

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 non-marine waters, and analyzing such data to develop an approximation of the physical features of the surface or subsurface floor of the marine waters and non-marine waters 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, fluorimeters, 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  $\mu$ 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](mailto: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.

- 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](mailto: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](mailto: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](http://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.**

<b><u>Survey Equipment Characteristics</u></b>			
<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>			

<b><u>Safety Zones (if operating &lt; 200 kHz)</u></b>			
<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)