

**CALENDAR ITEM  
C67**

A )	04/23/14
) Statewide	PRC 8345.9
S )	PRC 8391.9
	PRC 8392.9
	PRC 8394.9
	PRC 8536.9
	PRC 8859.9
	PRC 9007.9
	R. Greenwood
	J. Fabel
	J. DeLeon

**REVISED**

This Calendar Item has been revised from the version originally published on April 14, 2014. Based on a review of *200 kHz Commercial Sonar Systems Generate Lower Frequency Side Lobes Audible to Some Marine Mammals* by Deng ZD, Southall BL, Carlson TJ, Xu J, Martinez JJ, et al. (2014), published April 14, 2014, the “soft start” procedures in the Permit and Mitigation Monitoring Program will remain a requirement of all surveys using acoustic generating equipment.

**CONSIDER AN ADDENDUM TO A MITIGATED NEGATIVE DECLARATION,  
OFFSHORE GEOPHYSICAL PERMIT PROGRAM UPDATE, STATE  
CLEARINGHOUSE NUMBER 2013072021,  
ADOPTION OF A REVISED MITIGATION MONITORING PROGRAM, AND  
APPROVAL OF AMENDMENTS TO NON-EXCLUSIVE GEOPHYSICAL SURVEY  
PERMITS ON TIDE AND SUBMERGED LANDS UNDER THE JURISDICTION OF  
THE CALIFORNIA STATE LANDS COMMISSION**

**APPLICANTS:**

David Evans and Associates, Inc. (PRC 8345.9)  
Attention: Mr. Jonathan Dashler  
2801 SE Columbia Way, Suite 130  
Vancouver, WA 98661

Fugro Pelagos, Inc. (PRC 8391.9)  
Attention: Mr. David Millar  
3574 Ruffin Road  
San Diego, CA 92123-2597

Fugro West, Inc. (PRC 8392.9)  
Attention: Mr. Robin Villa  
4820 McGrath Street, Suite 100  
Ventura, CA 93003

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United States Geological Survey (PRC 8394.9)  
Attention: Dr. George Tate  
400 Natural Bridges Drive  
Santa Cruz, CA 95060

EcoSystems Management Associates, Inc. (PRC 8536.9)  
Attention: Dr. Hany Elwany  
2166 Avenida De La Playa, Suite E  
La Jolla, CA 92037

University Corporation at Monterey Bay (PRC 8859.9)  
Attention: Mr. Kevin R. Saunders  
100 Campus Center, Building 201  
Seaside, CA 93955-801

TerraSond, Limited (PRC 9007.9)  
Attention: Mr. Thomas Newman  
1617 South Industrial Way, Suite 3  
Palmer, AK 99645

**BACKGROUND:**

The California State Lands Commission (Commission), on September 20, 2013 (Calendar Item 121, 09/20/2013), authorized issuance of Non-Exclusive General Permits (Permits) covered under the Offshore Geophysical Permit Program (OGPP) to seven Applicants—David Evans and Associates, Inc.; Fugro Pelagos, Inc.; Fugro West, Inc.; United States Geological Survey; EcoSystems Management Associates, Inc.; University Corporation at Monterey Bay; and TerraSond, Limited—to conduct offshore low energy geophysical surveys from October 1, 2013, through September 30, 2016. These Permits are issued to qualified companies to perform geophysical surveys of the ocean bottom for purposes including, but not limited to:

- Scientific research, including surveys of near-shore sand erosion and deposition, seafloor changes, and seafloor topography and bathymetry;
- Surveying existing pipelines to assess any structural damage, corrosion, or spanning that could lead to a pollutant release;
- Identifying and avoiding seafloor hazards and faults when designing pipeline- and cable-laying projects, reducing the likelihood of dangerous leaks, ruptures and breakages;
- Surveying existing fiber-optic cables and other seafloor structures to determine how well they are buried or if they can be snagged by fishing gear;
- Developing maps of hard bottom and essential fish habitat or cultural resources indicating where the placement of permanent or temporary objects (e.g., cables or anchors) should be precluded; and

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- Searching for the locations of historic shipwrecks, other sunken boats, and airplanes.

These low energy surveys use electromechanical equipment such as echosounders, mini-sparkers, side-scan sonar, boomers, and subbottom profilers. The use of high energy water compression devices, including airguns and water guns, require project-specific environmental analysis by the Commission and are expressly prohibited in the permits. In advance of scheduled survey activity under their respective Permits, Permit holders are required to:

- Detail the specifications for equipment to be employed;
- Provide notification of operations;
- Develop Marine Wildlife Contingency Plans (MWCPs) and Oil Spill Contingency Plans (OSCPs); and
- Submit post-survey reports, including permit-required records of observations and/or incidents. Upon request, the Commission will also receive copies of all data derived from any and all surveys under the Permits.

These same Permittees are currently seeking amendments to their Permits in order to accommodate dredging-related monitoring/verification and coastal structure investigations, and also to modify the applicability of certain notification and implementation requirements, as described more fully in the following sections.

A Mitigated Negative Declaration (MND) and Mitigation Monitoring Program (MMP) were prepared by the Commission, as lead agency under the California Environmental Quality Act (CEQA) (Pub. Resources Code, § 21000 et seq.), to analyze and disclose the possible environmental effects associated with low energy geophysical survey activities conducted under the OGPP; the Commission adopted the MND and MMP on September 20, 2013 (Calendar Item 120, 09/20/2013). The MMP identifies operational procedures designed to ensure that surveys conducted under the OGPP do not cause significant impacts to the environment. These procedures include:

- Equipment sound verification by the Permittee;
- Soft start procedures;
- Prohibition on most nighttime survey operations;
- Safety zone monitoring for marine animals by approved Marine Wildlife Monitors (MWMs); and
- Operational limits within Marine Protected Areas and other designated sensitive areas.

In the six months since the Commission's adoption of the OGPP MND and MMP and approval of the OGPP Update, including the new General Permit, several Permittees

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and potential Permittees have come forward seeking clarification of and/or amendments to several of the General Permit requirements, most notably:

- The applicability of the California Air Resources Control Board's (CARB) Tier-2 engine requirements (Condition 7f);
- The requirement for two MWMs onboard the survey vessel (Condition 7h);
- The requirement for safety zone monitoring (Condition 7i); and
- The presurvey notification time of 21 days (Condition # 5).

After reviewing the requested amendments to the Permit, Commission staff concurs that a small number of minor technical changes to the Permittee-specific Permits, the General Permit, and mitigation measures (MMs) found in the MMP (Exhibit H of the General Permit) are appropriate and necessary to achieve the highest level of compliance with and the most efficient administration of the OGPP. These proposed amendments are outlined below.

**PROPOSED AMENDMENTS TO THE GEOPHYSICAL SURVEY PERMITS:**

1. Tier 2-Certified Engine Requirement (Condition 7(f), Exhibit C, and MM AIR-1). Amend Condition 7(f) and Exhibit C of the General Permit to specify that the Tier 2 requirement only applies to diesel engines.

**Explanation:** According to Section 93118.5 of the Airborne Toxic Control Measure for Commercial Harbor Craft, under Subchapter 7.5 of the Airborne Toxic Control Measures of the California Air Resources Board, only diesel engines are required to comply with the CARB Tier 2 Certification ([www.arb.ca.gov/regact/2010/chc10/frochc931185.pdf](http://www.arb.ca.gov/regact/2010/chc10/frochc931185.pdf)). Section (b), "Applicability," states the following:

*(1) Except as provided in subsections (b) and (c), this section applies to any person who sells, supplies, offers for sale, purchases, owns, operates, leases, charters, or rents any new or in-use **diesel fueled** harbor craft that is operated in any of the Regulated California Waters. (Emphasis added.)*

This amendment is simply a clarification of Condition 7f, Exhibit C, and MM AIR-1 to more precisely reflect existing law regarding what type of engines are subject to the Tier 2 engine rules; as a result, it would not create new significant environmental effects or an increase in the severity of previously identified significant effects as indicated in section 15162 of the CEQA Guidelines.

2. Marine Wildlife Monitors (Condition 7(h) and MM BIO-2). Amend Condition 7(h) of the General Permit and MM BIO-2 of the MMP to require only one MWM onboard the vessel during transit and data collection activities for surveys using active geophysical equipment operated at frequencies  $\geq$  200 kilohertz (kHz).

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**Explanation:** The OGPP currently permits surveys that use passive geophysical equipment, which does not produce acoustic energy, as well as active geophysical equipment that operates at frequencies outside of the known functional hearing range of marine mammals ( $\geq 200$  kHz). Because passive equipment does not produce sound and frequencies  $\geq 200$  kHz are not audible to marine mammals, MWMs do not need to observe safety zones, which were developed to minimize acoustic impacts as a result of geophysical equipment producing sounds that can be detected by marine mammals. Even with an operational frequency  $\geq 200$  kHz, active geophysical equipment can produce sounds at secondary frequencies that fall within the functional hearing range of, and can thus be detectable by, marine mammals; however, while these sounds may be detectable by some marine mammals, they are well below all levels that may cause physical injury (Deng ZD, Southall BL, Carlson TJ, Xu J, Martinez JJ, et al. (2014). *200 kHz Commercial Sonar Systems Generate Lower Frequency Side Lobes Audible to Some Marine Mammals*. PLoS ONE 9(4): e95315). In the MND, behavioral effects were determined to be less than significant for geophysical surveys that fall under the OGPP; survey- and species- specific factors described in the MND that would raise a behavioral impact to a significant level are not permitted under the OGPP. The potential for behavioral effects caused by sounds at secondary frequencies would not be increased as a result of the proposed Permit amendment, and would remain insignificant due to the short duration of OGPP surveys, the transit of the vessel, and the required “soft-start” procedures. These factors, taken together, make it extremely unlikely that a marine mammal would experience sound levels that would increase a behavioral effect from less than significant, even though the sound may be detected. As a result, the proposed amendment would not create new significant environmental effects or an increase in the severity of previously identified significant effects as indicated in section 15162 of the CEQA Guidelines.

To ensure protection of marine mammals from the risk of collision, the Permit will still require the presence of one MWM to observe for marine wildlife and record sightings information for surveys using equipment  $\geq 200$  kHz. If it is not feasible for a designated MWM to be on the vessel (e.g., a survey vessel is too small to accommodate an extra person), the operator can request, and Commission staff will consider, that the captain or a crew member perform this function.

3. Safety Zone Monitoring (Condition 7(i) and MM BIO-3). Amend Condition 7(i) of the General Permit and MM BIO-3 in the MMP so to not require the monitoring of safety zones for surveys using passive geophysical equipment and surveys where any and all active geophysical equipment is operated at frequencies  $\geq 200$  kHz. Safety zone monitoring will be required where any equipment is used at frequencies  $< 200$  kHz.

CALENDAR ITEM NO. **C67** (CONT'D)

**Explanation:** The OGPP currently permits surveys that use passive geophysical equipment, which does not produce acoustic energy, as well as active geophysical equipment that operates at frequencies outside of the known functional hearing range of marine mammals ( $\geq 200$  kHz). Because passive equipment does not produce sound and frequencies  $\geq 200$  kHz are not audible to marine mammals, safety zones, which were developed to minimize acoustic impacts, do not need to be monitored. Even with an operational frequency  $\geq 200$  kHz, active geophysical equipment can produce sounds at secondary frequencies that fall within the functional hearing range of, and can thus be detectable by, marine mammals; however, while these sounds may be detectable by some marine mammals, they are well below all levels that may cause physical injury (Deng, et al. (2014)). In the MND, behavioral effects were determined to be less than significant for geophysical surveys that fall under the OGPP; survey- and species- specific factors described in the MND that would raise a behavioral impact to a significant level are not permitted under the OGPP. The potential for behavioral effects caused by sounds at secondary frequencies would not be increased as a result of the proposed Permit amendment, and would remain insignificant due to the short duration of OGPP surveys, the transit of the vessel, and the required “soft-start” procedures. These factors, taken together, make it extremely unlikely that a marine mammal would experience sound levels that would increase a behavioral effect from less than significant, even though the sound may be detected. As a result, the proposed amendment would not create new significant environmental effects or an increase in the severity of previously identified significant effects as indicated in section 15162 of the CEQA Guidelines.

4. 21-Day Presurvey Notification for OGPP Surveys Associated with Dredging Activities (Condition 5 and Exhibit E). Condition 5 and Exhibit E of the Permit requires Permittees to submit the required presurvey documents (e.g., MWCP and OSCP) at least 21 calendar days prior to the proposed survey. Amend Condition 5 of the General Permit for surveys associated with dredging activities in ports, harbors, and marinas to specify:
- Conditions 5(a) and 5(e) – All presurvey notification materials must be submitted 24 hours in advance of survey activity (to the extent feasible) or before the survey commences if given a less than 24-hour notice.
  - Condition 5(c), Marine Wildlife Contingency Plan (MWCP) – Permittees must create and submit a general plan to the Commission to keep on file. The MWCP should contain special provisions for surveys that may occur in bays where harbor porpoise or other highly sensitive species are located.

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- Condition 5(d), Oil Spill Contingency Plan (OSCP) – Permittees must create and submit a general plan for each survey vessel for the Commission to keep on file.

**Explanation:** Since the approval of the OGPP MND, current and potential Permittees have expressed concerns regarding the 21-day presurvey notification requirement with respect to dredging activities that occur in ports, harbors, and marinas within the Commission’s jurisdiction. It has been brought to staff’s attention that geophysical operators are routinely given less than 24-hours’ notice to conduct surveys in support of dredging activities; therefore, compliance with the OGPP’s 21-day presurvey notification would result in the loss of work for Permittees and may/will discourage non-permitted operators from applying for a Permit. Under the OGPP, permitted operators must comply with the MMP, as well as develop MWCPs and OSCP, all of which provide protection for the environment; however, these protective measures are not enforced when such surveys are conducted by non-permitted operators.

The proposed changes to the presurvey notification process would only apply to geophysical surveys associated with dredging activities when the equipment being used is operated at a frequency  $\geq 200$  kHz; therefore, no additional environmental impacts would be expected to occur since these changes only apply to surveys operating outside the known functional hearing range of marine wildlife. The 21-day notification requirement is an OGPP General Permit condition that was inserted for administrative purposes (i.e., to allow Commission staff sufficient time to review the adequacy of the presurvey notification documents and request any additional information); it is not a MM in the MND and is not directly related to minimizing or avoiding a significant impact. All the documents required for surveys would still be required – the only difference is the “lead time” for staff review. In the limited scenario of dredging in harbors, marinas, and ports, OGPP surveys are ancillary to the dredging activities, which themselves require U.S. Coast Guard (USCG) Notice to Mariners and other means of providing notification to other boaters and recreators.

5. All other terms and conditions of the permit shall remain in effect without amendment.

**ADDENDUM TO THE MITIGATED NEGATIVE DECLARATION:**

These amendments, because they require Commission approval, also require CEQA compliance. Commission staff reviewed the proposed Permit amendments pursuant to CEQA section 21166 and the CEQA Guidelines sections 15162-15164. CEQA section 21166 prohibits a lead agency from preparing a subsequent or supplemental CEQA document unless one of three events occurs. The corresponding implementing regulation, in section 15162 of the CEQA Guidelines,

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indicates that when a MND has been adopted for a project, no subsequent document shall be prepared unless the lead agency determines certain specific circumstances are present. These circumstances only occur when there is the involvement of a new significant impact or a substantial increase in a previously identified impact. If the proposed changes do not involve a new or substantially increased significant impact resulting from a change in the project or a change in the circumstances under which a project will occur, but instead reflect minor modifications or additions, CEQA Guidelines section 15164 directs lead agencies to prepare an addendum to the CEQA document. Pursuant to CEQA Guidelines section 15164, subdivision (e), which states that lead agencies shall provide an explanation of their decision not to prepare additional environmental analysis in a subsequent document, Commission staff evaluated the changes and provides such explanation, for each of the proposed Permit amendments, above.

Based on substantial evidence gathered through examination of the MND and an analysis of the anticipated environmental consequences of the requested Permit amendments (as described above), consultation with experts at NOAA Fisheries Office of Protected Resources, subject matter experts (Brian Balcom of CSA, International), OGPP Permittees, and staff of the Natural Resources Defense Council, Commission staff determined:

- None of the events identified in CEQA section 21166 or CEQA Guidelines section 15162 has occurred or will occur due to the proposed amendments;
- Approval of the General Permit, as amended, would fall under the scope of the OGPP MND adopted by the Commission on September 20, 2013; and
- The amendments requested will affect the MMs contained in the OGPP MND and included as Exhibit H of the General Permit.

**PREREQUISITE CONDITIONS, FEES AND EXPENSES:**

Required fees, expense deposits, and other securities have been received.

**STATUTORY AND OTHER REFERENCES:**

- A. Public Resources Code section 6212.2
- B. Public Resources Code section 6826.
- C. Public Resources Code section 21080, subdivision (c).
- D. California Code of Regulations, Title 2, Article 2.9, section 2100.
- E. California Code of Regulations, Title 14, section 15074.



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**OTHER PERTINENT INFORMATION:**

1. The Permits issued on September 20, 2013, and subject to this proposed amendment are for a period of three (3) years beginning on October 1, 2013, through September 30, 2016.
2. Pursuant to the Commission's delegation of authority and the State CEQA Guidelines (Cal. Code Regs., tit.14, § 15025), Commission staff prepared a Mitigated Negative Declaration (MND) identified as CSLC MND No. 751, State Clearinghouse No. 2013072021, for the OGPP Update. The MND was prepared and circulated for public review pursuant to the provisions of CEQA, and adopted by the Commission on September 20, 2013.
3. On September 20, 2013, the Commission found that, based upon the entire record before the Commission, including the Initial Study, the MND, and the comments received in response thereto, there is no substantial evidence that the program may have a significant effect on the environment; California Code of Regulations, Title 14, section 15074, subdivision (b). A Mitigation Monitoring Program was prepared in conformance with the provisions of CEQA (Pub. Resources Code, § 21081.6).
4. Commission staff reviewed the proposed changes to the Permit and Mitigation Monitoring Program and determined that none of the events specified in section 21166 of CEQA has occurred, and therefore, no additional CEQA analysis is required. Commission staff prepared the above staff report as an addendum, to the previously adopted MND pursuant to California Code of Regulations, Title 14, section 15164, subdivision (b).
5. This activity involves lands identified as possessing significant environmental values pursuant to Public Resources Code section 6370 et seq., but such activity will not affect those significant lands. Based upon the staff's consultation with the persons nominating such lands and through the CEQA review process, it is the staff's opinion that the permits, as proposed, are consistent with their use classification.

**EXHIBITS:**

- A. Amended Permit
- B. Mitigation Monitoring Program

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**RECOMMENDED ACTION:**

It is recommended that the Commission:

**CEQA FINDING:**

1. Find that the MND, CSLC MND No. 751, State Clearinghouse No. 2013072021, adopted by the Commission on September 20, 2013, was prepared for the program pursuant to the provisions of CEQA and adequately analyze the scope of activities to be carried out under the permits to be issued under this authorization.
2. Find that the Commission reviewed and considered the information contained in the previously adopted MND along with the addendum prepared as part of the above staff report, Calendar Item 67, that the amendments to the Non-Exclusive General Permits are within the scope of the project covered by the MND and addendum, and that the previously prepared MND and addendum reflect the Commission's independent judgment and analysis.

**SIGNIFICANT LANDS INVENTORY FINDING:**

Find that this activity is consistent with the use classification designated by the Commission for the land pursuant to Public Resources Code section 6370 et seq.

**AUTHORIZATION:**

1. Adopt the above staff report as an addendum to a Mitigated Negative Declaration (MND), Offshore Geophysical Permit Program Update, State Clearinghouse Number 2013072021 and adopt a revised Mitigation Monitoring Program, enclosed as Exhibit B, for the MND.
2. Approve and authorize the amendments, as described in Exhibit C, to Non-Exclusive Geophysical Survey Permits on tide and submerged lands under the jurisdiction of the California State Lands Commission for David Evans and Associates, Inc.; Fugro Pelagos, Inc.; Fugro West, Inc.; United States Geological Survey; EcoSystems Management Associates, Inc.; University Corporation at Monterey Bay; and TerraSond, Limited.

W \_\_\_\_\_  
PRC \_\_\_\_\_

**CALIFORNIA STATE LANDS COMMISSION  
STATE OF CALIFORNIA  
SURVEY PERMIT PRC \_\_\_\_\_  
GENERAL PERMIT TO CONDUCT GEOPHYSICAL SURVEYS**

Pursuant to Division 6 of the California Public Resources Code and Title 2 of the California Administrative Code, the State of California, acting by and through the California State Lands Commission (State or CSLC) hereby issues \_\_\_\_\_ (Permittee), a non-exclusive geophysical survey permit subject to the following terms and conditions.

**TERMS AND CONDITIONS**

1. **Permit Area:** This permit covers offshore state waters, excluding inland waterways, known as Regions I, II, III, and IV, between the California-Mexico and California-Oregon borders out to three (3) nautical miles, the Regions are outlined in the map attached as Exhibit A:
  - A. **Region I** - the area between the California-Mexico border and Los Angeles/Ventura County line;
  - B. **Region II** - the area between the Los Angeles/Ventura County line and San Luis Obispo/Monterey County line;
  - C. **Region III** - the area between the San Luis Obispo/Monterey County line and Sonoma/Mendocino County line, excluding San Francisco (to the Golden Gate Bridge), San Pablo, and Suisun Bays; and
  - D. **Region IV** - the area between the Sonoma/Mendocino County line and the California-Oregon Border.
2. **Terms of Permit:** This permit shall commence on October 1, 2013 and shall continue until September 30, 2016, unless terminated sooner as provided in this permit.
3. **Scope of Activities:** Permittee shall comply with the terms of this permit whenever the equipment specified in Exhibit B is deployed or geophysical data are to be collected within the permit area. Geophysical surveys shall include seismic, gravity, magnetic, remotely operated vehicle (ROV) surveys, electrical and geochemical methods of measuring and recording spatial data associated with archaeological/cultural/paleontological research, infrastructure (e.g., pipeline and cable) inspections, dredging, marine biology, oceanography, subsurface geology, and related scientific purposes.
4. **Definitions:** As used within this permit, unless the context indicates otherwise, "CSLC staff" means the Executive Officer of the CSLC or other person designated by the Executive Officer.

5. **Presurvey Requirements:** Permittee is authorized under this permit to collect geophysical data utilizing such equipment as is set forth on Exhibit B, subject to the following conditions.
- a. Except as otherwise provided in Exhibit E, Part II, Permittee shall submit, and the CSLC staff shall receive, the required presurvey documents at least twenty-one (21) calendar days prior to the proposed survey, using the Presurvey Checklist provided as Exhibit G.
  - b. Presurvey Notices: The Permittee shall follow the complete notification procedure set forth in Exhibit E for all proposed geophysical surveys. This notice shall include the information required under Exhibit E, Section B, Contents of Notice, and in the format displayed in Exhibit F.
  - c. Marine Wildlife Contingency Plan (MWCP): Except as otherwise provided in Exhibit E, Part II, at least twenty-one (21) calendar days prior to each survey, Permittee shall prepare a MWCP for review and approval by the CSLC staff. Said plan shall include, at a minimum, measures that: (1) specify the distance, speed, and direction transiting vessels would maintain when in proximity to a marine mammal or reptile; (2) qualifications, number, location, and authority of onboard Marine Wildlife Monitors (MWMs); (3) methods of reducing noise levels generated by the geophysical equipment; (4) acoustic “safety zone(s)” radius that will be enforced by the MWMs (must be consistent with MM BIO-3 in attached Exhibit H); (5) identification of pinniped haul-out sites within or immediately adjacent to the proposed survey area; and (6) observation recording procedures and reporting requirements in the event of an observed impact to marine organisms.
    - i. For surveys within 300 meters (m) of a pinniped haul-out site, the MWCP shall further require that:
      1. The (survey) vessel shall not approach within 91 m of a haul-out site, consistent with National Marine Fisheries Service (NMFS) guidelines;
      2. Survey activity close to haul-out sites shall be conducted in an expedited manner to minimize the potential for disturbance of pinnipeds on land; and
      3. MWMs shall monitor pinniped activity onshore as the vessel approaches, observing and reporting on the number of pinnipeds potentially disturbed (e.g., via head lifting, flushing into the water).
    - ii. Qualifications of proposed MWMs shall also be submitted to the National Oceanic and Atmospheric Administration (NOAA) and CSLC staff at least twenty-one (21) calendar days in advance of the survey. Survey operations shall not commence until the CSLC staff approves the MWMs and the MWCP.
  - d. Oil Spill Contingency Plan (OSCP) (MM HAZ-1, Exhibit H): Except as otherwise provided in Exhibit E, Part II, at least twenty-one (21) calendar days prior to each survey, Permittee shall prepare and submit to the CSLC staff for review and approval an OSCP for accidental releases of petroleum and/or non-petroleum products. Said

- plan shall include, at a minimum: (1) specific steps to be taken in the event of a spill, including notification names, phone numbers, and locations of: (i) nearby emergency medical facilities, (ii) wildlife rescue/response organizations (e.g., Oiled Wildlife Care Network), (iii) containment procedures, and (iv) cleanup procedures; (2) a description of crew training and equipment testing procedures; and (3) a description, quantities and location of spill response equipment onboard the vessel.
- e. Notification of Geophysical Survey Equipment Used (See Exhibit F): Except as otherwise provided in Exhibit E, Part II, at least twenty-one (21) calendar days prior to each survey, Permittee shall submit, and the CSLC staff shall receive, a written list of the specific make and model of all such equipment Permittee intends to use and, with respect to any equipment that is to be used specifically to generate acoustical energy in order to collect data, any and all specifications regarding decibel levels (dB re 1  $\mu$ Pa), frequencies (Hz, kHz), and all other information requested in Exhibit F, as well as the length of time the equipment will operate.
    - i. If, after the list of equipment is provided by Permittee pursuant to this Section, the CSLC staff requests additional information about the listed equipment, Permittee shall promptly provide all such requested information.
    - ii. If, after receipt of the list of equipment and any information that may be requested under this Section, the CSLC staff directs Permittee that certain equipment may not be used or may be used only under certain specified circumstances or that Permittee must delay the survey until more information is provided, then Permittee shall comply with any and all such direction.
  - f. Verification of Equipment Service and/or Maintenance and Sound Output (MM BIO-6, Exhibit H): Prior to commencing survey activities and thereafter on an annual basis, Permittee shall test the low energy geophysical equipment utilized in the noticed survey to verify that the sound source levels are within manufacturer's specifications.
  - g. Proposed Operation in Marine Protected Areas (MPAs) (MM BIO-9, Exhibit H): Prior to commencing survey activities in or potentially affecting MPAs, Permittee shall coordinate with the CLSC staff, California Department of Fish & Wildlife (CDFW), and any other appropriate permitting agency regarding proposed operations within MPAs. The scope and purpose of each survey proposed within a MPA shall be defined, and an analysis of the consistency of the survey with the allowable MPA activities and the goals of the Marine Life Protection Act shall be conducted.
    - i. If deemed necessary by CDFW, Permittee will obtain a scientific collecting permit, or other appropriate authorization, to secure approval to work within a MPA, and shall provide a copy of such authorization to the CSLC staff at least twenty-one (21) calendar days prior to each survey as part of the required notification described in Exhibit E. Note that Permittee should initiate such contact with CDFW and/or other permitting

agencies well in advance of the proposed survey to ensure sufficient processing time by the agency or agencies.

- ii. CSLC staff, CDFW, and/or other permitting agencies may impose further restrictions on survey activities within MPAs generally or any specific MPA as conditions of approval.
  - h. Current Biological Information (MM BIO-1, Exhibit H): Prior to commencement of survey operations, the Permittee shall: (1) contact the NOAA Long Beach office staff and local whale watching operations and shall acquire information on the current composition and relative abundance of marine wildlife offshore; and (2) convey sightings data to the vessel operator and crew, survey party chief, and onboard MWMs prior to departure.
  - i. New Information Provided: If, subsequent to the issuance of this permit, it is the CSLC staff's opinion that evidence has emerged indicating that the location, type, length, equipment to be used, or conduct of a proposed survey, noticed under Exhibit E, herein, has the potential to cause substantial environmental impact, the CSLC staff reserves the right to impose conditions on the location, type, length, equipment to be used, or conduct of the proposed survey in order to reduce the risk of substantial environmental impact, up to and including cancellation of the survey activity.
  - j. Compliance with the Provisions of this Section: Permittee shall not perform any geophysical survey under this permit unless Permittee has complied with the provisions of this section.
6. **Multiple Use:** This permit is non-exclusive and is issued subject to all existing valid rights of the State at the date of this permit. Such rights shall not be affected by the issuance of this permit. The State shall have the right to issue additional non-exclusive survey permits and leases or other entitlement for uses, which are not inconsistent with this permit.
7. **Operations:**
- a. Permittee shall conduct all activities with due regard for the preservation of the property covered by this permit, potential environmental impacts, peak fishing seasons and with due caution to minimize damage to third parties.
  - b. Geophysical Survey Permit: Operator shall maintain a copy of its CSLC Geophysical Permit onboard for the primary survey vessel during survey operations, as well as copies of all other permits or authorizations from other Federal or State agencies (if applicable).
  - c. Daily Equipment Use Duration: Acoustic pulse-generating survey equipment shall be operated for no more than ten (10) hours total each survey day.
  - d. Nighttime Operations: Permittee shall not conduct nighttime survey operations, except, when the CSLC staff may authorize at its discretion, upon application, the Permittee to use single beam echosounders and/or passive equipment types at night

on a case-by-case basis. The CSLC staff will take into consideration the equipment specifications, location, timing, and duration of survey activity.

- e. Simultaneous Equipment Operation: When several pieces of equipment are operating simultaneously they shall be timed so that they will not be transmitting at the same time in order to avoid cumulative effects.
- f. Engine Tuning (MM AIR-1, Exhibit H): Permittee shall maintain all construction equipment in proper tune according to manufacturers' specifications; fuel all portable diesel-powered equipment with California Air Resources Board (CARB)-certified motor vehicle diesel fuel limiting sulfur content to 15 parts per million or less (CARB Diesel). Permittee shall also operate equipment in conformance with specific county air quality guidelines as described in Exhibit C.
- g. Vessel Fueling (MM HAZ-2, Exhibit H): Vessel fueling shall only occur at an approved docking facility. No cross vessel fueling shall be allowed.
- h. Marine Wildlife Monitors (MM BIO-2, Exhibit H): A minimum of two (2) qualified MWMs who are experienced in marine wildlife observations shall be onboard the survey vessel throughout both transit and data collection activities. Onboard MWMs responsible for observations during vessel transit shall be responsible for monitoring during the survey equipment operations. All visual monitoring shall occur from the highest practical vantage point aboard the survey vessel; binoculars shall be used to observe the surrounding area, as appropriate. The following exceptions apply to this condition:
  - i. For survey activities that require the collection of geophysical data of nearshore ocean bottom areas, at least twenty-one (21) calendar days prior to the commencement of survey activities, the Permittee may petition the CSLC staff for authorization to conduct survey operations with one (1) MWM aboard. The CSLC staff will evaluate such petitions on a case-by-case basis and, in granting such authorization at its discretion, will consider factors as the timing, type, and location of the survey, the size of the survey vessel, the availability of alternate vessels, and the ability of one (1) MWM to effectively monitor the safety zone(s).
  - ii. For survey activities where the only geophysical equipment used is operated at a frequency at or above 200 kHz, one (1) MWM will be required.
  - iii. MWMs will not be required aboard vessels conducting survey activities that utilize, as the only form of geophysical equipment, non-pulse or non-acoustic generating, passive survey equipment (e.g., ROV, magnetometers, gravity meters).
- i. Safety Zone Monitoring (MM BIO-3, Exhibit H): Except as provided in subdivision (k), the MWMs will survey an area (i.e., safety or exclusion zone) based on the equipment used, centered on the sound source (i.e., towfish), when the survey equipment is operating. The onboard MWMs shall have authority to stop operations

if a mammal or reptile is observed within the specified safety zone (below), or if a large concentration of diving birds/seabirds is observed in the immediate vicinity. The MWMs shall also have authority to recommend continuation or cessation of operations during periods of limited visibility (i.e., fog, rain). Periodic reevaluation of weather conditions and reassessment of the continuation/cessation recommendation shall be completed by the onboard MWMs. During operations, if a mammal or reptile's actions are observed to be irregular, the monitor shall have authority to recommend that equipment be shut down until the animal(s) moves further away from the sound source. If irregular behavior is observed, the equipment shall be shut-off and will be restarted and ramped-up to full power, as applicable, or will not be started until the animal(s) is/are outside of the safety zone or have not been observed for 15 minutes. Radial distances for the safety zone of each equipment type are as follows:

<b>Equipment Type</b>	<b>Safety Zone (radius, m)</b>
Single Beam Echosounder	50
Multibeam Echosounder	500
Side-Scan Sonar	600
Subbottom Profiler	100
Boomer System	100

- j. Soft Start (MM BIO-5, Exhibit H): The Permittee shall use a “soft start” technique at the beginning of survey activities each day (or following a shutdown) to allow any marine mammal that may be in the immediate area to leave before the sound sources reach full energy. Permittee shall initiate each piece of equipment at the lowest practical sound level, increasing output in such a manner as to increase in steps not exceeding approximately 6 decibels (dB) per 5-minute period.
- k. If the geophysical survey equipment is operated at or above a frequency of 200 kHz, safety zone monitoring/enforcement (MM BIO-3) is not required; however, if geophysical survey equipment operated at a frequency at or above 200 kHz is used simultaneously with geophysical survey equipment less than 200 kHz, then the safety zone for the equipment less than 200 kHz must be monitored.
- l. Fishing Gear Interaction (MM FISH-2, Exhibit H): To minimize interaction with fishing gear that may be present within a survey area: (1) the geophysical vessel (or designated vessel) shall traverse the proposed survey corridor prior to commencing survey operations to note and record the presence, type, and location of deployed fishing gear (i.e., buoys); (2) no survey lines within 30 m (100 feet) of observed fishing gear shall be conducted. The survey crew shall not remove or relocate any fishing gear; removal or relocation shall only be accomplished by the owner of the gear upon notification by the survey operator of the potential conflict.
- m. Collision Reporting (MM BIO-8, Exhibit H): In the event of a collision with a marine mammal or reptile, the Permittee shall abide by the reporting and procedure requirements listed in Exhibit D.



8. **Observers:**

- a. The CSLC staff may require the Permittee to furnish food, quarters, and marine transportation, if necessary, for a CSLC staff representative on any vessel conducting operations authorized by this permit. The CSLC staff representative may observe or inspect all operations conducted pursuant to this permit.
- b. If the CSLC staff representative notes permit violations or determines adverse environmental impacts are being caused or are imminent, the representative may recommend suspension of activities to the CSLC staff. Upon approval of the CSLC staff, the representative may carry out suspension of the activities allowed under this permit pursuant to Section 14.

9. **Data Submission and Examination:**

- a. The Permittee shall submit a post survey Field Operations and Compliance Report to the CSLC staff as soon as possible, but not more than thirty (30) days after the completion of any survey activities conducted under this permit. The Report shall include, at a minimum:
  - i. Survey Information:
    1. A narrative description of the work performed, the data obtained, and the logs produced from the operations;
    2. Information about the weather and sea state during operations;
    3. Charts, maps, or plots indicating the areas in which any exploration was conducted, specifically identifying the lines of geophysical traverses, [pre-plot maps(s) may be used provided it accurately depicts the area and lines surveyed], accompanied by a reference sufficient to identify the data produced from each activity;
    4. Spatial information related to the survey track lines (either Global Positioning System (GPS) coordinates or Geographic Information System (GIS) files);
    5. The dates and times during which the actual data collection was performed;
    6. The nature and location of any environmental hazards encountered, and what adjustments, if any, were made;
    7. A description of any accident, injury, damage to, or loss of property which resulted from the reported activities; and
    8. Such other information relative to the permitted activities as may be requested.
  - ii. Biological Information:
    1. A narrative description of any encounters with marine mammals, reptiles, and/or unusual concentrations of diving birds/seabirds (e.g.,

species, group size, age/size/sex categories [if determinable], behavior, distance and bearing from vessel) and the outcome of those encounters;

2. The number of times shutdowns or slow-downs were ordered due to animals being observed in the safety zone or due to poor visibility conditions, as assessed by the MWM;
  3. A summary of observations of pinniped behavior at haul-out sites, if applicable, and any recommendations made by MWMs related to pinniped avoidance;
  4. The number of collision events, if applicable, and type and disposition of animal;
  5. A copy of the Table in Exhibit H, with the date(s) of implementation and/or compliance of each MM and the initials of the person overseeing compliance; and
  6. A summary narrative written by the MWM or other qualified survey personnel describing implementation of the MMs required in Exhibit H, any problems encountered with implementing MMs, an assessment of the effectiveness of the MMs, and any recommendations for improvements or additions to increase protection of the marine environment.
- b. Permittee shall make available, upon request, and the Commission shall have the right to inspect and/or copy factual and physical survey results, logs, records, field acquired data, processed records or any other data/ information resulting from operations under this permit. These data and information shall include, but not be limited to, geophysical data from:
- i. High resolution systems including but not limited to bathymetry, side-scan sonar, subbottom profiler, and electromechanical devices;
  - ii. Copies of final stacked sections and migrated sections. Sections chosen for CSLC staff use shall be made at one-half scale, (2 ½ inches per second);
  - iii. Post-plot maps at a reasonable and appropriate scale for the dimensions of the survey and whenever possible, at least a scale of 1:24,000 (1 inch equals 2000 feet). A narrative summary of accuracy of shot points and ship tracks;
  - iv. Copies of navigation tapes or files and velocity tapes or files with narrative summary of accuracy of shot points and ship tracks;
  - v. Gravity data reduced or compiled as a Free-Air or Bouguer maps whenever possible or in profile form. Magnetometer data corrected for International Geomagnetic Reference Field in profiles or whenever possible in map form. Data to include how reductions and corrections were made; and

- vi. The CSLC shall reimburse the Permittee for the reasonable costs of reproducing any data or information.
  - c. In the event that information or data obtained under this permit are transferred from the Permittee to a third party, or, subsequently, from a third party to another third party, the transferor shall notify the CSLC staff and shall require the receiving third party, in writing, to expressly agree to abide by the obligations of the Permittee under Section 9 of this permit as a condition precedent to the transfer of the information or data.
  - d. The following definitions apply to words used in this section:
    - i. Factual or physical survey results include all data and information gathered as the result of any and all operations conducted under this permit by whatever means.
    - ii. Data means all facts, statistics or samples.
    - iii. Processed Records mean data collected under a permit which has been processed. Processing involves changing the form of data so as to facilitate interpretation. Processing operations include, but are not limited to, applying corrections for known perturbing causes, rearranging or filtering data, and combining or transforming data elements.
  - e. Such data and information, as well as products derived therefrom, shall be held confidential as required by Public Resources Code, section 6826, subdivision (c); however, the CSLC staff reserves the right to disclose any data or information acquired from Permittee to an independent contractor or agent for the purpose of reproducing, processing, reprocessing, or interpreting such data or information for the use of the Commission.
10. **Third Party Damage Claims:** Permittee shall make a good-faith effort to settle all claims brought by third parties for damages resulting from Permittee's geophysical survey activities.
11. **Bond:** Permittee shall furnish, and maintain, until released by the CSLC, a bond or letter of credit in the sum of fifty-thousand thousand dollars (\$50,000.00), in favor of the State, for its exclusive use and benefit, to guarantee the faithful performance by the Permittee of this permit's terms and conditions and satisfaction of third-party damage claims. The bond or letter of credit shall be delivered to the CSLC at the address specified in Section 16, prior to the effective date of this permit. The bond or letter of credit shall be non-cancellable and shall, by its own terms, remain in effect until at least one-hundred fifty (150) days after the termination date of this permit, unless earlier released by the CSLC.
12. **Insurance:** At the option of the CSLC staff, Permittee shall submit a certificate of self-insurance or procure and maintain liability, property damage, or other insurance for the benefit of the State in an amount satisfactory to the CSLC staff.
13. **Indemnity:** Permittee agrees to indemnify, save harmless and, at the option of the State, defend the State of California, its officers, agents and employees against any and all claims,

demands, causes of action, or liability of any kind which may be asserted against or imposed upon the State of California or any of its officers, agents or employees by any third person or entity arising out of or connected with Permittee's operations hereunder.

14. **Modification, Revocation, or Suspension:** The activities provided for in this permit may be suspended, in whole or in part, upon a finding by the CSLC staff, that suspension of the activity authorized by this permit would be in the public interest. Such suspension shall be effective upon receipt by Permittee of a written or oral (to be confirmed in writing) notice thereof which shall indicate: (1) the extent of the suspension; (2) the reasons for the action; and (3) any corrective or preventive measures to be taken by Permittee deemed necessary by the CSLC staff to meet the general public interest.

a. Permittee shall take immediate action to comply with the provisions of the suspension. Permittee may request a hearing before the CSLC in order to present information relevant to a decision as to whether the Permittee's permit should be reinstated, modified, or revoked.

b. This permit may be modified or revoked by the CSLC staff upon thirty (30) days' notice at its reasonable discretion. Notwithstanding, if pursuant to section 5(i) of this permit, the permit is modified because new information indicates that use of certain equipment that had been permitted prior to modification of the permit is likely to result in significant adverse effects upon the environment, then a prohibition on use of that equipment shall become effective immediately upon receipt of the notice of modification from the CSLC staff.

c. Any suspension, modification, or revocation of the Permittee's permit shall not be a basis for any claim for damages against the State of California.

15. **Permits:** Permittee shall obtain all necessary and applicable permits and obey all laws and regulations applicable to the conduct of operations under this permit.

16. **Notices:** All written notices to the State or Permittee which are not part of the notification procedure identified in Exhibit E shall be deemed to have been fully given when made in writing, and deposited in the United States mail, with first class postage prepaid, addressed as follows:

To the State: California State Lands Commission  
Mineral Resources Management Division  
Attention: Geophysical Coordinator  
200 Oceangate, 12th Floor  
Long Beach, CA 90802

To the Permittee: \_\_\_\_\_  
Attention: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

The address to which notices shall be mailed may be changed by written notice, as is provided in this paragraph.

17. **Date of Document Receipt**: All notices under the permit that are received, by any method, by the CSLC staff after 4:00 p.m. PST will be deemed as being received the following business day.
18. **Assignment**: Permittee may not assign, sublease, or transfer this permit or any interest therein without prior Commission approval. However, Permittee may subcontract part or all of the work to be performed. No subcontract shall relieve the Permittee of its responsibilities or obligations herein. The subcontractor shall be the agent of Permittee and Permittee shall remain responsible to the State under the terms of this permit.
19. **Successors**: If for any reason this permit is transferred by operation of law or otherwise, it shall apply to and bind the heirs, successors, executors, administrators, and assigns of all of the parties to this permit. All parties to this permit shall be jointly and severally liable under the terms of this permit.
20. **Section 504 Federal Rehabilitation Act of 1973 Compliance Statement**: "The Permittee will not discriminate against any person or entity, in regard to the administration or operation of any agreement made under this procedure, on the basis of race, color, creed, national origin, sex, marital status, religious or political affiliation, ancestry, disability, age or sexual orientation."

IN WITNESS WHEREOF, the parties hereto have executed this permit as of the date entered below.

**STATE OF CALIFORNIA  
STATE LANDS COMMISSION**

_____	_____
Date	Marina Voskanian, P.E. Division Chief, Mineral Resources Management Division

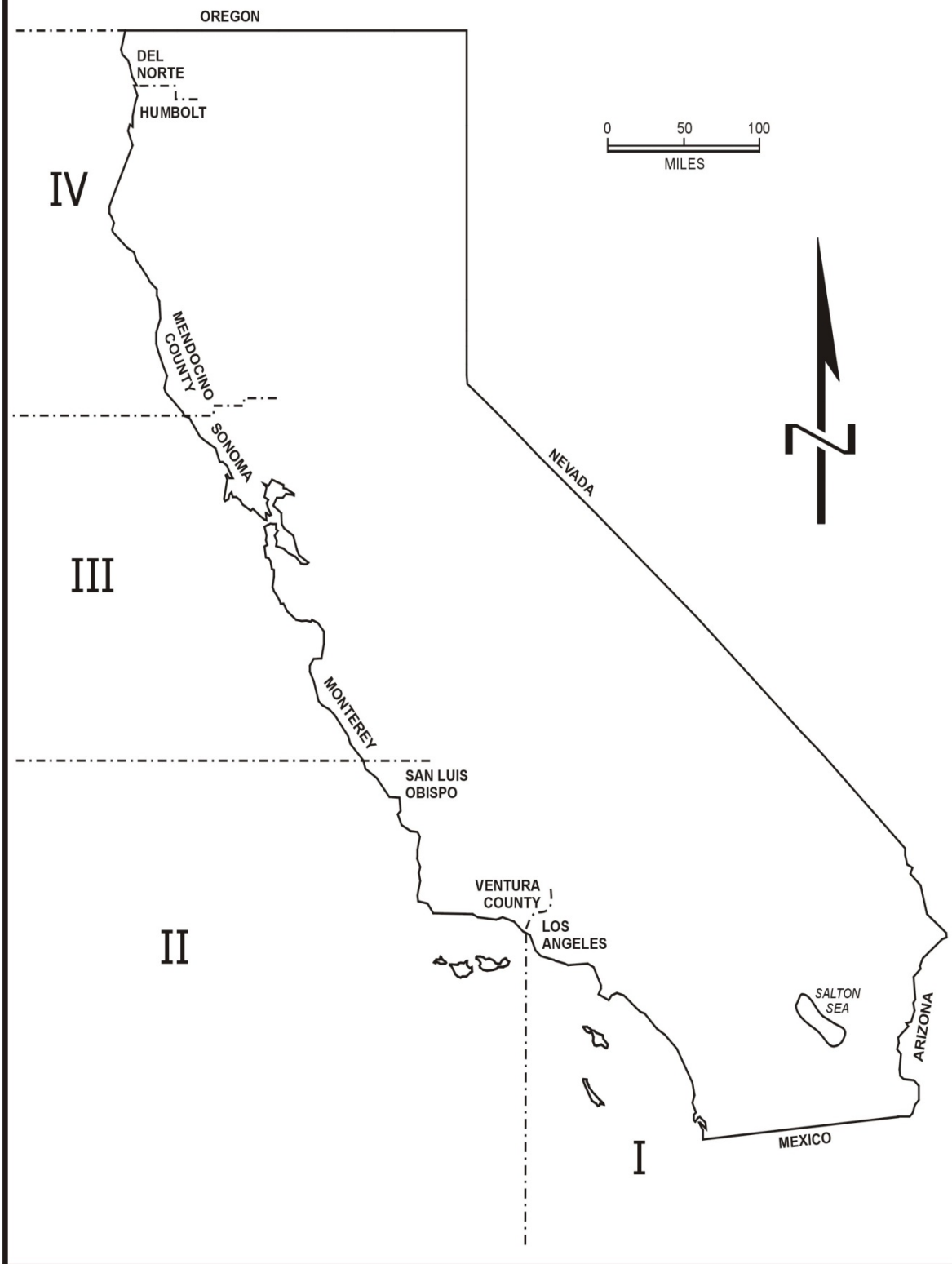
**PERMITTEE\***

_____	By: _____
Date	Title: _____
	Address: _____
	_____
	City, State and Zip Code

\* In executing this document, the following is required:

- Corporations: Certificate of Corporate Secretary providing that the Board of Directors authorized the execution of this permit specifically or authority to execute documents of this type generally. An example of the type of form required is attached as Exhibit I.
- Individuals: Acknowledgment of signature is required.

# EXHIBIT A PERMIT REGIONS



## EXHIBIT B

### AUTHORIZED EQUIPMENT AND SURVEY METHODS

Under this permit, Permittee is authorized to collect geophysical data utilizing energy receivers and/or acoustic pulse-generating devices. The Permittee is authorized to operate geophysical survey equipment in State waters only under the following conditions:

1. No survey equipment may be used other than the following and equipment necessary for use of the following (consistent with those referenced in Table 2-3 of the Mitigated Negative Declaration or with characteristics substantially similar to those identified in Table 2-3)<sup>1</sup>:
  - a. Echosounders (i.e. single beam and multibeam echosounders, fathometers);
  - b. Side-scan sonars;
  - c. Subbottom profilers (i.e. mini-sparkers, boomers, chirp, general subbottom profiler systems), excepting boomers proposed for harbor porpoise habitat from Point Conception to the Oregon border<sup>2</sup>;
  - d. Multi-component systems;
  - e. Passive equipment (e.g. magnetometers, gravity meters); and
  - f. Remotely Operated Vehicles (ROVs) for survey application.
2. Permittee shall follow, to the maximum extent possible, the following guidelines as they pertain to the use of subbottom profilers and side-scan sonar, including:
  - a. Using the highest frequency band possible for the subbottom profiler;
  - b. Using the shortest possible pulse length; and
  - c. Lowering the pulse rate (pings per second) as much as feasible.
3. Permittee shall regularly inspect and service their equipment to ensure that it is maintained in proper working order.
4. Use of any air or water compression devices or chemical explosives for generating acoustic pulses are expressly prohibited.

Any question or uncertainty as to whether particular survey equipment or methods are permitted shall be determined by the CSLC staff.

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1 As an example, any multibeam echosounder with unweighted, maximum-over-depth sound pressure levels exceeding 160 dB (rms) at or beyond 500 meters, using conservative propagation modeling assumptions, would not qualify under this General Permit.

2 OGPP surveys in this area may be proposed, but would be evaluated on a case-by-case basis and may require additional analysis and/or modeling prior to being allowed.



## EXHIBIT C

### ENGINE TUNING, ENGINE CERTIFICATION, AND FUELS

The Permittee shall implement the following measures, as applicable, depending on the county offshore which a survey is being conducted.

1. All Counties: Maintain all construction equipment in proper tune according to manufacturers' specifications; fuel all off-road and portable diesel-powered equipment with California Air Resources Board (CARB)-certified motor vehicle diesel fuel limiting sulfur content to 15 parts per million or less (CARB Diesel).
2. Los Angeles and Orange Counties: Use vessel engines meeting CARB's Tier 2-certified engines or cleaner\*; the survey shall be operated such that daily NOx emissions do not exceed 100 pounds based on engine certification emission factors. This can be accomplished with Tier 2 engines\* if daily fuel use is 585 gallons or less, and with Tier 3 engines if daily fuel use is 935 gallons or less.
3. San Luis Obispo County: Use vessel engines meeting CARB's Tier 2-certified engines or cleaner\*; all diesel equipment shall not idle for more than 5 minutes; engine use needed to maintain position in the water is not considered idling; diesel idling within 300 meters (1,000 feet) of sensitive receptors is not permitted; use alternatively fueled construction equipment on site where feasible, such as compressed natural gas, liquefied natural gas, propane or biodiesel. Maximum diesel fuel consumption allowed in any day is 720 gallons.
4. Santa Barbara County: Use vessel engines meeting CARB's Tier 2-certified engines or cleaner\*.
5. Ventura County: Use alternatively fueled construction equipment on site where feasible, such as compressed natural gas, liquefied natural gas, propane or biodiesel.

\* The Tier 2 engine requirement applies only to diesel-fueled vessels, pursuant to section 93118.5 of CARB's Airborne Toxic Control Measures.

## **EXHIBIT D**

### **MARINE MAMMAL AND REPTILE COLLISION REPORTING**

If a collision with a marine mammal or reptile occurs, the Permittee shall document the conditions under which the accident occurred, including the following:

1. Vessel location (latitude, longitude) when the collision occurred;
2. Date and time of collision;
3. Speed and heading of the vessel at the time of collision;
4. Observation conditions (e.g., wind speed and direction, swell height, visibility in miles or kilometers, and presence of rain or fog) at the time of collision;
5. Species of marine wildlife contacted (if known);
6. Whether an observer was monitoring marine wildlife at the time of collision; and
7. Name of vessel, vessel owner/operator, and captain officer in charge of the vessel at time of collision.

After a collision, the vessel shall stop, if safe to do so; however, the vessel is not obligated to stand by and may proceed after confirming that it will not further damage the animal by doing so. The vessel will then immediately communicate by radio or telephone all details to the vessel's base of operations, and shall immediately report the incident. Consistent with Marine Mammal Protection Act requirements, the vessel's base of operations or, if an onboard telephone is available, the vessel captain him/herself, will then immediately call the National Oceanic and Atmospheric Administration (NOAA) Stranding Coordinator to report the collision and follow any subsequent instructions. From the report, the Stranding Coordinator will coordinate subsequent action, including enlisting the aid of marine mammal rescue organizations, if appropriate. From the vessel's base of operations, a telephone call will be placed to the Stranding Coordinator, NOAA National Marine Fisheries Service, Southwest Region, Long Beach, to obtain instructions. Although NOAA has primary responsibility for marine mammals in both State and Federal waters, the California Department of Fish and Wildlife will also be advised that an incident has occurred in State waters affecting a protected species.

## **EXHIBIT E**

### **PRESURVEY NOTIFICATIONS**

#### **PART I**

##### **General Notification Requirements**

The State may, upon thirty (30) calendar days' notice to Permittee; prescribe additional or different procedures to be followed by the Permittee.

- A. General Requirements: Whenever surveys are proposed to be commenced under this permit, Permittee shall give notice in the following manner:
1. At least twenty-one (21) calendar days in advance of any proposed operations, written notice of the proposed operations (see subsection B below) must be received by the following parties:
    - i. Statewide Geophysical Coordinator  
California State Lands Commission  
200 Oceangate, 12<sup>th</sup> Floor  
Long Beach, CA 90802-4331  
Faxing: (562) 590-5295  
Emailing: [slc.ogpp@slc.ca.gov](mailto:slc.ogpp@slc.ca.gov)
    - ii. USCG Local Notice to Mariners  
Commander (dpw)  
CG Eleventh District  
Bldg. 50-2, CG Island  
Alameda, CA 94501-5100  
Faxing: (510) 437-5836  
Emailing: [D11LNM@uscg.mil](mailto:D11LNM@uscg.mil)
  2. At least twenty-one (21) calendar days in advance of any proposed operations, the Permittee shall post the notice described in subsection B below in: (1) the harbormasters' offices of regional harbors; and (2) dive shops in coastal locations adjacent to the proposed offshore survey operations (by fax, e-mail, or in person to operator of the shop).
  3. One working day in advance of the actual operations, the Permittee shall inform the State's Geophysical Coordinator, (562) 590-5201, by telephone, to confirm the receipt of required notices by the parties listed in in A.1 above. The Permittee shall also send to the State's Geophysical Coordinator, a copy of any final pre-plot of the survey, including corresponding Global Positioning System (GPS) coordinates, which shall reflect any changes made in the planned survey.
  4. Permittee shall use its best efforts to notify the parties listed in A.1 and A.2 and any other affected individuals of substantial addition, modification, deviation, delay, or cancellation, concerning the survey area or survey dates, in the original notice. Permittee shall notify the CSLC staff of such modifications or delays prior to their occurrence.

## **EXHIBIT E**

5. Permittee shall notify the State's Geophysical Coordinator by telephone within one (1) working day of completion of the survey activity.
- B. Contents of Notice: The written notification required shall include information in the format requested in Exhibit F and outlined below:
1. The name of the vessel, the name of the ship's captain/designee, the ship's call signs, and the specific radio channel which will be monitored by the vessel at all times during operations authorized by this permit;
  2. The exact dates through which the survey will be conducted within any given specific area of the general permit area and the daily hours of operation during such period;
  3. A full-sized navigation chart showing the area to be affected by the survey, including turning areas;
  4. GPS coordinates of each proposed track line and turning point;
  5. A listing of equipment to be used in the survey and length(s) of the tow(s). Listing of equipment shall include all information requested on Exhibit F; and
  6. The name and telephone number of a representative of the Permittee who can resolve multiple-use conflicts.

## **PART II**

### **Dredge Monitoring and Coastal Structure Surveys**

The Permittee may be excepted from the 21-day notification requirement if all of the criteria listed below are met. The Permittee shall provide the information in section B above, "Contents of Notice," at least twenty-four (24) hours prior to commencing survey operations; if 24-hour notice is infeasible, the Permittee shall provide such notice information as soon as possible.

1. The survey is associated with monitoring/verification of dredging operations in ports, harbors, and marinas of no greater than fifty (50) feet in depth, OR, the survey is associated with investigating a structure directly against or affixed to the coastline or an upland structure (e.g., outfalls);
2. Survey equipment to be used is operated at or above 200 kHz at all times;
3. The Permittee has an approved "general" MWCP on file with CSLC staff. The general MWCP should adhere, to the extent feasible and applicable, to the content requirements described in section 5(c); AND
4. The Permittee has an approved "general" OSCP on file with CSLC staff. The general OSCP should adhere, to the extent feasible and applicable, to the content requirements described in condition 5.d.

**EXHIBIT F**

**PRESURVEY NOTIFICATION FORM**

Applicant/Permittee's Mailing Address

Date:

Jurisdiction: Federal \_\_\_\_\_

State \_\_\_\_\_

Both \_\_\_\_\_

If State: Permit #PRC \_\_\_\_\_

Region: \_\_\_\_\_

Area: \_\_\_\_\_

**GEOPHYSICAL SURVEY PERMIT**

Check one: \_\_\_\_\_ New survey \_\_\_\_\_ Time extension of a previous survey

\_\_\_\_\_ (Applicant/Permittee) will conduct a geophysical survey offshore California in the survey area outlined on the accompanying navigation chart segment. If you foresee potential interference with commercial fishing or other activities, please contact the person(s) listed below:

**FEDERAL WATERS (outside 3 nautical miles)**

- 1) Applicant's representative
- 2) Federal representative (e.g., Bureau of Ocean Energy Management [BOEM] or National Science Foundation [NSF])

NOTE: Any comments regarding potential conflicts in Federal waters must be received by the Applicant's Representative and lead Federal agency within ten (10) days of the receipt of this notice.

**STATE WATERS (Inside 3 nautical miles)**

- 1) Permittee's representative
- 2) CSLC representative

NOTE: Any comments regarding potential conflicts in State waters should be received as soon as possible by the Permittee's representative, no more than fifteen (15) days after the receipt of this notice.

- 1. Expected Date of Operation \_\_\_\_\_
- 2. Hours of Operation \_\_\_\_\_
- 3. Vessel Name \_\_\_\_\_
- 4. Vessel Official Number \_\_\_\_\_
- 5. Vessel Radio Call Sign \_\_\_\_\_
- 6. Vessel Captain's Name \_\_\_\_\_
- 7. Vessel will monitor Radio Channel(s) \_\_\_\_\_
- 8. Vessel Navigation System \_\_\_\_\_

**EXHIBIT F**

9. Equipment to be used \_\_\_\_\_
- a. Frequency (Hz, kHz) \_\_\_\_\_
  - b. Source level (dB re 1  $\mu$ Pa at 1 meter (m) [root mean square (rms)]) \_\_\_\_\_
  - c. Number of beams, across track beamwidth, and along track beamwidth \_\_\_\_\_  
\_\_\_\_\_
  - d. Pulse rate and length \_\_\_\_\_
  - e. Rise time \_\_\_\_\_
  - f. Estimated distances to the 190 dB, 180 dB, and 160 dB re 1  $\mu$ Pa (rms) isopleths \_\_\_\_\_  
\_\_\_\_\_
  - g. Deployment depth \_\_\_\_\_
  - h. Tow speed \_\_\_\_\_
  - i. Approximate length of cable tow \_\_\_\_\_

Applicant's Representative:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

California State Lands Representative  
Richard B. Greenwood  
Statewide Geophysical Coordinator  
200 Oceangate, 12th Floor  
Long Beach, CA 90802-4331  
(562) 590-5201

BOEM Representative  
Joan Barminski  
Regional Supervisor  
Office of Strategic Resources  
770 Paseo Camarillo  
Camarillo, CA 93010  
(805) 389-7585

Other Federal Representative (if not BOEM):  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## EXHIBIT G

### California State Lands Commission Presurvey Notice Requirements for Permittees to Conduct Geophysical Survey Activities

All parts of the Presurvey Notice must be adequately filled out and submitted to the CSLC staff a minimum of twenty-one (21) calendar days prior to the proposed survey date to ensure adequate review and approval time for CSLC staff. Note that one or more of the items may require the Permittee to plan well in advance in order to obtain the necessary documentation prior to the Notice due date (e.g., permits from other State or Federal entities).

Please use the boxes below to verify that all the required documents are included in the Presurvey Notice. If "No" is checked for any item, please provide an explanation in the space provided. If additional space is needed, please attach separate pages.

Yes	No	
<input type="checkbox"/>	<input type="checkbox"/>	Geophysical Survey Permit Exhibit F
<input type="checkbox"/>	<input type="checkbox"/>	Survey Location (including a full-sized navigation chart and GPS coordinates for each proposed track line and turning point) Explanation: _____
<input type="checkbox"/>	<input type="checkbox"/>	Permit(s) or Authorization from other Federal or State agencies (if applicable) Explanation: _____
<input type="checkbox"/>	<input type="checkbox"/>	21-Day Written Notice of Survey Operations to Statewide Geophysical Coordinator/ <input type="checkbox"/> U.S. Coast Guard Local Notice to Mariners/ <input type="checkbox"/> Harbormaster and Dive Shop Notifications Explanation: _____
<input type="checkbox"/>	<input type="checkbox"/>	Marine Wildlife Contingency Plan Explanation: _____
<input type="checkbox"/>	<input type="checkbox"/>	Oil Spill Contingency Plan Explanation: _____
<input type="checkbox"/>	<input type="checkbox"/>	Verification of California Air Resources Board's Tier 2-Certified Engine Requirement Explanation: _____
<input type="checkbox"/>	<input type="checkbox"/>	Verification of Equipment Service and/or Maintenance (must verify sound output) Explanation: _____
<input type="checkbox"/>	<input type="checkbox"/>	Permit(s) or Authorization from California Department of Fish and Wildlife for surveys in or affecting Marine Protected Area(s) (if applicable) Explanation: _____

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NOTE: CSLC staff will also require verification that current biological information was obtained and transmitted as outlined in Section 5 of this permit.

EXHIBIT H

Mitigation Monitoring Program

Mitigation Measure (MM)	Location and Scope of Mitigation	Effectiveness Criteria	Monitoring or Reporting Action	Responsible Party	Timing	Implementation Date(s) and Initials
<b>Air Quality and Greenhouse Gas (GHG) Emissions (MND Section 3.3.3)</b>						
<b>MM AIR-1: Engine Tuning, Engine Certification, and Fuels.</b> The following measures will be required to be implemented by all Permittees under the Offshore Geophysical Permit Program (OGPP), as applicable depending on the county offshore which a survey is being conducted. Pursuant to section 93118.5 of CARB's Airborne Toxic Control Measures, the Tier 2 engine requirement applies only to diesel-fueled vessels.	<u>All Counties:</u> Maintain all construction equipment in proper tune according to manufacturers' specifications; fuel all off-road and portable diesel-powered equipment with California Air Resources Board (CARB)-certified motor vehicle diesel fuel limiting sulfur content to 15 parts per million or less (CARB Diesel).	Daily emissions of criteria pollutants during survey activities are minimized.	Determine engine certification of vessel engines.  Review engine emissions data to assess compliance, determine if changes in tuning or fuel are required.	OGPP permit holder and contract vessel operator; California State Lands Commission (CSLC) review of Final Monitoring Report.	Prior to, during, and after survey activities.  Submit Final Monitoring Report after completion of survey activities.	
	<u>Los Angeles and Orange Counties:</u> Use vessel engines meeting CARB's Tier 2-certified engines or cleaner; the survey shall be operated such that daily NO <sub>x</sub> emissions do not exceed 100 pounds based on engine certification emission factors. This can be accomplished with Tier 2 engines if daily fuel use is 585 gallons or less, and with Tier 3 engines if daily fuel use is 935 gallons or less.		Verify that Tier 2 or cleaner engines are being used.  Calculate daily NO <sub>x</sub> emissions to verify compliance with limitations.			
	<u>San Luis Obispo County:</u> Use vessel engines meeting CARB's Tier 2-certified engines or cleaner, accomplished with Tier 2 engines if daily fuel use is 585 gallons or less; all diesel equipment shall not idle for more than 5 minutes; engine use needed to maintain position in the water is not considered idling; diesel idling within 300 meters (1,000 feet) of sensitive receptors is not permitted; use alternatively fueled construction equipment on site where feasible, such as compressed natural gas, liquefied natural gas, propane or biodiesel.		Verify that Tier 2 or cleaner engines are being used.  Inform vessel operator(s) of idling limitation.  Investigate availability of alternative fuels.			
	<u>Santa Barbara County:</u> Use vessel engines meeting CARB's Tier 2-certified engines or cleaner, accomplished with Tier 2 engines if daily fuel use is 790 gallons or less.		Verify that Tier 2 or cleaner engines are being used.  Investigate availability of alternative fuels.			
	<u>Ventura County:</u> Use alternatively fueled construction equipment on site where feasible, such as compressed natural gas, liquefied natural gas, propane or biodiesel.		Investigate availability of alternative fuels.			



**EXHIBIT H**

*Mitigation Monitoring Program*

<b>Mitigation Measure (MM)</b>	<b>Location and Scope of Mitigation</b>	<b>Effectiveness Criteria</b>	<b>Monitoring or Reporting Action</b>	<b>Responsible Party</b>	<b>Timing</b>	<b>Implementation Date(s) and Initials</b>
<b>MM BIO-1:</b> Marine Mammal and Sea Turtle Presence – Current Information.	All State waters; prior to commencement of survey operations, the geophysical operator shall: (1) contact the National Oceanic and Atmospheric Administration Long Beach office staff and local whale-watching operations and shall acquire information on the current composition and relative abundance of marine wildlife offshore, and (2) convey sightings data to the vessel operator and crew, survey party chief, and onboard Marine Wildlife Monitors (MWMs) prior to departure. This information will aid the MWMs by providing data on the approximate number and types of organisms that may be in the area.	No adverse effects to marine mammals or sea turtles due to survey activities are observed.	Document contact with appropriate sources.  Submit Final Monitoring Report after completion of survey activities.	OGPP permit holder; Inquiry to NOAA and local whale watching operators.	Prior to survey.	
<b>MM BIO-2:</b> Marine Wildlife Monitors (MWMs).	Except as provided in section 7(h) of the General Permit, a minimum of two (2) qualified MWMs who are experienced in marine wildlife observations shall be onboard the survey vessel throughout both transit and data collection activities. The specific monitoring, observation, and data collection responsibilities shall be identified in the Marine Wildlife Contingency Plan required as part of all Offshore Geophysical Permit Program permits. Qualifications of proposed MWMs shall be submitted to the National Oceanic and Atmospheric Administration (NOAA) and CSLC at least twenty-one (21) days in advance of the survey for their approval by the agencies. Survey operations shall not commence until the CSLC approves the MWMs.	Competent and professional monitoring or marine mammals and sea turtles; compliance with established monitoring policies.	Document contact with and approval by appropriate agencies.  Submit Final Monitoring Report after completion of survey activities.	OGPP permit holder.	Prior to survey.	
<b>MM BIO-3:</b> Safety Zone Monitoring.	Onboard Marine Wildlife Monitors (MWMs) responsible for observations during vessel transit shall be responsible for monitoring during the survey equipment operations. All visual monitoring shall occur from the highest practical vantage point aboard the survey vessel; binoculars shall be used to observe the surrounding area, as appropriate. The MWMs will survey an area (i.e., safety or exclusion zone) based on the equipment used, centered on the sound source (i.e., vessel, towfish), throughout time that the survey equipment is operating. Safety zone radial distances, by equipment type, include:	No adverse effects to marine mammals or sea turtles due to survey activities are observed; compliance with established safety zones.	Compliance with permit requirements (observers); compliance with established safety zones.  Submit Final Monitoring Report after completion of survey activities.	OGPP permit holder.	Prior to survey.	

EXHIBIT H

Mitigation Monitoring Program

Mitigation Measure (MM)	Location and Scope of Mitigation	Effectiveness Criteria	Monitoring or Reporting Action	Responsible Party	Timing	Implementation Date(s) and Initials												
	<table border="1" data-bbox="466 302 968 500"> <thead> <tr> <th data-bbox="466 302 783 354">Equipment Type</th> <th data-bbox="783 302 968 354">Safety Zone (radius, m)</th> </tr> </thead> <tbody> <tr> <td data-bbox="466 354 783 386">Single Beam Echosounder</td> <td data-bbox="783 354 968 386">50</td> </tr> <tr> <td data-bbox="466 386 783 418">Multibeam Echosounder</td> <td data-bbox="783 386 968 418">500</td> </tr> <tr> <td data-bbox="466 418 783 451">Side-Scan Sonar</td> <td data-bbox="783 418 968 451">600</td> </tr> <tr> <td data-bbox="466 451 783 483">Subbottom Profiler</td> <td data-bbox="783 451 968 483">100</td> </tr> <tr> <td data-bbox="466 483 783 500">Boomer System</td> <td data-bbox="783 483 968 500">100</td> </tr> </tbody> </table> <p data-bbox="405 505 1026 1133">If the geophysical survey equipment is operated at or above a frequency of 200 kilohertz (kHz), safety zone monitoring and enforcement is not required; however, if geophysical survey equipment operated at a frequency at or above 200 kHz is used simultaneously with geophysical survey equipment less than 200 kHz, then the safety zone for the equipment less than 200 kHz must be monitored. The onboard MWMs shall have authority to stop operations if a mammal or turtle is observed within the specified safety zone and may be negatively affected by survey activities. The MWMs shall also have authority to recommend continuation (or cessation) of operations during periods of limited visibility (i.e., fog, rain) based on the observed abundance of marine wildlife. Periodic reevaluation of weather conditions and reassessment of the continuation/cessation recommendation shall be completed by the onboard MWMs. During operations, if an animal's actions are observed to be irregular, the monitor shall have authority to recommend that equipment be shut down until the animal moves further away from the sound source. If irregular behavior is observed, the equipment shall be shut-off and will be restarted and ramped-up to full power, as applicable, or will not be started until the animal(s) is/are outside of the safety zone or have not been observed for 15 minutes.</p> <p data-bbox="405 1162 1026 1404">For nearshore survey operations utilizing vessels that lack the personnel capacity to hold two (2) MWMs aboard during survey operations, at least twenty-one (21) days prior to the commencement of survey activities, the Permittee may petition the CSLC to conduct survey operations with one (1) MWM aboard. The CSLC will consider such authorization on a case-by-case basis and factors the CSLC will consider will include the timing, type, and location of the survey, the size of the vessel, and the availability of alternate vessels for conducting</p>	Equipment Type	Safety Zone (radius, m)	Single Beam Echosounder	50	Multibeam Echosounder	500	Side-Scan Sonar	600	Subbottom Profiler	100	Boomer System	100					
Equipment Type	Safety Zone (radius, m)																	
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EXHIBIT H

Mitigation Monitoring Program

Mitigation Measure (MM)	Location and Scope of Mitigation	Effectiveness Criteria	Monitoring or Reporting Action	Responsible Party	Timing	Implementation Date(s) and Initials
	the proposed survey. CSLC authorizations under this subsection will be limited to individual surveys and under any such authorization, the Permittee shall update the MWCP to reflect how survey operations will occur under the authorization.					
<b>MM BIO-4:</b> Limits on Nighttime OGPP Surveys.	All State waters; nighttime survey operations are prohibited under the OGPP, except as provided below. The CSLC will consider the use of single beam echosounders and passive equipment types at night on a case-by-case basis, taking into consideration the equipment specifications, location, timing, and duration of survey activity.	No adverse effects to marine mammals or sea turtles due to survey activities are observed.	Presurvey request for nighttime operations, including equipment specifications and proposed use schedule.  Document equipment use.  Submit Final Monitoring Report after completion of survey activities.	OGPP permit holder.	Approval required before survey is initiated.  Monitoring Report following completion of survey.	
<b>MM BIO-5:</b> Soft Start.	All State waters; the survey operator shall use a “soft start” technique at the beginning of survey activities each day (or following a shut down) to allow any marine mammal that may be in the immediate area to leave before the sound sources reach full energy. Surveys shall not commence at nighttime or when the safety zone cannot be effectively monitored. Operators shall initiate each piece of equipment at the lowest practical sound level, increasing output in such a manner as to increase in steps not exceeding approximately 6 decibels (dB) per 5-minute period. During ramp-up, the Marine Wildlife Monitors (MWMs) shall monitor the safety zone. If marine mammals are sighted within or about to enter the safety zone, a power-down or shut down shall be implemented as though the equipment was operating at full power. Initiation of ramp-up procedures from shut down requires that the MWMs be able to visually observe the full safety zone.	No adverse effects to marine mammals or sea turtles due to survey activities are observed.	Compliance with permit requirements (observers); compliance with safe start procedures.  Submit Final Monitoring Report after completion of survey activities.	OGPP permit holder.	Immediately prior to survey.	
<b>MM BIO-6:</b> Practical Limitations on Equipment Use and Adherence to Equipment Manufacturer’s Routine Maintenance	All State waters; geophysical operators shall follow, to the maximum extent possible, the guidelines of Zykov (2013) as they pertain to the use of subbottom profilers and side-scan sonar, including: <ul style="list-style-type: none"> <li>Using the highest frequency band possible for the subbottom profiler;</li> </ul>	No adverse effects to marine mammals or sea turtles due to survey activities are observed.	Document initial and during survey equipment settings.  Submit Final Monitoring Report after completion of	OGPP permit holder.	Immediately prior to and during survey.	

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Mitigation Monitoring Program

Mitigation Measure (MM)	Location and Scope of Mitigation	Effectiveness Criteria	Monitoring or Reporting Action	Responsible Party	Timing	Implementation Date(s) and Initials
Schedule.	<ul style="list-style-type: none"> <li>Using the shortest possible pulse length; and</li> <li>Lowering the pulse rate (pings per second) as much as feasible.</li> </ul> <p>Geophysical operators shall consider the potential applicability of these measures to other equipment types (e.g., boomer). Permit holders will conduct routine inspection and maintenance of acoustic-generating equipment to ensure that low energy geophysical equipment used during permitted survey activities remains in proper working order and within manufacturer's equipment specifications. Verification of the date and occurrence of such equipment inspection and maintenance shall be provided in the required presurvey notification to CSLC.</p>		survey activities.			
<b>MM BIO-7:</b> Avoidance of Pinniped Haul-Out Sites.	<p>The Marine Wildlife Contingency Plan (MWCP) developed and implemented for each survey shall include identification of haul-out sites within or immediately adjacent to the proposed survey area. For surveys within 300 meters (m) of a haul-out site, the MWCP shall further require that:</p> <ul style="list-style-type: none"> <li>The survey vessel shall not approach within 91 m of a haul-out site, consistent with National Marine Fisheries Service (NMFS) guidelines;</li> <li>Survey activity close to haul-out sites shall be conducted in an expedited manner to minimize the potential for disturbance of pinnipeds on land; and</li> <li>Marine Wildlife Monitors shall monitor pinniped activity onshore as the vessel approaches, observing and reporting on the number of pinnipeds potentially disturbed (e.g., via head lifting, flushing into the water). The purpose of such reporting is to provide CSLC and California Department of Fish and Wildlife (CDFW) with information regarding potential disturbance associated with OGPP surveys.</li> </ul>	No adverse effects to pinnipeds at haul outs are observed.	<p>Document pinniped reactions to vessel presence and equipment use.</p> <p>Submit Final Monitoring Report after completion of survey activities.</p>	OGPP permit holder.	Monitoring Report following completion of survey.	
<b>MM BIO-8:</b> Reporting Requirements – Collision.	<p>All State waters; if a collision with marine mammal or reptile occurs, the vessel operator shall document the conditions under which the accident occurred, including the following:</p> <ol style="list-style-type: none"> <li>Vessel location (latitude, longitude) when the collision occurred;</li> <li>Date and time of collision;</li> </ol>	No adverse effects to marine mammals or sea turtles due to survey activities	Submit Final Monitoring Report after completion of survey activities.	OGPP permit holder.	Monitoring Report following completion of survey.	

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Mitigation Monitoring Program

Mitigation Measure (MM)	Location and Scope of Mitigation	Effectiveness Criteria	Monitoring or Reporting Action	Responsible Party	Timing	Implementation Date(s) and Initials
	<p>3. Speed and heading of the vessel at the time of collision;                      4. Observation conditions (e.g., wind speed and direction, swell height, visibility in miles or kilometers, and presence of rain or fog) at the time of collision;                      5. Species of marine wildlife contacted (if known);                      6. Whether an observer was monitoring marine wildlife at the time of collision; and,                      7. Name of vessel, vessel owner/operator, and captain officer in charge of the vessel at time of collision.</p> <p>After a collision, the vessel shall stop, if safe to do so; however, the vessel is not obligated to stand by and may proceed after confirming that it will not further damage the animal by doing so. The vessel will then immediately communicate by radio or telephone all details to the vessel's base of operations, and shall immediately report the incident. Consistent with Marine Mammal Protection Act requirements, the vessel's base of operations or, if an onboard telephone is available, the vessel captain him/herself, will then immediately call the National Oceanic and Atmospheric Administration (NOAA) Stranding Coordinator to report the collision and follow any subsequent instructions. From the report, the Stranding Coordinator will coordinate subsequent action, including enlisting the aid of marine mammal rescue organizations, if appropriate. From the vessel's base of operations, a telephone call will be placed to the Stranding Coordinator, NOAA National Marine Fisheries Service (NMFS), Southwest Region, Long Beach, to obtain instructions. Although NOAA has primary responsibility for marine mammals in both State and Federal waters, the California Department of Fish and Wildlife (CDFW) will also be advised that an incident has occurred in State waters affecting a protected species.</p>	are observed.				
<p><b>MM BIO-9:</b>                      Limitations on Survey Operations in Select Marine Protected Areas (MPAs).</p>	<p>All MPAs; prior to commencing survey activities, geophysical operators shall coordinate with the CLSC, California Department of Fish and Wildlife (CDFW), and any other appropriate permitting agency regarding proposed operations within MPAs. The scope and purpose of each survey proposed within a MPA shall be defined by the permit holder, and the applicability of the survey to the allowable MPA activities shall be delineated by the permit holder. If deemed necessary by CDFW, geophysical operators will pursue a scientific collecting</p>	No adverse effects to MPA resources due to survey activities are observed.	<p>Monitor reactions of wildlife to survey operations; report on shutdown conditions and survey restart.</p> <p>Submit Final Monitoring Report after completion of</p>	OGPP permit holder; survey permitted by CDFW.	Prior to survey.	

EXHIBIT H

Mitigation Monitoring Program

Mitigation Measure (MM)	Location and Scope of Mitigation	Effectiveness Criteria	Monitoring or Reporting Action	Responsible Party	Timing	Implementation Date(s) and Initials
	permit, or other appropriate authorization, to secure approval to work within a MPA, and shall provide a copy of such authorization to the CSLC as part of the required presurvey notification to CSLC. CSLC, CDFW, and/or other permitting agencies may impose further restrictions on survey activities as conditions of approval.		survey activities.			
<b>MM HAZ-1:</b> Oil Spill Contingency Plan (OSCP) Required Information.	Permittees shall develop and submit to CSLC staff for review and approval an OSCP that addresses accidental releases of petroleum and/or non-petroleum products during survey operations. Permittees' OSCP shall include the following information for each vessel to be involved with the survey: <ul style="list-style-type: none"> <li>• Specific steps to be taken in the event of a spill, including notification names, phone numbers, and locations of: (1) nearby emergency medical facilities, and (2) wildlife rescue/response organizations (e.g., Oiled Wildlife Care Network);</li> <li>• Description of crew training and equipment testing procedures; and</li> <li>• Description, quantities, and location of spill response equipment onboard the vessel.</li> </ul>	Reduction in the potential for an accidental spill. Proper and timely response and notification of responsible parties in the event of a spill.	Documentation of proper spill training.  Notification of responsible parties in the event of a spill.	OGPP permit holder and contract vessel operator.	Prior to survey.	
<b>MM HAZ-2:</b> Vessel fueling restrictions.	Vessel fueling shall only occur at an approved docking facility. No cross vessel fueling shall be allowed.	Reduction in the potential for an accidental spill.	Documentation of fueling activities.	Contract vessel operator.	Following survey.	
<b>MM HAZ-3:</b> OSCP equipment and supplies.	Onboard spill response equipment and supplies shall be sufficient to contain and recover the worst-case scenario spill of petroleum products as outlined in the OSCP.	Proper and timely response in the event of a spill.	Notification to CSLC of onboard spill response equipment/supplies inventory, verify ability to respond to worst-case spill.	Contract vessel operator.	Prior to survey.	

EXHIBIT H

Mitigation Monitoring Program

Mitigation Measure (MM)	Location and Scope of Mitigation	Effectiveness Criteria	Monitoring or Reporting Action	Responsible Party	Timing	Implementation Date(s) and Initials
<b>MM HAZ-1:</b> Oil Spill Contingency Plan (OSCP) Required Information.	Outlined under <b>Hazards and Hazardous Materials</b> (above)					
<b>MM HAZ-2:</b> Vessel fueling restrictions.	Outlined under <b>Hazards and Hazardous Materials</b> (above)					
<b>MM HAZ-3:</b> OSCP equipment and supplies.	Outlined under <b>Hazards and Hazardous Materials</b> (above)					
<b>MM BIO-9:</b> Limitations on Survey Operations in Select MPAs.	Outlined under <b>Biological Resources</b> (above)					
<b>MM REC-1:</b> U.S. Coast Guard (USCG), Harbormaster, and Dive Shop Operator Notification.	All California waters where recreational diving may occur; as a survey permit condition, the CSLC shall require Permittees to provide the USCG with survey details, including information on vessel types, survey locations, times, contact information, and other details of activities that may pose a hazard to divers so that USCG can include the information in the Local Notice to Mariners, advising vessels to avoid potential hazards near survey areas. Furthermore, at least twenty-one (21) days in advance of in-water activities, Permittees shall: (1) post such notices in the harbormasters' offices of regional harbors; and (2) notify operators of dive shops in coastal locations adjacent to the proposed offshore survey operations.	No adverse effects to recreational divers from survey operations.	Notify the USCG, local harbormasters, and local dive shops of planned survey activity.  Submit Final Monitoring Report after completion of survey activities.	OGPP permit holder.	Prior to survey.	

EXHIBIT H

Mitigation Monitoring Program

Mitigation Measure (MM)	Location and Scope of Mitigation	Effectiveness Criteria	Monitoring or Reporting Action	Responsible Party	Timing	Implementation Date(s) and Initials
<b>MM FISH-1:</b> U.S. Coast Guard (USCG) and Harbormaster Notification.	All California waters; as a survey permit condition, the CSLC shall require Permittees to provide the USCG with survey details, including information on vessel types, survey locations, times, contact information, and other details of activities that may pose a hazard to mariners and fishers so that USCG can include the information in the Local Notice to Mariners, advising vessels to avoid potential hazards near survey areas. Furthermore, at least twenty-one (21) days in advance of in-water activities, Permittees shall post such notices in the harbormasters' offices of regional harbors.	No adverse effects to commercial fishing gear in place.	Notify the USCG and local harbormasters of planned survey activity.  Submit Final Monitoring Report after completion of survey activities.	OGPP permit holder.	Prior to survey.	
<b>MM FISH-2:</b> Minimize Interaction with Fishing Gear.	To minimize interaction with fishing gear that may be present within a survey area: (1) the geophysical vessel (or designated vessel) shall traverse the proposed survey corridor prior to commencing survey operations to note and record the presence, type, and location of deployed fishing gear (i.e., buoys); (2) no survey lines within 30 m (100 feet) of observed fishing gear shall be conducted. The survey crew shall not remove or relocate any fishing gear; removal or relocation shall only be accomplished by the owner of the gear upon notification by the survey operator of the potential conflict.	No adverse effects to commercial fishing gear in place.	Visually observe the survey area for commercial fishing gear. Notify the gear owner and request relocation of gear outside survey area.  Submit Final Monitoring Report after completion of survey activities.	OGPP permit holder.	Immediately prior to survey (prior to each survey day).	
<b>MM FISH-1:</b> USCG and Harbormaster Notification.	Outlined under <b>Commercial and Recreational Fisheries</b> (above)					

Acronyms/Abbreviations: CARB = California Air Resources Board; CDFW = California Department of Fish and Wildlife; CSLC = California State Lands Commission; dB = decibels; kHz = kilohertz; MPA = Marine Protected Area; MWCP = Marine Wildlife Contingency Plan; MWM = Marine Wildlife Monitor; m= meter(s); NOAA = National Oceanic and Atmospheric Administration; NO<sub>x</sub> = Nitrogen Oxide; OGPP = Offshore Geophysical Permit Program; OSCP = Oil Spill Contingency Plan; USCG = U.S. Coast Guard



**EXHIBIT I**  
**INSTRUCTIONS: CORPORATE APPROVAL**

In order for a Non-Exclusive Geophysical Permit to be issued, the Commission requires proof that the Directors of the Corporation seeking the permit have given their approval to the terms of the permit. Attached is a Certificate of Corporation. Please complete the form and attach a copy of the resolution adopted by the Applicant to obtain the permit.

If the Applicant is not a corporation, please provide some explanation as to the authority of the person seeking this permit.

**CERTIFICATE OF SECRETARY**

I certify that:

I am the duly qualified and acting (Assistant) Secretary of \_\_\_\_\_  
\_\_\_\_\_, a \_\_\_\_\_  
Name of Corporation) (Name of State)

corporation authorized to do business in California.

The attached is a true copy of a resolution duly adopted by the Board of Directors of the corporation at a regular (or special) meeting duly held on \_\_\_\_\_, 20\_\_ and entered in the minutes of such meeting in the minute book of the corporation.

The resolution is in conformity with the articles of incorporation and by laws of the corporation, has never been modified or repealed, and is now in full force and effect.

Dated: \_\_\_\_\_, 20\_\_.

*(Corporation Seal)*

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
Secretary

EXHIBIT B

Mitigation Monitoring Program

Mitigation Measure (MM)	Location and Scope of Mitigation	Effectiveness Criteria	Monitoring or Reporting Action	Responsible Party	Timing	Implementation Date(s) and Initials
<b>Air Quality and Greenhouse Gas (GHG) Emissions (MND Section 3.3.3)</b>						
<b>MM AIR-1: Engine Tuning, Engine Certification, and Fuels.</b> The following measures will be required to be implemented by all Permittees under the Offshore Geophysical Permit Program (OGPP), as applicable depending on the county offshore which a survey is being conducted. Pursuant to section 93118.5 of CARB's Airborne Toxic Control Measures, the Tier 2 engine requirement applies only to diesel-fueled vessels.	<u>All Counties:</u> Maintain all construction equipment in proper tune according to manufacturers' specifications; fuel all off-road and portable diesel-powered equipment with California Air Resources Board (CARB)-certified motor vehicle diesel fuel limiting sulfur content to 15 parts per million or less (CARB Diesel).	Daily emissions of criteria pollutants during survey activities are minimized.	Determine engine certification of vessel engines.  Review engine emissions data to assess compliance, determine if changes in tuning or fuel are required.	OGPP permit holder and contract vessel operator; California State Lands Commission (CSLC) review of Final Monitoring Report.	Prior to, during, and after survey activities.  Submit Final Monitoring Report after completion of survey activities.	
	<u>Los Angeles and Orange Counties:</u> Use vessel engines meeting CARB's Tier 2-certified engines or cleaner; the survey shall be operated such that daily NO <sub>x</sub> emissions do not exceed 100 pounds based on engine certification emission factors. This can be accomplished with Tier 2 engines if daily fuel use is 585 gallons or less, and with Tier 3 engines if daily fuel use is 935 gallons or less.	Verify that Tier 2 or cleaner engines are being used.  Calculate daily NO <sub>x</sub> emissions to verify compliance with limitations.				
	<u>San Luis Obispo County:</u> Use vessel engines meeting CARB's Tier 2-certified engines or cleaner, accomplished with Tier 2 engines if daily fuel use is 585 gallons or less; all diesel equipment shall not idle for more than 5 minutes; engine use needed to maintain position in the water is not considered idling; diesel idling within 300 meters (1,000 feet) of sensitive receptors is not permitted; use alternatively fueled construction equipment on site where feasible, such as compressed natural gas, liquefied natural gas, propane or biodiesel.	Verify that Tier 2 or cleaner engines are being used.  Inform vessel operator(s) of idling limitation.  Investigate availability of alternative fuels.				
	<u>Santa Barbara County:</u> Use vessel engines meeting CARB's Tier 2-certified engines or cleaner, accomplished with Tier 2 engines if daily fuel use is 790 gallons or less.	Verify that Tier 2 or cleaner engines are being used.  Investigate availability of alternative fuels.				
	<u>Ventura County:</u> Use alternatively fueled construction equipment on site where feasible, such as compressed natural gas, liquefied natural gas, propane or biodiesel.	Investigate availability of alternative fuels.				

EXHIBIT B

Mitigation Monitoring Program

Mitigation Measure (MM)	Location and Scope of Mitigation	Effectiveness Criteria	Monitoring or Reporting Action	Responsible Party	Timing	Implementation Date(s) and Initials
<b>MM BIO-1:</b> Marine Mammal and Sea Turtle Presence – Current Information.	All State waters; prior to commencement of survey operations, the geophysical operator shall: (1) contact the National Oceanic and Atmospheric Administration Long Beach office staff and local whale-watching operations and shall acquire information on the current composition and relative abundance of marine wildlife offshore, and (2) convey sightings data to the vessel operator and crew, survey party chief, and onboard Marine Wildlife Monitors (MWMs) prior to departure. This information will aid the MWMs by providing data on the approximate number and types of organisms that may be in the area.	No adverse effects to marine mammals or sea turtles due to survey activities are observed.	Document contact with appropriate sources.  Submit Final Monitoring Report after completion of survey activities.	OGPP permit holder; Inquiry to NOAA and local whale watching operators.	Prior to survey.	
<b>MM BIO-2:</b> Marine Wildlife Monitors (MWMs).	Except as provided in section 7(h) of the General Permit, a minimum of two (2) qualified MWMs who are experienced in marine wildlife observations shall be onboard the survey vessel throughout both transit and data collection activities. The specific monitoring, observation, and data collection responsibilities shall be identified in the Marine Wildlife Contingency Plan required as part of all Offshore Geophysical Permit Program permits. Qualifications of proposed MWMs shall be submitted to the National Oceanic and Atmospheric Administration (NOAA) and CSLC at least twenty-one (21) days in advance of the survey for their approval by the agencies. Survey operations shall not commence until the CSLC approves the MWMs.	Competent and professional monitoring or marine mammals and sea turtles; compliance with established monitoring policies.	Document contact with and approval by appropriate agencies.  Submit Final Monitoring Report after completion of survey activities.	OGPP permit holder.	Prior to survey.	
<b>MM BIO-3:</b> Safety Zone Monitoring.	Onboard Marine Wildlife Monitors (MWMs) responsible for observations during vessel transit shall be responsible for monitoring during the survey equipment operations. All visual monitoring shall occur from the highest practical vantage point aboard the survey vessel; binoculars shall be used to observe the surrounding area, as appropriate. The MWMs will survey an area (i.e., safety or exclusion zone) based on the equipment used, centered on the sound source (i.e., vessel, towfish), throughout time that the survey equipment is operating. Safety zone radial distances, by equipment type, include:	No adverse effects to marine mammals or sea turtles due to survey activities are observed; compliance with established safety zones.	Compliance with permit requirements (observers); compliance with established safety zones.  Submit Final Monitoring Report after completion of survey activities.	OGPP permit holder.	Prior to survey.	

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Mitigation Monitoring Program

Mitigation Measure (MM)	Location and Scope of Mitigation	Effectiveness Criteria	Monitoring or Reporting Action	Responsible Party	Timing	Implementation Date(s) and Initials												
	<table border="1" data-bbox="464 305 968 506"> <thead> <tr> <th data-bbox="464 305 781 358">Equipment Type</th> <th data-bbox="781 305 968 358">Safety Zone (radius, m)</th> </tr> </thead> <tbody> <tr> <td data-bbox="464 358 781 391">Single Beam Echosounder</td> <td data-bbox="781 358 968 391">50</td> </tr> <tr> <td data-bbox="464 391 781 423">Multibeam Echosounder</td> <td data-bbox="781 391 968 423">500</td> </tr> <tr> <td data-bbox="464 423 781 456">Side-Scan Sonar</td> <td data-bbox="781 423 968 456">600</td> </tr> <tr> <td data-bbox="464 456 781 488">Subbottom Profiler</td> <td data-bbox="781 456 968 488">100</td> </tr> <tr> <td data-bbox="464 488 781 506">Boomer System</td> <td data-bbox="781 488 968 506">100</td> </tr> </tbody> </table> <p data-bbox="403 506 1026 1193">If the geophysical survey equipment is operated at or above a frequency of 200 kilohertz (kHz), safety zone monitoring and enforcement is not required; however, if geophysical survey equipment operated at a frequency at or above 200 kHz is used simultaneously with geophysical survey equipment less than 200 kHz, then the safety zone for the equipment less than 200 kHz must be monitored. The onboard MWMs shall have authority to stop operations if a mammal or turtle is observed within the specified safety zone and may be negatively affected by survey activities. The MWMs shall also have authority to recommend continuation (or cessation) of operations during periods of limited visibility (i.e., fog, rain) based on the observed abundance of marine wildlife. Periodic reevaluation of weather conditions and reassessment of the continuation/cessation recommendation shall be completed by the onboard MWMs. During operations, if an animal's actions are observed to be irregular, the monitor shall have authority to recommend that equipment be shut down until the animal moves further away from the sound source. If irregular behavior is observed, the equipment shall be shut-off and will be restarted and ramped-up to full power, as applicable, or will not be started until the animal(s) is/are outside of the safety zone or have not been observed for 15 minutes.</p> <p data-bbox="403 1219 1026 1411">For nearshore survey operations utilizing vessels that lack the personnel capacity to hold two (2) MWMs aboard during survey operations, at least twenty-one (21) days prior to the commencement of survey activities, the Permittee may petition the CSLC to conduct survey operations with one (1) MWM aboard. The CSLC will consider such authorization on a case-by-case basis and</p>	Equipment Type	Safety Zone (radius, m)	Single Beam Echosounder	50	Multibeam Echosounder	500	Side-Scan Sonar	600	Subbottom Profiler	100	Boomer System	100					
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	factors the CSLC will consider will include the timing, type, and location of the survey, the size of the vessel, and the availability of alternate vessels for conducting the proposed survey. CSLC authorizations under this subsection will be limited to individual surveys and under any such authorization, the Permittee shall update the MWCP to reflect how survey operations will occur under the authorization.					
<b>MM BIO-4:</b> Limits on Nighttime OGPP Surveys.	All State waters; nighttime survey operations are prohibited under the OGPP, except as provided below. The CSLC will consider the use of single beam echosounders and passive equipment types at night on a case-by-case basis, taking into consideration the equipment specifications, location, timing, and duration of survey activity.	No adverse effects to marine mammals or sea turtles due to survey activities are observed.	Presurvey request for nighttime operations, including equipment specifications and proposed use schedule.  Document equipment use.  Submit Final Monitoring Report after completion of survey activities.	OGPP permit holder.	Approval required before survey is initiated.  Monitoring Report following completion of survey.	
<b>MM BIO-5:</b> Soft Start.	All State waters; the survey operator shall use a "soft start" technique at the beginning of survey activities each day (or following a shut down) to allow any marine mammal that may be in the immediate area to leave before the sound sources reach full energy. Surveys shall not commence at nighttime or when the safety zone cannot be effectively monitored. Operators shall initiate each piece of equipment at the lowest practical sound level, increasing output in such a manner as to increase in steps not exceeding approximately 6 decibels (dB) per 5-minute period. During ramp-up, the Marine Wildlife Monitors (MWMs) shall monitor the safety zone. If marine mammals are sighted within or about to enter the safety zone, a power-down or shut down shall be implemented as though the equipment was operating at full power. Initiation of ramp-up procedures from shut down requires that the MWMs be able to visually observe the full safety zone.	No adverse effects to marine mammals or sea turtles due to survey activities are observed.	Compliance with permit requirements (observers); compliance with safe start procedures.  Submit Final Monitoring Report after completion of survey activities.	OGPP permit holder.	Immediately prior to survey.	

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<b>MM BIO-6:</b> Practical Limitations on Equipment Use and Adherence to Equipment Manufacturer's Routine Maintenance Schedule.	All State waters; geophysical operators shall follow, to the maximum extent possible, the guidelines of Zykov (2013) as they pertain to the use of subbottom profilers and side-scan sonar, including: <ul style="list-style-type: none"> <li>Using the highest frequency band possible for the subbottom profiler;</li> <li>Using the shortest possible pulse length; and</li> <li>Lowering the pulse rate (pings per second) as much as feasible.</li> </ul> Geophysical operators shall consider the potential applicability of these measures to other equipment types (e.g., boomer). Permit holders will conduct routine inspection and maintenance of acoustic-generating equipment to ensure that low energy geophysical equipment used during permitted survey activities remains in proper working order and within manufacturer's equipment specifications. Verification of the date and occurrence of such equipment inspection and maintenance shall be provided in the required presurvey notification to CSLC.	No adverse effects to marine mammals or sea turtles due to survey activities are observed.	Document initial and during survey equipment settings.  Submit Final Monitoring Report after completion of survey activities.	OGPP permit holder.	Immediately prior to and during survey.	
<b>MM BIO-7:</b> Avoidance of Pinniped Haul-Out Sites.	The Marine Wildlife Contingency Plan (MWCP) developed and implemented for each survey shall include identification of haul-out sites within or immediately adjacent to the proposed survey area. For surveys within 300 meters (m) of a haul-out site, the MWCP shall further require that: <ul style="list-style-type: none"> <li>The survey vessel shall not approach within 91 m of a haul-out site, consistent with National Marine Fisheries Service (NMFS) guidelines;</li> <li>Survey activity close to haul-out sites shall be conducted in an expedited manner to minimize the potential for disturbance of pinnipeds on land; and</li> <li>Marine Wildlife Monitors shall monitor pinniped activity onshore as the vessel approaches, observing and reporting on the number of pinnipeds potentially disturbed (e.g., via head lifting, flushing into the water). The purpose of such reporting is to provide CSLC and California Department of Fish and Wildlife (CDFW) with information regarding potential disturbance associated with OGPP surveys.</li> </ul>	No adverse effects to pinnipeds at haul outs are observed.	Document pinniped reactions to vessel presence and equipment use.  Submit Final Monitoring Report after completion of survey activities.	OGPP permit holder.	Monitoring Report following completion of survey.	

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<p><b>MM BIO-8:</b> Reporting Requirements – Collision.</p>	<p>All State waters; if a collision with marine mammal or reptile occurs, the vessel operator shall document the conditions under which the accident occurred, including the following:</p> <ul style="list-style-type: none"> <li>• Vessel location (latitude, longitude) when the collision occurred;</li> <li>• Date and time of collision;</li> <li>• Speed and heading of the vessel at the time of collision;</li> <li>• Observation conditions (e.g., wind speed and direction, swell height, visibility in miles or kilometers, and presence of rain or fog) at the time of collision;</li> <li>• Species of marine wildlife contacted (if known);</li> <li>• Whether an observer was monitoring marine wildlife at the time of collision; and,</li> <li>• Name of vessel, vessel owner/operator, and captain officer in charge of the vessel at time of collision.</li> </ul> <p>After a collision, the vessel shall stop, if safe to do so; however, the vessel is not obligated to stand by and may proceed after confirming that it will not further damage the animal by doing so. The vessel will then immediately communicate by radio or telephone all details to the vessel's base of operations, and shall immediately report the incident. Consistent with Marine Mammal Protection Act requirements, the vessel's base of operations or, if an onboard telephone is available, the vessel captain him/herself, will then immediately call the National Oceanic and Atmospheric Administration (NOAA) Stranding Coordinator to report the collision and follow any subsequent instructions. From the report, the Stranding Coordinator will coordinate subsequent action, including enlisting the aid of marine mammal rescue organizations, if appropriate. From the vessel's base of operations, a telephone call will be placed to the Stranding Coordinator, NOAA National Marine Fisheries Service (NMFS), Southwest Region, Long Beach, to obtain instructions. Although NOAA has primary responsibility for marine mammals in both State and Federal waters, the California Department of Fish and</p>	<p>No adverse effects to marine mammals or sea turtles due to survey activities are observed.</p>	<p>Submit Final Monitoring Report after completion of survey activities.</p>	<p>OGPP permit holder.</p>	<p>Monitoring Report following completion of survey.</p>	



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	Wildlife (CDFW) will also be advised that an incident has occurred in State waters affecting a protected species.					
<b>MM BIO-9:</b> Limitations on Survey Operations in Select Marine Protected Areas (MPAs).	All MPAs; prior to commencing survey activities, geophysical operators shall coordinate with the CLSC, California Department of Fish and Wildlife (CDFW), and any other appropriate permitting agency regarding proposed operations within MPAs. The scope and purpose of each survey proposed within a MPA shall be defined by the permit holder, and the applicability of the survey to the allowable MPA activities shall be delineated by the permit holder. If deemed necessary by CDFW, geophysical operators will pursue a scientific collecting permit, or other appropriate authorization, to secure approval to work within a MPA, and shall provide a copy of such authorization to the CSLC as part of the required presurvey notification to CSLC. CSLC, CDFW, and/or other permitting agencies may impose further restrictions on survey activities as conditions of approval.	No adverse effects to MPA resources due to survey activities are observed.	Monitor reactions of wildlife to survey operations; report on shutdown conditions and survey restart.  Submit Final Monitoring Report after completion of survey activities.	OGPP permit holder; survey permitted by CDFW.	Prior to survey.	
<b>MM HAZ-1:</b> Oil Spill Contingency Plan (OSCP) Required Information.	Permittees shall develop and submit to CSLC staff for review and approval an OSCP that addresses accidental releases of petroleum and/or non-petroleum products during survey operations. Permittees' OSCP's shall include the following information for each vessel to be involved with the survey: <ul style="list-style-type: none"> <li>• Specific steps to be taken in the event of a spill, including notification names, phone numbers, and locations of: (1) nearby emergency medical facilities, and (2) wildlife rescue/response organizations (e.g., Oiled Wildlife Care Network);</li> <li>• Description of crew training and equipment testing procedures; and</li> <li>• Description, quantities, and location of spill response equipment onboard the vessel.</li> </ul>	Reduction in the potential for an accidental spill. Proper and timely response and notification of responsible parties in the event of a spill.	Documentation of proper spill training.  Notification of responsible parties in the event of a spill.	OGPP permit holder and contract vessel operator.	Prior to survey.	
<b>MM HAZ-2:</b> Vessel fueling restrictions.	Vessel fueling shall only occur at an approved docking facility. No cross vessel fueling shall be allowed.	Reduction in the potential for an accidental spill.	Documentation of fueling activities.	Contract vessel operator.	Following survey.	
<b>MM HAZ-3:</b> OSCP equipment	Onboard spill response equipment and supplies shall be sufficient to contain and recover the worst-case scenario	Proper and timely	Notification to CSLC of onboard spill	Contract vessel	Prior to survey.	

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and supplies.	spill of petroleum products as outlined in the OSCP.	response in the event of a spill.	response equipment/supplies inventory, verify ability to respond to worst-case spill.	operator.		
<b>MM HAZ-1:</b> Oil Spill Contingency Plan (OSCP) Required Information.	Outlined under <b>Hazards and Hazardous Materials</b> (above)					
<b>MM HAZ-2:</b> Vessel fueling restrictions.	Outlined under <b>Hazards and Hazardous Materials</b> (above)					
<b>MM HAZ-3:</b> OSCP equipment and supplies.	Outlined under <b>Hazards and Hazardous Materials</b> (above)					
<b>MM BIO-9:</b> Limitations on Survey Operations in Select MPAs.	Outlined under <b>Biological Resources</b> (above)					
<b>MM REC-1:</b> U.S. Coast Guard (USCG), Harbormaster, and Dive Shop Operator Notification.	All California waters where recreational diving may occur; as a survey permit condition, the CSLC shall require Permittees to provide the USCG with survey details, including information on vessel types, survey locations, times, contact information, and other details of activities that may pose a hazard to divers so that USCG can include the information in the Local Notice to Mariners, advising vessels to avoid potential hazards near survey areas. Furthermore, at least twenty-one (21) days in advance of in-water activities, Permittees shall: (1) post such notices in the harbormasters' offices of regional harbors; and (2) notify operators of dive shops in coastal locations adjacent to the proposed offshore survey operations.	No adverse effects to recreational divers from survey operations.	Notify the USCG, local harbormasters, and local dive shops of planned survey activity.  Submit Final Monitoring Report after completion of survey activities.	OGPP permit holder.	Prior to survey.	

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<b>MM FISH-1:</b> U.S. Coast Guard (USCG) and Harbormaster Notification.	All California waters; as a survey permit condition, the CSLC shall require Permittees to provide the USCG with survey details, including information on vessel types, survey locations, times, contact information, and other details of activities that may pose a hazard to mariners and fishers so that USCG can include the information in the Local Notice to Mariners, advising vessels to avoid potential hazards near survey areas. Furthermore, at least twenty-one (21) days in advance of in-water activities, Permittees shall post such notices in the harbormasters' offices of regional harbors.	No adverse effects to commercial fishing gear in place.	Notify the USCG and local harbormasters of planned survey activity.  Submit Final Monitoring Report after completion of survey activities.	OGPP permit holder.	Prior to survey.	
<b>MM FISH-2:</b> Minimize Interaction with Fishing Gear.	To minimize interaction with fishing gear that may be present within a survey area: (1) the geophysical vessel (or designated vessel) shall traverse the proposed survey corridor prior to commencing survey operations to note and record the presence, type, and location of deployed fishing gear (i.e., buoys); (2) no survey lines within 30 m (100 feet) of observed fishing gear shall be conducted. The survey crew shall not remove or relocate any fishing gear; removal or relocation shall only be accomplished by the owner of the gear upon notification by the survey operator of the potential conflict.	No adverse effects to commercial fishing gear in place.	Visually observe the survey area for commercial fishing gear. Notify the gear owner and request relocation of gear outside survey area.  Submit Final Monitoring Report after completion of survey activities.	OGPP permit holder.	Immediately prior to survey (prior to each survey day).	
<b>MM FISH-1:</b> USCG and Harbormaster Notification.	Outlined under <b>Commercial and Recreational Fisheries</b> (above)					

Acronyms/Abbreviations: CARB = California Air Resources Board; CDFW = California Department of Fish and Wildlife; CSLC = California State Lands Commission; dB = decibels; kHz = kilohertz; MPA = Marine Protected Area; MWCP = Marine Wildlife Contingency Plan; MWM = Marine Wildlife Monitor; m= meter(s); NOAA = National Oceanic and Atmospheric Administration; NO<sub>x</sub> = Nitrogen Oxide; OGPP = Offshore Geophysical Permit Program; OSCP = Oil Spill Contingency Plan; USCG = U.S. Coast Guard