

MARINE WILDLIFE CONTINGENCY PLAN

INTRODUCTION:

The California State Lands Commission (CSLC) is proposing the removal of hazards located at twenty-one sites along the Santa Barbara Channel coast. The project consists of removing hazardous structures including corroded steel H beams, steel girders, railroad irons, angle bars, well caissons, well casings, piles, sheet piles, cables, pipelines, pipe frames, and onshore and offshore wellheads, in order to mitigate or eliminate the risks to public health and safety in these areas.

PROJECT DESCRIPTION:

The twenty-one hazard sites are located along the Santa Barbara Channel coast from Gaviota to the Ventura River mouth. Table 1-1 (Appendix A) summarizes the proposed project sites including hazard types, locations, method of removal, site access route, staging area, and approximate project duration. The hazard removal activities will be scheduled to minimize impacts to sensitive species to the extent feasible.

PURPOSE OF THE PLAN:

This Marine Wildlife Contingency Plan (Plan) has been prepared to reduce the potential of adverse impacts to marine wildlife resources associated with the CSLC Santa Barbara Channel Hazards Removal Program. This plan includes the following items:

- Methods for avoidance of sensitive species of marine wildlife species such as sea otters, known or potentially existing within the work site;
- To the extent feasible, scheduling of offshore work activities to avoid the migration season of gray whales (mid-November – mid-June);
- Methods to minimize the construction corridor (impact area) and minimize turbidity;
- Guidelines and appropriate agency notification procedures for injury to sensitive marine wildlife species;
- Guidelines to avoid sensitive marine mammals within or adjacent to the work site, and measures to be taken, if avoidance is not feasible and work is delayed;
- Identification of vessel corridors to prevent vessel traffic and anchoring outside of the immediate work site;
- Identification of a vessel anchoring area further offshore from the work site, should severe wind or surf require anchoring in deep water;
- Outline of wildlife monitoring procedures and techniques;
- Travel routes and wildlife survey techniques for vessels traveling to the work site;

- Limiting boat traffic to essential trips only.

The SLC hazards contractor will retain a National Marine Fisheries Service (NMFS) approved marine wildlife biologist to monitor vessels transiting the area. The following guidelines included in the Marine Wildlife Contingency Plan and those listed below shall be followed:

- The monitor shall be aboard the vessel during all times and shall be stationed at a location that provides 360 degrees of visibility around the vessel.
- Support vessels would make every effort to maintain a distance of at least 300 feet from sighted marine wildlife.
- Support vessels would not cross directly in front of migrating whales, or foraging marine wildlife (e.g., foraging dolphins, otters, seals).
- When paralleling whales, support vessels would operate at a constant speed that is not to exceed the speed of the whales.
- Care would be taken to ensure that female whales would not be separated from their calves.
- Support vessels would not be used to herd or drive whales or other marine wildlife from the project area.
- If a marine animal engages in evasive or defensive action, support vessels would drop back until the animal calms or moves out of the area.”

Endangered and threatened marine mammal species, among other animals and plants, are protected by the Endangered Species Act of 1973 (Section 9 and implementing regulations 50 CFR Part 17), which makes it unlawful to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect an endangered species, or to attempt to engage in any such conduct. A person violating the provisions of the Act and regulations is subject to a fine and imprisonment. An “endangered species” is any species, which the Secretaries of the Department of the Interior and/or the Department of Commerce determine is in danger of extinction throughout all or a portion of its range. A “threatened species” is any species, which the Secretaries determine is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.

In addition, thirty-four of the approximately 111 marine mammals known worldwide have been recorded off the southern California coast. All marine mammals are protected by the Marine Mammal Protection Act of 1972 (MMPA). Sections 101 and 102 of the MMPA prohibit intentional killing or harassment of marine mammals, but allow incidental contact in the course of normal marine vessel operations.

The NMFS is the federal agency responsible for enforcing the MMPA. The United States Fish and Wildlife Service (USFWS) and NMFS are responsible for implementation of the Endangered Species Act. Since operations will occur in state waters, the California Department

of Fish and Game (CDFG) is also involved in an advisory capacity. Any accidental contact with marine wildlife during the course of vessel operations must be promptly reported to the NMFS Stranding Coordinator for the Southwest Region in Long Beach. In addition, the California State Lands Commission will retain an approved marine wildlife monitor aboard the offshore work barge during activities requiring the use of marine vessels.

Removal of the offshore coastal hazards and associated supporting vessel operations has the potential to injure and/or disturb marine wildlife. The highest potential for incidents with marine wildlife would occur during the hazard removal operations and the mobilization and demobilization of work vessels from Port Hueneme or Santa Barbara Harbor to and from the project sites. However, it is anticipated that offshore hazard removal activities will be temporary and completed using the minimal practical quantity of equipment and marine vessels. Therefore, potential impacts to marine wildlife as a result of project implementation are expected to be limited to a short period of time.

MARINE WILDLIFE:

The twenty-one hazard sites are located within the onshore and offshore region of the Santa Barbara Channel (SBC). The SBC is bordered on its seaward margin by the northern Channel Islands and contains a high marine species diversity. In offshore waters of the SBC, the most commonly observed cetaceans are the common dolphin (*Delphinus delphis*), the Pacific white-sided dolphin (*Lagenorhynchus obliquidens*), coastal bottlenose dolphin (*Tursiops truncatus*, aka, *T. gilli*), and the California gray whale (*Eshchrichtius robustus*). Gray whales are observed during their annual migratory periods, which are generally from mid November to mid June (Fahy, 2002).

The most common pinnipeds occurring in the Bight include the California sea lion (*Zalophus californianus*), northern fur seal (*Callorhinus uranius*), northern elephant seal (*Mirounga angustirostris*) and harbor seal (*Phoca vitulina*) (Bonnell et al., 1980).

Sea otters (*Enhydra lutris nereis*) occur on the central coast of California. Recent range extensions have brought otters into southern California waters. There is a small population that frequents Cojo Bay, and the kelp beds along the SBC. As such, the likelihood of encountering sea otters during project operations is high.

Sea turtles can also be found within the waters off the southern California coast. The four species of sea turtles that have the potential to occur within the project area include the green sea turtle (*Chelonia mydas*), Pacific ridley sea turtle (*Lepidochelys olivacea*), leatherback turtle (*Dermochelys coriacea*), and loggerhead turtle (*Caretta caretta*) (MFS Globenet Corp./WorldCom Network Services, 2000).

In addition, Pacific sand dollars (*Dendraster excentricus*) were also identified within the offshore project area during the marine biological survey (de Wit, 2000). Sand dollars typically occur in dense populations, partially buried, and feed on suspended material swept by ocean currents.

The following table provides abundance estimates for the marine wildlife species described above. Due to the locations of the proposed project, the species with the greatest potential to be impacted due to their regular occurrence in nearshore areas include: common dolphin, California white-sided dolphin, bottlenose dolphin, sea lion, harbor seal, migrating gray whales, sea otters, and Pacific sand dollar.

Table 1 - Abundance Estimates for Marine Wildlife

Common Name	Scientific Name	Minimum Population Estimate	Current Population Trend
Common dolphin	<i>Delphinus delphis</i>	NP	NP
Pacific white-sided dolphin	<i>Lagenorhynchus obliquidens</i>	17,475	No long-term trends suggested
Coastal bottlenose dolphin	<i>Tursiops truncatus</i> , aka <i>T. gilli</i>	154	Not known
California gray whale	<i>Eshchrichtius robustus</i>	24,477	Increasing
California sea lion	<i>Zalophus californianus</i>	109,854	Unable to determine
Stellar sea lion	<i>Eumetopias jubatus</i>	31,005	Increasing
Northern fur seal	<i>Callorhinus uranius</i>	848,539	Depleted
Northern elephant seal	<i>Mirounga angustirostris</i>	51,625	Increasing
Harbor seal	<i>Phoca vitulina</i>	27,962	Increasing
California sea otter	<i>Enhydra lutris nereis</i>	2,359	Increasing
green turtle	<i>Chelonia mydas</i>	1,000*	Increasing
Pacific olive ridley turtle	<i>Lepidochelys olivacea</i>	350,000*	Increasing
Leatherback turtle	<i>Dermochelys coriacea</i>	985*	Decreasing
Loggerhead turtle	<i>Caretta caretta</i>	1,000*	Stable
Pacific sand dollar	<i>Dendraster excentricus</i>	NP	NP

Estimates provided by National Marine Fisheries Service Website- Stock Assessment Program, 2000.

* Estimates provided by NMFS within "Our Living Oceans" (1999). Estimates are based on number of current numbers of nesting females.

NP Information not provided by NMFS

Cetaceans

Cetaceans are transient, and move through the Southern California waters regularly. Species of cetaceans that are found in the SBC that may be encountered during the hazard removal operations are listed in the following Table 2. In addition to the cetacean species listed in Table 2, the following species are occasionally or rarely found in the SBC, and as such are unlikely to be encountered during project operations:

- Sei whale (E) (*Balaenoptera borealis*)
- Killer whale (R) (*Orcinus orca*)
- Sperm whale (E) (*Physeter macrocephalus*)
- Bryde's whale (*Balaenoptera edeni*)
- Northern right whale (*Balaena glacialis*, aka, *Eubalaena glacialis*) (E)
- Harbor porpoise (*Phocoena phocoena*)
- False killer whale (*Pseudorca crassidens*)

- Cuvier's beaked whale (*Ziphius cavirostris*)
- Baird's Beaked whale (*Berardius bairdii*)
- Hubb's beaked whale (*Mesoplodon carlhubbsi*)
- Blainville's beaked whale (possible visitor) (*Mesoplodon densirostris*)
- Bering Sea beaked whale (possible visitor) (*Mesoplodon stejnegeri*)
- Dwarf sperm whale (possible visitor) (*Kogia simus*)
- Pygmy sperm whale (*Kogia breviceps*)
- Striped dolphin (*Stenella coeruleoalba*)
- Spinner dolphin (possible visitor) (*Stenella longirostris*)
- Spotted dolphin (possible visitor) (*Stenella attenuata*)
- Rough-toothed dolphin (possible visitor) (*Steno bredanensis*)

In nearshore waters the most common cetaceans to occur are represented by the following three species of odontoceti (the toothed whales): common dolphin, Pacific white-sided dolphin, bottlenose dolphin; and one species of mysteceti (the baleen whale): California gray whale. With the exception of these four cetacean species, which are described in greater detail in the following paragraphs, the cetacean species listed in Table 2 and the above list are more likely to be encountered in waters further offshore (i.e., middle of the SBC and surrounding the Channel Islands). All of the offshore hazards, with the exception of Site No. 24, are located within shallow areas that are unlikely for cetaceans to be impacted by project activities. However, the potential does exist for any of the above listed cetacean species to occur within any of the project sites, or to be encountered by vessels traveling to and from the project sites.

Odontoceti

Pacific coast common dolphin populations are stable at a minimum population size of 184,821 with about 25,000 occurring in the SBC (Leatherwood et al., 1987). Common dolphins are found in large pods in the SBC and are likely to occur within the project site. Pacific coast white-sided dolphin (distributed along the coasts of California, Oregon, and Washington) populations are at a minimum population size of 17,475 (NOAA, 2000). Pacific coast white-sided dolphins frequent deep water foraging areas, but may move into nearshore areas in search of prey. The bottlenose dolphin population has been tentatively separated into a coastal form and offshore form. The coastal form is found primarily within 0.6 mile of shore and often enters the surf zone, bays, inlets and river mouths (Leatherwood et al., 1987). The coastal bottlenose dolphin minimum population estimate is 154 (NOAA, 2000). This species is commonly observed along the coast and is the most likely cetacean to occur in the vicinity of the project site.

Dolphins can usually be spotted from a distance due to the commotion and splashing created as they travel through the water making aerial leaps. They will often "run" with a boat leaping from the water, or riding the bow or stern waves. Should they ride the boat waves or frolic near the vessel, the best strategy is to slow down and keep a steady course until they lose interest.

Mysteceti

Minke whale favor shallow water and venture near shore more often than other baleen whales (Watson, 1981). They also seem to be curious about ships and approach moving vessels. The minimum population estimate for Minke whales is approximately 440 (NOAA, 2000). The eastern North Pacific gray whale minimum population size is about 24,477 (NOAA, 2000), exceeding historic (1846) population estimates of 15,000 to 20,000 (NOAA; 1993, 1996). The gray whale population growth rate was about 3.3 percent per year between 1968 and 1988 (NOAA, 1993), and following three years of review, was removed from the endangered species list on June 15, 1994. Gray whales are observed during their annual migratory periods, which extend from November to June (Fahy, 2002), and may enter the surf zone, or subtidal areas.

Pinnipeds

Six of the 36 species of pinnipeds known worldwide occur off the Southern California coast. Four are eared seals (family Otariidae) and two are earless seals (family Phocidae). California sea lion, harbor seal, and northern elephant seal are the most likely to occur within the project site. Of these three species, California sea lions and harbor seals are the most likely to occur due to the proximity of many of the project areas to consistent harbor seal haul-out sites. The remaining three pinniped species (Guadalupe fur seal, northern fur seal, Steller sea lion) are more likely to be encountered in waters further from the shore (i.e., middle of the Santa Barbara Channel, at the Channel Islands, etc.) than where the majority of the hazard removal project activities would occur. However, these species may be encountered during project activities performed at the deep offshore Site No. 24. The Channel Islands, most notably San Miguel Island, serve as rookeries for all the above-mentioned pinnipeds, except the Guadalupe fur seal.

Otariidae

The species of Otariidae that occur within the Southern California Bight are: Guadalupe fur seal, northern fur seal, Steller sea lion, and California sea lion. The California sea lion minimum population size on the Pacific coast is 109,854 (NOAA, 2000). California sea lions occur frequently along the coastline of Southern California. They may enter the surfzone while foraging, and, as such, are the most likely of the eared seals to be encountered within the project site.

Table 2. Marine Wildlife Species and Periods of Occurrence⁽¹⁾

Species	Month of Occurrence											
	J	F	M	A	M	J	J	A	S	O	N	D
California gray whale (<i>Eschrichtius robustus</i>)												
Fin whale (<i>Balaenoptera physalus</i>) (E)												
Minke whale (<i>Calaenoptera acutorostrata</i>) (R)												
Blue whale (<i>Balaenoptera musculus</i>) (E)												
Humpback whale (<i>Megaptera novaeangliae</i>) (E,R)												
Common dolphin (<i>Delphinus delphis</i>) ⁽²⁾												
Northern right-whale dolphin (<i>Lissodelphis borealis</i>)												
Pacific white-sided dolphin (<i>Lagenorhynchus obliquidens</i>) ⁽³⁾												
Risso's dolphin (<i>Grampus griseus</i>)												
Dall's porpoise (<i>Phocoenoides dalli</i>) ⁽²⁾												
Bottlenose dolphin (<i>Tursiops truncatus</i>)												
Short-finned pilot whale (<i>Globicephala macrorhynchus</i>)												
California sea lion (<i>Zalophus californianus</i>)												
Northern fur seal (<i>Callorhinus ursinus</i>) ⁽⁴⁾												
Northern elephant seal (<i>Mirounga angustirostris</i>) ⁽⁵⁾												
Pacific harbor seal (<i>Phoca vitulina</i>)												
Guadalupe fur seal (<i>Arctocephalus townsendi</i>) (T) ⁽⁶⁾												
Northern (Steller) sea lion (<i>Eumetopias jubatus</i>) (T) ⁽⁶⁾												
Southern sea otter (<i>Enhydra lutris</i>) ⁽⁷⁾												
Green Sea Turtle (<i>Chelonia mydas</i>) ⁽⁸⁾												
Pacific Ridley Sea Turtle (<i>Lepidochelys olivacea</i>) ⁽⁸⁾												
Leatherback Sea Turtle (<i>Dermochelys coriacea</i>) ⁽⁸⁾												
Loggerhead Sea Turtle (<i>Caretta caretta</i>) ⁽⁸⁾												

Relatively uniform distribution  As seasonally described 

- (E) Federally listed Endangered species.
- (R) Rare species in project area.
- (T) Federally listed Threatened species.
- (1) Where seasonal differences occur, individuals may also be found in the "off" season. Also, depending on the species, the numbers of abundant animals present in their "off" season may be greater than the numbers of less common animals in their "on" season.
- (2) Winter-Spring distribution is mostly south of Pt. Conception.
- (3) Spring-Summer distribution is mostly south of Pt. Conception.
- (4) Only a small % occurs over continental shelf (except near San Miguel rookery, May-November).
- (5) Common near land during winter breeding season and spring molting season.
- (6) Now very rare in area.
- (7) Only nearshore (diving limit 30 m). Only small numbers south of Pt. Conception.
- (8) Rarely encountered, but may be present year-round. Greatest abundance during July through September.

Sources: Bonnell and Dailey (1993), NOAA (2000).

Phocidae

Both of the species of Phocidae that are known to occur within the southern California coast live and breed within the Southern California Bight. The northern elephant seal minimum population estimate size is about 51,625 and is increasing (NOAA, 2000). Northern elephant seal maintain haul-out sites along the central and northern California coast, as well as on the Channel Islands. The Pacific harbor seal minimum population size in California is about 27,962 and is increasing (NOAA, 2000). Like all the other pinnipeds occurring off Southern California, Pacific harbor seals also maintain haul-out sites on the mainland and the Channel Islands on which they pup and breed (NOAA, 2002). There are several haul-out areas in the project region, and harbor seals may be sighted throughout the year. Specifically, site No. 19 is located within a seal sanctuary and rookery. In addition, harbor seals forage in nearshore waters, and have been observed within the surf zone. As such, harbor seals are the most likely of the earless seals to be encountered within the project site.

Fissipeds

The sea otter is the only species of marine fissiped. 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 (Dailey et al., 1993). The sea otter was nearly extirpated by the fur trade during the 18th and 19th centuries. The current range is restricted to remnant populations within the waters off the coast of Alaska and California. The population off the coast of California has shown an overall increase since 1914, with the exception of a decline from 1974 through 1983 (see Appendix D – Marine Biological Pipeline Survey). The population size off the coast of California is approximately 2,400 animals, and is increasing at the rate of 5-7 percent per year, with the primary range being along the coast of central California. The sea otter is expanding its range southward along the coast, including a recent expansion south of Point Conception into the Santa Barbara area. Sea otters are occasionally reported within the project region. Sea otters prefer rocky shorelines and water depths of about 66 feet, which commonly support kelp beds. They feed on benthic macroinvertebrates including: clams, crabs, abalone, sea urchins, and sea stars (Department of the Navy, 2000).

Based on previous surveys, individuals on the southern extreme of the range are independent males and non-breeding adults (LaRoe et al., 1995), and are present mostly during the months of December through April. Otters begin to move northward in May of each year. The lowest numbers of otters occurs during the fall months. However, due to the documented presence of sea otters within the project region, sea otters may be encountered during project operations.

Sea Turtles

Sea turtles occur within the waters off the southern California coast, and as such, could potentially occur within the project sites. Populations of marine turtles have been greatly reduced due to over harvesting and loss of nesting sites in coastal areas. Sea turtles breed at

sea and the females return to their natal beaches to lay their eggs. Female turtles can nest several times in a season but at two to three-year intervals. The eggs, after being laid in the sand, hatch in about two months; and the young instinctively head for the sea (MFS Globenet Corp./WorldCom Network Services, 2000). Sea turtles are more common off the coast of southern California than central California. There is the potential that sea turtles could be encountered during project operations, although sightings are generally rare, and contact during project operations is not considered likely.

Green Sea Turtle

Generally, green sea turtles occur worldwide in waters above 20° C (MFS Globenet Corp./WorldCom Network Services, 2000; NAWCWPNS Point Mugu Sea Range, 2000). Green sea turtles have been reported as far north as Redwood Creek in Humboldt County and off the coasts of Washington, Oregon, and British Columbia (Channel Islands National Marine Sanctuary, 2000; MFS Globenet Corp./WorldCom Network Services, 2000; NAWCWPNS Point Mugu Sea Range, 2000). The green sea turtle is thought to nest on the Pacific coasts of Mexico, Central America, South America, and 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 (MFS Globenet Corp./WorldCom Network Services, 2000; NAWCWPNS Point Mugu Sea Range, 2000). Green sea turtles are sighted year-round in marine waters off the southern California coast, with the highest concentrations occurring during July through September (NAWCWPNS Point Mugu Sea Range, 2000). Green sea turtles are herbivores, feeding on algae and sea grasses, but also eat fish and invertebrates (e.g., sardines, anchovies, jellies, mollusks, worms, etc.) (MFS Globenet Corp./WorldCom Network Services, 2000; NAWCWPNS Point Mugu Sea Range, 2000).

Pacific Ridley Sea Turtle

The Pacific Ridley or olive sea turtle is distributed circumglobally and is regarded as the most abundant sea turtle in the world. Within the east Pacific, the normal range of Pacific Ridley sea turtles is mainly from Baja California to Peru (Channel Islands National Marine Sanctuary, 2000; MFS Globenet Corp./WorldCom Network Services, 2000; NAWCWPNS Point Mugu Sea Range, 2000). However, they have been reported as far north as Washington, Oregon, and are a rare visitor to the California coast (MFS Globenet Corp./WorldCom Network Services, 2000). Major nesting beaches are located on the Pacific coasts of Mexico and Costa Rica (MFS Globenet Corp./WorldCom Network Services, 2000). 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; MFS Globenet Corp./WorldCom Network Services, 2000). The Pacific Ridley sea turtle is omnivorous, feeding on fish, crabs, shellfish, jellyfish, sea grasses and algae (Channel Islands National Marine Sanctuary, 2000; MFS Globenet Corp./WorldCom Network Services, 2000; NAWCWPNS Point Mugu Sea Range, 2000), and may dive to considerable depths (260 to 980 feet) (NAWCWPNS Point Mugu Sea Range, 2000).

Leatherback Sea Turtle

Leatherback sea 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; NAWCWPNS Point Mugu Sea Range, 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). Leatherback sea turtles are omnivores, but feed principally on soft prey items such as jellyfish and planktonic chordates (e.g., salps) (Channel Islands National Marine Sanctuary, 2000; MFS Globenet Corp./WorldCom Network Services, 2000; NAWCWPNS Point Mugu Sea Range, 2000).

The population of leatherback sea turtles in the eastern Pacific is estimated at 8,000 nesting females and is concentrated in western Mexico, Central America, and northern Peru. No nesting occurs within U.S. beaches (MFS Globenet Corp./WorldCom Network Services, 2000).

Leatherback sea turtles are the most common sea turtle off the west coast of the U.S. (NAWCWPNS Point Mugu Sea Range, 2000; Channel Islands National Marine Sanctuary, 2000) and are most abundant off the U.S. west coast from July to September. Their occurrences coincide with the yearly establishment of the 18 to 20 isotherm (around the month of July). In addition, it has been noticed that their occurrence 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 coastline. In southern California waters, leatherback turtles are most common during the months of July through September, and in years when water temperatures are above normal (NAWCWPNS Point Mugu Sea Range, 2000).

Loggerhead Sea Turtle

Loggerhead sea turtles primarily occur in subtropical to temperate waters and are generally found over the continental shelf (MFS Globenet Corp./WorldCom Network Services, 2000). Loggerhead sea turtles are omnivorous and feed on a wide variety of marine life including shellfish, jellyfish, squid, sea urchins, fish, and algae (MFS Globenet Corp./WorldCom Network Services, 2000; NAWCWPNS Point Mugu Sea Range, Channel Islands National Marine Sanctuary, 2000).

The eastern Pacific population of loggerhead sea turtles breeds on beaches in Central and South America. Southern California is considered to be the northern limit of loggerhead sea turtle distribution (MFS Globenet Corp./WorldCom Network Services, 2000). However, loggerhead sea turtles have stranded on beaches as far north as Washington and Oregon (2000 Channel Islands National Marine Sanctuary, 2000; MFS Globenet Corp./WorldCom Network Services, 2000; NAWCWPNS Point Mugu Sea Range, 2000). In addition, in 1978, a loggerhead sea turtle was captured near Santa Cruz Island in southern California (MFS Globenet Corp./WorldCom Network Services, 2000). Loggerhead sea 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. Juvenile loggerhead turtles may be encountered year round in southern California waters, while the occurrence of adult loggerhead turtles in southern California waters is rare at any time of the year (NAWCWPNS Point Mugu Sea Range, 2000).

Sand Dollars

Pacific sand dollars typically occur in dense populations, partially buried, and feed on suspended material swept by ocean currents. They move towards shore during calm conditions, and move into deeper water during rough conditions. They can be found from Alaska to Baja California, and have been identified during previous marine biological surveys within the project area.

AVOIDANCE OF MARINE WILDLIFE:

Anchoring Plan

The Anchoring Plan for mooring of the primary offshore work vessel will include pre-placement surveys of the pre-designated anchor point locations in order to avoid impacts to hard substrate areas, and sensitive biological resources, including sand-dollar beds where feasible. Once clearance of the anchor zones is established, these positions will be entered into a differential GPS system, and the anchors will be lowered from the work vessel at these locations.

Once offshore activities are complete, the anchors will be recovered by raising the anchor from the sea floor with a crown line (trip line), or other method selected by the contractor, and suspending the anchor above the sea floor as it is returned to the contractor's work vessel. It should be noted that at no time will the contractor be permitted to drag anchors across the sea floor. In the event that identified sand dollar beds cannot be avoided due to confined anchor zone locations (i.e., surrounded by hard substrate) and worker safety issues, some sand dollar beds may be temporarily impacted by project operations.

Marine Vessels

Project vessels will primarily be working and traveling within nearshore waters with the exception of operations conducted at Site No. 24 located in deep waters offshore from Gaviota. As such, the likelihood of project operations encountering species that are more frequently found in deep water, or at the northern Channel Islands, is less than for species frequently encountered in nearshore waters. Likewise, the probability of encountering species that regularly occur within the SBC is greater than species that rarely occur within the SBC.

As discussed above, the marine wildlife most likely to be encountered by work vessels during the decommissioning operations is represented by the following marine mammals: common dolphin, Pacific white-sided dolphin, coastal bottlenose dolphin, California gray whale, California sea lion, harbor seal, and sea otter. The likelihood of encountering these species is greater than for other marine wildlife that occurs within the SBC because these species frequent

nearshore areas and have the potential to enter the nearshore project areas and surf zones in search of prey (sea otter, common dolphin, Pacific white-sided dolphin, California sea lion, and harbor seal) or during seasonal migration (California gray whale).

As previously discussed, California State Lands Commission shall retain an approved marine wildlife monitor aboard the offshore work vessel during activities requiring the use of marine vessels. The marine wildlife monitor will be positioned on the offshore work vessel, in such a way that he/she will have a clear view of the area of ocean that is in the direction of the course of travel, and will be able to observe the waters surrounding the anchor assist tug vessel. In general, vessels will remain at least 1,000 feet (approximately 300 meters) away from marine wildlife to minimize the chance of collision or disturbance. This exceeds the recommended distances set by the National Marine Fisheries Service, which suggests a maximum distance of 100 yards away from whales. If the marine wildlife monitor should sight marine wildlife within the path of any vessel, he/she will report to the work vessel captain who will then immediately notify the appropriate vessel via radio. The vessel would then slow down or change course in order to avoid contact. The marine wildlife monitor shall have the authority to halt any operations, or redirect any vessels, that pose an immediate threat to marine wildlife.

Dolphins can usually be spotted from a distance due to the commotion and splashing created as they travel through the water, often making aerial leaps. They will often "run" with a boat leaping from the water, or riding the bow or stern waves. Should they ride the boat waves or frolic near the vessel, the best strategy is to slow down and keep a steady course until they lose interest.

Generally, pinnipeds (harbor seals, California sea lions etc.) are shy and will not approach boats. Collision at sea is not likely; however, the California sea lion is the only pinniped off the California coast that regularly uses man-made structures such as docks, buoys, oil and gas structures and even slow moving vessels on which to haul-out. These animals may use support vessels as haul-out sites on which to rest between foraging bouts. Every effort to avoid approaching and disturbing these and other marine mammals in the water or at rest should be made. However, in the unlikely event that a sea lion, seal, or other pinniped species is hauled-out in an area where harm may come to the animal, the NMFS shall be consulted for guidance on how to encourage the animal to move from the hazard area without harassment.

Unlike most pinnipeds occurring off the coast of California, the Pacific harbor seal maintains haul-out sites on the mainland, on which they pup and breed. There are several existing haul-outs located in the vicinity of several of the project sites, thus harbor seals may be sighted foraging within the project area during project operations. Human activity could adversely affect hauled-out animals and may be considered harassment.

Due to the documented presence of sea otters in the vicinity of several of the project sites, sea otters may be encountered during project operations. Collision is unlikely because otters are highly visible, and would be expected to move away from project vessels. On-board personnel should be especially watchful as the vessel is placed or repositioned within the project site or anytime sea otters are observed in the area.

The path of migrating whales can be determined even for animals underwater by the distribution of animals on the surface. On-board personnel should be especially watchful as the vessel crosses this path or anytime whales are observed in the area. Vessel operators should be aware that gray whales surface about every 30 seconds to breathe and that some unseen animals may be swimming beneath the surface. To reduce the potential for harassment or collision with marine wildlife discussed above, support vessel operators shall adhere to the following guidelines:

- All offshore vessel traffic associated with the removal activities shall be minimized to the extent feasible during the main migration season of sea otters and gray whales (mid-November to mid-June).
- Support vessels will make every effort to maintain a distance of 1,000 feet from sighted marine wildlife.
- Support vessels will not cross directly in front of migrating whales, or foraging marine wildlife (e.g., foraging dolphins, otters, seals).
- When paralleling whales, support vessels will operate at a constant speed that is not to exceed the speed the whales are traveling at.
- Care will be taken to ensure that female whales will not be separated from their calves.
- Support vessels will not be used to herd or drive whales or other marine wildlife from the project area.
- If a marine animal engages in evasive or defensive action (i.e., whales), support vessels will drop back until the animal calms or moves out of the area.
- In addition, the following measures have been included to further minimize and/or avoid potential impacts to marine wildlife with the potential to occur in the project region:
 - During project operations, vessel operators will make every effort to approach and depart the project area from the south (i.e., perpendicular to the project area). At no time will nearshore lateral vessel movement parallel to the coastline (i.e., east-west) be allowed during project operations. This measure will avoid unnecessary impacts from vessel traffic to kelp beds and associated wildlife located directly east and west of the project area. Additionally, vessel traffic will be limited to essential trips only (e.g., supply runs, crew transport, etc.).
 - As will be indicated in the Anchoring Plan, the pre-plot anchor locations will have been identified for the purposes of the project. The offshore contractor will utilize these approved anchor locations to safely anchor the work vessel. In the event of unsafe sea conditions (i.e., severe wind and surf), the work vessels will either be transported back to the safety of Port Hueneme or Santa Barbara Harbor. The ultimate decision will be made at the discretion of the offshore contractor based upon available storm forecast information and project logistics.

COLLISIONS WITH MARINE WILDLIFE:

Response of Operator Should an Impact Occur

If a collision with marine wildlife occurs, the vessel operator in consultation with the marine wildlife monitor must document the conditions under which the accident occurred, including the following:

- Location of the vessel when the collision occurred (latitude and longitude);
- Date and time;
- Speed and heading of the vessel;
- Observation conditions (e.g., wind speed and direction, swell height, visibility in miles or kilometers, and presence of rain or fog);
- Species of marine wildlife contacted;
- Whether an observer was standing watch for the presence of marine wildlife; and,
- Names of vessel, operator (the company), and captain or officer in charge of the vessel at time of accident.

If safe to do so, the vessel should stop after a collision. The vessel is not obliged 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. From the vessel's base of operations, a telephone call will be placed to the Stranding Coordinator, NMFS, Southwest Region, Long Beach.

Alternatively, the vessel captain may contact the NMFS Stranding Coordinator directly using the marine operator to place the call or directly from an onboard telephone, if available.

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

Notification

Collisions with marine wildlife will be reported promptly to the Stranding Coordinator, NMFS. From the report, the Stranding Coordinator will coordinate subsequent action, including enlisting the aid of marine mammal rescue organizations, if appropriate.

Although the NMFS has primary responsibility for marine mammals in both state and federal waters, the CDFG should 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-

Joe Cordero, Stranding Coordinator
Southwest Region
National Marine Fisheries Service
Long Beach, California 90802-4213
(310) 980-4017

State-

Enforcement Dispatch Desk
California Department of Fish and Game
Long Beach, California 90802
(562) 590-5132
(562) 590-5133

REFERENCES

- Bonnell, M. L., M. O. Pierson, T. P. Dohl, R. C. Guess, K. T. Briggs, E. W. Chu, D. B. Lewis, and G. L. Hunt, Jr. 1980. Summary of Marine Mammal and Seabird Surveys of the Southern California Bight Area, 1975 – 1978. Volume II – Synthesis of Findings. A report prepared for the US Department of the Interior, Bureau of Land Management, Pacific OCS Office, Los Angeles, CA. Contract No. AA550-CT7-36.
- Dailey, M. D., D. J. Reish, and J. W. Anderson (eds.). 1993. Ecology of the Southern California Bight – A Synthesis and Interpretation. University of California Press, Berkeley.
- de Wit, Ray, L.A. deWit, Consultant, personal communication, 2002.
- Department of the Navy. 2000. NAWCWPNS Point Mugu Sea Range Draft Environmental Impact Statement.
- Fahy, Christina. National Oceanic and Atmospheric Administration. Personal communication, February 2002.
- Fluharty, Marilyn. California Department of Fish and Game. Personal communication. 2002.
- LaRoe, E.T, G.S. Farris, C.E. Puckett, P.D. Doran, and M.J. Mac eds. 1995. *Our Living Resources: A Report to the Nation on the Distribution, Abundance, and Health of U.S. Plants, Animals and Ecosystems*. U.S. Department of the Interior, National Biological Service, Washington, D.C.
- Leatherwood, Stephen, Brent S. Stewart and Pieter A. Folkens. 1987. *Cetaceans of the Channel Islands National Marine Sanctuary*. Prepared for the National Oceanic and Atmospheric Administration.
- MFS Globenet Corp./WorldCom Network Services. 2000. MFS Globenet Corp./WorldCom Network Services Fiber Optic Cable Project Final Environmental Impact Report, Volume I.
- National Oceanic and Atmospheric Administration. 2000. Draft Environmental Impact Statement for Channel Islands Marine Sanctuary.
- . 1993. *Our Living Oceans, Report on the Status of U.S. Living Marine Resources, 1993*.
- . 1996. *Our Living Oceans, Report on the Status of U.S. Living Marine Resources, 1995*.
- Watson, L. 1981. *Sea Guide to the Whales of the World*. E.P. Dutton, New York, N.Y.