ATTACHMENT A

PG&E Vaca Dixon Birds-Landing 230 kV Reconductoring Project Mitigation Monitoring and Reporting Plan

1.0 Introduction

Authority and Purpose of the Program

The State Water Resources Control Board (SWRCB) Initial Study/ Mitigated Negative Declaration (IS/MND) for the PG&E Vaca Dixon Birds-Landing 230kV Reconductoring Project (Project) includes a series of mitigation and avoidance and protection measures intended to minimize potential environmental impacts during project construction and restoration activities. Consistent with CEQA and SWRCB requirements these measures are incorporated into a Mitigation Monitoring and Reporting Plan (MMRP). This Attachment is intended to comply with these requirements.

The purpose of this MMRP is to document that the mitigation measures adopted by the SWRCB are implemented, and that potential environmental impacts are reduced to acceptable levels as identified in the Mitigated Negative Declaration (MND). In addition, the MMRP also includes PG&E avoidance and protection measures (APMs), which are incorporated into the PG&E project description.

As the CEQA lead agency, the SWRCB is required to monitor construction and restoration of the Project area to confirm implementation of mitigation and applicant-proposed avoidance and protection measures. In addition, the SWRCB is responsible to ensure compliance with the MMRP. As appropriate, the SWRCB will delegate duties and responsibilities for monitoring to other qualified entities or consultants hired by PG&E to implement the measures.

Program Adoption Process

As part of the adoption of the IS/MND, SWRCB will confirm that this MMRP complies with CEQA Guidelines Section 15074(d), which mandates the preparation of monitoring provisions for implementation of mitigation assigned as part of project approval or adoption. As the CEQA lead agency for this Project, the SWRCB intends to adopt this MMRP concurrent with the adoption of the IS/MND.

Organization of the MMRP

This MMRP is includes three sections: Section 1.0, provides information about the purpose of the MMRP and the agencies with permitting authority over the Project; Section 2.0 specifies the parties or agencies responsible for the implementing the MMRP; and, Section 3.0, identifies implementation and monitoring procedures.

2.0 Roles and Responsibilities

Mitigation Implementation

Implementing measures assigned to mitigate impacts associated with the Project is the SWRCB's responsibility, however, this responsibility will be delegated to PG&E, or its' designated representative during construction and restoration activities. Therefore, PG&E will be responsible for ensuring that the Project complies with the MMRP and other permit conditions imposed by other responsible agencies. A list of agencies with jurisdiction over the Project is included in Table A-1.

TABLE A-1
Agency Authority and Jurisdiction
Vaca Dixon – Birds Landing 230 kV Reconductoring Project MMRP

Agency	Jurisdiction within Project Area	Contact
USACE	Placement of temporary fill in waters of the U.S. located north of Kilkenny Road and north and south of Creed Road (IS/MND Figures 3-7 through 3-9.)	Philip Shannin Department of the Army San Francisco District U.S. Army Corps of Engineers 1455 Market Street San Francisco, CA, 94103-1398 (415) 503-6781
USFWS	Endangered Species Act consultation. Addresses potential Project impacts to federally-threatened vernal pool fairy shrimp (*Branchinecta lynchi*), vernal pool tadpole shrimp (*Lepidurus packardi*), and California tiger salamander (*Ambystoma californiense*) north of Kilkenny Road, and north and south of Creed Road (IS/MND Figures 3-7 through 3-9.)	Michelle Tovar, Endangered Species Program, Sacramento Fish and Wildlife Office (916) 414-6600
SWRCB	Compliance with Clean Water Act Section 401.	Amna Hawatky 401 Certification & Wetlands Unit Division of Water Quality SWRCB 1001 I Street, 15th Floor Sacramento, CA 95814 (916) 341-5483

Mitigation Monitoring

As discussed previously, the SWRCB is responsible for ensuring compliance with and implementation of the MMRP. Consistent with SWRCB practices, implementation and monitoring duties will be delegated to PG&E or its' designated environmental monitors or consultants. As a result, PG&E's monitors/consultants will be delegated authority by the SWRCB to enforce the MMRP and to authorize any variance or deviation from the procedures, as long as the variance is consistent with CEQA, approved by the SWRCB, and does not cause new significant impacts. Any proposed variance that could result in a potentially significant environmental effect will be evaluated to determine whether

supplemental CEQA review and additional mitigation measures are needed. In the event of the need for a proposed variance or deviation from the adopted MND or MMRP, the implementation of such deviation, shall be reported immediately to the SWRCB and the authorized construction monitor for review and approval.

Under this delegated responsibility, PG&E will designate specific personnel to ensure implementation of mitigation during construction activities and throughout the monitoring period**.** The designated personnel will be responsible for submitting all compliance documentation and reports to PG&E and the SWRCB in a timely manner and prepare required resource agency submittals. These personnel will also be delegated the authority to halt construction activities found to be inconsistent with the MMRP objectives or conditions of approval.

In addition, PG&E will be responsible for demonstrating compliance with other agencies' permit conditions. PG&E and the authorized personnel will ensure that its construction contractors understand and adhere to the MMRP performance requirements and other contractual requirements related to the implementation of the MMRP.

Table A-2 provides a summary of the MMRP. It lists each potential environmental impact, the corresponding monitoring activity/plan, and the party responsible for ensuring MMRP compliance.

Mitigation Enforcement

In addition to implementation of the MMRP, PG&E is also responsible for enforcing the established performance standards and reporting the success of their implementation to the SWRCB through a mutually agreed reporting program. This program will be finalized following adoption of the IS/MND and MMRP and in place prior to project construction. The PG&E onsite environmental monitor(s)/consultant (s) will enforce implementation of the MMRP. Due to the length of the reconductoring, construction activities may require one or more lead monitor/consultant per transmission line segment. The monitor will note problems, notify appropriate agencies or individuals about any problems, if required, and report problems to PG&E to inform the SWRCB. If alternative mitigation measures are identified that would be equally effective in mitigating the identified impacts, the implementation of these alternative measures will not occur until confirmation is received from the SWRCB.

The SWRCB has the authority to halt any construction, operation, or maintenance activity associated with the Project if the activity is determined to be a deviation from the approved project or adopted mitigation measures. The SWRCB may assign this authority to the environmental monitor for each construction phase or spread.

Mitigation Compliance

PG&E is responsible for successfully implementing all adopted mitigation measures in the MMRP. Performance standards for successful mitigation are included in each mitigation

measure to include requirements for obtaining permits or avoiding a specific impact or area entirely.

Dispute Resolution

Disputes and complaints (including those of the public) will be directed to the SWRCB's designated Project Manager for resolution. The SWRCB Project Manager will attempt to resolve the dispute. In the event that this informal process fails, then the SWRCB Project Manager may initiate an enforcement or compliance action to address deviations from the permitted project and adopted MMRP.

3.0 General Monitoring Procedures

Lead Environmental Monitor

PG&E is responsible for ensuring coordination of mitigation monitoring procedures for the construction and restoration activities with the SWQCB and the authorized environmental monitors/consultants. The lead Environmental Monitor will oversee implementation of the monitoring procedures, coordinate with each environmental monitor assigned to each construction phase or spread, and be onsite during any project-related activity with the potential to result in a significant impact for which mitigation is required. The environmental monitor is also responsible to ensure that all MMRP procedures are followed.

Construction Personnel

Many of the mitigation measures require action compliance with MMRP requirements by construction personnel in order to achieve successful implementation. Successful implementation of the MMRP will include:

- ✓ Compliance procedures written into contracts between PG&E, authorized monitors/consultants, and construction contractors. Procedures for implementation by construction personnel will be compiled into a separate consent agreement for review and signature by each construction employee.
- ✓ Regular pre-construction meetings to inform and train all construction personnel about the MMRP requirements.
- ✓ Concise summaries of MMRP procedures provided to construction supervisors for measures requiring their attention (by segment, phase, or spread.)

General Reporting Procedures

Site visits and specified monitoring procedures will be reported by each environmental monitor assigned to the relevant construction phase or spread. A monitoring record form will be submitted to the environmental monitor by the individual conducting the visit or procedure so that details of the visit can be recorded and progress tracked by the environmental monitor. A checklist will be developed and maintained by the environmental

monitor to track all procedures required for each mitigation measure and to ensure adherence to the timing specified for the procedures. The environmental monitor will note any problems that may occur and take appropriate action to rectify the problems. The Applicant shall provide the State Water Board with written quarterly reports of the project, which shall include progress of any project-related activity, resulting impacts, mitigation implemented, and all other noteworthy elements of the project. Quarterly reports shall be required as long as mitigation measures are applicable.

Condition Effectiveness Review

As required by CEQA, the SWRCB must evaluate the effectiveness of implemented mitigation measures. In order to fulfill its statutory mandates to mitigate or avoid significant effects on the environment and to design a mitigation monitoring program to ensure compliance during Project implementation (CEQA 21081.6):

- ✓ SWRCB may conduct a comprehensive review of conditions which are not effectively mitigating impacts at any time it deems appropriate, consistent with standard SWRCB dispute resolution procedures; and
- ✓ SWRCB may determine that measures are not adequately mitigating environmental impacts, or that recent proven technological advances could provide more effective mitigation. If this occurs, then the SWRCB may impose additional reasonable conditions to effectively mitigate these impacts.

TABLE A-2
Vaca Dixon – Birds Landing 230 kV Reconductoring Project MMRP Summary

		Implementation Duration		Monitoring Duration		Responsibility[2]	
Issue Area/Impact	**Measure**	**One-time**	**Ongoing**	**One-time**	**Ongoing**	**Implementation**	**Monitoring**
	Mitigation Measures						
Biological Resources							
Have a substantial adverse effect, on any species identified as a candidate, sensitive, or special status species	BIO-1: To minimize effects of the proposed project on the California tiger salamander, Delta green ground beetle, vernal pool fairy shrimp, vernal pool tadpole shrimp, conservancy fairy shrimp, and Contra Costa goldfields, PG&E will purchase mitigation credits at an USFWS-approved mitigation bank.	Prior to construction		Prior to construction		PG&E	PG&E, reporting to SWRCB
	BIO-2: PG&E will purchase 0.152 acres of vernal pool preservation credits and 0.008 acres of vernal pool creation credits at a vernal pool conservation bank approved by USFWS prior to the start of earth-moving activities.	Prior to construction		Prior to construction		PG&E	PG&E, reporting to SWRCB
	BIO-3: PG&E will restore the 40.21 acres of habitat temporarily affected by the project. PG&E will also permanently preserve an additional 4.02 acres of salamander habitat either by purchasing credits from a USFWS-approved conservation bank or by purchasing and placing a conservation-easement on a USFWS-approved parcel	During Restoration Easement/ habitat credit purchase prior to start of project construction		Easement/ habitat credit purchase prior to start of project construction	Annual monitoring of planted areas for a minimum of five years and until 80 percent survival is achieved.	PG&E	PG&E, reporting to SWRCB

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	PG&E Avoidance and Protection Measures[1]						
Air Quality							
Temporary Construction related fugitive dust generation	**APM-AQ-1**: Water all active construction areas at least twice daily during dry conditions.		During Construction		During Construction	PG&E	PG&E, reporting to SWRCB
	APM-AQ-2: Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least two feet of free board.		During Construction		During Construction	PG&E	PG&E, reporting to SWRCB
	APM-AQ-3: Pave, apply water three times daily (during dry conditions), or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas, and staging areas at construction sites.		During Construction		During Construction	PG&E	PG&E, reporting to SWRCB
	APM-AQ-4: Sweep daily (with water sweepers) all paved access roads, parking areas, and staging areas at construction sites.		During Construction		During Construction	PG&E	PG&E, reporting to SWRCB
	APM-AQ-5: Sweep streets daily (with water sweepers) if visible soil material is carried onto adjacent public streets.		During Construction		During Construction	PG&E	PG&E, reporting to SWRCB
	APM-AQ-6: Hydroseed or apply (non-toxic) soil stabilizers to inactive construction areas (previously graded areas inactive for ten days or more).		During Construction		During Construction	PG&E	PG&E, reporting to SWRCB
	APM-AQ-7: Enclose, cover, water twice daily or apply (non-toxic) soil binders to exposed		During Construction		During Construction	PG&E	PG&E, reporting to

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Issue Area/Impact	**Measure**	**One-time**	**Ongoing**	**One-time**	**Ongoing**	**Implementation**	**Monitoring**
	stockpiles (dirt, sand, etc.).						SWRCB
	APM-AQ-8: Limit traffic speeds on unpaved roads to 15 mph.		During Construction		During Construction	PG&E	PG&E, reporting to SWRCB
	APM-AQ-9: Install sandbags or other erosion control measures to prevent silt runoff to public roadways.	During Construction	During Construction	During Construction	During Construction	PG&E	PG&E, reporting to SWRCB
	APM-AQ-10: Replant vegetation in disturbed areas within the same calendar year.		During Construction		Annual monitoring for a minimum of five years and until 80 percent survival is achieved.	PG&E	PG&E, reporting to SWRCB
Temporary Construction related GHG/ CO_2 emissions	**APM-AQ-11:** Encouraging the use of bio-diesel fuel for diesel-powered equipment and vehicles.		During Construction		During Construction	PG&E	PG&E, reporting to SWRCB
	APM-AQ-12: Encouraging construction workers to carpool.		During Construction		During Construction	PG&E	PG&E, reporting to SWRCB
	APM-AQ-13: Encouraging the recycling of construction waste.		During Construction		During Construction	PG&E	PG&E, reporting to SWRCB
Biological							

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Issue Area/Impact	**Measure**	**One-time**	**Ongoing**	**One-time**	**Ongoing**	**Implementation**	**Monitoring**
Resources							
Potential impacts to any species identified as a candidate, sensitive, or special status species	**APM-BIO-1:** An employee education program will be conducted, consisting of a brief presentation to explain endangered species concerns to contractors, their employees, and any other personnel involved in the Project. The program will include the following: a description of special-status species and their habitat needs; a report of the occurrence of these species in the Project area; an explanation of the status of these species and their protection under the Federal Endangered Species Act, California Endangered Species Act, and other statutes; and a list of measures being taken to reduce impacts to the species during Project construction and implementation. A fact sheet conveying this information will be prepared for distribution to the above-mentioned people and anyone else who may enter the Project site. Upon completion of training, employees will sign a form stating that they attended the training and understand all the conservation and protection measures. To the extent possible, nighttime construction will be minimized. Construction crews will be informed during the education program meeting that, to the extent possible, travel within the marked Project site will be restricted to established roadbeds. Established roadbeds include all pre-existing and Project-constructed unimproved, as well as, improved roads.	Prior to construction		Prior to construction		PG&E	PG&E, reporting to SWRCB

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Issue Area/Impact	**Measure**	**One-time**	**Ongoing**	**One-time**	**Ongoing**	**Implementation**	**Monitoring**
	APM-BIO-2: A biological monitor will be onsite during all ground-disturbing work within sensitive biological areas. Off-road access routes will be clearly flagged and marked. All Project-related vehicle access to the guard structures at Creed Road and south of the Noonan Ranch corrals will be monitored by a biological monitor. Work within sensitive biological areas north of Creed Road and at the corral site (at the intersection of Canon Road and Vanden Road) will be conducted during the dry season. Additionally, no work activities will be allowed to occur north of Creed Road during the Delta green ground beetle flight season; work in this area can therefore only take place from May 15 to October 31.		During Construction		During Construction	PG&E	PG&E, reporting to SWRCB
	APM-BIO-3: Geotextile fabric and a layer of gravel will protect the original contour of all wetland pools that cannot be avoided within identified temporary impact areas adjacent to or within the right of way with the possible exception of temporary access routes where overland travel in the dry season may have less impact than placement and removal of gravel, such as for the guard structure route at Creed Road. Using the geotextile fabric and gravel will minimize potential effects from compaction or other disturbance to areas that will have more frequent travel or heavier equipment, or be used on the wet season. After construction, the gravel and fabric will be removed. Alternative methods	During Construction		During Construction		PG&E	PG&E, reporting to SWRCB

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	for protecting areas from vehicle movement will be discussed with USFWS. In areas of minimal effect such as temporary access at Creed Road, this measure could have greater impact on soil seed bank than overland driving in the dry season.						
	APM-BIO-4: Dust control measures will be implemented during construction in the dry season. Work areas and dirt access roads will be watered regularly to minimize airborne dust and soil particles generated by construction. Fly sites will be rocked when necessary.		During Construction		During Construction	PG&E	PG&E, reporting to SWRCB

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Issue Area/Impact	**Measure**	**One-time**	**Ongoing**	**One-time**	**Ongoing**	**Implementation**	**Monitoring**
	APM-BIO-5: The potential for adverse effects to water quality in vernal pools or habitat within the Project area will be avoided by implementing temporary Best Management Practices outlined in the California Stormwater Quality Association's Construction Handbook (CASQA, 2003). PG&E's Storm Water Pollution Prevention Plan and erosion control Best Management Practices will be used to minimize any wind- or water-related erosion. Protective measures will include: a. No discharge of pollutants from vehicle and equipment cleaning will be allowed into storm drains, wetlands, or water courses. b. Vehicle and equipment fueling and maintenance operations must be at least 100 feet from vernal pools and other aquatic habitat. c. Dust control will be implemented, including the use of water trucks to control dust in disturbed areas, rocking temporary access road entrances and exits, and placement of geotextile mats and rock on access road areas to be used in the wet season. d. Disturbed work areas will be restored to pre-Project conditions and will be reseeded or planted, as appropriate within the same calendar year.		During Construction		Annual monitoring of restored areas for a minimum of five years and until 80 percent survival rate is achieved.	PG&E	PG&E, reporting to SWRCB

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Issue Area/Impact	**Measure**	**One-time**	**Ongoing**	**One-time**	**Ongoing**	**Implementation**	**Monitoring**
	APM-BIO-6: Project-related vehicles shall observe a 15 mph speed limit in all Project areas, except on county roads and state and federal highways.		During Construction		During Construction	PG&E	PG&E, reporting to SWRCB
	APM-BIO-7: The limits of the construction area throughout the Project will be flagged if not already marked by right of way or other fencing, and all activity will be confined within the marked area. A qualified biologist shall be onsite during all activities that could result in the take of a listed species.		During Construction		During Construction	PG&E	PG&E, reporting to SWRCB
	APM-BIO-8: The Project proponent shall include a copy of the USFWS-issued Biological Opinion (BO) within its construction documents making the primary contractor responsible for implementing all requirements and obligations included within the BO, and to educate and inform all other contractors involved in the project as to the requirements of the BO.	Prior to construction		Prior to construction		PG&E	PG&E, reporting to SWRCB
	APM-BIO-9: A biologist shall inspect construction-related activities at the proposed Project area to ensure that no unauthorized take of federally-listed species or destruction of their habitat occurs. The biologist shall be available for monitoring throughout all phases of construction that may result in adverse effects to listed crustaceans.		During Construction		During Construction	PG&E	PG&E, reporting to SWRCB
	APM-BIO-10: The contractor will prepare a site-specific Stormwater Pollution Prevention Plan	During Construction		Prior to Construction		PG&E	PG&E, reporting to

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Issue Area/Impact	**Measure**	**One-time**	**Ongoing**	**One-time**	**Ongoing**	**Implementation**	**Monitoring**
	(SWPPP) for the Project to protect receiving waters from pollution. The SWPPP will include standard sediment and erosion control measures that include limiting soil disturbances during the winter rainfall season. Given the site-specific conditions of the Project area, the SWPPP for this Project will generally include limiting soil disturbances during the winter rainfall season of October 15 through April 15 and fully stabilizing disturbed areas prior to December 1. Standard sediment erosion control measures, such as silt fencing, straw bale barriers, and sediment traps shall be implemented to directly reduce the off-site transport of sediment from disturbed slopes. Existing vegetation that can be preserved will be identified and flagged or fenced to avoid disturbance. Erosion in disturbed areas will be controlled through the use of grading operations that eliminate direct routes for conveying runoff to drainage channels and use of soil stabilization Best Management Practices (BMPs), such as mulching, erosion control fabrics, and/or reseeding with grass or other plants where necessary.						SWRCB
	APM-BIO-11: Prior to the initiation of ground disturbance on each individual impact area, preconstruction surveys shall be conducted by a biologist(s) for the salamander. These surveys shall consist of walking surveys of the site and adjacent areas accessible to the public to determine presence of the species. Salamanders will be removed by the biologist(s)	Prior to construction (i.e., ground disturbance)		Prior to construction (i.e., ground disturbance)		PG&E	PG&E, reporting to SWRCB

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Issue Area/Impact	**Measure**	**One-time**	**Ongoing**	**One-time**	**Ongoing**	**Implementation**	**Monitoring**
	and translocated under the direction and authorization of the Service.						
	APM-BIO-12: All salamanders captured on the Project site during monitoring and inspections conducted during construction shall be removed by a USFWS-approved biologist(s) and translocated under the direction and authorization of the USFWS.	During Construction		During Construction		PG&E	PG&E, reporting to SWRCB
	APM-BIO-13: To prevent inadvertent entrapment of salamanders during construction, all excavated, steep-walled holes or trenches more than 2 feet deep shall be covered at the close of each working day by plywood or similar materials, or provided with one or more escape ramps constructed of earth fill or wooden planks. Before such holes or trenches are filled, they must be thoroughly inspected for trapped animals. If at any time a trapped listed animal is discovered, a biologist(s) should immediately place escape ramps or other appropriate structures to allow the animal to escape, or the USFWS and/or CDFG shall be contacted by telephone for guidance. The USFWS shall be notified of the incident by telephone and electronic mail within one (1) working day.		During Construction		During Construction	PG&E	PG&E, reporting to SWRCB
	APM-BIO-14: If requested, before, during, or upon completion of ground breaking and/or construction activities, the Project proponents shall allow access by USFWS and/or CDFG personnel to the Project site to inspect Project		Before or throughout the construction period		Before or throughout the construction period	PG&E	PG&E, reporting to SWRCB

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Issue Area/Impact	**Measure**	**One-time**	**Ongoing**	**One-time**	**Ongoing**	**Implementation**	**Monitoring**
	effects to the salamander and associated habitats.						
	APM-BIO-15: All Project activities north of Creed Road will be limited to May 15 to October 31 to avoid the Delta green ground beetle flight season. The Environmental Monitor will be present for all work north of Creed Road.		During Construction		During Construction	PG&E	PG&E, reporting to SWRCB
	APM-BIO-16: Prior to construction activities, a qualified botanist shall establish exclusion zones for special status plants within 50 feet of impact areas. These exclusion zones will include known populations and, where practicable, a 50-foot buffer zone. Construction equipment and personnel will be restricted from entering the exclusion zones, except where allowed under specific mitigation measures. An environmental monitor will be onsite during construction activities in the vicinity of sensitive biological resources. If direct or indirect impacts to special-status plant species are observed then the monitor shall notify the construction manager immediately. If any populations of special-status plants are impacted, work in that area will be halted. The environmental monitor, in consultation with PG&E, will contact the CDFG and/or the USFWS.	Prior to construction (i.e., ground disturbance)		Prior to construction (i.e., ground disturbance)		PG&E	PG&E, reporting to SWRCB
	APM-BIO-17: Vehicle access north of Creed Road shall be limited to two total vehicle round-trips: one round-trip during guard structure installation, and one during removal. The speed	During Construction		During Construction		PG&E	PG&E, reporting to SWRCB

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		Implementation Duration		Monitoring Duration		Responsibility[2]	
Issue Area/Impact	**Measure**	**One-time**	**Ongoing**	**One-time**	**Ongoing**	**Implementation**	**Monitoring**
	limit on the temporary access route will be restricted to 2 mph. A qualified botanist will escort vehicles along the temporary access route. Ingress and egress to the guard structure site will occur along different routes (i.e. new tire tracks each trip) to minimize damages to individual plants. Pappose tarplant tolerates disturbance and the impacts would be temporary, with full recovery of disturbed areas within 1-2 years.						
	APM-BIO-18: A qualified botanist will conduct preconstruction surveys around the proposed fly site (F-8) for pappose tarplant to determine the population's extent. The location and/or dimensions of the fly site shall be altered to avoid pappose tarplant, and the population will be protected with high-visibility fencing or signage.	Prior to construction (i.e., ground disturbance) at this location		Prior to construction (i.e., ground disturbance) at this location		PG&E	PG&E, reporting to SWRCB
	APM-BIO-19: A qualified botanist will conduct preconstruction surveys for brittlescale to determine the population's extent. The botanist will identify brittlescale plants in the immediate vicinity of the proposed guard structure north of Creed Road and will assist PG&E in adjusting the placement of the structure as necessary. If work occurs in the area in May or June or before bracts necessary for identification are fully developed, all plants of genus *Atriplex* will be avoided.	Prior to construction (i.e., ground disturbance) at this location		Prior to construction (i.e., ground disturbance) at this location		PG&E	PG&E, reporting to SWRCB
	APM-BIO-20: To avoid or minimize potential	Prior to		Prior to		PG&E	PG&E,

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Issue Area/Impact	**Measure**	**One-time**	**Ongoing**	**One-time**	**Ongoing**	**Implementation**	**Monitoring**
	impacts to northwestern pond turtles, a qualified biologist shall conduct a pre-construction survey for pond turtles no more than 30 days prior to construction in suitable aquatic habitats within Project impact areas. If turtles are found in aquatic habitat, then clearance of the nearby (300 ft) terrestrial habitat that would be impacted shall occur prior to construction activities; the biologist(s) shall look for eggs and western pond turtle individuals including over-wintering hatchlings. If eggs are found, the monitor shall contact CDFG for the appropriate measures to relocate the eggs. If pond turtles are located near any proposed construction areas, impacts to individuals and their habitat will be avoided to the extent feasible. The Environmental Monitor will be onsite during all construction activity in the vicinity of individual pond turtles or their nests.	construction (i.e., ground disturbance)		construction (i.e., ground disturbance)			reporting to SWRCB
	APM-BIO-21: For Project construction activities occurring during the bird nesting season of February 1 through August 31, a qualified ornithologist shall conduct pre-construction surveys for nesting birds within two weeks of construction. These surveys will cover the transmission line route, staging areas, pull sites, fly sites, and access routes. Additional pre-construction surveys shall be conducted for each new phase of Project implementation that occurs during the nesting season, no more than two weeks prior to construction. For any nests that are found, nest protection zones will be	2-weeks prior to start of each phase of project construction (i.e., ground disturbance) during nesting season			To coincide with the implementation of APM-21 pre-construction surveys as appropriate; and ongoing during construction if active nests are	PG&E	PG&E, reporting to SWRCB

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Issue Area/Impact	**Measure**	**One-time**	**Ongoing**	**One-time**	**Ongoing**	**Implementation**	**Monitoring**
	established. For passerine birds, a 50 to 100-foot protection zone shall be established around active nests; for raptors, a 300-foot protection zone and for golden eagles a 500-foot protection zone shall be established around active nests. These protection zones may be modified on a site-specific basis as determined by the Environmental Monitor or in coordination with CDFG. Active nests within the Project area would be monitored for signs of disturbance. If the biological monitor determines that a disturbance is occurring, construction shall be halted, and the agencies shall be contacted as to the measures that shall be implemented.				identified		
	APM-BIO-22: Phase III Burrow Surveys (nesting season surveys) shall be conducted in five locations in accordance with the Burrowing Owl Survey Protocol and Mitigation Guidelines. No disturbance should occur within 50 meters (approx. 160 ft.) of occupied burrows during the non-breeding season of September 1 through January 31 or within 75 meters (approx. 250 ft.) during the breeding Season of February 1 through August 31. Burrowing owls shall not be relocated during the breeding season. During the non-breeding season, if avoidance requirements can not be met, the applicant shall submit a site specific proposal for burrowing owl relocation and mitigation to CDFG and the SWRCB for review and approval. The applicant shall be required to mitigate for impacts as 6.5 acres per	Prior to construction (i.e., ground disturbance)		Prior to construction (i.e., ground disturbance)		PG&E	PG&E, reporting to SWRCB

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		Implementation Duration		Monitoring Duration		Responsibility[2]	
Issue Area/Impact	**Measure**	**One-time**	**Ongoing**	**One-time**	**Ongoing**	**Implementation**	**Monitoring**
	relocation/burrow impact.						
Cultural Resources							
Possible impacts to previously unidentified archaeological resources that could be encountered during Project-related ground-disturbing activities	**APM-CULT-1:** If concentrations of prehistoric or historic-period materials are encountered during ground-disturbing work at any of the Project work sites, all work in the immediate vicinity of the discovery shall be halted until a qualified archaeologist can evaluate the significance of the find. If the find is determined to be significant, PG&E shall determine the appropriate avoidance measures or other appropriate mitigation in consultation with a qualified archaeologist and the State Water Resources Control Board. Significant cultural materials shall be curated according to current professional standards.		During construction		During construction	PG&E	PG&E, reporting to SWRCB
Possible impacts to previously unidentified paleontological resources that could be encountered during Project-related ground-disturbing activities	**APM-CULT-2:** If unanticipated paleontological resources are discovered during ground-disturbing activities during the Project, excavations in the immediate vicinity of the find shall be temporarily halted until the discovery is examined by a qualified paleontologist per Society of Vertebrate Paleontology standards. If the find is determined to be significant, PG&E shall determine the appropriate avoidance measures or other appropriate mitigation in consultation with a qualified paleontologist and the State Water Resources Control Board. Significant paleontological finds shall be curated		During Construction		During Construction	PG&E	PG&E, reporting to SWRCB

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		Implementation Duration		Monitoring Duration		Responsibility[2]	
Issue Area/Impact	**Measure**	**One-time**	**Ongoing**	**One-time**	**Ongoing**	**Implementation**	**Monitoring**
	according to current professional standards.						
Potential impacts related to the unanticipated discovery of human remains	**APM-CULT-3:** If human remains are encountered, work in the immediate vicinity shall stop and the County Coroner shall be notified immediately. A qualified archaeologist shall be contacted immediately to evaluate the discovery. If the human remains are of Native American origin, the Coroner must notify the Native American Heritage Commission within 24 hours of this identification. The Native American Heritage Commission then has 48 hours to identify a Most Likely Descendent.		During Construction		During Construction	PG&E	PG&E, reporting to SWRCB
Hydrology and Water Quality							
Potential impacts related to ground-disturbing activities that could cause soil erosion and release of excess sediment into water courses	**APM-WQ-1**: No discharge of pollutants from vehicle and equipment cleaning are allowed into the storm drain or water courses.		During Construction		During Construction	PG&E	PG&E, reporting to SWRCB
	APM-WQ-2: Vehicle and equipment fueling and maintenance operations must be at least 50 ft away from vernal pools and other aquatic habitat.		During Construction		During Construction	PG&E	PG&E, reporting to SWRCB
	APM-WQ-3: Dust control will be implemented, including the use of water trucks to control dust		During Construction		During Construction	PG&E	PG&E, reporting to

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Issue Area/Impact	**Measure**	**One-time**	**Ongoing**	**One-time**	**Ongoing**	**Implementation**	**Monitoring**
	in disturbed areas; rocking temporary access road entrances and exits; and placement of geotextile mats and rock on access road areas to be used in the wet season.						SWRCB
	APM-WQ-4: Disturbed work areas will be restored to pre-Project conditions, and reseeded or planted, as appropriate, within the same calendar year.	Restoration at the conclusion of construction			Annual monitoring of restored areas for a minimum of five years and until 80 percent survival rate is achieved.	PG&E	PG&E, reporting to SWRCB

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		Implementation Duration		Monitoring Duration		Responsibility[2]	
Issue Area/Impact	**Measure**	**One-time**	**Ongoing**	**One-time**	**Ongoing**	**Implementation**	**Monitoring**
Noise							
Potential temporary construction related noise impacts to sensitive receptors	**APM-NOI-1**: Care of Equipment – Equipment engines shall be covered, and PG&E will ensure that mufflers are in good working condition. This measure can reduce equipment noise by 5 to 10 dBA.		During Construction		During Construction	PG&E	PG&E, reporting to SWRCB
	APM-NOI-2: Restricted Work Hours – Work hours will be restricted for all noise generating construction activities from 7:00 A.M. to 7:00 P.M. Monday through Friday, and from 8:00 A.M. to 6:00 P.M. on Saturdays and Sundays whenever possible. As discussed in the Project description, reconductoring requires power outages that must be timed to meet restrictions imposed by Cal ISO.		During Construction		During Construction	PG&E	PG&E, reporting to SWRCB
	APM-NOI-3: Equipment Location – All stationary equipment such as compressors and welding machines shall be located away from noise receptors to the extent practicable.		During Construction		During Construction	PG&E	PG&E, reporting to SWRCB
	APM-NOI-4: Pneumatic Tools – Pneumatic tools to be used within 1,500 feet of a residence shall have an exhaust muffler on the compressed air exhaust. This shall be included in the construction specifications.		During Construction		During Construction	PG&E	PG&E, reporting to SWRCB
	APM-NOI-5: Helicopter landing/staging areas will be sited along the existing alignment, away from residences.		During Construction		During Construction	PG&E	PG&E, reporting to SWRCB

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		Implementation Duration		Monitoring Duration		Responsibility[2]	
Issue Area/Impact	**Measure**	**One-time**	**Ongoing**	**One-time**	**Ongoing**	**Implementation**	**Monitoring**
Traffic and Transportation							
Potential temporary impacts related to construction traffic	**APM T&T-1:** The construction contractor will prepare a construction Traffic Management Plan (TMP) that addresses timing of heavy equipment and building material deliveries, signing, lighting, traffic control device placement, guard structures, onsite and offsite parking and staging, construction worker pedestrian public roadway crossing, and establishing work hours outside of peak traffic periods to the extent feasible. Emergency service providers will be notified of the timing, location and duration of construction activities.	Plan prepared prior to start of project construction	During Construction		During Construction	PG&E	PG&E, reporting to SWRCB

Notes:

[1] PG&E avoidance and protection measures are included as part of the project description.

[2] PG&E will delegate responsibility to authorized representative.