

APPENDIX A FINAL APMS AND MMS

APM AND MM IMPLEMENTATION TABLE

Table 1 APM and Mitigation Measure Implementation Table

Mitigation Measure	Performance Standard and Timing	Location	Tracking Table Reference
Aesthetics			
<p>MM Aesthetics-1: Nighttime Lighting. All nighttime lighting shall be shielded and directed away from surrounding properties. Lights will not be left on at night, except as required for nighttime work and/or an emergency.</p>	<p>Before Construction: N/A During Construction: (1) All nighttime lighting is shielded and directed away from surrounding properties (2) Lights are not left on except as required for nighttime work and/or an emergency After Construction: N/A</p>	All areas where nighttime lighting is used for construction	N/A
Biological Resources			
<p>APM BIO-05: Impacts to Federally and State Listed Species.</p> <ul style="list-style-type: none"> Federally listed species with potential to occur onsite include coastal California gnatcatcher, Pacific pocket mouse, thread-leaved brodiaea, San Diego fairy shrimp, Riverside fairy shrimp, southern steelhead, arroyo toad, least Bell's vireo, southwestern willow flycatcher and western yellow-billed cuckoo. Impacts to potential or known habitat for these species should not proceed without consultation under Section 7 of the Endangered Species Act (ESA). Construction and operation of the Proposed Project shall proceed according to conditions outlined in the relevant take authorizations. Mitigation for impacts to federally listed species and/or their habitat would be determined through Section 7 ESA consultation between MCB Camp Pendleton and the USFWS. Additional Project specific measures developed during Section 7 consultation would also be implemented as directed by the USFWS. State listed species with potential to occur onsite include: thread-leaved brodiaea, bank swallow, least Bell's vireo, southwestern willow flycatcher and western yellow-billed cuckoo. Impacts to potential or known habitat for these species should not proceed without consultation with the appropriate agencies including CDFW and MCB Camp Pendleton. 	<p>Before Construction: Complete Section 7 consultation and consultation with California Department of Fish and Wildlife During Construction: (1) Construction and operation of the Proposed Project shall proceed according to conditions outlined in the relevant take authorizations. (2) Impact mitigation would be implemented as directed by MCB Camp Pendleton and the USFWS (3) Impacts to potential or known habitat for state-listed species should not proceed without consultation with the appropriate agencies including CDFW and MCB Camp Pendleton After Construction: N/A</p>	Entire project area	N/A
<p>MM Biology-1: Avoidance and Minimization of Impacts on Special-Status Plants. Populations of thread-leaved brodiaea shall be avoided during construction. SDG&E shall mark all thread-leaved brodiaea populations within the PSA as environmentally sensitive areas on maps that are provided to construction contractors working near environmentally sensitive areas. All populations of thread-leaved brodiaea within 50 feet of a project work area and 20 feet of an access road shall be staked and flagged or fenced for avoidance by a qualified biologist or botanist prior to construction. The project work areas shall be adjusted as needed to avoid any populations of thread-leaved brodiaea that occur within the work area. All stakes and flagging shall be removed no later than 30 days after construction is complete in the area. Information about thread-leaved brodiaea and avoidance requirements shall be included in the worker training (refer to MM Biology-3). SDG&E shall obtain MCB CPEN approval of a qualified botanist prior to construction start. A qualified botanist shall conduct pre-activity studies during the appropriate blooming season for activities occurring off existing access roads in natural areas. The pre-activity surveys shall include surveys for special-status plants with a California Rare Plant Rank (CRPR) rank of 1A, 1B, 2A, or 2B that have the potential to occur in the area. SDG&E shall maintain a library of rare plant locations known to SDG&E occurring within the easements and fee owned properties. "Known" means a verified population either extant or documented using record data. Information on known sites may come from a variety of record data sources including Habitat Conservation Plans, pre-activity surveys, MCB CPEN surveys, or surveys conducted for environmental compliance. Plant inventories shall be consulted as part of the pre-activity survey procedure. Special-status plant populations documented in pre-activity surveys will be flagged for avoidance, wherever feasible. If the</p>	<p>Before Construction: (1) Thread-leaved brodiaea populations are marked on maps. (2) Thread-leaved brodiaea and other special-status plant populations are staked and flagged (3) Pre-activity studies are conducted by a qualified biologist during the appropriate blooming season During Construction: (1) Thread-leaved brodiaea populations are avoided (2) Other special-status plants are avoided, as feasible</p>	All thread-leaved brodiaea populations within 50 feet of a work area and 20 feet of an access road, and anywhere activities will occur off existing access roads in natural areas for other special-status plants.	Survey

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<p>plant species cannot be avoided, SDG&E shall notify USFWS, CDFW, MCB CPEN, and the CPUC in writing, and SDG&E shall implement procedures for salvage and relocation of the plant species. No listed plant species shall be salvaged or relocated without obtaining permit authorization from CDFW and/or USFWS, as appropriate. SDG&E shall relocate the species to areas within the easement that are outside of the long-term maintenance areas. If the species occurs in an area that is subject to temporary impacts, the species shall be included in the restoration of the site (see MM Biology-8).</p>	<p>(3) Plants are salvaged or relocated where permanent impacts are unavoidable. No listed plant species shall be relocated without obtaining appropriate permit authorization from CDFW and/or USFWS, as appropriate.</p> <p>After Construction: All stakes and flagging are removed no later than 30 days after construction is complete</p>		
<p>MM Biology-2: Worker Behavior Protocols. All field personnel shall abide by the following general behavior requirements:</p> <ol style="list-style-type: none"> 1. No wildlife, including rattlesnakes, may be harmed, except to protect life and limb. 2. Firearms shall be prohibited except for those used by security personnel. 3. Feeding of wildlife shall not be allowed. 4. SDG&E personnel shall not bring pets to work areas in order to minimize harassment or killing of wildlife and to prevent the introduction of destructive domestic animal diseases to native wildlife populations. 5. Parking or driving underneath oak trees shall not be allowed in order to protect root structures except in previously designated traffic areas. 6. Plant or wildlife species shall not be collected under any circumstance, unless by an authorized/permitted biologist and in compliance with any required permits or take authorization. 7. Littering shall not be allowed. SDG&E shall not deposit or leave any food or waste in any work area. 8. Wildfires shall be prevented or minimized by exercising care when driving and by not parking vehicles where catalytic converters can ignite dry vegetation. In times of high fire hazard, trucks shall carry water and shovels, or fire extinguishers in the field. The use of shields, protective mats, or other fire prevention methods shall be used during grinding and welding to prevent or minimize the potential for fire. Care shall be exhibited when smoking in permitted areas. 9. Field crews shall refer environmental issues, including wildlife relocation, dead or sick wildlife, hazardous waste, or questions about avoiding environmental impacts, to a biologist(s) approved by the CPUC, USFWS, and CDFW. Other CPUC-, USFWS-, or CDFW-biologists or experts in wildlife handling may need to be brought in for assistance with wildlife relocations. 10. Night lighting shall be of the lowest illumination allowed for human safety, selectively placed, shielded, and directed away from habitat to the maximum extent practicable. 11. Vehicle speeds shall be maintained at 15 mph or less. 	<p>Before Construction: N/A</p> <p>During Construction: Workers comply with the specified protocols</p> <p>After Construction: N/A</p>	All project work areas	N/A
<p>MM Biology-3: Worker Training. All construction personnel must receive environmental training from the project biologist or other qualified personnel before commencing work. The training shall describe special-status plant and wildlife species and sensitive habitats that could occur within project work areas, protection afforded to these species and habitats, and avoidance and minimization measures required to avoid and/or minimize impacts from the project. Training shall describe the requirements and boundaries of the project and the importance of complying with mitigation measures within the IS/MND and Biological Opinion. Penalties for violations of environmental laws shall also be incorporated into the training session. Each crewmember shall be provided with an informational training handout and a decal to indicate that he/she has attended the training. The handout shall include information and legal consequences regarding the potential effects of trash, trespassing, harassing, or harming designated sensitive habitat areas and species within or outside of the project footprint. The roles and responsibilities of CPUC-, USFWS-, and CDFW-approved biologist(s) and other environmental representatives shall be identified in the Mitigation Monitoring, Compliance, and Reporting Program and discussed during the training.</p> <p>A copy of the training and training materials shall be provided to the CPUC for review and approval at least 30 days prior to the start of construction. Training logs and sign-in sheets shall be provided to the CPUC on a monthly basis. As needed, in-field training shall be provided to new on-site construction personnel by the environmental compliance supervisor or a qualified individual who shall be identified by a CPUC- and MCB CPEN-approved biologist, or initial training shall be recorded and replayed for new personnel.</p>	<p>Before Construction:</p> <ol style="list-style-type: none"> (1) Training and training materials are provided to the CPUC (2) All workers are trained prior to working on the site <p>During Construction:</p> <ol style="list-style-type: none"> (1) Evidence of environmental training is present at the work site (2) Training logs and sign-in sheets are provided to the CPUC monthly <p>After Construction: N/A</p>	All project work areas	N/A

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<p>MM Biology-4: Subregional Natural Community Conservation Plan (NCCP) Operation and Maintenance Protocols. SDG&E shall follow all operation and maintenance protocols included in Chapter 7.1 of SDG&E's Subregional NCCP including:</p> <ul style="list-style-type: none"> • Pre-activity surveys • Delineate sensitive habitat areas in the field • Biological monitoring • Inspect supplies and equipment for wildlife • Inspect steep walled trenches for wildlife 	<p>Before Construction: Operational protocols are implemented</p> <p>During Construction: Operational protocols are implemented</p> <p>After Construction: Qualified biologist removes habitat flagging</p>	<p>All project disturbance areas</p>	<p>Survey Monitoring</p>
<p>MM Biology-5: Arroyo Toad Avoidance and Minimization. Avoidance and minimization measures shall be taken within suitable habitat of the federally endangered arroyo toad, dependent on the season. Arroyo toad movement to and from breeding areas is often tied to rainfall and high humidity, particularly outside of the breeding season; movement to breeding sites typically begins in February or March and goes through July (MCB CPEN 2012).</p> <p>For work occurring within suitable arroyo toad habitat, including upland aestivation habitat, the following provisions shall be implemented:</p> <ol style="list-style-type: none"> 1. Temporary silt fencing shall be installed around the perimeter of Talega staging yard 1, Sierra Helo Incidental Landing Area (ILA), and any work areas required by USFWS with a qualified biologist present. Silt fencing shall be required year-round in these areas during construction. 2. Silt fencing shall be installed at least 14 days prior to construction to allow enough time for arroyo toad surveys to be completed during optimal weather conditions. 3. All fencing material (e.g., mesh stakes) shall be removed following construction. 4. Before construction activities, but after exclusionary fencing has been installed, a minimum of three surveys occurring over consecutive days shall be conducted for arroyo toads within fenced areas by a qualified biologist. These surveys shall be conducted during appropriate climatic conditions and during the appropriate hours (i.e., evenings, nights, and mornings) to maximize the likelihood of encountering arroyo toads. If climatic conditions are not highly suitable for arroyo toad activity, arroyo toad habitat in the project footprint may be watered to encourage aestivating arroyo toads to surface. All arroyo toads found within the project area shall be captured and translocated by a qualified biologist to the nearest suitable riparian habitat. (However, see number 9, below, regarding actions which may result in "take" and requirements for a valid take permit.) Upon completion of these surveys and prior to initiation of construction activities, the qualified biologist shall report the capture and release locations of all arroyo toads found and relocated during these initial surveys to MCB CPEN Assistant Chief of Staff (AC/S) Environmental Security (ES), the CPUC, and USFWS. 5. If fencing requires repair during construction, a minimum of one survey to a maximum of three surveys for arroyo toads shall be conducted within the area requiring repair by the qualified biologist, consistent with the requirements and methodology described in condition #2 above. The determination of the length of these surveys shall be determined by the qualified biologist. Upon completion of these surveys and prior to initiation of construction activities, the qualified biologist shall report the capture and release locations of all arroyo toads found and relocated during these initial surveys to MCB CPEN AC/S ES, the CPUC, and USFWS. 6. Access to project work areas shall be via preexisting access routes to the greatest extent possible. Project-related vehicle travel shall be limited to daylight hours as arroyo toads use roadways primarily during nighttime hours except in the case of an emergency or for safety. 7. Ingress and egress of construction equipment and personnel shall be kept to a minimum, but when necessary, equipment and personnel shall use a single access point to the site. Where movement of arroyo toads into the construction area is a concern, a road grate shall be installed at the single access point to prevent movement of arroyo toads into the area. Information on grate installation that prevents arroyo toad movement into the area but does not trap arroyo toads can be obtained from MCB CPEN AC/S ES. 8. Dirt/sand piles left overnight shall be covered with tarps or plastic with the edges sealed with sandbags, bricks, or boards to prevent toads from burrowing into the dirt. Holes or trenches shall be covered with material such as plywood or solid metal grates with the edges sealed with sandbags, bricks, or boards to prevent toads from falling into holes or trenches. 	<p>Before Construction: (1) Temporary silt fencing is installed around work areas in suitable habitat (2) Pre-activity surveys are conducted within fencing, and toads are relocated if found</p> <p>During Construction: (1) Monitoring is conducted by a qualified biologist (2) Road grates are installed where necessary (3) dirt/sand piles, excavations, and trenches are covered (4) Take is reported</p> <p>After Construction: Temporary silt fencing is removed</p>	<p>Within suitable habitat for arroyo toad</p>	<p>Survey Report</p>

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<p>9. During construction, the qualified biologist shall be present each morning before initial ground disturbance activities to (1) inspect potential arroyo toad habitat, (2) inspect road grates, and (3) monitor removal of excavation and trench covers and soil stockpile tarps to check the integrity of the toad fence and for any toads that may have entered fenced areas.</p> <p>10. During construction, the qualified biologist shall be present at the end of the day to ensure that excavations and trenches are properly covered to prevent toads from entering any open pits and to check the integrity of the toad fence.</p> <p>11. The qualified biologist shall be on-call and available as needed at other times if a toad is encountered during construction activities. The qualified biologist shall be present on-site full time for two to three days following any measurable rainfall event (i.e., 0.5 inch or greater) or other appropriate climatic conditions (e.g. high relative humidity and moderate temperatures) that are likely to elicit above-ground arroyo toad movement. The qualified biologist shall contact MCB CPEN AC/S ES, the CPUC, and USFWS regarding any arroyo toad sighting within the project footprint. Any incidental excavation, capture and relocation, injury, or death of arroyo toads in association with project activities shall be reported immediately to MCB CPEN AC/S ES, the CPUC, and USFWS. Upon notification of a toad sighting, the qualified biologist shall notify the USFWS and report the notification to MCB CPEN AC/S ES, and the CPUC. Any type of "take" of toads, which includes digging up, handling (i.e., relocating the toad), injury, or death shall not occur without a valid "take" permit.</p> <p>12. Activities that attract small insects (e.g., ants) and toad predators shall be minimized by keeping the project site as clean as possible. All food-related trash shall be placed in sealed bins or removed from the site regularly.</p>			
<p>MM Biology-6: Mitigation for Bird Species. This measure applies to all work areas in which any construction-related activities must be conducted during the nesting bird season (generally between January 1 and August 31, but may be earlier or later depending on species, location, and weather conditions).</p> <p>Nesting Bird Survey Requirements. If work is scheduled to occur during the avian nesting season, nesting bird surveys shall be conducted per the following provisions:</p> <ol style="list-style-type: none"> 1. Nest surveys shall occur within three days prior to the start of ground-disturbing construction or vegetation trimming or removal activities. If there is no work in an area for seven days, it shall be considered a new work area if construction, vegetation trimming, or vegetation removal begins again. 2. Surveys shall be conducted with sufficient survey duration and intensity of effort necessary for the identification of active nests, which is defined as once birds begin constructing, preparing, or using a nest for egg-laying (as defined in Fish and Game Code Section 681.2b) and any nest containing eggs or nestlings or still essential to the survival of a juvenile bird (USFWS 2003). A nest is no longer an "active nest" if abandoned by the adult birds or once fledglings are no longer dependent on the nest. Surveys shall include nests of protected species within proposed work areas, vegetation identified for removal and/or pruning, and within the following buffers of active work areas: 0.25-mile buffer for white-tailed kite (excluding active training areas); 500-foot buffer for other raptor species; and 250 feet for passerine species. 3. Surveys shall be conducted during locally appropriate dates for nesting seasons determined in consultation with the USFWS and CDFW; note that generally the season is between January 1 and August 31 but may be earlier or later depending on species, location, and weather conditions. Species-specific nesting seasons for some species are identified below. 4. The surveys shall be conducted by a CPUC- and MCB CPEN-approved avian biologist. 5. Survey results shall be provided to CPUC, MCB CPEN, USFWS, and CDFW prior to initiating construction activities. 6. Work areas within which vegetation will not be removed and/or pruned and significant noise is not generated, such as work performed manually, by hand or on foot, and/or that would not cause significant disturbances to nesting birds (e.g., operating switches, driving on access roads, normally occurring activities at substations, and activities at staging and laydown areas) do not need to be surveyed prior to use. None of these activities shall result in physical contact with a nest. <p>Avoid Impacts on Nesting Birds. During the nesting season (generally between January 1 and August 31) raptor nests that are located within a 500-foot buffer from a work location where a helicopter will be used shall be evaluated by a CPUC- and MCB CPEN-approved avian biologist to determine whether the nest is active. No trees with active raptor nests shall be removed during nesting season.</p> <p>No additional measures, with the exception of helicopter use, shall be implemented if active nests are more than the following distances from the nearest work areas: (a) 500 feet for white-tailed kite (excluding active training areas), (b) 250 feet for other bird and raptor species. Buffers shall not apply to construction-related traffic using existing roads where the use of such roads is not limited to</p>	<p>Before Construction: Nesting bird surveys are conducted</p> <p>During Construction: (1) Nests are avoided to the extent feasible (2) Nests with reduced buffers and helicopter activities are monitored (3) Helicopter activity is restricted to reduce impacts on nesting birds (4) Noise-producing activities near least Bell's vireo, southwestern willow flycatcher, or western yellow-billed cuckoo nests are avoided or noise attenuation measures are implemented (5) Monthly monitoring reports are submitted to the CPUC, CDFW, and USFWS (6) A final report is submitted to the CPUC, CDFW, and USFWS summarizing monitoring results</p> <p>After Construction: N/A</p>	<p>Areas around nesting birds</p>	<p>Survey Monitoring Report</p>

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<p>project-specific use (i.e., county roads, highways, farm roads, or other private roads). Where road use is limited to project-specific use, a buffer reduction or approval to drive through a buffer shall be obtained as described below under "Buffer Reduction."</p> <p>As appropriate, exclusion techniques may be used for any construction equipment that is left unattended for more than 24 hours to reduce the possibility of birds nesting in the construction equipment. An example of an exclusion technique is covering equipment with tarps.</p> <p>Buffer Reduction. The specified buffers from nesting birds may be reduced on a case-by-case basis if, based on compelling biological or ecological reasoning (e.g., the biology of the bird species, concealment of the nest site by topography, land use type, vegetation, level of project activity, and level of pre-existing disturbance on site), it is determined by a CPUC- and MCB CPEN-approved avian biologist that implementation of a specified smaller buffer distance will still avoid nest abandonment and failure. This requirement includes buffer reductions or temporary buffer incursions for project-related use of roads where no stopping, standing, or other work activities shall occur in the buffer. Requests to reduce standard buffers or for temporary buffer incursions must be submitted to CPUC's independent biologist via e-mail for review. Requests to reduce buffers must include:</p> <ul style="list-style-type: none"> • Species • Location • Pre-existing conditions present on site • Description of the work to be conducted within the reduced buffer (including helicopter use) • Size and expected duration of proposed buffer reduction • Reason for the buffer reduction • Name and contact information of the CPUC-, USFWS-, and CDFW-approved qualified biologist(s) who requested the buffer reduction and will conduct subsequent monitoring • Proposed frequency and methods of monitoring necessary for the nest given the type of bird and surrounding conditions <p>The CPUC's independent biologist shall respond to SDG&E's request for a buffer reduction (and buffer reduction terms) within one business day. If SDG&E proceeds with a reduced buffer, nests shall be monitored daily during construction activities. If the buffer reduction request is denied, or if the avian biologist determines that the nesting bird(s) are not tolerant of project activity, the specified buffer(s) listed above in this measure shall be implemented.</p> <p>Non-special-status species found building nests within the work areas after specific project activities begin may be tolerant of that specific project activity; however, the CPUC- and MCB CPEN-approved avian biologist shall implement an appropriate buffer or other appropriate measures to protect the nest after taking into consideration the position of the nest, the bird species nesting on site, the type of work to be conducted, and duration of the construction disturbance. In these cases, the proposed buffer or other measures must be approved by CPUC's independent biologist through the buffer reduction process outlined in this measure, if buffers are less than those specified in this measure. These nests shall be monitored daily and only during construction activities (no monitoring required during periods when no work is conducted) by an avian biologist until the avian biologist has determined that the young have fledged or construction ends within the work area (whichever occurs first). If the avian biologist determines that the nesting bird(s) are not tolerant of project activity, the buffer outlined above in this measure shall be implemented.</p> <p>Helicopter Activities During Nesting Season. Consistent with air and ground safety requirements, the following helicopter use restrictions shall apply during the bird nesting season:</p> <ul style="list-style-type: none"> • No take-offs, flights, or landings shall occur within a specified nest buffer without receiving a buffer reduction that includes consideration of the specific type of helicopter to be used (e.g., light-duty). • All helicopters shall maintain an elevation of 120 feet or higher above ground level at all times when within 300 horizontal feet of a nest. • A minimum 100-foot long line shall be used for transporting structures, concrete, reinforced steel cages, and for transporting or removing other equipment or personnel. • Hover time at each structure shall be limited to no more than 5 minutes whenever possible. • Helicopters shall leave sites the same way that they approached. • Helicopter use shall be monitored daily by a qualified biologist(s) from start to finish during the nesting season unless reduced monitoring is approved by the CPUC prior to helicopter activities and supported by pre-activity survey data. 			

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<ul style="list-style-type: none"> Where possible, the nest shall be photographed before and after the construction activities. <p>If the qualified biologist(s) determine that the birds are being adversely affected by the activities at any time, the qualified biologist shall call a temporary halt to the work and continue to monitor the birds. If the birds continue to be negatively affected during the work stoppage or when the work is restarted, the qualified biologist shall increase the buffer as much as necessary to alleviate the negative reaction of the birds.</p> <ul style="list-style-type: none"> The nest shall be checked, and the status of the nest and the nesting birds shall be ascertained the day after helicopter construction concludes. Detailed observations of the birds' behaviors before, during, and after the helicopter activities shall be included in monthly monitoring reports, including but not limited to any damage to or loss of the nest, any injury or mortality to the nesting birds, or the abandonment of the nest. Nest photos shall be included with the monitoring reports. <p>Specific Requirements for Least Bell's Vireo, southwestern willow flycatcher, and western yellow-billed cuckoo. Where there is an active nest for least Bell's vireo, southwestern willow flycatcher, or western yellow-billed cuckoo that could be impacted by project-related noise, as determined by the avian biologist, construction noise that exceeds the existing baseline noise level at the active nest by more than 3-dB hourly average or an hourly average threshold of 60 dB, whichever is higher, shall be avoided during these species' breeding seasons (March 15 through August 31). If avoidance of the noise threshold at the active nest is not possible during the breeding seasons, SDG&E shall work with a qualified acoustician approved by the CPUC, USFWS, and CDFW to develop and implement noise attenuation measures such as hay bales, noise blankets or other noise attenuation devices between the activity and the active nest such that the noise level at the active nest does not exceed baseline noise levels by more than 3-dB hourly average or an hourly average threshold of 60 dB, whichever is higher.</p> <p>Monitoring and Reporting. All nests with a reduced buffer shall be monitored daily during construction activities by a qualified biologist until the qualified biologist has determined that the young have fledged or until one week after construction ends within the reduced buffer/work area (whichever occurs first).</p> <p>Nest locations and exclusion buffers shall be mapped (using geographic information systems) for all nests identified. This information shall be maintained in a database and shall be provided to the CPUC, MCB CPEN, CDFW, and USFWS. A monthly written report shall be submitted to the CPUC, MCB CPEN, CDFW, and USFWS for construction within a reduced buffer and shall include (1) information included in buffer reduction requests, (2) work (eggs, young, and adults). No avian reporting shall be required for construction occurring outside of the nesting conducted within the work site, (3) duration of work activities and related buffer reduction, and (4) information on nest success season and if construction activities do not occur within a reduced buffer during any calendar month. A final report shall be submitted to the CPUC, MCB CPEN, CDFW, and USFWS at the end of each nesting season summarizing all avian-related monitoring results and outcomes for the duration of project construction. Nests located in areas of existing human presence and disturbance, such as in yards of private residences, or within commercial and or industrial properties may not need to be monitored, as determined by the qualified biologist and approved by the CPUC's independent biologist.</p> <p>Avian Protection on Power Lines. The project shall include collision-reducing techniques for power lines (based on Reducing Avian Collisions with Power Lines: The State of the Art in 2012 (Avian Power Line Interaction Committee 2012).</p>			
<p>MM Biology-7: Coastal California Gnatcatcher Avoidance and Minimization. SDG&E shall implement the following measures to reduce impacts on coastal California gnatcatcher:</p> <ol style="list-style-type: none"> To the maximum extent practicable, construction shall be timed to avoid the coastal California gnatcatcher breeding season (February 15 to August 31) when suitable gnatcatcher habitat is present within 250 feet (or as directed by the USFWS during Section 7 Consultation) of areas proposed for disturbance or other construction activity. If avoiding the breeding/management season is not practicable, the following additional measures shall be employed: <ol style="list-style-type: none"> The avian biologist shall be approved by the CPUC and MCB CPEN at least two weeks prior to construction start. The avian biologist shall conduct pre-construction surveys for active nests within 250 feet of work locations. For nests found within the survey area, the qualified biologist shall use the distance to the project limits and a topographical analysis to determine if construction activities are likely to directly damage a nest or significantly disturb nesting activities. 	<p>Before Construction:</p> <ol style="list-style-type: none"> Avian biologist is approved by CPUC and MCB CPEN Pre-construction surveys are conducted <p>During Construction:</p> <p>Measures are implemented to avoid unauthorized take of coastal California gnatcatcher</p> <p>After Construction:</p> <ol style="list-style-type: none"> Restoration activities are monitored (see MM Biology-8) 	<p>Suitable habitat for coastal California gnatcatcher</p>	<p>Survey Report</p>

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Mitigation Measure	Performance Standard and Timing	Location	Tracking Table Reference
<p>d. Where damage or disturbance of any gnatcatcher nest(s) is likely, SDG&E shall implement further measures as directed by the avian biologist, CPUC, or MCB CPEN to avoid the likelihood of nest destruction or disturbance, including directing construction to areas further away from the active nest(s), if possible.</p> <p>e. Where mutually agreed to by MCB CPEN AC/S ES, the CPUC, and USFWS, straw bales may be placed along the project perimeter to block visibility and sound from the adjacent construction, thereby reducing potential disturbance to active gnatcatcher nests. Signage shall be installed to deter people from entering any area with an active gnatcatcher nest.</p> <p>3. The avian biologist will provide an electronic report of nest survey results to the CPUC and MCB CPEN within seven days of survey completion. The avian biologist will provide bi-weekly (every two weeks) biological monitoring reports (electronic versions only), and one final biological monitoring report, to the CPUC, MCB CPEN, CDFW, and the USFWS.</p> <p>4. All suitable gnatcatcher habitat that would be temporarily impacted by project activities shall undergo appropriate restoration actions (e.g., recontouring, planting, weeding) upon completion of project activities as described in MM Biology-8. All permanent impacts on suitable gnatcatcher habitat would be offset by restoration of coastal sage scrub at a 2:1 ratio, and as described in MM Biology-9.</p>	<p>(2) Permanent impacts on gnatcatcher habitat are offset by restoration of coastal sage scrub</p>		
<p>MM Biology-8: Restoration for Temporarily Impacted Habitat. SDG&E shall follow the habitat enhancement procedures defined in Section 7.2 of the Subregional NCCP to restore temporarily impacted areas following construction. Restoration of temporarily impacted areas shall involve recontouring the land, replacing the topsoil (if it was collected), planting seed and/or container stock, maintaining (i.e., weeding, replacement planting, supplemental watering, etc.), and monitoring the restored area for a period of five years or until Year 5 success criteria are met. Restoration shall meet the following performance criteria:</p> <ul style="list-style-type: none"> • Percent cover and composition shall be similar to the conditions of a nearby reference site, defined as variation of no more than 10 percent absolute cover from the reference site cover and species composition condition. • Maintenance and monitoring for restoration shall be for five years or until success criteria are met. Restoration areas shall be monitored eight times in Year 1, six times per year in Years 2 and 3, and four times per year in Years 4 and above. • Restoration areas shall be monitored for invasive plants following installation of the restoration. Invasive plant monitoring shall occur eight times in Year 1, six times per year in Years 2 and 3, and four times per year in Years 4 and 5. If invasive plants are found during the five-year monitoring period, they shall be removed as necessary to support meeting the cover and species composition success criteria. • If the restoration fails to meet the established success criteria after the maintenance and monitoring period, maintenance and monitoring shall extend beyond the five-year period until the criteria are met or unless otherwise approved by the CPUC. If the sites meet success criteria early, SDG&E may request early signoff of the restoration by the USFWS, MCB CPEN, and CPUC. • Maintenance and monitoring shall be conducted to assess progress and identify potential problems with the restoration. Remedial action (e.g., additional planting, weeding, erosion control, use of container stock, supplemental watering) shall be taken by an experienced, licensed Habitat Restoration Contractor during the maintenance and monitoring period if necessary to ensure the success of the restoration. <p>Mitigation Ratios for Southern Sycamore Alder Riparian Woodland Habitat. SDG&E shall mitigate for impacts on southern sycamore alder riparian woodland habitat not suitable for listed species per the requirements established in the Riparian Ecosystem Conservation Plan, which is part of the MCB CPEN Integrated Natural Resources Management Plan (INRMP) (See Section 2.5.3 and 2.5.4 of Appendix C of the INRMP). The Riparian Ecosystem Conservation Plan includes equations to calculate the mitigation ratio, depending on multiple factors, including the quality of the habitat that is impacted and the duration of the effect.</p> <p>Mitigation Ratios for Nonnative Grassland and Diegan Coastal Sage Scrub. Temporary impacts on nonnative grassland and Diegan coastal sage scrub not suitable for listed species shall be mitigated at a 1:1 ratio. Suitable habitat for special-status species shall be mitigated at the ratio defined in the applicable mitigation measure.</p> <p>Restoration within MCB CPEN Habitat Restoration Areas. Temporarily impacted areas within MCB CPEN habitat restoration and mitigation sites shall be restored to the same specifications that they were restored to by MCB CPEN. SDG&E shall document the pre-construction conditions of each restoration or mitigation site in a pre-construction habitat restoration and mitigation area impact memo submitted to the CPUC and MCB CPEN 30 days prior to impacts within habitat restoration and mitigation sites. The pre-construction habitat restoration and mitigation area impact memo shall include photo documentation and vegetation surveys of all habitat restoration and mitigation areas that will be impacted by the project. SDG&E shall restore habitat restoration and mitigation</p>	<p>Before Construction: SDG&E shall document the pre-construction conditions of each restoration or mitigation site in a pre-construction habitat restoration and mitigation area impact memo submitted to the CPUC and MCB CPEN 30 days prior to impacts within habitat restoration and mitigation sites.</p> <p>During Construction: Habitat areas are restored during the appropriate time of year which may be after construction. BMPs will be implemented.</p> <p>After Construction:</p> <p>(1) Restored areas are monitored for five years or until they meet Year 5 success criteria</p> <p>(2) Compensatory mitigation lands are acquired</p>	<p>Sycamore adder riparian woodland, nonnative grassland, and Diegan coastal sage scrub habitat temporarily impacted by the project</p>	<p>Monitoring Report</p>

APM AND MM IMPLEMENTATION TABLE

Mitigation Measure	Performance Standard and Timing	Location	Tracking Table Reference
<p>areas affected by the project to pre-construction habitat conditions including vegetative cover and vegetation community composition. Restoration of habitat restoration and mitigation areas shall be completed to the acceptance of MCB CPEN and the CPUC. Post-construction restoration activities shall be documented by SDG&E in an annual report submitted December 31 of each year to MCB CPEN and the CPUC. Annual monitoring and reporting shall be conducted until the habitat restoration areas are fully restored to pre-construction conditions.</p>			
<p>MM Biology-9: Compensation for Permanently Impacted Habitat. SDG&E shall choose one of the two following options to compensate for permanent impacts on habitat:</p> <p>Option 1. SDG&E shall use the mitigation credits from SDG&E's Subregional NCCP to off-set permanently impacted areas. Permanent impacts on nonnative grassland shall be mitigated at a 1:1 ratio, and permanent impacts on Diegan coastal sage scrub shall be mitigated at a 2:1 ratio. To demonstrate that sufficient mitigation credits are available in the NCCP, SDG&E shall provide the CPUC with a letter from CDFW and USFWS stating that enough mitigation credits are available for this project at least 30 days prior to any ground-disturbing activities. SDG&E shall provide the CPUC with a copy of the Annual Report that shows that mitigation credits were used for this project.</p> <p>Option 2. SDG&E shall purchase/dedicate suitable habitat for preservation to off-set permanently impacted areas. Permanent impacts on nonnative grassland shall be mitigated at a 1:1 ratio and permanent impacts on Diegan coastal sage scrub shall be mitigated at a 2:1 ratio. All off-site mitigation parcels shall be approved by the CPUC, USFWS, CDFW, and MCB CPEN (as applicable) and must be acquired, or their acquisition must be assured. To demonstrate that such parcels will be acquired, SDG&E shall submit a Habitat Acquisition Plan at least 30 days prior to any ground-disturbing activities for CPUC, USFWS, CDFW, and MCB CPEN (as applicable) review and approval. The Habitat Acquisition Plan shall include, but shall not be limited to:</p> <ul style="list-style-type: none"> • Legal descriptions and maps of all parcels to be acquired; • Schedule that includes phasing relative to impacts; • Documentation demonstrating that the mitigation parcel(s) provides high quality habitat roughly equivalent in composition to the habitats that would be impacted by the project, are not isolated habitat patches, and include appropriate acreages; • Timing of conservation easement recording; • Initiation of habitat management activities relative to acquisition; and • Assurance mechanisms (e.g., performance bonds to assure adequate funding) for any parcels not actually acquired prior to vegetation disturbing activities. <p>A Habitat Management Plan shall be prepared by a biologist and approved by the CPUC, USFWS, CDFW, and MCB CPEN (as applicable) for all acquired off-site mitigation parcels. The Habitat Management Plan must be approved in writing by these agencies (as applicable) within 18 months of the initiation of any vegetation-disturbing activities. The Habitat Management Plan shall provide direction for the preservation and in-perpetuity management of all acquired, off-site mitigation parcels. The Habitat Management Plan shall include, but shall not be limited to:</p> <ul style="list-style-type: none"> • Adequate SDG&E funding for the preparation and implementation of the Habitat Management Plan • Legal descriptions of all mitigation parcels approved by the CPUC, USFWS, CDFW, and MCB CPEN (for mitigation parcels to be acquired for impacts within MCB CPEN) • Baseline biological data for all mitigation parcels • Designation of a land management entity approved by the CPUC, USFWS, CDFW, and MCB CPEN (for mitigation parcels to be acquired for impacts within MCB CPEN) to provide in-perpetuity management • A Property Analysis Record prepared by the designated land management entity that explains the amount of funding required to implement the Habitat Management Plan • Designation of responsible parties and their roles (e.g., provision of endowment by SDG&E to fund the Habitat Management Plan and implementation of the Habitat Management Plan by the designated land management entity) • Management specifications including, but not limited to, regular biological surveys to compare with the baseline data; invasive, non-native species control; fence/sign replacement or repair; public education; trash removal; and annual reports to the CPUC, USFWS, CDFW, and MCB CPEN (for mitigation parcels to be acquired for impacts within MCB CPEN) 	<p>Before Construction: Documentation for acquisition, preservation, and management of in-kind habitat is provided to the CPUC, USFWS, and CDFW prior to habitat impacts</p> <p>During Construction: N/A</p> <p>After Construction: N/A</p>	<p>Nonnative grassland habitat and Diegan coastal sage scrub habitat that are permanently impacted by the project</p>	<p>Plan Survey Report</p>

APM AND MM IMPLEMENTATION TABLE

Mitigation Measure	Performance Standard and Timing	Location	Tracking Table Reference
<p>MM Biology-10: Burrowing Owl Mitigation and Monitoring. In accordance with the Staff Report on Burrowing Owl Mitigation and CDFW-approved Burrowing Owl Monitoring and Mitigation Plan (BOMMP), SDG&E shall conduct a pre-construction take avoidance survey for burrowing owl prior to initiating ground-disturbing activities. In areas where owl presence is not found, construction may proceed without further mitigation. If burrowing owl occupancy on site is confirmed during pre-construction take avoidance surveys, SDG&E shall implement the CDFW-approved BOMMP in coordination with CDFW.</p>	<p>Before Construction: (1) A Draft BOMMP is submitted to the CDFW and CPUC for approval (2) A pre-construction take avoidance survey is conducted</p> <p>During Construction: Measures from the approved BOMMP are implemented if burrowing owl are found during the pre-construction survey</p> <p>After Construction: N/A</p>	<p>Suitable habitat for burrowing owl</p>	<p>Survey</p>
<p>MM Biology-11: Mitigation for Pacific Pocket Mouse. The following measures shall be implemented in occupied habitat for Pacific pocket mouse (PPM):</p> <ol style="list-style-type: none"> 1. A CPUC- and MCB CPEN-approved PPM biologist shall conduct a pre-construction survey for PPM 14 days prior to construction. The PPM biologist's qualifications shall include experience performing at least 40 small mammal trapping sessions (i.e., calendar nights), experience handling at least 40 PPM individuals, experience with small mammal husbandry, and experience performing a translocation of a small mammal species. The pre-construction survey shall cover all PPM-occupied habitat within 500 feet of all project work areas and access roads within 120 feet of project work areas and access roads to identify any individuals that are occupying the habitat. Any burrows, utilized habitat, or signs of PPM utilizing a habitat (e.g., track prints) shall be flagged for avoidance during construction activities. 2. The PPM biologist shall monitor all phases of construction in PPM-occupied habitat and coordinate closely with CPUC and MCB CPEN Environmental Security (ES), who shall in turn coordinate with the USFWS. 3. The PPM biologist shall submit a detailed PPM trap and release plan to the USFWS for review and approval prior to any trapping activities in PPM-occupied habitat. 4. Contractor education in MM Biology-3 shall cover the potential presence of PPM; the requirements and boundaries of the project; the importance of complying with avoidance, minimization, and compensation measures; and problem reporting and resolution methods. 5. The PPM biologist shall monitor all construction activities in occupied habitat to ensure compliance with mitigation measures and shall keep the project construction manager, CPUC, and MCB CPEN ES informed of construction activities that may threaten PPM. 6. Each morning prior to the commencement of work, the PPM biologist shall check for any new burrows within the work areas. If evidence of any new PPM activity is found, the PPM biologist will work with the construction crew in the field to determine a new work plan for construction activities within the work area that will avoid impacts to PPM (for example, placement of outriggers in areas free of PPM sign, the PPM biologist flagging footpaths from the existing access road to the structure avoiding PPM burrow locations, and working with the crew to determine areas free of PPM sign that can be used by construction). 7. In the unlikely event that a live PPM is discovered that could be impacted by construction, the PPM biologist will immediately contact the USFWS for consultation and all work in the area shall halt until consultation is completed. 8. The PPM biologist shall provide bi-weekly (every two weeks) biological monitoring reports (electronic versions only), and one final biological monitoring report to the CPUC, MCB CPEN Environmental Security, and USFWS. Any "take" of federally-listed or state-listed species will be reported electronically to the CPUC, MCB CPEN ES, CDFW and USFWS within 24 hours of the action. No "take", including handling or capture of state or federally listed species, shall occur without appropriate state or federal "take" authorization. 9. The PPM biologist shall have the ability to halt construction activities, if necessary, to avoid unanticipated impacts on PPM. 10. No access road grading shall occur in PPM-occupied habitat without prior authorization from USFWS and MCB CPEN. 	<p>Before Construction: (1) Pre-construction surveys are conducted (2) Burrows and signs of utilized habitats are flagged for avoidance</p> <p>During Construction: (1) Construction areas within occupied habitat for PPM are monitored daily and (2) Reports are submitted to the CPUC, MCB CPEN, and USFWS</p> <p>After Construction: N/A</p>	<p>Occupied habitat for PPM</p>	<p>Survey Monitoring Report</p>

APM AND MM IMPLEMENTATION TABLE

Mitigation Measure	Performance Standard and Timing	Location	Tracking Table Reference
<p>MM Biology-12: Invasive Weed Control. To control the potential spread of weed species that may degrade native plant communities on MCB_CPEN, all equipment and vehicles will be thoroughly power-washed or air compressor-washed before entering MCB CPEN. SDG&E shall also implement the following measures:</p> <ul style="list-style-type: none"> • A pre-construction weed inventory shall be conducted by surveying-a 10-foot buffer along access roads that are solely utilized by SDG&E and proposed work areas for the project, as well as at all ancillary facilities associated with the proposed project where ground-disturbing activities are proposed to occur outside of secured facilities (i.e., substations) for weed populations that are (1) considered by MCB CPEN as being a priority for control (i.e., prohibited plants on the Basewide Master Plant List), or (2) weed populations rated High or Moderate for negative ecological impact in the California Invasive Plant Inventory (online) Database (http://www.cal-ipc.org/ip/inventory/index.php) that are not already pervasive (e.g. <i>Bromus spp.</i>, <i>Avena spp.</i>, <i>Brassica nigra</i>, etc.) within and around the project area. Only species on the above-mentioned lists that have isolated occurrences and fall within project impact areas will be mapped and targeted for control. Weed populations within the proposed project impact areas shall be treated prior to construction or at a time when treatments would be most effective based on phenology. • Weed control treatments shall include all legally permitted methods. All treatments shall be applied with the authorization of MCB CPEN if the treatments occur within MCB CPEN. The application of herbicides shall comply with all state and federal laws and regulations under the prescription of a Pest Control Advisor and implemented by a Licensed Qualified Applicator. Where manual and/or mechanical methods are used, disposal of the plant debris shall be within an approved landfill area. The timing of the weed control treatment shall be determined by SDG&E and its contractor(s) for each plant species in consultation with MCB CPEN, with the goal of controlling populations before they start producing seeds. SDG&E shall coordinate with MCB CPEN regarding control methods prior initial treatments and preceding any planned significant change in treatment method (e.g., change in type of herbicide[s] that will be applied). • From the time construction begins until two years after construction is complete, annual surveying for new invasive weed populations and the monitoring of identified and treated populations shall be required in the survey areas described above. Weed populations shall be treated to not exceed baseline conditions. • During project construction and operation/maintenance, all seeds and straw materials shall be certified weed free, and all gravel and fill material shall also be certified weed free. 	<p>Before Construction: (1) Pre-construction weed inventory is conducted (2) Weed populations are controlled, if deemed appropriate</p> <p>During Construction: N/A</p> <p>After Construction: (1) Annual survey for invasive weed populations and monitoring of treated populations are required for two years after construction is complete (2) Weeds are treated</p>	<p>Treatment of weed populations within project disturbance areas; surveys of weed population within entire easement</p>	<p>Survey Monitoring</p>
<p>MM Biology-13: Vernal Pool Avoidance and Minimization. SDG&E shall implement the following measures to avoid and minimize impacts on vernal pools and road pools:</p> <ul style="list-style-type: none"> • Equipment travel and site access within roads containing potential vernal pools or road pools shall be timed when pools are dry to the extent feasible. • The boundaries of all vernal pools and road pools located within the immediate vicinity of any project related work or access road shall be staked/flagged by a qualified biologist prior to grading or ground disturbance in the area. • Mats may be used when pools are wet or moist to reduce impacts on the pool from vehicle travel. • All staking/flagging shall be removed by the qualified biologist following completion of work. • A minimum of 150 feet shall be provided between pools and all staging, parking, and storage areas. • No fueling or repair of project vehicles or equipment shall occur within 150 feet of delineated road pools. 	<p>Before Construction: N/A</p> <p>During Construction: (1) Equipment travel through pools is minimized (2) Pools are flagged prior to ground disturbance in the area (3) Measures, including the use of mats and buffers for vehicle fueling and repairs, are implemented to reduce impacts on pools</p> <p>After Construction: Staking/flagging is removed around pools</p>	<p>Road rut pools on access roads</p>	<p>N/A</p>

APM AND MM IMPLEMENTATION TABLE

MM Biology-14: Access Road Grading Measures. SDG&E shall implement the following measures for access road grading activities that are implemented for the project.

1. The project access road grading areas are limited to the access roads as defined in the project description. Parking, driving, and project staging of equipment and vehicles (i.e., lay down) for access grading are limited to previously compacted and developed areas.
2. Access to the project site shall utilize existing Base roads.
3. All equipment and/or vehicles shall be power-washed before entering Camp Pendleton property and the project site. This is to control the spread of invasive (non-native) weeds. These measures are in support of MCO P5090.2A, 11200.7, which requires installations to restrict the introduction of exotic species into natural ecosystems.

SDG&E will conduct access road grading activities in accordance with operational protocols described in Section 7.1 of the NCCP and the Memorandum of Understanding between the USFWS and CDFG (References (e) and (f)) and subsequent US Fish and Wildlife consultations (References (g) and (h)). These operation protocols were developed to avoid Incidental Take or impact to species listed under the Endanger Species Act (ESA) and their habitats.

1. The project is within and adjacent to habitats occupied by federally-listed flora and fauna species.
2. All SDG&E NCCP operational protocols and mitigation measures shall be followed during road maintenance activities, including but not limited to:
 - a. Conducting safety and environmental tailgates.
 - b. Pre-construction surveys for sensitive biological resources.
 - c. Monitoring and flagging of migratory and ESA-listed bird nests; occupied California gnatcatcher, and rare plant habitat; riparian areas; vernal pools; drainage features; and natural waterways will be completed by a qualified biological monitor. Monitoring and flagging for active nests that occur within 50 feet on either side of the project area during bird breeding season (15 February - 31 August). Flagging is placed 25 feet on either side of the nest so that the construction and vegetation trimming activities do not impact these species.
 - d. Plant material from trimming activities will be removed from the site to a permitted disposal location.
3. In the event SDG&E identifies a Federally-listed plant species within a 10-foot radius around power poles, which is the area required to be cleared for fire protection purposes, SDG&E shall notify the USFWS and MCB CPEN ES Consultation Section, in writing, of the plant's identity and location of the proposed activity, which will result in a Take of such a plant.
4. *Reports.* SDG&E shall provide copies of the information associated with projects on MCB CPEN in their Annual Report to the USFWS including but not limited to the following:
 - a. *Monitoring.* At completion of work, the Environmental Surveyor shall verify compliance, including observing that flagging areas have been avoided; identify previously unidentified dens, burrows, or plants located on any project sites after the pre-activity survey; and recording habitat acreages impacted by the project.
 - b. *Mitigation.* The SDG&E will provide MCB CPEN Consultation Section with the acreage of temporary and permanent habitats impacted by the project. The report will also include the table associated with MCB CPEN project habitat impacts provided to the USFWS in their Annual Report.
 - c. *Incidental Take.* In the event of unavoidable impacts resulting in Take as authorized under USFWS ESA Section 10(a) Permit (References (e) and (f)), SDG&E shall provide MCB CPEN ES Consultation Section a copy of the report submitted to the USFWS.
5. *Fire Prevention.* Wildfires will be prevented by exercising care when driving and by not parking vehicles in grass where catalytic converters can ignite it. In times of high fire hazard, trucks will need to carry water and shovels or fire extinguishers in the field. No smoking or disposal of cigarette butts will take place within vegetated areas.
6. All flagging, BMPs, and small animal protection measures shall be removed upon completion of the project.
7. *Clean Water Act.* No dumping or fill shall be placed in/near any Clean Water Act (CWA) Section 404 Water of the U.S. except as authorized by a permit from the U.S. Army Corps of Engineers (USACE) in support of the CWA (33) U.S.C. §§ 1251 - 1387 section 404, the Soil and Water Conservation Act (16) U.S.C. §§ 2001 - 2009, and Marine Corps Order P5090.2A, 11201.3. SDG&E shall provide a copy of any applicable permits obtained in relation to this project to MCB CPEN Consultation Section prior to commencing work.

In areas where vernal pools are known to be present, such as in the vicinity of the Wire Mountain, SDG&E provides a global positioning system (GPS) unit to the biological monitor that has the known locations of vernal pools loaded into the unit. The biological monitor uses this information to flag in advance of the graders for avoidance of known locations of vernal pools.

All access road grading and associated equipment and vehicles remain on existing access roads, and all equipment and materials are removed from roadways upon completion of access road grading activities.

Before Construction:

N/A

During Construction:

Implement measures during road grading

After Construction:

N/A

All areas areas of access road grading.

Survey
Monitoring
Report

APM AND MM IMPLEMENTATION TABLE

Mitigation Measure	Performance Standard and Timing	Location	Tracking Table Reference
Cultural Resources			
<p>APM CUL-02: Additional Avoidance and Minimization. SDG&E will implement additional avoidance and minimization recommendations described in the Recommendations for Cultural Resources Protection and Avoidance for the TL 695 and TL 6971 Reconductor Project Report. This document describes avoidance and minimization recommendations at each Proposed Project component that may have an adverse effect on cultural resources. The recommendations include no access roadway improvements within specified cultural sites, use of a truck mounted guard structure at guard structure 3, periodic archaeological and Native American spot-checking of construction activities, and other recommendations.</p>	<p>Before Construction: N/A</p> <p>During Construction: SDG&E will implement additional avoidance and minimization recommendations described in the Recommendations for Cultural Resources Protection and Avoidance for the TL 695 and TL 6971 Reconductor Project Report.</p> <p>After Construction: A final Report will be submitted</p>	All work areas within the boundaries of CRHR eligible resources	N/A
<p>MM Cultural-1: Cultural Resource Monitoring. <i>Qualified Cultural Resource Specialist.</i> SDG&E shall retain a qualified cultural resource professional that meets the standards as specified in the Secretary of the Interior 's Professional Qualification Standards (36 Code of Federal Regulations [CFR] Part 61) and has experience with local Native American history, traditions and customs. SDG&E shall provide the name and credentials of the Qualified Cultural Resource Specialist(s) to the CPUC and MCB CPEN for approval at least 14 days prior to construction.</p> <p>Qualified Cultural Resource Monitors. SDG&E shall retain qualified cultural resource monitors who have experience conducting cultural resource monitoring in the region on projects of similar size. SDG&E shall provide the name and credentials of proposed cultural resource monitors to the CPUC and MCB CPEN for approval at least 14 days prior to construction.</p> <p>Tribal Cultural Monitor. SDG&E shall retain a tribal cultural monitor(s) in consultation with tribes identified by the Native American Heritage Commission (NAHC) to be traditionally and culturally affiliated with the proposed project area. The tribal cultural monitor(s) shall monitor all ground-disturbing activities, represent tribal concerns, and communicate necessary information with their respective tribal councils and/or cultural communities. SDG&E shall provide the documentation of coordination and outreach efforts and the name and credentials of the proposed Native American monitor(s) to the CPUC and MCB CPEN for approval at least 14 days prior to construction.</p> <p>Cultural Resource Monitoring</p> <ul style="list-style-type: none"> Cultural resource monitoring shall be conducted during all ground-disturbing activities (i.e., vegetation clearing, excavation, grading, and staging yard preparation within unpaved staging yards). The requirements for archaeological monitoring and tribal cultural shall be noted on construction plans and the worker environmental awareness training handouts. Monitors may cease monitoring if sterile soil and/or bedrock is encountered. Monitoring teams shall work under the direct supervision of the Qualified Cultural Resource Specialist in conjunction with a tribal cultural monitor. The Qualified Cultural Resources Specialist and tribal cultural monitor shall attend preconstruction meetings for the project. Monitoring teams shall include one qualified cultural resource monitor and one tribal cultural monitor. In the event that ground-disturbing activities occur simultaneously in multiple locations, a monitoring team shall be required at each location. The purpose of cultural resource monitoring is to ensure proper implementation of all avoidance procedures so that cultural resources, if present, are not irretrievably lost, damaged or destroyed, or otherwise adversely affected. If any cultural resources are identified, the provisions in MM Cultural-3 shall be followed. 	<p>Before Construction: Qualified cultural resource specialist, cultural resource monitors, and tribal cultural monitors are retained and approved by the CPUC and MCB CPEN</p> <p>During Construction: Cultural resource monitoring is conducted in all areas of ground disturbance</p> <p>After Construction: N/A</p>	All areas of ground disturbance	Monitoring

APM AND MM IMPLEMENTATION TABLE

Mitigation Measure	Performance Standard and Timing	Location	Tracking Table Reference
<p>MM Cultural-2: Cultural Resource Avoidance Procedures. SDG&E shall implement measures to avoid impacts on cultural resources, wherever feasible. Avoidance means that no activities associated with the project that may affect cultural resources shall occur within the boundaries of the resource, including any defined buffer zones. SDG&E shall implement the following procedures to avoid direct and indirect effects on cultural resources:</p> <ol style="list-style-type: none"> All known cultural resources shall be physically demarcated under the direction of the Qualified Cultural Resource Specialist, in consultation with the tribal cultural monitor, and excluded from proposed project work areas. All California Register of Historic Resources (CRHR)-eligible resources within the project area shall be clearly delineated with coded flagging or other effective marking, prior to implementing any activities that have the potential to affect cultural resources. Construction crews shall be instructed to work within designated approved work areas. Linear sites may be crossed or bounded in areas where their features or characteristics clearly lack historic integrity, i.e., where those portions (taking into account any buffer zones related to setting) do not contribute to site eligibility or values. When any changes in proposed activities are necessary to avoid cultural resources (e.g., project modifications, redesign, or elimination; removing old or confusing project markings or engineering stakes within site boundaries; or revising maps or changing specifications), these changes shall be completed before initiating any activities in the area. Any design modifications to avoid impacts shall be submitted to the CPUC at least 14 days prior to construction. <p>Where avoidance of all activities within the resource boundaries is infeasible (e.g., where the existing pole is located within the boundaries of a cultural resource or existing access roads are located within resource boundaries), SDG&E shall define methods to minimize potential disturbance or destruction of cultural resources including limiting work areas and equipment, use of same hole set for pole replacements, or other minimization methods as defined by the Qualified Cultural Resource Specialist in consultation with MCB CPEN and affected tribes. SDG&E shall define the minimization procedures for all activities proposed within the boundaries of any CRHR-eligible resource in a Cultural Resource Avoidance and Minimization Plan. SDG&E shall prepare the Cultural Resource Avoidance and Minimization Plan a minimum of 60 days prior to construction. No activities shall be conducted within the boundaries of a known CRHR-eligible cultural resource until SDG&E has obtained concurrence on the proposed minimization methods from MCB CPEN and any affected tribes.</p>	<p>Before Construction:</p> <ol style="list-style-type: none"> Physically demarcate cultural resources and buffer zones modify project design to avoid resources, where necessary Cultural Resources Avoidance and Minimization Plan <p>During Construction:</p> <p>Avoid work within buffer zones</p> <p>After Construction: N/A</p>	<p>Entire proposed project area</p>	<p>Plan</p>
<p>MM Cultural-3: Discoveries of Cultural Resources. If a cultural resource is identified during construction, SDG&E shall:</p> <ol style="list-style-type: none"> Immediately suspend all activities within 50 feet of the resource and flag-off the area for avoidance. The Qualified Cultural Resource Specialist and tribal cultural monitor shall be immediately informed of the discovery. The Qualified Cultural Resource Specialist will immediately notify the CPUC, MCB CPEN archaeologist, and any participating Native American tribes, if appropriate, of the discovery. The Qualified Cultural Resource Specialist, tribal cultural monitor, and MCB CPEN's archaeologist shall evaluate the resource and determine whether it is (1) eligible for listing in the CRHR (and thus a historic resource for purposes of CEQA), (2) a unique archaeological resource as defined by CEQA, or (3) a tribal cultural resource as defined by CEQA. If the resource is determined to be neither a CRHR-eligible resource, a unique archaeological, nor a tribal cultural resource, work may commence in the area. If the resource is determined to be a CRHR-eligible resource, unique archaeological resource, or tribal cultural resource, the area shall remain flagged-off, and the following procedures shall be followed: <ol style="list-style-type: none"> Where the procedures for cultural resource avoidance in MM Cultural-2 can be effectively implemented to avoid impacts on the resource, construction may resume in the area with implementation of MM Cultural-2. Where the resource cannot be avoided by the remaining construction activities, the Qualified Cultural Resource Specialist shall recommend appropriate treatment measures to ensure that no substantial adverse change would occur to the significance of the resource pursuant to CEQA Guidelines Section 15064.5(b). The Qualified Cultural Resource Specialist shall report the discovery and the proposed treatment to the CPUC, MCB CPEN archaeologist, and participating Native American tribes within two days of the find. Preservation in place (i.e., avoidance) is the preferred method of treatment for cultural resources and tribal cultural resources. Any treatment other than preservation in place must be approved by the CPUC, appropriate tribe, and MCB CPEN's archaeologist. The resource and treatment method shall be documented in a final report to be filed with the California Historical Resources Information System (CHRIS). Work in the area may commence upon completion of approved treatment and under the direction of the Qualified Cultural Resource Specialist. 	<p>Before Construction: N/A</p> <p>During Construction:</p> <ol style="list-style-type: none"> Implement avoidance zones around any discovered cultural resources Document the resource and notify parties of the find and proposed treatment method Implement treatments File a report with CHRIS <p>After Construction: N/A</p>	<p>Finds of cultural resources during construction</p>	<p>Report</p>

APM AND MM IMPLEMENTATION TABLE

Mitigation Measure	Performance Standard and Timing	Location	Tracking Table Reference
<p>MM Cultural-4: Worker Training. All proposed project personnel shall receive training regarding the appropriate work practices necessary to effectively implement cultural resource mitigation measures. Training shall be required for all personnel before construction commences and repeated for all new personnel before they begin work on the proposed project. This training program shall address the potential for exposing subsurface resources, basic signs of a potential resource, and required procedures to be followed upon the discovery or suspected discovery of archaeological materials, human remains, and fossil remains consistent with the procedures set forth in MM Cultural-1, MM Cultural-2, MM Cultural-3, MM Cultural-5, and MM Paleo-2. The training shall also identify requirements for working within the San Mateo Archaeological District (SMAD) and all other resources as defined in the 2015 HDR, Inc. "Recommendations for Cultural Resources Protection and Avoidance" Report. The training program shall be submitted to the CPUC for approval at least 30 days before the start of construction and may be submitted in conjunction with the general Worker Environmental Awareness Program for the project.</p>	<p>Before Construction: (1) Training program is submitted to the CPUC (2) Construction personnel receive training During Construction: N/A After Construction: N/A</p>	<p>Entire proposed project area</p>	<p>N/A</p>
<p>MM Cultural-5: Procedure for Discovery of Human Remains. In the event that human remains, suspected human remains, or suspected funerary objects are identified, the area shall be flagged off and all construction activities within 50 feet of the find shall immediately cease. The CPUC-approved cultural resources specialist/archaeologist, SDG&E, and MCB CPEN (if the find is within MCB CPEN) shall be immediately notified, and the cultural resources specialist/archaeologist shall examine the find. If the cultural resources specialist/archaeologist determines that there may be human remains, SDG&E shall immediately contact the Medical Examiner at the Orange or San Diego County Coroner's office, depending on the location of the find. If the find occurs within MCB CPEN, MCB CPEN's Comprehensive Agreement for the treatment of human remains under the Native American Graves Protection and Repatriation Act (NAGPRA) shall be followed.</p> <p>For remains discovered outside of MCB CPEN property, SDG&E shall comply with California law (Health and Safety Code §7050.5 and PRC §§5097.94, 5097.98, and 5097.99) for examining the remains, notifying appropriate personnel, and treatment and disposition of the remains. These procedures include notifying the NAHC if the remains are believed to be Native American or the local law enforcement if the remains are not believed to be Native American. The NAHC is responsible for notifying the most likely descendant (MLD) within 24 hours of notification. The MLD shall have 48 hours from the notification by the NAHC to determine the appropriate treatment and disposition of the remains. SDG&E shall coordinate the treatment and disposition of the remains between SDG&E, the MLD, and the landowner.</p>	<p>Before Construction: N/A During Construction: (1) If human remains are found, construction activities halt within 100 feet of the find, the area is flagged off, and the appropriate personnel are notified (2) The remains are examined (3) Either the county Medical Examiner or an appropriate authority is contacted (4) Health and Safety Code §7050.5 and PRC §§5097.94, 5097.98, and 5097.99 are followed, (or MCB CPEN's NAGRA protocol, if base property) (5) A report of the results is submitted to MCB CPEN if the remains are found within MCB CPEN After Construction: N/A</p>	<p>Entire proposed project area</p>	<p>Notification</p>
<p>MM Cultural-6: Access Road Grading Measures: The following conditions are required for access road grading activities:</p> <ol style="list-style-type: none"> 1. Flagging and avoidance of all archaeological sites in the area of potential effect for access road grading (i.e., the width of access roads and 15 meters on either side of the roads); 2. Development and implementation of a monitoring program to ensure avoidance of direct impacts on the sites from the grading activities; 3. Monitoring of all grading activities by qualified archaeological and Native American monitors; 4. Development and implementation of a discovery plan; and 5. A monitoring report will be submitted to the State Office of Historic Preservation upon completion of the proposed undertaking. <p>In the event that archaeological materials (e.g., shell, wood, bone, or stone artifacts) are found or suspected during project operations or the project footprint is altered, work must be halted in the area of discovery and the ES Cultural Resources Management Section notified at (760) 725-9738, as soon as practicable, but no longer than 24 hours after the discovery. Project work at the discovery site shall not proceed until the Base Archaeologist has the opportunity to evaluate the find and gives permission to resume construction activities.</p>	<p>Before Construction: N/A During Construction: During grading activities, (1) ensure avoidance of all cultural resource areas, (2) monitor all grading, and (3) develop and implement a discovery plan After Construction: Following grading activities, submit a report to SHPO detailing the results of the discovery plan</p>	<p>All road grading areas</p>	<p>Monitoring Report</p>

APM AND MM IMPLEMENTATION TABLE

Mitigation Measure	Performance Standard and Timing	Location	Tracking Table Reference
<p>MM Paleo-1: Paleontological Monitoring. Paleontological monitoring shall be required for all construction activities that require excavation, grading, or augering of 3 feet in diameter or greater at depth greater than 2 feet within geologic units determined to have a moderate to high paleontological sensitivity. The requirements for paleontological monitoring shall be noted on construction plans. Paleontological monitoring shall be conducted by qualified paleontological monitors under the direction of a CPUC-approved, qualified paleontologist. The qualified paleontologist shall have a Master's or PhD in geology or paleontology, have knowledge of the local paleontology, be familiar with paleontological procedures and techniques, and have worked as a paleontological mitigation project supervisor in the region for at least one year. Paleontological monitors shall have experience in the collection and salvage of fossil materials.</p>	<p>Before Construction: Qualifications for qualified paleontologists and paleontological monitors are submitted to the CPUC for review and approval</p> <p>During Construction: Paleontological monitoring is conducted by a qualified paleontologist where ground-disturbing activities occur within geologic units of moderate to high paleontological sensitivity</p> <p>After Construction: N/A</p>	<p>Areas of ground-disturbing construction activities within geologic units of moderate to high paleontological sensitivity</p>	<p>Monitoring</p>
<p>MM Paleo-2: Evaluation and Treatment of Previously Undiscovered Paleontological Resources. In the event that a previously undiscovered paleontological resource is uncovered during project implementation, all ground-disturbing work within 50 feet of the discovery shall be halted. A CPUC-approved, qualified paleontologist shall contact SDG&E's Cultural Resource Specialist and Environmental Project Manager at the time of discovery; MCB CPEN's cultural resource specialist shall also be contacted if the resource is found on MCB CPEN. The CPUC-approved, qualified paleontologist shall inspect the discovery and determine whether further investigation is required. If the discovery can be avoided and no further impacts will occur, no further effort shall be required.</p> <p>Because of the potential for recovery of small fossil remains (i.e., isolated mammal teeth, bone fragments), it may be necessary to set up a screen-washing operation on site to inspect the resource. The qualified paleontologist shall determine whether screen-washing is necessary. Based on the results in the field, the qualified paleontologist shall determine if the recovery of bulk sedimentary-matrix samples for off-site wet screening from specific strata is necessary. Screen washing shall be conducted in accordance with the recommendations of, and under the direction of, the qualified paleontologist.</p> <p>If the resource cannot be avoided and may be subject to further impact, the qualified paleontologist shall, in consultation with SDG&E's Cultural Resource Specialist, SDG&E's Environmental Project Manager, and MCB CPEN (if the resource is found on MCB CPEN), evaluate the resource and determine whether it is "unique" under CEQA, Appendix G, part V. If the resource is determined to be unique, a determination and associated plan for protection of the resource shall be provided to CPUC for review and approval. If the resource is determined not to be unique, work may commence in the area.</p> <p>If the resource is determined to be a unique paleontological resource, work shall remain halted, and the qualified paleontologist shall consult with SDG&E and CPUC staff regarding methods to ensure that no substantial adverse change would occur to the significance of the resource pursuant to CEQA. Preservation in place (i.e., avoidance) is the preferred method of mitigation for impacts on paleontological resources and shall be required unless there are other equally effective methods. Other methods may be used but must ensure that the fossils are recovered, prepared, identified, catalogued, and analyzed according to current professional standards under the direction of a qualified paleontologist.</p> <p>All recovered fossils shall be curated at an accredited and permanent scientific institution according to Society of Vertebrate Paleontology standard guidelines (Society of Vertebrate Paleontology 2010). Work may commence upon completion of treatment, as approved by CPUC. A final summary report shall be completed. This report shall include discussions of the methods used, stratigraphy exposed, fossils collected, and significance of recovered fossils. The report shall also include an itemized inventory of all collected and catalogued fossil specimens.</p>	<p>Before Construction: N/A</p> <p>During Construction:</p> <ol style="list-style-type: none"> (1) Construction activities halt within 50 feet of the find, and the appropriate personnel are notified (2) The qualified paleontologist determines if further investigation is required, performs screen-washing, if necessary, and evaluates the find if the resource cannot be avoided (3) Work remains halted if the resource is determined to be unique (4) A plan for the protection of the resource is prepared and submitted and implemented (5) Recovered fossils are curated (6) A final summary report is prepared (7) Work commences after the resource is determined not to be unique or after treatment of the resource <p>After Construction: N/A</p>	<p>Entire proposed project area</p>	<p>Report</p>
<p>Geology, Soils, and Mineral Resources</p>			
<p>MM Geology-1: Geotechnical Investigation. The final project plans and specifications prepared by the responsible engineer shall account for known geologic hazards and include appropriate engineering design, recommendations made in the geotechnical report, and construction measures to minimize the potential for damage to proposed project structures in the event that unstable grounds are encountered. Appropriate design features during construction shall be developed by the responsible engineer and may include, but would not be limited to, (1) excavation of potentially collapsible or expansive soils and replacement with engineered backfill and ground treatment processes, and (2) extending the proposed pole structures and foundations below topsoil and fill to the underlying formational units.</p>	<p>Before Construction: Incorporate recommendations from the geotechnical report into the final project design</p> <p>During Construction: Install poles as indicated in the final design</p> <p>After Construction: N/A</p>	<p>Direct-bury poles where topsoil is observed during construction in the top 5 feet of the excavation.</p>	<p>N/A</p>

APM AND MM IMPLEMENTATION TABLE

Mitigation Measure	Performance Standard and Timing	Location	Tracking Table Reference
Hazards and Hazardous Materials			
<p>MM Hazards-1: Hazardous Substance Management and Emergency Response Plan. SDG&E shall prepare and incorporate methods and techniques to minimize the exposure of the public to potentially hazardous materials during all phases of project construction and post-construction operation into a Hazardous Substance Management and Emergency Response Plan (HSMERP). The HSMERP shall be submitted to the CPUC for review and approval at least 30 days prior to project construction. The HSMERP measures shall require implementation of appropriate control methods and approved containment (e.g., use of partial or total enclosures, hazardous material handling methods, ventilation requirements, and employee training) and spill control practices for construction and on-site hazardous material storage.</p> <p>Spill Control. The HSMERP measures shall also include, but not be limited to, the following:</p> <ul style="list-style-type: none"> • Proper disposal of contaminated soils and materials (i.e., cleanup of materials) • Daily inspection of vehicles and equipment parking near sensitive resource areas during construction and of spill containment procedures • Emergency response and reporting procedures to address hazardous material releases • Adequate operation and safety buffering and grounding measures • Fueling of any vehicles, equipment, and helicopters in staging yards or on streets paved with secondary containment and away from sensitive resource areas (e.g., preserves, designated open space areas, conserved habitat) • Fuels and lubricating oils for vehicles and heavy equipment shall not be stored or transferred within 100 feet of any waterbodies, unless isolated from waterbodies by secondary containment • Emergency spill supplies and equipment shall be available to respond in a timely manner if an incident should occur • Response materials such as oil-absorbent material, tarps, and storage drums shall be available at the project site at all times during construction and shall be used as needed to contain and control any minor releases • Placement of minor amounts of fuel, lubricants, and hydraulic fluid for equipment operation in appropriate storage tanks on the bed of fueling vehicles when needed • Location of bulk lubricating oil, hydraulic fluids, and other materials used for vehicle and equipment maintenance at staging yards • Use of secondary containment and spill rags when fueling • Discourage "topping-off" fuel tanks • Spill kits for all fuel trucks and fueling areas <p>Storage, Handling, and Disposal. All hazardous materials and hazardous wastes shall be handled, stored, and disposed of in accordance with all applicable regulations by personnel qualified to handle hazardous materials. With the exception of wood poles, the plan shall specify that all hazardous materials shall be collected and stored in project-specific containers until they are transported to an appropriately licensed and permitted waste disposal facility. Wood poles shall be transported off site once removed from the ground and temporarily stored in project-specific containers at an SDG&E facility. As containers are filled, poles shall be transported to an appropriately licensed Class I landfill or the composite-lined portion of a solid waste landfill.</p>	<p>Before Construction: The HSMERP is submitted to the CPUC</p> <p>During Construction: The CPUC-approved HSMERP is implemented for the proper handling, storage, containment, control, and disposal of hazardous materials and waste</p> <p>After Construction: All hazardous materials and hazardous wastes shall be handled, stored, and disposed of in accordance with all applicable regulations by personnel qualified to handle hazardous materials</p>	All proposed project work areas.	Plan
<p>MM Hazards-2: Site-Specific Blasting Plan. If blasting is required, the construction contractor shall ensure compliance with all relevant local, state, and federal regulations relating to blasting activities. SDG&E or its contractor shall prepare site-specific blasting plans, notification requirements, and monitoring procedures for each blasting location proposed as required below:</p> <p>Blasting Plan. A site-specific blasting plan shall be prepared prior to rock blasting in any location where blasting is required. Each blasting plan shall identify a hazardous zone for people during blasting. The hazardous zone shall be defined as the area where a person could be injured or killed if they were in that zone during controlled detonation. Each blasting plan shall include methods to verify that personnel or members of the public are located outside of the hazardous zone. In addition, each blasting plan shall identify the facilities that are adjacent to the blasting sites and that would require temporary closure during blasting activities. Finally, each blasting plan shall include documentation of SDG&E's coordination with MCB CPEN and USACE to identify any locations where controlled detonation would be prohibited because the detonation site is located near unexploded ordnances.</p> <p>Blasting plans shall be submitted to MCB CPEN for review and approval before blasting at each site. Approved Blasting Plans shall then be submitted to the CPUC for review at least two weeks prior to blasting at each site. SDG&E's contractor shall prepare daily blasting-</p>	<p>Before Construction: (1) Site-specific blasting plans are submitted to MCB CPEN (2) MCP CPEN-approved blasting plans are submitted to the CPUC prior to blasting</p> <p>During Construction: (1) CPUC-approved blasting plans are implemented (2) Sensitive receptors are notified and alerted prior to blasting</p>	All blasting locations	Plan Report Notification Monitoring

APM AND MM IMPLEMENTATION TABLE

Mitigation Measure	Performance Standard and Timing	Location	Tracking Table Reference
<p>related reports that include: Blast Report, Seismograph Monitoring Report, Inspection Report, Blasting Complaint Report, and Pre-Blast Inspection Report.</p> <p>Notification. SDG&E shall notify all sensitive receptors within 1,000 feet of the area of effect at least one week prior to the blasting event. The notification shall include the time and location of the blasting and provide BMPs that people can use to reduce the noise level experienced at the time of the blasting (i.e., stay indoors and close windows). SDG&E shall also alert nearby residents immediately prior to blasting by sounding warning signals/sirens.</p> <p>Monitoring. Immediately prior to controlled detonation, SDG&E personnel shall visually verify that no people are located within the hazardous zone. SDG&E shall follow all required monitoring protocols described in the blasting plan.</p> <p>Minimize Damage. Adjacent structures within 500 feet of blasting locations shall be surveyed prior to blasting to determine their vulnerability to damage and to document their current physical exterior condition. Blasting shall not be allowed where damage to vulnerable structures is likely to occur; a chemical agent for rock fracturing or a rock anchoring or mini-pile system shall be used instead in such circumstances. The following provisions shall be employed to minimize risk of damage to structures in the area:</p> <ul style="list-style-type: none"> • Blasting mats shall be employed to eliminate flyrock. • SDG&E's contractor shall employ proper stemming in the drill holes to control flyrock. Stemming shall be left at the top of blast holes to control/eliminate airblast. <p>If any structure is inadvertently adversely affected by construction vibration, the structure shall be restored to conditions equivalent to those prior to blasting. SDG&E shall then fairly compensate the owner of any damaged structure for lost use.</p>	<p>(3) Structures within 500 feet of blasting locations are surveyed prior to blasting</p> <p>(4) Methods other than blasting are used to fracture rock near vulnerable structures</p> <p>(5) Daily blasting-related reports are submitted to the CPUC</p> <p>After Construction:</p> <p>(1) Inadvertently affected structures are restored to prior conditions</p> <p>(2) Owners of damaged structures are compensated as necessary</p>		
<p>MM Hazards-3: Unexploded Ordnance and Worker Safety Training. Within the Formerly Used Defense Site (FUDS) outside of MCB CPEN, SDG&E shall obtain a trained contractor for the pre-construction survey and personnel training. Removal of all unexploded ordnances that are found in the proposed project area will be performed by Orange County Hazardous Devices Section. An unexploded ordnance investigation of known and potential areas used by the military along the easement shall be undertaken by a trained contractor. If unexploded ordnance is found, they shall be removed by the Orange County Hazardous Devices Section.</p> <p>Caution should always be used when digging, drilling, grading, or any earth movement occurs. Should unexploded ordnance be located, the "Three R" method should be used. Recognize, Retreat, Report to the Provost Marshall's Office at (760) 725-3888 or dial 911 immediately.</p>	<p>Before Construction:</p> <p>(1) Unexploded ordnances are investigated and disposed</p> <p>(2) Safety training program is prepared and delivered</p> <p>(3) A copy of the training material and trainee sign-in sheets are submitted to the CPUC</p> <p>During Construction:</p> <p>Contractors implement the "Three R's" method and report any unexploded ordnance</p> <p>After Construction: N/A</p>	FUDS site, proposed project alignment within MCB CPEN	Survey
<p>MM Hazards-4: Hazardous Materials Measures for Access Road Grading.</p> <p>Spill Controls and Countermeasures. The project must comply with the Base Spill Control and Countermeasures Plan, which is available by contacting the ES Spill Prevention and Planning Section at (760) 725-9743/9768. SDG&E will be responsible for their own hazardous material accidents in accordance with MCB CPEN, local, state, and federal laws and regulations including clean up, and associated costs. All spills must be reported to the ES Spill Prevention and Planning Section immediately. This Section will make the appropriate regulatory reporting notifications for the spill.</p> <p>Munitions.</p> <ol style="list-style-type: none"> 1. Caution should always be used when digging, drilling, grading, or any earth movement occurs. Should Unexploded Ordnance (UXO) be located, the "Three R" method should be used. Recognize, Retreat, Report to the Provost Marshall's Office at (760) 725-3888 or dial 911 immediately. 2. All range soil shall remain within the range boundary and shot fall area and shall continue to be used for the same purpose. If any soil is to be removed from the range, appropriate hazardous constituent sampling and testing shall be completed. If soil is determined to be hazardous waste, it shall be packaged, stored, and shipped in accordance with hazardous waste guidelines and regulations. 	<p>Before Construction: N/A</p> <p>During Construction:</p> <p>Implement measures during road grading</p> <p>After Construction: N/A</p>	All road grading areas	N/A

APM AND MM IMPLEMENTATION TABLE

Mitigation Measure	Performance Standard and Timing	Location	Tracking Table Reference
<p>3. All hazardous waste manifests shall be signed by the ES Hazardous Waste Section, (760) 725-4375. If solid Lead or Copper is removed from the range, it may be recycled in accordance with the Camp Pendleton Qualified Recycling Program (QRP) regulations.</p> <p>4. Any item meeting the definition of a military munition, as found in the 40 CFR 266 (Military Munitions Rule), shall be properly demilitarized prior to transport from an operational range. Munitions meeting this definition without being properly demilitarized for recycling or resale, shall be considered hazardous waste and treated as such. Proper handling, packaging, storing, and shipping as designated by the Resource Conservation and Recovery Act (RCRA) will apply. All questions shall be directed to the Military Munitions Rule Manager at (760) 725-9774.</p> <p>Hazardous Waste.</p> <p>1. Ensure proper hazardous waste manifest procedures are followed for all hazardous waste being generated and transported off Camp Pendleton. The ES Hazardous Waste Section personnel are the only personnel authorized to sign manifests for Camp Pendleton. All hazardous waste manifests shall be approved and signed by the Hazardous Waste Branch personnel prior to the waste leaving Camp Pendleton.</p> <p>2. If hazardous waste is generated, it shall be stored in compliance with local, state and federal regulations. Hazardous waste shall be removed from Camp Pendleton within 60 days of initial generation. Please contact the ES Hazardous Waste Section at (760) 725-4375 if you have any questions regarding Camp Pendleton storage requirements</p> <p>Installation Restoration/Remediation. During construction if soil contamination (discolored and or odorous) is discovered contact the ES Installation Restoration / Remediation Section at (760) 725-9744/9774 for necessary remedial requirements.</p>			
Hydrology and Water Quality			
<p>APM HYD-01: Work within and near Jurisdictional Wetlands. Pole structures 124 and 125 are located within a jurisdictional wetland. Activities within a jurisdictional wetland will be limited to overhead work only. No digging, filling or other ground-disturbing activity shall occur at these locations. Minor vegetation trimming to create an access footpath is permitted.</p>	<p>Before Construction: N/A</p> <p>During Construction: No ground-disturbing activities will occur at poles 124 and 125.</p> <p>After Construction: N/A</p>	Pole structures 124 and 125	N/A
<p>MM Hydrology-1: Groundwater Extraction. Groundwater extracted during construction dewatering shall not be discharged to any surface waters or storm drains. If dewatering is necessary, the water shall either be used: (i) to irrigate upland areas, (ii) for dust control, or (iii) as makeup for a construction process (e.g., concrete production). If dewatering of contaminated groundwater is necessary, the water shall be disposed of in accordance with all applicable laws and procedures described in the Stormwater Pollution Prevention Plan (SWPPP).</p>	<p>Before Construction: N/A</p> <p>During Construction: Groundwater extracted during construction dewatering is not discharged to streams or storm drains</p> <p>After Construction: N/A</p>	Areas of groundwater dewatering	N/A
<p>MM Hydrology-2: Best Management Practices Inspection and Maintenance. All BMPs shall be inspected by a qualified SWPPP Practitioner on a daily basis, and at least once every 24-hour period before, during, and after extended storm events. BMPs shall be inspected as described in the SWPPP, maintained on a regular basis, and repaired or replaced as necessary through the course of construction. Should any BMP failure be observed during monitoring, additional BMPs shall be implemented to prevent further erosion or sedimentation to downstream waters. For each inspection required, an inspection checklist shall be completed using a form as described in General Permit 2012-0006-DWQ. This checklist shall remain on site with the SWPPP. BMP monitoring reports shall be provided to the CPUC on a monthly basis throughout the duration of construction.</p> <p>Post-construction BMPs (permanent BMPs) shall be inspected and maintained/repared as needed after the completion of construction and until final stabilization of all disturbance areas has been achieved. Areas of temporary disturbance shall be revegetated and restored to approximate pre-construction conditions. SDG&E shall supply annual monitoring reports to the CPUC until the Construction General Permit requirements are met for filing of a Notice of Termination.</p>	<p>Before Construction: N/A</p> <p>During Construction:</p> <p>(1) A qualified SWPPP Practitioner inspects BMPs weekly</p> <p>(2) BMPs are adequately installed, inspected, and repaired/replaced as needed</p> <p>(3) Additional BMPs are applied wherever needed to prevent sedimentation to downstream waters</p> <p>(4) BMP monitoring reports are submitted monthly to the CPUC</p> <p>After Construction:</p>	All areas where BMPs are applied	Monitoring Report

APM AND MM IMPLEMENTATION TABLE

Mitigation Measure	Performance Standard and Timing	Location	Tracking Table Reference
	(1) Permanent BMPs are inspected and maintained/repared as needed until all disturbance areas are stabilized (2) Areas of temporary disturbance are revegetated and restored to approximate pre-construction conditions (3) Annual monitoring reports are submitted to the CPUC until the SWPPP coverage ends		
<p>MM Hydrology-3: Stormwater Controls for Access Road Grading.</p> <ol style="list-style-type: none"> Access road grading must comply with specific stormwater design standards found in the Camp Pendleton Requirements (CPR), latest edition, which can be obtained from Public Works. Camp Pendleton has been designated a Nontraditional Permittee under the California Phase 2 Small Municipal Separate Storm Sewer System (MS4) Permit, SWRCB Order No. 2013-0001-DWQ (NPDES No. CAS000004). Contractors must comply with Post Construction Standards found in Section F.5.g of the Small MS4 Permit. Design storm criteria are given in the permit. This project contains activities subject to the Source Control Measures found in Section F.5.g.2.a of the Small MS4 permit. Pollutant generating activities and sources must be designed consistent with the California Stormwater Quality Association (CASQA) Stormwater BMP Handbook for New Development and Redevelopment. Activities subject to source control standards include, but are not limited to maintenance and storage areas. <p>Storm Water BMPs shall be implemented where applicable to prevent sediment, oil and other pollutants from reaching storm drains and surface waters.</p>	<p>Before Construction: N/A</p> <p>During Construction: Implement appropriate stormwater control measures found in the CPR</p> <p>After Construction: N/A</p>	All road grading areas	N/A
Noise			
<p>MM Noise-1: Adherence to City of San Clemente Noise Ordinance. Construction activities within the City of San Clemente shall not occur during the following times:</p> <ul style="list-style-type: none"> Before 7:00 am and after 6:00 pm on weekdays Before 8:00 am and after 6:00 pm on Saturdays Sundays City observed holidays <p>In the event construction must occur within the City of San Clemente during the times listed above, SDG&E shall meet and confer with the City of San Clemente, as needed, to discuss any anticipated deviations from the requirements of the City's noise ordinance.</p>	<p>Before Construction: N/A</p> <p>During Construction: Construction in the City of San Clemente only occurs during approved hours</p> <p>After Construction: N/A</p>	Project work areas within the City of San Clemente	N/A
<p>MM Noise-2: Notification and Complaints. SDG&E shall provide notice by mail at least one week prior to construction activities to all sensitive receptors and residences within 500 feet of construction sites, staging yards, and access roads, and within 1,000 feet of helicopter incidental landing areas and flight paths. SDG&E shall also post notices in public areas, including recreational use areas, within 500 feet of the project alignment and construction work areas. The announcement shall state where and when construction will occur in the area. For areas that would be exposed to helicopter noise, the announcement shall provide details on the schedule of the dates, times, and duration of helicopter activities. Notices shall provide tips on reducing noise intrusion, for example, by closing windows facing the planned construction. SDG&E shall identify and provide a public liaison before and during construction to respond to concerns of neighboring receptors, including residents, about construction noise disturbance. SDG&E shall also establish a toll-free telephone number for receiving questions or complaints during construction and develop procedures for responding to callers. Procedures for reaching the public liaison officer via telephone or in person shall be included in the above notices and also posted conspicuously at the construction site(s). SDG&E shall address all complaints within one week of when the complaint is filed. SDG&E shall provide monthly reports with records of complaints and responses to the CPUC. These reports shall be provided to the CPUC within 15 days of the end of the month.</p>	<p>Before Construction:</p> <ol style="list-style-type: none"> Notification letters of construction activities and helicopter use are sent to applicable sensitive receptors Notices of construction activities and helicopter use are posted in public use areas and construction work areas A public liaison is provided to address public questions and complaints A toll-free telephone number is established to receive public questions and complaints <p>During Construction:</p> <ol style="list-style-type: none"> All public questions and complaints are addressed 	Entire project area	Notification Report

APM AND MM IMPLEMENTATION TABLE

Mitigation Measure	Performance Standard and Timing	Location	Tracking Table Reference
	(2) Monthly reports of public complaints and responses are submitted to the CPUC After Construction: N/A		
MM Noise-3: Helicopter Use. Helicopter takeoff and landing areas shall be located a minimum of 300 feet from the nearest sensitive receptor (e.g., residences, parks, schools, senior living facilities) in the City of San Clemente. Helicopter usage shall conform to acceptable hours for construction activities, as outlined within the City of San Clemente noise ordinance.	Before Construction: N/A During Construction: (1) Helicopter takeoff and landing within 300 feet of sensitive receptors is avoided (2) Helicopter takeoff and landing is restricted to times dictated by the City of San Clemente noise ordinance After Construction: N/A	Helicopter ILAs and staging yards near sensitive receptors in the City of San Clemente.	N/A
Recreation			
APM REC-01: Construction Notification. Signage will be posted at least four weeks prior to the start of construction in parks and near trails that are adjacent to or cross the Proposed Project. The signage will describe the location and duration of construction activities. The signage will also include contact information for the Proposed Project's public liaison. Recreational managers will also be notified in advance to coordinate at least four weeks prior to the beginning of construction.	Before Construction: (1) Signage will be posted at least four weeks prior to the start of construction (2) Recreational managers will also be notified in advance to coordinate at least four weeks prior to the beginning of construction During Construction: N/A After Construction: Signage removed	In parks and near trails that are adjacent to or cross the Proposed Project	Notification
MM Recreation-1: Trail Detours and Notifications. If construction activities require temporary closure of trails or SDG&E access roads that function as trails within public use areas, SDG&E shall provide temporary trail detours for trail users. SDG&E shall post signs at trail entrances, informational kiosks, appropriate trail intersections, and parking areas to inform trail users of construction activities and temporary trail detours at least four weeks prior to the start of construction in recreational areas. SDG&E shall provide temporary trail detours using existing trails and roads that are not marked for closure by California Department of Parks and Recreation, MCB CPEN, or City of San Clemente. Alternatively, SDG&E may place alternate access routes on the perimeter of project work areas in areas that have been surveyed and are free of sensitive biological and cultural resources. To avoid trail closures during overhead wire stringing, SDG&E shall position a flag person (similar to traffic controllers) at each trail crossing location to direct trail users when it is safe to pass. To avoid trail closures at the trail entrance adjacent to the Talega Helo West ILA, SDG&E shall position a flag person during active helicopter operations as needed to direct trail users when it is safe to pass. SDG&E shall coordinate the temporary closure of any trails with the appropriate park official at least 30 days prior to temporary trail closure.	Before Construction: (1) SDG&E coordinates with park officials prior to temporary trail closures (2) Temporary trail detours on existing trails and roads are provided (3) Trail detour signs are posted in recreational areas During Construction: A flag person is positioned as needed during active helicopter operations After Construction: N/A	Trails and access roads within recreational areas	Notification
MM Recreation-2: Pre- and Post-Project Trail Condition Report. SDG&E shall prepare a Pre-Project Trail Condition Report prior to construction that documents the condition of City of San Clemente trails located within project access roads. The Pre-Project Trail Condition Report shall be submitted to the CPUC 30 days prior to construction. SDG&E shall repair all damage to City of San Clemente trails (e.g., rutting) caused by construction vehicles and equipment by the completion of construction to the satisfaction of the City of San Clemente. SDG&E shall prepare a Post-Project Trail Condition Report documenting the final state of all City of San Clemente trails within project access roads. The Post-Project Trail Condition Report shall be submitted to the CPUC within 90 days of construction completion.	Before Construction: A Pre-Project Trail Condition Report is submitted to the CPUC During Construction: Damaged City of San Clemente trails are repaired After Construction: A Post-Project Trail Conditions Report is submitted to the CPUC	All trails in the City of San Clemente used for access	Report

APM AND MM IMPLEMENTATION TABLE

Mitigation Measure	Performance Standard and Timing	Location	Tracking Table Reference
Traffic and Transportation			
<p>MM Traffic-1: Pre-Construction Road Condition Assessment and Repair. Prior to construction, SDG&E shall conduct a pre-construction road condition assessment along entrances and exits to all staging yards and any location where pavement could be disturbed. SDG&E shall submit the pre-construction road condition assessment to the CPUC and the City of San Clemente. SDG&E will submit a copy of this document upon request from MCB CPEN. The road condition assessment shall include photographs taken in the field at each entrance, exit, and pavement disturbance location. If damage to roads occurs as a result of project construction or construction vehicle traffic, SDG&E shall restore damaged roadways within 60 days after the completion of construction at their own expense under the direction of and to the construction standard of the affected local jurisdiction to ensure that impacted roads are adequately repaired.</p>	<p>Before Construction: Pre-construction road condition assessment is conducted and submitted to the CPUC</p> <p>During Construction: N/A</p> <p>After Construction: Damaged roadways are restored to the standard of the local jurisdiction</p>	Entrances/exits to staging yards, locations where pavement could be disturbed	Survey Report
<p>MM Traffic-2: Traffic Plan. SDG&E shall file a Traffic Plan Request to the MCB CPEN Police Department Traffic Division, and prepare and implement a Traffic Control Plan consistent with MCB CPEN Traffic Control Procedures (see MCB CPEN Requirements dated August 2016 and CSI 010000) prior to any traffic diversion, lane closure, road closure, or other work within roadways on MCB CPEN. If required by the Traffic Control Plan, SDG&E shall also post message boards two weeks prior to work on major roads, which include Basilone Road and Cristianitos Road. The Traffic Control Plan shall include Traffic Control Procedures consistent with the current version of the Federal Highway Administration's Manual on Uniform Traffic Control Devices. The Traffic Control Plan shall meet the minimum requirements in the MCB CPEN Traffic Control Procedures and shall be prepared to the approval of the MCB CPEN Police Department Traffic Division. SDG&E shall submit all approved plans to the CPUC prior to implementation of any traffic diversion, lane closure, or road closure.</p>	<p>Before Construction: Traffic Plan Request is submitted to MCB CPEN Police Department Traffic Division, and Traffic Control Plan is prepared and submitted to MCB CPEN, at least 21 days prior to work that would affect roadways, and the CPUC</p> <p>During Construction: Traffic Plan is implemented to reduce impacts from diversions, lane closures, or road closures</p> <p>After Construction: N/A</p>	Traffic diversion, lane closure, and road closure locations	Plan
<p>MM Traffic-3: Consult with Bus and Transit Services. SDG&E shall consult with the North County Transit District and Orange County Transportation Authority at least one month prior to construction to coordinate construction activities adjacent to bus stops. If necessary, bus stops shall be temporarily relocated until construction in the vicinity is complete. SDG&E shall post notices of any temporary bus stop closure at least 14 days prior to the temporary closure. The notices shall provide information on the nearest available bus stop on the bus route and the scheduled duration of closure.</p>	<p>Before Construction: (1) Transit providers are consulted (2) Public notices are posted prior to temporary closures</p> <p>During Construction: Bus stops are relocated, as necessary</p> <p>After Construction: N/A</p>	Bus stops adjacent to the proposed project corridor, staging yards, and work areas	Notification
<p>MM Traffic-4: Traffic Controls for Access Road Grading. If during the performance of access road grading it becomes necessary to modify vehicular traffic patterns at any locations a Traffic Control Permit shall be acquired. SDG&E shall fill out the Camp Pendleton Police Department Traffic Division Traffic Plan Request with all required information and provide a Traffic Control Plan detailing the proposed controls to traffic movement. Where necessary, SDG&E shall provide cones, signs, barricades, lights, or other traffic control devices and personnel required to control traffic.</p>	<p>Before Construction: N/A</p> <p>During Construction: During road grading activities, (1) submit an application for a Traffic Control Permit to MCB CPEN Police Department and (2) install necessary traffic control measures</p> <p>After Construction: N/A</p>	All road grading areas	N/A

APM AND MM IMPLEMENTATION TABLE

Mitigation Measure	Performance Standard and Timing	Location	Tracking Table Reference
Utilities and Service Systems			
<p>MM-Utilities-1: Utility Measures for Access Road Grading.</p> <p>Excess Material Disposal. All construction and demolition debris generated by the access road grading shall be appropriately identified, handled, and disposed of in accordance with federal, state, and local laws and regulations.</p> <ol style="list-style-type: none"> 1. The waste generator shall not send unauthorized waste to the Base landfills as identified in Base Order 5000.2L, Chapter 10, and shall only send approved demolition waste as authorized by the Facilities Maintenance Officer (FMO). 2. At least 50% of the construction and demolition debris generated from the access road grading shall be diverted from placement in a landfill through recycling, or reuse to comply with Executive Order (EO) 13514 and MCO P5090.2A, 17200.3.b (3). 3. Any dirt temporarily moved to install fencing should remain within the project boundary. Soil layers excavated from the site should be returned in the same order they were removed (i.e., the topsoil is to be returned to the topmost level). <p>Treated Wood Material.</p> <ol style="list-style-type: none"> 1. Any treated wood materials that are not proposed for recycling shall undergo the California Waste Extraction Test (WET); wastes that pass shall be designated as non-hazardous waste and appropriately identified, handled and disposed of in accordance with provisions outlined within California Code of Regulations (CCR) Title 14, Division 7, Chapter 3. 2. Wastes that fail shall be designated and disposed of as hazardous waste in accordance with CCR Title 8, Sections 66260.1 through 66279.91, and H&SC Section 25150.7 and 25143.1.5. <p>Wastewater. The project proponent, construction oversight authority, or duly designated contractor shall ensure caution is taken to avoid damage to existing infrastructure. Any costs associated with repairing damage to the existing sanitary sewer infrastructure and all remedial efforts resulting from discharged sewage will be the sole responsibility of the project proponent, construction oversight authority, or duly designated contractor.</p> <p>Drinking Water. The project proponent, construction oversight authority, or duly designated contractor shall exercise caution to prevent damage to existing potable water mains during construction. The Facilities Maintenance Department (FMD) shall be notified immediately at (760) 725-4324/4348 if a water main is damaged.</p>	<p>Before Construction: N/A</p> <p>During Construction: Implement measures during access road grading.</p> <p>After Construction: N/A</p>	<p>All access road grading areas</p>	<p>N/A</p>