

APPENDIX E

Operation and Maintenance Mitigation Measures Tracking Table

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OPERATION AND MAINTENANCE MITIGATIONS MEASURES TRACKING TABLE

Table E-1 Operation and Maintenance Mitigation Measures and APMs

Category	Measure Requirement/Application
APM/Mitigation Measure Title	Mitigation Measure Biology-1a: General Field Personnel Behavior Requirements
Measure Text	<p>All field personnel shall abide by the following general behavior requirements:</p> <ol style="list-style-type: none"> 1. Vehicles must be kept on approved access roads. A 15 mile-per-hour speed limit shall be observed on dirt access roads. Vehicles shall be turned around in established or designated areas only. 2. No wildlife, including rattlesnakes, may be harmed, except to protect life and limb. 3. Firearms shall be prohibited except for those used by security personnel. 4. Feeding of wildlife shall not be allowed. 5. 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. 6. Parking or driving underneath oak trees shall not be allowed in order to protect root structures except in established traffic areas. 7. Plant or wildlife species shall not be collected for pets or any other reason. 8. Littering shall not be allowed. SDG&E shall not deposit or leave any food or waste in any work area. 9. 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. Smoking is not permitted within the City of San Diego Open Space. 10. Field crews shall refer environmental issues including wildlife relocation, dead or sick wildlife, hazardous waste, or questions about avoiding environmental impact to a biologist(s) approved by the CPUC and the USFWS and CDFW. Other CPUC- and USFWS- or CDFW-biologists or experts in wildlife handling may need to be brought in for assistance with wildlife relocations.
Location	All work areas
Monitoring/Reporting Action	Verify that all SDG&E personnel are informed of all behavioral requirements and abide by the behavioral requirements.
Effectiveness Criteria	Behavioral requirements are followed.
Status	
Review/Approval	
APM/Mitigation Measure Title	Mitigation Measure Biology-1d: Maintenance, Repair, and Construction of Facilities
Measure Text	SDG&E shall implement the following measures pertaining to maintenance, repair, and construction of facilities:

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	<ol style="list-style-type: none"> 1. Maintenance, repair and construction activities shall be designed and implemented to minimize new disturbance, erosion on manufactured and other slopes, and off-site degradation from accelerated sedimentation, and to reduce maintenance and repair costs. 2. Routine maintenance of all facilities shall include visual inspections on a regular basis, conducted from vehicles driven on the project access roads where possible. If it is necessary to inspect areas which cannot be seen from the roads, the inspection shall be done on foot or from the air. 3. Erosion shall be minimized on access roads and other locations primarily with water bars. The water bars are mounds of soil shaped to direct flow and prevent erosion. 4. Hydrologic impacts shall be minimized through the use of state-of-the-art technical design and construction techniques to minimize ponding, eliminate flood hazards, and avoid erosion and siltation into any creeks, streams, rivers, or bodies of water by use of Best Management Practices. 5. <i>See pre-construction.</i> 6. During repair or maintenance of facilities in a streambed, water may be temporarily diverted as long as the natural drainage patterns are restored after disturbance to minimize the impact of the disturbances and to help re-establish or enhance the native habitat. Erosion control during construction in a streambed in the form of intermittent check dams and culverts shall also be considered to prevent alteration to natural drainage pattern and prevent siltation. 7. Impact to wetlands shall be minimized by avoiding pushing soil or brush into washes or ravines. 8. During work on facilities, all trucks, tools, and equipment shall be kept on existing access roads or cleared areas, to the extent possible. 9. <i>See pre-construction.</i> 10. Insulator washing shall be allowed from access roads if other applicable protocols in this mitigation measures are followed. 11. Brush clearing around facilities for fire protection shall not be conducted from January 15 through August 31 (to avoid the general bird nesting season) without prior approval by the CPUC-, USFWS-, and CDFW-approved biologist. The CPUC-, USFWS-, and CDFW-approved biologist shall make sure that the habitat contains no active nests, burrows, or dens prior to clearing. 12. In the event that a special-status plant species is located within the area required to be cleared for fire protection purposes, SDG&E shall notify the USFWS (for ESA-listed plants), and CDFW (for CESA-listed plants), in writing, of the plant's identity and location and of the proposed activity, which will result in a take of such plant. Notification shall occur ten working days prior to such activity, during which time USFWS or CDFW may remove such plant(s). If neither USFWS nor CDFW have removed such plant(s) with the ten working days following the notice, SDG&E may proceed to complete its fire clearing and cause a take of such plant(s) consistent with SDG&E's take coverage for the ESA- or CESA-listed plants. When fire clearing is necessary in instances other than around power poles, and the potential for impacts to special-status species exist, SDG&E shall follow the pre-activity survey and notification procedures in Mitigation Measure Biology-1c, above. Wire stringing shall be allowed year-round in

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	sensitive habitats if the conductor is not allowed to drag on the ground or in brush and vehicles remain on access roads.
	13. Maintenance of cut and fill slopes shall consist primarily of erosion repair. In situations where revegetation would improve the success of erosion control, planting or seeding with native hydroseed mix may be done on slopes.
	14. Spoils created during maintenance operations shall be disposed of only on previously disturbed areas designated by the CPUC-, USFWS-, and CDFW-approved biologist, or used immediately to fill eroded areas. Cleared vegetation shall be hauled to a permitted disposal location.
	15. <i>See pre-construction.</i>
	16. No new facilities and activities shall be planned that would disturb vernal pools, their watersheds, or impact their natural regeneration. Continued historic maintenance of existing infrastructure utilizing existing access roads shall be allowed to continue in areas containing vernal pool habitat, provided no such habitat located within these roads would be impacted by project activities. New construction of overhead infrastructure which spans vernal pool habitats shall be allowed as long as the placement of facilities or the associated construction activities in no way impact the vernal pools.
	17. If any previously unidentified dens, burrows, nests, or special-status plants are located on any project site after the pre-activity survey, the CPUC-, USFWS-, and CDFW-approved biologist shall be contacted. The CPUC-, USFWS- and CDFW-approved biologist shall determine how to best avoid or minimize impacting the resource by considering such methods as project or work plan redevelopment, equipment placement or construction method modification, seasonal/time of day limitations, etc.
	18. The CPUC-, USFWS-, and CDFW-approved biologist(s) shall conduct monitoring as recommended in the pre-activity survey report. At completion of work, the CPUC-, USFWS-, and CDFW-approved biologist(s) shall check to verify compliance, including observing that flagged areas have been avoided and that reclamation has been properly implemented. Also at completion of work, the CPUC-, USFWS-, and CDFW-approved biologist(s) shall be responsible for removing all habitat flagging from the construction site.
	19. The CPUC-, USFWS-, and CDFW-approved biologist(s) shall conduct checks on mowing procedures to ensure that mowing is limited to a 12-foot wide area on straight portions of the road (slightly wider on radius turns), and that the mowing height is no less than four inches.
	20. Supplies or equipment where wildlife could hide (e.g., pipes, culverts, pole holes) shall be inspected prior to moving or working on them to reduce the potential for injury to wildlife. Supplies or equipment that cannot be inspected, or from which animals cannot be removed, shall be capped or otherwise covered at the end of each work day to avoid animal entrapment. Old piping or other supplies that have been left open shall not be capped until inspected and any species found in them allowed to escape. Ramping shall be provided in open trenches when necessary. If an animal is found entrapped in supplies or equipment, such as a pipe section, the supplies or equipment shall be avoided and the animal(s) left to leave on its own accord, except as otherwise authorized by the CPUC-, USFWS- and CDFW-approved biologist. Refer to Mitigation Measure 1a, Item 10 for wildlife relocations.

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	<p>21. See construction.</p> <p>22. See construction.</p> <p>23. Before using pesticides in areas where burrowing owls may be found, a pre-activity survey shall be conducted.</p>
Location	All work areas within or near natural habitats
Monitoring/Reporting Action	Verify that crews implement the requirements in the measure, including following brush-clearing protocols, notifying USFWS and/or CDFW when a special-status plant species is located within an area to be cleared for fire protection, and maintenance of erosion control facilities.
Effectiveness Criteria	All requirements included in the measure are implemented by crews during operation and maintenance.
Status	
Review/Approval	
APM/Mitigation Measure Title	Mitigation Measure Biology-1e: Maintenance of Access Roads
Measure Text	<p>Maintenance of access roads shall consist of:</p> <ol style="list-style-type: none"> 1. Repairing erosion by grading, adding fill, and compacting it. In each case of repair, the total area of disturbance shall be minimized by careful access and use of appropriately sized equipment. Repairs shall be done after pre-activity surveys conducted by the CPUC-, USFWS-, and CDFW-approved biologist(s). 2. Controlling vegetation through grading, which shall be used only where the vegetation obscures the inspection of facilities, access may be entirely lost, or the threat of facility failure or fire hazard exists. The graded access road width shall not exceed 12 feet on straight portions (radius turns may be slightly wider). 3. Maintenance work on access roads shall not expand the existing road bed. 4. Material for filling in road ruts shall never be obtained from the sides of the road, which contain habitat, without approval from CPUC-, USFWS-, and CDFW-approved biologist.
Location	SDG&E access roads
Monitoring/Reporting Action	Verify that road maintenance is conducted within the existing road width and does not expand the existing road bed.
Effectiveness Criteria	Road improvements do not expand the existing road width and do not affect adjacent roadway habitat areas.
Status	
Review/Approval	
APM/Mitigation Measure Title	Mitigation Measure Biology-1g: Survey Work Protocols
Measure Text	<p>SDG&E shall implement the follow measures during survey work:</p> <ol style="list-style-type: none"> 1. Brush clearing for foot path or line-of-sight cutting shall not be allowed from February through September without prior approval from the CPUC-,

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	<p>USFWS-, and CDFW-approved biologist, who will ensure the brush clearing activity, does not adversely affect a special-status species or nesting birds.</p> <p>2. SDG&E survey personnel shall keep vehicles on existing access roads. No clearing of brush shall be allowed from February through September without prior approval from the CPUC-, USFWS-, and CDFW-approved biologist, who will ensure the brush clearing activity, does not adversely affect a special-status species or nesting birds.</p> <p>Hiking off roads or paths for survey data collection shall be allowed year round as long as other protocols are met.</p>
Location	All paths and access roads where brush-clearing would occur
Monitoring/Reporting Action	Verify that brush-clearing activities do not occur from February through September without approval from the CPUC-, USFWS-, and CDFW-approved biologist. Verify vehicles are kept on access roads.
Effectiveness Criteria	Brush-clearing activities do not occur from February through September without prior approval, and vehicles are kept on access roads.
Status	
Review/Approval	
APM/Mitigation Measure Title	Mitigation Measure Biology-3: Weed Control Plan
Measure Text	<p>SDG&E shall prepare and implement a comprehensive, adaptive Weed Control Plan for pre-construction and long-term invasive, non-native species abatement. Developed land shall be excluded from weed control. Where SDG&E owns the property, the Weed Control Plan shall include specific weed abatement methods, practices, and treatment timing developed specifically for the Project area by qualified individuals with at least 5 years of weed control experience within San Diego County. The Weed Control Plan shall address control methods and issues controlling invasive non-native species within all vegetation communities and land cover types found along the Project alignment. On ROW easement on MCAS Miramar, the Weed Control Plan shall incorporate all appropriate and legal U.S. Marine Corps-stipulated regulations. The Weed Control Plan shall be submitted to MCAS Miramar for final authorization of weed control methods, practices, and timing prior to implementation of weed control on MCAS Miramar. The Weed Control Plan shall be submitted to the City of San Diego for final authorization of weed control methods, practices, and timing prior to implementation of any weed control within the City of San Diego MHPA.</p> <p>The Weed Control Plan shall include the following:</p> <ul style="list-style-type: none"> • See <i>pre-construction</i>. • Weed control treatments shall include all legally permitted methods to be used in the following prioritized order: preventative, manual, mechanical, and chemical. All treatments shall be applied with the authorization of the, MCAS Miramar and City of San Diego as appropriate. The application of herbicides shall be in compliance with all state and federal laws and regulations under the prescription of a Pest Control Advisor (PCA) and implemented by a Licensed Qualified Applicator. Where manual and/or mechanical methods are used, disposal of the plant debris will be within an approved landfill area within San Diego County. The timing of the weed control treatment shall be determined for each plant species in consultation with the PCA for the Project, and with MCAS Miramar, and City of San Diego

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	<p>as appropriate, with the goal of controlling populations before they start producing seeds. For the lifespan of the project (i.e., as long as the project is physically present), long-term measures to control the introduction and spread of weeds in the project area shall be taken as follows:</p> <ul style="list-style-type: none"> - From the time construction begins until 2 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. After this time, surveying for new invasive weed populations and monitoring of identified and treated populations shall be required at an interval of every two years. However, the treatment of weeds shall occur on a minimum annual basis, unless otherwise approved by the PCA, MCAS Miramar, and City of San Diego as appropriate. - 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. - See <i>construction</i>.
Location	All work areas in natural habitat where weeds could establish
Monitoring/Reporting Action	Verify that weed control methods, including treatments during operation and maintenance and removal of vegetation, are implemented consistent with the Weed Control Plan. Review annual weed inventory from SDG&E. Verify that all seeds, straw, and gravel and fill materials are certified weed-free.
Effectiveness Criteria	Weed populations in the project area do not exceed baseline weed populations.
Status	
Review/Approval	
APM/Mitigation Measure Title	Mitigation Measure Biology-7: Mitigation for Bird Species
Measure Text	<p><i>Applicable to operation and maintenance:</i></p> <p>Avian Protection on Power Lines. The project shall include collision-reducing techniques for transmission lines (based on Suggested Practices for Avian Protection on Power Lines: The State of the Art in 2012; Avian Power Line Interaction Committee [APLIC] 2012).</p>
Location	New transmission lines
Monitoring/Reporting Action	Verify collision-reducing techniques are used on new project transmission lines.
Effectiveness Criteria	Collision-reducing techniques are used on new project transmission lines.
Status	
Review/Approval	
APM/Mitigation Measure Title	Mitigation Measure Biology-11: Reseeding for Fires
Measure Text	Should a fire occur and be determined by the CPUC's Consumer Protection and Safety Division or the California Department of Forestry and Fire Protection (Cal

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	<p>Fire) to be caused by the project, SDG&E shall reseed all natural areas — both public and private — that are burned as a result of the project-caused fire. Reseeding shall continue until the native vegetation community is reestablished. For example, arid chaparral requires a minimum 10-year period to reestablish an adequate seed bank and thereby resist vegetation type conversion. A reseeding plan shall be developed with input from Cal Fire, CPUC, and City of San Diego (for ROW within and adjacent to City of San Diego MHPA) based on a native seed mix. Seeds shall be raked into the soil to avoid seed consumption, and reseeding shall be carried out once to coincide with the rainy season (October 1 through April 1) to increase the likelihood of germination success. SDG&E shall provide a written report documenting all reseeding activities to the CPUC. SDG&E shall make a good faith effort to obtain approval to reseed on private lands, as appropriate, and documentation of this good faith effort shall be submitted to the CPUC upon request. Specific reseeding requirements stipulated in this mitigation measure shall be subject to approval and modification by any public land-owning agency.</p>
Location	All areas affected by a SDG&E-caused fire
Monitoring/Reporting Action	A reseeding plan is approved by the CPUC and implemented by SDG&E. Verify that all natural areas that are burned are reseeded. Review and approve the report prepared by SDG&E documenting all reseeding activities and good faith efforts.
Effectiveness Criteria	All natural areas are reseeded and native vegetation communities are reestablished.
Status	
Review/Approval	
APM/Mitigation Measure Title	APM BIO-2: SDG&E Subregional NCCP
Measure Text	<p><i>Applicable to operation and maintenance:</i></p> <p>Specific operating restrictions that are incorporated into the Proposed Project design to comply with the SDG&E Subregional NCCP include the following:</p> <ul style="list-style-type: none"> • Vehicles would be kept on access roads and limited to 15 miles per hour (Section 7.1.1, 1.). • No wildlife, including rattlesnakes, may be harmed, except to protect life and limb (7.1.1, 2.). • Feeding of wildlife is not allowed (Section 7.1.1, 4.). • No pets are allowed within the ROW (Section 7.1.1, 5.). • Plant or wildlife species may not be collected for pets or any other reason. (Section 7.1.1, 7). • Littering is not allowed, and no food or waste would be left on the ROW or adjacent properties (Section 7.1.1, 8.). • Measures to prevent or minimize wild fires would be implemented, including exercising care when driving and not parking vehicles where catalytic converters can ignite dry vegetation (Section 7.1.1, 9.). • Field crews shall refer all environmental issues, including wildlife relocation, dead, or sick wildlife, or questions regarding environmental impacts to the Environmental Surveyor. Biologists or experts in wildlife handling may be necessary to assist with wildlife relocations (Section 7.1.1, 10.).

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	<ul style="list-style-type: none"> • All SDG&E personnel would participate in an environmental training program conducted by SDG&E, with annual updates (Section 7.1.2, 11.). • The Environmental Surveyor shall conduct pre-activity studies for all activities occurring in natural areas, and will complete a proactivity study form including recommendations for review by a biologist and construction monitoring, if appropriate. The form will be provided to CDFW and USFWS but does not require their approval (Section 7.1.3, 13.). • The Environmental Surveyor shall flag boundaries of habitats to be avoided and, if necessary, the construction work boundaries (Section 7.1.3, 14.). • The Environmental Surveyor must approve of activity prior to working in sensitive areas where disturbance to habitat may be unavoidable (Section 7.1.4, 25.).). • In the event SDG&E identifies a covered species (listed as threatened or endangered by the federal or state) of plant within the temporary work area (10 foot radius) surrounding a power pole, SDG&E would notify the USFWS (for Federal ESA listed plants) and CDFW (for California ESA listed plants) (Section 7.1.4, 28.). • The Environmental Surveyor shall conduct monitoring as recommended in the proactivity study form (Section 7.1.4, 35.). • Supplies, equipment, or construction excavations where wildlife could hide (e.g., pipes, culverts, pole holes, trenches) shall be inspected prior to moving or working on/in them (Section 7.1.4, 37, and 38.). • Fugitive dust will be controlled by regular watering and speed limits (Section 7.1.4, 39.). • During the nesting season, the presence or absence of nesting species (including raptors) shall be determined by a biologist who would recommend appropriate avoidance and minimization measures (Section 7.1.6, 50). • Maintenance or construction vehicle access through shallow creeks or streams is allowed. However no filling for access purposes in waterways is allowed (Section 7.1.7, 52). • Staging/storage areas for equipment and materials shall be located outside of riparian areas (Section 7.1.7, 53.).
Location	Project areas where operation and maintenance activities occur
Monitoring/Reporting Action	Verify the requirements in SDG&E's Subregional NCCP are implemented.
Effectiveness Criteria	All requirements included in the measure are implemented by crews during operation and maintenance.
Status	
Review/Approval	
APM/Mitigation Measure Title	Mitigation Measure Fire-4: Conductor Clearance
Measure Text	<p><i>Applicable to operation and maintenance:</i></p> <p>SDG&E shall establish adequate conductor clearances prior to energizing the Project by removing all vegetation from within 15 radial feet of new and relocated overhead conductors under maximum sag and sway. Only trees and vegetation with a mature height of 15 feet or less shall be permitted within the</p>

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	ROW. In addition, tree branches that overhang the ROW within 15 horizontal feet of any conductor shall be trimmed or removed, as appropriate, including those on steep hillsides that may be many vertical feet above the facility. Cleared vegetation shall either be removed or chipped and spread onsite in piles no higher than 6 inches.
Location	Conductors
Monitoring/Reporting Action	Verify vegetation near conductors is cleared and piled according to the requirements in the measure.
Effectiveness Criteria	Adequate conductor clearances are maintained.
Status	
Review/Approval	
APM/Mitigation Measure Title	APM HAZ-4: SDG&E Protocol for Herbicide Application
Measure Text	All herbicides utilized during maintenance around transmission and power line structures would follow SDG&E's existing procedures for application of herbicides.
Location	All transmission and power line structures
Monitoring/Reporting Action	Verify SDG&E personnel follow existing SDG&E protocol for herbicide application.
Effectiveness Criteria	Herbicides are handled safely.
Status	
Review/Approval	
APM/Mitigation Measure Title	Mitigation Measure Noise-5: Corona Noise Complaints
Measure Text	SDG&E shall respond to third-party complaints of corona noise generated by operation of the transmission line by investigating the complaints and by implementing feasible and appropriate measures (such as wash insulators, repair damaged conductors, insulators, or other hardware). As part of SDG&E's repair inspection and maintenance program, the transmission line shall be patrolled, and damaged insulators or other transmission line materials, which could cause excessive noise, shall be repaired or replaced.
Location	Properties within earshot of the project transmission line
Monitoring/Reporting Action	Verify SDG&E responds to corona noise complaints and implements measures to address those complaints. Verify the transmission line is patrolled and damaged materials that could cause excessive noise are repaired.
Effectiveness Criteria	Complaints are addressed. Measures are implemented and repairs are conducted to avoid excessive noise.
Status	
Review/Approval	

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