

## 5.0 MITIGATION MONITORING PROGRAM

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1 The California State Lands Commission (CSLC) is the lead agency under the California  
2 Environmental Quality Act (CEQA) for the PG&E Line 114, Line 114-1, and Line SP4Z  
3 Pipeline Decommissioning Project (Project). In conjunction with approval of this Project,  
4 the CSLC adopts this Mitigation Monitoring Program (MMP) for implementation of  
5 mitigation measures (MMs) for the Project to comply with Public Resources Code  
6 section 21081.6, subdivision (a) and State CEQA Guidelines sections 15091,  
7 subdivision (d), and 15097.

8 The Project authorizes Pacific Gas and Electric Company (PG&E or Applicant) to  
9 decommission and remove three pipelines (Line 114, Line 114-1, and Line SP4Z) in  
10 accordance with the terms and conditions of its existing CSLC Lease No. PRC 5438.1E.

### 11 5.1 PURPOSE

12 It is important that significant impacts from the Project are mitigated to the maximum  
13 extent feasible. The purpose of a MMP is to ensure compliance and implementation of  
14 MMs; this MMP shall be used as a working guide for implementation, monitoring, and  
15 reporting for the Project's MMs.

### 16 5.2 ENFORCEMENT AND COMPLIANCE

17 The CSLC is responsible for enforcing this MMP. The Project Applicant (PG&E) is  
18 responsible for the successful implementation of and compliance with the MMs  
19 identified in this MMP. This includes all field personnel and contractors working for the  
20 Applicant.

### 21 5.3 MONITORING

22 The CSLC staff may delegate duties and responsibilities for monitoring to other  
23 environmental monitors or consultants as necessary. Some monitoring responsibilities  
24 may be assumed by other agencies, such as affected jurisdictions, cities, and/or the  
25 California Department of Fish and Wildlife (CDFW). The CSLC and/or its designee shall  
26 ensure that qualified environmental monitors are assigned to the Project.

#### 27 5.3.1 Environmental Monitors

28 To ensure implementation and success of the MMs, an environmental monitor must be  
29 on site during all Project activities that have the potential to create significant  
30 environmental impacts or impacts for which mitigation is required. Along with the CSLC  
31 staff, the environmental monitor(s) are responsible for:

- 1 • Ensuring that the Applicant has obtained all applicable agency reviews and  
2 approvals;
- 3 • Coordinating with the Applicant to integrate the mitigation monitoring procedures  
4 during Project implementation (for this Project, many of the monitoring  
5 procedures shall be conducted during the deconstruction phase); and
- 6 • Ensuring that the MMP is followed.

7 The environmental monitor shall immediately report any deviation from the procedures  
8 identified in this MMP to the CSLC staff or its designee. The CSLC staff or its designee  
9 shall approve any deviation and its correction.

### 10 **5.3.2 Workforce Personnel**

11 Implementation of the MMP requires the full cooperation of Project personnel and  
12 supervisors. Many of the MMs require action from site supervisors and their crews. The  
13 following actions shall be taken to ensure successful implementation.

- 14 • Relevant mitigation procedures shall be written into contracts between the  
15 Applicant and any contractors.
- 16 • For this Project, a Worker Environmental Awareness Program (WEAP) (under  
17 **MM BIO-1**) shall be implemented and all personnel required to participate.

### 18 **5.3.3 General Reporting Procedures**

19 A monitoring record form shall be submitted to the Applicant, and once the Project is  
20 complete, a compilation of all the logs shall be submitted to the CSLC staff. The CSLC  
21 staff or its designated environmental monitor shall develop a checklist to track all  
22 procedures required for each MM and shall ensure that the timing specified for the  
23 procedures is followed. The environmental monitor shall note any issues that may occur  
24 and take appropriate action to resolve them.

### 25 **5.3.4 Public Access to Records**

26 Records and reports are open to the public and would be provided upon request.

## 27 **5.4 MITIGATION MONITORING TABLE**

28 This section presents the mitigation monitoring table (Table 5-1) for Aesthetics, Air  
29 Quality, Biological Resources, Cultural and Paleontological Resources, Geology and  
30 Soils, Greenhouse Gas Emissions, Hazards and Hazardous Materials, Hydrology and  
31 Water Quality, Noise, Recreation, and Transportation/Traffic. All other environmental

1 disciplines were found to have less than significant or no impacts and are, therefore, not  
2 included below. The table lists the following information by column:

- 3 • Impact (impact number, title, and impact class);
- 4 • Mitigation [or Applicant-proposed] measure (full text of the measure);
- 5 • Location (where impact occurs and mitigation measure should be applied);
- 6 • Monitoring/reporting action (action to be taken by monitor or Lead Agency);
- 7 • Timing (before, during, or after construction; during operation, etc.);
- 8 • Responsible agency; and
- 9 • Effectiveness criteria (how the agency can know if the measure is effective).

**Table 5-1. Mitigation Monitoring Program**

Potential Impact	Mitigation Measure (MM)	Location	Monitoring / Reporting Action	Timing	Responsible Party	Effectiveness Criteria
<b>Aesthetics</b>						
<b>Nighttime Lighting</b>	Implement <b>MM N-1: Construction Timing</b> (see below).					
<b>Air Quality</b>						
<b>Project Emissions</b>	<p><b>MM AQ-1: Air Pollutant Control Measures.</b> Pacific Gas and Electric shall include emission reduction measures in the Project plans and specifications that reduce the emission of criteria air pollutants. These shall include:</p> <ul style="list-style-type: none"> <li>• Harborcraft such as derricks, barges and tug boats shall meet the most stringent U.S. Environmental Protection Agency emission standards in place at the time of bid (Tier II for marine engines and non-road engines over 750 horsepower (hp), Tier III for all other engines);</li> <li>• Portable equipment with engines 50 hp and over shall be permitted through the California Air Resources Board's Portable Equipment Registration Program;</li> <li>• Diesel oxidation catalysts and/or catalyzed diesel particulate traps shall be used;</li> <li>• High-pressure fuel injectors on diesel-powered equipment shall be used; and</li> <li>• Equipment shall be maintained according to manufacturer specifications.</li> </ul>	Onshore and offshore Project areas	Compliance monitoring	During all work activities	PG&E and APCD	Reduce potential emissions from Project equipment
	<p><b>MM AQ-2: Dust Control Measures.</b> Pacific Gas and Electric shall implement the Bay Area Air Quality Management District's "basic measures" for dust control at construction sites, as needed, during soil excavation. The basic measures would include the following:</p> <ul style="list-style-type: none"> <li>• Water all active construction areas at least twice daily.</li> <li>• Cover all trucks hauling soil, sand, and other</li> </ul>	Onshore and Offshore Project areas	Compliance monitoring	During all work activities	PG&E and APCD	Reduce dust from Project activities

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	<p>loose materials or require all trucks to maintain at least 2 feet of freeboard.</p> <ul style="list-style-type: none"> <li>• Pave, apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas and staging areas at construction sites.</li> <li>• Sweep daily (with water sweepers) all paved access roads, parking areas, and staging areas at construction sites.</li> <li>• Sweep streets daily (with water sweepers) if visible soil material is carried onto adjacent public streets.</li> <li>• Construction equipment (e.g., excavator) shall be inspected before leaving the site to ensure that soil is not adhering to tires or other vehicle parts. Vehicles shall be brushed to remove loose dirt, as necessary. Manual sweeping and housekeeping shall be performed as needed to keep dirt off of roadways.</li> </ul>					
<b>Biological Resources</b>						
<b>Worker Environmental Awareness</b>	<p><b>MM BIO-1: Worker Environmental Awareness Program (WEAP).</b> A California State Lands Commission (CSLC)-approved biologist shall conduct pre-construction WEAP training for work crew members prior to any construction activities and periodic training if new crew members report to the Project. Training materials shall be submitted to CSLC staff for approval 3 weeks prior to commencement of Project activities. The WEAP shall include a discussion of the potential presence of special-status species and habitats within the Project area, and protection measures to ensure species are not</p>	Onshore and offshore Project areas	Compliance monitoring	During all work activities	PG&E	Increase worker awareness of Project area and potential environmental impacts and responses

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Potential Impact	Mitigation Measure (MM)	Location	Monitoring / Reporting Action	Timing	Responsible Party	Effectiveness Criteria
	impacted by Project activities. Interpretation shall be provided for non-English speakers.					
<b>Impacts to Biological Species</b>	<p><b>MM BIO-2: Biological Compliance Monitoring Program.</b> Prior to the commencement of offshore activities, Pacific Gas and Electric (PG&amp;E) shall submit a Project-specific Biological Compliance Monitoring Program to California State Lands Commission (CSLC) staff for review and approval 60 days prior to decommissioning activities. The Program shall indicate the appropriate number of CSLC-approved biologists to conduct monitoring for each phase of the Project. At a minimum, the monitor(s) shall:</p> <ul style="list-style-type: none"> <li>• Monitor the work area for special-status-species prior to daily construction. If western pond turtle and giant garter snake are present and require removal to avoid harm, the California Department of Fish and Wildlife (CDFW) and/or the U.S. Fish and Wildlife Service (USFWS) shall be notified and a qualified wildlife biologist shall be employed to trap individuals in accordance with methods approved by the CDFW/USFWS. A relocation site shall be identified by the wildlife biologist, in consultation with the CDFW/USFWS, and the individual shall be relocated.</li> <li>• Record all work activities on a daily basis.</li> <li>• Ensure Project compliance with all agency conditions and mitigation measures that could potentially affect biological resources.</li> <li>• If necessary, issue stop work orders, and ensure, in conjunction with the</li> </ul>	Onshore and offshore Project areas	Pre-Project biological surveys, agency communication, daily compliance, and final report.	Prior to and throughout all Project work activities	PG&E and the approved biological consultant in accordance with CDFW, USFWS, CSLC and other agencies as necessary	Reduce potential impacts to biological species

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Potential Impact	Mitigation Measure (MM)	Location	Monitoring / Reporting Action	Timing	Responsible Party	Effectiveness Criteria
	<p>decommissioning contractor staff and PG&amp;E staff, that non-compliance remedies are fully implemented.</p> <ul style="list-style-type: none"> <li>• Conduct daily water quality monitoring.</li> <li>• Prepare a final monitoring report for submittal to CSLC staff within 30 days of Project completion.</li> </ul>					
<b>Impacts to Special-Status Plant Species</b>	<p><b>MM BIO-3: Preconstruction Surveys for Special-Status Plant Species.</b> Prior to Project initiation, a qualified botanist shall survey the Project site to identify special-status plants. The surveys would be conducted during the appropriate blooming period. If a special-status plant or stand is found, it shall be flagged, and the California Department of Fish and Wildlife (CDFW) and/or the U.S. Fish and Wildlife Service (USFWS), and California State Lands Commission (CSLC) staff shall be notified. If impacts cannot be avoided by isolating the plant from the work area by temporary fencing or other means, with concurrence of the resource agencies, a qualified botanist shall be consulted to identify an appropriate location for relocating the plants, or for temporarily holding them for future restoration of the site, or to collect seeds or cuttings for use during restoration. A copy of the preconstruction survey shall be submitted to CDFW, USFWS, and CSLC staffs prior to Project initiation. If special-status plants are observed during Project surveys, Pacific Gas and Electric shall submit California Natural Diversity Database (CNDDB) forms to the CDFW Biogeographic Data Branch (CNDDB@dfg.ca.gov) with all pre-construction survey data within five</p>	Onshore Project areas	Pre-Project biological surveys, agency communication, daily compliance, and final report	Prior to and throughout all onshore work activities	PG&E and the approved biological consultant in accordance with CDFW, USFWS, CSLC and other agencies as necessary	Reduce potential impacts to special status plant species

**Table 5-1. Mitigation Monitoring Program**

Potential Impact	Mitigation Measure (MM)	Location	Monitoring / Reporting Action	Timing	Responsible Party	Effectiveness Criteria
	working days of the sighting and shall provide CDFW's Bay Delta Region with copies of the CNDDDB forms and survey maps.					
<b>Impacts to Delta Smelt, Green Sturgeon, Salmonids, Longfin Smelt, Sacramento Splittail, and Sacramento Perch</b>	<b>MM BIO-4: In-Water Work Windows and Protections.</b> The Project shall conduct in-water construction activities within the aquatic work windows established by the National Marine Fisheries Service, U.S. Fish and Wildlife Service, and California Department of Fish and Wildlife for delta smelt, southern distinct population segment (DPS) of green sturgeon, California Central Valley DPS of steelhead trout, Central Valley fall-run, late fall-run, spring-run, and Sacramento River winter-run Chinook salmon evolutionary significant units. To avoid impacts to critical life stages of these species, all in-water Project construction shall occur between August 1 and October 31 unless an extension is granted from the agencies listed above. In addition, no activities that would entrain or impinge fish shall be used.	Offshore and near-shore Project areas	Pre-Project scheduling, biological surveys, agency communication, daily compliance, and final report	Prior to and throughout all offshore and near shore work activities	PG&E and the approved biological consultant in accordance with CDFW, USFWS, CSLC and other agencies as necessary	Reduce potential impacts to sensitive fish species
	Implement <b>MM BIO-2: Biological Compliance Monitoring Program</b> (see above) Implement <b>MM WQ-1: Surface Water Protection</b> (see below)					
<b>Temporary Construction Impacts to Western Pond Turtle and Giant Garter Snake</b>	<b>MM BIO-5: Preconstruction Surveys for Western Pond Turtle and Giant Garter Snake.</b> A pre-construction survey for western pond turtle and giant garter snake shall be conducted within 24 hours prior to construction to ensure that individuals are not present in the work area. A copy of the survey report shall be submitted to the U.S. Fish and Wildlife Service (USFWS), the California Department of Fish and Wildlife, and California State Lands Commission staffs prior to Project initiation.	Offshore and near-shore Project areas	Pre-Project scheduling, biological surveys, agency communication, daily compliance, and final report	Prior to and throughout all offshore and near shore work activities	PG&E and the approved biological consultant in accordance with CDFW, USFWS, CSLC and other agencies as necessary	Reduce potential impacts to western pond turtle and giant garter snake



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Potential Impact	Mitigation Measure (MM)	Location	Monitoring / Reporting Action	Timing	Responsible Party	Effectiveness Criteria
	The Project area shall be re-inspected if a lapse in construction activity of 2 weeks or greater has occurred. Project activities occurring in potential giant garter snake habitat shall be conducted within the giant garter snake active period of May 1 - October 1. If terrestrial construction is to take place between October 2 and April 30, the USFWS Sacramento Office shall be contacted to see if additional surveys are required to minimize take.					
	<b>MM BIO-6: Temporary Exclusion Fencing.</b> The construction area shall be delineated with high visibility temporary fencing at least 4 feet in height to prevent encroachment of construction personnel and equipment onto any sensitive areas between the north shoulder of the lower levee road and the grassland and wetland areas north of the road during Project work activities. Such fencing shall be erected to assure no disturbance of wetland habitat that could provide habitat for special-status plants and wildlife. The fencing shall be inspected and maintained daily until completion of the proposed action. The fencing shall be removed only when all construction equipment is removed from the site. Actions within the Project area shall be limited to authorized vehicle and equipment operation on existing roads. No Project activities shall occur outside the delineated Project construction area.	Offshore and near-shore Project areas	Pre-Project scheduling, biological surveys, agency communication and daily compliance	Prior to and throughout all offshore and near shore work activities	PG&E and the approved biological consultant in accordance with CDFW, USFWS, CSLC and other agencies as necessary	Reduce potential impacts to wetland habitat
<b>Temporary Construction Impacts to</b>	<b>MM BIO-7: Preconstruction Surveys for Swainson's Hawk.</b> For work that begins between March 1 and September 15, a	All Project areas within 0.5	Pre-Project scheduling, biological	Prior to and throughout all Project work	PG&E and the approved biological	Reduce potential impacts to

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Potential Impact	Mitigation Measure (MM)	Location	Monitoring / Reporting Action	Timing	Responsible Party	Effectiveness Criteria
<p><b>Swainson's Hawk</b></p>	<p>qualified biologist with expertise in Swainson's hawk, shall conduct surveys of potential nesting habitat within 0.5 mile of any earth-moving activities prior to initiation of such activities. Surveys shall be conducted during the recommended survey periods for Swainson's hawk in accordance with the <i>Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley</i> (Swainson's Hawk Technical Advisory Committee 2000). The proposed survey methodology shall be submitted to the California Department of Fish and Wildlife (CDFW) for review and approval, with a copy to California State Lands Commission (CSLC) staff, a minimum of 15 days prior to the proposed start of survey activities.</p> <p>If nesting Swainson's hawks are observed, all Project-related activities with the potential to cause nest abandonment or forced fledging of young within a minimum of 0.5 mile of nesting hawks shall be avoided between March 1 and September 15. Pacific Gas and Electric shall be required to obtain a California Endangered Species Act permit from the CDFW if Project activities with the potential to cause disturbance to nesting Swainson's hawks are proposed to be conducted within the 0.5 mile buffer. A copy of the survey report shall be submitted to the CDFW and CSLC staffs prior to Project initiation.</p> <p>If construction work begins after September 15 and ends before March 1 (outside of the breeding season), impacts to the Swainson's</p>	<p>mile of earth moving activities</p>	<p>surveys, agency communication, daily compliance, and final report</p>	<p>activities conducted between March 1 and September 15</p>	<p>consultant in accordance with CDFW, USFWS, CSLC and other agencies as necessary</p>	<p>Swainson's hawk</p>

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Potential Impact	Mitigation Measure (MM)	Location	Monitoring / Reporting Action	Timing	Responsible Party	Effectiveness Criteria
	hawk would be avoided. Surveys would not be required for work conducted during this part of the year.					
<b>Temporary Construction Impacts to California Black Rail</b>	<p><b>MM BIO-8: Preconstruction Survey for California Black Rail.</b> If work is scheduled to occur during California black rail breeding season (February 1 through August 15), a qualified biologist shall conduct a breeding season survey to identify nesting locations of California black rail. Surveys shall be conducted between February 1 and August 1 in accordance with accepted protocols. A copy of the survey report shall be submitted to the California Department of Fish and Wildlife (CDFW) and California State Lands Commission staffs prior to initiation of the Project.</p> <p>If active nests are observed, work within 250 feet of any nest location shall not occur until August 15, unless a variance is approved by the CDFW and a biological monitor is present and has the authority to stop work if nesting rails are disturbed by construction activities.</p> <p>If construction occurs between August 15 and February 1, a preconstruction survey would not be required.</p>	All Project areas	Pre-Project scheduling, biological surveys, agency communication, daily compliance, and final report	Prior to and throughout all Project work activities conducted between February 1 and August 15	PG&E and the approved biological consultant in accordance with CDFW, USFWS, CSLC and other agencies as necessary	Reduce potential impacts to California black rail
<b>Destruction of Native and Migratory Bird Nests</b>	<p><b>MM BIO-9: Preconstruction Survey and Minimization Measures for Nesting Birds.</b> The following measures shall be implemented prior to and during construction activities to reduce Project-related impacts to active bird nests and to reduce the potential for construction activities to interrupt breeding and rearing behaviors of birds:</p> <ul style="list-style-type: none"> <li>• A preconstruction survey shall be conducted</li> </ul>	All Project areas	Pre-Project scheduling, biological surveys, agency communication, daily compliance, and final	Prior to and throughout all Project work activities conducted between February 1 and August 15	PG&E and the approved biological consultant in accordance with CDFW, USFWS, CSLC and other	Reduce potential impacts to breeding bird species

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Potential Impact	Mitigation Measure (MM)	Location	Monitoring / Reporting Action	Timing	Responsible Party	Effectiveness Criteria
	<p>to determine the presence of nesting birds if ground clearing or construction activities are initiated during the breeding season (February 1 through September 15). The Project site and potential nesting areas within 500 feet of the site shall be surveyed 14 to 30 days prior to the initiation of construction. Surveys shall be performed by a qualified biologist or ornithologist to verify the presence or absence of nesting birds. A copy of the survey report shall be submitted to the California Department of Fish and Wildlife (CDFW) and California State Lands Commission staffs prior to Project initiation.</p> <ul style="list-style-type: none"> <li>• Construction shall not occur within a 500 foot buffer surrounding nests of raptors or a 250 foot buffer surrounding nests of migratory birds.</li> <li>• If construction within these buffer areas is required, or if nests must be removed to allow continuation of construction, then approval must be obtained from the CDFW.</li> <li>• If construction activities begin after September 15 and end before February 1, impacts to nesting and breeding birds would be avoided, and surveys would not be required.</li> </ul>		report		agencies as necessary	
<b>Disturbance of Sensitive Natural Communities</b>	<p>Implement <b>MM BIO-7: Preconstruction Survey for Swainson’s Hawk</b> (see above)                      Implement <b>MM BIO-8: Preconstruction Survey for California Black Rail</b> (see above)                      Implement <b>MM WQ-1: Surface Water Protection</b> (see below)</p> <p>Implement <b>MM BIO-4: In-Water Work Windows and Protections</b> (see above)                      Implement <b>MM BIO-5: Preconstruction Surveys for Western Pond Turtle and Giant Garter Snake</b> (see above)                      Implement <b>MM WQ-1: Surface Water Protection</b> (see below)</p>					

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Potential Impact	Mitigation Measure (MM)	Location	Monitoring / Reporting Action	Timing	Responsible Party	Effectiveness Criteria
Temporary Construction Impacts to Wetlands and Waters of the U.S.	Implement <b>MM WQ-1: Surface Water Protection</b> (see below)					
Interfere substantially with the movement of any native species or migratory wildlife	Implement <b>MM BIO-4: In-Water Work Windows and Protections</b> (see above)					
<b>Cultural and Paleontological Resources</b>						
Potential Impacts to Previously Unidentified Cultural Resources	<b>MM CUL-1: Discovery of Previously Unknown Cultural Resources.</b> Should additional cultural materials be uncovered during Project implementation, Project activities shall cease within 100 feet of the find and a Cultural Resources Specialist and California State Lands Commission (CSLC) staff shall be contacted immediately. The location of any such finds must be kept confidential and measures should be taken to ensure that the area is secured to minimize site disturbance and potential vandalism. Additional measures to meet these requirements, after a qualified Cultural Resources Specialist has been notified, include assessment of the nature and extent of the resource, including its possible eligibility for listing in the National Register of Historic Places, and subsequent recordation and notification of relevant parties based upon the results of the assessment. Title to all abandoned shipwrecks, archaeological sites, and historic or cultural resources on or in the	All Project areas	Reporting, notification and follow-up correspondence between agencies and PG&E if resources are encountered	Prior to and throughout any onshore work activities as necessary	PG&E and agencies as required	Reduce potential impacts to onshore cultural resources

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Potential Impact	Mitigation Measure (MM)	Location	Monitoring / Reporting Action	Timing	Responsible Party	Effectiveness Criteria
	tide and submerged lands of California is vested in the State and under the jurisdiction of the CSLC. The final disposition of archaeological, historical, and paleontological resources recovered on State lands under the jurisdiction of the CSLC must be approved by the Commission.					
<b>Discovery of Human Remains</b>	<b>MM CUL-2: Unanticipated Discovery of Human Remains.</b> If human remains are encountered, all provisions provided in California Health and Safety Code section 7050.5 and California Public Resources Code section 5097.98 shall be followed. Work shall stop within 100 feet of the discovery and a qualified Cultural Resources Specialist must be contacted immediately, who shall consult with the County Coroner. In addition, California State Lands Commission staff shall be notified. If human remains are of Native American origin, the County Coroner shall notify the Native American Heritage Commission within 24 hours of this determination and a Most Likely Descendent shall be identified. No work is to proceed in the discovery area until consultation is complete and procedures to avoid and/or recover the remains have been implemented.	All Project areas	Reporting, notification and follow-up correspondence between agencies and PG&E if resources are encountered	Prior to and throughout any onshore work activities as necessary	PG&E and agencies as required	Reduce potential impacts to unanticipated human remains
<b>Greenhouse Gas</b>						
<b>Project GHG Emissions</b>	Implement <b>MM AQ-1: Air Pollutant Control Measures</b> (see above)					

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Potential Impact	Mitigation Measure (MM)	Location	Monitoring / Reporting Action	Timing	Responsible Party	Effectiveness Criteria
<b>Hazards and Hazardous Materials</b>						
<b>Risk of Water or Soil Contamination</b>	<p><b>MM HAZ-1: Oil Spill Response Plan (OSRP).</b> Pacific Gas and Electric shall submit a Project-specific OSRP to California State Lands Commission staff 60 days prior to commencement of Project activities, for review and approval. At a minimum, the Project-specific OSRP shall:</p> <ul style="list-style-type: none"> <li>Clearly identify the responsibilities of onshore and offshore contractors prior to and during an unanticipated release of oil or other hydrocarbon;</li> <li>List and identify the location(s) of oil spill response equipment (including booms) onshore and offshore onboard Project vessels;</li> <li>List response times for deployment;</li> <li>Require that petroleum-fueled equipment on the main deck of all vessels have drip pans or other means of collecting dripped petroleum, which shall be collected and treated with onboard equipment;</li> <li>Require the primary work vessel to carry on board a minimum 400 feet of sorbent boom, 5 bales of sorbent pads at least 18-inch x18-inch square, and small powered boat for rapid deployment to contain and clean up any small spill or sheen on the water surface;</li> <li>Ensure that contracts with off-site spill response companies are in-place prior to commencement of Project activities; and</li> <li>Provide for additional containment and clean-up resources as needed.</li> </ul>	Onshore and offshore Project areas	Oil Spill Response Plan and daily compliance	At least 60 days prior to offshore project work activities and throughout and any in-water or onshore work activities	PG&E and CSLC	Reduce or eliminate potential impacts to water or soil

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Potential Impact	Mitigation Measure (MM)	Location	Monitoring / Reporting Action	Timing	Responsible Party	Effectiveness Criteria
	<p><b>MM HAZ-2: Marine Safety and Anchoring Plan (MSAP).</b> Pacific Gas and Electric (PG&amp;E) shall submit a final MSAP to California State Lands Commission staff 60 days prior to commencement of offshore activities, and all pertinent regulatory agencies including National Marine Fisheries Service and the U.S. Coast Guard Vessel Transit Safety for review and approval that describes how PG&amp;E would avoid placing anchors on sensitive ocean floor habitats and pipelines. At a minimum, the MSAP shall include the following information:</p> <ul style="list-style-type: none"> <li>• A list of all vessels that would anchor during the Project and the number and size of anchors to be set;</li> <li>• Detailed maps showing proposed anchoring points with coordinates taking into account 1) adjacent utilities, 2) tidal water currents and 3) limiting impacts to local boaters and non-project vessels;</li> <li>• A description of the navigation equipment that would be used to ensure anchors are accurately set;</li> <li>• Anchor handling procedures that would be followed to prevent or minimize anchor dragging; and</li> <li>• Training for all applicable contractors and employees on operational protocols, procedures, and directives of the MSAP.</li> </ul>	Offshore Project areas	Marine Safety and Anchoring Plan and daily compliance	At least 60 days prior to offshore project work activities and throughout and any in-water work activities	PG&E and CSLC	Reduce or eliminate potential impacts to water or soil
	<p><b>MM HAZ-3: Pre- and Post-Decommissioning Surveys.</b> A baseline riverbed debris survey shall be performed prior to the start of offshore decommissioning activities at the Project site. The baseline debris survey shall consist of a side scan sonar with 400 percent coverage</p>	Offshore Project areas	Pre- and Post- Project Survey Reports	Prior to and following in-water work activities	PG&E	Reduce or eliminate potential impacts from contaminated materials



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	<p>and a bathymetric survey of the entire underwater work site.</p> <p>Following the completion of decommissioning activities, Pacific Gas and Electric shall repeat the survey of the same underwater work site again using side-scan sonar with 400 percent coverage and bathymetry. The survey map produced from this survey shall be compared with the baseline survey and used to identify any items of riverbed debris introduced into the underwater worksite by the decommissioning operations. The contractor shall be directed to remove debris related to the decommissioning operations.</p> <p>Both the pre-decommissioning survey map and the post-decommissioning survey maps shall be provided to California State Lands Commission staff for review and approval within 60 days of survey activities.</p>					
	<p><b>MM HAZ-4: Pig/Clean Pipeline Interiors.</b> The interiors of the terrestrial and submarine pipelines shall be pigged and flushed prior to start of decommissioning activities to ensure that all contaminants inside the pipelines have been eliminated or lowered to levels below acceptable regulatory limits so that the pipelines may be opened to the river during the submarine pipeline removal process. The cleaning shall consist of a chemical wash or sand wash of the pipeline interiors. The contaminate levels of the pipeline interiors shall be tested and certified prior to the start of decommissioning and the results submitted to California State Lands Commission staff prior to initiation of Project activities.</p>	Onshore and offshore Project areas	Daily compliance	Prior to and any Project work activities	PG&E	Reduce or eliminate potential impacts to water or soil

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Potential Impact	Mitigation Measure (MM)	Location	Monitoring / Reporting Action	Timing	Responsible Party	Effectiveness Criteria
	<p><b>MM HAZ-5: Phase I Environmental Site Assessment.</b> Prior to work at the Sherman Island valve pit, an extended Phase I Environmental Site Assessment review as well as the assessment of soils would be conducted to address potential soil contamination issues at this location. Assessment results shall be submitted to California State Lands Commission staff within 1 week of completion. Any contaminated soils found onsite shall be removed and properly disposed of at an approved offsite facility.</p>	Onshore Project areas	Daily compliance and assessment result submittal	Prior to and throughout any onshore work activities as necessary	PG&E and CSLC	Reduce or eliminate potential impacts from contaminated materials
	<p><b>MM HAZ-6: Asbestos Testing.</b> Pipeline weight coatings shall be sampled and tested for the presence of asbestos prior to the submission of the Contractor Work Plan. Testing results shall be submitted to California State Lands Commission staff within 1 week of completion. If asbestos is found, an asbestos work plan shall be developed specifically for the Project and the plan shall be included in the Contractor Work Plan. The asbestos work plan shall provide specifications and procedures for proper protective clothing and personal safety equipment, emergency planning, site preparation for asbestos removal, removal of asbestos containing materials (pipe coating), disposal procedures, air monitoring, cleanup procedures, and submittals.</p>	Onshore and offshore Project areas	Daily compliance and testing result submittal	Prior to and throughout any onshore work activities as necessary	PG&E and CSLC	Reduce or eliminate potential impacts from asbestos

**Table 5-1. Mitigation Monitoring Program**

Potential Impact	Mitigation Measure (MM)	Location	Monitoring / Reporting Action	Timing	Responsible Party	Effectiveness Criteria
<b>Hydrology and Water Quality</b>						
<b>Potential Impacts to Water Quality</b>	<p><b>MM WQ-1: Surface Water Protection.</b> Pacific Gas and Electric (PG&amp;E) shall be required to implement Best Management Practices (BMPs) for reduction of surface water pollution. At a minimum, the BMPs shall include the following:</p> <ul style="list-style-type: none"> <li>• Clearing of vegetation shall be confined to the minimal area needed for construction.</li> <li>• Erosion and sediment shall be controlled with the application of materials such as silt fences and straw wattles.</li> <li>• Onshore and offshore trash management and litter control procedures shall be specified, including responsible parties, and implemented to reduce potential pollution of surface waters.</li> <li>• Practical informational materials and/or training shall be provided to employees to increase their understanding of stormwater quality, sources of pollutants, and their responsibility for reducing pollutants in stormwater.</li> <li>• The contractor shall minimize the potential for spills of chemicals, hydraulic fluid, fuels, or other hazardous materials during construction and shall have onsite emergency spill containment kit to contain and remove any spilled fluids.</li> <li>• The potential for spills from Project equipment and machinery shall be minimized by using drip pans, visqueen, or other suitable secondary containment during overnight storage within equipment lay-down areas.</li> <li>• Vessel fueling shall be required at the</li> </ul>	All Project areas	Daily compliance	Prior to and throughout all Project work activities	PG&E and the approved biological consultant in accordance with agencies as necessary	Reduce potential impacts to wetlands or other waters of the U.S.

**Table 5-1. Mitigation Monitoring Program**

Potential Impact	Mitigation Measure (MM)	Location	Monitoring / Reporting Action	Timing	Responsible Party	Effectiveness Criteria
	staging area or at an approved docking facility, and no cross-vessel fueling shall be allowed. In addition, all fuels and lubricants aboard the work vessel(s) shall have a double containment system. Chemicals used within the Project area and on work vessels shall be stored using secondary containment. <ul style="list-style-type: none"> <li>PG&amp;E shall not store fuel or oil at the proposed Project's parking and staging area upland of the work site. Fuel containment at the contractor's existing shore base may store quantities of oil and fuel.</li> </ul>					
Implement <b>MM HAZ-1: Oil Spill Response Plan</b> (see above) Implement <b>MM HAZ-2: Marine Safety and Anchoring Plan</b> (see above) Implement <b>MM HAZ-4: Pig/Clean Pipeline Interiors</b> (see above) Implement <b>MM BIO-2: Biological Compliance Monitoring Program</b> (see above) Implement <b>MM BIO-4: In-Water Work Windows and Protections</b> (see above)						
<b>Noise</b>						
<b>Impacts Associated with Increased Noise Levels</b>	<b>MM N-1: Construction Timing.</b> Onshore decommissioning work shall be conducted during daylight hours only. Monday through Friday: 7:30 a.m. to 7:00 p.m. and Saturday, Sunday, and holidays: 9:00 a.m. to 7:00 p.m.	Onshore Project area	Project scheduling and shifts	Throughout all onshore decommissioning activities	PG&E	Project schedule avoids 24 hour operations.
<b>Recreation</b>						
<b>Impacts to Offshore Recreational</b>	Implement <b>MM TRANS-1: Local Notice to Mariners</b> (see above) Implement <b>MM TRANS-2: Avoidance of Peak Hours</b> (see above) Implement <b>MM TRANS-3: Marine Safety Zones</b> (see above)					

**Table 5-1. Mitigation Monitoring Program**

Potential Impact	Mitigation Measure (MM)	Location	Monitoring / Reporting Action	Timing	Responsible Party	Effectiveness Criteria
<b>Transportation/Traffic</b>						
<b>Potential Conflicts with Existing Offshore Vessel Corridors</b>	<b>MM TRANS-1: Local Notice to Mariners.</b> A Local Notice to Mariners shall be submitted to the U.S. Coast Guard (USCG) at least 15 days prior to offshore decommissioning activities. All marine operations at the Project site shall operate in compliance with a USCG Anchor Waiver obtained specifically for the Project and shall comply with the USCG Vessel Traffic Service.	Offshore Project areas	Project scheduling and daily compliance	At least 15 days prior to construction and as necessary	PG&E in accordance with USCG protocols	Minimize potential impacts to offshore transportation areas
	<b>MM TRANS-2: Avoidance of Peak Hours.</b> Construction traffic affecting State highways shall be required to avoid a.m. and p.m. peak hours between 7:00 a.m. to 9:00 a.m. and 5:00 p.m. to 7:00 p.m.	Onshore Project areas	Project scheduling and daily compliance	Daily throughout Project activities	PG&E	Minimize potential impacts to onshore transportation areas
	<b>MM TRANS-3: Marine Safety Zones.</b> Marine safety zones shall be minimized to the extent practicable to preclude vessel traffic impacts. All vessels would be requested to maintain a 500-foot safety zone around Project buoys, or if no buoys are present, a minimum offset of 500 feet from the derrick barge.	Offshore Project areas	Project design and daily compliance	Daily throughout all offshore Project activities	PG&E in accordance with USCG protocols	Minimize potential impacts to offshore transportation areas
<b>CSLC Environmental Justice Policy</b>						
<b>Impacts to Environmental Justice Populations</b>	Implement <b>MM TRANS-1: Local Notice to Mariners</b> (see above) Implement <b>MM HAZ-2: Marine Safety and Anchoring Plan</b> (see above)					