

**CALENDAR ITEM
121**

A)	09/20/13
) Statewide	PRC 8345.9
S)	PRC 8391.9
	PRC 8392.9
	PRC 8394.9
	PRC 8536.9
	PRC 8859.9
	PRC 8911.9
	PRC 9007.9
	W 6005.139
	R. Greenwood
	J. Fabel

**CONSIDER APPROVAL OF 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

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

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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

Coastal Frontiers Corporation (PRC 8911.9)
Attention: Mr. Peter Gadd
882 A Patriot Drive
Moorpark, CA 93021

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

Scripps Institution of Oceanography (W 6005.139)
Attention: Dr. Bruce Applegate
9500 Gilman Drive
La Jolla, CA 92093-0207

BACKGROUND:

David Evans and Associates, Inc., Fugro Pelagos, Inc., Fugro West, Inc., United States Geological Survey, EcoSystems Management Associates, Inc., University Corporation at Monterey Bay, Coastal Frontiers Corporation, TerraSond, Limited, and Scripps Institution of Oceanography have applied for statewide low energy offshore Geophysical Permits covered under the California State Lands Commission's (Commission's) Offshore Geophysical Permit Program (OGPP). 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;

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- 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
- 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, subbottom profilers, and magnetometers. 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, and develop Marine Wildlife Contingency Plans and Oil Spill Contingency Plans. Permit holders will also submit post-survey reports, including permit-required records of observations and/or incidents. Upon request, the Commission will receive copies of all data derived from any and all surveys under the permits.

OFFSHORE GEOPHYSICAL PERMIT PROGRAM UPDATE:

An MND has been 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 environmental effects associated with low energy geophysical survey activities conducted under the proposed OGPP Update (Project). Commission staff presented the MND for adoption by the Commission on September 20, 2013 (Calendar Item 120, 09/20/2013). Part of the MND is a Mitigation Monitoring Program (MMP) (Exhibit B) that identifies operational procedures designed to ensure that surveys conducted under the OGPP do not cause significant impact to the environment. These procedures include equipment sound verification by the permittee, soft start procedures,

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prohibition on most nighttime survey operations, safety zone monitoring for marine animals by approved Marine Monitors, and operational limits within Marine Protected Areas.

Commission staff has implemented an update to the OGPP that implements the operational procedures within the MMP described above into terms and conditions within the permits issued under this authorization. Additionally, enhanced pre-survey planning and notification requirements have been implemented that require permittees to notify the Commission's Geophysical Coordinator of planned survey activity 21 days in advance.

To enhance public notice of planned survey operations, Commission staff will place detailed information about future surveys on the Commission's web page including survey dates, locations, GPS trackline coordinates, and survey equipment used. Further, Commission staff plans on implementing an e-mail based "list-serve" service where interested members of the public can easily sign up (or unsubscribe) to receive e-mail messages directing subscribers to the Commission web page after permittees have notified the Geophysical Coordinator about proposed survey activity. Commission staff will work towards conducting outreach to inform the public of this list-serve option once the system becomes available.

TERMS OF PROPOSED PERMIT:

Three (3) years, beginning October 1, 2013, through September 30, 2016.

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.

OTHER PERTINENT INFORMATION:

1. Pursuant to the Commission's delegation of authority and the State CEQA Guidelines (Cal. Code Regs., tit.14, § 15025), CSLC staff prepared a Mitigated Negative Declaration (MND) identified as CSLC MND No. 751, State Clearinghouse No. 2013072021, for the OGPP Update. The MND

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was prepared and circulated for public review pursuant to the provisions of CEQA, and adopted by the Commission on September 20, 2013.

2. 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).
3. 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. Permit Regions
- B. Mitigation Monitoring Program

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 analyzes 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 MND and the comments received in response thereto, that the Non-Exclusive General Permits are within the scope of the project covered by the MND, and that the previously prepared MND reflects the Commission's independent judgment and analysis.

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SIGNIFICANT LANDS

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:

Authorize issuance to David Evans and Associates, Inc., Fugro Pelagos, Inc., Fugro West, Inc., United States Geological Survey, EcoSystems Management Associates, Inc., University Corporation at Monterey Bay, Coastal Frontiers Corporation, TerraSond, Limited, Scripps Institution of Oceanography Non-Exclusive General Permits to conduct low energy geophysical surveys from October 1, 2013, through September 30, 2016, within Permit Regions I, II, III, and IV as designated on Exhibit A, attached hereto.

PRC 8345.9 PRC 8394.9 PRC 9007.9
PRC 8391.9 PRC 8536.9 PRC 8911.9
PRC 8392.9 PRC 8859.9 W 6005.139

EXHIBIT A PERMIT REGIONS

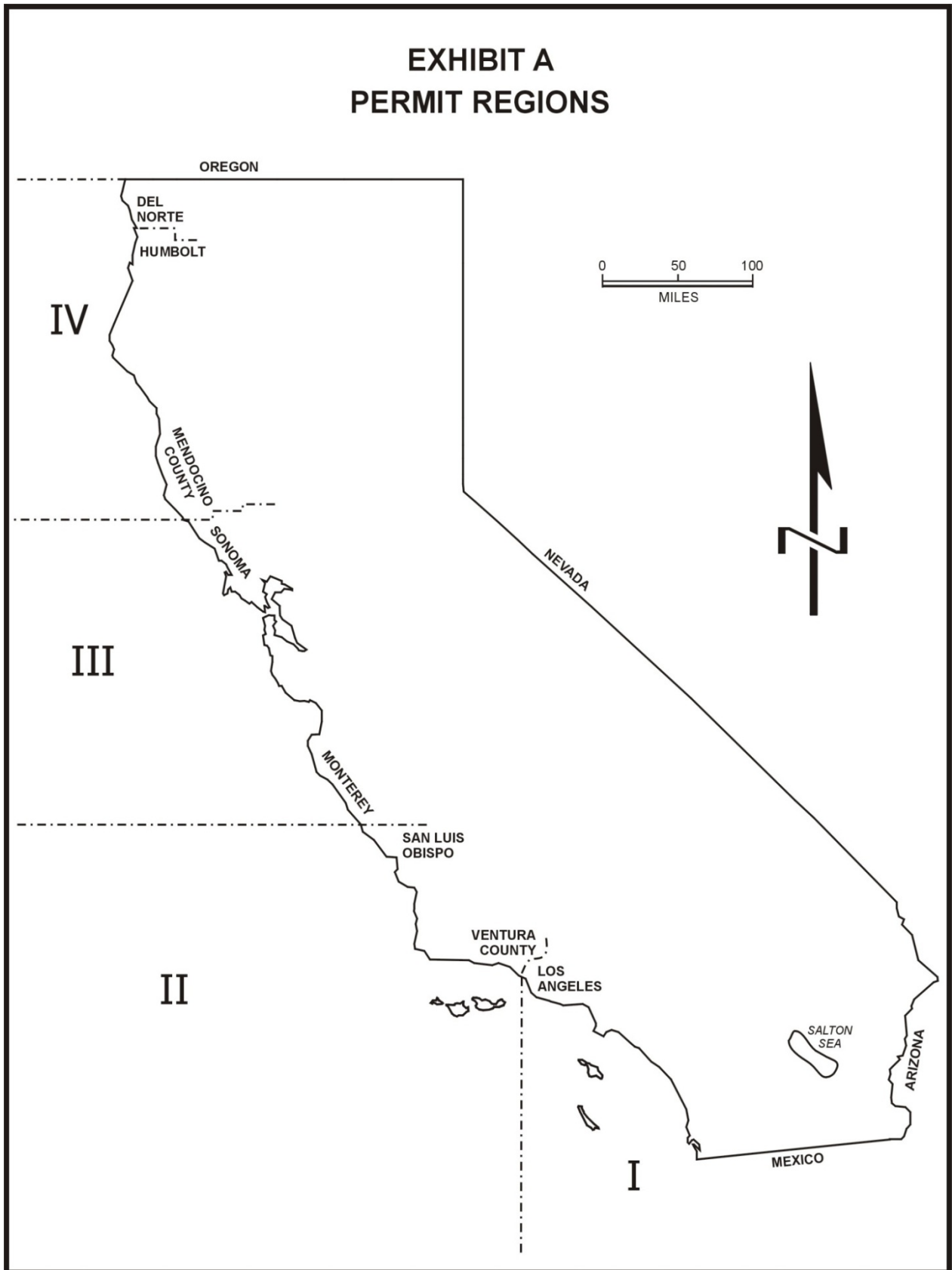


EXHIBIT B

Mitigation Monitoring Program

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Impact	Mitigation Measure (MM)	Location and Scope of Mitigation	Effectiveness Criteria	Monitoring or Reporting Action	Responsible Party	Timing
Air Quality and Greenhouse Gas (GHG) Emissions (MND Section 3.3.3)						
Impacts to local air quality (i.e., conflict with or obstruct implementation of the applicable air quality plan) through exceedance of one or more criteria. Survey activities would result in daily emissions of criteria pollutants that would exceed air quality significance thresholds.	MM AIR-1: Engine Tuning, Engine Certification, and Fuels. 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	<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.
		<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 _x 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 _x emissions to verify compliance with limitations.		Submit Final Monitoring Report after completion of survey activities.
		<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.		

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Impact	Mitigation Measure (MM)	Location and Scope of Mitigation	Effectiveness Criteria	Monitoring or Reporting Action	Responsible Party	Timing												
Biological Resources (MND Section 3.3.4)																		
Impacts to marine mammals and sea turtles from survey operations.	MM BIO-1: 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.												
Impacts to marine mammals and sea turtles from survey operations.	MM BIO-2: Marine Wildlife Monitors.	A minimum of two 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 two weeks 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.												
Impacts to marine mammals and sea turtles from survey operations.	MM BIO-3: Safety Zone Monitoring.	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 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: <table border="1" data-bbox="661 1209 1176 1412"> <thead> <tr> <th>Equipment Type</th> <th>Safety Zone (radius, m)</th> </tr> </thead> <tbody> <tr> <td>Single Beam Echosounder</td> <td>50</td> </tr> <tr> <td>Multibeam Echosounder</td> <td>500</td> </tr> <tr> <td>Side-Scan Sonar</td> <td>600</td> </tr> <tr> <td>Subbottom Profiler</td> <td>100</td> </tr> <tr> <td>Boomer System</td> <td>100</td> </tr> </tbody> </table>	Equipment Type	Safety Zone (radius, m)	Single Beam Echosounder	50	Multibeam Echosounder	500	Side-Scan Sonar	600	Subbottom Profiler	100	Boomer System	100	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.
Equipment Type	Safety Zone (radius, m)																	
Single Beam Echosounder	50																	
Multibeam Echosounder	500																	
Side-Scan Sonar	600																	
Subbottom Profiler	100																	
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Impact	Mitigation Measure (MM)	Location and Scope of Mitigation	Effectiveness Criteria	Monitoring or Reporting Action	Responsible Party	Timing
		<p>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>For nearshore survey operations utilizing vessels that lack the personnel capacity to hold two 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 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 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.</p>				
Impacts to marine mammals and sea turtles from survey operations.	MM BIO-4: 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.	Pre-survey request for nighttime operations, including equipment specifications and proposed use schedule. Document equipment use.	OGPP permit holder.	Approval required before survey is initiated. Monitoring Report following comple-

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Impact	Mitigation Measure (MM)	Location and Scope of Mitigation	Effectiveness Criteria	Monitoring or Reporting Action	Responsible Party	Timing
				Submit Final Monitoring Report after completion of survey activities.		tion of survey.
Impacts to marine mammals and sea turtles from survey operations.	MM BIO-5: 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 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 marine wildlife monitors 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.
Impacts to marine mammals and sea turtles from survey operations.	MM BIO-6: 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"> Using the highest frequency band possible for the subbottom profiler; Using the shortest possible pulse length; and Lowering the pulse rate (pings per second) as much as feasible. 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.

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Impact	Mitigation Measure (MM)	Location and Scope of Mitigation	Effectiveness Criteria	Monitoring or Reporting Action	Responsible Party	Timing
Impacts to hauled out pinnipeds from survey operations.	MM BIO-7: 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"> • The (survey) vessel shall not approach within 91 m of a haul-out site, consistent with National Marine Fisheries Service (NMFS) guidelines; • 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 • Marine wildlife observers 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. 	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.
Impacts to marine mammals and sea turtles from survey operations.	MM BIO-8: Reporting Requirements - Collision.	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: <ul style="list-style-type: none"> • Vessel location (latitude, longitude) when the collision occurred; • Date and time of collision; • Speed and heading of the vessel at the time of collision; • 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; • Species of marine wildlife contacted (if known); • Whether an observer was monitoring marine wildlife at the time of collision; and, • 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	No adverse effects to marine mammals or sea turtles due to survey activities are observed.	Submit Final Monitoring Report after completion of survey activities.	OGPP permit holder.	Monitoring Report following completion of survey.

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Impact	Mitigation Measure (MM)	Location and Scope of Mitigation	Effectiveness Criteria	Monitoring or Reporting Action	Responsible Party	Timing
		<p>onboard telephone is available, the vessel captain him/herself, will then immediately call the 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 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 will also be advised that an incident has occurred in State waters affecting a protected species.</p>				
<p>Impacts to marine resources present within MPAs.</p>	<p>MM BIO-9: 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 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.</p>	<p>No adverse effects to MPA resources due to survey activities are observed.</p>	<p>Monitor reactions of wildlife to survey operations; report on shutdown conditions and survey restart. Submit Final Monitoring Report after completion of survey activities.</p>	<p>OGPP permit holder; survey permitted by CDFW.</p>	<p>Prior to survey.</p>

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Impact	Mitigation Measure (MM)	Location and Scope of Mitigation	Effectiveness Criteria	Monitoring or Reporting Action	Responsible Party	Timing
Hazards and Hazardous Materials (MND Section 3.3.7)						
Impacts to sensitive resources, including air quality, water quality and sediments, marine biota, sensitive habitat areas, fishing, shipping industry, maritime activities, recreation, and aesthetics/ tourism.	MM HAZ-1: 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"> • 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); • Description of crew training and equipment testing procedures; and • Description, quantities and location of spill response equipment onboard the vessel. 	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.
Impacts to sensitive resources, as summarized in MM HAZ-2.	MM HAZ-2: 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.
Impacts to sensitive resources, as summarized in MM HAZ-2.	MM HAZ-3: 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.

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Impact	Mitigation Measure (MM)	Location and Scope of Mitigation	Effectiveness Criteria	Monitoring or Reporting Action	Responsible Party	Timing
Hydrology and Water Quality						
Impacts to water quality	MM HAZ-1: Oil Spill Contingency Plan (OSCP) Required Information.	Outlined under Hazards and Hazardous Materials (above)				
Impacts to water quality	MM HAZ-2: Vessel fueling restrictions.	Outlined under Hazards and Hazardous Materials (above)				
Impacts to water quality	MM HAZ-3: OSCP equipment and supplies.	Outlined under Hazards and Hazardous Materials (above)				
Land Use and Planning						
Impacts to MPA resources.	MM BIO-9: Limitations on Survey Operations in Select MPAs.	Outlined under Biological Resources (above)				
Recreation						
Survey equipment noise could affect recreational divers.	MM REC-1: 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 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 harbor-masters, 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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Impact	Mitigation Measure (MM)	Location and Scope of Mitigation	Effectiveness Criteria	Monitoring or Reporting Action	Responsible Party	Timing
Commercial and Recreational Fishing						
Surveys could adversely affect commercial and recreational fisheries by causing damage to or destruction of fishing gear deployed by fishing vessels, including hand lines, longlines, trolling gear, traps, round haul nets, and entangling nets.	MM FISH-1: 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 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 harbor-masters of planned survey activity. Submit Final Monitoring Report after completion of survey activities.	OGPP permit holder.	Prior to survey.
	MM FISH-2: 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 ft) 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).
Traffic/Transportation						
Surveys could adversely affect marine traffic and transportation, especially commercial and recreational fishing activity, by creating space use conflicts.	MM FISH-1: USCG and Harbormaster Notification.	Outlined under Commercial and Recreational Fisheries (above)				

Acronyms/Abbreviations: CARB = California Air Resources Board; CDFW = California Department of Fish and Wildlife; CSLC = California State Lands Commission; cSEL = cumulative sound exposure level; dB = decibels; ft = feet; gal = gallon(s); LNM = Local Notice to Mariners; MPA = Marine Protected Area; MWCP = Marine Wildlife Contingency Plan; MWM = Marine Wildlife Monitor; m= meter(s); ms = millisecond(s); min = minute; NOAA = National Oceanic and Atmospheric Administration; NO_x = Nitrogen Oxide; OGPP = Offshore Geophysical Permit Program; OSCP = Oil Spill Contingency Plan; ppm = parts per million; lb = pound(s); rms = root mean square; SEL = sound exposure level; SPL = sound pressure level; USCG = U.S. Coast Guard.

