

Attachment F

Sunrise Mitigation Measures – Sorted by Time of Implementation

Sunrise Powerlink Transmission Project Mitigation Monitoring, Compliance, and Reporting Program



California Public Utilities Commission
and
Bureau of Land Management
U.S. Department of Interior

November 2009

**MMCRP Attachment F:
Sunrise Mitigation Measures – Sorted by Time of Implementation**

Pre-Construction Measures	During Construction	Pre-Energizing
B-1a: Provide restoration/ compensation for impacted sensitive vegetation communities	B-1a: Provide restoration/ compensation for impacted sensitive vegetation communities	WR-2b: Evaluate and Implement PCT Route Revision
B-1c: Conduct biological monitoring	B-1c: Conduct biological monitoring	PS-2a: Implement grounding measures
B-1l: SDG&E shall continue to work with the USDA Forest Service to minimize impacts to the RCA between Structures 184 and 187	B-1k: Re-seed disturbed areas after a transmission line–caused fire	F-1b: Amend and implement Sempra Utilities Wildland Fire Prevention and Fire Safety Guide (2007)
B-2a: Provide restoration/compensation for impacted jurisdictional areas	B-2a: Provide restoration/compensation for impacted jurisdictional areas	F-2a: Establish and maintain adequate line clearances
B-3a: Prepare and implement a Weed Control Plan	B-3a: Prepare and implement a Weed Control Plan	
B-5a: Conduct rare plant surveys, and implement appropriate avoidance/minimization/compensation strategies	B-5a: Conduct rare plant surveys, and implement appropriate avoidance/minimization/compensation strategies	
B-7a: Cover all steep-walled trenches or excavations used during construction to prevent the entrapment of wildlife (e.g., reptiles and small mammals)	B-7a: Cover all steep-walled trenches or excavations used during construction to prevent the entrapment of wildlife (e.g., reptiles and small mammals)	
B-7b: Implement avoidance/ mitigation/ compensation according to the Flat-Tailed Horned Lizard Rangewide Management Strategy	B-7b: Implement avoidance/mitigation/compensation according to the Flat-Tailed Horned Lizard Rangewide Management Strategy	
B-7c: Minimize impacts to Peninsular bighorn sheep and provide compensation for loss of critical habitat	B-7c: Minimize impacts to Peninsular bighorn sheep and provide compensation for loss of critical habitat	
B-7d: Conduct burrowing owl surveys, and implement appropriate avoidance/ minimization/ compensation strategies	B-7d: Conduct burrowing owl surveys, and implement appropriate avoidance/ minimization/ compensation strategies	
B-7e: Conduct least Bell's vireo and southwestern willow flycatcher surveys, and implement appropriate avoidance/ minimization/ compensation strategies	B-7e: Conduct least Bell's vireo and southwestern willow flycatcher surveys, and implement appropriate avoidance/ minimization/compensation strategies	
B-7h: Implement appropriate avoidance/ minimization strategies for eagle nests	B-7h: Implement appropriate avoidance/ minimization strategies for eagle nests	
B-7i: Conduct Quino checkerspot butterfly surveys, and implement appropriate avoidance/minimization/ compensation strategies	B-7i: Conduct Quino checkerspot butterfly surveys, and implement appropriate avoidance/minimization/ compensation strategies	
B-7j: Conduct arroyo toad surveys, and implement appropriate avoidance/ minimization/compensation strategies	B-7j: Conduct arroyo toad surveys, and implement appropriate avoidance/ minimization/compensation strategies	
B-7l: Conduct coastal California gnatcatcher surveys, and implement appropriate avoidance/ minimization/compensation strategies	B-7l: Conduct coastal California gnatcatcher surveys, and implement appropriate avoidance/ minimization/compensation strategies	

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Pre-Construction Measures	During Construction	Pre-Energizing
B-8a: Conduct pre-construction surveys and monitoring for breeding birds	B-8a: Conduct pre-construction surveys and monitoring for breeding birds	
B-9a: Survey for bat nursery colonies	B-9a: Survey for bat nursery colonies	
B-10a: Utilize collision-reducing techniques in installation of transmission lines	B-10a: Utilize collision-reducing techniques in installation of transmission lines	
B-11a: Prepare and implement a Raven Control Plan	BIO-APM-1: Perform any detailed on-the-ground protocol surveys with regard to specific sensitive plant or wildlife species whose habitat would be impacted. Implement with B-1a, B-1b, B-2a, B-5a, B-7d, B-7e, B-7g, B-7i, B-7j, B-k, B-7l, B-7m, and B-7o	
BIO-APM-1: Perform any detailed on-the-ground protocol surveys with regard to specific sensitive plant or wildlife species whose habitat would be impacted. Implement with B-1a, B-1b, B-2a, B-5a, B-7d, B-7e, B-7g, B-7i, B-7j, B-k, B-7l, B-7m, and B-7o	BIO-APM-3: Restrict vehicle movement to existing and constructed roads. Implement with B-5a, B-7a, B-8a, B-9a, B-12a, B-12b, and B-12c	
BIO-APM-2: Train personnel regarding the appropriate work practices necessary to effectively implement the biological APMs.	BIO-APM-4: Comply with survey vehicles guidelines on existing roads	
BIO-APM-3: Restrict vehicle movement to existing and constructed roads. Implement with B-5a, B-7a, B-8a, B-9a, B-12a, B-12b, and B-12c	BIO-APM-5: Configure access roads in compliance with hydrological resources guidelines. Implement with B-1a, B-2a, B-5a, and B-8a	
BIO-APM-4: Comply with survey vehicles guidelines on existing roads	BIO-APM-6: Comply with all applicable environmental laws and regulations. Implement with B-1a, B-5a, B-8a, and B-12a	
BIO-APM-7: Littering is not allowed. Implement with B-6a, B-8a, and B-12a	BIO-APM-7: Littering is not allowed. Implement with B-6a, B-8a, and B-12a	
BIO-APM-8: Delineate sensitive plant population boundaries. Implement with B-5a	BIO-APM-8: Delineate sensitive plant population boundaries. Implement with B-5a	
BIO-APM-10: No wildlife, including rattlesnakes, may be harmed except to protect life and limb; Firearms shall be prohibited. Implement with B-12a	BIO-APM-10: No wildlife, including rattlesnakes, may be harmed except to protect life and limb; Firearms shall be prohibited. Implement with B-12a	
BIO-APM-11: Feeding of wildlife is not allowed. Implement with B-12a	BIO-APM-12: Do not bring pets. Implement with B-12a	

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BIO-APM-12: Do not bring pets. Implement with B-12a	BIO-APM-13: Plant or wildlife species may not be collected for pets or any other reason. Implement with B-5a and B-12a	
BIO-APM-13: Plant or wildlife species may not be collected for pets or any other reason. Implement with B-5a and B-12a	BIO-APM-14: Comply with removal of wildlife and transportation guidelines. Implement with B-7a	
BIO-APM-16: Follow sensitive tree trimming guidelines. Implement with B-1a, B-2a, B-8a, and B-12a	BIO-APM-15: Follow APMs during emergency repairs. Implement with B-1a and B-2a	
BIO-APM-18: Design access roads to minimize impacts to sensitive features. Implement with B-2a and B-5a, B-8a, and B-9a	BIO-APM-16: Follow sensitive tree trimming guidelines. Implement with B-1a, B-2a, B-8a, and B-12a	
BIO-APM-19: Implement restoration and habitat enhancement and mitigation measures developed during the consultation period with the BLM	BIO-APM-17: Permanently close any new access roads or spur roads constructed as part of the project that are not required as permanent access. Implement with B-1a	
BIO-APM-21: Comply with "Suggested Practices for Raptor Protection on Power Lines" (Raptor Research Foundation, Inc., 1981). Implement with B-10a	BIO-APM-18: Design access roads to minimize impacts to sensitive features. Implement with B-2a and B-5a, B-8a, and B-9a	
BIO-APM-27: Remove all existing raptor nests from structures that would be affected by Project construction. Implement with B-8a	BIO-APM-19: Implement restoration and habitat enhancement and mitigation measures developed during the consultation period with the BLM	
BIO-APM-28: Remove potential roost trees	BIO-APM-20: Leave vegetation in place in construction areas where recontouring is not required. Implement with B-1a	
V-1a: Reduce visibility of construction activities and equipment	BIO-APM-21: Comply with "Suggested Practices for Raptor Protection on Power Lines" (Raptor Research Foundation, Inc., 1981). Implement with B-10a	
V-1b: Reduce construction night lighting impacts	BIO-APM-22: Salvage may include removal and stockpiling for replanting. Implement with B-5a	
V-2a: Reduce in-line views of land scars	BIO-APM-23: Remove only the minimum amount of vegetation necessary for the construction of structures and facilities. Implement with B-1a and B-3a	

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V-2b: Reduce visual contrast from unnatural vegetation lines	BIO-APM-24: Prevent livestock or wildlife from falling through covers. Implement with B-7a	
V-2c: Reduce color contrast of land scars on non-Forest lands	BIO-APM-25: Revegetate disturbed soils. Implement with B-1a and B-3a	
V-2d: Construction by helicopter	BIO-APM-26: Excavations shall be sloped on one end to provide an escape route for small mammals and reptiles. Implement with B-7a	
V-2f: Reduce land scarring and vegetation clearance impacts on USFS-administered lands	BIO-APM-27: Remove all existing raptor nests from structures that would be affected by Project construction. Implement with B-8a	
V-3a: Reduce visual contrast of towers and conductors	BIO-APM-28: Remove potential roost trees	
V-7a: Reduce visual contrast associated with ancillary facilities	BIO-APM-29: Reduce construction night lighting on sensitive habitats. Implement with B-7a and B-9a	
V-7b: Screen ancillary facilities	V-1a: Reduce visibility of construction activities and equipment	
V-21a: Reduce night lighting impacts	V-1b: Reduce construction night lighting impacts	
V-45a Prepare and implement Scenery Conservation Plan	V-2a: Reduce in-line views of land scars	
V-66a: Reduce structural prominence and visual contrast associated with the Interstate 8/Chocolate Canyon transition structures	V-2b: Reduce visual contrast from unnatural vegetation lines	
V-68a: Eliminate skylining of ridgeline towers and conductors	V-2c: Reduce color contrast of land scars on non-Forest lands	
VR-APM-1: Place structures at the maximum feasible distance from highway, canyon, and trail crossings. (Need SDG&E input)	V-2d: Construction by helicopter	
VR-APM-3: Match the spacing of structures where the line parallels existing transmission lines	V-2f: Reduce land scarring and vegetation clearance impacts on USFS-administered lands	
VR-APM-4: No paint or permanent discoloring agents will be applied to rocks or vegetation to indicate survey or construction activity limits. Implement with V-1c	V-3a: Reduce visual contrast of towers and conductors	
VR-APM-5: Transmission line structures will not be installed directly in front of residences or in direct line-of-sight from a residence. Implement with V-3c	V-7a: Reduce visual contrast associated with ancillary facilities	

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VR-APM-6: In scenic view areas place structures to avoid sensitive features and/or allow conductor to clearly span the features. (Need SDG&E input)	V-7b: Screen ancillary facilities	
L-1a: Prepare Construction Notification Plan	V-21a: Reduce night lighting impacts	
L-1c: Coordinate with MCAS Miramar	V-45a Prepare and implement Scenery Conservation Plan	
L-2b: Revise project elements to minimize land use conflicts	V-66a: Reduce structural prominence and visual contrast associated with the Interstate 8/Chocolate Canyon transition structures	
LU-APM-1: Provide advance notice to residents, property owners, and tenants within 300 feet of construction activities and SDG&E will appoint a public affairs officer to address public concerns or questions. Implement with L-1d	V-68a: Eliminate skylining of ridgeline towers and conductors	
LU-APM-2: Place new transmission structures more than 330 feet from an existing residence. Implement with L-1d	VR-APM-1: Place structures at the maximum feasible distance from highway, canyon, and trail crossings. (Need SDG&E input)	
LU-APM-4: Notify property owners and tenants in advance of construction activities. Provide alternative access if feasible. Implement with L-1e	VR-APM-2: Use dulled metal finish on transmission structures and non-specular conductors in visually sensitive areas. Implement with V-3b (Need SDG&E input)	
LU-APM-5: Coordinate construction activities with appropriate water management representatives. (Need SDG&E input). Implement with L-1a	VR-APM-3: Match the spacing of structures where the line parallels existing transmission lines	
LU-APM-6: Flag ROW boundary and limits of construction activity inside and outside the ROW in environmentally sensitive areas to alert construction personnel that those areas should be minimize or avoided. Implement with L-1f	VR-APM-4: No paint or permanent discoloring agents will be applied to rocks or vegetation to indicate survey or construction activity limits. Implement with V-1c	
LU-APM-7: Install project facilities along the edges or borders of private property, open space parks, and recreation areas	VR-APM-5: Transmission line structures will not be installed directly in front of residences or in direct line-of-sight from a residence. Implement with V-3c	

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Pre-Construction Measures	During Construction	Pre-Energizing
LU-APM-8: Continue coordination efforts with the Counties of Imperial and San Diego General Plan Updates and the City of San Diego General Plan Updates to include the Proposed Project in their respective General Plans.	VR-APM-6: In scenic view areas place structures to avoid sensitive features and/or allow conductor to clearly span the features. (Need SDG&E input)	
LU-APM-9: Obtain all necessary and/or appropriate ministerial land use permits	L-1a: Prepare Construction Notification Plan	
LU-APM-10: Match structure locations with existing transmission facilities. (Need SDG&E input)	L-1c: Coordinate with MCAS Miramar	
WR-1a: Coordinate construction schedule and activities with the authorized officer for the recreation area	L-2b: Revise project elements to minimize land use conflicts	
WR-1b: Provide temporary detours for trail users	LU-APM-1: Provide advance notice to residents, property owners, and tenants within 300 feet of construction activities and SDG&E will appoint a public affairs officer to address public concerns or questions. Implement with L-1d	
WR-1c: Coordinate with local agencies to identify alternative recreation areas	LU-APM-2: Place new transmission structures more than 330 feet from an existing residence. Implement with L-1d	
WR-2a. Develop a reroute for the BCD Alternative Revision to reduce effects on recreation	LU-APM-4: Notify property owners and tenants in advance of construction activities. Provide alternative access if feasible. Implement with L-1e	
WR-3a: Coordinate tower and road locations with the authorized officer for the recreation area.	LU-APM-5: Coordinate construction activities with appropriate water management representatives. (Need SDG&E input). Implement with L-1a	
R-APM-2a: Provide advance notice of restriction of conflicts with access routes to recreational use areas. Implement with WR-1a	LU-APM-6: Flag ROW boundary and limits of construction activity inside and outside the ROW in environmentally sensitive areas to alert construction personnel that those areas should be minimize or avoided. Implement with L-1f	

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R-APM-2c: Coordinate all construction activities, including temporary trail closures, affecting the parklands and trail systems of San Diego and Imperial Counties with the counties' Parks and Recreation Department. Implement with WR-1a	LU-APM-7: Install project facilities along the edges or borders of private property, open space parks, and recreation areas	
R-APM-2e: Post signs advising recreation users of construction activities and directing them to alternative trails or bikeways on both sides of all trail intersections. Implement with WR-1a	LU-APM-8: Continue coordination efforts with the Counties of Imperial and San Diego General Plan Updates and the City of San Diego General Plan Updates to include the Proposed Project in their respective General Plans.	
R-APM-3a: Construction-related traffic shall be restricted to routes approved by the authorized agencies	LU-APM-10: Match structure locations with existing transmission facilities. (Need SDG&E input)	
AG-1a: Avoid interference with agricultural operations	WR-1a: Coordinate construction schedule and activities with the authorized officer for the recreation area	
AG-1c: Coordinate with grazing operators	WR-1b: Provide temporary detours for trail users	
AG-3b: Consult with and inform aerial applicators	WR-1c: Coordinate with local agencies to identify alternative recreation areas	
LU-APM-3: Compensate farmers for losses of crops along ROW. Implement with L-1d	WR-2a. Develop a reroute for the BCD Alternative Revision to reduce effects on recreation	
C-1a: Inventory and evaluate cultural resources in Final Area of Potential Effect (APE)	WR-3a: Coordinate tower and road locations with the authorized officer for the recreation area.	
C-1b: Avoid and protect potentially significant resources	R-APM-2a: Provide advance notice of restriction of conflicts with access routes to recreational use areas. Implement with WR-1a	
C-1c: Develop and implement Historic Properties Treatment Plan	R-APM-2b: No construction that affects trail use will be conducted in that area on federal holidays. Implement with WR-1a	
C-1d: Conduct data recovery to reduce adverse effects	R-APM-2c: Coordinate all construction activities, including temporary trail closures, affecting the parklands and trail systems of San Diego and Imperial Counties with the counties' Parks and Recreation Department. Implement with WR-1a	

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C-1f: Train construction personnel	R-APM-2d: Post signs directing vehicles to alternative park access and parking in the event construction temporarily obstructs parking areas near trailheads. Implement with WR-1a	
C-1g Avoid and protect Old Highway 80 (P-37-024023)	R-APM-2e: Post signs advising recreation users of construction activities and directing them to alternative trails or bikeways on both sides of all trail intersections. Implement with WR-1a	
C-2a: Properly treat human remains	R-APM-2f: Post signs advising equestrians of construction timeframes where helicopters are used for construction, at all equestrian trail-access points within the vicinity of the flight paths. Implement with WR-1a	
C-3a: Monitor construction in areas of high sensitivity for buried resources	R-APM-3a: Construction-related traffic shall be restricted to routes approved by the authorized agencies	
C-4a: Complete consultation with Native American and other Traditional Groups	AG-1a: Avoid interference with agricultural operations	
C-5a: Protect and monitor NRHP- and/or CRHR-eligible properties	AG-1c: Coordinate with grazing operators	
C-6a: Reduce adverse visual intrusions to historic built environment properties	LU-APM-3: Compensate farmers for losses of crops along ROW. Implement with L-1d	
C-6e: Reduce adverse visual intrusions to portions of Old Highway 80	C-1b: Avoid and protect potentially significant resources	
C-6f: Reduce adverse visual intrusions to the Desert View Tower viewshed	C-1d: Conduct data recovery to reduce adverse effects	
CR-APM-1: Instruct construction personnel on the protection and avoidance of cultural resources. Implement with PAL-1e	C-1e: Monitor construction at known ESAs	
CR-APM-2: Flag archeological sites that are eligible or potentially eligible for the National Register	C-1f: Train construction personnel	
CR-APM-3: Report any previously unidentified cultural resource (historic or prehistoric site or object) discovered	C-2a: Properly treat human remains	
CR-APM-4: Conduct maintenance, repair, stabilization, rehabilitation, restoration, preservation, conservation, and reconstruction of a historical resource consistent with the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines	C-3a: Monitor construction in areas of high sensitivity for buried resources	

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CR-APM-5: Follow the guidance described for: Preservation in-place for mitigating impacts to archaeological sites, and preparation of data recovery plans	C-4a: Complete consultation with Native American and other Traditional Groups	
CR-APM-6: Avoid, fence, or barricade historic properties, contributing portions and sensitive features for protection	C-5a: Protect and monitor NRHP- and/or CRHR-eligible properties	
CR-APM-7: Control erosion, sedimentation, or indirect displacement. Implement with C-2a, C-3a, C-4a, and C-5a	C-6a: Reduce adverse visual intrusions to historic built environment properties	
CR-APM-8: Avoid and protect elements of the landscape that are essential to the historic setting of the property	C-6e: Reduce adverse visual intrusions to portions of Old Highway 80	
CR-APM-9: Install permanent fencing or barriers; or control/restrict access to the historic property	CR-APM-1: Instruct construction personnel on the protection and avoidance of cultural resources. Implement with PAL-1e	
CR-APM-10: Locate project structures so that conductors span linear historic properties; underground placement of pipelines and conductors will be bored under linear properties to avoid disturbance or intrusion	CR-APM-2: Flag archeological sites that are eligible or potentially eligible for the National Register	
CR-APM-11: Implement standard practices for cultural and paleontological resources on private lands	CR-APM-3: Report any previously unidentified cultural resource (historic or prehistoric site or object) discovered	
CR-APM-12: Conduct cultural surveys for staging areas that have not yet been identified	CR-APM-4: Conduct maintenance, repair, stabilization, rehabilitation, restoration, preservation, conservation, and reconstruction of a historical resource consistent with the Secretary of the Interior's Standards for the Treatment of Historic Properties w	
PAL-1a: Inventory and evaluate paleontological resources in Final APE	CR-APM-5: Follow the guidance described for: Preservation in-place for mitigating impacts to archaeological sites, and preparation of data recovery plans	
PAL-1b: Develop Paleontological Monitoring and Treatment Plan	CR-APM-6: Avoid, fence, or barricade historic properties, contributing portions and sensitive features for protection	
PAL-1e: Train construction personnel	CR-APM-7: Control erosion, sedimentation, or indirect displacement. Implement with C-2a, C-3a, C-4a, and C-5a	

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GEO-APM-9: Implement appropriate mitigation efforts if paleontological resources are encountered. Implement with PAL-1d	CR-APM-8: Avoid and protect elements of the landscape that are essential to the historic setting of the property	
N-1a: Implement Best Management Practices for construction noise	CR-APM-9: Install permanent fencing or barriers; or control/restrict access to the historic property	
N-2a: Avoid blasting where damage to structures could occur (SDG&E to define blasting)	CR-APM-10: Locate project structures so that conductors span linear historic properties; underground placement of pipelines and conductors will be bored under linear properties to avoid disturbance or intrusion	
NOI-APM-1: Provide notice by mail to all sensitive receptors and residences within 300 feet of construction sites, staging areas, and access roads; and establish a toll free telephone number for receiving questions/complaints. Implement with L-1a	CR-APM-11: Implement standard practices for cultural and paleontological resources on private lands	
T-1a: Restrict lane closures	CR-APM-12: Conduct cultural surveys for staging areas that have not yet been identified	
T-4a: Ensure pedestrian and bicycle circulation and safety.	PAL-1a: Inventory and evaluate paleontological resources in Final APE	
T-7a: Notify public of potential short-term elimination of parking spaces	PAL-1c: Monitor construction for paleontology	
T-9a: Prepare Construction Transportation Management Plan	PAL-1d: Conduct paleontological data recovery	
T-11b: Consult with and inform U.S. Customs and Border Patrol	PAL-1e: Train construction personnel	
T-APM-2a: Obtain required permits for temporary lane closures	GEO-APM-9: Implement appropriate mitigation efforts if paleontological resources are encountered. Implement with PAL-1d	
T-APM-2b: Submit detour plans. Implement with T-1b	N-1a: Implement Best Management Practices for construction noise	
T-APM-4a: Coordinate in advance with emergency service providers to avoid restricting movements of emergency vehicles.	N-2a: Avoid blasting where damage to structures could occur (SDG&E to define blasting)	
T-APM-5a: Consult with County Education Offices, School Districts to coordinate construction activities adjacent to school bus stops	NOI-APM-1: Provide notice by mail to all sensitive receptors and residences within 300 feet of construction sites, staging areas, and access roads; and establish a toll free telephone number for receiving questions/complaints. Implement with L-1a	

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Pre-Construction Measures	During Construction	Pre-Energizing
T-APM-8a: Obtain required permits for entering railroad ROW	T-1a: Restrict lane closures	
T-APM-9a: Underground all new or relocated utility facilities within 1,000 feet of an Officially Designated Scenic Highway. (Need SDG&E input)	T-4a: Ensure pedestrian and bicycle circulation and safety.	
P-1a: Implement Environmental Monitoring Program	T-7a: Notify public of potential short-term elimination of parking spaces	
P-2a: Test for residual pesticides/herbicides on currently or historically farmed land	T-9a: Prepare Construction Transportation Management Plan	
P-7a: Evaluate contaminated sites	T-APM-2a: Obtain required permits for temporary lane closures	
HS-APM-1: Train personnel involved in using hazardous materials. Develop a Hazardous Communication Plan. Implement with P-1a	T-APM-2b: Submit detour plans. Implement with T-1b	
HS-APM-2: Train personnel in refueling vehicles. Implement with P-1a	T-APM-4a: Coordinate in advance with emergency service providers to avoid restricting movements of emergency vehicles.	
HS-APM-3: Develop applicable environmental safety plans associated with hazardous materials. Implement with P-1a	T-APM-5a: Consult with County Education Offices, School Districts to coordinate construction activities adjacent to school bus stops	
HS-APM-4: Develop a site specific blasting plan of tower footing	T-APM-6a: Comply with county parking ordinances or approved traffic control plan	
HS-APM-5: Investigate all Government Code §65962.5 sites or other known contamination sites along the transmission line ROW.	T-APM-6b: Prohibit parking on San Diego County-maintained roads and highways unless otherwise noted at specific locations; comply with the County of San Diego Department of Public Works Traffic Guidelines, 2001 whenever possible, or an approved traffic co	
HS-APM-6: Investigate any known or potential areas for Unexploded Ordinance (UXO) used by the military along the ROW	T-APM-8a: Obtain required permits for entering railroad ROW	
HS-APM-7: Train personnel involved in excavation and grading or for ROW clearing to recognized UXO and/or potential soil, surface water, and groundwater potential contamination sites	T-APM-9a: Underground all new or relocated utility facilities within 1,000 feet of an Officially Designated Scenic Highway. (Need SDG&E input)	
HS-APM-8: Assign an Environmental Field Representative and/or General Contractor for Health & Safety. Implement with P-1a	T-APM-10a: Provide the ability to quickly lay a temporary steel plate trench bridge upon request in order to ensure access to properties when not actively constructing the underground cable alignment	

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Pre-Construction Measures	During Construction	Pre-Energizing
HS-APM-9: Contact airport representative and/or Federal Aviation Administration Authorities regarding work within all existing and proposed transmission line corridors within 2 miles of an airport.	P-1a: Implement Environmental Monitoring Program	
HS-APM-10: Store and dispose of hazardous waste and solid waste in accordance with federal, State, and local regulations. Implement with P-1a	P-1b: Maintain emergency spill supplies and equipment	
HS-APM-11: Develop Fire Prevention and Response Plan (FPRP). Assign a project Fire Marshal to enforce all provisions of the FPRP	P-3a: Appoint individuals with correct training for sampling, data review, and regulatory coordination	
HS-APM-12: Develop a Traffic Control Plan	P-3b: Documentation of compliance with measures for encountering unknown contamination	
HS-APM-14: Construction workers shall undergo environmental training regarding potential exposure	HS-APM-1: Train personnel involved in using hazardous materials. Develop a Hazardous Communication Plan. Implement with P-1a	
HS-APM-15: Stop work and notify Health and Safety Officer if during excavation soil or groundwater contamination is suspected	HS-APM-2: Train personnel in refueling vehicles. Implement with P-1a	
HS-APM-16: Terminate and cordon off work if soil or groundwater contamination is suspected	HS-APM-3: Develop applicable environmental safety plans associated with hazardous materials. Implement with P-1a	
HS-APM-17: Notify regulatory agency if the sample testing determines that contamination is found above regulatory limits	HS-APM-4: Develop a site specific blasting plan of tower footing	
PS-1a: Limit the conductor surface electric gradient	HS-APM-5: Investigate all Government Code §65962.5 sites or other known contamination sites along the transmission line ROW.	
PS-2a: Implement grounding measures	HS-APM-6: Investigate any known or potential areas for Unexploded Ordinance (UXO) used by the military along the ROW	
AQ-1a: Suppress dust at all work or staging areas and on public roads	HS-APM-7: Train personnel involved in excavation and grading or for ROW clearing to recognized UXO and/or potential soil, surface water, and groundwater potential contamination sites	

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Pre-Construction Measures	During Construction	Pre-Energizing
AQ-1h: Obtain NOx and particulate matter emission offsets	HS-APM-8: Assign an Environmental Field Representative and/or General Contractor for Health & Safety. Implement with P-1a	
AQ-4a: Offset construction-phase greenhouse gas emissions with carbon credits	HS-APM-9: Contact airport representative and/or Federal Aviation Administration Authorities regarding work within all existing and proposed transmission line corridors within 2 miles of an airport.	
AQ-4c: Avoid sulfur hexafluoride emissions	HS-APM-10: Store and dispose of hazardous waste and solid waste in accordance with federal, State, and local regulations. Implement with P-1a	
AQ-APM-1: Comply with ICAPCD Rule 800 (Fugitive Dust Requirement for Control of Fine Particulate Matter [PM10]). File a Dust Control Plan with the ICAPCD	HS-APM-11: Develop Fire Prevention and Response Plan (FPRP). Assign a project Fire Marshal to enforce all provisions of the FPRP	
AQ-APM-2: Control fugitive dust	HS-APM-12: Develop a Traffic Control Plan	
AQ-APM-3: Minimize mud and dust from being transported onto paved roadway surfaces, pave, and gravel	HS-APM-14: Construction workers shall undergo environmental training regarding potential exposure	
AQ-APM-4: Carpool to the job site	HS-APM-15: Stop work and notify Health and Safety Officer if during excavation soil or groundwater contamination is suspected	
AQ-APM-5: Minimize unnecessary construction vehicle and idling time	HS-APM-16: Terminate and cordon off work if soil or groundwater contamination is suspected	
H-1a: Prepare Substation Grading and Drainage Plan; construct during the dry season	HS-APM-17: Notify regulatory agency if the sample testing determines that contamination is found above regulatory limits	
H-1a (CC):Construct during the dry season	PS-2a: Implement grounding measures	
H-1k: Comply with Forest Service conditions	AQ-1a: Suppress dust at all work or staging areas and on public roads	
H-1l: Construction on Forest Service land to be subject to an approved, site-specific SWPPP and Sediment-Control Plan	AQ-1b: Use low-emission construction equipment	
H-4b: Avoid blasting where damage to groundwater wells or springs could occur	AQ-1h: Obtain NOx and particulate matter emission offsets	
H-5a: Install substation runoff control	AQ-4a: Offset construction-phase greenhouse gas emissions with carbon credits	

**MMCRP Attachment F:
Sunrise Mitigation Measures – Sorted by Time of Implementation**

Pre-Construction Measures	During Construction	Pre-Energizing
H-6a: Scour protection to include avoidance of bank erosion and effects to adjacent property	AQ-APM-1: Comply with ICAPCD Rule 800 (Fugitive Dust Requirement for Control of Fine Particulate Matter [PM10]). File a Dust Control Plan with the ICAPCD	
H-7a: Develop Hazardous Substance Control and Emergency Response Plan for project operation	AQ-APM-2: Control fugitive dust	
H-8a: Bury power line below 100-year scour depth	AQ-APM-3: Minimize mud and dust from being transported onto paved roadway surfaces, pave, and gravel	
WQ-APM-1: Minimize disturbance to riparian/wetland vegetation, drainage channels, and intermittent and perennial stream banks	AQ-APM-4: Carpool to the job site	
WQ-APM-2: Place structures so as to avoid sensitive features such as watercourses, or to allow conductors to clearly span the features, within limits of safety and standard structure design	AQ-APM-5: Minimize unnecessary construction vehicle and idling time	
WQ-APM-3: Clearly mark where construction equipment and vehicles are not allowed on-site; and train personnel	H-1a: Prepare Substation Grading and Drainage Plan; construct during the dry season	
WQ-APM-4: Maintain adequate distance from stream banks and beds; use existing bridges to cross major streams and culverts in most dry intermittent streams; Span surface water, riparian areas and floodplains; prepare and implement a Storm Water Pollution Prevention Plan (SWPPP)	H-1a (CC): Construct during the dry season	
WQ-APM-5: Construct any stream crossings at low flow periods; and if necessary, develop a site-specific mitigation and restoration plan	H-1k: Comply with Forest Service conditions	
WQ-APM-6: Avoid designated surface water protection areas	H-1l: Construction on Forest Service land to be subject to an approved, site-specific SWPPP and Sediment-Control Plan	
WQ-APM-8: Obtain and comply with required permits for any groundwater discharged to surface waters or storm drains	H-2d: Maintain vehicles and equipment	
WQ-APM-9: Prohibit storage of fuels and hazardous materials within 200 feet of groundwater supply wells and within 400 feet of community or municipal wells	H-4b: Avoid blasting where damage to groundwater wells or springs could occur	

**MMCRP Attachment F:
Sunrise Mitigation Measures – Sorted by Time of Implementation**

Pre-Construction Measures	During Construction	Pre-Energizing
WQ-APM-10: At locations where the project would cross below or pass adjacent to streams with erodible bed or banks, comply with burial depth requirements. Implement with H-6a	H-5a: Install substation runoff control	
WQ-APM-11: Test groundwater levels along underground portion of the project drilling pilot borings	H-6a: Scour protection to include avoidance of bank erosion and effects to adjacent property	
WQ-APM-13: Do not disposed of hazardous materials onto the ground, the underlying groundwater, or any surface water	H-7a: Develop Hazardous Substance Control and Emergency Response Plan for project operation	
WQ-APM-14: Secure required General Permit for Storm Water Discharges Associated with Construction Activity (NPDES permit) authorization	H-8a: Bury power line below 100-year scour depth	
WQ-APM-15: Construct access roads to avoid streambeds	WQ-APM-1: Minimize disturbance to riparian/wetland vegetation, drainage channels, and intermittent and perennial stream banks	
WQ-APM-16: Conduct site-specific assessments for each affected site	WQ-APM-2: Place structures so as to avoid sensitive features such as watercourses, or to allow conductors to clearly span the features, within limits of safety and standard structure design	
G-2a: Protect desert pavement	WQ-APM-3: Clearly mark where construction equipment and vehicles are not allowed on-site; and train personnel	
G-3a: Conduct geotechnical studies for soils to assess characteristics and aid in appropriate foundation design	WQ-APM-4: Maintain adequate distance from stream banks and beds; use existing bridges to cross major streams and culverts in most dry intermittent streams; Span surface water, riparian areas and floodplains; prepare and implement a Storm Water Pollution P	
G-4a: Reduce effects of groundshaking	WQ-APM-5: Construct any stream crossings at low flow periods; and if necessary, develop a site-specific mitigation and restoration plan	
G-4b: Conduct geotechnical investigations for liquefaction	WQ-APM-6: Avoid designated surface water protection areas	
G-5a: Minimize project structures within active fault zones	WQ-APM-8: Obtain and comply with required permits for any groundwater discharged to surface waters or storm drains	

**MMCRP Attachment F:
Sunrise Mitigation Measures – Sorted by Time of Implementation**

Pre-Construction Measures	During Construction	Pre-Energizing
G-6a: Conduct geotechnical surveys for landslides and protect against slope instability	WQ-APM-9: Prohibit storage of fuels and hazardous materials within 200 feet of groundwater supply wells and within 400 feet of community or municipal wells	
G-9a: Coordinate with quarry operations	WQ-APM-10: At locations where the project would cross below or pass adjacent to streams with erodible bed or banks, comply with burial depth requirements. Implement with H-6a	
GEO-APM-1: No widening or upgrading of existing access roads will be undertaken where soils are very sensitive to disturbance, except repairs, widening or upgrades necessary to make roads passable	WQ-APM-11: Test groundwater levels along underground portion of the project drilling pilot borings	
GEO-APM-2: Comply with soil disturbance guidelines	WQ-APM-13: Do not disposed of hazardous materials onto the ground, the underlying groundwater, or any surface water	
GEO-APM-3: Avoid placing structures in areas of high shrink/swell potential	WQ-APM-14: Secure required General Permit for Storm Water Discharges Associated with Construction Activity (NPDES permit) authorization	
GEO-APM-4: Place structures in geologically stable areas, avoiding fault lines, brittle surface rock and bedrock	WQ-APM-15: Construct access roads to avoid streambeds	
GEO-APM-5: Avoid or minimize new disturbance, erosion on manufactured slopes, and off-site degradation from accelerated sedimentation	WQ-APM-16: Conduct site-specific assessments for each affected site	
GEO-APM-6: Conduct surface restoration for erosion control and re-vegetation	G-2a: Protect desert pavement	
GEO-APM-8: Remove or stabilize boulders uphill of structures that pose potentially high risk of landslide damage; and position structures to span over potential landslide areas	G-3a: Conduct geotechnical studies for soils to assess characteristics and aid in appropriate foundation design	
S-2a: Notify public of utility service interruption	G-4a: Reduce effects of groundshaking	
S-2b: Protect underground utilities	G-4b: Conduct geotechnical investigations for liquefaction	
S-3b: Use reclaimed water	G-5a: Minimize project structures within active fault zones	

**MMCRP Attachment F:
Sunrise Mitigation Measures – Sorted by Time of Implementation**

Pre-Construction Measures	During Construction	Pre-Energizing
PSU-APM-1: Coordinate with all utility providers with facilities located within or adjacent to ensure that design does not conflict with other facilities	G-6a: Conduct geotechnical surveys for landslides and protect against slope instability	
PSU-APM-2: Notify Underground Service Alert a minimum of 48 hours in advance of earth-disturbing activities in order to identify any buried utility lines	G-9a: Coordinate with quarry operations	
PSU-APM-3: Coordinate construction schedules, lane closures, and other activities with installation of the project with emergency and police services to ensure that disruption to response times and access is minimized	GEO-APM-3: Avoid placing structures in areas of high shrink/swell potential	
F-1a: Develop and implement a Construction Fire Prevention Plan	GEO-APM-4: Place structures in geologically stable areas, avoiding fault lines, brittle surface rock and bedrock	
F-1b: Amend and implement Sempra Utilities Wildland Fire Prevention and Fire Safety Guide (2007)	GEO-APM-5: Avoid or minimize new disturbance, erosion on manufactured slopes, and off-site degradation from accelerated sedimentation	
F-1d: Remove hazards from the work area	GEO-APM-6: Conduct surface restoration for erosion control and re-vegetation	
F-3a: Contribute to Powerline Firefighting Mitigation Fund	GEO-APM-8: Remove or stabilize boulders uphill of structures that pose potentially high risk of landslide damage; and position structures to span over potential landslide areas	
F-3b: Prepare and implement a Multi-agency Fire Prevention MOU	S-3a: Recycle construction waste	
	S-3b: Use reclaimed water	
	PSU-APM-1: Coordinate with all utility providers with facilities located within or adjacent to ensure that design does not conflict with other facilities	