



**California Public Utilities Commission
Mitigation Monitoring, Compliance, and
Reporting Plan
for Pacific Gas & Electric's Ravenswood-Cooley
Landing 115-kV Reconductoring Project**

July 2021

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Acronyms and Abbreviations

ADA	Americans with Disabilities Act
AMM	Avoidance and Minimization
APMs	applicant proposed measures
BAAQMD	Bay Area Air Quality Management Plan
BCDC	Bay Area Conservation and Development Commission
BMP	Best Management Practice
Caltrans	California Department of Transportation
CAP	Congested Area Plan
CARB	California Air Resources Board
CEQA	California Environmental Quality Act
CPUC	California Public Utilities Commission
CRS	Cultural Resource Specialist
CWA	Clean Water Act
DCTL	double-circuit tower line
FAA	Federal Aviation Administration
HSE	Health, Safety, and Environment
IS/MND	Initial Study/Mitigated Negative Declaration
LRP	Legally Responsible Person
LZ	Landing Zone
MM	mitigation measure
MMCRP	Mitigation Monitoring, Reporting, and Compliance Program
MMRP	Mitigation Monitoring and Reporting Program
MPR	Minor Project Refinement
NAHC	Native American Heritage Commission
NHPA	National Historic Preservation Act
NOTAM	notice to airmen
NTP	Notice to Proceed
NWR	National Wildlife Refuge
PEA	Proponent's Environmental Assessment
PFM	Petition for Modification
PG&E	Pacific Gas & Electric
PRC	Public Resources Code
project	Ravenswood-Cooley Landing 115-kV Reconductoring Project
PTC	Permit to Construct
RWQCB	Regional Water Quality Control Board

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SFPUC	San Francisco Public Utilities Commission
SHPO	State Historic Preservation Officer
SMARTS	State of California's Stormwater Multi-Application Report Tracking System
SMP	Site Management Plan
SWPPP	Storm Water Pollution Prevention Plan
U.S.	United States
USACE	United States Army Corps of Engineers
USFWS	United States Fish and Wildlife Service
WDID	Waste Discharger Identification
WEAP	Worker Environmental Awareness Program

1 Introduction

1.1 Project Background

Pacific Gas and Electric Company (PG&E) filed an application with the California Public Utilities Commission (CPUC) on December 15, 2017 (Application A.17-12-010), for a Permit to Construct (PTC) the Ravenswood-Cooley Landing 115-kV Reconductoring Project (project). The application included the Proponent's Environmental Assessment (PEA) prepared pursuant to Rule 2.4 of the CPUC's Rules of Practice and Procedure (Stantec, 2017; PG&E, 2018).

The CPUC prepared an Initial Study/Mitigated Negative Declaration (IS/MND), pursuant to the California Environmental Quality Act (CEQA), the amended State CEQA Guidelines (14 California Resources Code 15000 et seq.), and the CPUC CEQA Rule 2.4, to address the potential impacts of the project on the environment (CPUC, 2018). The CPUC adopted the Final IS/MND (State Clearinghouse No. 2018082065) and granted PG&E's PTC for the approved project on April 4, 2019, in accordance with Public Resources Code (PRC) § 15074 (Decision D. 19-03-018).

1.2 Project Overview and Schedule

The approved project involves the reinforcement of a portion of the Southeastern Peninsula Area 115-kV transmission system that provides electrical service to San Mateo and Santa Clara counties by replacing the conductors with higher capacity conductors on the approximately 1.6-mile long Ravenswood-Cooley Landing 115-kV transmission line (Figure A-1, Appendix A). The Ravenswood-Cooley Landing Line is a double-circuit tower line (DCTL) design supported by nine lattice steel towers between PG&E's Ravenswood Substation and Cooley Landing Substation in the cities of Menlo Park and East Palo Alto on the southeastern portion of the San Francisco Peninsula (Figure A-2 and Figure A-3, Appendix A). The project includes the following:

1. Replacing 1.6-miles of transmission line conductors
2. Reinforcing existing foundations at four towers
3. Modifying four lattice steel towers
4. Installing new optical fiber ground wire on the lattice steel towers
5. Installing two new tubular steel poles
6. Modifying or replacing equipment at Ravenswood and Cooley Landing Substations

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The project is anticipated to take approximately four months to construct. Site development crews would prepare project work areas beginning in September 2020, followed by foundation installation crews, and tower modification and line crews. The project is currently scheduled to be completed by the end of December 2020 and the line reenergized in January 2021.

1.3 Plan Authority and Purpose

PG&E is required to implement applicant proposed measures (APMs) and mitigation measures (MMs), as well as to obtain and implement various agency permits applicable to the project, as conditions of project approval in order to avoid or reduce potentially significant impacts on the environment. As the CEQA lead agency, the CPUC is responsible for monitoring and enforcing compliance with these requirements, and adopting a reporting or monitoring program, pursuant to PRC §21081.6 and Section 15097 of the CEQA Guidelines. Section 6 of the IS/MND included a Mitigation Monitoring and Reporting Program (MMRP)¹ that provides a framework for preparation of a Mitigation Monitoring, Compliance, and Reporting Plan (MMCRP) prior to construction of the project. The CPUC adopted the MMRP framework as part of its decision to approve the project and grant PG&E a PTC.

The contents of the MMCRP are intended to:

- Ensure project impacts on the environment are avoided or reduced adequately, as specified in the IS/MND.
- Summarize all mitigating requirements that would be implemented by PG&E and monitored by the CPUC (i.e., APMs, MMs, and permit conditions).
- Organize the mitigating requirements by category and implementation phase for clarity and tracking purposes.
- Identify project personnel on the PG&E compliance team and the CPUC monitoring team.
- Identify project procedures to document environmental compliance and ensure effective communication.

¹ Note: the IS/MND sometimes refers to the MMRP as the Mitigation Monitoring Plan.

2 Summary of Requirements and Tracking Procedures

The requirements addressed in the MMCRP include specific mitigation tasks from the APMs, MMs, and permits identified in the IS/MND, as well as monitoring and communication procedures to ensure compliance. Final APMs and MMs from the IS/MND are provided in Appendix B. Individual requirements (or tasks) are identified for each measure with (1) the requirement category used for communication and tracking purposes, (2) implementation phase (e.g., before, during, or after construction), (3) a summary of PG&E's responsibility, and (4) the CPUC's methods for verifying and monitoring compliance.

Requirement categories identified in Appendices B and C include the following:

1. **Permits and Approvals.** Obtaining an agency permit or authorization, or otherwise consulting with an agency prior to an activity.
2. **Plans.** Preparing and/or implementing plans (typically standalone documents) identified in the IS/MND or permits, including agency review and/or approval of such plans, where specified.
3. **Notifications.** Notifying either agencies, the public, or specific stakeholders prior to certain project activities, or following certain events such as an incident or change in conditions. May also include requirements to conduct coordination when approval is not required.
4. **Worker Training.** Preparing or implementing staff training regarding resource avoidance, impact minimization, communication procedures, and other project requirements.
5. **Surveys.** Surveying, inspecting, or clearing areas prior to or during project activities to identify and evaluate certain resource conditions.
6. **Field Monitoring.** Requirements that involve field verification or oversight during or following construction to prevent, evaluate, or restore certain resources impacts.
7. **Avoidance and Minimization (AMM).** Specific activities to avoid or minimize impacts on sensitive resources, such as avoiding sensitive periods or sensitive areas, best practices to limit impacts, and other miscellaneous tasks.
8. **Discovery Procedures.** Requirements that would result following a specific discovery, such as a previously undiscovered biological or cultural resource.
9. **Documentation and Reporting.** Documenting and/or reporting specific or general details about construction and compliance activities.

Appendix C includes tracking tables for all APM, MM, and permit requirements organized by category and implementation phase. The CPUC will use the tracking tables to document the status of implementation and completion for each requirement. The primary methods the CPUC will use to verify and monitor compliance, include (1) the Notice to Proceed (NTP) process (described in Section 4), (2) review PG&E documentation (including reports), and (3) conducting field inspections.

3 Plan Roles and Communication Procedures

3.1 Plan Roles

PG&E and the CPUC, including their contractors, are collectively responsible for ensuring environmental impacts addressed in the IS/MND are adequately mitigated; however, PG&E is primarily responsible for implementing project requirements and managing their contractors and construction workforce to ensure compliance. The CPUC is primarily responsible for monitoring and verifying that the project is in compliance, and enforcing appropriate corrective actions if the project is not in compliance. Appendix D includes the roles, names, and contact information of designated personnel who are responsible for the environmental compliance and monitoring effort for the project, according to the MMCRP.

3.2 Meetings

The PG&E and CPUC teams shall hold as needed meetings or conference calls whenever necessary to discuss the project schedule, compliance expectations, or to resolve any issues that arise during project implementation.

3.3 Conference Calls

During the construction phase, the PG&E and CPUC teams shall hold as needed conference calls to discuss construction activities, compliance activities, CPUC site inspections, and any other plan procedures. If any serious issues arise, PG&E and CPUC management shall be notified immediately, or whenever it is safe to do so and within no more than 24 hours, by phone and/or email.

3.4 PG&E Compliance Reports

In addition to the specific documentation and reporting requirements specified in APMs, MMs, and permits, PG&E is responsible for documenting general compliance and construction activities on a daily basis. PG&E shall submit weekly compliance reports to the CPUC team that identify each active workday and a description of the construction and compliance activities that occurred, with photos and attached documentation for key activities. The weekly compliance reports should be prepared to satisfy the specific documentation and reporting requirements specified in measures and permits to the extent possible (refer to reporting requirements in Appendix C). PG&E's daily reports shall be submitted to the CPUC team upon request. PG&E's daily and weekly compliance reports shall document any incidents that occurred during the reporting period, as described in Section 6. All reports shall be submitted in an Adobe PDF or Microsoft Word format.

3.5 CPUC Monitoring Reports

The CPUC monitoring team shall prepare field inspection reports each time the project is inspected for compliance. The CPUC monitoring team will prepare monthly monitoring reports using the information from the weekly conference calls, PG&E's compliance reports, and the field inspection reports. The CPUC's daily and monthly monitoring reports shall document any incidents that occurred during the reporting period, as described in Section 6. The monthly reports will be used to track the project's record of incidents. All reports shall be submitted in an Adobe PDF or Microsoft Word format.

4 Notice to Proceed Process

PG&E is required to obtain CPUC authorization prior to initiating project activities through the NTP process. The NTP process involves the following steps:

- **Step 1 – Planning and Communication:** PG&E reviews and completes all requirements in the Before Construction phase (refer to Table C-2, Appendix C) for each applicable APM, MM, or permit. Note: It is highly recommended that the PG&E team communicate with the CPUC team regarding NTP planning and expectations to clarify the applicable NTP requirements and CPUC’s review schedule to avoid potential construction delays.
- **Step 2 – Completion of Applicable Pre-Construction Requirements:** PG&E submits project permits, plans, and other specified compliance documentation to the CPUC for review and approval according to the timing identified in Table C-2. Note: some requirements include submittal timeframes up to 60 days prior to applicable construction activities. Submittal of incomplete information may result in the need for revisions and potential for project delays.
- **Step 3 – Submittal of NTP Request:** PG&E submits an NTP request letter with supporting information to the CPUC for review. If necessary, PG&E may elect to submit one or more NTPs for separate project activities to reduce the scope of requirements that must be completed for the proposed activities; however, many of the larger project requirements (i.e., plans, permits, worker training, etc.) may be applicable to all project activities. Note: all project activities must be consistent with the approved project and/or subsequent CPUC review and/or decisions. At a minimum, the NTP submittal package shall include the following information:
 - Request number
 - Date submitted
 - Requested approval date
 - Anticipated start and end date of the associated activities
 - A description of the specific activities to be initiated
 - A table clearly identifying any outstanding requirements and documentation not included with the NTP package, and the anticipated dates it will be provided
 - Attached copies of the Appendix C requirement tracking tables with information about PG&E’s compliance status for each requirement with applicable dates and records of documentation
 - Any applicable compliance documentation not previously provided to the CPUC

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- **Step 4 – Review of NTP Request:** The CPUC reviews the NTP request and verifies compliance with all applicable APM, MM, and permit requirements and informs PG&E of any additional information that may be required to approve the NTP. The duration of CPUC’s review will depend on PG&E’s prior planning, submittals, and communication efforts with the CPUC, and the completeness and adequacy of information in the NTP as it relates to the approved project described in the IS/MND.
- **Step 5 – Issuance of NTP Approval Letter:** The CPUC issues PG&E an NTP approval letter once the associated requirements are adequately verified, along with any conditions of approval (i.e., completion of outstanding requirements). Once PG&E obtains an NTP approval, they may commence with the authorized activities according to the approval and conditions.

5 Minor Project Refinement Process

Circumstances may arise that require minor project refinements to change or clarify certain project details in the IS/MND, such as minor changes that are necessary after final engineering or due to unforeseen circumstances (i.e., change in land use or environmental conditions). The CPUC would evaluate the scope and need for processing minor project changes through the Minor Project Refinement (MPR) process. This process is similar to the NTP process, but focused on evaluating proposed project changes submitted by PG&E, and completing a CEQA consistency review according to the project description and impact analysis presented in the IS/MND. The CPUC Project Manager may approve MPRs at the staff level if the proposed refinements would not result in any new significant impacts or increase the severity of previously identified significant impacts. MPRs are strictly limited to minor refinements that do not trigger the need for additional permits and are consistent with the CPUC's prior CEQA analyses.

PG&E shall inform the CPUC of any anticipated project changes prior to submitting any MPR requests to determine if the scope of the refinements is appropriate for the MPR process or if a Petition for Modification (PFM) may be required. To initiate the formal MPR review process, PG&E shall submit a letter to the CPUC with the following information:

- Request number
- Date submitted
- Requested approval date
- Anticipated start and end date of the proposed refinements
- A description of the proposed refinements, including an explanation of why the refinements are necessary
- A description of the dimensions and areas of any additional workspace, access routes, and land disturbance associated with the proposed refinements, with supporting maps and figures illustrating the areas
- A description of PG&E's CEQA consistency evaluation for applicable resource topics and the CPUC's prior CEQA analyses demonstrating that the proposed refinements would not result in any new significant impacts or increase the severity of previously identified significant impacts
- A statement describing if the proposed refinements would conflict with any project requirement and a detailed proposal to address the conflict
- Supporting documentation of applicable agency and/or property owner approval of the proposed refinements

Project changes that cannot be processed through the MPR process would be subject to the CPUC's PFM process, in accordance with Rule 16.4 of the CPUC's Rules of Practice and Procedure. The PFM process may involve additional CEQA review and discretionary action by the CPUC, such as preparation of an addendum, supplement, or subsequent CEQA document.

6 Incidents and Public Complaints

6.1 Incidents

PG&E and the CPUC are responsible for documenting, reporting, and tracking any compliance or health and safety incidents that occur during implementation of the MMCRP. Compliance incidents are any issues that present an environmental risk or involve lack of proper compliance with APMs, MMs, permits, or other environmental regulations applicable to the project. Health and safety incidents are any issues (i.e., near misses, close calls, accidents) that involve worker or public safety. Health and safety incidents shall be tracked independently of compliance incidents.

Compliance incidents shall be documented by assigning one of four terms and severity levels identified in Table 1. When documenting compliance level incidents, the reporting party shall assign an initial incident level that appropriately represents the severity of the issue based on factors such as the following:

- Significance of the deviation or violation
- Resource risks or impacts
- Past incidents involving similar issues
- How the incident could have been prevented

Table 1 Compliance Incident Levels

Term and Severity	Project Definition	Examples
Level 1: Occurrence <i>At risk of being out of compliance (low severity)</i>	An event or observation that if left unaddressed has the potential to affect compliance.	<ul style="list-style-type: none"> • Trash or construction debris was observed scattered around a work site, but the trash was quickly collected and removed from the site. • A minor fluid leak (i.e., hydraulic hose break) that did not put a resource at risk, and was immediately contained and cleaned according to project requirements.
Level 2: Minor Problem <i>Out of compliance (low to moderate severity)</i>	An event or observation that slightly deviates from project requirements, but does not put a resource at unpermitted risk.	<ul style="list-style-type: none"> • Erosion controls were improperly installed or maintained at a work site, but did not result in discharge of sediment. • Project personnel used an unauthorized turnaround area or access road, but the site was previously disturbed, and the action did not put a sensitive resource at risk.
Level 3: Compliance Issue <i>Out of compliance (moderate to high severity)</i>	An event or observation that slightly deviates from project requirements and puts a resource at minor unpermitted risk, but is quickly corrected without impacting the resource.	<ul style="list-style-type: none"> • Soil or construction material was placed outside of an approved work area in a non-sensitive area, but the material was removed by the end of the day. • A fuel tank was stored overnight within specified limits of a water body without secondary containment, but did not result in the release of hazardous materials. • Project personnel used an unauthorized overland and previously undisturbed turnaround area or access road, but the action did not impact a sensitive resource.

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Term and Severity	Project Definition	Examples
Level 4: Noncompliance <i>Out of compliance (high severity)</i>	An event or observation that violates project requirements and puts a resource at unpermitted risk.	<ul style="list-style-type: none"> • Mobilization of equipment or materials to a work site prior to receiving NTP authorization from CPUC. • Soil or construction material was placed outside of an approved work area in an environmentally sensitive area. • Erosion control BMPs failed during a storm and sediment was discharged into a sensitive area. • Project vehicles entered a sensitive resource exclusion area and damaged a resource. • Project personnel continued to operate equipment after being requested to halt temporarily by the environmental monitors.

PG&E and CPUC shall notify one another of incidents within one business day of the initial observation so the issues can be adequately addressed, with the exception of the lowest level compliance incidents (Level 1: Occurrence). Jurisdictional agencies may also require notification if the incidents are severe and relate to their jurisdiction over the project, as described in Table C-1, Appendix C. Following the initial notification, the reporting party shall provide documentation of the incidents in writing, including the incident type and level; a description of the dates, times, locations, and parties involved; corrective actions taken or to be taken; and supporting photos and any other important documentation. In the event of any Level 4: Noncompliance incidents, a memorandum shall be prepared that describes the issues and corrective actions in greater detail. All incidents shall be tracked in PG&E’s weekly compliance reports and the CPUC’s monthly monitoring reports for the duration of the project.

If significant CEQA violations occur, the CPUC has the authority to exercise the CEQA Citation Program adopted by the CPUC in Resolution E-4550. The program delegates authority to CPUC staff to draft and issue citations and levy fines for noncompliance with CEQA requirements. The Resolution allows CPUC staff to efficiently issue fines when needed to quickly address noncompliance incidents that are occurring in the field.

6.2 Public Complaints

The public may take issue with one or more aspects of the project, and MM NO-1 includes specific requirements for processing noise complaints from the public. PG&E and the CPUC shall document any public complaints they receive through any means, or if they encounter members of the public in the field that express their frustration about a specific project aspect. Public complaints shall be documented and reported in a similar manner to incidents, and the reporting party is responsible for informing the other party within one business day. All public complaints shall be tracked in PG&E’s weekly compliance reports and the CPUC’s monthly monitoring reports for the duration of the project.

7 Dispute Resolution Process

The PG&E and CPUC team members may have conflicting opinions regarding project requirements and procedures that could lead to disputes. It is expected that the MMCRP will reduce the potential for such disputes; however, disputes could still occur. Any disputes shall first be addressed informally at the field level or during regularly scheduled meetings. If the issue cannot be resolved informally, the following steps shall be implemented:

- **Step 1:** Unresolved disputes shall be directed to the CPUC Project Manager for resolution.
- **Step 2:** The CPUC Project Manager may initiate enforcement actions, if needed, to address the dispute in order to bring the project into compliance.
- **Step 3:** Unsatisfied dispute participants may file a written “notice of dispute” with the CPUC Executive Director or their designee. The notice should be filed in order to resolve the dispute in a timely manner, with copies concurrently served on other dispute participants. Within 10 days of receiving a notice, the CPUC Executive Director or their designee shall meet with the dispute participants and attempt to resolve the dispute. The CPUC Executive Director shall then issue an Executive Resolution describing the resolution decision and serve it on the dispute participants.
- **Step 4:** If any dispute participants are still unsatisfied, they may appeal it to the CPUC via a procedure to be specified by the CPUC. Parties may also seek review by the CPUC through existing procedures specified in the CPUC Rules of Practice and Procedure for formal and expedited dispute resolution, although a good faith effort should first be made to use the described dispute resolution process.

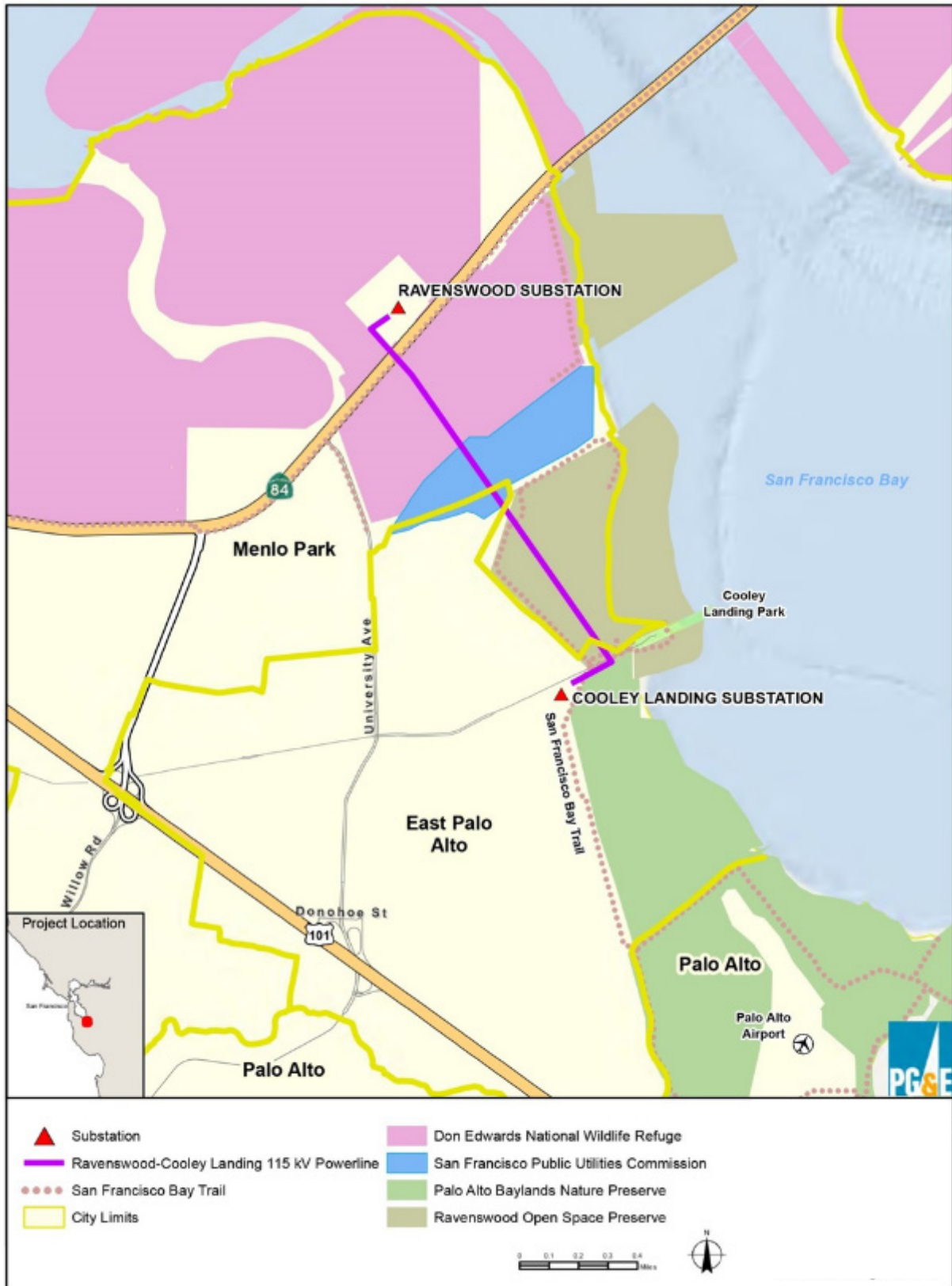
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- CPUC. (2018, November). Final Initial Study/Mitigated Negative Declaration (IS/MND), Pacific Gas & Electric Company, Ravenswood-Cooley Landing 115 kV Reconductoring Project (A. 17-12-010).
- PG&E. (2018, May 11). PG&E Project Refinements to the Ravenswood-Cooley Landing 115 kV Reconductoring Project.
- Stantec. (2017, December). Proponent's Environmental Assessment for the Ravenswood-Cooley Landing 115 kV Reconductoring Project.

Appendix A Project Maps

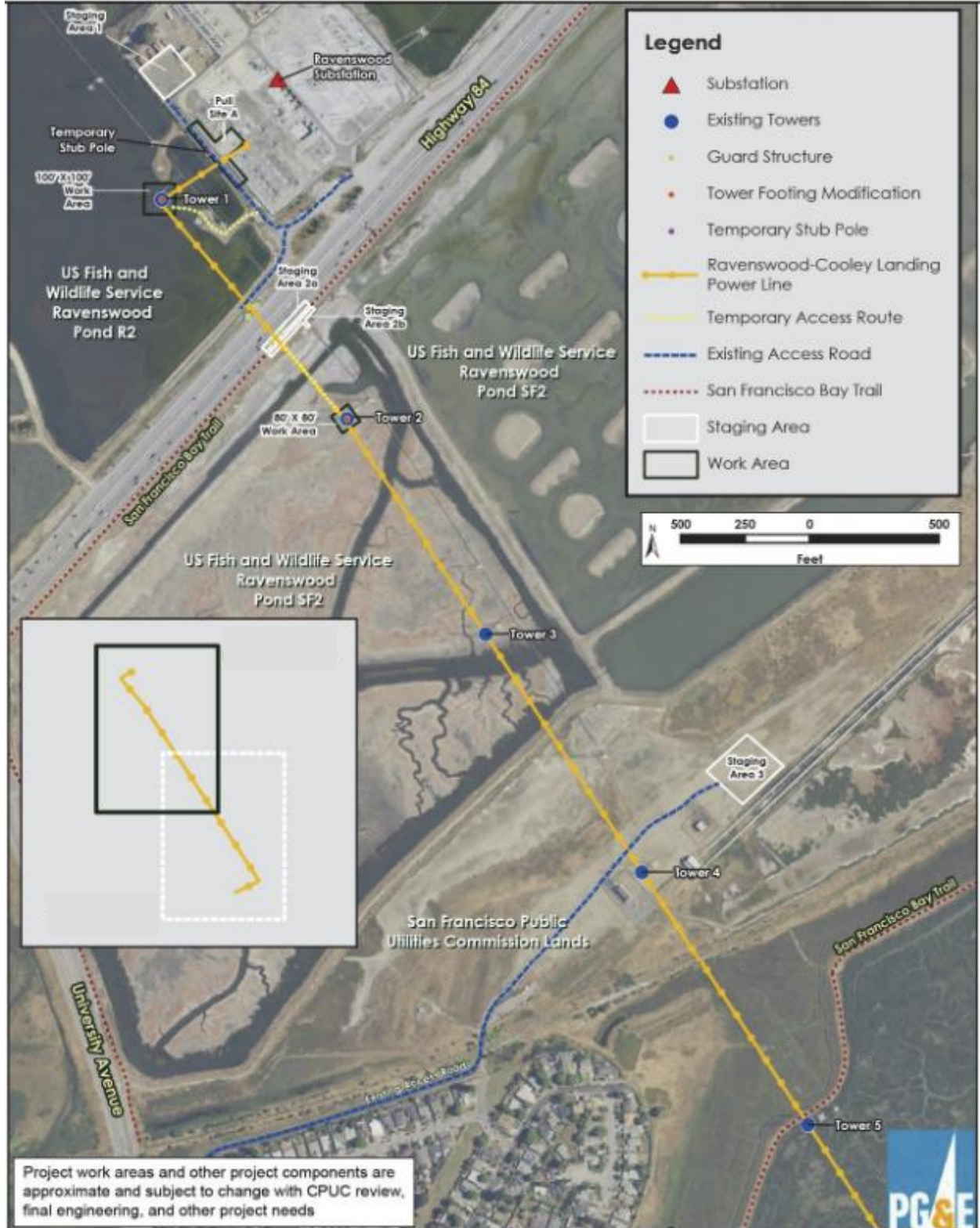
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Figure A-1 Project Overview Map



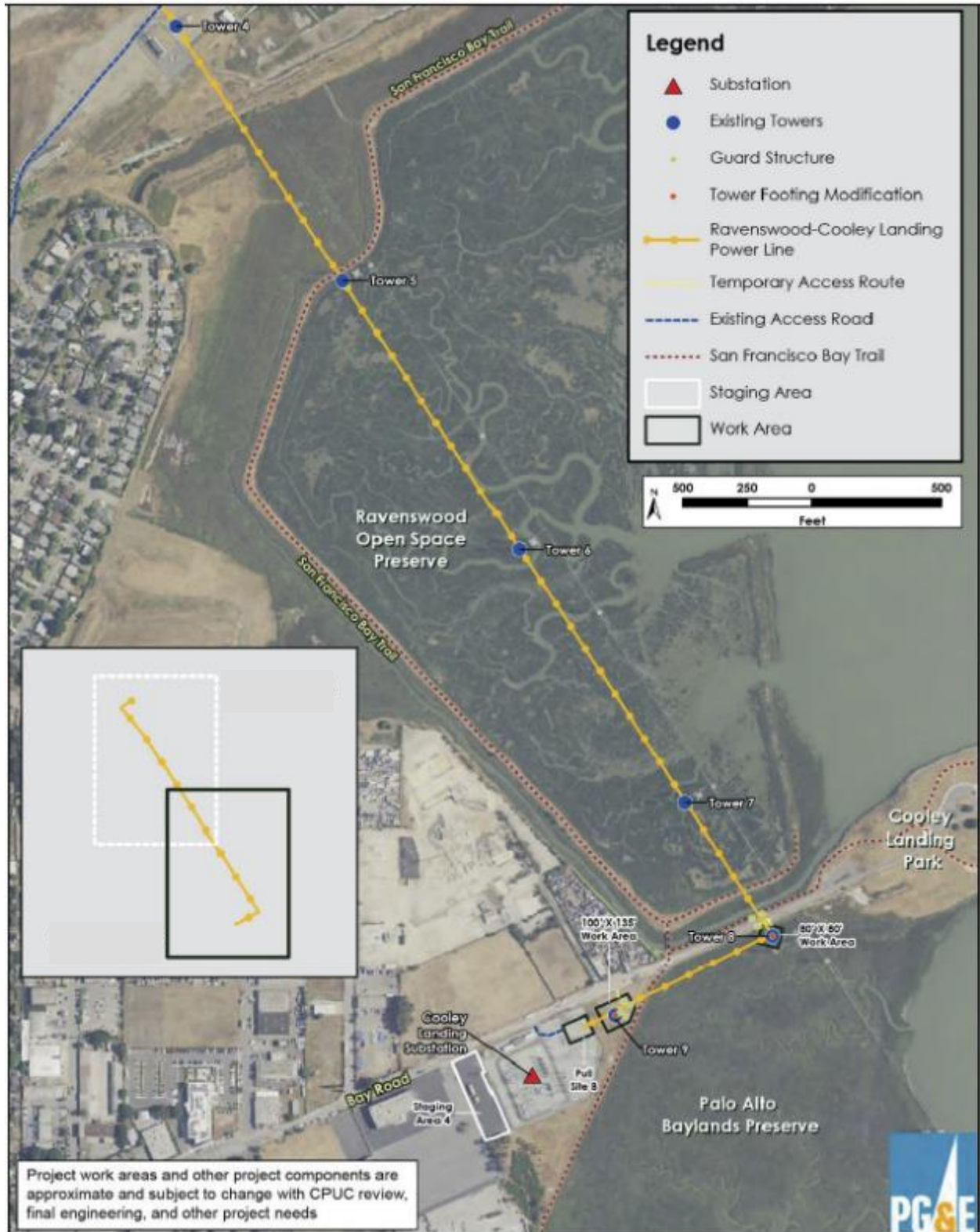
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Figure A-2 Project Components and Preliminary Work Areas (1 of 2)



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Figure A-3 Project Components and Preliminary Work Areas (2 of 2)

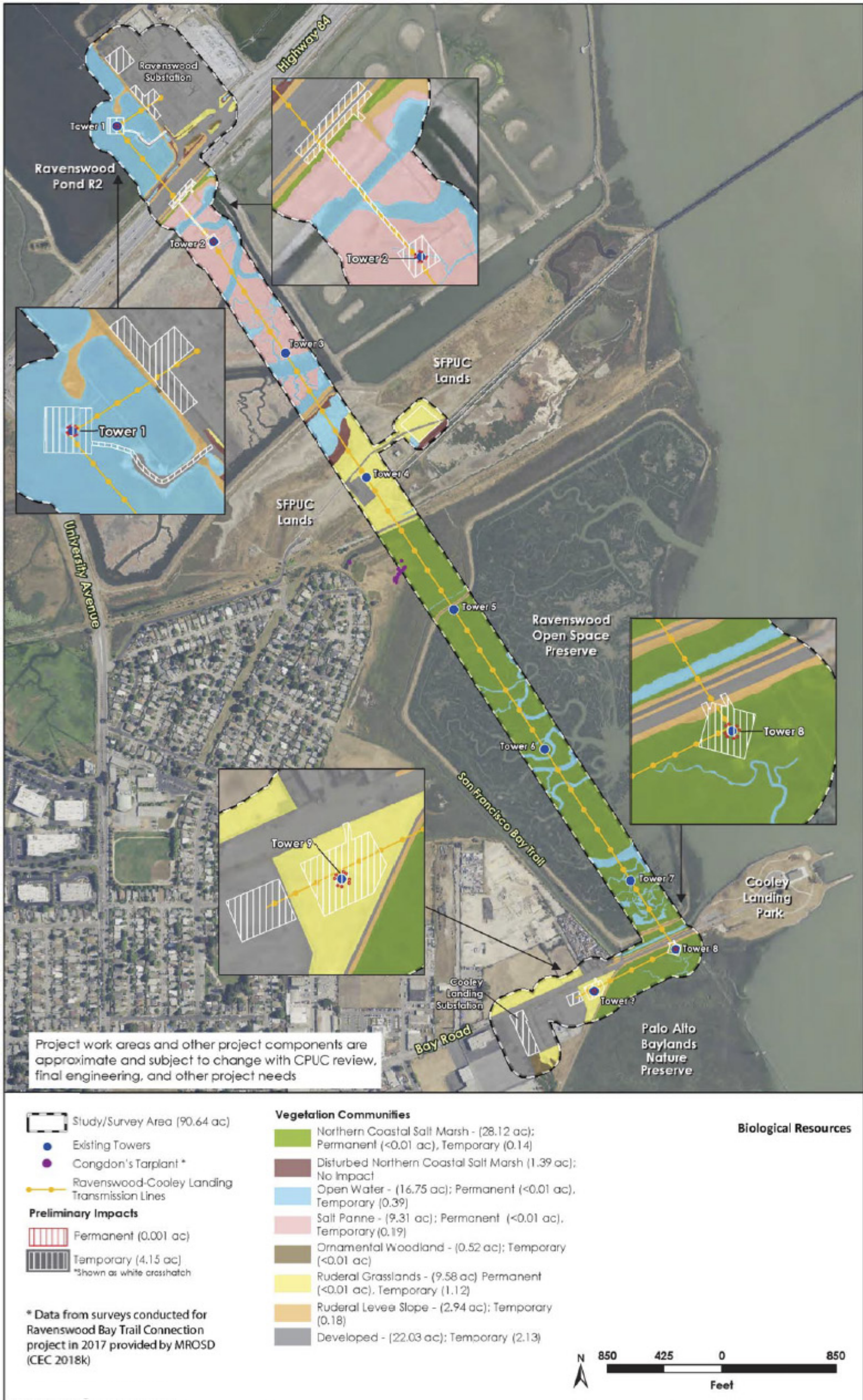


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Figure A-4 1,000-Foot Influence Zone



Figure A-5 Vegetation Communities and Preliminary Impact Areas



Appendix B Final Applicant Proposed Measures and Mitigation Measures

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Table B-1 Final Applicant Proposed Measures and Mitigation Measures

APM or MM	Requirement Category	Implementation Phase	PG&E Requirement Summary	CPUC Verification and Monitoring Methods
<p>APM AIR-1: Minimize Fugitive Dust During Construction Consistent with Table 8-2 of the CEQA Air Quality Guidelines (Bay Area Air Quality Management District [BAAQMD] 2017c1), PG&E will minimize dust emissions during construction by implementing the following measures:</p> <ul style="list-style-type: none"> All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) in active construction zones shall be watered two times per day during dry conditions; or apply non-toxic soil stabilizers such as soil binders, crushed rock or gravel. All haul trucks transporting soil, sand, or other loose material off-site shall be covered. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers or equivalent method at least once per day. The use of dry power sweeping is prohibited. All vehicle speeds on unpaved roads shall be limited to 15 miles-per-hour. <p>Post a publicly visible sign with the telephone number and person to contact at PG&E regarding dust complaints. This person shall respond and take corrective action within 48 hours. The BAAQMD’s phone number shall also be visible to ensure compliance with applicable regulations.</p>	Notification	Before construction	Dust complaint signs are posted adequately per description.	Review documentation & field inspections
	AMM	During construction	Exposed surfaces are watered two times a day during dry conditions.	Review documentation & field inspections
	AMM	During construction	Haul trucks are adequately covered.	Review documentation & field inspections
	AMM	During construction	Soil track-out is adequately managed.	Review documentation & field inspections
	AMM	During construction	Vehicle speeds limits are maintained.	Review documentation & field inspections
	AMM	During construction	Helicopter Landing Zones (LZs) are watered as needed prior to takeoff and landings.	Review documentation & field inspections
	<p>APM AIR-2: Exhaust Emissions. Per BAAQMD CEQA guidelines, PG&E will implement the following exhaust emissions control measures.</p> <ul style="list-style-type: none"> Minimize unnecessary construction vehicle idling time. The ability to limit construction vehicle idling time will depend on the sequence of construction activities and when and where vehicles are needed or staged. Certain vehicles, such as large diesel-powered vehicles, have extended warm-up times following start-up that limit their availability for use following start-up. Where such diesel-powered vehicles are required for repetitive construction tasks, these vehicles may require more idling time. The project will apply a “common sense” approach to vehicle use, so that idling is reduced as far as possible below the maximum of 5 consecutive minutes allowed by California law; if a vehicle is not required for use immediately or continuously for construction activities, its engine will be shut off. Construction foremen will include briefings to crews on vehicle use as part of pre-construction conferences. Those briefings will include discussion of a “common sense” approach to vehicle use. Clear signage shall be provided for construction workers at all access points indicating idling restrictions. All construction equipment will be regularly maintained in accordance with PG&E standards. All equipment shall be checked by a certified visible emissions evaluator. 	Worker Training	During construction	Brief crews regarding idling limitations.
AMM		During construction	Idling of construction vehicle and equipment limited to 5 consecutive minutes to the greatest extent possible.	Field inspections
AMM		During construction	A certified mechanic maintains equipment.	Field inspections
<p>APM BIO-2: Avoid and Minimize Impacts on the California Ridgway’s Rail and Salt Marsh Harvest Mouse. PG&E will implement the following measures to protect the California Ridgway’s rail and salt marsh harvest mouse:</p> <ul style="list-style-type: none"> To protect water quality and avoid the loss of individual California Ridgway’s rails and salt marsh harvest mice, activities within or adjacent to California Ridgway’s rail or salt marsh harvest mouse habitat (i.e., areas of northern coastal salt marsh in and around the Ravenswood Open Space Preserve and Palo Alto Baylands), including helicopter work, will not occur within two hours before or after extreme high tides (6.5 feet or above, as measured at the Golden Gate Bridge), when the marsh plain is inundated. This measure is necessary because protective cover for California Ridgway’s rails and salt marsh harvest mice is limited during very high tides, and construction activities could disturb and flush individuals and prevent them from reaching available cover, which would increase their risk of predation. For activities that will result in ground disturbance in tidal marsh or coastal wetland habitat, including the removal of marsh vegetation, a biologist will flag access routes for crews when working in pickleweed or smooth cordgrass dominated habitats in order to minimize impacts on these species. Crews will use protection mats to minimize ground disturbance when working within pickleweed or smooth cordgrass. To avoid take of salt marsh harvest mouse, a biologist will assess the site to determine if vegetation protection mats are appropriate, vegetation removal by hand is needed, and if an onsite biological monitor is needed. Prior to placement of mats or removal of vegetation, the vegetation will be disturbed (i.e., flushed) to force movement of salt marsh harvest mouse into adjacent tidal marsh 	AMM	During construction	Limit activities within or adjacent to habitat before, during and after extreme tides.	Review documentation & field inspections
	AMM	Before construction	Qualified biologist to flag access routes for crews and direct location of vegetation protection mats and determine if hand-removal of vegetation and onsite biological monitoring are required.	Review documentation & field inspections
	Field Monitoring	During construction	Conduct biological monitoring of ground disturbance activities within tidal marsh or coastal wetland habitat as determined necessary by a biologist.	Review documentation & field inspections
	AMM	During construction	Conduct work near wetlands between September and January.	Review documentation & field inspections
	Documentation and Reporting	After construction	Secure compensatory mitigation.	Review documentation

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<p>areas. Immediately following flushing, the field crew will place a mat or manually remove vegetation with nonmotorized tools (e.g., hoe, rake, trowel, or shovel) to the bare ground.</p> <ul style="list-style-type: none"> Conduct work within 700 feet of wetlands suitable for the Ridgway’s rail between September 1 and January 15. Compensate for permanent impacts on habitat for the California Ridgway’s rail and salt marsh harvest mouse at a 3:1 ratio (3 acres compensated for every 1 acre permanently affected) and temporary impacts on habitat for these species at a 1:1 ratio. 				
<p>APM BIO-3: Avoid and Minimize Impacts on the Western Snowy Plover. PG&E will implement the following measures to avoid and minimize impacts on the western snowy plover:</p> <ul style="list-style-type: none"> All work on and within 600 feet of active snowy plover nests on Ravenswood Pond SF2 will be conducted outside of the snowy plover nesting season (defined as March 1 through September 1). Prior to conducting work at Ravenswood Pond SF2, a qualified biologist will conduct a pre-activity survey of the work areas and surrounding areas within 600 feet by standing on adjacent trails and levees and scanning the area with a spotting scope. If dependent chicks are present within 600 feet of the work areas, work will be postponed until the biologist determines that the chicks are independent (i.e., until they can fly) or have left the area. If no dependent chicks are present, work may proceed and any adult snowy plovers will be allowed to leave the area on their own. 	AMM	During construction	Postpone all work within 600 feet of active snowy plover nests on Ravenswood Pond SF2.	Review documentation & field inspections
	Surveys	During construction	Qualified biologist shall perform preactivity surveys for active snowy plover nests.	Review documentation
<p>APM BIO-5: Avoid and Minimize Impacts on Sensitive Natural Communities Including Jurisdictional Wetlands and Waters. PG&E will implement the following measures to minimize impacts on sensitive natural communities including open water, northern coastal salt marsh, and disturbed northern coastal salt marsh as well as other jurisdictional wetlands and waters of the United States (U.S.)/State (e.g., salt pannes).</p> <ul style="list-style-type: none"> Construction activities shall be designed to minimize disturbance of wetlands (including seasonal ponded areas) and regulated waters in the project area to the extent practicable. Disturbance or removal of vegetation shall not exceed the minimum necessary to complete construction activities. Precautions shall be taken to avoid other damage to vegetation by people or equipment. For activities that will result in ground disturbance in tidal marsh or coastal wetland habitat, including the removal of marsh vegetation, a biologist will flag access routes for crews when working in pickleweed or cordgrass dominated habitats in order to minimize impacts on these species. Crews will use protective matting (e.g., timber mats, crane pads) to minimize ground disturbance when working within pickleweed or cordgrass. If deemed necessary by the biologist, small areas of healthy vegetation will be cleared by hand prior to placement of protective mats. Erosion, sediment, and material stockpile BMPs will be installed between work areas and adjacent wetlands or waterways as required by APM HYD- 1: Prepare and Implement a Storm Water Pollution Prevention Plan (SWPPP). Compensate for both permanent and temporary impacts through consultation with the U.S. Army Corps of Engineers (USACE) and San Francisco Bay RWQCB during the Clean Water Act (CWA) 404/401 permitting process. 	AMM	During construction	Minimize disturbance to wetlands.	Field inspections
	AMM	Before construction	Qualified biologist to mark access routes and works with crews to employ protective matting.	Review documentation & field inspections
	AMM	During construction	Implement SWPPP BMPs.	Review documentation & field inspections
	Permits and Approvals	Before construction	Obtain and implement 404 and 401 permits and authorizations.	NTP process
	Permits and Approvals	During construction	Implement 404 and 401 permit conditions.	Field inspections
<p>MM BIO-1: General Avoidance of Biological Resource Impacts. (Supersedes APM BIO-1) PG&E shall implement field protocols and avoidance and minimization measures to reduce impacts on covered species and sensitive natural communities. This MM consists of the following components:</p> <ul style="list-style-type: none"> Worker Environmental Awareness Program (WEAP). PG&E will conduct environmental training for all construction and on-site personnel prior to the beginning of site work. The WEAP training will be presented by a CPUC-approved, qualified biologist. All construction crew members and contractors who attend the training will sign a form indicating that they attended the training and understood the information. Follow-up training will be conducted as needed; new workers will attend WEAP training prior to beginning at the work site. Training will include a discussion of the avoidance and minimization measures that are being implemented to protect biological resources, as well as the terms and conditions of permits that apply to the project. Training will include information on the federal and state Endangered Species Acts and the consequences of noncompliance with these acts. Under this program, workers will be informed about the presence, life history, and habitat requirements of all listed and special-status species with a potential to occur in the vicinity, with a focus on those species that could be affected within the project area. Training will also include information on state and federal laws protecting nesting birds, wetlands, and other water resources, as applicable and appropriate to the project. Additionally, personnel will be trained for situations where it is necessary to contact a 	Worker Training	Before construction	Prepare a WEAP with the contents specified. Submit a copy of the training and brochure to CPUC prior to the start of construction for project files.	NTP process
	Worker Training	Before construction	Submit resumes for biologists proposed to provide WEAP training to the CPUC for approval.	Review documentation
	Worker Training	During construction	Implement WEAP program for all construction and on-site personnel.	Review documentation
	Notification	Before construction	Provide notice to conservation landowners prior to conducting activities covered in PG&E’s Operations and Maintenance Habitat Conservation Plan.	NTP process
	AMM	During construction	Properly manage litter and trash.	Field inspections

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<p>qualified biologist (e.g., should any sensitive biological resources such as an active nest be found during construction). If sensitive resources are found, the qualified biologist will provide guidelines for the personnel to avoid impacts on them. All WEAP participants will receive a brochure that outlines all this information including contact information for the appropriate environmental personnel. A record of all trained personnel will be kept on site, and a sticker indicating training completion will be worn on all worker hard hats. A copy of the training and brochure will be provided to CPUC prior to the start of construction for project files.</p>	AMM	During construction	Ensure vehicle speeds do not exceed 15 mph and parking occurs in previously disturbed and designated areas.	Field inspections
<ul style="list-style-type: none"> • Conservation Landowner Notification. PG&E will notify conservation land owner at least two business days prior to conducting covered activities on protected lands (state and federally owned wildlife areas, ecological reserves, or conservation areas); more notice will be provided if required by other permits. 	AMM	During construction	Limit equipment and vehicle access to established work areas and access roads.	Field inspections
<ul style="list-style-type: none"> • Litter and trash management. All food scraps, wrappers, food containers, cans, bottles, and other trash from the project area will be deposited in closed animal-proof trash containers and removed from the project site daily. Prohibit open fires (such as barbecues) at work sites. 	AMM	During construction	Ensure refueling and maintenance occurs in designated areas at least 100 feet from any down-gradient aquatic habitat, unless otherwise isolated from habitat by secondary containment.	Field inspections
<ul style="list-style-type: none"> • Parking and vehicle speed limit. Vehicles and equipment will be parked on pavement, existing roads, and previously disturbed or developed areas or work areas. Off-road parking will only be permitted in previously identified and designated work areas. Vehicle speeds on unpaved roads will not exceed 15 miles per hour. 	AMM	During construction	Restrict all pets, firearms, hunting, or fishing.	Field inspections
<ul style="list-style-type: none"> • Access route and work area limitations. Vehicles will be confined to established roadways and existing access roads, pre-approved temporary access routes, existing boardwalks, and designated matted work areas. Access routes and construction work areas will be limited to the minimum necessary to safely construct the project. 	AMM	During construction	Minimize potential for covered species to seek refuge or shelter in pipes and excavations. Inspect pipes, of diameter wide enough to be entered by a covered species that could inhabit the area where pipes are stored, for wildlife species prior to moving pipes and culverts.	Field inspections
<ul style="list-style-type: none"> • Maintenance and refueling. All equipment will be maintained to minimize the potential for leaks of automotive fluids such as fuels, solvents, or oils. All refueling and maintenance of vehicles and other construction equipment will be restricted to designated staging areas located at least 100 feet from any down-gradient aquatic habitat, unless otherwise isolated from habitat by secondary containment. Vehicles and equipment operated adjacent to marshlands and open water will be checked daily to prevent leaks of materials that, if introduced to the water, could be harmful to aquatic life. Proper spill prevention and cleanup materials will be maintained in all refueling areas and work areas. 	AMM	During construction	Fit open trenches or steep-walled holes with escape ramps of plywood boards or sloped earthen ramps at each end if left open overnight. Field crews will search open trenches or steep-walled holes every morning prior to initiating daily activities to ensure wildlife are not trapped. If any wildlife are found, a biologist will be notified and will relocate the species to adjacent habitat or the species will be allowed to naturally disperse, as determined by a biologist.	Review documentation & field inspections
<ul style="list-style-type: none"> • Pets and firearms. No pets, firearms, hunting or fishing will be permitted at the project site. 				
<ul style="list-style-type: none"> • Cover pipes and excavations. Minimize potential for covered species to seek refuge or shelter in pipes and excavations. Inspect pipes, of diameter wide enough to be entered by a covered species that could inhabit the area where pipes are stored, for wildlife species prior to moving pipes and culverts. Fit open trenches or steep-walled holes with escape ramps of plywood boards or sloped earthen ramps at each end if left open overnight. Field crews will search open trenches or steep-walled holes every morning prior to initiating daily activities to ensure wildlife are not trapped. If any wildlife are found, a biologist will be notified and will relocate the species to adjacent habitat or the species will be allowed to naturally disperse, as determined by a biologist. 				
<p>MM BIO-2: Avoid and Minimize Impacts on Special-status Plant Species. (Supersedes APM BIO-4). PG&E will implement the following measures to minimize impacts on marsh habitat potentially suitable for special-status plant species:</p>	Worker Training	Before construction	Include information on noxious weeds in the WEAP.	NTP process
<ul style="list-style-type: none"> • As part of the WEAP, include information on the identification of noxious weeds and invasive plants, the importance of noxious-weed and invasive plant control, and measures to minimize their spread. Training will include the following BMPs [best management practices] to avoid or minimize the spread of invasive plants and noxious weeds: (1) avoid working in invasive plant or noxious weed infested areas or prioritize activities so that infested areas are worked in last; (2) keep records of road maintenance activities including location and source of grading material; (3) maintain gravel and soil spoil piles free of invasive plants or noxious weeds; use areas known to be weed-free for staging and laydown areas; (4) minimize soil disturbance to the extent possible; (5) materials used for erosion control will be certified weed free (i.e. straw wattles, gravel, fill material, etc.); when restoring a site after disturbance, use a native seed mix; (6) drive on and park on established roads as much as possible; (7) off-road equipment that is not local to the project area will arrive onsite clean and free of soil and plant parts; and (8) clean clothing, footwear, and gear before moving from an infested area to a non-infested area. In addition, WEAP training will include information on invasive weeds that are known to occur in the vicinity, including stinkwort (<i>Dittrichia graveolens</i>), non-native spartina (<i>Spartina</i> spp.), and Algerian sea lavender (<i>Limonium ramosissimum</i>). The WEAP training program and brochure will include photographs, description, natural history information, and map showing the species' distribution in relation to project activities. 	AMM	Before construction	Flag known populations of noxious weeds and invasive plants in the work areas.	Review documentation & field inspections
	AMM	During construction	Implement described weed control BMPs during construction.	Review documentation & field inspections
	Discovery Procedures	During construction	Map discovered new populations of invasive plants and report to the appropriate agency contact.	Review documentation
	Documentation and Reporting	After construction	Conduct post-construction monitoring of disturbed soil for invasive plants in the spring following construction completion and report findings to the described agencies.	Review documentation

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<ul style="list-style-type: none"> • Prior to commencement of activities located on or adjacent to nonpaved surfaces a biologist will flag known populations of noxious weeds and invasive plants in the work areas. • To minimize introduction and spread of noxious weeds and invasive plants, PG&E will avoid moving weed-infested gravel, rock, and other fill materials to relatively weed-free locations. PG&E will use certified weed-free straw and mulch for erosion-control projects. PG&E will maintain stockpiled, uninfested material in a weed-free condition. • PG&E will work in a direction from uninfested areas to infested areas as much as practical. • PG&E will minimize soil disturbance and the removal of vegetation during construction, maintenance and other ground-disturbing activities to the extent practicable. Vehicles and equipment should remain on established roads as much as is practicable. • PG&E will stage in areas not infested with weeds or treat for weed removal prior to using an infested area. • If new noxious weed or invasive plant observations are detected within or adjacent to project area, including the Ravenswood OSP, during the course of the project construction and ongoing maintenance activities, the populations will be mapped and reported to the appropriate agency contact. PG&E will conduct post-construction monitoring of any disturbed soils in the spring following completion of construction for any invasive species that inadvertently have been introduced. PG&E will report findings of any invasive plants or noxious weeds detected during project construction and/or the spring after construction to the contact for the Ravenswood OSP, Coty Sifuentes-Winters, Senior Resource Management Specialist, csifuentes@openspace.org or agency identified alternative. 				
<p>APM CUL-1: Exclusion Fencing. Temporary exclusionary fencing will be installed along the southern edge of Staging Area 3 between the work area and the Hetch Hetchy Aqueduct to ensure that project construction does not impact the eligible resource.</p>	AMM	Before construction	Install exclusion fencing along the southern edge of Staging Area 3 between the work area and the Hetch Hetchy Aqueduct.	Review documentation & field inspections
<p>APM CUL-2: Worker Environmental Training. Because there are areas of High or Highest sensitivity for buried cultural resources, all project field personnel should be given environmental training on cultural and paleontological resources protection resources identification and protection, and the laws and penalties governing such protection. This training may be administered by the project paleontologist/archaeologist as a stand-alone training or included as part of the overall environmental awareness training as required by the project. The training will include at minimum, the following:</p> <ul style="list-style-type: none"> • The types of cultural resources likely to be encountered. • Procedures to be taken in the event of an inadvertent cultural resources discovery (see below). • Penalties for disturbing or destroying cultural resources. • The types of fossils that could occur at the project site. • The types of lithologies in which the fossils could be preserved. • The procedures that should be taken in the event of a fossil discovery. • Penalties for disturbing paleontological resources. 	Worker Training	Before construction	Incorporate the specified information into the WEAP.	NTP process
<p>APM CUL-3: Inadvertent Cultural Resource Discoveries. Because the project area is almost entirely built-over, there is high potential for inadvertent discoveries during project construction. If such discoveries take place, the following procedures will be initiated:</p> <ul style="list-style-type: none"> • All ground-disturbing construction activities within 100 feet of the discovery will halt immediately. • The construction crew will protect the discovery from further disturbance until it has been assessed by a qualified archaeologist. • The construction foreman will immediately contact the designated project inspector and the PG&E Cultural Resource Specialist (CRS). <p>The project cultural resources specialist will coordinate with the PG&E CRS and the state and federal lead officials, as appropriate. If the discovery can be avoided or protected and no further impacts will occur, then the resource will be documented on DPR 523 forms, and no further effort will be required. If the resource cannot be avoided and may be subjected to further impacts, qualified personnel will evaluate the significance of the discovery in accordance with the state and federal laws outlined above; personnel will implement data recovery or other appropriate treatment measures, if warranted. A qualified historical archaeologist will complete an evaluation of historic-period resources, while evaluation of prehistoric resources will be completed by a qualified archaeologist specializing in</p>	Discovery Procedures	During construction	Upon discovery of cultural resources, complete notifications, field verifications, and documentation as described.	Review documentation

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California prehistoric archaeology. Evaluations may include archival research, oral interviews, and/or field excavations to determine the full depth, extent, nature, and integrity of the deposit.				
<p>APM CR-4: Unanticipated Discovery of Human Remains. If human remains or suspected human remains are discovered during construction, work within 100 feet of the find will stop immediately and the construction foreman will contact the designated cultural resources specialist, who meets the Secretary of Interior’s Standards for archaeology; the specialist will then call the San Mateo County Coroner, as appropriate. There will be no further excavation or disturbance of the site, or any nearby area reasonably suspected to overlie adjacent remains, until the county coroner has determined that the remains are not subject to provisions of Section 27491 of the Government Code. If the medical county coroner determines the remains to be Native American, he/she shall contact the Native American Heritage Commission (NAHC) within 24 hours. The NAHC will appoint a Most Likely Descendent for recommendations on the treatment and disposition of the remains (Health and Safety Code Sect. 7050.5, Public Resources Code Sect. 5097.24).</p>	Discovery Procedures	During construction	Upon discovery of human remains, complete notifications, field verifications and documentation as described.	Review documentation
<p>APM PAL-1: Unanticipated Paleontological Resource Discoveries. If unanticipated paleontological resources are discovered during construction activities, the following procedures will be followed:</p> <ul style="list-style-type: none"> • Stop work immediately within 100 feet. • Contact the designated project inspector and PG&E CRS immediately. • Protect the site from further impacts, including looting, erosion or other human or natural damage. • The project CRS will arrange for a Principal Paleontologist to evaluate discovery. If the discovery is determined to be significant PG&E will implement measures to protect and document the paleontological resource. • Work may not resume within 100 feet of the find until approval by the paleontologist and PG&E CRS. <p>In the event that significant paleontological resources are encountered during the project, protection and recovery of those resources may be required. Treatment and curation of fossils will be conducted in consultation with the landowner, PG&E and the lead agency. A Principal Paleontologist will be responsible for developing the recovery strategy and will lead the recovery effort, which will include establishing recovery standards, preparing specimens for identification and preservation, documentation and reporting, and securing a curation agreement from the approved agency. A Paleontological Monitor or other qualified individual may conduct the recovery of fossil discoveries under the direction of the Principal Paleontologist.</p>	Discovery Procedures	During construction	Upon discovery of paleontological resources, complete notifications, field verifications and documentation as described.	Review documentation
<p>APM GEO-1: Implement Appropriate Design Measures. Based on available references, potentially problematic subsurface conditions such as soft, loose, or liquefiable soils may exist in the project area. PG&E will perform design studies, onsite investigations, and implement appropriate design measures for foundation improvement work that will reduce potential effects of seismic ground failure, including liquefaction.</p>	Plans	Before construction	Submit completed design studies, onsite investigations, and completed design measures for foundation improvement design work to the CPUC for review 30 days prior to commencement of construction (specified in the MMRP).	NTP process
	AMM	During construction	Implement appropriate design measures for foundation improvement work that will reduce potential effects of seismic ground failure, including liquefaction.	Field inspections
<p>APM GHG-1: Minimize GHG Emissions</p> <ul style="list-style-type: none"> • Minimize unnecessary construction vehicle idling time. The ability to limit construction vehicle idling time will depend on the sequence of construction activities and when and where vehicles are needed or staged. Certain vehicles, such as large diesel-powered vehicles, have extended warm-up times following start-up that limit their availability for use following start-up. Where such diesel-powered vehicles are required for repetitive construction tasks, these vehicles may require more idling time. The project will apply a “common sense” approach to vehicle use, so that idling is reduced as far as possible below the maximum of 5 consecutive minutes allowed by California law; if a vehicle is not required for use immediately or continuously for construction activities, its engine will be shut off. Construction foremen will include briefings to crews on vehicle use as part of pre-construction conferences. Those briefings will include discussion of a “common sense” approach to vehicle use. • Maintain construction equipment in proper working conditions in accordance with PG&E standards. 	AMM	During construction	Idling of construction vehicle and equipment limited to 5 consecutive minutes to the greatest extent possible.	Field inspections
	AMM	During construction	A certified mechanic maintains construction equipment.	Field inspections

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<ul style="list-style-type: none"> Construction equipment will be properly maintained by a certified mechanic. All off-road construction diesel engines not registered under the California Air Resources Board (CARB) Statewide Portable Equipment Registration Program will meet at a minimum the Tier 1 California Emission Standards for Off-Road Compression-Ignition Engines as specified in CCR Title 13, Chapter 9, Sec. 2423(b)(1). 				
<p>APM HAZ-1: Hazardous Substance Control and Emergency Response. PG&E will implement its hazardous substance control and emergency response procedures to ensure the safety of the public and site workers during construction. The procedures identify methods and techniques to minimize the exposure of the public and site workers to potentially hazardous materials during all phases of project construction through operation. They address worker training appropriate to the site worker’s role in hazardous substance control and emergency response. The procedures also require implementing appropriate control methods and approved containment and spill-control practices for construction and materials stored on-site. If it is necessary to store chemicals on-site, they will be managed in accordance with all applicable regulations. Safety Data Sheets will be maintained and kept available on-site, as applicable.</p>	Plans	Before construction	Submit Hazardous Substance Control and Emergency Procedures with the contents specified to the CPUC 30 days before start of construction for review of plan (specified in the MMRP).	NTP process
<p>Potential soil and groundwater contamination was identified within the vicinity of project work areas. Soils or groundwater removed during drilling or other activities will be tested, and if contaminated above hazardous waste levels, will be contained and disposed of at a licensed waste facility. The presence of known or suspected contaminated soil will require testing and investigation procedures to be supervised by a qualified person, as appropriate, to meet state and federal regulations. All hazardous materials and hazardous wastes will be handled, stored, and disposed of in accordance with all applicable regulations, by personnel qualified to handle hazardous materials. The hazardous substance control and emergency response procedures include, but are not limited to, the following:</p> <ul style="list-style-type: none"> Proper disposal of potentially contaminated soils. Establishing site-specific buffers for construction vehicles and equipment located near sensitive resources. Emergency response and reporting procedures to address hazardous material spills. Stopping work at that location and contacting the Fire Department and Environmental Health Division immediately if visual contamination or chemical odors are detected. Work will be resumed at this location after any necessary consultation and approval by the agencies. <p>PG&E will complete a standard Emergency Action Plan Form as part of project tailboard meetings. The purpose of the form is to gather emergency contact numbers, first aid location, work site location, and tailboard information.</p>	AMM	During construction	PG&E to implement its hazardous substance control and emergency response procedures to ensure the safety of the public and site workers during construction.	Review documentation & field inspections
	Documentation and Reporting	During construction	Complete a standard Emergency Action Plan Form as part of project tailboard meetings.	Review documentation
<p>APM HAZ-2: Worker Environmental Awareness Program for Health, Safety, and Environment (WEAP-HSE). PG&E will provide this environmental awareness program to staff prior to construction. This program will include the following components related to hazards and hazardous materials:</p> <ul style="list-style-type: none"> PG&E Health, Safety, and Environmental expectations and management structure. Applicable regulations. Summary of the hazardous substances and materials that may be handled and/or to which workers may be exposed. Summary of the primary workplace hazards to which workers may be exposed. Overview of the measures identified in APM HAZ-1. Overview of the controls identified in the SWPPP under APM HYD-1. 	Worker Training	Before construction	Prepare an environmental awareness program with the contents specified and submit to the CPUC 30 days before start of construction for review (specified in MMRP).	NTP process
	Worker Training	During construction	PG&E to present WEAP-HSE to construction workers.	Review documentation
<p>APM HAZ-3: Adherence to Applicable Site-specific SMPs. In addition to following its own project-specific procedures during the construction phase, PG&E will adhere to any applicable site-specific plans such as the Site Management Plan (SMP) for the 1990 Bay Road Site (see Section 3.8.3.3 of the PEA).</p>	Plans	Before construction	Submit the SMP for 1990 Bay Road Site to the CPUC for review 30 days before start of construction (specified in the MMRP).	NTP process
	AMM	During construction	Adhere to any applicable site-specific plans such as the SMP for the 1990 Bay Road Site.	Review documentation

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<p>APM HYD-1: Prepare and Implement a Storm Water Pollution Prevention Plan (SWPPP). PG&E will prepare and implement a SWPPP to prevent construction-related erosion, sediment runoff, and discharge of other pollutants into adjacent waterways and onto neighboring properties. Because project activities will result in ground disturbance of more than one acre, PG&E will obtain coverage under the SWRCB General Permit for Storm Water Discharges Associated with Construction Activity Order No. 2009-0009-DWQ (and as amended by 2010-0014-DWQ and 2012-006-DWQ). To obtain coverage under the permit, PG&E will develop and submit permit registration documents—including a Notice of Intent, SWPPP, risk assessment, site map, construction drawings, certification by Legally Responsible Person (LRP), contractor contact information, and annual fee—to the State of California’s Stormwater Multi-Application Report Tracking System (SMARTS) database and obtain a Waste Discharger Identification (WDID) number prior to initiating construction activities.</p> <p>PG&E will implement the SWPPP during construction to prevent the discharge of sediment and other pollutants resulting from project construction. The SWPPP will outline implementation of BMPs for each activity that has the potential to impact neighboring properties or degrade surrounding water quality through erosion, sediment runoff, dewatering, and discharge of other pollutants.</p>	Plans	Before construction	Prepare a SWPPP and submit to the CPUC for review sixty days before the start of construction (specified in the MMRP).	NTP process
	AMM	During construction	Implement the SWPPP to monitor the effectiveness of storm water BMPs, notifications of any violations, and documentation as needed.	Review documentation & field inspections
	Documentation and Reporting	Before construction	Develop and submit SWRCB permit registration documents to the CA SMARTS database and obtain a Waste Discharge Identification number.	NTP process
<p>MM NO-1: Notices, Noise-Reducing Practices, and Complaint Response Process. (Supersedes APM NO-1). PG&E shall employ the following standard noise-reducing construction practices and additional noise-reducing measures:</p> <ul style="list-style-type: none"> • Ensure that all equipment is equipped with mufflers that meet or exceed factory new- equipment standards. • Locate stationary equipment as far as practical from noise-sensitive receptors. • Limit unnecessary engine idling. • Limit all land-based construction activity near noise-sensitive receptors to daytime hours unless required for safety or to comply with line clearance requirements. Limit all helicopter activity to daytime hours. • Notification: <ul style="list-style-type: none"> – Residences and business owners affected by daytime helicopter activities within 1,500 feet of Staging (Landing) Areas 3 and 4 and flight paths shall be notified at least 7 days in advance by mail, personal visit, or door hanger, and informed of the expected work schedule. – Residences and business owners within 1,500 feet of active nighttime reconducting sites and staging areas shall be notified at least 7 days in advance of nighttime work by mail, personal visit, or door hanger, and informed of the expected work schedule. – PG&E shall post notices in public areas, including recreational use areas, within 500 feet of the project alignment and construction work areas. – In this notice, PG&E shall state that it will perform this activity in a manner to ensure excessive noise is avoided as much as practicable. PG&E shall provide tips to homeowners and business owners on reducing noise intrusion, for example, moving indoors, closing windows and doors facing the construction and helicopter paths. PG&E shall note the efficacy of these tips in reducing noise. • Temporary sound barriers shall be installed and maintained by the construction contractor for nighttime work conducted within 1,000 feet of sensitive receptors. Temporary sound barriers shall consist of either sound blankets at the noise source or other sound barriers/techniques such as acoustic padding or acoustic walls placed near the noise source. Barriers shall be placed such that the line-of-sight between the construction equipment and adjacent sensitive land uses is blocked. As needed, trucks used during nighttime construction work shall be equipped with either a white noise or variable volume back up alarm. If a low volume alarm cannot be installed, the alarm shall be disabled, and instead, a flagman shall be used for safe movement of trucks. • PG&E shall identify and provide a public liaison person before and during construction to respond to concerns of neighboring receptors, including residents, about noise construction disturbance. PG&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). PG&E shall address any daytime-related noise complaint within one week of when the complaint is filed. If a complaint is related to nighttime construction work, PG&E shall address it within 24 hours of the filing of the complaint. PG&E shall provide monthly reports with records of complaints and responses to the CPUC. These reports shall be provided to CPUC within 15 days of the end of the month. 	AMM	During construction	Locate stationary equipment as far as practical from noise-sensitive receptors. Limit unnecessary engine idling.	Field inspections
	AMM	During construction	Limit all land-based construction activity near noise-sensitive receptors to daytime hours unless required for safety or to comply with line clearance requirements. Limit all helicopter activity to daytime hours.	Review documentation & field inspections
	Notification	Before construction	Notify residents and business owners affected by daytime helicopter activities within 1,500 feet of Staging (Landing) Areas 3 and 4 and flight paths shall at least 7 days in advance. See measure for notice contents.	Review documentation
	Notification	Before construction	Post notices in public areas, including recreational use areas, within 500 feet of the project alignment and construction work areas. See measure for notice contents.	Review documentation & field inspections
	Notification	Before construction	Notify residents and business owners within 1,500 feet of active nighttime reconducting sites and staging areas at least 7 days in advance of the nighttime work. See measure for notice contents.	Review documentation
	AMM	During construction	Install and maintain temporary sound barriers where nighttime work is conducted within 1,000 feet of sensitive receptors. Manage noise from backup alarms on trucks used during nighttime work as described.	Review documentation
	Documentation and Reporting	During construction	Identify a public liaison for the project to respond to any noise complaints. Address daytime noise complaints within 7 days and nighttime noise complaints within 24 hours. Document noise complaint resolutions in monthly reports provided to the CPUC.	Review documentation

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APM or MM	Requirement Category	Implementation Phase	PG&E Requirement Summary	CPUC Verification and Monitoring Methods
<p>APM REC-1: Coordination with Park Management and Signage. PG&E will coordinate closely with the Association of Bay Area Governments, the Midpeninsula Regional Open Space District, cities of Palo Alto and East Palo Alto, and the USFWS to communicate potential park and trail disruptions during project construction activities. Signs advising recreational facility users of construction activities will be posted at entrances and parking areas associated with open space areas (including Don Edwards San Francisco Bay National Wildlife Refuge [NWR], Ravenswood Open Space Preserve, and Palo Alto Baylands Nature Preserve), at the Cooley Landing Park education center, and at designated areas along the Bay Trail. During construction activities that could limit trail access, PG&E will provide a flagman at trail crossings to ensure public safety and safe passage through the project area.</p>	Notification	Before construction	Coordinate with park management about park and trail disruptions.	NTP process
	Notification	Before construction	Post signage advising recreational facility users of construction activities.	Review documentation
	AMM	During construction	Post a flagman at trail crossings during construction activities that could limit trail access.	Review documentation & field inspections
<p>MM TRA-1: Traffic Management Implementation. (Supersedes APM TRA-1). PG&E will obtain any necessary transportation and encroachment permits from Caltrans and the local jurisdictions, as required, including those related to the State Route 84 crossing and the transport of oversized loads, and will implement temporary traffic controls as required to prevent excessive congestion or traffic hazards during construction. Construction activities that are along or that cross local roadways will follow local jurisdictional encroachment permit requirements and traffic controls in the form of signs, cones, and flaggers to minimize impacts on traffic, transportation, and emergency access in the project area. When working on state highways, PG&E will follow traffic control guidelines outlined in the California Manual on Uniform Traffic Control Devices, 2018 edition. A Caltrans-approved Transportation Management Plan will be prepared to address impacts to vehicular, bicycle, and pedestrian traffic caused by traffic restrictions or detours. The Plan must address the following:</p> <ul style="list-style-type: none"> • Pedestrian and bicycle access through the construction site (between staging areas 2a and 2b and other locations along the alignment) will be maintained at all times and will adhere to the Americans with Disabilities Act (ADA) regulations and comply with Caltrans' Temporary Pedestrian Facilities Handbook. • Prior to construction PG&E will survey and photograph portions of the Bay Trail that will be used during construction. If project-related construction activities damage portions of the Bay Trail, PG&E will restore those facilities in compliance with current design standards and ADA regulations. • Lane closures will occur during off-peak traffic hours (i.e. 9:00 a.m. to 4:00 p.m. and 6:00 p.m. to 7:00 a.m.) • Advance public notification of lane closures will be provided if transit routes require temporary rerouting. Public notification will include lane closure schedule, location, and duration of public transit reroute. • Project-related traffic will be required to use northbound University Avenue to enter and depart from the SFPUC service road, unless a flagger is present to direct traffic on University Avenue while the vehicles turn left into or out of the service road driveway. <p>PG&E will include plans to coordinate all construction activities with emergency service providers in the area prior to construction to ensure construction activities and associated lane closures and detours will not significantly affect emergency response vehicles. Emergency service providers will be notified of the timing, location, and duration of construction activities. PG&E will submit verification of its consultation with emergency service providers to the CPUC. All roads will remain passable to emergency service vehicles at all times. of the location, date, time and duration of lane closures. PG&E will ensure emergency access is maintained at all times during lane closures.</p>	Plans	Before construction	Preparation of a Caltrans-approved Transportation Management Plan.	NTP process
	AMM	During construction	Position flagger and warning signage for pedestrians traveling between staging areas 2a and 2b and other locations on Bay Trail where construction and overhead reconductoring activities occur.	Review documentation & field inspections
	Documentation and Reporting	Before construction	Document preconstruction conditions of the Bay Trail within the project area. Restore any project-related damage following construction.	NTP process & review documentation
	AMM	During construction	Position flagger for vehicles turning left into or out of the SFPUC service road. Implement lane closures during off-peak traffic hours.	Review documentation & field inspections
	Notification	Before construction	Provide public notification if transit routes require temporary rerouting.	Review documentation
	Notification	Before construction	Notify local emergency service providers of the location, time and duration of lane closures, and submit verification of consultation to the CPUC.	Review documentation
	<p>MM TRA-2: Air Transit Coordination. (Supersedes APM TRA-2). PG&E will implement the following protocols related to helicopter use during construction and air traffic:</p> <ul style="list-style-type: none"> • PG&E's helicopter operator will comply with all applicable FAA regulations, and will contact the local FAA office to determine if a Congested Area Plan (CAP) is needed. If a CAP is needed, the local FAA office will define the scope of action required in the CAP and will coordinate with the helicopter operator to comply with all requirements. • PG&E's helicopter operator will coordinate all project helicopter operations with local airports before and during project construction. Coordination will include working with the Palo Alto Airport Manager for the issuance of a notice to airmen (NOTAM) informing pilots departing from the nearest departure runway of helicopter activity during project construction and reconductoring activities. 	Notification	Before construction	Contact the local FAA office to determine if a CAP is needed; comply with all applicable FAA regulations.
Notification		Before construction	Coordinate all project helicopter operations with local airports including the issuance of a NOTAM.	NTP process

Appendix C Requirement Tracking Tables

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Table C-1 Permits and Approvals That May Be Required for The Project

Regulatory Authority	Agency	Jurisdiction/Purpose	Project Requirements	Status
Federal				
Section 404 Nationwide Permit	U.S. Army Corps of Engineers (USACE)	Work in “waters of the United States,” including wetlands.	For access required across marshlands that result in placement of fill.	
Bay Area Habitat Conservation Plan	U.S. Fish and Wildlife Service (USFWS)	Impacts on federally listed species or critical habitat.	Implementation of measures and recordation of habitat impacts for California Ridgeway’s rail and salt marsh harvest mouse.	
Section 7 Consultation	U.S. Fish and Wildlife Service (USFWS)	Impacts on federally listed species or critical habitat.	Implementation of measures and recordation of habitat impacts for western snowy plover and California least tern.	
Section 106 Consultation (National Historic Preservation Act [NHPA])	State Historic Preservation Officer (SHPO)	Requires federal agencies to take into account the effects of their undertakings on historic properties.	The USACE may consult with the SHPO due to the age of the existing line to be replaced along the project alignment.	
Notice of Proposed Construction or Alteration under Federal Aviation Regulations Part 77	Federal Aviation Administration (FAA)	Regulations apply to poles and/or towers over 200 feet in height above ground level at its site, or within certain proximities to local Airports.	Alignment structures within 20,000 feet of Palo Alto Airport require filing with the FAA.	
State				
McAteer-Petris Act and the San Francisco Bay Plan, Permit No. M87-74(A)	Bay Area Conservation and Development Commission (BCDC)	Maintenance activities for PG&E facilities within the 100-foot shoreline band	Comply with permit terms relating to ten-year maintenance activities.	
Permit to Construct, PTC (GO-131-D)	California Public Utilities Commission (CPUC)	Construction, modification, or alteration of power line facilities.	A PTC is required under the CPUC’s General Order No. 131-D, Section III.B.	
Section 401 Water Quality Certification	San Francisco Bay Regional Water Quality Control Board (RWQCB)	Consistency with state water quality standards.	Water Quality Certification would be required prior to obtaining a Section 404 Permit from the USACE, if required.	
Standard Encroachment Permit (discretionary or ministerial)	California Department of Transportation (Caltrans)	For use of the California state highways for other than normal transportation purposes, including construction activities completed within the right-of-way.	A standard encroachment permit may be obtained for reconductoring work across State Route 84.	
National Pollution Discharge Elimination System Storm Water Permit (ministerial)	State Water Resources Control Board (SWRCB)	Construction activities disturbing 1 acre or more of soil must submit a Notice of Intent to comply with the terms of the general permit.	The project would develop and implement a Storm Water Pollution Prevention Plan (SWPPP).	
Local				
Encroachment Permit (ministerial)	City of East Palo Alto	For construction activities completed within city road rights-of-way.	Guard structures would be used when reconductoring across roads.	
Revocable License Agreement (discretionary or ministerial)	San Francisco Public Utilities Commission (SFPUC)	Use of SFPUC lands outside of easements	The project may secure a revocable license agreement for use of SFPUC lands outside of easements.	

Source: (CPUC, 2018)

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Table C-2 Requirements Before Construction

Requirement	Requirement Source	PG&E Requirement Summary ^a	Timing ^b	CPUC Verification and Monitoring Methods	Status
Permits and Approvals					
Applicable Permits and Approvals	Refer to Table C-1	PG&E shall ensure all necessary permits and approvals are obtained prior to construction activities. PG&E shall provide the CPUC with adequate documentation and explanation on why any permits specified in Table C-1 are not required. Permits obtained for the project shall be submitted to the CPUC including any important correspondence with jurisdictional agencies regarding project permits.	At least 30 days prior to associated permit trigger activities or otherwise agreed to by the CPUC.	Refer to Table C-1	Refer to Table C-1
Worker Training					
Biologist Qualification Approvals	MM BIO-1	Submit resumes for biologists proposed to provide WEAP training to the CPUC for approval.	At least 14 days prior to the start of construction.	Review documentation	
Worker Environmental Awareness Program (WEAP)	APM AIR-2 MM BIO-1 MM BIO-2 APM CUL-1 APM HAZ-1 APM HAZ-2	Prepare a WEAP with the contents specified and submit to the CPUC for review.	At least 30 days prior to the start of construction.	NTP process	
Plans					
Dewatering Plan	401 Permit	If dewatering will be necessary in Waters of the State, submit a Dewatering Plan to the RWQCB.	At least 14 days prior to dewatering in Waters of the State.	NTP process	
Geological Design Measures	APM GEO-1	Submit completed design studies, onsite investigations, and completed design measures for foundation improvement design work to the CPUC for review.	At least 30 days prior to the start of construction.	NTP process	
Site Management Plan for the 1990 Bay Road Site	APM HAZ-3	Submit the SMP for 1990 Bay Road Site to the CPUC for review.	At least 30 days prior to the start of construction.	NTP process	
Hazardous Substance Control and Emergency Procedures	MM HAZ-1	Submit Hazardous Substance Control and Emergency Procedures with the contents specified to the CPUC for review.	At least 30 days prior to the start of construction.	NTP process	
Stormwater Pollution Prevention Plan (SWPPP)	APM HYD-1 NPDES Construction General Permit	Prepare a SWPPP and submit to the CPUC for review.	At least 30 days prior to the start of construction.	NTP process	
Transportation Management Plan	MM TRA-1	Prepare and submit a Caltrans-approved Transportation Management Plan to the CPUC.	At least 30 days prior to the start of construction.	NTP process	
Notifications					
EcoAtlas data input	401 Permit	Input project information into EcoAtlas.	Within 14 days of the issuance of the 401 permit.	NTP process	
RWQCB project change notification	401 Permit	If any material change or change in the change in the ownership, character, location, or quantity of waste discharge is required, report the proposed change to the RWQCB.	At least 30 days in advance of the proposed implementation of any change.	Review documentation	

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Requirement	Requirement Source	PG&E Requirement Summary ^a	Timing ^b	CPUC Verification and Monitoring Methods	Status
Public dust complaint signage	APM AIR-1	Dust complaint signs are posted adequately per description.	Prior to the start of construction.	Review documentation & field inspections	
Conservation landowner notice	MM BIO-1	Provide notice to conservation landowners prior to conducting activities covered in PG&E's Operations and Maintenance Habitat Conservation Plan.	At least 2 business days prior to construction on protected lands.	NTP process	
Public helicopter notice	MM NO-1	Notify residences and business owners affected by daytime helicopter activities within 1,500 feet of Staging (Landing) Areas 3 and 4 and flight paths. See measure for notice contents.	At least 7 days prior to conducting helicopter activities.	Review documentation	
Public noise notice	MM NO-1	Post notices in public areas, including recreational use areas, within 500 feet of the project alignment and construction work areas. See measure for notice contents.	Prior to the start of construction.	Review documentation & field inspections	
Nighttime construction notice	MM NO-1	Notify residents and business owners within 1,500 feet of active nighttime reconductoring sites and staging areas. See measure for notice contents.	At least 7 days prior to conducting nighttime work.	Review documentation	
Park management coordination	APM REC-1	Coordinate with park management regarding park and trail disruptions.	Prior to trail access impacts.	NTP process	
Public trail signage	APM REC-1	Post signage advising recreational facility users of construction activities.	Prior to trail access impacts.	Review documentation	
Public transit notification	MM TRA-1	Provide advance public notification if transit routes require temporary rerouting. Public notification will include lane closure schedule, location, and duration of public transit reroute.	Prior to rerouting of transit routes.	Review documentation	
Emergency service provider coordination	MM TRA-1	Consult with local emergency service providers regarding the location, time and duration of lane closures, and submit verification of consultation to the CPUC.	Prior to implementing lane closures and detours.	Review documentation	
FAA coordination	MM TRA-2	PG&E shall contact the local FAA office to determine if a Congested Area Plan is needed, and shall comply with all applicable FAA regulations.	Prior to conducting helicopter activities.	NTP process	
Local airport coordination	MM TRA-2	PG&E shall coordinate all project helicopter operations with local airports including the issuance of a notice to airmen (NOTAM).	Prior to conducting helicopter activities.	NTP process	
Documentation and Reporting					
RWQCB Mitigation Receipt	401 Permit	Submit Mitigation Receipt to the RWQCB.	No later than 60 days prior to the commencement of Project construction activities.	NTP process	
RWQCB Commencement of Construction Report	401 Permit	Submit a Commencement of Construction Report to the RWQCB.	At least 48 hours prior to initiating in-water work and any stream diversions.	Review documentation	
Pre-project photo documentation	401 Permit	Establish a minimum of 12 photo-documentation points and prepare a site map with photo-documentation points clearly marked. Photographically document pre-project conditions.	Prior to the start of construction.	NTP process	
SWRCB permit registration	APM HYD-1	Develop and submit SWRCB permit registration documents to the CA SMARTS database and obtain a Waste Discharge Identification number.	Prior to the start of construction.	NTP process	
Bay Trail documentation	MM TRA-1	Document preconstruction conditions of the Bay Trail within the project area. Restore any project-related damage following construction.	Prior to the start of construction.	NTP process & review documentation	

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Requirement	Requirement Source	PG&E Requirement Summary ^a	Timing ^b	CPUC Verification and Monitoring Methods	Status
Avoidance and Minimization					
Vegetation impact minimization	APM BIO-2 APM BIO-5	Qualified biologist to flag access routes for crews and direct location of vegetation protection mats and determine if hand-removal of vegetation and onsite biological monitoring are required.	Prior to activities on or adjacent to nonpaved surfaces.	Review documentation & field inspections	
Aqueduct exclusion fencing	APM CUL-1	Install exclusion fencing along the southern edge of Staging Area 3 between the work area and the Hetch Hetchy Aqueduct.	Prior to work along the southern edge of Staging Area 3 between the work area and the Hetch Hetchy Aqueduct.	Review documentation & field inspections	
Flag weed populations	MM BIO-2	Flag known populations of noxious weeds and invasive plants in the work areas.	Prior to site access.	Review documentation & field inspections	

Notes:

^a The requirement summaries provided in this table are based on APMs and MMs provided in Appendix B or from permits identified in Table C-1. Important details may not be included in the summaries. Refer to the requirement sources for a complete description of the requirements.

^b Submittal and review timeframes are not specified in all of the requirement sources. Where necessary, submittal and review timeframes have been added to ensure there is sufficient time to review certain documentation and address any comments from the CPUC.

Table C-3 Requirements During Construction

Requirement	Requirement Source	PG&E Requirement Summary ^a	Timing Requirement	CPUC Verification and Monitoring Methods	Status
Surveys					
Snowy plover nest surveys	APM BIO-3	Qualified biologist shall perform preactivity surveys for active snowy plover nests.	Prior to conducting work at Ravenswood Pond SF2.	Review documentation	
Field Monitoring					
Tidal marsh or coastal wetland habitat	APM BIO-2	Conduct biological monitoring of ground disturbance activities within tidal marsh or coastal wetland habitat as determined necessary by a biologist.	Prior to disturbance activities within tidal marsh or coastal wetland habitat.	Review documentation & field inspections	
Worker Training					
WEAP Implementation	404 Permit MM BIO-1 APM HAZ-2	Present the WEAP training to all construction and on-site personnel and keep a record of all trained personnel on site.	Provide the training to each worker prior to beginning work on the project; collect worker signatures after providing the training.	Review documentation	
Documentation and Reporting					
Daily Emergency Action Plan Form	APM HAZ-1	Complete a standard Emergency Action Plan Form as part of project tailboard meetings.	Each day during construction.	Review documentation	
Monthly Noise Complaints Report	MM NO-1	Identify a public liaison for the project to respond to any noise complaints. Address daytime noise complaints within 7 days and nighttime noise complaints within 24 hours. Document noise complaint resolutions in monthly reports provided to the CPUC.	Each month during construction.	Review documentation	

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Requirement	Requirement Source	PG&E Requirement Summary ^a	Timing Requirement	CPUC Verification and Monitoring Methods	Status
Discovery Procedures					
401 permit violations	401 Permit	Notify the RWQCB of any 401 permit condition violations.	As soon as practicable, ideally within 24 hours.	Review documentation	
USFWS-listed species	404 Permit	Halt work and notify USFWS if a listed species is observed within the construction area.	Halt work immediately; complete notification afterward.	Review documentation	
Humans remains	APM CR-4	Upon discovery of human remains, complete notifications, field verifications, and documentation as described.	Halt work immediately; complete additional procedures afterward.	Review documentation	
Cultural resources	APM CUL-3	Upon discovery of cultural resources, complete notifications, field verifications, and documentation as described.	Halt work immediately; complete additional procedures afterward.	Review documentation	
Paleontological resources	APM PAL-1	Upon discovery of paleontological resources, complete notifications, field verifications, and documentation as described.	Halt work immediately; complete additional procedures afterward.	Review documentation	
Invasive plant populations	MM BIO-2	Map discovered populations of invasive plants and report to the appropriate agency contact.	Following discovery of new invasive plant populations.	Review documentation	
SWPPP violations	APM HYD-1	Notify the RWQCB and complete follow-up documentation as needed for any SWPPP violations.	Following discovery of a SWPPP violation.	Review documentation	
Avoidance and Minimization					
Construction runoff	401 Permit	Ensure construction-related materials or wastes do not runoff into Waters of the State.	During all construction activities.	Review documentation & field inspections	
Equipment fueling, cleaning, and maintenance	401 Permit	Fuel, clean, and maintain vehicles and equipment outside any areas where accidental discharge to Waters of the State may occur.	During all construction activities.	Review documentation & field inspections	
Beneficial uses impact minimization	401 Permit	Minimize impacts to beneficial uses and habitat of Waters of the State.	During all construction activities.	Review documentation & field inspections	
Seasonal work restriction	404 Permit	Conduct all project work between September 16 and January 30.	During all construction activities.	Review documentation & field inspections	
Protective matting	404 Permit	Utilize protective matting around Tower 2, and complete activities around Tower 2 in approximately two weeks.	During all construction activities.	Review documentation & field inspections	
Water exposed surfaces	APM AIR-1	Exposed surfaces are watered two times a day during dry conditions.	During all construction activities.	Review documentation & field inspections	
Cover haul trucks	APM AIR-1	Haul trucks are adequately covered.	During all construction activities.	Review documentation & field inspections	
Soil track-out	APM AIR-1	Soil track-out is adequately managed.	During all construction activities.	Review documentation & field inspections	
Vehicle speed limit	APM AIR-1	Vehicle speeds limits are maintained.	During all construction activities.	Review documentation & field inspections	
Water LZs	APM AIR-1	Helicopter LZs are watered as needed prior to takeoff and landings.	During all construction activities.	Review documentation & field inspections	

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Requirement	Requirement Source	PG&E Requirement Summary ^a	Timing Requirement	CPUC Verification and Monitoring Methods	Status
Equipment idling	APM AIR-2 APM GHG-1	Idling of construction vehicle and equipment limited to 5 consecutive minutes to the greatest extent possible.	During all construction activities.	Field inspections	
Certified mechanic	APM AIR-2 APM GHG-1	A certified mechanic maintains equipment.	During all construction activities.	Field inspections	
Tidal habitat restriction	APM BIO-2	Limit activities within or adjacent to habitat before, during and after extreme tides.	During all construction activities.	Review documentation & field inspections	
Seasonal wetland restriction	APM BIO-2	Conduct work near wetlands between September and January.	During all construction activities.	Review documentation & field inspections	
Snowy plover nest buffer	APM BIO-3	Postpone all work within 600 feet of active snowy plover nests on Ravenswood Pond SF2.	During all construction activities.	Review documentation & field inspections	
Wetland disturbance	APM BIO-5	Minimize disturbance to wetlands.	During all construction activities.	Field inspections	
Implement SWPPP	APM BIO-5 APM HYD-1	Implement SWPPP BMPs. Implement the SWPPP to monitor the effectiveness of storm water BMPs, notifications of any violations, and documentation as needed.	During all construction activities.	Review documentation & field inspections	
Foundation design measures	APM GEO-1	Implement appropriate design measures for foundation improvement work that will reduce potential effects of seismic ground failure, including liquefaction.	During foundation improvement work.	Field inspections	
Hazardous substance control and emergency response procedures	APM HAZ-1	PG&E to implement its hazardous substance control and emergency response procedures to ensure the safety of the public and site workers during construction.	During all construction activities.	Review documentation & field inspections	
Site-specific plans	APM HAZ-3	Adhere to any applicable site-specific plans such as the Site Management Plan (SMP) for the 1990 Bay Road Site.	During all construction activities.	Review documentation	
Trail crossing flagman	APM REC-1	Post a flagman at trail crossings during construction activities that could limit trail access.	During all construction activities.	Review documentation & field inspections	
Trash management	MM BIO-1	Properly manage litter and trash.	During all construction activities.	Field inspections	
Vehicle speed and parking	MM BIO-1	Ensure vehicle speeds do not exceed 15 mph and parking occurs in previously disturbed and designated areas.	During all construction activities.	Field inspections	
Work area limit	MM BIO-1	Limit equipment and vehicle access to established work areas and access roads.	During all construction activities.	Field inspections	
Aquatic habitat buffer for refueling and maintenance	MM BIO-1	Ensure refueling and maintenance occurs in designated areas at least 100 feet from any down-gradient aquatic habitat, unless otherwise isolated from habitat by secondary containment.	During all construction activities.	Field inspections	
Pets, firearms, hunting, and fishing restrictions	MM BIO-1	Restrict all pets, firearms, hunting, or fishing.	During all construction activities.	Field inspections	
Pipe and excavation BMPs	MM BIO-1	Minimize potential for covered species to seek refuge or shelter in pipes and excavations. Inspect pipes, of diameter wide enough to be entered by a covered species that could inhabit the area where pipes are stored, for wildlife species prior to moving pipes and culverts.	During all construction activities.	Field inspections	

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Requirement	Requirement Source	PG&E Requirement Summary ^a	Timing Requirement	CPUC Verification and Monitoring Methods	Status
Trench BMPs	MM BIO-1	Fit open trenches or steep-walled holes with escape ramps of plywood boards or sloped earthen ramps at each end if left open overnight. Field crews will search open trenches or steep-walled holes every morning prior to initiating daily activities to ensure wildlife are not trapped. If any wildlife are found, a biologist will be notified and will relocate the species to adjacent habitat or the species will be allowed to naturally disperse, as determined by a biologist.	During all construction activities.	Review documentation & field inspections	
Weed control BMPs	MM BIO-2	Implement described weed control BMPs during construction.	During all construction activities.	Review documentation & field inspections	
Noise location limits	MM NO-1	Locate stationary equipment as far as practical from noise-sensitive receptors. Limit unnecessary engine idling.	During all construction activities.	Field inspections	
Noise timing restrictions	MM NO-1	Limit all land-based construction activity near noise-sensitive receptors to daytime hours unless required for safety or to comply with line clearance requirements. Limit all helicopter activity to daytime hours.	During all construction activities.	Review documentation & field inspections	
Nighttime work	MM NO-1	Install and maintain temporary sound barriers where nighttime work is conducted within 1,000 feet of sensitive receptors. Manage noise from backup alarms on trucks used during nighttime work as described.	During all construction activities.	Review documentation	
Flagger and warning signage	MM TRA-1	Position flagger and warning signage for pedestrians traveling between staging areas 2a and 2b and other locations on Bay Trail where construction and overhead reconductoring activities occur.	During all construction activities.	Review documentation & field inspections	
SFPUC service road flagger and lane closures	MM TRA-1	Position flagger for vehicles turning left into or out of the SFPUC service road. Implement lane closures during off-peak traffic hours.	During all construction activities.	Review documentation & field inspections	

Notes:

^a The requirement summaries provided in this table are based on APMs and MMs provided in Appendix B or from permits identified in Table C-1. Important details may not be included in the summaries. Refer to the requirement sources for a complete description of the requirements.

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Table C-4 Requirements After Construction

Requirement	Requirement Source	PG&E Requirement Summary ^a	Timeframe	CPUC Verification and Monitoring Methods	Status
Plans					
RWQCB Corrective Action Plan	401 Permit	If post-construction monitoring indicates that beneficial uses have been, or have the potential to be, adversely affected, prepare a Corrective Action Plan and implement all remedial measures.	Upon discovery of an adverse effect to a beneficial use of a jurisdictional water.	Review documentation	
Documentation and Reporting					
RWQCB Annual Project Status Report	401 Permit	Submit an Annual Project Status Report to the RWQCB	Each year by January 31 during construction, commencing the calendar year after issuance of the 401 permit.	Review documentation	
RWQCB Notice of Project Construction Completion	401 Permit	Submit a Notice of Project Construction Completion to the RWQCB, containing an As-Built Report, post-construction photographs, and site map.	Within 60 days of construction completion.	Review documentation	
RWQCB Annual Monitoring Reports	401 Permit	Monitor temporarily impacted areas and submit annual monitoring reports to RWQCB with the contents specified in the 401 permit.	By January 31 of each monitoring year, for a minimum a 3-year period. The first monitoring year commences in the calendar year after completing the Project.	Review documentation	
California Ridgway's rail and salt marsh harvest mouse compensatory mitigation	APM BIO-2	Secure compensatory mitigation for California Ridgway's rail and salt marsh harvest mouse at the specified ratios.	Following impacts to designated habitat.	Review documentation	
Invasive plant monitoring and reporting	MM BIO-2	Conduct post-construction monitoring of disturbed soil for invasive plants in the spring following construction completion, and report findings to the described agencies.	The spring following construction completion.	Review documentation	

Notes:
^a The requirement summaries provided in this table are based on APMs and MMs provided in Appendix B or from permits identified in Table C-1. Important details may not be included in the summaries. Refer to the requirement sources for a complete description of the requirements.

**Appendix D Plan Roles and Contact Information
(Confidential)**

MITIGATION MONITORING, COMPLIANCE, AND REPORTING PLAN

Table D-1 PG&E Compliance Team and Contact Information

Plan Role	Name, Organization, Title	Contact Information
Environmental Leads		
PG&E Project Manager		Email: Phone:
Compliance Manager		Email: Phone:
Compliance Supervisor		Email: Phone:
Lead Environmental Inspector		Email: Phone:
Environmental Inspector		Email: Phone:
Public Liaison/ Outreach Specialist		Email: Phone:
Specialty Monitors		
Qualified Biologist		Email: Phone:
Qualified Archeologist		Email: Phone:
Qualified Paleontologist		Email: Phone:
Qualified SWPPP Developer/Practitioner		Email: Phone:
Construction Leads		
Construction Superintendent		Email: Phone:
Construction Foreman		Email: Phone:

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Table D-2 CPUC Monitoring Team and Contact Information

Plan Role	Name, Organization, Title	Contact Information
CPUC Project Manager		Email: Phone:
Monitoring Manager		Email: Phone:
Lead Environmental Monitor		Email: Phone:
Environmental Monitor		Email: Phone:
Environmental Monitor		Email: Phone:
Biological Specialist		Email: Phone:
Biological Specialist		Email: Phone:
Cultural Specialist		Email: Phone: