

**STAFF REPORT
C76**

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**CONSIDER APPROVAL OF PROPOSED ADDITIONS TO THE
CALIFORNIA CODE OF REGULATIONS, TITLE 2, DIVISION 3, CHAPTER 1,
ARTICLE 2.9.1—PERMITS FOR GEOPHYSICAL SURVEYS**

PROPOSAL:

The Commission proposes to adopt additions to the California Code of Regulations, title 2, division 3, chapter 1, article 2.9.1 (Article 2.9.1), to revise and update the Commission's existing program for permitting geophysical surveys on State sovereign land, including granted and ungranted tidelands, submerged lands, and the beds of navigable waterways. Article 2.9.1 seeks to address and minimize potential impacts to aquatic life or to the environment that may arise from geophysical surveys, as required by statute. The proposed Article 2.9.1 additions will identify the geophysical survey activities needing a Commission-issued permit, the terms and operational conditions of each permit, and administrative requirements for both the Commission and permittee.

BACKGROUND:

The Commission is the state agency with jurisdiction over geophysical survey activities in state waters since 1955 with the enactment of Public Resources Code section 6826. Since the early 1980s, the Commission has administered a limited program to permit companies and individuals to conduct offshore geophysical surveys for mapping and exploring the ocean floor and subfloor. Initially, most permitted geophysical surveys were conducted to prospect for mineral resources, mostly oil and gas, utilizing electromagnetic acoustic-generating equipment such as towed sonar arrays or pressure generated from airguns or explosives. Today, geophysical surveys are primarily conducted for infrastructure, archaeological and cultural exploration, and scientific exploration of the ocean floor utilizing a variety of acoustic-generating equipment of varying frequencies and decibel levels. The state of knowledge has confirmed that geophysical survey activities using low-energy equipment previously deemed innocuous, such as sonar, chirps, sparkers, and echosounders, can impact the environment.

In September 2013, the Commission adopted a Mitigated Negative Declaration (MND) and Mitigation Monitoring Program (MMP) ([Item 120, September 20, 2013](#)). The MND identified the potential for significant impact to the environment from low-energy geophysical surveys, namely from the harassment to marine mammals that can occur from acoustic noise generated from survey equipment

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and from vessel strikes. An MMP was developed to mitigate those impacts and served as the basis for revised operating conditions and a new program for monitoring permit compliance. Soon after, the Commission launched an electronic mailing list to actively notify the public of where and when surveys were scheduled to occur. Surveys conducted with high-energy equipment, such as airguns, water cannons, or explosives, were not analyzed under the MND; therefore, if proposed by an applicant, additional analysis under the California Environmental Quality Act (CEQA) would be required, likely through the preparation of an Environmental Impact Report, which would inform permit terms and conditions specific to the activities being conducted.

In April 2014, the Commission adopted an addendum to the MND ([Item C67, April 23, 2014](#)) that revised certain mitigation measures, including measures tied to surveys that utilized only passive, nonacoustic generating equipment and surveys tied to dredging in ports. In October 2014, staff presented a One-Year Program Implementation Report ([Item 110, October 14, 2014](#)) to inform the Commission of staff's administration of the updated permit program, identify the status of program review recommendations, and discuss implementation challenges based on staff experience and feedback from permittees and other stakeholders. Staff identified enforcement as the primary challenge to the permit program's success. Only a small number of geophysical survey operators were applying for permits and the Commission had no clear authority to compel compliance. The report recommended seeking additional statutory authority followed by developing regulations.

In 2015, the California Legislature passed AB 1274 (Chapter 600 of the Statutes of 2015), codified as Public Resources Code section 6212.3, declaring that "[t]he state has a responsibility to establish conditions to ensure that geophysical surveys performed on state lands under its jurisdiction, including granted and ungranted tidelands and submerged lands . . . do not cause harm or damage to aquatic life or to the marine and coastal environment." AB 1274 directed the Commission to adopt regulations and provided authority for the Commission to issue cease and desist orders in order to improve permit compliance. The proposed regulations are intended to implement the objectives of AB 1274.

SUMMARY OF THE PROPOSED REGULATIONS:

The proposed regulations codify the program as developed since the 2013 MND and further update the permit program based on the lessons learned managing the program and the input of stakeholders. The significant changes include:

Defining what activities require a permit. The proposed regulations clarify what survey activities require a permit from the Commission and, importantly, what activities do not require a permit. In addition, the rulemaking establishes two permit types that will allow flexibility for operators to conduct surveys offshore or on inland waterways.

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Clarifying permit conditions and streamlining compliance. The proposed regulations reorder and clarify requirements for pre-survey, operational, and post-survey activities to reduce paper work and ambiguity that exists under the current program. Operators will be required to provide fewer documents before each survey, reducing the administrative burden on permittees and staff. Also, conditions designed to protect the environment have been clarified to enhance mitigation compliance.

Enhancing public notice requirements. The proposed regulations establish a public notification procedure for alerting interested parties when and where a permitted geophysical survey will occur. In addition, the proposed regulations establish a cease and desist procedure to increase permit compliance.

PUBLIC OUTREACH AND STAKEHOLDER MEETINGS:

Before the formal rulemaking process started, staff held two informal comment periods and two technical advisory group (TAG) meetings. The first informal comment period was held from March 7 to April 6, 2016. The received comments prompted the development of the TAG to facilitate discussions on the proposed regulations. The TAG comprised geophysical operators/permittees, researchers specializing in underwater noise impacts to marine wildlife, non-governmental organizations, and staff from state and federal agencies. TAG meetings were held on October 18, 2016, and December 12, 2016, when staff facilitated information sharing, discussion, and deliberation over the risks posed to California waters and wildlife from geophysical survey operations, as well as the administrative elements of the regulations. A second informal comment period involving members of the TAG was held from June 1 to 16, 2017. The comments received during this informal comment period were considered in the preparation of the proposed regulations.

SUMMARY OF NOTIFICATION AND RULEMAKING PROCESS:

Notice of the proposed regulations was published in the California Regulatory Notice Register (File No. Z2018-1106-05) on November 16, 2018. A link to all rulemaking documents was posted on the Commission's website, and notice was delivered to interested parties.

The rulemaking's public comment period spanned 49 days from November 16, 2018, through January 4, 2019. A public hearing was held at the Commission's Sacramento office on January 4, 2019. No comments were received during the public hearing. Staff did receive two written comments during the public comment period, from the Monterey Bay Aquarium Research Institute (MBARI) and from Fugro USA Marine, Inc., both previous TAG participants. Generally, the comments sought clarification on whether certain autonomous vehicle surveys required a permit and a suggestion to exclude certain remotely operated vehicle activities from the permit requirement. The comments also sought clarification on notice requirements and a suggestion for altering survey equipment shutdown

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and startup procedures when marine mammals are spotted near operating survey equipment.

After considering the comments, staff determined that no substantial changes are needed to the proposed regulations. But, as discussed below, two nonsubstantial changes were made to improve clarity. Staff will fully respond to each comment in the Final Statement of Reasons developed prior to submission of the proposed regulations to the Office of Administrative Law. The substantive comments requested changes to the proposed regulations that could potentially impact the marine environment and, therefore, would require additional CEQA analysis to be adopted. Additional comments sought clarity in how the proposed regulations will be applied in factual scenarios and did not recommend alternatives. For these reasons, commenter's changes are not being adopted into the proposed regulations. But staff believes that these comments have value in developing future revisions to the regulations.

NONSUBSTANTIAL CHANGE TO THE PROPOSED REGULATIONS:

In response to comments, staff recommends two nonsubstantial changes to the proposed regulations to improve clarity.

Section 2100.03, subdivision (d), of the proposed regulations, as originally noticed, expressly identifies geophysical surveys as surveys conducted to map the ocean floor. This created a clarity concern about whether the definition limited permitted geophysical surveys to only those occurring on the open ocean. The substantive requirements of the proposed regulations are clear that permits are required for geophysical surveys that occur on any waterway under the Commission's jurisdiction. The nonsubstantial revision to subdivision (d) removes the term "ocean" and instead references "marine waters," a term that is defined in the proposed regulations in subdivision (h) and a term that encompasses tidally influenced waterways including, and in addition to, the ocean. This change is for clarity and consistency and does not alter the express or intended scope of the proposed regulations in any way.

Section 2100.03, subdivision (m), of the proposed regulations, as originally noticed, defines "remotely operated vehicle," or "ROV" but the defined term is not found anywhere else in the proposed regulations. Earlier drafts of the proposed regulations expressly exempted ROV operations that utilized passive, or nonacoustic generating equipment, from permit requirements. The currently proposed regulations were redrafted to exempt all surveys using passive equipment (whether using an ROV or not), removing the need to specifically refer to ROV as it pertains to survey activities. The section 2100.03 subdivision (m) definition of "ROV" is an artifact from earlier drafts of the proposed regulations that, inadvertently, was not deleted.

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Under the Administrative Procedure Act, nonsubstantial changes can be made to proposed regulations without the need for an additional public comment period or further noticing. Nonsubstantial changes are those that “clarify without materially altering the requirements, rights, responsibilities, conditions, or prescriptions contained in the original text” (title 1, California Code of Regulations § 40).

Changing the term “ocean” to “marine waters” in section 2100.3 subdivision (d) is a nonsubstantial change because the subdivision’s purpose is definitional, not jurisdictional, and the substantive portions of the proposed regulations make it clear that permits are required for surveys conducted on any waterway under the Commission’s jurisdiction. Section 2100.04 states that “[a]ll geophysical surveys on State sovereign lands . . . must be permitted” This directive fully contemplates that survey activity on marine waters and nonmarine waters will require a permit. Additionally, section 2100.05 identifies the type of permit issued for geophysical surveys on marine waters (which includes the open ocean) and those on nonmarine waters, providing full notice to the public that the proposed regulations were intended to affect all geophysical surveys, regardless of whether occurring on the ocean or not. Therefore, this change is solely for clarification and is otherwise nonsubstantial.

Similarly, the removal of the ROV definition in section 2100.03 subdivision (m) has no effect on any requirement of the proposed permit program because the program, as currently proposed, regulates acoustic noise generating sources, not the platforms that they are installed upon. Since no requirements, rights, responsibilities, conditions, or prescriptions are altered by the removal of the ROV definition, the change is nonsubstantial and does not require any additional noticing, prior to Commission approval of the proposed regulations.

STAFF ANALYSIS AND RECOMMENDATION:

Authority:

Public Resources Code sections 6108, 6212.3, and 6826.

Public Trust and State’s Best Interests Analysis:

Geophysical surveys conducted under the proposed regulations will be used to map the surface and subsurface of submerged lands to detail the physical characteristics of those lands. Scientific study has been recognized by the courts to be a use consistent with the Public Trust Doctrine. (See, for example, *Marks v. Whitney*, 6 Cal.3d 251, 259-260 (1971).) The activities to be conducted under the regulations are an essential prerequisite for the study of biological habitats, cultural resources, sand migration, ocean topography, and other marine research purposes.

The objectives of this proposed rulemaking are: (1) to ensure that nonexempt geophysical surveys are conducted pursuant to a Commission-

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issued permit, (2) ensure that geophysical surveys occur in a manner that is protective of public safety and the environment, (3) and ensure that the public has adequate notice of the occurrence of geophysical surveys and where they will occur. These objectives will ensure that geophysical surveys do not substantially interfere with competing Public Trust uses such as navigation and fishing. The regulations will ensure that surveys are conducted in accordance with limitations that are protective of the environment, including a Marine Wildlife Contingency Plan, a Spill Contingency Plan, and a Mitigation Monitoring Program. For all the reasons above, staff believes the proposed regulations will not substantially interfere with Public Trust needs and values; are consistent with the common law Public Trust Doctrine; and are in the best interests of the State.

OTHER PERTINENT INFORMATION:

1. This action is consistent with Strategy 1.1 of the Commission's Strategic Plan, Key Action 1.1.2, to review existing safety standards and regulations for continued relevance and use the public rulemaking processes to amend or adopt new regulations to enforce lease compliance and promote environmental protection and public health and safety, while reducing unnecessary bureaucracy.
2. The permit program, after publication of the proposed regulations in the California Code of Regulations, will require a permit for qualifying geophysical surveys on sovereign land, both granted and ungranted.
3. An MND identified as CSLC MND No. 751, State Clearinghouse No. 2013072021, and an MMP were prepared by staff and adopted by the Commission on September 20, 2013, and an Addendum to the MND was adopted on April 23, 2014, for this Project.
4. Generally, on inland waterways, geophysical surveys are an activity exempt from the requirements of CEQA as a categorically exempt project. These surveys are exempt under Class 6, Information Collection, California Code of Regulations, title 2, section 2905, subdivision (e)(3).

Authority: Public Resources Code section 21084 and California Code of Regulations, title 14, section 15300 and California Code of Regulations, title 2, section 2905.

5. The proposed regulatory action is not considered a "major regulation" as defined by California Department of Finance in California Code of Regulations, title 1, section 2000, subdivision (g).

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6. This activity involves lands identified as possessing significant environmental values pursuant to Public Resources Code section 6370 et seq. At the time the Commission adopted the MND in 2013, staff concluded that such activity would not affect those significant lands and the Commission found the activity to be consistent with its use classification pursuant to Public Resources Code section 6370 et seq.

EXHIBIT:

- A. Text of the proposed regulations

RECOMMENDED ACTION:

It is recommended that the Commission:

FINDINGS REQUIRED BY GOVERNMENT CODE SECTION 11346.5 subdivision (a)(13):

Find that no alternatives would be more effective in carrying out the purposes for which the regulations are proposed, or would be as effective as and less burdensome for affected persons, or would be more cost effective and equally effective in implementing the statutory policy, than the proposed regulations.

CEQA FINDING:

Find that the MND, CSLC No. 751, State Clearinghouse No. 2013072021, and an MMP were adopted on September 20, 2013.

Find that the addendum to the MND, including a revised General Permit and MMP, was adopted on April 23, 2014, pursuant to the provisions of CEQA.

Find that the Commission reviewed and considered the information contained in the previously adopted MND and addendum, and, that in the Commission's independent judgment, the scope of activities to be carried out under the proposed regulations has been adequately analyzed.

Additionally, find that approval of the proposed regulations for nonmarine waters is exempt from the requirements of CEQA pursuant to California Code of Regulations, title 14, section 15061 as a categorically exempt project, Class 6, Information Collection; California Code of Regulations, title 2, section 2905, subdivision (e)(3).

PUBLIC TRUST AND STATE'S BEST INTERESTS:

Find that adoption of the proposed regulations will not substantially impair the public rights to navigation, fishing, and commerce or substantially interfere with Public Trust needs and values at this time; is consistent with the common law Public Trust Doctrine; and is in the best interests of the State.

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AUTHORIZATION:

1. Authorize adoption of section 2100.01 et seq. of the California Code of Regulations, title 2, division 3, chapter 1, article 2.9.1, substantially in the form of that set forth in Exhibit A.
2. Authorize staff to make minor, nonsubstantive modifications to the proposed regulations and supporting rulemaking documents in response to recommendations by the Office of Administrative Law.
3. Authorize staff to take whatever action is necessary and appropriate to comply with provisions of the Government Code regarding the lawful adoption of Article 2.9.1.
4. Authorize staff to take whatever action is necessary and appropriate to implement the adoption of the regulations at such time as the adoption by the Office of Administrative Law becomes effective.

Exhibit A

Showing nonsubstantial changes in section 2100.03(d) & (m)

Title 2. Administration.

Division 3. State Property Operations.

Chapter 1. State Lands Commission.

Article 2.9.1 Permits for Geophysical Surveys

§ 2100.01-2100.10

§ 2100.01 [reserved]

§ 2100.02 Purpose and Applicability

- a. The purpose of this article is to establish requirements to ensure that geophysical surveys performed on State sovereign lands, including granted and ungranted tidelands and submerged lands and the beds of navigable waterways, address and minimize potential impacts to aquatic life or to the environment as required by statute.
- b. This article shall apply to all geophysical surveys on State sovereign lands under the jurisdiction of the California State Lands Commission or legislatively granted tidelands and submerged lands.

Note: Authority cited: Sections 6108 and 6212.3, Public Resources Code. Reference: Sections 6212.3 and 6826, Public Resources Code.

§ 2100.03 Definitions

As used in these regulations:

- a. “Autonomous vehicle” means an uncrewed vehicle that operates independently of, and without tethers or connecting cables to, a crewed vessel.
- b. “Biological survey” means a scientific study of organisms to assess the condition of an ecological resource.
- c. “Commission” means the California State Lands Commission.
- d. “Geophysical survey” or “survey” means the systematic collection of geophysical data for spatial analysis, within a pre-determined area of study, by reflecting sound or pressure waves off the ocean floor of marine waters and nonmarine waters, and analyzing such data to develop an approximation of the physical features of the surface or subsurface floor of the marine waters and nonmarine waters ocean floor.
- e. “Haul-Out Site” means land habitat that is used by pinnipeds for periods of rest, molting, and as rookeries for mating and pupping.

- f. “High-energy equipment” means geophysical equipment that produces acoustic energy and is an air or water compression device (e.g., airgun, water gun).
- g. “Low-energy equipment” means geophysical equipment that produces acoustic energy and falls into one of the following categories: subbottom profilers (e.g., mini-sparkers, boomers, chirp, and general subbottom profiler systems), echosounders (e.g., single beam and multibeam echosounders), and side-scan sonars.
- h. “Marine waters” means those waters subject to tidal influence, except for waters in the Sacramento-San Joaquin Rivers and Delta upstream from a line running north and south through the point where Contra Costa, Sacramento, and Solano Counties meet.
- i. “Marine Wildlife Monitor” or “MWM” means a person responsible for monitoring for marine wildlife, including marine mammals and turtles, and ensuring geophysical survey activities are conducted in compliance with the Commission’s Geophysical Survey Permit Program for minimizing the risk of injury and disturbance to marine wildlife.
- j. “OGPP” means the Offshore Geophysical Permit Program.
- k. “Passive equipment” means equipment that does not produce acoustic or pressure wave energy, including but not limited to magnetometers, gravity meters, fluorometers, and optical sensors.
- l. “Pre-Survey Notification Form” means the Pre-Survey Notification Form dated September 5, 2018, incorporated herein in its entirety.
- m. “Remotely operated vehicle” or “ROV” means a tethered underwater mobile device operated by a crew aboard a vessel.
- n. m. “Sovereign lands” means the lands the State holds in trust for the benefit of the people of California subject to the common law Public Trust Doctrine and includes the beds of California’s navigable waterways to the ordinary low-water mark, as well as the State’s tide and submerged lands along the coastline and offshore islands from the ordinary high-water mark line to 3 nautical miles offshore.

Note: Authority cited: Sections 6108 and 6212.3, Public Resources Code. Reference: Sections 6212.3 and 6826, Public Resources Code.

§ 2100.04 Requirement for a Permit

- a. All geophysical surveys on State sovereign lands under the jurisdiction of the Commission or on legislatively granted tidelands or submerged lands must be permitted by the Commission prior to commencement of survey activities, except those listed in subsection (b).
- b. A permit is not required for the following activities:

1. Geophysical surveys utilizing passive equipment as the only means of data collection.
 2. Use of autonomous vehicles equipped with low-energy equipment operating at 200 kilohertz or higher.
 3. Biological surveys during which the collection of geophysical data by means of low-energy equipment is incidental.
 4. Geophysical surveys performed in support of dredging to maintain or increase the depth of navigation channels, anchorages, or berthing areas.
- c. The fee for a permit issued under this article is \$5,000.

Note: Authority cited: Sections 6108, 6212.3, and 6218, Public Resources Code. Reference: Sections 6212.3 and 6826, Public Resources Code.

§ 2100.05 Permit Types and Requirements

- a. The Commission may issue only the following permit types:
1. General Offshore Geophysical Survey Permit
 - A. This nonexclusive permit authorizes geophysical survey activity during the permit term.
 - B. A General Offshore Geophysical Survey Permit is required for geophysical surveys utilizing low-energy equipment conducted in marine waters under the jurisdiction of the Commission.
 2. Project-Specific Geophysical Survey Permit
 - A. This nonexclusive permit authorizes geophysical survey activity related to a specifically defined survey or surveys.
 - B. A Project-Specific Geophysical Survey Permit is required for geophysical surveys utilizing low-energy equipment not conducted in marine waters or high-energy equipment anywhere within the Commission's jurisdiction.
- b. Assignment: A permit issued under this article may not be assigned or transferred. A permittee may subcontract part or all of the work to be performed, however, no subcontract shall relieve the permittee of its responsibilities or obligations herein.
- c. Insurance: During the term of a permit, the permittee shall maintain and provide evidence of a program of self-insurance or valid proof of liability insurance in an amount no less than \$1,000,000 per occurrence.

Note: Authority cited: Sections 6108 and 6212.3, Public Resources Code. Reference: Sections 6212.3 and 6826, Public Resources Code.

§ 2100.06 Permit Term

- a. General Offshore Geophysical Survey Permits will be valid for 3 years from the date authorized by the Commission.
- b. Project-Specific Geophysical Survey Permits will be valid for a period not to exceed 3 years.

Note: Authority cited: Sections 6108 and 6212.3, Public Resources Code. Reference: Section 6212.3, Public Resources Code.

§ 2100.07 Pre-Survey Requirements, Survey Operations, and Post-Survey Requirements

- a. Pre-Survey Requirements: The following shall be required prior to the commencement of a geophysical survey.
 1. General Marine Wildlife Contingency Plan (MWCP): The Permittee shall have a General MWCP on file with the Commission that includes, at a minimum, current and up-to-date measures that specify the:
 - A. Distance, speed, and direction transiting vessels will maintain when in proximity to a marine mammal or reptile, including pinniped haul-out sites, as outlined in (b)(4) of this section;
 - B. Location and authority of marine wildlife monitors (MWMs) aboard the survey vessel;
 - C. Methods of reducing noise levels generated by geophysical equipment, as outlined in (b)(6) of this section;
 - D. How safety zones will be calculated by the Permittee and enforced by the MWM(s), when applicable, as outlined in (a)(5)(D) of this section; and
 - E. Observation recording procedures and reporting requirements in the event of an observed impact to marine organisms, as outlined in (b)(7) of this section.
 2. General Oil Spill Contingency Plan (OSCP): The Permittee shall have a General OSCP on file with the Commission for each survey vessel that includes, at a minimum, current and up-to-date measures that:
 - A. Specify the steps to be taken in the event of a spill, including names, phone numbers, and locations of nearby emergency medical facilities, wildlife rescue/response organizations (e.g., Oiled Wildlife Care Network), containment procedures, and cleanup procedures;

- B. Describe crew training and equipment testing procedures;
 - C. Describe the quantities and location of spill response equipment aboard the vessel; and
 - D. Specify that vessel fueling shall only occur at an approved docking facility (i.e., no cross-vessel fueling shall be allowed). Submission of a California Department of Fish and Wildlife (CDFW) Office of Spill Response and Prevention-approved OSCP shall comply with the requirements of this subsection.
- 3. Pre-Survey Notices: The Permittee shall follow the complete notification procedure set forth in section 2100.08 for all proposed geophysical surveys.
 - 4. Permits or Authorizations from Federal, State, and Local Agencies: The Permittee shall obtain any permits or authorizations from other federal, state, and local agencies as are necessary. For proposed operations in or potentially affecting Marine Protected Areas, the Permittee shall coordinate with the Commission, CDFW, and any other permitting agencies having jurisdiction regarding such operations prior to commencing survey activities.
 - 5. Pre-Survey Notification Package: The Permittee shall complete and electronically submit the following to the Commission, subject to section 2100.08.
 - A. Pre-Survey Notification Form: The Permittee shall complete and electronically submit the Pre-Survey Notification Form.
 - B. Survey Location: The Permittee shall provide a navigation chart of the survey area, including survey track lines, as well as the coordinates or a shapefile for the proposed survey track lines. The bounding coordinates for the survey area are acceptable if the track lines are not known. All coordinates shall be submitted in decimal degrees.
 - C. MWM Qualifications: The résumés of proposed MWMs shall be submitted by the Permittee to the Commission. MWM's must have expertise and prior experience conducting the monitoring requirements in (b)(5) of this section. Depending on the type of equipment used and its operational frequency, the number of required MWMs on a vessel will vary:
 - 1. One MWM is required for surveys operating geophysical equipment at frequencies \geq 200 kilohertz (kHz).
 - 2. Two MWMs are required for surveys operating geophysical equipment at frequencies $<$ 200 kHz.
 - 3. Permittees may petition for alternate MWM requirements:

- a. Petitions shall be received by the Commission at least 21 calendar days prior to survey commencement.
- b. The Commission shall evaluate such petitions on a case-by-case basis and consider factors including the equipment type, frequency, and source level; timing, type, and location of the survey; the size of the survey vessel and availability of alternate vessels; and the ability to effectively implement the marine mammal and reptile mitigation measures. An alternative to the MWM requirements must ensure the ability to monitor operations consistent with (b)(5) of this section.

D. Safety Zone Calculations:

1. For surveys operating equipment at a frequency < 200 kHz, a safety zone around the sound source (i.e., geophysical equipment) shall be observed by the MWMs.
 2. The size of the safety zone shall be the distance to the 160 dB re 1 μ Pa (root mean square [rms]) threshold as calculated, or modeled, by the Permittee.
 3. To calculate the size of the safety zone, the Permittee shall use the spherical spreading loss model (20 Log (R), where R is the distance from the source divided by the reference distance (1 meter)), except for where the water depth is:
 - a. Less than 1 wavelength of the predominant sound energy of the active sound source, or
 - b. Less than 3 meters, when the intermediate spreading loss model (15 Log (R)) shall be used.
 4. The safety zone for each piece of equipment operated at a frequency < 200 kHz shall be indicated on the Pre-Survey Notification Form.
6. Current Biological Information: Prior to commencement of survey operations, the Permittee shall:
- A. Contact the National Oceanic and Atmospheric Administration's (NOAA) Long Beach office staff and local whale watching operations to acquire information on the current composition and relative abundance of marine wildlife offshore.
 - B. Convey sightings data to the vessel operator and crew, survey party chief,

and onboard MWMs prior to departure.

7. Geophysical Survey Series: If a geophysical survey is part of a larger series of surveys within a defined survey area, the Permittee may, to avoid submitting multiple Pre-Survey Notification Packages to the Commission, provide a single notice to all parties listed in section 2100.08, including all potential survey dates/windows up to 1 year from the original notice date. This notice must be submitted no less than 21 calendar days prior to the commencement of the first geophysical survey in the survey series. For every geophysical survey within the survey series that occurs thereafter, the Permittee shall notify the Commission by email at slc.ogpp@slc.ca.gov prior to the survey.

b. Survey Operations:

1. Nighttime Operations: The Permittee shall not conduct nighttime survey operations; however, the Commission may authorize, at its discretion, the Permittee to operate at night if the proposed survey allows the MWMs to fully monitor operations consistent with (b)(5) of this section.
2. Engine and Equipment Maintenance and Operations: The Permittee shall:
 - A. Maintain all construction equipment in proper tune according to the 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 (i.e., CARB Diesel Fuel); and operate equipment in conformance with county air quality guidelines.
 - B. Conduct routine inspection and maintenance of acoustic-generating equipment to ensure that the equipment remains in proper working order and within the manufacturer's equipment specifications.
3. MWMs: Approved MWMs shall be aboard the survey vessel to visually monitor for marine wildlife during transit and data collection activities. 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.
4. Pinniped Haul-Out Sites: The following avoidance/monitoring requirements shall be implemented during transit and data collection activities:
 - A. The survey vessel shall not approach within 91 meters of a haul-out site.
 - B. For surveys occurring within 300 meters of a haul-out site, survey operations shall be conducted in an expedited manner to minimize the potential for disturbance of pinnipeds on land.
 - C. 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).

5. Safety Zone Monitoring: If geophysical equipment is operated at a frequency < 200 kHz, MWMs aboard the survey vessel shall monitor an area (i.e., safety or exclusion zone) based on the equipment operated, centered on the sound source. The model that shall be used by the Permittee to calculate the safety zone is provided in (a)(5)(D) of this section.
 - A. If a marine mammal or sea turtle is observed within or is about to enter the specified safety zone, geophysical equipment shall be immediately shut down.
 - B. If a marine mammal's or sea turtle's actions are observed to be irregular or if a large concentration of diving birds/seabirds is observed in the immediate vicinity, the MWMs shall have the authority to shut down geophysical equipment.
 - C. During periods of limited visibility (e.g., fog, rain), MWMs shall have the authority to shut down geophysical equipment if the safety zone and immediate vicinity cannot be observed. Periodic reevaluation of weather conditions and the reassessment of the cessation recommendation shall be completed by the MWMs.
 - D. If geophysical equipment is shut down, the equipment shall not be restarted and ramped up to full power until the marine mammal or sea turtle is observed outside of the safety zone or has not been observed for 15 minutes. Geophysical equipment shall not be ramped up from a shut down if the safety zone cannot be observed.
6. Noise Reduction Methods: The Permittee shall implement the following equipment operations to reduce noise levels produced by acoustic generating geophysical equipment:
 - A. When several pieces of equipment are operating simultaneously, they shall be timed so that they will not be transmitting at the same time unless designed to do so (e.g., multi-component systems) in order to avoid cumulative effects.
 - B. A soft-start procedure (i.e., ramp-up procedure) shall be used for all acoustic-generating geophysical equipment capable of adjusting energy levels. The Permittee shall implement the soft-start procedure 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 source reaches full energy. Each piece of equipment shall be initiated at the lowest practical sound level, increasing output in such a manner as to increase in steps not exceeding approximately 6 decibels per 5-minute period. For surveys requiring a safety zone to be monitored, a soft-start shall not be initiated if the safety zone cannot be adequately

monitored (e.g., due to inclement weather) by the MWM(s).

C. The Permittee shall follow, to the maximum extent feasible while allowing for the gathering of useful data, the following guidelines as they pertain to the use of subbottom profilers and side-scan sonars, including:

1. Using the highest frequency band possible for the subbottom profiler;
2. Using the shortest possible pulse length; and
3. Lowering the pulse rate (pings per second) as much as feasible.

7. Marine Mammal and Reptile Collision Reporting

A. 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.

B. 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 doing so will not further injure the animal. The vessel will then immediately communicate by radio or telephone all details of the incident to the vessel's base of operations. The vessel's base of operations will then immediately call the NOAA Stranding Coordinator to report the collision and follow any subsequent instructions. The captain onboard the vessel may also contact the NOAA Stranding Coordinator directly if an on-board telephone is available. The vessel's base of operations shall also call CDFW and the Commission within 24 hours of the collision to notify them of the incident.

8. Fishing Gear Interference: To minimize interaction with fishing gear that may be present within a survey area:

- A. The survey 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).
- B. No survey lines within 30 meters (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.

c. Post-Survey Requirements:

1. The Permittee shall submit a Post-Survey Report to the Commission not more than 30 days after the completion of a survey conducted under this permit. The Report shall include:

A. Survey Information:

- 1. A narrative description of the work performed, including the dates and times during which data collection occurred, and the environmental conditions (i.e., weather and sea state) encountered during survey operations; and
- 2. A chart or map with track lines surveyed and spatial information related to the survey track lines (either Global Positioning System (GPS) coordinates (in decimal degrees format) or Geographic Information System (GIS) files.

B. Biological Information:

- 1. A narrative description of any encounters with marine mammals, reptiles, 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 slowdowns were ordered due to animals being observed in the safety zone or due to poor visibility conditions, as assessed by the MWM(s); and
 - 3. If applicable, the number of collision events and type and disposition of animal.
2. The Permittee shall make available to the Commission, upon request, factual and physical survey results, logs, records, field acquired data, processed records or

any other data/information resulting from operations under this permit. The Commission shall treat any information marked confidential as such, to the extent permitted by law.

§ 2100.08 Public Notice of Survey Activity

- a. No less than 21 calendar days prior to the commencement of a geophysical survey, the permittee shall provide electronic notice of the survey activity to the following parties:
 1. California State Lands Commission
Email: slc.ogpp@slc.ca.gov
 2. If the geophysical survey is to occur in marine waters:
 - A. United States Coast Guard Local Notice to Mariners Commander
District Eleven (DPW)
Coast Guard Island Building 50-2
Alameda, CA 94501-5836
Email: D11NM@uscg.mil
 - B. Harbormasters' offices of regional harbors near survey area.
- b. Contents of Notice: The notice shall include the completed Pre-Survey Notification Form.
- c. The permittee shall notify the Commission and the parties listed in subsection (a) of any modification, deviation, delay, or cancellation of a survey.
- d. Shorter Notification: If, due to an emergency affecting public health or safety, harm to the environment, or other circumstance in which 21-days' notice cannot be provided, the permittee shall use best efforts to notify the Commission and the parties listed in subsection (a) as quickly as practicable.
- e. Commission Notification: The Commission shall operate and maintain an email listserv or equivalent electronic communication method to notify the public of scheduled geophysical surveys. The notifications shall include information about the scheduled geophysical survey, including the survey date(s), type, location, and duration.
 1. The Commission shall include information on its website www.slc.ca.gov, informing the public how to subscribe and unsubscribe from receiving geophysical survey notifications.
 2. Failure by the Commission to timely communicate information as provided in subsection (e) shall not be a basis for postponing or cancelling a permitted survey if the permittee has fully complied with the requirements of subsection (a) and (c).

Note: Authority cited: Sections 6108 and 6212.3, Public Resources Code. Reference: Section 6212.3, Public Resources Code.

§ 2100.09 Geophysical Permit Suspension or Revocation

- a. Violation of the requirements of this article, or the terms and conditions of a permit, may result in the suspension or revocation of a geophysical survey permit.
 1. A suspension shall be effective upon receipt by the permittee of written notice by the Commission which shall indicate: (1) the extent of the suspension; (2) the reasons for the suspension; and (3) any corrective or preventive measures to be taken by the permittee deemed necessary by the Commission to comply with the requirements of this article.
 2. The permittee shall take immediate action to comply with the suspension and address the violation. The permittee may appear before the Commission at a hearing in order to present information relevant to whether the permit should be reinstated, modified, or revoked.
 3. A permit revocation shall be effective after adoption of such revocation by the Commission at a noticed, public hearing.

Note: Authority cited: Sections 6108 and 6212.3, Public Resources Code. Reference: Section 6212.3, Public Resources Code.

§ 2100.10 Cease and Desist Authority

- a. The Commission's Executive Officer shall send, via mail, a cease and desist letter to parties conducting geophysical surveys without a permit, as required under section 2100.04 of this article. To the extent known or reported to the Commission, a cease and desist letter shall include:
 1. The date, time, and location of the unpermitted geophysical survey, if known;
 2. A demand to cease any unpermitted survey activity; and
 3. Information on to obtain and submit an application for a geophysical survey permit.

Note: Authority cited: Sections 6108 and 6212.3, Public Resources Code. Reference: Section 6212.3, Public Resources Code.

PRE-SURVEY NOTIFICATION FORM (9/5/2018)

Permittee's Contact Information

Permit #: _____

Select one:

- New Survey
- New Survey Series
- Existing Survey Series
- Time Extension

Section 1: Pre-Survey Notification Package. Please use the boxes below to verify that the required documents are included in the Pre-Survey Notification Package:

- Pre-Survey Notification Form
- Navigation chart, as well as GPS coordinates or a shapefile for proposed track lines (bounding coordinates for the survey area are acceptable if track lines are not known; all coordinates should be in decimal degrees)
- Résumé(s) of Marine Wildlife Monitor(s)

Section 2: Pre-Survey Notices. Please use the boxes below to verify that notifications have been sent to the following:

- U.S. Coast Guard Local Notice to Mariners
- Harbormasters' offices of regional harbors near the survey area

Section 3: Survey Details.

Date(s) of operation (survey window): _____

Number of survey days (approximate): _____

Survey Location: _____

Hours of operation: _____

Survey purpose/objective: _____

Section 4: Vessel Details.

Vessel name: _____

Vessel official number: _____

Vessel captain's name: _____

Radio channel(s) to be monitored by vessel: _____

Section 5: Survey Equipment Characteristics and Safety Zones.

<u>Survey Equipment Characteristics</u>			
<u>Equipment type</u>			
<u>Frequency</u>			
<u>Source level (dB re 1 uPa at 1 m [rms and peak])</u>			
<u>Number of beams</u>			
<u>Across and along track beamwidth</u>			
<u>Pulse rate/length</u>			
<u>Rise time</u>			
<u>Source depth</u>			
<u>Tow speed</u>			
<u>Cable tow length</u>			

<u>Safety Zones (if operating < 200 kHz)</u>			
<u>Equipment type</u>			
<u>Distance to the 160 dB (rms) threshold</u>			

Section 6: Pinniped Haul-Out Sites, Marine Protected Areas (MPAs), and Other Permits/Authorizations. Please provide answers to the following:

Are there pinniped haul-out sites within or near the survey area? If yes, please provide the location of and distance to the haul-out site(s).

Are there MPAs within or near the survey area? If yes, please provide the location of and distance to the MPA(s).

Were other permits or authorizations obtained from Federal or State agencies (e.g., from the California Department of Fish and Wildlife for work in or near MPAs)? If yes, please provide the type of permit and issuing agency.

Section 7: Contact Information. If you foresee potential interference with commercial fishing or other activities, please contact the person(s) listed below:

Permittee Representative

Commission Representative

**Bureau of Ocean Energy
Management Representative**
(If Applicable)