

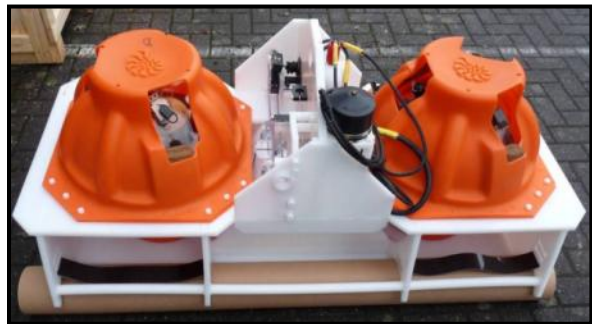
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**EXECUTIVE SUMMARY**

2 This Mitigated Negative Declaration (MND) has been prepared by the California State  
3 Lands Commission (CSLC), as lead agency under the California Environmental Quality  
4 Act (CEQA), to analyze and disclose the environmental effects associated with the  
5 Pacific Gas and Electric Company (PG&E) Point Buchon Ocean Bottom Seismometer  
6 Project (Project). As proposed, the Project would enable PG&E to collect and provide  
7 accurate real-time data on the characteristics of earthquakes near its Diablo Canyon  
8 Power Plant (DCPP) consistent with California Assembly Bill (AB) 1632 (Blakeslee,  
9 Chapter 722, Statutes of 2006), which recommends an assessment of existing nuclear  
10 power plants in California, including potential vulnerability to seismic events or due to  
11 aging of the plants. This scientific study would begin in June or July 2012 and is not to  
12 be confused with PG&E's proposed Central Coastal California Seismic Imaging Project  
13 for which the CSLC is preparing an Environmental Impact Report (State Clearinghouse  
14 Number 2011061085).

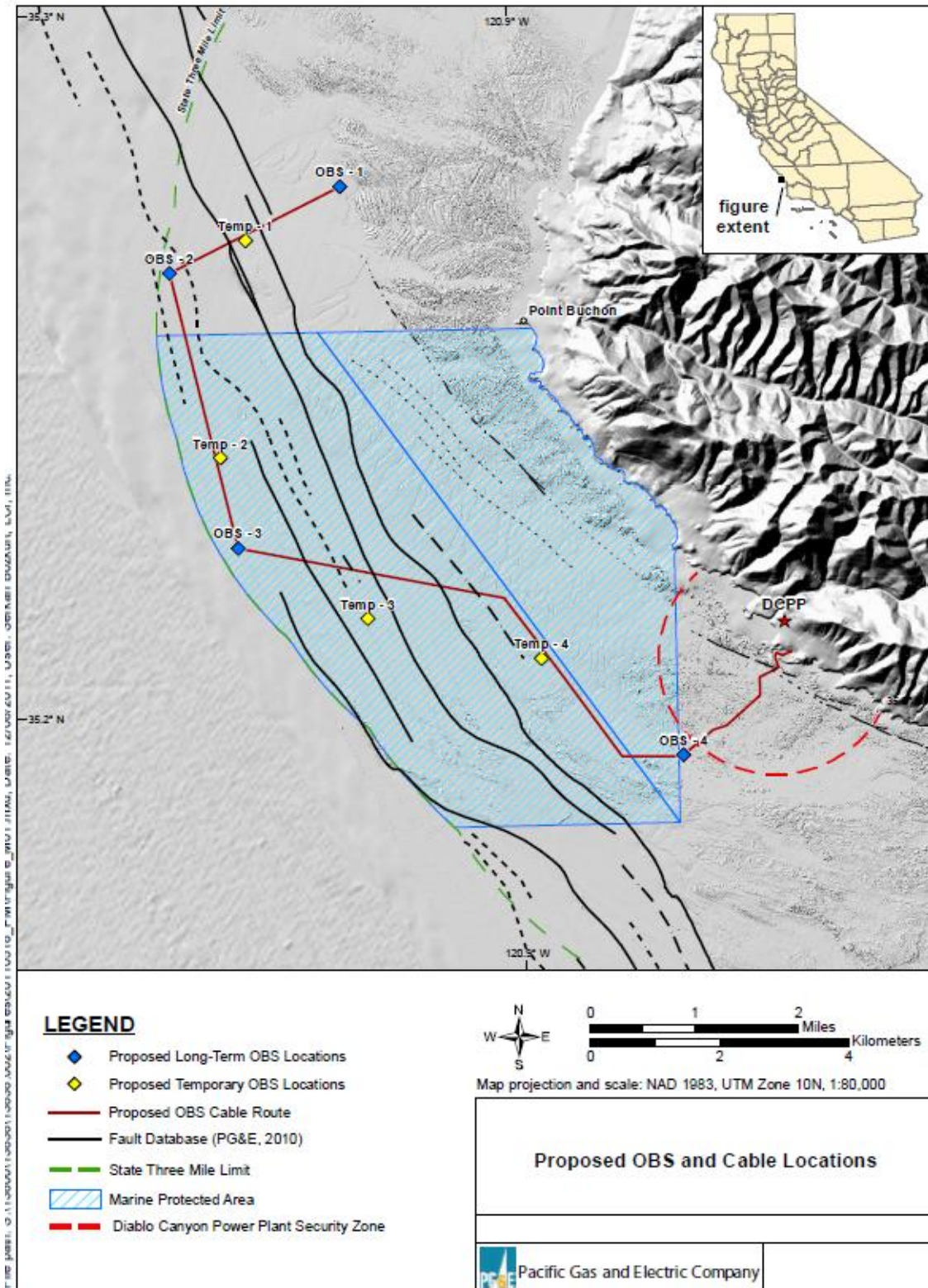
15 The proposed Project would be located along the south-central coast of California  
16 offshore Point Buchon and the DCPP, San Luis Obispo County (Figure ES-1). Scientific  
17 data-recording instruments, called Ocean Bottom Seismometer (OBS) units, and an  
18 associated power/data cable will be placed on the seafloor within the State's 3 nautical  
19 mile limit. PG&E would also extend an existing polyvinyl chloride (PVC) conduit within  
20 the intertidal area of the DCPP intake embayment; the conduit would house the  
21 power/data cable that would connect to an existing DCPP building with data recording  
22 equipment. PG&E proposes to install two types of OBS units: temporary and long-term.

- 23 • Temporary OBS units. These units would record ambient sound and seafloor  
24 movement (termed "noise" in geophysical terms) to assess background  
25 conditions. Each temporary unit consists of self-contained, two un-cabled (not  
26 connected to shore by cables) spheres that encase digitizers, data loggers, and  
27 rechargeable batteries within a 0.6  
28 by 1.2 meter (m) (2 feet [ft] by 4 ft)  
29 tubular plastic rack with a total area  
30 of approximately 0.7 m<sup>2</sup> (8 ft<sup>2</sup>).  
31 Underlying each rack are concrete  
32 ballast pieces. Two temporary OBS  
33 units will be installed for a period of  
34 two weeks. Installation of each  
35 temporary OBS unit is expected to  
36 take approximately one day to complete. These temporary OBS units, including  
37 the concrete ballast pieces, would then be removed and reinstalled at another  
38 location for an additional two-week period. After the final two weeks of sampling,  
39 the temporary units would be retrieved and the data analyzed.



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**Figure ES-1. Site Specific Project Area Including Temporary and Long-Term OBS Locations**



- 1 • **Long-term OBS Units.** The long-term OBS units would record earthquake-

2 generated ground movement and sound data and continually transmit real-time

3 data to an onshore facility for up to 10 years. Each long-term OBS unit consists

4 of a titanium-encasement, 30 centimeters (cm) (1 ft) in diameter, that encloses

5 digitizers and data loggers and is in turn covered by a 1.8 m wide by 0.3 m high

6 concrete dome that secures and protects the unit.

7 The power/data cable transmits electricity to the OBS units and data from the

8 OBS units to a shore-based recorder. The long-term OBS units will be installed

9 concurrently with the first installation of the two temporary OBS units. Installation

10 of the long-term OBS units and new cable conduit is expected to take

11 approximately two weeks to complete. The cable will be laid onto the seafloor

12 and would not be trenched or buried during installation. The only onshore new

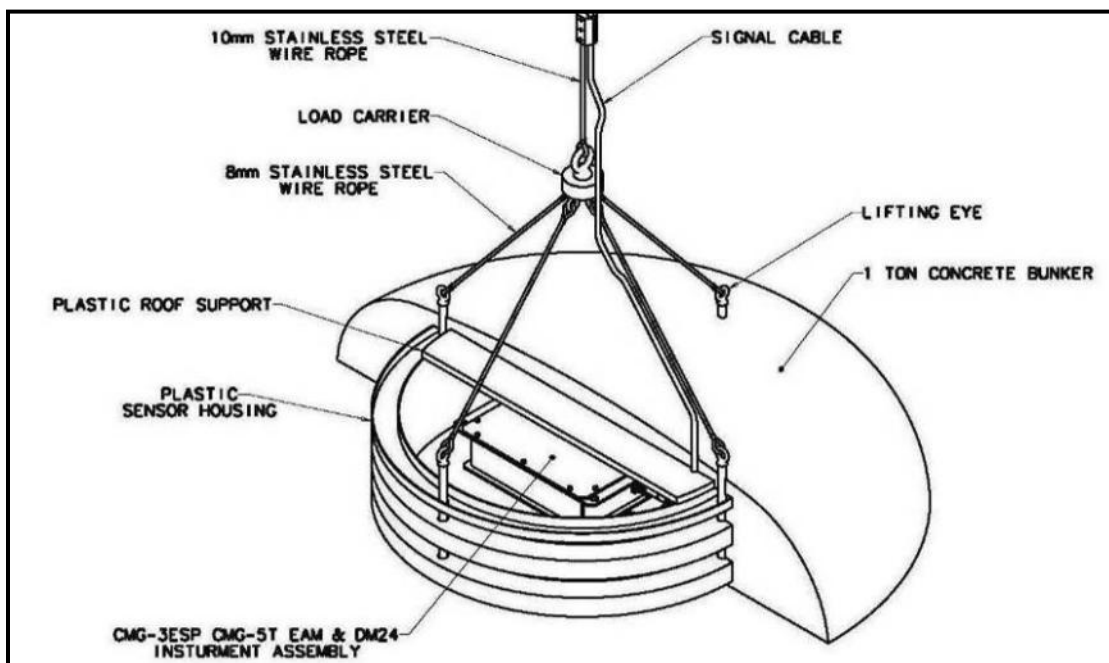
13 “structure” is an extension of an existing 10 cm (4 in) diameter PVC conduit from

14 its current location on top of the armor rock rip-rap along the east side of the

15 DCPD intake bay into the water where it would terminate in approximately 2.4 m

16 (8 ft) of water, mean lower low water (MLLW). A post-installation survey of the

17 cable and long-term and temporary OBS locations will be performed.



18 Table ES-1 shows the anticipated level of Project-related impacts to each resource as

19 determined through the environmental analysis that is detailed in this MND. Tables ES-

20 2 and ES-3 list the Project-specific measures that are designed to reduce or eliminate

21 potentially significant impacts. The measures comprise both Applicant-proposed

22 measures (APMs) and those that are recommended as a result of the environmental

23 analysis detailed in the MND. With incorporation of mitigation, all Project-related

24 impacts are reduced to less than significant.

**Table ES-1** Environmental Issues and Potential Impacts

No Impact	Less than Significant Impact	Less than Significant Impact with Mitigation
<ul style="list-style-type: none"> <li>• Aesthetics</li> <li>• Agriculture and Forestry Resources</li> <li>• Mineral Resources</li> <li>• Population and Housing</li> <li>• Recreation</li> </ul>	<ul style="list-style-type: none"> <li>• Cultural Resources</li> <li>• Hazards and Hazardous Materials</li> <li>• Geology/Soils</li> <li>• Hydrology/Water Quality</li> <li>• Land Use/Planning</li> <li>• Noise</li> <li>• Public Services</li> <li>• Transportation/Traffic</li> <li>• Utilities/Service Systems</li> </ul>	<ul style="list-style-type: none"> <li>• Air Quality/Greenhouse Gas Emissions</li> <li>• Biological Resources</li> <li>• Commercial and Recreational Fisheries</li> </ul>

**Table ES-2** Summary of Applicant Proposed Measures (APMs)

<p><b>APM-1.</b> Vessel fueling shall only occur at an approved docking facility. No cross vessel fueling shall be allowed. Marine vessels generally will contain petroleum products within tankage that is internal to the hulls of the vessels.</p>
<p><b>APM-2.</b> Project installation schedule shall be limited to June-July to avoid gray whale migration periods and when weather conditions are conducive to expeditious and safe vessel operations.</p>
<p><b>APM-3.</b> The cable has been routed to avoid rocky substrate wherever possible. Two pre-construction remotely operated vehicle (ROV) surveys of the rock habitat expected to be crossed by the cable have been conducted and information collected has been used to avoid potential impacts.</p>
<p><b>APM-4.</b> All operations shall be completed during the daytime hours; no nighttime operations are proposed.</p>
<p><b>APM-5.</b> Onboard spill response equipment and contracted services shall be sufficient to contain and recover the worst-case scenario spill of petroleum products.</p>
<p><b>APM-6.</b> To reduce the area of seafloor disturbance, no vessel anchoring is proposed, and the cable between the long-term OBS units shall not be manually buried into the sediment or trenched through the rocky substrate.</p>
<p><b>APM-7.</b> A qualified marine wildlife observer shall be onboard the <i>MV Michael Uhl</i> during the deployment of the OBS units and cable. That observer shall monitor and record the presence of marine wildlife (mammals and reptiles) and shall have the authority to cease operations if the actions are resulting in potentially significant impacts to wildlife.</p>
<p><b>APM-8.</b> All OBS units shall be located on sedimentary seafloor habitat. All Project-related material, including concrete ballast tubes, shall be removed from the seafloor after data collection is completed.</p>

**Table ES-2** Summary of Applicant Proposed Measures (APMs)

**APM-9.** The Applicant shall implement the marine wildlife contingency plan for OBS deployment, cable lay, and equipment recovery that includes measures to reduce the chance of vessel/marine mammal and reptile interactions (see Appendix H). This Plan includes: (1) the provision for marine mammal monitors approved by the National Oceanic and Atmospheric Administration Fisheries Service (NOAA Fisheries) or CSLC staff to be onboard the OBS/cable installation vessel throughout the daytime marine operations; and (2) measures that (a) specify the distance, speed, and direction transiting vessels would maintain when in proximity to a marine mammal or reptile; (b) qualifications, number, location, and authority of onboard marine mammal and reptile monitors; and (c) reporting requirements in the event of an observed impact to marine wildlife.

**APM-10.** To avoid rock features, a 275 m- (902 ft) long section of the cable from 200 m (656 ft) northwest of Station 5 to 75 m (246 ft) southeast of Station 4 shall be moved 50 m (164 ft) east of the proposed alignment, as shown in Figure 4 in Appendix I, December 2011 ROV Survey – Summary Report.

**Table ES-3** Recommended Mitigation Measures (MMs)

**MM AIR-1.** The Applicant shall implement Standard Control Measures for Construction Equipment, which include:

- Maintain all construction equipment in proper tune according to manufacturer's specifications;
- Fuel all off-road and portable diesel-powered equipment with California Air Resources Board (CARB)-certified motor vehicle diesel fuel (non-taxed version suitable for use off-road);
- Use diesel construction equipment meeting CARB's Tier 2 certified engines or cleaner off-road heavy-duty diesel engines, and comply with the State Off-Road Regulation;
- Use on-road heavy-duty trucks that meet CARB's 2007 or cleaner certification standard for on-road heavy-duty diesel engines, and comply with the State On-Road Regulation;
- Construction or trucking companies that do not have engines in their fleet that meet the engine standards identified in the above two measures (e.g., captive or Nitrogen Oxides [NO<sub>x</sub>]-exempt area fleets) may be eligible by proving alternative compliance;
- All on and off-road diesel equipment shall not idle for more than five minutes. Signs shall be posted in the designated queuing areas and/or job sites to remind drivers and operators of the five-minute idling limit;
- Diesel idling within 300 m (1,000 ft) of sensitive receptors is not permitted;
- Staging and queuing areas shall not be located within 300 m (1,000 ft) of sensitive receptors;

**Table ES-3 Recommended Mitigation Measures (MMs)**

<ul style="list-style-type: none"> <li>• Electrify equipment when feasible;</li> <li>• Substitute gasoline-powered in place of diesel-powered equipment, where feasible; and,</li> <li>• Use alternatively fueled construction equipment onsite where feasible, such as compressed natural gas, liquefied natural gas, propane or biodiesel.</li> </ul>
<p><b>MM BIO-1.</b> The Applicant shall comply with the requirements identified in the Scientific Collecting Permits for activities in the Point Buchon Marine Protected Area.</p>
<p><b>MM BIO-2.</b> The Applicant shall install the cable in such a way as to avoid areas of rocky substrate whenever feasible and perform a post-installation ROV survey upon completion of cable installation activities. The survey will document the length of cable in areas of rocky substrate and the actual amount of rocky substrate and number of organisms affected by the cable placement. A CSLC staff-approved marine biologist shall be onboard the post-lay ROV survey vessel to observe and record the effects of cable lay operations on the seafloor substrates and the biota along the entire cable route and at each OBS unit. The Applicant shall subsequently prepare a technical report and shall submit the report and video of the ROV survey to the CSLC and California Department of Fish and Game (CDFG) staffs within 90 days following the ROV survey. The report shall include all of the following:</p> <ul style="list-style-type: none"> <li>• Quantification (in square meters) of seafloor impacts and estimated numbers and species of organisms affected as well as a map of the survey route noting the location of the impacted areas included in this quantification and the video timestamp of each relevant site in the ROV survey video;</li> <li>• A restoration proposal that is based on the results of the survey and proportional to the actual amount of soft substrate and rocky habitat affected. The proposal shall contain direct restoration actions that repair or restore affected areas and/or a contribution to an ongoing restoration program in the area (e.g., SeaDoc Society Lost Fishing Gear Recovery Project), as specified by the CSLC or CDFG staffs (and/or other requesting agencies); and</li> <li>• A schedule for implementing and completing the required restoration.</li> </ul>
<p><b>MM FISH-1.</b> At the beginning of each day that in-water operations are to occur, observations shall be made along the proposed cable route and the presence of in-place commercial fishing gear located within 30 m (100 ft) of the OBS site and/or cable route shall be noted. The vessel operator shall notify the owner of the gear and request that the gear be removed and/or the cable will be re-routed to avoid the existing gear by at least 30 m (100 ft).</p>
<p><b>MM FISH-2.</b> Upon Project completion and removal of the OBS units and cable, the Applicant shall survey each OBS site and the cable route, submit a report to CSLC staff documenting the condition of any Project-related materials left on the seafloor, and remove, within six months after Project completion, any Project-related materials that CSLC staff determines pose a hazard to commercial fishing operations.</p>

1 This MND is intended to provide the CSLC and other responsible agencies with the  
2 information required to exercise their discretionary responsibilities with respect to the  
3 proposed Project. The document is organized as follows.

- 4 • Section 1 provides the Project background, Agency and Applicant information,  
5 Project Objectives and anticipated agency approvals, and a summary of the  
6 public review and comment process.
- 7 • Section 2 describes the proposed Project including its location, layout,  
8 equipment, and facilities. Section 2 also provides an overview of the Project's  
9 operations and schedule.
- 10 • Section 3 provides the Initial Study, including the environmental setting,  
11 identification and analysis of potential impacts, and discussion of various Project  
12 changes and other measures that, if incorporated into the Project, would mitigate  
13 or avoid those impacts, such that no significant effect on the environment would  
14 occur. The Initial Study was conducted by the CSLC pursuant to section 15063 of  
15 the State CEQA Guidelines.<sup>1</sup>
- 16 • Section 4 includes an environmental justice analysis and discussion consistent  
17 with CSLC Policy.
- 18 • Section 5 presents the Mitigation Monitoring Program.
- 19 • Section 6 presents information on report preparation and references.
- 20 • Appendices. Appendices include plans, data, and other information submitted by  
21 the Applicant and analyzed in this MND.
  - 22 ○ Appendix A: specification sheet on the primary project vessel, the *MV*  
23 *Michael Uhl*;
  - 24 ○ Appendix B: Spill Response Plan for the *MV Michael Uhl*;
  - 25 ○ Appendix C: air emissions calculations;
  - 26 ○ Appendix D: project-specific marine biological survey report;
  - 27 ○ Appendix E: project-specific seafloor habitat report;
  - 28 ○ Appendix F: background information on noise;
  - 29 ○ Appendix G: Essential Fish Habitat Assessment;
  - 30 ○ Appendix H: Marine Wildlife Contingency Plan; and
  - 31 ○ Appendix I: December 2011 ROV Survey - Summary Report.

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<sup>1</sup> The State CEQA Guidelines are found in California Code of Regulations, Title 14, section 15000 et seq.