

Appendix F Environmental Commitments Record (ECR)

The following measures are a compilation of the avoidance, minimization, and mitigation measures identified in Chapter 3 of this EIR/EIS.

Land Use

- LU-1:** Coordinate with local municipalities ensuring that amendments and/or land use changes are prepared and incorporated, if necessary, into the land use element of the general plan for that particular jurisdiction. In addition, ensure that the HDC is incorporated as part of future land use plans for that area.
- LU-2:** If physical structures and/or properties are within the proposed acquired ROW for the project, provide appropriate Relocation Assistance for those whose property is acquired as part of the project.
- LU-3:** Once a preferred alternative is selected, notify and coordinate with Los Angeles County towards initiating a comprehensive review of the Antelope Valley Area Plan.
- LU-4:** Coordinate with local municipalities and ensure that the proposed project is consistent with the existing land use within the area.
- LU-5:** Caltrans will coordinate with local governments to ensure that the HDC is constructed in a manner that is consistent with the goals and policies within the general plans for the various local municipalities.
- LU-6:** Caltrans will coordinate with local governments to ensure that, to the extent possible, future development is compatible with their character and consistent with their general plans and land use policies subject to applicable environmental laws and regulations. The local governments are responsible for carrying out their visions of sustainable and planned growth and development.
- LU-7:** Once the HDC is constructed and becomes part of the State Highway System, Caltrans Local Development-Intergovernmental Review (LD-IGR) process will ensure ongoing statewide efforts to avoid, eliminate, and reduce any potential adverse impacts of local development on the transportation system.

Parks and Recreation

- PAR-1:** Provide an alternative parking facility for Rockview Nature Center to offset impacts resulting from the acquiring land. The alternative

parking facility should be a functional equivalent to the existing parking lot on the LADWP's property.

PAR-2 In accordance with the provisions of the California Park Preservation Act (CCP Sections 5400 through 5409), Caltrans, as an acquiring entity will pay sufficient (just) compensation (CCP 1263.320), or land, or both, to the County to enable the operating entity to replace the parkland and the facilities thereon. The substitute land will be of comparable characteristics and of substantially equal size, located in an area that would allow for use by generally the same people who used the existing parkland and facilities. The cost will include the land and the cost of converting the land into parkland, including the placement of substitute facilities thereon if a functional replacement is chosen. The final determination of what constitutes a functional replacement lies with Caltrans and the affected agencies. Negotiations with the City of Victorville Department of Parks and Recreation regarding the impacts to West Wind Golf Course will be conducted.

PAR-3 Provide an alternative parking facility within the Rockview Nature Park to compensate for loss of the LADWP parcel that is currently used for parking at Rockview Nature Park in Victorville.

PAR-4: Install a turn lane to the Rockview Park at the northern entrance within the roadway's ROW to enhance safety and access to the park.

Farmland/Grazing Land

AG-1: Design and implement the project in a manner that avoids and minimizes ROW requirement impacts, as follows:

- The HDC will be aligned to follow property lines, wherever possible.
- If feasible, utility relocations shall occur within the ROW acquired for the proposed highway rather than on farmland adjacent to the highway.
- 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.
- Farmland owners along either side of the HDC near 165th Street shall be advised to consider the purchase of each other's property to consolidate properties along the same side of the HDC.

AG-2: Caltrans will enter into an agreement with the DOC California Farmland Conservancy Program to preserve farmland by placing long-term farmland protection tools on Important Farmland or cause the conversion of Grazing Land into Important Farmland. Caltrans will fund 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.

Caltrans and the California Farmland Conservancy Program will develop selection criteria to guide the pursuit and purchase of conservation easements. These will include, but are not limited to, provisions to ensure that the easements will conform to the requirements of Public Resources Code Section 10252 and to prioritize the acquisition of willing seller easements on lands that are adjacent to other protected agricultural lands or that would support the establishment of greenbelts and urban separators.

- AG-3:** Impacts to about 2,965 acres of Grazing Land will be mitigated by placing a conservation easement over open space at a replacement ratio of not less than 1:1 in areas where it could meet multiple natural resource conservation objectives including, but not limited to, wetland protection, wildlife habitat conservation, and scenic open-space preservation.
- AG-4:** Caltrans will fund a research project targeting farmland restoration and reclamation and soil removal and storage. The budget for this activity will be determined at the final design phase of the project after public input is provided.
- AG-5:** 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. Also see Mitigation BIN-1 to BIN-10 for provisions to prevent the spread of invasive species.
- AG-6:** 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 or infiltration basins, the HDC Project will avoid prime farmland to the extent possible. To the extent feasible, infiltration basin sites will also serve wetland mitigation and borrow material purposes to reduce impacts to prime farmland and improve farmland conservation efforts.

Community Character and Cohesion

- SC-COM-1:** The project will be designed to be sensitive to the existing environment in which it is constructed. Early coordination with local jurisdictions will be conducted throughout the design of the project to ensure that the project is constructed in a manner that is acceptable for the community in which it is located.
- SC-COM-2:** The project will be designed to conform with local, general, and specific plans.
- SC-COM-3:** The project will be designed in a manner that will reduce light glare within rural areas, more specifically in compliance with the Rural Outdoor Lighting District Ordinance of Los Angeles County.

Relocation and Property Acquisition

- COM-1:** Provide relocation assistance and counseling to displaced persons and businesses in accordance with the Federal Uniform Relocation Assistance and Real Properties Acquisition Policies Act, as amended, to ensure adequate relocation for displaced persons and businesses. All eligible displacees will be provided moving expenses. All benefits and services will be provided equitably to all relocatees without regard to race, color, religion, age, national origins, and disability as specified under Title VI of the Civil Rights Act of 1964.
- COM-2:** Provide ROW agents who are bilingual or have translators to assist with the diverse population within the area during the relocation process.
- COM-2:** Provide ROW agents that are bilingual or translators to assist with the diverse population within the area during the relocation process.
- COM-3:** Provide replacement areas, to the extent possible, that are homogenous to the displacement areas and are comparable in terms of amenities, public utilities, and accessibility to public services, transportation, and shopping.
- COM-4:** Utilize the Last Resort Housing Program, if necessary, to relocate residential households within the Los Angeles or San Bernardino County area.
- COM-5:** Establish a designated office to assist displacees during the relocation process.
- COM-6:** Construct replacement facilities, when possible, before demolishing displaced facilities.

- COM-7:** As part of the project design, provide landscape and streetscape improvements in the displacement areas and the remaining areas adjacent to the new corridor as project compatibility features following extensive and collaborative community involvement and context-sensitive solution approaches.
- COM-8:** Give special attention to the three Palmdale School District properties, if acquired, to ensure an effective acquisition and relocation. This will include, but not be limited to, hiring an architect to create plans for construction of the new facilities, making offers to purchase neighboring vacant land on which to place the new buildings, negotiating a Memorandum of Agreement (MOA) for all parties (i.e. State, property owner, contractor) in securing a temporary replacement property due to insufficient lead time, and providing sufficient personnel to oversee the entire relocation process.
- COM-9:** Provide additional lead-time for the relocation process for the handling of all industrial and manufacturing businesses affected by the project. Lead time will be required to assess the environmental condition of these properties and secure suitable replacement properties.

Economic Considerations

- COM-10:** Involve low-income and minority status populations, through public outreach efforts, throughout the various phases of the project to address their concerns and needs.
- COM-11:** Prepare staging plan that will ensure that access to homes and businesses, in addition to parking spaces, is available at all times with minimum disruption of traffic flow and increase in delays.
- COM-12:** Design a public campaign through which the public is well advised of construction plans that may have impacts on traffic.
- COM-13:** Coordinate with the affected utility companies during the final design phase of the project to ensure that services to homes, community facilities, and businesses are not interrupted.
- COM-14:** Prepare a Comprehensive Transportation Management Plan (TMP) to minimize traffic inconveniencies due to construction activities. (Refer to CI-T-1 to CI-T-2 for more detailed information.)
- COM-15:** Conform to all Caltrans construction required measures for dust control and air pollution control. (Refer also to CI-AQ-1 to CI-AQ-2 for more detailed information.)

- COM-16:** Implement sound-control measures to minimize noise impacts during construction. (Refer also to CI-NOI-1 to CI-NOI-8 for more detailed information.)
- COM-17:** Provide business information signage at appropriate locations on the new facility, if found necessary.

Environmental Justice

- COM-18:** An Equity Assessment Analysis will be conducted during final design. Depending on assessment results, implementation of an Equity Program to alleviate cost burdens on low-income commuters on the facility will be considered. If a tollway alternative is selected, low-income poverty status populations will be considered in decisions concerning toll pricing options.
- COM-19:** Incorporate community enhancement features such as parks, landscaping, and pedestrian amenities during the final design in order to minimize impacts and to add benefits for low-income populations.
- COM-20:** Additional collaboration with communities on aesthetics of the project facilities and noise mitigation measures should occur in final design in order to minimize and mitigate impacts to residential areas.
- COM-21:** During the relocation period, the Boys and Girls Club of Victor Valley should be able to continue to operate temporarily at their present location after acquisition by the State, under a lease agreement with the State. This would allow for continued operation until such time as a replacement site is located or until the property is actually required for construction of the High Desert Corridor Project.

Utilities/Emergency Services

- SC-UT-1:** Caltrans will coordinate with all affected private and public service utilities during the design stage to identify any potential conflicts with existing utilities. This process will 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 will be incorporated into the final plans and specifications. Per Caltrans requirements, all linear underground utilities within Caltrans' ROW will be encased from ROW to ROW in either steel or concrete.

Traffic and Transportation/Pedestrian and Bicycle Facilities

- T-1:** If the HDC freeway following the Air Expressway alignment passing between the Correctional Complex and the SCLA is selected, Caltrans and Metro shall coordinate with VVTA during the final design to request and comply with applicable procedures for any required route relocation or other disruptions to transit service during construction.

Visual/Aesthetics

- V-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, take good care to 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.
- V-2:** To the extent practicable, use a light fixture that casts enough light so that the project can reduce the number of lighting standards required to minimize visual intrusion.
- V-3:** Use context sensitive street lighting designs. The project's lighting design shall be consistent with Caltrans, County, and City lighting guidelines and standards and will be developed in coordination with Caltrans Landscape Architecture staff for areas within State ROW, as well as with City and County staff.
- V-4:** Use dark-sky-compliant lighting to minimize light pollution cast into the sky while maximizing light cast onto the ground, as appropriate, to preserve the dark night sky as a natural resource in the desert region communities.
- V-5:** Consolidate signs to minimize visual clutter. Lack of visual obstructions, such as wires and billboards is desirable.
- V-6:** To the extent practicable, place traffic control cabinets, irrigation controller cabinets, electrical systems cabinets, etc., so that they are not in direct view of the public.
- V-7:** Grading shall appear natural through slope rounding that facilitates a smooth and seamless transition from existing to new slopes.
- V-8:** To the extent practicable, keep elevated structures, such as bridges over waterways and overpasses, viaducts for the roadway, and the HSR line, as low as possible, or design to integrate them within the surrounding environment.
- V-9:** Use context sensitive aesthetic treatments on structures and architecture. Bridges will be aesthetically pleasing, incorporating context sensitive solutions including features that provide an expression of the "sense of place" for the HDC communities, for the structures to meet the desired goals of the cities of Palmdale, Lake Los Angeles, Adelanto, and Victorville, the Town of Apple Valley, Los Angeles County, San Bernardino County, and Caltrans.

- V-10:** Provide context sensitive design through color incorporated into the project elements. The aesthetic features shall be developed in coordination with Caltrans Landscape Architecture.
- V-11:** Plant trees to soften structures, including walls and bridges. Tree planting could help bring down the scale of these large urbanized structures.
- V-12:** Texture and color the walls (i.e., soundwalls/retaining walls) facing public use areas (i.e., streets, private yards, or recreation) with a mid-range to dark recessive color compatible to adjacent (i.e., native) soil to minimize glare and reduce their visual disruption. This will minimize/mitigate community impacts by enhancing context-sensitive design.
- V-13:** Plant vines to soften the appearance of soundwalls and to deter graffiti.
- V-14:** Make improvements to various vista points within the project areas, including:
- Enhance Choco Vista Point with natural stone perimeter wall, walkway, solar telecommunications devices for the deaf, and signage with information about the site.
 - At Deadman’s Point, provide a view deck accessible for disabled persons with a safe viewing platform at the vista point and provide natural stone perimeter wall circling the area. Provide interpretive signage to make the site meaningful and educational for visitors.
- V-15:** Plant native vegetation to replace the vegetation that will be removed or affected by construction activity within the Desert Area Landscape Unit, Seasonal Creeks Landscape Unit, and Mojave River Landscape Unit.
- V-16:** Plant vegetation that is consistent with the character of the adjacent community landscape in the Residential Areas Landscape Units and the Commercial and Industrial Area Landscape Unit.
- V-17:** Where feasible, plant vegetation between roadway and communities, in the urban areas, to provide a more natural visual buffer.

Cultural Resources

- CUL-1:** Caltrans will develop an MOA in consultation with the SHPO and the ACHP to identify mitigation measures for purposes of reducing potential impacts to NRHP-eligible archaeological sites. Caltrans will prepare a Phase III treatment plan and conduct data recovery on the affected archaeological sites in accordance with the SHPO’s guidelines and requirements and Caltrans processes and procedures as identified

in the Section 106 PA and Volume 2 of the Caltrans Standard Environmental Reference. To the extent possible, continuous efforts will be made to avoid or minimize impacts to the sites as engineering details advance by utilizing all practical design techniques.

Construction methods will also be used to try to avoid as much of the sites as practical, thereby minimizing potential adverse effects to the sites.

The MOA will also specify that the construction contract will contain language related to unanticipated discoveries should they be made during construction, including diverting activities away from such finds until an archaeologist could assess their nature and significance. If unanticipated discoveries occur, Section 106 consultation with the SHPO will be reopened, if appropriate. If cultural materials are discovered during construction, all earth-moving activity within and around the immediate discovery area will be diverted until a qualified archaeologist can assess the nature and significance of the find.

CUL-2: If Caltrans determines during construction, or after construction has commenced, that either the implementation of the Treatment Plan or the Undertaking will affect a previously unidentified property that may be eligible for the NRHP, or affect a known historic property in an unanticipated manner, Caltrans will address the discovery or unanticipated effect in accordance with 36 CFR 800.13(b)(3). Caltrans at its discretion may hereunder assume any discovered property to be eligible for inclusion in the NRHP in accordance with 36 CFR 800.13(c). In the event that additional discoveries or unanticipated effects are encountered during construction, Caltrans will ensure that proper notification is given to the State Historic Preservation Officer (SHPO) at the Office of Historic Preservation and to the Cultural Studies Office (CSO) at Caltrans State Headquarters.

SC-CUL-1: Caltrans will incorporate standard conditions to prehistoric archaeological sites (P-36-000066, P-36-000182) by protection through the use of ESAs (Environmentally Sensitive Areas).

SC-CUL-2: In addition, Caltrans will incorporate standard conditions to one historic property (P-36-10315) Boulder Dam-San Bernardino Transmission Line, in accordance with the Secretary of Interior's Standards for the Treatment of Historic Properties (36 CFR Part 68).

Geology/Soils/Seismic/Topography

G-1: Install Cast-in-drilled hole (CIDH) piles at the two viaducts over Little Rock Wash. Appropriate type of piling at the three connectors at the SR-14/138 interchange, bridge abutment supports, and other supports shall be identified during the final design.

- SC-G-1:** During final design, prepare a design-level geotechnical report to identify soil-related constraints and hazards such as slope instability, settlement, liquefaction, or related secondary seismic impacts that may be present along the project segments for consideration in the design of the project. The report shall be prepared by professional geotechnical engineers for review and approval by Caltrans.
- SC-G-2:** Apply erosion prevention measures, such as hydroseeding of slopes or erosion control mesh, at the fill embankments and cut slopes.
- SC-G-3:** If blasting is required, prepare and implement a blasting plan to minimize potential hazards related to blasting activities. The blasting plan shall meet applicable standards in accordance with the U.S. Department of Interior, Office of Surface Mining. The blasting plan shall include, but not be limited to, hours of blasting activity, notification to adjacent property owners, noise and vibration, and dust control.

Hazardous Waste or Materials

- HAZ-1:** Whenever possible, adjust the alignment to avoid properties containing ACMs and LBP. Prior to acquisition, attempt to have the property owner conduct the removal of ACMs and/or LBP. Only a licensed contractor will remove ACMs and/or LBP materials prior to demolition based on predemolition surveys of properties to be acquired.
- HAZ-2:** Whenever possible, adjust the alignment to avoid properties containing ADL. Prior to acquisition, attempt to have the property owner conduct the removal and disposal of ADL-impacted soils. As part of the project design, a Soil Management Plan will be developed and implemented to ensure that soil excavated during construction that is impacted by metals and/or petroleum hydrocarbons is handled, stockpiled, and disposed of in accordance with federal, State, and local regulations. Reuse of ADL-impacted soils within the project footprint will be in accordance with the California Department of Toxic Substances and Control Variance requirements for reuse within Caltrans ROW.
- HAZ-3:** During the PS&E phase, prepare a Construction Contingency Plan (CCP) in accordance with Caltrans' Unknown Hazards Procedures for Construction. The CCP will include provisions for emergency response in the event that unidentified USTs, hazardous materials, petroleum hydrocarbons, or hazardous or solid wastes are discovered during construction activities. The CCP will also address UST decommissioning, field screening, contaminant materials testing methods, mitigation and contaminant management requirements, and health and safety requirements for construction workers.

HAZ-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.

HAZ-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 Caltrans policy, properties identified as having RECs will not be acquired until characterization is complete and closure is achieved to ensure that all properties acquired are free of hazardous wastes/materials.

Noise

NOI-1: Based on the studies completed to date and the draft NADR, Caltrans intends to incorporate noise abatement in the form of soundwalls that were found to be both feasible and reasonable. The recommended soundwalls would reduce the traffic noise levels by at least 5 dB at the impacted receivers, would meet the design goal by providing a 7-decibel reduction for at least one receiver, and would cost less than the reasonableness cost allowance. If during final design, conditions have substantially changed, noise abatement may not be necessary. The final decision of the noise abatement will be made upon completion of the project design and the public involvement processes.

The recommended soundwalls, determined by the NADR to meet these criteria, are presented in the following table. The soundwall locations are also graphically shown on figures in Appendix N.

Prior to the formal selection of the Preferred Alternative and approval of the project, all property owners of the benefitted receptors located adjacent to each of the proposed soundwalls will be given an opportunity to vote if they want the soundwall to be constructed to abate the traffic noise in their area or not. For soundwalls located within state right-of-way, if more than 50 percent of the votes from responding benefitted receptors oppose the abatement, the abatement will not be considered reasonable and will not be built. If the soundwall is to be located on private property (or properties), 100 percent of the property owners must vote in favor of the soundwall for it to be constructed. However, at this time, none of the recommended soundwalls are on private property.

Summary of Preliminary NADR Recommended Soundwalls

Barrier	SW Height (ft)	Noise Reduction (dBA)	
SW-102	16	12	
SW-103	16	12	
SW-106, SW-106 (Var A)	12/12	9	9
SW-109	12	7	

Natural Communities

- BNC-1:** The road shoulder and graded slopes will be revegetated with like plant communities prior to construction conditions to minimize the loss of each community.
- BNC-2:** The elevation of the highway will be kept to a minimum necessary for drainage to reduce the overall footprint due to required shoulder sloping.
- BNC-3:** Joshua tree woodland will be preserved in place as feasible. A biological monitor will be onsite to establish an environmentally sensitive area (ESA) around the areas where this species occurs. If impacts cannot be avoided, these areas should be included in the calculations for acquisition of land to preserve in perpetuity. To further reduce project impacts to this community, individual trees can be translocated to an area that will not be impacted. To aid in revegetation of the finish graded slopes, individual trees can be temporarily located in an onsite nursery and replanted within revegetation areas located within ROW outside the clear recovery zone.
- BNC-4:** Riparian woodland will be preserved in place as feasible. Impacts will be avoided with the design of a span bridge over the river with no impacts to jurisdictional areas. A biological monitor will be onsite to establish an ESA around the jurisdictional areas within the Mojave River.
- BNC-5:** Use large at-grade culverts under the new highway where natural drainages occur, where feasible. Wildlife are more likely to use such crossings when “daylight” or openings to the other side are visible. Where culvert lengths need to be longer due to design, median daylightings will be used. Fencing will be used as needed to guide wildlife into the culverts and along the ROW to prevent wildlife from trying to cross the highway.
- BNC-6:** Construct bridges and culverts that cross drainage features to be high and wide enough to allow large wildlife to travel under the structure. The design will also include culverts as crossing structures that are specifically designed for wildlife travel.

- BNC-7:** Design the culverts to be a “soft bottom.” Because it is not feasible to bridge all 200+ natural drainages, it is understood that the smaller drainages will have a hard-bottom box culvert that is placed a minimum 1 foot below surrounding grade to allow soil to be placed on top of the hard bottom, thus creating a soft bottom. It is also understood that without this soft-bottom design, each culvert would essentially require a bridging design that would be cost prohibitive. As feasible, culverts will also be designed to be tall and wide to better attract wildlife use.
- BNC-8:** Use lighting in areas only where necessary for safety and signage. Eliminate all lighting in other areas.
- BNC-9:** All lighting should be downcast to minimize lighting of natural areas, particularly rivers, washes and drainages.
- BNC-10:** Limit operation of vibration causing equipment such as pile drivers, dozers, large excavators to daylight hours when working in areas adjacent to open space.
- BNC-11:** Biological monitor shall be present to observe activities of wildlife during construction adjacent to open spaces. If activities are noted to affect wildlife, biological monitor shall stop construction activities as necessary.
- BNC -12:** Install fencing along the route that prevents wildlife from crossing in areas other than intended wildlife crossing locations. Fencing shall be installed to channel wildlife to the intended crossing locations.
- BNC-13:** Maintain fencing throughout the existence of the Freeway/Expressway or Freeway/Tollway alignment.

Wetlands and Other Waters

- BWL-1:** Project alternatives and pier locations will continue to be refined to include measures to protect sensitive areas and to maintain the hydrological integrity of the jurisdictional washes.
- BWL-2:** Any work within the ephemeral washes will be conducted when there is no flow during the dry season (May 1 to October 15).
- BWL-3:** Temporary construction staging areas and access roads will be strategically placed to avoid and/or minimize impacts to jurisdictional features to the extent feasible and are expected to be enhanced to pre-project conditions.
- BWL-4:** Compensatory mitigation for impacts to jurisdictional features of USACE, RWQCB, and CDFW will 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 ratios are based on the amount and quality of the permanently and directly impacted jurisdictional features of the agencies.

Plant Species

- BPL-1:** Conduct focused plant surveys at a time prior to construction when detection is most optimal, such as normal rain fall years. If the results of surveys indicate presence of any of the species identified in Table 3.3.3-1 of the EIR/EIS (*Special-Status Plant Species with Potential to Occur in the Biological Study Area*), then BPL-2 through BPL-4 will be implemented.
- BPL-2:** Provide a biological monitor onsite to establish an environmentally sensitive area (ESA) around the areas where each special-status species occurs
- BPL-3:** Collect and propagate bulbs of each species at an approved nursery and plant onsite.
- BPL-4:** Translocate individual plants to areas offsite that will not be impacted by implementation of this project.

Animal Species

- BAN-1:** Impacts to silvery legless lizard, coast horned lizard, San Diego woodrat, American badger can be minimized by requiring a biological monitor to be present onsite during initial clearing and grubbing activity to capture and relocate any individuals. If areas of high-density occurrences are found, salvage efforts can be made by more carefully removing shrubs with clam-shell loaders and searching for individuals at the base of the shrub or within the root system, as this is a more likely place for them to occur. Habitat for these species can be re-established within temporary impact zones between the highway and edge of ROW. This area will be replanted with native plants similar to the natural surrounding area and the soil compacted only to a point necessary for construction purposes. This will allow any natural occurring individuals within the immediate vicinity to repopulate the temporary impact zone.
- BAN-2:** A qualified biologist will recommend approved limits of disturbance, including construction staging areas and access routes, to minimize impacts to adjacent habitat. To ensure the avoidance of impacts to migratory birds, the following measures will be implemented pursuant to the MBTA. Clearing and grubbing of vegetation will be conducted outside of bird-nesting season. If clearing and grubbing of vegetation needs to be conducting during bird-nesting season (February 15 to September 1), a qualified biologist will monitor construction during clearing, grading, and/or trenching activities for any occurrence of

birds nesting. If birds are observed nesting, construction will stop until it is determined that the fledglings have left their nests. If this is not possible, coordination with a qualified biologist should take place to minimize the risk of violating the MBTA, and the following minimization measure put in place: an ESA fencing buffer of 150 feet for songbirds and 500 feet for raptors, which must be maintained during all phases of construction.

- BAN-3:** A qualified biologist will recommend approved limits of disturbance, including construction staging areas and access routes, to minimize impacts to adjacent habitat. To ensure the avoidance of impacts to bats, preconstruction surveys will be conducted of rock faces adjacent to the roadway and any trees designated for removal due to the initiation of construction-related activities to assess any potential presence of the species. Clearing and grubbing of vegetation will be conducted outside of the bat maternity season. If clearing and grubbing of vegetation needs to be conducting during bat maternity season (March 1 to October 15), a qualified biologist will monitor construction during clearing, grading, and/or trenching activities for any occurrence of the species breeding. For planning purposes, a preconstruction survey should be conducted approximately 30 days prior to clearing and grubbing. A second preconstruction survey shall be conducted no more than 3 days prior to clearing and grubbing. If any species are found during preconstruction surveys, they will be excluded using CDFW, U.S. Forest Service (USFS), and USFWS approved methods. Alternate bat habitat will be provided for any excluded bats.
- BAN-4:** A biological monitor will be present a minimum of 1 week prior to clearing and grubbing activities to walk the proposed areas to be cleared and grubbed and dispel animals that have the ability to flee.
- BAN -5:** A qualified biologist will survey for, trap/capture species present, and relocate to a designated area approved by USFWS or CDFW
- BAN-6:** Appropriate native habitat will be replanted in temporarily impacted areas. Additionally, a Habitat Mitigation Monitoring Plan (HMMP) will be developed.
- BAN-7:** Restoration of disturbed habitat within the project limits will be conducted.
- BAN-8:** The boundaries of ROW shall be fenced off with materials approved by a Caltrans District Biologist for the following reasons: (1) serve as a guide for wildlife to utilize the appropriate crossings, meanwhile reducing impacts to wildlife/vehicle collisions, and (2) reduce vandalism to restoration sites.

Threatened and Endangered Species

Golden Eagle, Swainson's Hawk, and Western Yellow-Billed Cuckoo

BTE-1: A qualified biologist will recommend approved limits of disturbance, including construction staging areas and access routes, to minimize impacts to adjacent habitat. To ensure the avoidance of impacts to migratory birds, the following measures will be implemented pursuant to the Migratory Bird Treaty Act (MBTA). Clearing and grubbing of vegetation will be conducted outside of bird-nesting season. If clearing and grubbing of vegetation needs to be conducting during bird-nesting season (February 15th to September 1st), a qualified biologist will monitor construction during clearing, grading and/or trenching activities for any occurrence of the birds nesting. In the event birds are observed nesting, construction should stop until it is determined that the fledglings have left their nests. If this is not possible, coordination with the a qualified biologist should take place in order to minimize the risk of violating the MBTA, and the following minimization measure should be put in place: an environmentally sensitive area (ESA) fencing buffer of 150 feet for songbirds and 500 feet for raptors, which must be maintained during all phases of construction.

BTE-2: A biological monitor shall be present a minimum of 1 week prior to and during clearing and grubbing activities in order to walk the proposed areas to be cleared and grubbed and dispel animals that have the ability to flee.

Mojave Ground Squirrel

BTE-3: As identified in the Biological Opinion/Incidental Take Permit, a qualified biologist shall survey for, trap/capture species present, and relocate to a designated area approved by USFWS or CDFW.

BTE-4: Replanting appropriate native habitat in temporarily impacted areas. Additionally, a Habitat Mitigation Monitoring Plan (HMMP) will be established.

BTE-5: Like-habitat conducive to this species habitat requirements will be purchased and preserved in perpetuity.

BTE-6: The boundaries of right-of-way (ROW) will be fenced off with approved materials for the following reasons: (1) serve as a guide for wildlife to utilize the appropriate crossings meanwhile reducing impacts to wildlife/vehicle collisions, and (2) reduce vandalism to restoration sites.

Desert Tortoise

- BTE-7:** Temporary desert tortoise fencing will be installed on all portions of the project site accessible to desert tortoise. Locations of this fencing will be identified on plans during the design phase of the project.
- BTE-8:** Focused surveys will be conducted for desert tortoise and their burrows within the fenced area after the fence is installed and prior to ground-disturbing activities. A qualified biologist shall survey for, trap/capture species present, and relocate to a designated area approved by USFWS or CDFW.
- BTE-9:** Habitat for this species will be re-established within temporary impact zones between the highway and edge of ROW. This area will be replanted with native plants similar to the natural surrounding area and the soil compacted only to a point necessary for construction purposes. This will allow any natural occurring individuals within the immediate vicinity to repopulate the temporary impact zone.

Invasive Species

- BIN-1:** Inspect and clean construction equipment at the beginning and end of each day and prior to transporting equipment from one project location to another during construction.
- BIN-2:** Minimize soil and vegetation disturbance to the greatest extent feasible during construction.
- BIN-3:** Ensure that all active portions of the construction site are watered a minimum of twice daily or more often when needed due to dry or windy conditions to prevent erosion due to wind to minimize seed dispersal during construction.
- BIN-4:** Ensure that all material stockpiled is sufficiently watered or covered to prevent erosion due to wind to minimize seed dispersal during construction.
- BIN-5:** Obtain soil/gravel/rock from weed-free sources during construction.
- BIN-6:** Use only certified weed-free straw, mulch, and/or fiber rolls for erosion control.
- BIN-7:** Revegetate affected areas adjacent to native vegetation with plant species approved by the District Biologist that are native to the vicinity after construction.
- BIN-8:** Avoid the use of species listed on Cal-IPC's California Invasive Plant Inventory for all revegetated areas after construction.

BIN-9: Monitor erosion control and revegetation sites for 2 to 3 years after construction to detect and control the introduction/invasion of nonnative species.

BIN-10: Outline eradication procedures (e.g., spraying and/or hand weeding) should an infestation occur; the use of herbicides will be prohibited within and adjacent to native vegetation, except as specifically authorized and monitored by the District Biologist.

Construction Impacts

Parks and Recreation Impacts

CI-PAR-1: To minimize impacts on the recreational lands during the construction phase, no equipment staging will occur within the boundaries of the adjacent parks, golf course and other recreational facilities.

Community Impacts

CI-COM-1: To the extent practical, street closures required during construction shall be scheduled to occur during nighttime hours. This requirement will be addressed in the TMP to be prepared during the final design phase of project development.

CI-COM-2: To the extent practical, the contractor will avoid limiting access to businesses during construction during normal business hours. Businesses will be contacted and advised of nearby construction activities before their commencement.

CI-COM-3: Caltrans will notify emergency service providers, such as fire, police, and ambulance services, in advance of construction of the timing, location, and duration of construction activities and the locations of detours and lane closures.

CI-COM-4: During the final design phase, in coordination with affected facility owners or operators, Caltrans will develop and implement access plans for highly sensitive land uses such as police and fire stations, transit stations, hospitals, and schools.

Utilities/Emergency Services

CI-UT-1: In accordance with the requirements in the California Code of Regulations, prior to the initiation of construction, the contractor will coordinate and notify the operators of underground or overhead utility and service lines prior to any excavation activities. Surveyors will meet onsite with utility company workers to locate, mark, and identify conflicting utility lines to avoid damage and limit disruption to utility services.

See **CI-T-1** under Traffic and Transportation/Pedestrian and Bicycle Facilities to minimize impacts on emergency services.

Traffic and Transportation/Pedestrian and Bicycle Facilities

- CI-T-1:** Caltrans will require the design team to develop a TMP to offset the effects of access restrictions and traffic congestion during construction of the freeway, ramps, and on local streets. The TMP will consider methods such as adjustment of signal timing and/or signal coordination to increase roadway efficiency; turn restrictions at intersections and roadways necessary to reduce congestion and improve safety; and parking restrictions on detour routes during work hours to increase capacity, reduce traffic conflicts, and improve access. The TMP will include a traffic contingency plan with procedures to be implemented for possible unforeseen circumstances and emergencies.
- CI-T-2:** Caltrans will require the contractor to provide motorist alert and awareness information during construction, as appropriate for the conditions, to include the following options: changeable message signs, stationary ground-mounted signs, traffic radio announcements, and the Caltrans Highway Information Network.
- CI-T-3:** Caltrans, in coordination with the affected local jurisdictions, will coordinate with Antelope Valley Transit Authority and Victor Valley Transit Authority to request and comply with applicable procedures for any required temporary bus stop relocations or other disruptions to transit service during construction.

Visual/Aesthetics

- CI-V-1:** During the project design and construction stages, existing vegetation in the corridor will be saved and protected to the extent that is feasible.
- CI-V-2:** Caltrans will require construction contractors to shield construction and storage areas from nearby public use areas (i.e., streets, private yards or recreation) to the extent feasible and where the safety of construction and traffic operations is not compromised.

Cultural Resources

- CI-CUL-1:** In accordance with Caltrans standard specifications, if cultural materials are discovered during construction, all earth-moving activities within and around the immediate discovery area will be diverted until a qualified archaeologist can assess the nature and significance of the find. If human remains are discovered, Section 7050.5 of the State Health and Safety Code states that further disturbances and activities will stop in any area or nearby area suspected to overlie remains, and the county coroner will be contacted. Pursuant to Section 5097.98 of the Public Resources Code, if the remains are thought to be Native American, the coroner will notify the Resident Engineer and the Native American Heritage Commission (NAHC), who will then notify the Most Likely Descendent (MLD). At

this time, the Resident Engineer will contact the District 7 or 8 Environmental Branch (depending on which district the discovery is located) so that staff may work with the MLD on the respectful treatment and disposition of the remains. Further provisions of Section 5097.98 of the Public Resources Code are to be followed as applicable.

- CI-CUL-2:** It is Caltrans' policy to avoid cultural resources whenever possible. Further investigation may be needed if resources cannot be avoided by the project. Additional survey(s) will be required if the project changes to include areas not previously surveyed.

Water Quality and Stormwater Runoff

- CI-WQ-1:** The project will conform to the requirements of the Caltrans' National Pollutant Discharge Elimination System (NPDES) Statewide Storm Water Permit (Order No. 2012-0011-DWQ, NPDES No. CAS000003), adopted by the State Water Resources Control Board on July 1, 2013, and any subsequent permit in effect at the time of construction. In addition, the contractor will comply with the requirements of the General NPDES Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Order No. 2009-0009-DWQ, NPDES No. CAS000002, as amended by 2010-0014-DWQ), also referred to as the Construction General Permit, as well as implementation of the BMPs specified in the Caltrans Storm Water Management Plan, to be prepared during final design of the project.
- CI-WQ-2:** The contractor will develop an acceptable Storm Water Pollution Prevention Plan (SWPPP) containing proven Temporary Construction Site BMPs to minimize stormwater pollution that has the potential to affect water quality. All construction site BMPs will follow the latest edition of the Storm Water Quality Handbooks and the Construction Site Best Management Practices Manual. In addition, the SWPPP will include implementation of specific stormwater effluent monitoring requirements based on the project's risk level to ensure water quality standards are met.
- CI-WQ-3:** During construction, should dewatering be required, the contractor will fully conform to the requirements specified in either the NPDES General Permit, Limited Threat Discharges to Surface Waters, Board Order R6T-2008-0023, or General Waste Discharge Requirements for Discharges to Land with a Low Threat To Water Quality, WQO-2003-0003, both issued by the Lahontan RWQCB.
- CI-WQ-4:** The contractor will comply with all requirements of permits to be issued by USACE under Section 404 of the Clean Water Act (CWA) for the discharge of dredged or fill material into Waters of the U.S.

- CI-WQ-5:** The contractor will comply with all requirements of Water Quality Certifications to be issued by the Lahontan RWQCB under Section 401 of the CWA to ensure that all discharges comply with applicable federal and state effluent limitations and water quality standards.

Paleontology

- CI-PAL-1:** A qualified Principal Paleontologist will prepare a Paleontological Mitigation Plan (PMP) and obtain a BLM paleontological resources use permit for the project. The PMP will include the components specified in the SER Volume 1, Chapter 8. The portions of the project on BLM lands will be identified and all requirements of the BLM permit and BLM monitoring guidance will be incorporated into the plan. The PMP will also specify that a BLM Fieldwork Authorization (FA) will be obtained prior to the start of ground disturbing activities on the lands under BLM authority. A curation agreement with a qualified repository acceptable to Caltrans and the BLM will be included in the PMP. The Natural History Museum of Los Angeles County and the San Bernardino County Museum are examples of qualified repositories local to the project area. The PMP will be prepared when design is at or near completion.
- CI-PAL-2:** Paleontological monitoring or sampling or fossil recovery shall be conducted as specified in the PMP by qualified paleontologists.
- CI-PAL-3:** All recovered fossils shall be prepared to permit identification by experts and cataloged.
- CI-PAL-4:** Fossil meeting significance criteria shall be submitted to the appropriate repository along with copies of all records, photos and maps to obtain permanent accession numbers
- CI-PAL-5:** The Paleontological Mitigation Report shall include all elements specified in as components of a PMR in SER Chapter 8 and shall include all results including specimens recovered with permanent accession numbers.

Hazardous Waste or Materials

- CI-HAZ-1:** A Health and Safety Plan (HSP) for the protection of construction workers will be prepared and implemented during construction. The HSP will include, among others, safety measures for conducting deep excavations or deep soil borings for bridge columns located near abandoned oil and gas wells to avoid exposure of construction personnel to harmful concentrations of naturally occurring hydrocarbons, methane, and hydrogen sulfide. Soil test results will be the basis for developing health and safety plans for the protection of construction workers at these locations. Other avoidance and minimization measures that would be considered include ventilation of

work areas, excavation of impacted soils, and revising column design to avoid contaminated areas.

- CI-HAZ-2:** Prepare and implement an HSP that will address worker safety when working with potentially hazardous materials including ACM, LBP, ADL, and/or other construction-related materials.
- CI-HAZ-3:** Implement the Construction Contingency Plan (CCP) prepared during the final design phase (refer to Mitigation Measure Haz-3) during all construction phases.
- CI-HAZ-4:** If there is an unexpected release of hazardous substances that exceeds reportable quantities during the construction phase, cease work immediately at the general location of the release and immediately report the release to the National Response Center at 1-800-424-8802. The construction contractor will be responsible for cleanup of all unexpected releases under the appropriate federal, State, or local agency oversight and in accordance with federal, State, and local regulations.

Air Quality

- CI-AQ-1:** Caltrans will incorporate requirements into the contract specifications requiring that the contractor comply with the AVAQMD's Rule 403 (Fugitive Dust) and MDAQMD's Rule 403.2 (Fugitive Dust Control for the Mojave Desert Planning Area), and SCAQMD's Rules 401, 402, and 403.
- CI-AQ-2:** To minimize the temporary exhaust emissions from heavy-duty trucks and construction equipment adjacent to certain sensitive receptors, certain construction activities (e.g., extended idling, material storage, and equipment maintenance) will need to be conducted in areas at least 500 feet away from those sensitive receptors.
- CI-AQ-3:** Caltrans will incorporate requirements into the contract specifications requiring that the contractor comply with the limitations of the National Emissions Standards for Hazardous Air Pollutants regulations as listed in the CFR requiring notification and inspection for the construction activities that are involved with demolition, renovation, or removal of ACMs. Before starting any demolition or renovation of any building, Caltrans will require the contractor to consult with AVAQMD's and the MDAQMD's Compliance Division to determine inspection and compliance requirements.

Noise and Vibration

- CI-NOI-1:** Equipment noise control shall be applied to revising old equipment and designing new equipment to meet specified noise levels.

- CI-NOI-2:** In-use noise control shall be used where existing equipment is not permitted to produce noise levels in excess of specified limits.
- CI-NOI-3:** Site restrictions shall be used in an attempt to achieve noise reduction through modifying the time, place, or method of operation of a particular source.
- CI-NOI-4:** Personal training of operators and supervisors is needed to become more aware of the construction site noise problems.
- CI-NOI-5:** Equipment noise control is needed to reduce the noise emissions from construction sites by mandating a specified noise level for design of new equipment and updating old equipment with new noise control devices and techniques presented below:
- Mufflers are very effective devices that reduce the noise emanating from the intake or exhaust of an engine, compressor, or pump. The fitting of effective mufflers on all new equipment and retrofitting of mufflers on existing equipment is necessary to yield an immediate noise reduction at all types of road construction sites.
 - Sealed and lubricated tracks for crawler-mounted equipment will lessen the sound radiated from the track assembly resulting from metal-to-soil and metal-to-metal contact. Contractors, site engineers, and inspectors shall ensure that the tracks are kept in excellent condition by periodic maintenance and lubrication.
 - Lowering exhaust pipe exit height closer to the ground can result in an offsite noise reduction. Barriers are more effective in attenuating noise when the noise source is closer to ground level.
 - General noise control technology can have substantially quieter construction equipment when manufacturers apply state-of-the-art technology to new equipment or repair old equipment to maintain original equipment noise levels.
- CI-NOI-6:** In-use site noise control is necessary to prevent existing equipment from producing noise levels in excess of specified limits. Any equipment that produces noise levels less than the specified limits will not be affected; however, those exceeding the limit will be required to meet compliance by repair, retrofit, or replacement. New equipment with the latest noise-sensitive components and noise-control devices are generally quieter than older equipment, if properly maintained and inspected regularly. They shall be repaired or replaced if necessary to maintain the in-use noise limit. All equipment applying the in-use noise limit will achieve an immediate noise reduction if properly enforced.
- CI-NOI-7:** Site restrictions will be applied to achieve noise reduction through different methods, resulting in an immediate reduction of noise emitted

to the community without requiring any modification to the source noise emissions. The methods include shielding with barriers for equipment and site, truck rerouting and traffic control, time scheduling, and equipment relocation. The effectiveness of each method depends on the type of construction involved and the site characteristics.

- Shielding with barriers shall be implemented at an early stage of a project to reduce construction equipment noise. The placement of barriers must be carefully considered to reduce limitation of site access. Barriers may be natural or man-made, such as excess land fill used as a temporary berm strategically placed to act as a barrier.
- Efficient rerouting of trucks and control of traffic activity on construction site will reduce noise due to vehicle idling, gear shifting, and accelerating under load. Planning proper traffic control will result in efficient workflow and reduce noise levels. In addition, rerouting trucks does not reduce noise levels but transfers noise to other areas that are less sensitive to noise.
- Time scheduling of activities shall be implemented to minimize noise impact on exposed areas. Local activity patterns and surrounding land uses must be considered in establishing site curfews; however, limiting working hours can decrease productivity. Sequencing the use of equipment with relatively low noise levels versus equipment with relatively high noise levels during noise-sensitive periods is an effective noise control measure.
- Equipment location shall be as far from noise-sensitive land use areas as possible. The contractor shall substitute quieter equipment or use quieter construction processes at or near noise sensitive areas.

CI-NOI-8: Educating contractors and their employees to be sensitive to noise impact problems and noise control methods. This may be one of the most cost-effective ways to help operators and supervisors become more aware of the construction site noise problem and to implement the various methods of improving the conditions. A training program for equipment operators is recommended to instruct them in methods of operating their equipment to minimize environmental noise. Many training programs are presently given on the subject of job safety. This can be extended to include the impact due to noise and methods of abatement.

Biological Resources

- CI-BIO-1:** The contractor will comply with all requirements of the Streambed Alteration Agreements to be issued by CDFW per Section 1602 of the California Fish and Game Code.
- CI-BIO-2:** The contractor will prepare a Noise and Vibration Monitoring and Mitigation Plan by a qualified Acoustical Engineer and submit it for approval. The plan must outline noise- and vibration-monitoring procedures at predetermined noise- and vibration-sensitive sites, as well as historic properties. The plan also must include calculated noise and vibration levels for various construction phases and mitigation measures that may need to meet the project specifications. The contractor will not start any construction work or operate any noise-generating construction equipment at the construction site before approval of the plan. The plan must be updated every 3 months or sooner if there are any changes to the construction activities.

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