grubbing activities and will designate approved work areas and demarcate ESA with obvious, orange ESA exclusion fencing to avoid impacts to potential SWWF habitat. This measure applies to work activities in or around riparian vegetation within the Preferred Alternative.	RE, Caitrans Biologist C	re-Construction: onstruction			EIR/EIS Section 3.3.5, Threatened and Endangered Species		Southwestern Willow Flycatcher	

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BIO-100	Pre-construction protocol level SWWF surveys shall be conducted. If nesting individuals are found to be within the BSA, the appropriate avoidance measures, such as buffer zones, will be established with guidance from USFWS and CDFW.	RE, Caltrans Biologist	Pre-Construction, Construction		EIR/EIS Section 3.3.5, Threatened and Endangered Species		Southwestern Willow Flycatcher	
BIO-101	Standard BMPs will be implemented by Caltrans to protect ecologically important resources in the construction zone. General stormwater BMPs and conservation measures would be implemented during project construction to avoid any potential for downstream sedimentation effects on all riparian habitat. The BMPs of the storm water pollution prevention plan (SWPPP) will be designed to avoid potential indirect effects to all riparian habitat.	RE/SWPPP Coordinator	Construction		EIR/EIS Section 3.3.5, Threatened and Endangered Species		Southwestern Willow Flycatcher	
BIO-102	Caltrans will develop and implement a worker awareness program to increase the on-site recognition of and commitment to southwestern willow flycatcher and least Bell's vireo protection. Prior to the initiation of construction activities, all project personnel will be educated regarding SWWF and LBVI, their habitat within and adjacent to the project area and will be provided with an information handout with photos of SWWF and LBVI, species description, avoidance, minimization measures, Caltrans biologist contact information and the environmental commitments.  Construction personnel are to remain outside of riparian habitat, unless within the approved work area.	RE, Caltrans Biologist	Pre-Construction		EIR/EIS Section 3.3.5, Threatened and Endangered Species		Southwestern Willow Flycatcher	
			Biology – Invasive Spe	cies				
BIO-103	In compliance with EO 13112 (see Section 3.3.6), a weed abatement program will be developed to minimize the importation of nonnative plant material during and after construction to avoid impacts to riparian vegetation downstream. Eradication strategies would be employed should an invasion occur. During construction, the construction contractor shall inspect and clean construction equipment accordingly with non-potable water at the beginning and end of each day and prior to transporting equipment from one project location to another. During construction, soil and vegetation disturbance would be minimized to the greatest extent feasible. During construction, the contractor shall ensure that all active portions of the construction site are watered with non-potable water a minimum of twice daily or more often when needed due to dry or windy conditions to prevent excessive amounts of dust. All material stockpiled would be sufficiently watered with non-potable water or covered to prevent excessive amounts of dust. During construction, soil/gravel/rock would be obtained from weed-free sources. Only certified weed-free straw, mulch, and/or fiber rolls would be used for erosion control. After construction, affected areas adjacent to native vegetation will be revegetated with plant species approved by the District Biologist that are native to the vicinity. The native seed mix will include native vegetation and native flowers known to occur within the area. After construction, all	Engineer; Landscape Architect; PE; RE	Final Design through Post- Construction		EIR/EIS Section 3.3.6, Threatened and Endangered Species			

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	revegetated areas will avoid the use of species listed on Cal-IPC's California Invasive Plant Inventory. Erosion control and revegetation sites will be monitored for 2 to 3 years after construction to detect and control the introduction/invasion of nonnative species. Eradication procedures (e.g., spraying and/or hand weeding) will be outlined should an infestation occur; the use of herbicides would be prohibited within and adjacent to native vegetation, except as specifically authorized and monitored by the District Biologist and Landscape Architect.								
		Mitiga	ation for Signific	cant Impac	ts under CEQA				
			Visual	/ Aesthetics					
VIS-4	Use context sensitive street lighting designs. The project's lighting design shall be consistent with Caltrans and County lighting guidelines and standards and would be developed in coordination with Caltrans Landscape Architecture staff for areas within state right-of-way as well as with County staff.  Dark-Sky Compliant Lighting. To preserve the dark night sky as a natural resource in the desert region communities, dark-sky compliant lighting should be selected to minimize light pollution cast into the sky while maximizing light cast onto the ground, as appropriate. A lighting plan shall be developed that requires project lighting to be appropriately shielded. It is a goal of the Los Angeles County Specific Plan to preserve the dark night sky as a natural resource in the Desert Region communities.	Caltrans Landscape Architect; PE	During Final Design			EIR/EIS Section 3.1.7, Visual / Aesthetics			
			Cultura	al Resources					
CUL-1	as well as prehistoric and historic-era research themes and	Crilei, Califalis	Pre-Construction			EIR/EIS Section 3.1.8, Cultural Resources			
CUL-2	employed at various states of the project (before, during, and after construction) and identifies the parties responsible for	Chief; Caltrans Archaeologist	Pre-Construction; Construction; Post- Construction			EIR/EIS Section 3.1.8, Cultural Resources			
CUL-3	Caltrans will develop a Post-Review Discovery and Monitoring Plan (PRDM Plan) with delineation of archaeological monitoring areas (AMAs) for locations with	Architectural	Pre-Construction; Construction			EIR/EIS Section 3.1.8, Cultural Resources			

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	will implement the procedures outlined under the PRDM Plan.								
CUL-4	Secretary of Interior's Standards for the Treatment of Historic Properties. Specifically, fencing visually similar to the	Caltrans	Pre-Construction; Construction; Post- Construction			EIR/EIS Section 3.1.8, Cultural Resources			
CUL-5	Caltrans will create electronic content for a smartphone traveler application that describes and interprets the historic and cultural properties along the State Route 138, between Interstate 5 and State Route 14.	Caltrans Environmental Branch Chief, Caltrans Architectural Historian	Construction; Post-			EIR/EIS Section 3.1.8, Cultural Resources			
			<u>'</u>	ontology					
PALEO-1		PE Caltrans Paleontology Specialist	Final Design			EIR/EIS Section 3.2.4, Paleontology			
				Noise					
NOISE-1	Based on the studies conducted so far, Caltrans intends to incorporate noise abatement measures for the proposed project in the form of sound walls to attenuate traffic noise at the impacted residences.	PE	Construction			EIR/EIS Section 3.1.4, Noise and Vibration and Chapter 4			
			В	iology					
BIO-2	When impacts to these sensitive vegetation communities are unavoidable, trees and large shrubs shall be trimmed under the direction of a licensed arborist.	DE/Caltrana Dialogiat	Construction; Post- Construction			Section 3.3.1 of the EIR/EIS			
BIO-5	If on-site relocation of individuals or on-site plantings within Caltrans ROW are not possible for riparian habitat after construction is complete, off-site mitigation shall be completed and shall be coordinated with CDFW, USACE, and SWRCB DWQ. Efforts will be made to acquire riparian habitat within LA County's San Andreas Rift Zone SEA. Mitigation ratios for riparian habitat shall be determined in coordination with the appropriate regulatory agencies to assess the quantity and quality of the riparian habitat.	RE/Caltrans Biologist	Post-Construction			Section 3.3.1 of the EIR/EIS			

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BIO-6	On-site mitigation plantings within Caltrans ROW shall have a separate landscape contract with a 2 year plant propagation period, 3 year plant establishment period, and 5 year monitoring period. On-site mitigation plantings shall be monitored by a qualified biologist seasonally to determine health and viability. Surveys shall be performed every few months within the 2 year plant propagation period. If it is determined that an on-site planting is in poor health, it shall be replaced by a healthy individual within 2 weeks and shall continue to be monitored during the 5 year monitoring period.	Caltrans Biologist	Post- Construction			Section 3.3.1 of the EIR/EIS			
	Caltrans has identified 20 locations along SR-138 as potential wildlife crossings to mitigate for impacts to wildlife genetic diversity and wildlife movement. These 20 locations were evaluated and nine of these locations shown (Table 113) are feasible within the current project footprint. These sites include areas of road-related mortality provided by Caltrans data, local observations during biological surveys, local resident's concerns, and areas where land-use was compatible with the wildlife crossings locations such as adjacent known open space parcels and conservation parcels. The locations and design of crossing enhancements will be coordinated between Caltrans project team and resource agencies during final design. The specific design of wildlife crossing structures will perform according to standards outlined in this memorandum, as additionally set forth in the FHWA Wildlife Crossing Structure handbook (2011) and in a manner as natural and easy for wildlife to cross such that they will promote use by local wildlife.		Final Design			Section 3.3.1 of the EIR/EIS			
BIO-20	Early coordination with USACE, SWRCB DWQ, and CDFW is currently ongoing for mitigation of impacts to jurisdictional features. Unavoidable impacts (both permanent and temporary) impacts to jurisdictional features of USACE, SWRCB DWQ, and CDFW will be mitigated for and would be determined during the permitting process with the agencies with considerations to on-site restoration, off-site mitigation, and in-lieu fees. In general, the mitigation proposals and mitigation ratios shall be determined using the California Rapid Assessment Method (CRAM) method approved by resource agencies to assess the quantity and quality of jurisdictional features and riparian habitat are based on the amount and quality of the permanently and directly impacted jurisdictional features of the agencies. All unavoidable permanent impacts to WSC must be mitigated and the Basin Plan requirements (minimum 1.5 to 1 ratio) will be considered for impacts to wetlands. All unavoidable permanent impacts to WUS must be mitigated and mitigation ratios will be determined utilizing 12501-SPD Regulatory Program Standard Operating Procedure for Determination of Mitigation Ratios, published December 2012 by the US Army	Caltrans Biologist	Final Design			Section 3.3.2 of the EIR/EIS			

Commitment ID	Task and Brief Description	Responsible Branch / Staff Timing	/ Phase NSSP Re	Action Taken to Comply with Task	Permits, Specs, Plans, References	Task Completed	Remarks	Environmental Compliance
	Corps of Engineers, South Pacific Division. Once PS&E begins, coordination will continue with USACE, SWRCB DWQ, and CDFW to determine the appropriate compensatory mitigation for the Preferred Alternative.							
BIO-26	equal soil conditions. Caltrans anticipates off-site mitigation for permanent impacts at a 2:1 ratio and temporary impacts at a 1:1 ratio for rare plant species and shall be coordinated with CDFW.	Caltrans Biologist Construct Post-Cons			EIR/EIS Section 3.3.3			
BIO-27	During the final design phase of the project, an onsite mitigation feasibility analysis shall be conducted. If it is deemed that on-site relocation of individuals or on-site plantings within Caltrans ROW are not possible after construction is complete, off-site mitigation shall be completed within the region and shall preserved in perpetuity. Efforts will be made to acquire lands adjacent to the project limits with equal habitat, equal hydrology, and equal soil conditions. Caltrans anticipates off-site mitigation for permanent impacts at a 2:1 ratio and temporary impacts at a 1:1 ratio for rare plant species and shall be coordinated with CDFW. With the use of avoidance and minimization measures, on-site mitigation plantings and the purchase of mitigation parcels it is anticipated at this time that this project would not result in a net loss of this sensitive plant species. When combined with other approved projects in the region of the BSA, the cumulative effect on this sensitive plant is expected to remain low.		gn		EIR/EIS Section 3.3.3			
BIO-31	Direct impacts to the golden eagle are not expected to occur as a result of the proposed project. However, the proposed project would result in the direct loss of foraging habitat for raptor species. To reduce the impacts to foraging habitat, similar habitat within the region should be preserved in perpetuity. Caltrans would develop the appropriate level of off-site mitigation for this project through consultation with USFWS and CDFW, as well as restore disturbed habitat to preconstruction conditions with the use of native vegetation for landscaping.	RE, Caltrans Biologist Pre- Cons	truction		EIR/EIS Section 3.3.4		Golden Eagle	
BIO-32	Preconstruction presence/absence surveys will be conducted prior to any ground disturbing activities within suitable habitat. Avoid disturbing occupied burrows during the nesting period of February 1 through August 31. Avoid impacts to burrows occupied by migratory individuals during the non-breeding season. Develop and implement a worker awareness program to increase the on-site recognition of and commitment to burrowing owl protection. Placement of visible markers near burrows to ensure that machinery does not collapse the burrows. Protect active burrows in place by		on		EIR/EIS Section 3.3.4		Burrowing Owl	

Commitment ID	Task and Brief Description	Responsible Branch / Staff	Timing / Phase	NSSP Req.	Action Taken to Comply with Task	Permits, Specs, Plans, References	Task Completed	Remarks	Environmental Compliance
	setting up appropriate buffer zones (50m-500m) and visual screens during construction. Site specific monitoring by a qualified biologist throughout the project's construction to reduce the likelihood of re-colonization of areas disturbed by the proposed project. The most recognized way to mitigate for impacts to nesting burrowing owls is to purchase suitable inhabited lands offsite and preserve it in perpetuity. Caltrans will develop the appropriate level of mitigation for this project through consultation with CDFW prior to construction, when the exact number of individuals with the potential to be impacted has been determined through protocol level surveys. Based on the 2012 CDFW Staff Report on Burrowing Owl Mitigation there are additional ways to mitigate for the impacts to burrowing owl, in addition to the purchasing of conservation lands. Restore disturbed habitat to preconstruction condition, including decompacting soil and the use of native vegetation for landscaping. Augmenting the project site with artificial burrows with the enhancement and maintenance of occupied areas. Enhancement and maintenance activities includes keeping lands grazed or mowed, as well as limiting and preventing human activity within the area. Acceptable mitigation for impacts to a burrowing owl breeding pair would be to preserve suitable habitat and manage it for the benefit of burrowing owl in perpetuity. CDFW guidelines suggest that such land should be of similar type and of equal or greater quality to ensure a no net loss. 2016 protocol level burrowing owl surveys were completed and will be used to coordinate with CDFW to calculate acreage amounts of suitable burrowing habitat to be preserved. This projects HMMP will include an agency approved mitigation plan for burrowing owls.								
BIO-36	tricolored blackbird protection.	RE, Caltrans Biologist	Pre-Construction			EIR/EIS Section 3.3.4			
BIO-37	Permanent impacts to tricolored blackbird foraging habitat shall be mitigated off-site at a 2:1 ratio with consideration to the lands' proximity to Holiday Lake and Quail Lake as well as consideration to the lands within the San Andreas Rift Zone SEA and Antelope Valley IBA. Efforts shall be made to preserve foraging habitat with agricultural conservation easements. Off-site mitigation shall be preserved in perpetuity.	IL SITTANE RIGIONALET	Construction, Post Construction			EIR/EIS Section 3.3.4			
BIO-38	Temporary impacts to tricolored blackbird foraging habitat shall be mitigated onsite at a 1:1 mitigation ratio within Caltrans ROW. Caltrans would restore disturbed habitat to	PE; Caltrans Biologist;	Final Design, Construction, Post Construction			EIR/EIS Section 3.3.4			
BIO-39	Permanent impacts to tricolored blackbird nesting habitat at Quail Lake shall be mitigated for at Holiday Lake. Coordination shall occur with the Antelope Valley Audubon Society, West Valley County Water District, LA County Fire Department and the California Department of Fish and		Construction; Post- Construction			EIR/EIS Section 3.3.4			

Northwest LA-138 Corridor Improvement Project									
Commitment ID	Task and Brief Description	Responsible Branch / Staff	Timing / Phase	NSSP Req.	Action Taken to Comply with Task	Permits, Specs, Plans, References	Task Completed	Remarks	Environmental Compliance
	Wildlife to maintain water levels to support tricolored blackbird nesting habitat at Holiday Lake and to conduct controlled burns to refresh the riparian habitat.								
BIO-43	Mexican rush marshes ( <i>Juncus articus var. balticus</i> , mexicanus) Caltrans would develop the appropriate level of off-site mitigation for this project through consultation with CDFW. Caltrans would restore disturbed habitat to preconstruction conditions with the use of native vegetation for landscaping.		Final Design, Construction, Post- Construction			EIR/EIS Section 3.3.4		Yellow Warbler	
BIO-50		PE, RE, Caltrans Biologist	Final Design, Construction, Post- Construction			EIR/EIS Section 3.3.4			
BIO-94	Permanent impacts to Swainson's hawk foraging habitat shall be mitigated off-site at a 2:1 ratio with consideration to the lands' proximity to Holiday Lake and Quail Lake as well as consideration to the lands within the San Andreas Rift Zone SEA, Joshua Tree Woodland SEA and Antelope Valley IBA. Efforts shall be made to preserve foraging habitat with agricultural conservation easements. Off-site mitigation shall be preserved in perpetuity.	RE, Caltrans Biologist	Post Construction			EIR/EIS Section 3.3.5, Threatened and Endangered Species		Swainson's Hawk	