

EXHIBIT G

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

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

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

Yes	No	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Geophysical Survey Permit Exhibit F
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Survey Location (including a full-sized navigation chart and GPS coordinates for each proposed track line and turning point) Explanation: <u>attached and shape file provided</u>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Permit(s) or Authorization from other Federal or State agencies (if applicable) Explanation: <u>No other required</u>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	21-Day Written Notice of Survey Operations to Statewide Geophysical Coordinator/
<input checked="" type="checkbox"/>	<input type="checkbox"/>	U.S. Coast Guard Local Notice to Mariners/
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Harbormaster and Dive Shop Notifications Explanation: <u>delivered</u>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Marine Wildlife Contingency Plan Explanation: <u>attached</u>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Oil Spill Contingency Plan Explanation: <u>attached</u>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Verification of California Air Resources Board's Tier 2-Certified Engine Requirement Explanation: <u>N/A - Vessel engines are Tier 3</u>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Verification of Equipment Service and/or Maintenance (must verify sound output) Explanation: <u>attached - Fugro Pre-mobilization Equip Inspection</u>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Permit(s) or Authorization from California Department of Fish and Wildlife for surveys in or affecting Marine Protected Area(s) (if applicable) Explanation: <u>U.S. Navy (client) is handling all permits</u>

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

EXHIBIT F

PRESURVEY NOTIFICATION FORM

Applicant/Permittee's Mailing Address _____ Date: March 24, 2016
FUGRO PELAGOS INC. _____ Jurisdiction: Federal State Both
3574 Ruffin Road _____ If State: Permit #PRC 8391
San Diego, CA 92123 _____ Region: 2
attached and shape file provided _____ Area: In vicinity of Channel Islands

GEOPHYSICAL SURVEY PERMIT

Check one: New survey Time extension of a previous survey

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

FEDERAL WATERS (outside 3 nautical miles)

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

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

STATE WATERS (Inside 3 nautical miles)

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

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

- 1. Expected Date of Operation April 25, 2016 - May 20, 2016 (approx. 4 days in state waters)
- 2. Hours of Operation sunrise to sunset (approx. 0600 - 1800) in state waters
- 3. Vessel Name DSV Clean Ocean
- 4. Vessel Official Number 1077091
- 5. Vessel Radio Call Sign WDE7605
- 6. Vessel Captain's Name Charlie Parish
- 7. Vessel will monitor Radio Channel(s) 16
- 8. Vessel Navigation System DGPS

9. Equipment to be used Multibeam Echosounder

- a. Frequency (Hz, kHz) 401 - 411 Khz and 205 - 215 Khz
- b. Source level (dB re 1 μ Pa at 1 meter (m) [root mean square (rms)]) 223 dB rms (SEL 187.8 dB rms)
- c. Number of beams, across track beamwidth, and along track beamwidth 512 beams, along track 2 degrees beam, along track 1 degree beam
- d. Pulse rate and length pulse rate 20 pings/sec; length 30 microseconds
- e. Rise time N/A
- f. Estimated distances to the 190 dB, 180 dB, and 160 dB re 1 μ Pa (rms) isopleths 160 dB 75 meters, 180 dB 57 meters, 190 dB 26 meters
- g. Deployment depth 5 meters below sea surface
- h. Tow speed n/a - will not be towed but instead pole mounted. Vessel speed of 4.0 Knots
- i. Approximate length of cable tow n/a - no tow

Applicant's Representative:

Chris Esposito
Fugro Pelagos Inc.
3574 Ruffin Road
San Diego, CA 92123
(858) 212-8121

California State Lands Representative

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

BOEM Representative

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

Other Federal Representative (if not BOEM):



MARINE WILDLIFE CONTINGENCY PLAN

BATHYMETRIC SURVEY

FOR

FIBER OPTIC COMMUNICATIONS UNDERWATER SYSTEM-II (FOCUS-II)

CHANNEL ISLANDS, CALIFORNIA

Prepared by
FUGRO PELAGOS, INC.

March 2016

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1 INTRODUCTION

This Marine Wildlife Contingency Plan (MWCP) has been developed in support of a proposed bathymetric survey for a proposed Fiber Optic Communications Underwater System. The survey area includes multiple regions in the vicinity of the Channel Islands off southern California (Figure 1 and Figure 2). Portions of the proposed survey are located in California State waters (Figure 3). This plan is intended to provide guidance to the vessel operators and hydrographic field personnel collecting the bathymetric data, to avoid impacts to marine wildlife that may occur during the survey.

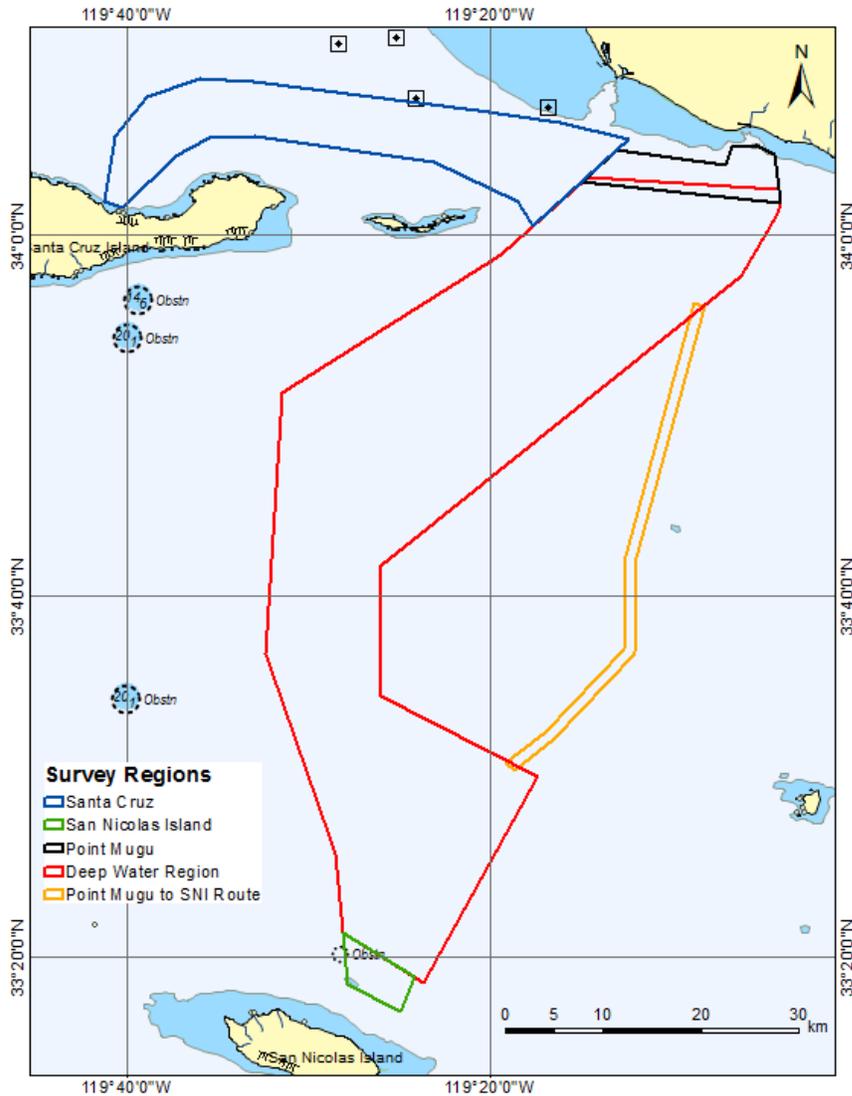


Figure 1 Region and Site Map

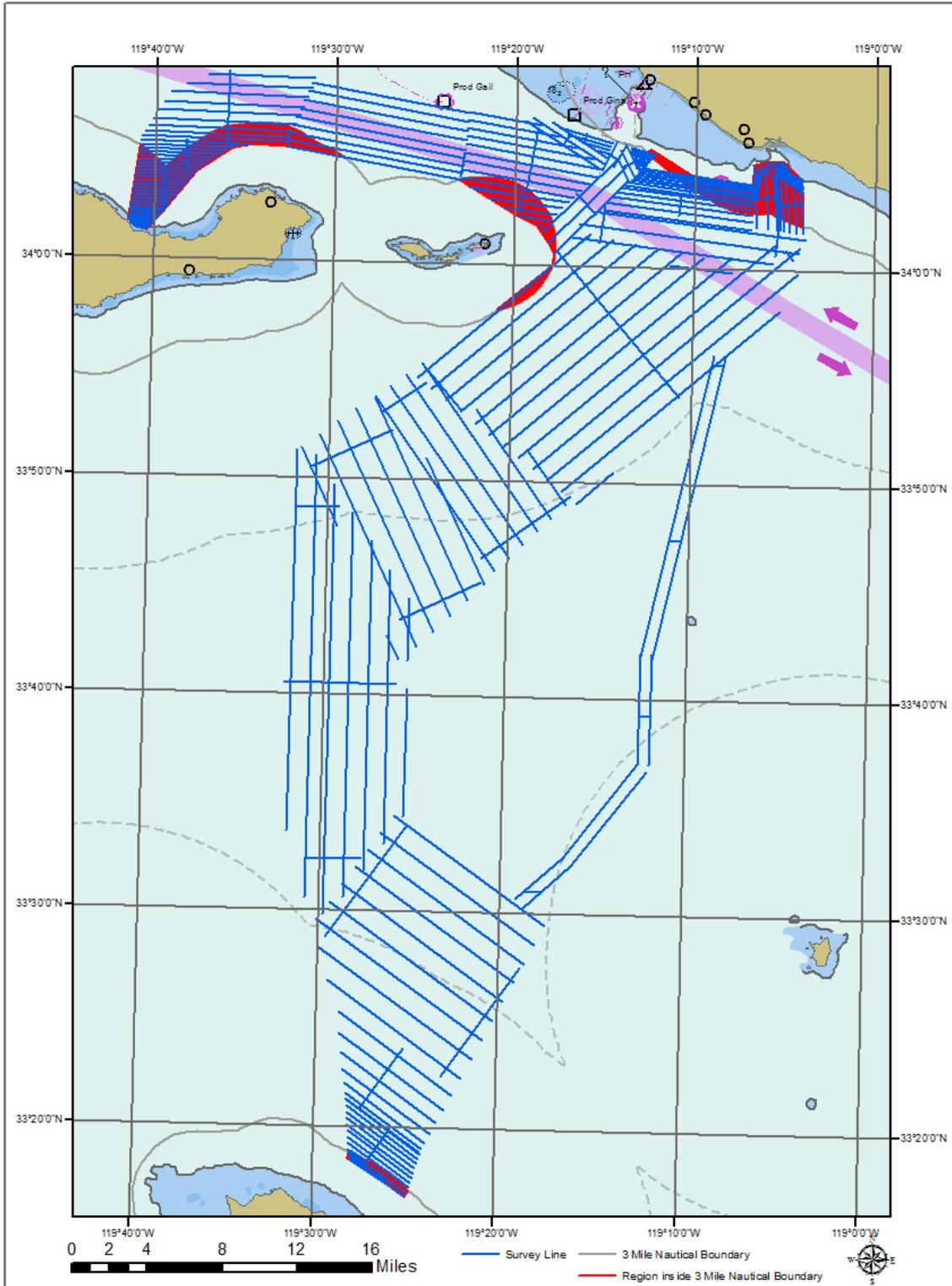


Figure 2 Region and Survey Lines

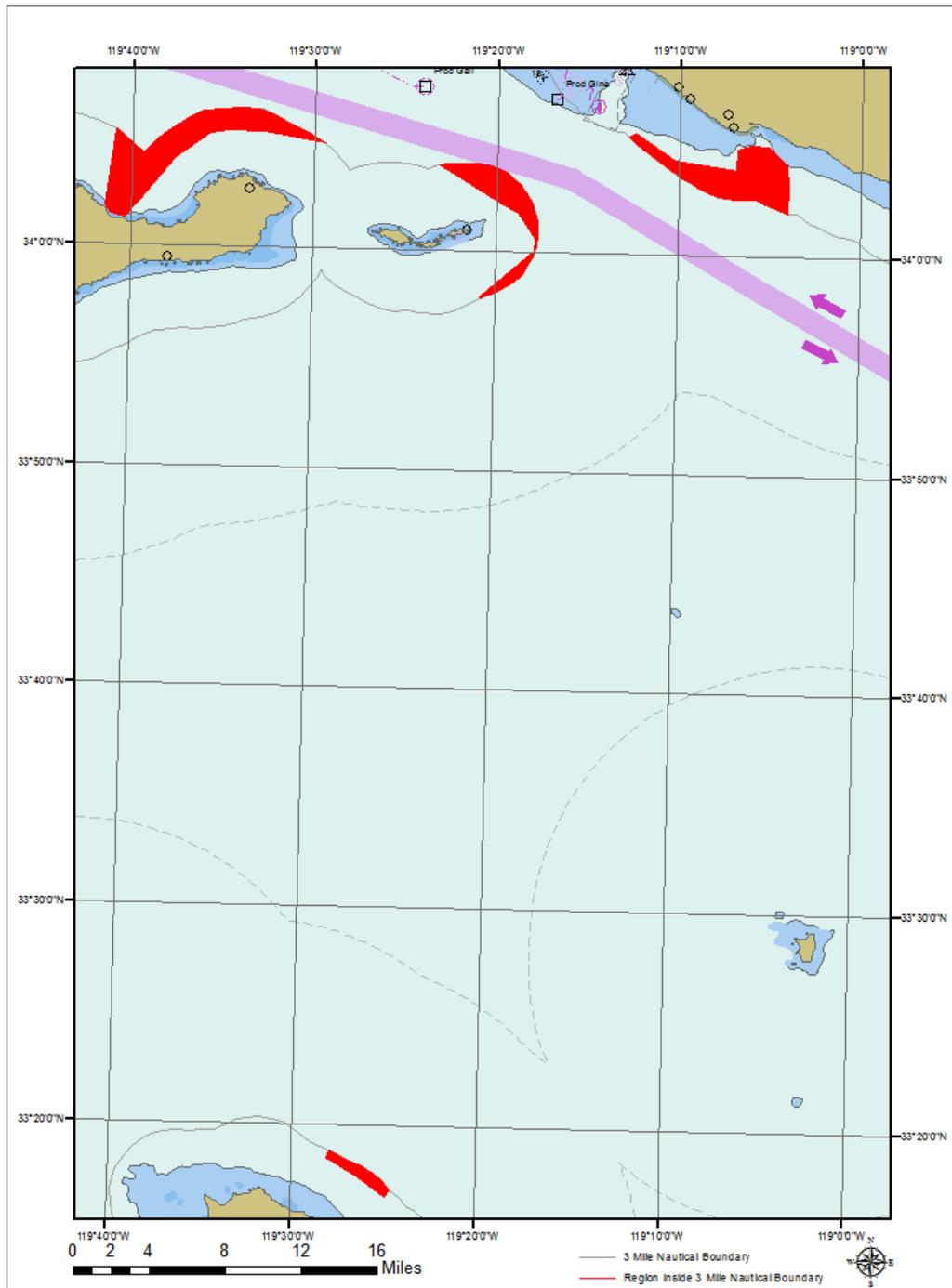


Figure 3 Proposed Area Inside 3NM Boundaries

This MWCP has been prepared in accordance with the requirements in Fugro Pelagos, Inc.'s (Fugro Pelagos) existing California State Lands Commission (CSLC)-issued geophysical and geologic sampling permit No. 8391 and is designed to reduce or eliminate potentially adverse impacts to marine wildlife resources within the project area. This MWCP is specific to the

equipment and activities that are proposed for this survey and the proposed monitoring and mitigations have been successfully used in agency-approved MWCPs for similar offshore surveys in southern California marine waters and have been shown to be effective in reducing or eliminating potential impacts to marine mammals and turtles (marine wildlife).

This MWCP includes measures that specify: a) the distance, speed, and direction transiting vessel will maintain when in proximity to marine wildlife; b) qualifications, number, location, and authority of the onboard Marine Wildlife Monitors (MWMs); and c) reporting requirements following the completion of the survey and in the event of an incident.

1.1 GEOPHYSICAL SURVEY PURPOSE AND OBJECTIVES

The proposed survey will utilize multibeam sonar to document the seafloor bathymetry and topography in the five survey regions (Figure 1). The survey will be completed by Fugro Pelagos in accordance with International Hydrographic Office (IHO) standards for multibeam surveying.

Fugro will contact the NOAA Long Beach Office staff and local whale-watching operations to acquire information on the current composition and relative abundance of marine wildlife offshore as well as any pinniped haul out site. Whale activity is moderate to high at the moment. The peak whale season is February – May in the area. Additionally, one day prior to transit and survey activities, the NOAA Long Beach office, local whale watching operations will be contacted to get an update on marine wildlife sightings. This information will be conveyed to the captain and crew, prior to the survey.

A review of environmental responsibility of project operations will be conducted by the chief scientist in charge of the survey operations prior to commencing the first day of operations. When new personnel will be in the crew, this training will be repeated at least for those new to the crew. They will be made aware of their individual responsibility and will be shown how to be aware of possible environmental impacts and how to mitigate them during the geophysical survey operations. Information relating to seasonality, as an indication of the types of animals that might be in our survey area at the time of survey work, will also be presented to the crew. A copy of this document will be provided to the crew of our survey vessel.

All personnel will be expected to be consistently aware that they are to be alert to any presence of marine wildlife while they are performing their duties. There are a number of signs/indications of marine wildlife presence and each crew member will be responsible to maintain vigilance for those signs within the constraints of their project duties. Some of those indications are:

- a. Sounds - such as splashing, vocalizations (by animals and birds), and blowing (breathing).
- b. Visual indications - birds aggregating, changes in water character such as areas of rippled water, white water caused by splashing, changes in color or shape of the ocean surface,

1.2 SURVEY SCHEDULE AND LAYOUT

The survey is anticipated to start on April 25, 2016, and is expected to take 15 days to complete. The survey will be conducted 24hr operations with only daytime operations inside the three nautical mile boundary. Marine Wildlife Monitoring will occur 24 hours per day; though, at night monitoring will be limited to monitoring for sounds. The proposed survey will be conducted along a series of 5 pre-determined areas (Figure 1). Portions of the proposed survey area are located within state waters. Within state waters (Figure 3), the depths range from approximately 20 to 400 meters (m).

2 SURVEY EQUIPMENT AND ACTIVITIES

The survey vessel will be the DSV *Clean Ocean*, a 155 ft vessel designed as an offshore supply, dive and ROV support vessel. Mobilization will occur in Long Beach, and the vessel will transit approximately 10 hours from Long Beach to the survey site once mobilization is completed. No survey activities will be conducted during transit.



Fugro proposes to use the following survey equipment to collect the required data inside the state limits of 3 nautical miles from shore:

- Reson Seabat 7125 SV2 multibeam system

The survey will require the use of a marine vessel and in-water equipment that generate noise during data acquisition. Noise levels and distance information provided by the equipment manufacturer are provided in Table 1. That data indicates that the area within which the 160 dB sound level (the level specified by National Oceanic and Atmospheric Administration [NOAA] Fisheries as potentially harmful to sensitive marine mammals) can be observed by a designated observer onboard the survey vessel. The effects of underwater noise on sea turtles are not well studied; however, NOAA Fisheries considers the 190 dB re 1 μ Pa rms level to be detrimental to sea turtles (Fahy, personnel communication).

Table 1. Distances to Received Pressure Levels from Equipment Sound Source

Sounder System	Frequency (kHz)	Source Level (dB peak)	RL 160 dB rms (meters)	RL 180 dB (rms) (meters)	RL 190 dB (rms) (meters)
Reson Seabat 7125 multibeam	205 -215	223	75	57	26

The Reson SeaBat 7125 is a frequency modulated sonar that the survey team will set to a frequency ranging from 205 - 215 kHz. It is a narrowband multibeam echosounder with 512 1.0° x 2.0° beams and SEL of 187.8 dBrms re 1 µPa. The beams were modeled as one wide beam. These received levels fall below 160 dBrms re 1 µPa approximately 75 meters from the sonar.

3 MARINE WILDLIFE

Four marine turtle species, 23 cetaceans (whales, dolphins, and porpoises), five pinnipeds (seals and sea lions) and one fissiped (southern sea otter) have been recorded along the southern California coast. Seasonal abundance of these taxa varies, with marine turtles, pinnipeds and some dolphins being considered year-round residents, while other species are migratory (i.e. gray whales [*Eschrichtius robustus*]) and some species are more common during specific months (i.e. blue and humpback whales [*Balaenoptera musculus* and *Megaptera novaeangliae*, respectively] in the summer and fall months). Within the project area, both resident and migrant taxa could be expected. Figure 4 shows pinniped haul out sites.

Table 2 lists the abundance estimates of marine wildlife that could be expected within the marine waters of southern California, and Table 3 provides information on the seasonal abundance of those taxa within the same area. Additional information on the biology of these animals is provided in Appendix A.

**Table 2. Abundance Estimates for Marine Wildlife of Southern California
(Point Conception to California/Mexico Border)**

Common Name Scientific Name	Status¹	Minimum Population Estimate	Current Population Trend
REPTILES			
Cryptodira*			
Olive ridley turtle <i>Lepidochelys olivacea</i>	FE	1.15 to 1.62 million (Eastern Pacific)	Increasing
Green turtle <i>Chelonia mydas</i>	FE	3,319 to 3,479 (Eastern Pacific)	Increasing
Loggerhead turtle <i>Caretta caretta</i>	FE	7,138 (North Pacific DPS)	Decreasing
Leatherback turtle <i>Dermochelys coriacea</i>	FE	308 (Eastern Pacific)	Decreasing
MAMMALS²			
Mysticeti			
California gray whale <i>Eschrichtius robustus</i>		18,017 (Eastern North Pacific Stock)	Fluctuating annually
Fin whale <i>Balaenoptera physalus</i>	FE	2,624 (California/Oregon/Washington Stock)	Increasing off California
Humpback whale <i>Megaptera novaeangliae</i>	FE	1,878 (California/Oregon/Washington Stock)	Increasing
Blue whale <i>Balaenoptera musculus</i>	FE	2,046 (Eastern North Pacific Stock)	Unable to determine
Minke whale <i>Balaenoptera acutorostrata</i>		202 (California/Oregon/Washington Stock)	No long-term trends suggested
North Pacific right whale <i>Eubalaena japonica</i>	FE, SP	17 (based on photo-identification) (Eastern North Pacific Stock)	No long-term trends suggested
Sei whale <i>Balaenoptera borealis</i>	FE	83 (Eastern North Pacific Stock)	No long-term trends suggested

Common Name Scientific Name	Status ¹	Minimum Population Estimate	Current Population Trend
Odontoceti			
Long-beaked common dolphin <i>Delphinus capensis</i>		17,127 (California Stock)	Unable to determine
Short-beaked common dolphin <i>Delphinus delphis</i>		343,990 (California/Oregon/Washington Stock)	Unable to determine
Dall's porpoise <i>Phocoenoides dalli</i>		32,106 (California/Oregon/Washington Stock)	Unable to determine
Pacific white-sided dolphin <i>Lagenorhynchus obliquidens</i>		21,406 (California/Oregon/Washington Stock)	No long-term trends suggested
Risso's dolphin <i>Grampus griseus</i>		4,913 (California/Oregon/Washington Stock)	No long-term trends suggested
Northern right whale dolphin <i>Lissodelphis borealis</i>		6,019 (California/Oregon/Washington Stock)	No long-term trends suggested
Striped dolphin <i>Stenella coeruleoalba</i>		8,231 (California, Oregon, Washington)	No long term trend due to rarity
Baird's beaked whale <i>Berardius bairdii</i>		615 (California, Oregon, Washington)	No long term trend due to rarity
Cuvier's beaked whale <i>Ziphius cavirostris</i>		1,298 (California, Oregon, Washington)	No long term trend due to rarity
Mesoplodont beaked whales <i>Mesoplodont sp</i>		576 (California, Oregon, Washington)	No long term trend due to rarity
Bottlenose dolphin <i>Tursiops truncatus</i>		684 (California/Oregon/Washington Offshore Stock)	No long-term trends suggested
		290 (California Coastal Stock)	No long-term trends suggested
Sperm whale <i>Physeter macrocephalus</i>	FE	751 (California/Oregon/Washington Stock)	No long-term trends suggested
Dwarf sperm whale <i>Kogia sima</i>		Unknown (California, Oregon, Washington)	No long term trend due to rarity
Pygmy sperm whale <i>Kogia breviceps</i>		271 (California/Oregon/Washington Stock)	No long term trend due to rarity
Short-finned pilot whale <i>Globicephala macrorhynchus</i>		465 (California/Oregon/Washington Stock)	No long-term trends suggested
Killer whale <i>Orcinus orca</i>		354 (West Coast Transient Stock)	Slight decrease since mid 1990s
		162 (Eastern North Pacific Offshore Stock) in California/Oregon/Washington waters	No long-term trends suggested
Pinnipeds			
California sea lion <i>Zalophus californianus</i>		153,337 (U.S. Stock)	Increasing
Northern fur seal <i>Callorhinus ursinus</i>		5,395 (San Miguel Island Stock)	Increasing

Common Name Scientific Name	Status ¹	Minimum Population Estimate	Current Population Trend
Guadalupe fur seal <i>Arctocephalus townsendi</i>	FT, SP, ST	3,028 (Mexico Stock) Undetermined in California	Increasing
Northern elephant seal <i>Mirounga angustirostris</i>	SP	74,913 (California Breeding Stock)	Increasing
Pacific harbor seal <i>Phoca vitulina richardsi</i>		26,667 (California Stock)	Decreasing
Fissipedia			
Southern sea otter <i>Enhydra lutris nereis</i>	FT, SP	2,711**	Unable to determine

Source: NMFS, 2012a and Allen, 2011

* Estimates provided by NMFS 2012 (b, c), NMFS, 2011 and NMFS and USFWS 2007 (a-d). Estimates are based on number of nesting females.

** Estimate provided by USGS (2010)

¹Status Codes:

FE Federally listed Endangered Species

ST State listed Threatened Species

FT Federally listed Threatened Species

SP State Fully Protected Species

²All marine mammals are federally protected under the Marine Mammal Protection Act (MMPA).

Table 3. Marine Wildlife Species and Periods of Occurrence within Southern California

(Point Conception to California/Mexico Border)

Family Common Name	Month of Occurrence ⁽¹⁾											
	J	F	M	A	M	J	J	A	S	O	N	D
REPTILES												
Cryptodira												
Olive ridley turtle (T)												
Green turtle (T)												
Leatherback turtle (E) ⁽²⁾												
Loggerhead turtle (E) ⁽²⁾												
MAMMALS												
Mysticeti												
California gray whale												
Blue whale (E)												
Fin whale (E)												
Humpback whale (E)												
Minke whale												
Sei whale (E)												
Northern right whale (E)												
Odontoceti												
Dall's porpoise												
Short-beaked common dolphin												
Long-beaked common dolphin												
Pacific white-sided dolphin												
Risso's dolphin												
Short-finned pilot whale												
Striped dolphin												
Baird's beaked whale												
Cuvier's beaked whale												

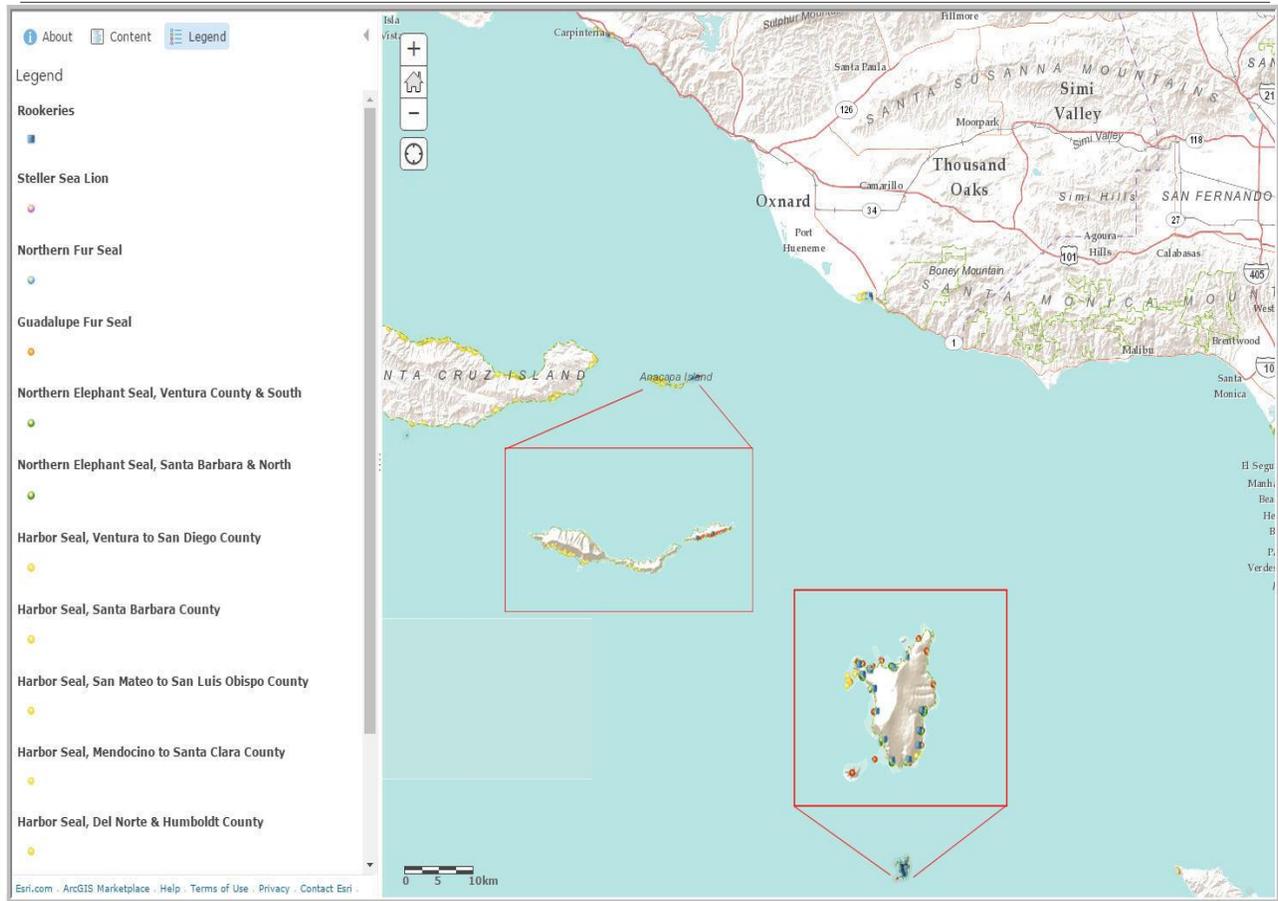


Figure 4 Pinniped haul out sites

4 ONBOARD MONITORING AND OTHER MITIGATIONS

4.1 Vessel Transit

The vessel should only transit from Long Beach to the survey area during the proposed survey. The *DSV Clean Ocean* will transit approximately 10 hours between Long Beach and the project site. If during the project the vessel experiences bad weather, then it will transit to Port Hueneme until safe to transit back to the work site. The vessel will try to transit during daylight hours only. During the transit periods there is a potential for encountering marine wildlife and therefore onboard monitoring will occur. A designated marine wildlife observer will be onboard the vessel throughout the periods of transit and data collection activities. No sonars will be powered on during transit.

Dolphins can usually be identified from a distance due to the surface disturbance created as they travel through the water. Dolphins generally tolerate or even approach vessels and reactions to boats often appear to be related to the dolphins' activity. Resting and foraging dolphins tend to avoid boats while socializing dolphins will often "run" with a boat leaping from the water, or riding the bow or stern waves. If dolphins are observed riding the boat's wake or

swimming adjacent to the vessel, the vessel would slow down and keep a steady course until the dolphins lose interest.

Very little information is available on pinnipeds' responses to vessels; however, sea lions in the water often tolerate close and frequent approaches by vessels, especially around fishing vessels. The California sea lion is the only pinniped off the California coast that regularly uses manmade structures such as docks, buoys, oil and gas structures and even slow moving vessels onto which they haul-out. Bartholomew, 1967 suggests sea lions that are hauled-out on land are more responsive than when they are in the water and react when boats approach within 100 to 200 m (330 to 660 ft). Harbor seals often move into the water in response to approaching boats. Even small boats that approach within 100 m (330 ft) displace harbor seals from haul out areas. Less severe disturbances can cause alert reactions without departure.

Based on documented pinniped behavioral patterns and implementation of avoidance, minimization measures would be expected to minimize the chance for a vessel/pinniped collision. However, in the unlikely event that a sea lion, harbor seal, or other pinniped species is hauled-out in an area where harm may come to the animal, the NOAA Fisheries (Long Beach office) will be consulted for guidance on how to encourage the animal to move utilizing actions that would not be considered harassment of the animal(s).

Cetaceans (whales) vary in their swimming patterns and duration of dives and therefore the onboard observer and all shipboard personnel will be watchful as the vessel crosses the path of a whale or anytime whales are observed in the area.

During transit periods, the designated observer will have a clear view of the area in the direction of and adjacent to the course of travel. Measures will be instituted to avoid potential collisions with those animals. To minimize the chance of collision with or disturbance of marine mammals and turtles, the vessel will maintain a minimum distance of 100 m (330 ft) from marine wildlife. This distance exceeds the recommended distance set by the NOAA Fisheries which suggests vessels remain 100 yards (300 ft) from whales; no minimum distance is specified for marine reptiles.

If a marine mammal or reptile is observed within the path of the transiting vessel, the vessel operator will slow the vessel and/or change course in order to avoid contact, unless those actions will jeopardize the safety of the vessel or crew.

If whales are observed during transit periods, the vessel operator will observe the following guidelines:

- Maintain a minimum distance of 100 m (330 ft) from sighted whales;
- Do not cross directly in front of or across the path of sighted whales;
- Transit parallel to whales and maintain a constant speed that is not faster than the whale's speed;
- Do not position the vessel in such a manner to separate a female whale from her calf(ves);

- Do not use the vessel to herd or drive whales; and,
- If a whale engages in evasive or defensive action, slow the vessel and move away from the animal until the animal calms or moves out of the area.

4.2 FISHING GEAR CLEARANCE

In addition to submitting the required Notice to Mariners that will alert commercial fishers of pending on-water activities, the vessel will traverse the proposed survey area to note and record the presence of deployed fishing gear. The type and location of fishing gear (buoys) will be noted, and the California Department of Fish & Game (CDFG) Santa Barbara office and/or Joint Oil/Fisheries Liaison Office will be contacted. No survey lines will be completed within 30 m (100 ft) of the observed fishing gear. The survey crew will not remove or relocate any fishing gear; removal or relocation will only be accomplished by the owner or by an authorized CDFG agent.

Joint Oil/Fisheries Liaison Office	California Department of Fish & Game, Santa Barbara	California Department of Fish & Game, Marine Division
805-963-8819	805-568-1231	831-649-2870

4.3 SURVEY MONITORING

Three days prior to the initiation of the survey, Fugro will contact the NOAA Long Beach office staff and local private whale-watching operations to acquire information on the current composition and relative abundance of marine wildlife within the survey area. That information will be conveyed to the vessel operator and crew prior to initiating the survey.

Fugro will assign a vessel crew member as a marine wild life monitor (MWM) for each shift. This individual will take responsibility as the designated MWM observer during both the vessel transit and data collection operations. That monitoring will be from the best vantage point onboard the survey vessel; binoculars will be used to observe the surrounding area. The sonar will be mounted on the starboard side of the vessel and will be visible from the starboard bridge wing, and the MWM will survey an area at least 100 m (330 ft) in all directions centered on the sound source throughout the period of time that the survey equipment is operating. The 100 m (330 ft) distance is greater than the distance to the 160 dB noise level shown in Table 1 above.

Though there will be a designated MWM, the vessel captain/ driver will provide a second observer when on shift, as the boat driver provides the fastest reaction time for the vessel to slow, stop, or maneuver the vessel as necessary in the event that wildlife is observed. The *DSV Clean Ocean's* captain is Charlie Parish. He holds a 1600 Ton license and has been driving boats in Alaska, the west coast of the United States, and the Gulf of Mexico for approximately 30 years. As the boat driver, he has always performed the role of marine mammal observer and has never hit a marine wildlife or had an incident that harmed marine wildlife. When the vessel captain is not driving the boat, First Mate, Kace Prati will be the boat driver and will continue the role as an observer. Kaci has a 100T license and over 15 years' experience in driving vessels.

Like the vessel captain, Kaci regularly performs this role of designated marine mammal observer when driving the vessel and has never had a harmful incident with marine wildlife. Fugro considers the vessel captain/driver to be the best option as the MWM. A second vessel crew member, though, will be designated as a MWM during each shift in the event that the boat driver or vessel captain cannot monitor the area from the starboard bridge wing the entire duration of the shift.

Furthermore, the vessel captain/ driver will ensure survey speeds are kept very slow, at approximately 4 knots. This speed is not only ideal for the survey data but provides a safe speed to allow enough time for the boat driver to maneuver the vessel appropriately if required. Likewise, the vessel has twin engines, providing additional maneuverability if required. As the sonar will be mounted to the vessel, there will be no sonars towed in the water column behind or to the side of the vessel, which provides the ship adequate maneuverability to respond to any marine wildlife in the area.

Should the MWM observe marine wildlife displaying unusual behavior, the equipment will be shut down, and if no effects of the operation on marine wildlife are observed, the survey will continue. The equipment will be soft started beginning at 155 dB and will be increased 6 dB every five minutes until operating power is reached. If the animal(s) show negative or unusual reactions, the shutdown/re-start procedure will be repeated.

The MWM will have the authority to recommend that operations be stopped if a mammal or turtle is observed and is negatively affected by the survey activities. He/she will also have the authority to recommend continuation (or cessation) of operations during periods of limited visibility (i.e. fog) based on the observed abundance of marine wildlife. Periodic reevaluation of weather conditions and reassessment of the continuation/cessation recommendation will be completed onboard.

4.4 NOISE EFFECTS

Although the proposed survey is not classified as a <200kHz survey, this MWCP has adapted guidelines and procedures developed as part of the High Energy Seismic Survey (HESS) Program which are also consistent with the operational conditions placed onto the existing CSLC geophysical and geological sampling permit. The High Energy Seismic Survey Team (HESST), comprising staff from the CSLC, the U.S. Minerals Management Service [now Bureau of Ocean Energy Management (BOEM)] and representatives of environmental groups, established interim guidelines for HESST offshore southern California (HESST, 1999). Those guidelines utilize the results of several studies on the effects of noise on marine mammals and reptiles, identify noise levels that are considered to harass those animals, and suggest mitigations that would reduce or eliminate potential impacts to those organisms.

Fugro proposes to institute mitigations that are consistent with the HESST recommendations and which are based on project-specific noise modeling of the equipment that is proposed for this survey. For the Reson 7125, the distance from the sound source (survey equipment that is proposed for this survey) to various noise levels (dB re: 1 μ Pa-m [rms]) (Sabo, personnel communication) has been provided. Table 1 above lists the distances to the 160 dB re: 1 μ Pa-m (ms), the NOAA Fisheries-established sound level that could result in impacts to

marine wildlife.

4.5 MITIGATION MEASURES

In addition to the measures discussed above, the following operation-related actions will be implemented:

- 1) No acoustic pulse-generating equipment will be operated if, prior to start-up, a marine mammal and/or marine reptile is within the vicinity. The MWM will continually observe the surrounding area and will inform the Survey Party Chief if any marine wildlife is observed and corrective action will be taken immediately.
- 2) During operations, if an animal's actions are observed to be "irregular" the vessel MWM will have the authority to recommend the cessation of data collection. If that behavior is observed, the equipment will be shut-off and will be soft started once the animal(s) has not been observed for 15 minutes.
- 3) Unless the safety of the vessel or crew would be in jeopardy, avoidance measures instituted during vessel transit will be utilized during geophysical data collection

5 RECORDING AND REPORTING PROCEDURES

5.1 OBSERVATION RECORDING

The designated observer will record observations on a pre-printed form, an example of which is provided in Appendix B, and will photo document observations whenever possible. The completed daily observation forms will be used as the primary data sources for the post-survey report (see Section 5.3 below) which will be provided by Fugro Pelagos to the CSLC and other agencies if requested.

5.2 COLLISION RESPONSE

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

- location (latitude and longitude) of the vessel 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 observing for marine wildlife at the time of collision; and,

-
- name of vessel, vessel owner/operator (the company), and captain or officer in charge of the vessel at time of collision.

After a collision, the vessel should 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 communicate by radio or telephone all details to the vessel's base of operations. In the event of a collision with marine wildlife, Fugro Pelagos will contact CSLC at slc.ogpp@slc.ca.gov or 916 574-1938.

The Marine Mammal Protection Act (MMPA) requires that collisions with or other project-related impacts to marine wildlife will be reported promptly to the NOAA Fisheries Stranding Coordinator. 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 report the Stranding Coordinator, NOAA Fisheries (National Marine Fisheries Service [NMFS]), Southwest Region, Long Beach, to obtain instructions. The Stranding Coordinator will coordinate subsequent action, including enlisting the aid of marine mammal rescue organizations, if appropriate. Alternatively, the vessel captain may contact the NOAA Fisheries Stranding Coordinator directly using the marine operator to place the call or directly from an onboard telephone, if available to:

**NOAA Southwest Regional Stranding Coordinator
National Marine Fisheries Service
501 West Ocean Blvd, Suite 4200 Long Beach, CA 90802-4213
562-980-4017**

It is unlikely that the vessel will be asked to stand by until NOAA Fisheries or CDFG personnel arrive, however this will be determined by the Stranding Coordinator. According to the MMPA, the vessel operator is not allowed to aid injured marine wildlife or recover the carcass unless requested to do so by the NOAA Fisheries Stranding Coordinator.

Although NOAA Fisheries has primary responsibility for marine mammals in both state and federal waters, the CDFG will also be advised that an incident has occurred in state waters affecting a protected species. Reports should be communicated to the federal and state agencies listed below:

Federal	State
Lillian Carswell Southern Sea Otter Recovery & Marine Conservation Coordinator US Fish and Wildlife Service Long Marine Laboratory Santa Cruz, CA 95060 (805) 612-2793	Enforcement Dispatch Desk California Department of Fish and Game Long Beach, California (562) 590-5132

5.3 MONITORING REPORT

A technical report documenting the project activities, observations of marine wildlife, and a summary of encounters with marine wildlife and subsequent actions taken during transit and survey periods will be prepared. The report will be submitted within 30 days of completion of field data collection and will subsequently be submitted to the appropriate agencies.

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APPENDIX A
MARINE WILDLIFE DESCRIPTIONS

APPENDIX A

MARINE WILDLIFE SPECIES DESCRIPTIONS

Marine Turtles

Olive ridley turtle (Lepidochelys olivacea). The olive ridley turtle is distributed circumglobally and is regarded as the most abundant marine turtle in the world (Eguchi *et al.*, 2007). Within the east Pacific, the normal range of olive ridley turtle is from southern California to Peru (NMFS, 2012a). However, they have been reported as far north as Washington, Oregon, and are rare visitors to the California coast (MFS Globenet Corp./WorldCom Network Services, 2000). The olive Ridley turtle is omnivorous, feeding on fish, crabs, shellfish, jellyfish, sea grasses, and algae (NMFS and USFWS, 2007a), and may dive to considerable depths (79 to 300 m [260 to 980 ft]).

Major nesting beaches are located on the Pacific coasts of Mexico and Costa Rica (MFS Globenet Corp./WorldCom Network Services, 2000; Eguchi *et al.*, 2007). The population on Pacific beaches in Mexico has declined from an estimated 10 million adults in 1950 to less than 80,000 in 1983 due to excessive over-harvesting (Channel Islands National Marine Sanctuary, 2000; NMFS, 2012b). Conservation measures, such as increased protection of nesting beaches and closure of the turtle fishery in 1990, have led to a dramatic increase in the once largest marine turtle nesting population in the world. The number of olive Ridley nests has increased from 50,000 in 1988 to more than one million in 2000 (Márquez *et al.*, 2002). The eastern Pacific population is estimated at 1.15 to 1.62 million, which is consistent with the dramatic increases of olive ridley nesting populations that have been reported (NMFS and USFWS, 2007a; NMFS, 2012a).

Green turtle (Chelonia mydas). Green turtles occur worldwide and are generally found in tropical and subtropical waters along continental coasts and islands between 30° North and 30° South (NMFS, 2012b). Green turtles have been reported as far north as Redwood Creek in Humboldt County, California and off the coasts of Washington, Oregon, and British Columbia (Channel Islands National Marine Sanctuary, 2000; MFS Globenet Corp./WorldCom Network Services, 2000). The green turtle is thought to nest on the Pacific coasts of Mexico, Central America, South America, and on the Galapagos Islands. There are no known nesting sites along the west coast of the U.S., and the only known nesting location in the continental U.S. is on the east coast of Florida (NMFS and USFWS, 2007b). Green turtles are sighted year-round in marine waters off southern California, with the highest concentrations occurring from July through September. Green turtles are herbivorous, feeding primarily on algae and sea grasses (MFS Globenet Corp./WorldCom Network Services, 2000). Recent minimum population estimates for green turtles indicate that at least 3,319 to 3,479 individuals are known to occur in the eastern Pacific and this population is believed to be increasing (NMFS and USFWS, 2007b).

Loggerhead turtle (Caretta caretta). The north Pacific distinct population segment of loggerhead turtles is listed as endangered. Loggerhead turtles primarily occur in subtropical to temperate waters and are generally found over the continental shelf (NMFS, 2011a). Loggerhead turtles are omnivorous and feed on a wide variety of marine life including shellfish, jellyfish, squid, sea urchins, fish, and algae (NMFS and USFWS, 2007c).

Loggerhead turtles breed on beaches in Central and South America, and southern California is considered to be the northern limit of loggerhead turtle distribution (MFS Globenet

Corp./WorldCom Network Services, 2000). However, loggerhead turtles have stranded on beaches as far north as Washington (Channel Islands National Marine Sanctuary, 2000; MFS Globenet Corp./WorldCom Network Services, 2000;). In addition, in 1978, a loggerhead turtle was captured near Santa Cruz Island in southern California (MFS Globenet Corp./WorldCom Network Services, 2000). Loggerhead turtle abundance in southern California waters is higher in the winter during warm years than cold years. However, during the summer months (July through September) abundance is similar in warm and cold years. In the U.S., nesting occurs only in Florida and the worldwide population appears to be decreasing (Conant, *et al.*, 2009). The north Pacific population of nesting females is estimated at 7,138 (NMFS, 2011c, NMFS, 2012a).

Leatherback turtle (Dermochelys coriacea). The leatherback turtle is a federally endangered species, despite being the most common sea turtle off the west coast of the U.S. (Channel Islands National Marine Sanctuary, 2000). Leatherback turtles have been sighted as far north as Alaska and as far south as Chile (Channel Islands National Marine Sanctuary, 2000; MFS Globenet Corp./WorldCom Network Services, 2000); their extensive latitudinal range is due to their ability to maintain warmer body temperatures in colder waters (MFS Globenet Corp./WorldCom Network Services, 2000). Off the U.S. west coast, leatherback turtles are most abundant from July to September, however their presence off the U.S. west coast is "two pronged" with sightings occurring in northern California, Oregon, Washington, and southern California, with few sightings occurring along the intermediate (central California) coastline. In southern California waters, leatherback turtles are most common from July through September, and in years when water temperatures are above normal.

Leatherback turtles feed principally on soft prey items such as jellyfish and planktonic chordates (e.g., salps) (NMFS and USFWS, 2007d). Recent leatherback turtle eastern Pacific population estimates indicate that at least 308 nesting females are known to occur (NMFS and USFWS, 2007d). This population is believed to be decreasing worldwide, however nesting trends on U.S. beaches have been increasing in recent years (NMFS, 2012b).

Critical habitat was proposed in 2010 (NMFS, 2012b), and a Final Rule was issued in the Federal Register on January 26, 2012 for the eastern Pacific Ocean population (NMFS, 2011b). Critical habitat extends to a depth of 80 m (262.5 ft) from the ocean surface and out to the 3000 m (9842.5 ft) isobath.

Marine Mammals

Baleen Whales

Gray whale (Eschrichtius robustus). The gray whale population breeds and calves in lagoons along the west coast of Baja California and in the Gulf of California in the winter (NMFS, 2012c). At the end of the season, the population begins an 8,000 km (5,000 mi) coastal migration to summer feeding grounds to the north. Migrating gray whales generally travel within 3.0 km (1.9 mi) of the shoreline over most of the route, unless crossing mouths of rivers and straits (Dohl *et al.*, 1983). The southward migration generally occurs from December through February and peaks in January; the northward migration generally occurs from February through May in the study area, and peaks in March. The most recent population estimates for the eastern North Pacific gray whale indicates that approximately 18,017 individuals are known to occur (NMFS, 2012c). The gray whale population growth rate was about 3.3 percent per year between 1968 and 1988 (NMFS, 1993) and, following three years of review, was removed from the endangered species list on June 15, 1994.

Fin whale (Balaenoptera physalus). The fin whale is listed as a federally endangered

species due to a severe worldwide population decline due to intensive historical commercial whaling. Fin whales are found year-round off southern and central California with peak observations in the summer and fall (Allen *et al.*, 2011). The most recent estimates of the fin whale population indicate that at least 2,624 individuals occur off California, Oregon, and Washington (NMFS, 2012c). There is some evidence that recent increases in fin whale abundance have occurred in California waters, but these increases have not been significant (NMFS, 2012c).

Humpback whale (Megaptera novaeangliae). The humpback whale is a federally endangered species, due to intensive historical commercial whaling. Humpback whales are distributed worldwide and undertake extensive migration within their zoogeographic range (Leatherwood *et al.*, 1982). Humpback whales spend the winter and spring months offshore Central America and Mexico for breeding and calving, and then migrate to their summer and fall range between California and southern British Columbia to feed (NMFS, 2012c). Although humpback whales typically travel over deep, oceanic waters during migration, their feeding and breeding habitats are in shallow, coastal waters over continental shelves (Clapham and Mead, 1999). Shallow banks or ledges with high seafloor relief characterize feeding grounds (Payne *et al.*, 1990; Hamazaki, 2002). During late summer, the majority of humpback whales are sighted north of the Channel Islands (San Miguel, Santa Rosa, Santa Cruz) (Carretta *et al.*, 2000). The most recent population estimates of humpback whales indicate that at least 1,878 individuals occur off California, Oregon, and Washington (NMFS, 2012c). This population appears to be increasing (NMFS, 2012c).

Blue whale (Balaenoptera musculus). The blue whale is a federally endangered species due to intensive historical commercial whaling. Blue whales are distributed worldwide in circumpolar and temperate waters, and inhabit both coastal and pelagic (offshore open water) environments (Leatherwood *et al.*, 1982; Reeves *et al.*, 1998). Like most baleen whales, they migrate between warmer water breeding and calving areas in winter and high-latitude feeding grounds in the summer. Blue whales that use the coastal waters of California are present primarily between June and November, with peak abundance usually in September (Burtenshaw *et al.*, 2004), however, blue whales can be observed offshore California as early as April. Feeding grounds have been identified in coastal upwelling zones off the coast of California (Croll *et al.*, 1998; Fiedler *et al.*, 1998; Burtenshaw *et al.*, 2004) and Baja California (Reilly and Thayer, 1990). The most recent estimates of eastern north Pacific blue whale population indicate that at a minimum of 2,046 individuals exist there (NMFS, 2012c).

Minke whale (Balaenoptera acutorostrata). The Minke whale is a coastal species that is widely distributed over the continental shelf throughout the eastern North Pacific (Allen *et al.*, 2011). This species occurs year-round off the coast of California. In southern California, Minke whales could be found throughout the year but in higher numbers from June through December (Bonnell and Dailey, 1993). This species favors shallow water and ventures nearshore more often than other baleen whales (Allen *et al.*, 2011); they seem to be curious about shipping and approach moving vessels. The most recent population estimates of Minke whales indicate that at least 202 individuals are known to occur off California, Oregon, and Washington. No long-term trend for the population has been identified at this time (NMFS, 2012c).

North Pacific right whale (Eubalaena japonica). The North Pacific right whale is federally endangered due to intensive historical commercial whaling. Like other baleen whales, this species migrates from high-latitude summer feeding grounds toward more temperate waters in the fall and winter, although seasonal migration routes are unknown (Allen *et al.*, 2011). The usual wintering

ground of northern Pacific right whales extended from northern California to Washington, although sightings have been recorded as far south as Baja California and near the Hawaiian Islands (Scarff, 1986; Gendron *et al.*, 1999). Estimates of the regional population are not available; however, in 2002, two of the 13 individuals observed between 1999 and 2001 were “re-observed” (NMFS, 2012c). It is believed that the north Pacific population is between 100 to 200 individuals (Braham, 1984). Populations estimates based on photographic recapture for this species remain low, with only 17 individuals being photographed (NMFS, 2012c). No long-term population trends have been determined at this time (NMFS, 2012c).

Sei whale (Balaenoptera borealis). The sei whale is a federally endangered species. Sei whales were historically abundant off the California coast and were the fourth most common whale taken by California coastal whalers in the 1950s and 1960s. However, due to intensive whaling, they are now considered “extraordinarily” rare (NMFS, 2012c; Allen *et al.*, 2011). The most recent estimates of the sei whale eastern northern Pacific stock population indicate that at least 83 individuals are known to occur off California, Oregon, and Washington (NMFS, 2012c). Sei whales occur throughout most temperate and subtropical oceans of the world, however the northern Pacific stock rarely ventures above 55° N or south of California (Allen *et al.*, 2011). Like most baleen whales, the sei whale migrates between warmer waters used for breeding and calving in winter and high-latitude feeding grounds in the summer. The northern Pacific stock ranges almost exclusively in pelagic waters and rarely ventures into nearshore, coastal waters (Allen *et al.*, 2011). Sei whales are most common offshore California from May through October (Department of the Navy, 1998).

Toothed Whales

Common dolphins (Delphinus spp.). Common dolphins are found worldwide and are the most abundant cetaceans in California waters (Bonnell and Dailey, 1993). Two recognized species of common dolphin are found in California waters: the long-beaked common dolphin (*D. capensis*) and short-beaked common dolphin (*D. delphis*). The long-beaked species is commonly found within about 90 km (56 mi) from the coastline. Its relative abundance changes both seasonally and annually, with the highest densities observed during warm water events (Heyning and Perrin, 1994). A recent population estimate for the California stock of this species is about 17,127 individuals (NMFS, 2012c).

The more numerous short-beaked species ranges from the coast to 550 km (341 mi) offshore. The most recent population estimate for individuals recorded offshore the California to Washington coastline is 343,990 individuals, making it the most abundant cetacean off California (NMFS, 2012c). Common dolphins tend to be gregarious and are frequently encountered in pods of 1,000 or more. Because populations tend to vary with water temperature, no long-term population trends have been determined at this time (NMFS, 2012c).

Dall's porpoise (Phocoenoides dalli). Dall's porpoise is one of the most abundant small cetaceans in the north Pacific and are found in shelf, slope, and offshore waters throughout their range (Koski *et al.*, 1998). Surveys conducted in California, Oregon and Washington suggest that north to south migration between these states occurs as oceanographic conditions change, both seasonally and inter-annual time scales. The southern end of this population's range is not well-documented, but they are commonly seen off Southern California in winter, and during cold-water periods they probably range into Mexican waters off northern Baja California (NMFS, 2012c). Dall's porpoise migratory movements are also believed to be linked to prey movements (Allen *et al.*, 2011). The most recent population estimates indicate that at least 32,106 individuals are present off California, Oregon, and Washington (NMFS, 2012c). The population trend for this species has not

yet been determined (NMFS, 2012c).

Pacific white-sided dolphin (Lagenorhynchus obliquidens). Pacific white-sided dolphins primarily range along the coasts of California, Oregon, and Washington. This species frequents deep water foraging areas, but may move into nearshore areas in search of prey. Analysis of sighting patterns suggest that Pacific white-sided dolphins move north to south, occurring primarily off California in cold water months and moving northward to Oregon and Washington as waters warm in the late spring and summer. (Allen *et al.* 2011; Forney *et al.*, 2000). Pacific white-sided dolphin populations are not showing any long-term abundance trends, but have a current minimum estimated population size of 21,406 off California, Oregon, and Washington (NMFS, 2012c).

Risso's dolphin (Grampus griseus). Risso's dolphins are distributed worldwide in tropical and warm-temperate waters. Off the U.S. west coast, Risso's dolphins are commonly seen over the continental shelf within the Southern California Bight (between Pt. Conception and the U.S./Mexico border) and in slope and offshore waters of California, Oregon and Washington (NMFS, 2012c). Risso's dolphins occur individually or in small to moderate-sized pods, normally ranging from two to nearly 250 individuals. The most recent population estimates of Risso's dolphin indicate that at least 4,913 individuals occur off California, Oregon, and Washington (NMFS, 2012c). No long-term population trends have been determined at this time.

Northern right whale dolphin (Lissodelphis borealis). The northern right whale dolphins are endemic to temperate waters of the North Pacific, where they range from the Mexican border to British Columbia (Leatherwood and Walker, 1979; Leatherwood *et al.*, 1982). They are primarily found over the continental shelf and slope in U.S. coastal waters and are known to make seasonal north to south movements (Forney *et al.*, 2000). Northern right whale dolphins are found primarily off California during colder-water months and move northward offshore Oregon and Washington as water temperatures increase in late spring and summer (NCCOS, 2007). The most recent population estimates indicate that at least 6,019 individuals occur off California, Oregon, and Washington (NMFS, 2012c). No long-term population trends have been determined at this time (NMFS, 2012c).

Striped dolphin (Stenella coeruleoalba). Striped dolphins are distributed worldwide in tropical and warm-temperate pelagic waters. Striped dolphins are gregarious and are often observed in pods ranging from 28 to 83 individuals (Allen *et al.*, 2011). Most sightings of striped dolphins occur within 185 to 556 km (115 to 345 mi) of the shoreline. Based on sighting records off California and Mexico, striped dolphins appear to have a continuous distribution in offshore waters of these two regions. The most recent population estimates indicate that at least 8,231 individuals occur off California, Oregon, and Washington (NMFS, 2012c). No long-term population trends have been determined at this time (NMFS, 2012c).

Baird's beaked whale (Berardius bairdii). The Baird's beaked whale is the largest member of the beaked whale family and is distributed along continental slopes and throughout deep waters of the North Pacific (NCCOS, 2007). Baird's beaked whales range from the offshore waters of Baja California to as far as the Pribilof Islands, Alaska. Surveys indicate Baird's beaked whales are most common off the west coast of the U.S. during the summer and fall and they tend to migrate further offshore in the winter (Allen *et al.*, 2011). They are often observed in pods of from three to 30 or more individuals. The most recent population estimates indicate that at least 615 individuals occur off California, Oregon, and Washington (NMFS, 2012c). No long-term population trends have been determined at this time (NMFS, 2012c).

Cuvier's beaked whale (Ziphius cavirostris). Cuvier's beaked whales are generally sighted

offshore in water depths over 200 m (656 ft) and as deep as 1,000 m (3,281 ft) (Gannier, 2000; MacLeod *et al.*, 2004). They are commonly sighted around seamounts, escarpments, and canyons. The distribution and abundance of beaked whales off southern California are not well known and the species of many of the sighted beaked whales has not been verified. Based on those that were identified off the U.S. west coast, this species is the most commonly encountered beaked whale (NMFS, 2012c). While they are sighted only during the cold-water season, it is unknown if Cuvier's beaked whales are found in California waters year-round or whether their distribution varies. The most recent population estimates indicate that at least 1,298 individuals occur off California, Oregon, and Washington (NMFS, 2012c).

Mesoplodont beaked whales (Mesoplodon sp.). Mesoplodont beaked whales are distributed throughout the deeper water areas and along the continental slopes of the North Pacific. Five species known to occur in this region include: Blainville's beaked whale (*M. densirostris*), Perrin's beaked whale (*M. perrini*), lesser beaked whale (*M. peruvianus*), ginkgo-toothed beaked whale (*M. ginkgodens*), and Hubbs' beaked whale (*M. carlhubbsi*) (NMFS, 2012c). However, due to the rarity of records and the difficulty in identifying these animals in the field, virtually no species-specific information is available so these species have been grouped to include all in the *Mesoplodont* stocks for this region. The most recent estimates indicate that at least 576 individuals occur off California, Oregon, and Washington (NMFS, 2012c).

Bottlenose dolphin (Tursiops truncatus). The bottlenose dolphin is probably more widely distributed than any other species of small cetacean in the eastern North Pacific (Leatherwood *et al.*, 1982). Individuals of this species that occur offshore California have been tentatively separated into coastal and offshore forms. The coastal bottlenose dolphin is generally found within 1.0 km (0.6 mi) of the shoreline and often enters the surf zone, bays, inlets, and river mouths (Leatherwood *et al.*, 1987). The California coastal population is estimated at 290 and appears in small resident groups that range along the coastline, especially off Orange and San Diego counties (NMFS, 2012c).

Offshore bottlenose dolphins are believed to have a relatively continuous distribution offshore California (Mangels and Gerrodette, 1994). Recent population estimates for the offshore bottlenose dolphin suggest at a minimum of 684 individuals offshore California, Oregon, and Washington (NMFS, 2012c). No long-term population trend has been determined at this time (NMFS, 2012c).

Sperm whale (Physeter macrocephalus). The sperm whale is a federally endangered species due to historically intensive commercial whaling. The sperm whale is the largest of the toothed whales and is found predominately in temperate to tropical waters in both hemispheres (Gosho *et al.*, 1984). Off California, sperm whales are present in offshore waters year-round, with peak abundance from April to mid-June and from late August through November (Gosho *et al.*, 1984; Barlow *et al.*, 1997). Sperm whales are primarily pelagic species and are generally found in waters with depths of greater than 1,000 m (3,281 ft) (Watkins and Schevill, 1977), although their distribution does suggest a preference for continental shelf margins and seamounts, areas of upwelling and high productivity (Allen *et al.*, 2011). The sperm whale was reported to be rare over the continental shelf, but abundant directly offshore of the Southern California Bight (Bonnell and Dailey, 1993). The most recent estimates indicate that at least 751 individuals occur off California, Oregon, and Washington (NMFS, 2012c). No long-term population trend has been determined at this time (NMFS, 2012c).

Dwarf sperm whale (Kogia sima). Dwarf sperm whales are distributed throughout deep

waters and along the continental slopes of the North Pacific and other ocean basins. According to NMFS, no at-sea sightings of this species have been reported, which may be due to their pelagic distribution, small body size, and cryptic behavior (NMFS, 2012c). A few sightings of animals identified only as *Kogia* sp. have been reported, and some of these may have been dwarf sperm whales. At least five dwarf sperm whales have been stranded on the California shoreline between 1967 and 2000 (NMFS, 2012c). In the water, they are often observed as individual animals, but do form pods of up to 10 individuals (Allen *et al.*, 2011). No information is available on the minimum population for dwarf sperm whales off of California, Oregon, and Washington (NMFS, 2012c).

Pygmy sperm whale (Kogia breviceps) Pygmy sperm whales are distributed worldwide in deep tropical and temperate waters. They are rarely seen at sea due to their deep diving times and inconspicuous nature on the surface. Pygmy sperm whales mostly feed on mid- and deep-water squid, but may also feed on shrimp and various small fish (Allen *et al.*, 2011). The available data is not sufficient enough to distinguish seasonal distribution or stock boundaries (NMFS, 2012c). On occasion, pygmy sperm whales will stand together, reflecting a strong social structure within pods. The most recent estimate indicated that at least 271 individual occur off California, Oregon, and Washington (NMFS, 2012c). No long-term population trend has been determined at this time.

Short finned pilot whale (Globicephala macrorhynchus). The range of the short-finned pilot whale in the eastern North Pacific extends from the tropics to the Gulf of Alaska. However, sightings north of Point Conception are uncommon (Forney *et al.*, 2000). Pilot whales were common off southern California until the early 1980's (Dohl *et al.*, 1983), but disappeared from area waters following the 1982 to 1983 El Niño (Bonnell and Dailey, 1993; Forney *et al.*, 2000). Recently, pilot whales have begun reappearing in California waters, possibly in response to long-term changes in oceanographic conditions, but sightings are still rare (Forney *et al.*, 2000). The most recent estimates indicate that at least 465 individuals occur off California, Oregon, and Washington (NMFS, 2012c). No long-term population trend has been determined at this time.

Killer whale (Orcinus orca). The killer whales occurring off the coast of California have been tentatively separated into transient, offshore, and resident forms. The transient form is most frequently-sighted off California, and has been observed from southern California to Alaska. This form feeds on marine mammals, travels in small pods, often over long ranges, and is usually quiet (NCCOS, 2007). Individuals of this form occur year-round offshore southern California and are most common from January to May and from September through November. The most recent population estimate for the West Coast transient stock of killer whales is 354 (NMFS, 2012c).

The offshore form has more recently been identified off the coasts of California and Oregon, and rarely off southeast Alaska (NMFS, 2012c), and could occur in the project area. They apparently do not mix with the transient and resident forms found in these regions. The offshore form is more vocal, travels in larger pods, and feeds on fishes and squid (NMFS, 2012c). The estimated number of the offshore form of the killer whale along the U.S. West Coast, Canada, and Alaska is 162 animals (NMFS, 2012c).

Individuals of the southern resident stock of killer whale is most commonly seen in the inland waters of Washington state and southern Vancouver Island; however, individuals from this stock have been observed in Monterey Bay, California in January, 2000 and March, 2003, near the Farallon Islands in February 2005 and off Point Reyes in January 2006 (NMFS, 2012c). Based on the zoogeographic distribution of this form, it is not likely to be present offshore California. Of the three forms of killer whales only Eastern North Pacific southern resident stock is listed as federally endangered.

Seals and Sea Lions

California sea lion (Zalophus californianus). The California sea lion is the most abundant pinniped in California, representing 50 to 93 percent of all pinnipeds on land and about 95 percent of all sightings at sea (Bonnell and Ford, 1987). This species ranges from Baja California, Mexico to British Columbia, Canada. Individuals tend to occupy coastal rookeries from mid-May to late July (NCCOS, 2007). Over 95 percent of the U.S. stock breeds and gives birth on San Miguel, San Nicolas, and Santa Barbara Islands. The most recent population estimates for the California sea lion stock indicate that at least 153,337 individuals occur in California (NMFS, 2012c). This number believed to be increasing despite fewer pups being born during El Niño events in the late 1990's (NMFS, 2012c).

Northern fur seal (Callorhinus ursinus). The northern fur seal is the most abundant otarid in the Northern Hemisphere. Most of the population is associated with rookery islands in the Bering Sea and the Sea of Okhotsk, although a small population of northern fur seals has existed on San Miguel Island since the late 1950s (NMFS, 2012c). The eastern Pacific stock spends May to November in northern waters and at northern breeding colonies. In late November, females and young begin to arrive offshore California, with some animals moving south into continental shelf and slope waters. The most recent population estimates for the San Miguel Island stock indicate that at least 5,395 individuals occur there (NMFS, 2012c). The population trend is increasing (NMFS, 2012c).

Guadalupe fur seal (Arctocephalus townsendi). The Guadalupe fur seal is a federally threatened species, due to historical commercial seal hunting in the 19th century. The Guadalupe fur seal ranges from Guadalupe Island, Mexico north to the California Channel Islands, but individuals are occasionally sighted as far south as Tapachula near the Mexico-Guatemala border and as far north as Mendocino, California (Allen *et al.*, 2011). As their numbers increase, Guadalupe fur seals are expanding their range and are regularly seen on San Miguel and San Nicolas Islands, and, occasionally, on the Farallon Islands. Presently, the species breeds only on Isla de Guadalupe off the coast of Baja California, Mexico, although individual animals are appearing more regularly on the Channel Islands and a single pup was born on San Miguel Island in 1997 (Allen *et al.*, 2011). The at-sea distribution is unknown (Reeves *et al.*, 1992), but Guadalupe fur seals may migrate at least 600 km (372 mi) from the rookery sites, based on observations of individuals in the Southern California Bight (Seagars, 1984). At San Nicolas Island, male Guadalupe fur seals have occasionally established territories among breeding California sea lions. Researchers suspect that water temperature and prey availability would affect fur seal movements to the north of Guadalupe Island (Le Boeuf and Crocker, 2005). The most recent Mexico population estimates for the Guadalupe fur seal is 3,028 individuals. Overall, the annual population is increasing at a relatively rapid estimate of 13 percent (NMFS, 2012c).

Northern elephant seal (Mirounga angustirostris). Northern elephant seals breed along the coast from Baja California north to Point Reyes, California. Northern elephant seals typically haul-out only to breed and molt and then disperse widely at sea. Northern elephant seals molt, breed, and give birth primarily on islands off Baja California, Mexico and California, although rookeries are found as far north as the Farallon Islands and Point Reyes (Allen *et al.*, 2011). The breeding period is generally from December through March and molting occurs between April and August; females and juveniles molt in April to May, sub-adult males molt from May to June, and adult males molt from July to August. Yearlings tend to molt in the fall. The northern elephant seal is present year-

round off of the California coast; however, because they spend very little time at the surface and forage mostly offshore, at-sea sightings are rare (NCCOS, 2007). The most recent population estimates for the California breeding stock of northern elephant seals indicate that at least 74,913 individuals occur in California and the stock appears to be increasing (NMFS, 2012c).

Pacific harbor seal (Phoca vitulina richardsi). Pacific harbor seals range from Mexico to the Aleutian Islands, Alaska (Allen *et al.*, 2011) and are year-round residents off southern California. Unlike most pinnipeds occurring off California, Pacific harbor seals maintain rookeries on the mainland where they breed and pup (NMFS, 2012c). Rookeries can also serve as haul-out sites that may be occupied at any time of year for resting. Pupping generally occurs between March and June and molting occurs from May to July (NCCOS, 2007). The most recent population estimates of the California stock indicate that at least 26,667 individuals occur within that area (NMFS, 2012c). After increases in the 1990s, this population is believed to be stable and possibly reaching its carrying capacity and is decreasing (NMFS, 2012c).

Fissipedia. One fissiped species is known to occur within the central California coast, the Southern sea otter.

Southern sea otter (Enhydra lutris nereis). The southern sea otter is listed as “threatened” under the FESA, “depleted” under the Marine Mammal Protection Act (MMPA), and “fully protected” under California Fish and Game Code. Historically, the range of sea otters extended from the northern islands of the Japanese Archipelago northeast along Alaska and southward along North America to Baja California (Allen *et al.*, 2011). The sea otter was nearly extirpated by the fur trade during the 18th and 19th centuries. The current range extends from about Half Moon Bay in the north to Santa Barbara in the south. A small, satellite population of approximately 20-40 animals also occurs at San Nicolas Island, the result of a translocation effort in the late 1980’s (NCCOS, 2007). This species prefers rocky shoreline with water depth of less than 5 m (50 ft), which support kelp beds where they feed on benthic macroinvertebrates including clams, crabs, abalone, sea urchins, and sea stars. Recent minimum population estimates for southern sea otters in California indicate that at least 2,711 individuals are known to occur and no long-term trends in this population are available (USGS, 2010).

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APPENDIX B
MARINE WILDLIFE OBSERVATION REPORTING FORM

CALIFORNIA AIR EMISSION COMPLIANT 155' 4-PT. ANCHOR, OFFSHORE SUPPLY, DIVE & ROV SUPPORT VESSEL



- Marine Construction
- Marine Abandonments and Decommissioning
- Platform and Pipeline Inspections and Repairs
- Pipeline Tie-Ins and Hot Taps
- Power Cable Installation and Inspections
- Mooring Installation, Overhaul and Inspections
- Surface Air Diving
- Surface Gas Diving
- ROV Operations
- Surveys – Bathymetry and Side Scan Sonar
- Coring Operations
- Supply Vessel
- Oil Spill Response Vessel

PERFORMANCE	
Maximum Speed:	12 Knots
Cruising Speed:	10 Knots
Maximum Fuel Consumption:	60 usg/hr
Cruising Fuel Consumption:	55 usg/hr
CAPACITIES	
Fuel:	39,119 usg
Liquid Mud*:	1,195 bbl
Potable Water:	14,250 usg
Drill Water:	59,312 usg
Recovered Oil:	1,400 bbl

This versatile workboat has a 4-point mooring system, large open deck space, and 18 ton telescopic boom crane. It is equipped with a complete Surface Air and Gas diving system, Remotely Operated Vehicle (ROV), A-frame, and winches to accommodate project needs.

The comfortable berths, full galley and laundering facilities allow the boat to accommodate up to 16 personnel plus crew for 25 days.

Size & Class:	155' OSV/OSRV
USCG:	COI, USCG Sub L, OSV
ABS:	International Load Line
DIMENSIONS	
Gross Tonnage:	99 U.S. Tons
Length Overall:	155'
Draft:	9' – 9"
Breadth:	36'
Clear Deck Space:	97' x 30' (2910 sf)
MACHINERY	
Main Engines:	Cummins QSK 19 – Tier 3
Brake Horsepower:	1500
Reduction Gears:	Twin Disc MG-520
Bow Thruster:	Cummins QSL 9 – Tier 3
Generators:	(2) 99Kw / John Deere – Tier 3
Liquid Mud Circulation:	Magnum 5x4x14
Crane	18 ton
Electronics:	Furuno NAVNET Navigation & Oceanographic Suite, Uniden Oceanus Radios (2), SEA225 Single Side Band Radio, JRC AIS, Cummins Engine Control and Monitoring System

FUGRO

2015 ON-BOARD SPILL CONTAINMENT AND CLEAN-UP PLAN

THIS PLAN IS FOR FUGRO PERSONNEL TO READ *BEFORE* A SPILL OCCURS --AND TO KEEP HANDY FOR REFERENCE DURING AN EMERGENCY.

✦ **THE KEY TO SPILL PROTECTION IS *EARLY* RESPONSE AND ACTION.**

THIS PLAN IS FOR ALL EMPLOYEES ON A VESSEL OR BARGE. IT OUTLINES THE COMPANY PRIORITIES, THE LOCATION OF SPILL RESPONSE EQUIPMENT, INSTRUCTIONS ON HOW TO RESPOND, DIRECTIONS TO EMERGENCY MEDICAL FACILITIES, AND NOTIFICATION NAMES AND PHONE NUMBERS.

SPILL RESPONSE

PRIORITIES

In the event of a spill, on-site personnel are in the best position to take prompt action to minimize and control the spill.

Our company priorities are:

1. Personnel Safety
2. Prevention of Fire or Explosion
3. Elimination of Spill Source
4. Containment of the Spill
5. Collection and Storage of Contaminated Debris and Materials
6. Notification of Spillage
7. Preparation of Reports

SAFETY OF PERSONNEL IS ALWAYS OUR FIRST PRIORITY.



SPILL RESPONSE MEASURES

In case of an actual spill, take the following actions IF IT IS SAFE TO DO SO:

Call 911 for medical or fire emergency assistance if needed

Isolate and administer to injured persons if necessary

TAKE NECESSARY STEPS TO REDUCE THE RISK OF FIRE

- Turn off equipment, valves, or pumps
- Turn off or extinguish any sources of hot surfaces or flame

STOP SPILL AT SOURCE IF SAFE AND POSSIBLE

- Stop equipment leaks by crimping hoses, plugging holes, or isolating parts
- Upright turned over oil/grease or paint buckets
- Stop tank leaks by placing in additional containment or plugging hole

CONTAIN ON-DECK SPILL FROM SPREADING OVERBOARD

- Berm around spreading spill with absorbent material (rags, kitty litter, sock boom, etc)
- Apply granular absorbent ("kitty litter") in sufficient quantity to soak up entire spill
- Wipe small spills with cotton rags

CONTAIN WATER-BORNE SPILLS TO AS SMALL AN AREA AS POSSIBLE

- Apply absorbent pads to spilled material
- Deploy oil boom/absorbent sock boom

↪ **IF SPILL IS LARGE, CALL THE FUGRO SUPERINTENDENT OR VICE PRESIDENT AS SOON AS POSSIBLE.**

↪ **FOR IMMEDIATE DEPLOYMENT OF LARGE OIL BOOM, CALL ONE OF THE FOLLOWING COMPANIES.**

- Clean Seas, LLC (805) 684-3838
- Marine Spill Response Corporation (MSRC) Tel: (510) 478-0702
- National Response Corporation (NRC) Tel: (562) 506-2060
- Patriot Environmental Services (562) 244-2204
- Foss Maritime or another closer response team and request response to clean up the fuel

CLEAN UP SPILL AND USED SPILL MATERIALS

- Gather soaked rags, absorbents, boom and dirt
- Place in leak proof containers for storage and disposal



EMPLOYEE TRAINING ON OIL SPILL CONTINGENCY PLAN

Prior to the departure of the vessel for any activities, all Captain and crew members on the vessel will have read the Oil Spill Contingency Plan, understand procedures to be implemented in the event of an oil spill, and know where the oil spill kit is located on the vessel.

EMERGENCY EQUIPMENT

LOCATION

As part of each job start-up safety meeting, the spill containment and cleanup material will be discussed and verified.

EQUIPMENT

The Spill Containment and Cleanup Materials include:

- 1 Box of 20 Gloves: in spill kit box located in front compartment of vessel
- 2 pair Goggles: in spill kit box located in front compartment of vessel
- 1 Box of Rags: in spill kit box located in front compartment of vessel
- 1 Box of 20 Garbage bags: in spill kit box located in front compartment of vessel
- 30 each Absorbent pads: spill kit box located in front compartment of vessel
- 1 Small Oil Boom: located on back deck
- 1 12lb Bag Granular absorbent (“kitty litter”): located in front compartment of vessel
- 1 Shovel: located on back deck

FIRE EXTINGUISHERS ARE MOUNTED ON ALL VESSELS, PICKUP TRUCKS AND THERE IS ONE IN THE OFFICE. THE FIRE EXTINGUISHER WILL BE CHECKED FOR EXPIRATION DATE AND THE LOCATION DISCUSSED AT EACH SAFETY MEETING.

INVENTORY & RESTOCKING

The on-board spill containment and cleanup materials are inventoried by the Foreman at the start of every job, at least monthly and after a spill response. Depleted items are to be reported to the Superintendent or any member of the office staff. Items are to be ordered immediately and restocked promptly.



NOTIFICATIONS

In case of a spill, notify a Fugro 24 hour representative (see addendum 1 for names and phone numbers).

GIVE THE FOLLOWING INFORMATION TO THE BEST OF YOUR ABILITY:

- Your name
- Location
- Date of spill
- Time of spill
- Substance spilled
- Quantity spilled
- Potential for continued spill
- Possible health hazard
- Source of spill
- Actions taken
- Threatened resources/utilities

THE ENVIRONMENTAL COORDINATOR WILL:

- Notify the applicable local, state and federal authorities
- Coordinate and disseminate information to the media
- Handle the legal obligations and responsibilities of the company





Addendum 1

Emergency Notification

PHONE LIST

Fugro , Inc.
Office 805-650-7000

California State Lands Commission
24-Hour Emergency Number 562-590-5201

Fire Emergency 911 911

Medical Emergency 911 911





Addendum 2

Guide for Fugro Management

1. Call for outside assistance if appropriate for the spill.
2. Call the Company Environmental and Safety Coordinator to coordinate the legal notifications and media inquiries:
3. If there is an **actual** release to the environment, the U.S. EPA Emergency Response Program requires notification to one of the following organizations:

NATIONAL RESPONSE CENTER	1-800-424-8802
U.S. COAST GUARD MARINE SAFETY OFFICE	1-510-437-3073
	1-510-437-3074

4. Other organizations that may be involved:

U.S. EPA Hazardous Waste	1-415-744-2000
California Office of Emergency Services	1-800-852-7550
Additional number	1-916-427-4287
State of California Water Quality	1-510-286-1255
State of California Fish & Game	1-707-944-5512
After hours and weekends	1-916-445-0045
Vessel Traffic	1-415-556-2760
Ca Oiled Wildlife Care Network	1-916-445-0045

5. The information that will be requested is attached as Addendum # 6.



Addendum 3

Fugro ,Owner, and Management Information

Fugro Environmental and Safety Coordinator

Jeffery Ripper 858-427-2017

Officers of the Corporation

David Millar 858-427-2005



Addendum 4

OPERATIONAL INFORMATION

NORMAL OPERATIONS

We contract with public and private entities to conduct high resolution low energy geophysical and geotechnical engineering surveys.

To accomplish this work, we purchase equipment, tools, material, and supplies which are gathered at various mobilization sites and loaded onto vessels and barges which are berthed alongside a dock. When needed tugboats move barges to and from the jobsites. At the completion of projects, the reverse process takes place - unloading equipment, materials, tools, and supplies.

POTENTIAL SPILLS DUE TO NORMAL OPERATIONS

Oil, grease, fuel, or hydraulic fluid leak from machinery or equipment

Cranes, winches, generators, light plants and boats require fluids to operate.

- Fluids could leak onto the vessel or into the water

Oil, grease, or fuel spill from storage

Oil and grease are stored in the vessels and/or barges in 5 gallon or smaller plastic buckets.

- Buckets could be dropped or punctured in transport

Fuel is stored in steel tanks housed on the vessels.

- Tanks could be punctured by sharp objects

Paint spill

Paint is generally purchased and utilized as needed. If extra is kept, one gallon pails and spray cans could be stored below deck.

- Pails could be punctured or tipped over during use





Addendum 5

PRODUCT USAGE INFORMATION

CHEMICALS AND FUELS (DESCRIPTION & QUANTITIES)

MSDS sheets are available on the vessel, and the Fugro office.

Oil	< 4 quarts
Gasoline	< 100 gallons





Addendum 6

SPILLS RESULTING FROM VESSEL FUELING

All vessel fueling will be conducted on land at a gas station or at an approved docking facility. No cross vessel fueling will be performed.



Date: March 18, 2016

Area: Channel Islands, from Point Mugu to Santa Cruz Island to San Nicolas Island

Fugro Pelagos, Inc. will conduct a Multi Beam Echo Sounder Survey for the region in the Channel Islands, from Point Mugu to Santa Cruz Island to San Nicolas Island, as shown on the attached graphic. The survey area is within NOAA Raster Chart 18720.

Approximate area co-ordinates of the survey are:

34deg 09min 39sec N, 119deg 41min 07sec W
34deg 04min 18sec N, 119deg 03min 51sec W
33deg 16min 41sec N, 119deg 24min 11sec W
33deg 19min 03sec N, 119deg 29min 46sec W

1. Expected Dates of Operation:	April 25, 2016 thru May 20, 2016
2. Hours of Operation:	24 Hrs
3. Vessel Name:	Clean Ocean
4. Vessel Official Number	1077091
5. Vessel Radio Call Sign:	WDE7605
6. Vessel Captain's Name:	Charlie Parish
7. Radio Channel(s) to be Monitored during Operations:	VHF 16
8. Vessel Navigation System:	Differential GPS

Call Collect to:

Fugro Pelagos, Inc.
Operations Manager: Mark MacDonald
3574 Ruffin Road
San Diego, CA 92123
Tel: (858) 427-2013

Distribution:

Coast Guard District 11

119°30'0"W

119°0'0"W

34°0'0"N

34°0'0"N

Santa Cruz Island

Point Mugu

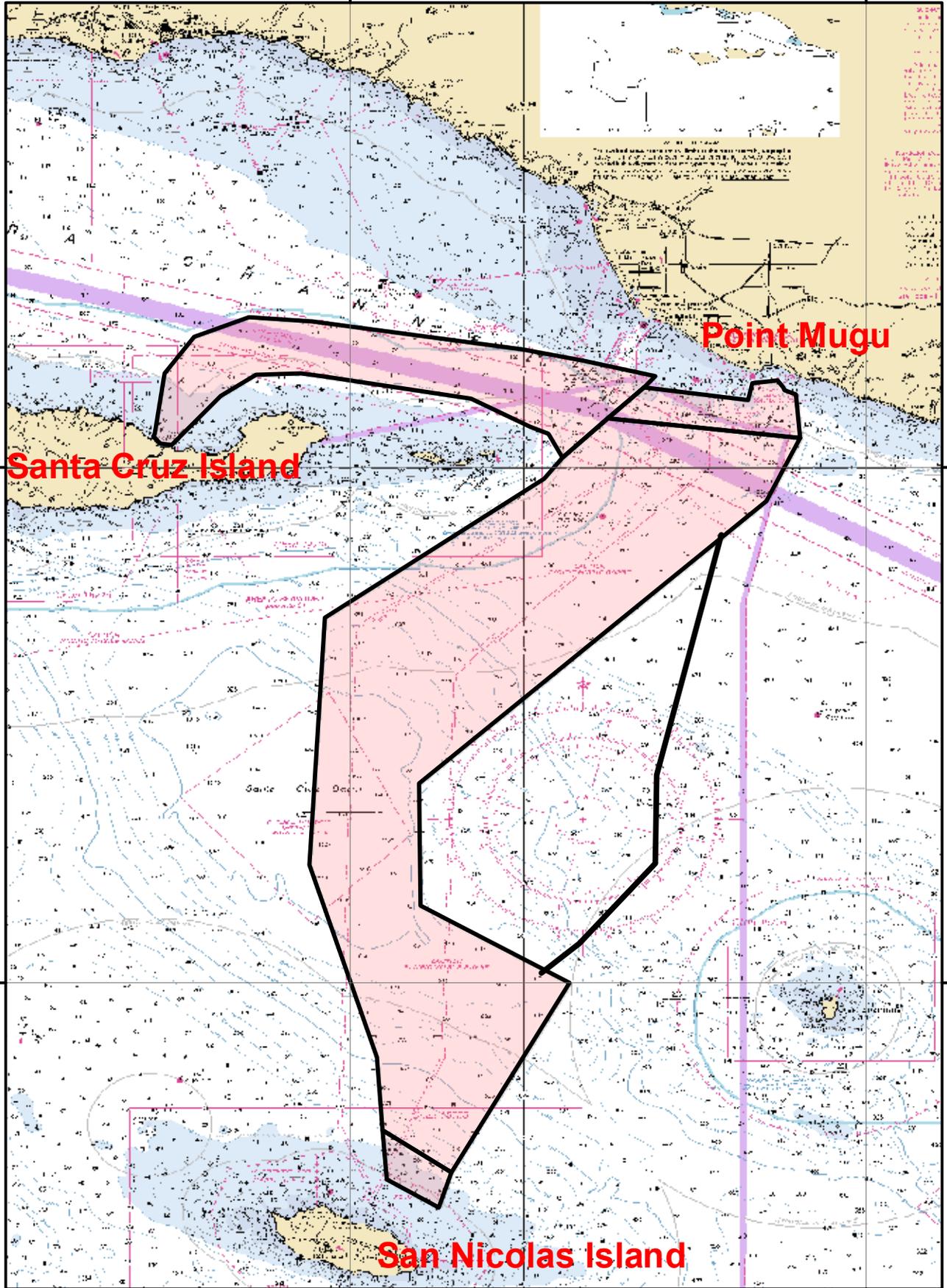
33°30'0"N

33°30'0"N

San Nicolas Island

119°30'0"W

119°0'0"W



Fugro Pelagos, Inc.
Pre-Mobilization Equipment Inspection Record

Instrument/System Type/Description(s): Reson 7125 multibeam echosounder

Make/Model Number(s): Reson Seabat 7125

Serial Number(s): 1612100

General Parts	Premobilization Inspection Checks	Check	Notes	Technician Initials
Housing	Visual inspection of housing. Note any structural damage, signs of electrolysis and overall cleanliness. Repair/replace/clean as needed.	X	3/22/2016	DD
	Visually inspect transducers, sound sources or other sensors.	X	3/22/2016	DD
Cables & Connections	Check for damage along entire cable length of all cables, if a cable is marked with lengths, verify labels and distances.	X	3/22/2016	DD
	Check cable ends and connections for looseness, corrosion and any sign of electrical arcing at the pins. Repair/replace/clean as needed.	X	3/22/2016	DD
	Check all water proof connectors and apply appropriate lubrications – confirm good connection seals and seating.	X	3/22/2016	DD
	Check electronic continuity of all cables.	X	3/22/2016	DD
Hoses	Check entire length of any hoses for damage or leaks.		n/a	
	Check any hose connections for damage or leaks.		n/a	
Electronics	Check all power supply output	X	3/22/2016	DD

Fugro Pelagos, Inc.
Pre-Mobilization Equipment Inspection Record

	voltages.			
	Ensure all electronics power up properly and display appropriate indicator lights.	X	3/22/2016	DD
	No observed alarms (visual, audible, or other).	X	3/22/2016	DD
Programming	Confirm up to date firmware version(s).	X	3/22/2016	DD
	Confirm up to date software version(s).	X	3/22/2016	DD
	Confirm license expiration date(s).		n/a	
Communications	Check all RS232 communications.	X	3/22/2016	DD
	Check all USB communications.		n/a	
	Check all LAN communications.	X	3/22/2016	DD
	Check all wireless communications.		n/a	
	Check all other communication types.	X	BNC – 3/22/2016	DD
Testing	Bench test system appropriately (note type of test performed – rub test/tap test/audible test).	X	Rub test	DD
	Wet test system appropriately (note type of test performed).	X	SV measurement	DD

Geiger, Brandy FPI

From: Geiger, Brandy FPI
Sent: Wednesday, March 30, 2016 11:02 AM
To: 'eendersby@morrobayca.gov'; 'stevem@portsanluis.com'; 'shawnteam@gmail.com'; 'sriedman@santabarbaraca.gov'; 'smiler@venturaharbor.com'; 'CIHarborVisitors@ventura.org'; 'harbor@cityoflongbeachms.com'; 'dive@ScubaDiveLA.com'; 'scuba@ecodivecenter.com'; 'community@portla.org'; 'jay@venturadive.com'
Cc: 'SLCOGPP@SLC'
Subject: Pre-survey notification Additional Information
Attachments: Notice_to_Mariners_R0_(Clean_Ocean).pdf; NTM_Graphic.pdf; CSLCnotification Exhibit F.pdf

Good Morning,

Per our geophysical notification requirements by California State Lands Commission (CSLC), I am submitting to you the revised attached notices for posting.

Please contact Chris Esposito at Fugro Pelagos if you have any questions or require further information.

Regards,
Brandy Geiger -Hydrographer
Fugro Pelagos, Inc.

Chris Esposito
Project Manager
T +1 858 427 2038 | C +1 858 212 8121
email: cesposito@fugro.com | www.fugro.com
3574 Ruffin Road, San Diego, CA 92123-2597, USA

Marques Humpal
4524 W. Tulare Ave.
Visalia, CA 93277
Ph. (415) 279-6218
marqueshumpal@hotmail.com

Summary of Qualifications:

- 8+ years of biological monitoring.
- Excellent knowledge of wildlife law and enforcement
- Strong ability to interact among the public, resources management agencies, and wildlife and fisheries resources.
- Remarkable ability to analyze wildlife management issues and problems.
- Excellent interpersonal, verbal, and organizational skills.
- STCW Safety Training
- EMT Basic Certified
- Certified Commercial Diver
- Proficient in analyzing and monitoring data from Geographic Information System

Professional Experience:

Animal Care and Stranding (Rescue) Volunteer, (2001-2003)
The Marine Mammal Center, Santa Barbara CA

Duties:

- Weighing and maintaining charts on the pinnipeds and cetaceans.
- Preparing feeds and feeding the animals.
- Cleaning pens and pools.
- Rehabilitation and then release of these species back to their ocean home.
- Assess the situation.
- Aid the animals (including administering emergency care).
- Transporting animals to triage sites.

Biological Monitor, (2001-2011)
The Marina Mammal Consulting Group, Santa Barbara, CA

Duties:

- Conducted, and monitored activities for pinnipeds and cetacean
- Collected and corresponded information about the fauna to regional scientist.
- Assisted with the preparation of technical reports in accordance with National Environmental Policy Act (NEPA)
- Developed and maintained knowledge of biological principles and statistical procedures.
- Managed, coordinated, and provided technical support to wildlife.
- Implemented contingency plans when needed.

Biological Monitor , (2009-2011)
AA Rich and Associates, San Anselmo, CA

Duties:

- Conducted, and monitored activities for all sensitive animals on project site
- Coordinated with construction manager for contractor activities that required biological monitoring
- Developed and maintained knowledge of biological principles and statistical procedures.
- Managed, coordinated, and provided technical support to wildlife.
- Implemented contingency plans when needed.

Biological Monitor , (2010-2015)
Padre Associates Inc. Concord and San Luis Obispo, CA

Duties:

- Conducted onboard monitoring and reporting of marine mammals and birds.
- Ensured project compliance with environmental requirements.
- Followed biological principles and statistical procedures required per the project contract.
- Maintained biological monitoring logbooks.
- Managed, coordinated, and provided technical support during onboard monitoring.
- Implemented contingency plans when needed.

Education:

Bachelor Degree in Environmental Studies 2005