UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southwest Region
501 West Ocean Boulevard, Suite 4200
Long Beach, California 90802- 4213

DEC - 8 2008

U.S. Army Corps of Engineers
Los Angeles District
Regulatory Division
Ventura Field Office
2151 Alessandro Drive, Suite 110
Ventura, California 93001

Dear Dr. MacNeil:

NOAA's National Marine Fisheries Service (NMFS) has reviewed the Draft Environmental Impact Statement (DEIS) for the Port of Los Angeles's (POLA) San Pedro Waterfront Project (Project). NMFS offers the following comments pursuant to section 305(b)(4)(A) of the Magnuson-Stevens Fishery Conservation and Management Act (MSA), Marine Mammal and Protection Act (MMPA), and the Fish and Wildlife Coordination Act.

Proposed Project

The proposed Project would redevelop the San Pedro Waterfront area for increased public access and to provide connections between the waterfront area and the San Pedro community. The Project also includes the development of three new harbors, as well as new public open spaces that consist of promenade areas, plazas, parks, and landscape and hardscape areas.

The creation of three new harbors will involve 1) the removal of existing bulkheads, wharf structures, and existing docks, 2) excavation and dredging, 3) installation of new sheet pile bulkheads, 4) new piles, 5) new floating docks, 6) a new wharf deck and 7) new rock slope protection. A total of 6.8 acres of open water habitat (as defined by areas at and below +4.8 feet Mean Lower Low Water) will be created as a result of the three new harbors. Disposal of clean dredge material is planned for LA-2 and/or LA-3 offshore disposal sites. If contaminated sediments are identified, these will be placed in upland disposal sites.

The proposed promenade will measure approximately 30 feet wide and will extend throughout the entire proposed project area. The promenade will involve the construction of approximately 58,900 square feet of new wharf structures and approximately 14,300 square feet of floating docks, and would require the installation of approximately 419 piles. To accommodate this new construction, existing wharf decks and floating docks

would be demolished. The promenade will be construction over water areas in the vicinity of Ports O' Call, City Dock #1, and the Cabrillo Beach Waterfront Youth Camp, and the existing salt marsh. Additional demolition and construction of various overwater structures and pilings will occur at the 7th Street pier, Berths 45-47, Berths 49-50, Berths 94-95, and Berth 240.

The total water area that will be uncovered by demolition of docks, wharves, and piers is 3.1 acres. The subsequent construction of new docks, wharves, piers, and promenade will cover 8.4 acres of water areas. Given the creation of 6.8 acres of new open water habitat creation, there will be a net gain of 1.5 acres of uncovered open water habitat. Lastly, there will be a net addition of 990 piles associated with the proposed project.

Marine Mammal Protection Act Comments

Marine mammals likely to be in the immediate project area are the California sea lion (*Zalophus californianus*) and possibly the Pacific harbor seal (*Phoca vitulina richardii*), although in fewer numbers than sea lions. Possible impacts to marine mammals from the proposed project are likely from underwater sound from project-related vessels, dredging, pile-driving, and increased ship traffic. The noise generated from pile-driving or other construction could affect marine mammals located within the vicinity of the project site and has the potential to disturb a marine mammal.

Whales, dolphins, porpoises, seals, and sea lions are protected under the Marine Mammal Protection Act (MMPA). *See* 16 U.S.C. § 1361 *et seq.* Under the MMPA, it is generally illegal to "take" a marine mammal without prior authorization from NMFS. "Take" is defined as harassing, hunting, capturing, or killing, or attempting to harass, hunt, capture, or kill any marine mammal. Except with respect to military readiness activities and certain scientific research conducted by, or on behalf of, the Federal Government, "harassment" is defined as any act of pursuit, torment, or annoyance which has the potential to injure a marine mammal in the wild, or has the potential to disturb a marine mammal in the wild by causing disruption of behavioral patterns, including, but not limited to, migration, breathing, nursing, breeding, feeding, or sheltering.

Sounds introduced into the sea by man-made devices could have a deleterious effect on marine mammals by causing stress or injury, interfering with communication and predator/prey detection, and changing behavior. Acoustic exposure to loud sounds, such as those produced by pile-driving activities, may result in a temporary or permanent loss of hearing (termed a temporary (TTS) or permanent (PTS) threshold shift) depending upon the location of the marine mammal in relation to the source of the sound. NMFS is currently in the process of determining safety criteria (*i.e.,* guidelines) for marine species exposed to underwater sound. However, pending adoption of these guidelines we have preliminarily determined, based on past projects, consultations with experts, and published studies, that 180 dB re 1 μPa_{RMS} (190 dB re 1 μPa_{RMS} for pinnipeds) is the impulse sound pressure level that can be received by marine mammals without injury. Marine mammals have shown behavioral changes when exposed to impulse sound pressure levels of 160 dB re 1 μPa_{RMS}. Based on the estimated noise levels expected to

be produced by pile driving the 1,750 piles for this project, it may be necessary to receive authorization from NMFS under the MMPA for this proposed project. Most incidental take authorizations to date have involved the incidental harassment of marine mammals by noise.

In addition, the construction of the proposed project may lead to an increase in ship traffic to and from the area, thus increasing the risk of a possible collision with a marine mammal. Collisions with ships are an increasing threat to many marine mammals, specifically large whale species, particularly as shipping lanes cross important large whale breeding and feeding habitats or migratory routes, such as those off Southern California. Although ship strike mortalities may represent a small proportion of whale populations, Laist *et al.* (2001) concluded that, when considered in combination with other human-related mortalities in the area (*e.g.*, entanglement in fishing gear), these ship strikes may present a concern for whale populations. There have been several reports of whales struck by vessels in U.S. waters, but despite these reports, the magnitude of the risks of ship traffic poses to marine mammals is difficult to quantify or estimate. Because little evidence of ship strikes exists, and large whales may often die later and drift far enough not to strand on land after such incidents, it is difficult to estimate the numbers of whales killed and injured by ship strikes. In addition, a boat owner may be unaware of the strike when it happens. Please note, that in the event of a collision with a marine mammal, Mr. Joseph Cordaro, the NMFS Southwest Regional Office's Stranding Coordinator at 562-980-4017 must be immediately contacted and a report must be sent to the NMFS Southwest Regional Office. NMFS recommends a more detailed analysis on the potential increase in vessel traffic as a result of the proposed project and shipping routes into and out of the port to assess the potential risk of a ship strike of a marine mammal.

Magnuson-Stevens Fishery Conservation and Management Act Comments

Action Area

The proposed project occurs in essential fish habitat (EFH) for various federally managed fish species within the Pacific Groundfish and Coastal Pelagics Fishery Management Plans (FMPs). In addition, the project occurs within estuarine and eelgrass habitat, which is considered a habitat area of particular concern (HAPC) for various federally managed fish species within the Pacific Groundfish FMP. HAPC are described in the regulations as subsets of EFH which are rare, particularly susceptible to human-induced degradation, especially ecologically important, or located in an environmentally stressed area. Designated HAPC are not afforded any additional regulatory protection under MSA; however, federally permitted projects with potential adverse impacts to HAPC will be more carefully scrutinized during the consultation process.

Effects of the Action

The proposed Project involves a significant amount of overwater structures (e.g. docks, wharves, piers, and promenade). The shadow cast by an overwater structure affects both

the plant and animal communities below the structure. Light is the single most important factor affecting aquatic plants. Light levels underneath overwater structures have been found to fall below threshold amount for the photosynthesis of diatoms, benthic algae, eelgrass, and associated epiphytes and other autotrophs. These photosynthesizers are an essential part of nearshore habitat and the estuarine and nearshore food webs that support many species of marine and estuarine fishes.

In addition, fishes rely on visual cues for spatial orientation, prey capture, schooling, predator avoidance, and migration. The reduced-light conditions found under an overwater structure limit the ability of fishes, especially juveniles and larvae, to perform these essential activities. Shading from overwater structures may also reduce prey organism abundance and the complexity of the habitat by reducing aquatic vegetation and phytoplankton abundance.

Overwater structures and their associated artificial structures may also have additional impacts beyond just changes in light conditions. Recent research has suggested that placement of artificial substrates in the nearshore environment may disproportionately favor the proliferation of non-native species. In addition, these structures may alter local hydrological and sedimentation patterns, which may in turn affect community structure. Lastly, the addition of overwater structures for public access purposes (e.g. promenade) may inadvertently result in increased pollution or debris due to the expected increase in public use.

Although much of the proposed overwater structures and associated structures will not occur in particularly sensitive habitat, 0.175 acres of mudflat habitat will be impacted at Berth 78. POLA intends to compensate for this impact via wetlands mitigation at the Salinas de San Pedro Salt Marsh. Specific improvements associated with the wetland mitigation project are to re-contour the side slopes to increase mudflat area, remove the rock-sill within the inlets, remove nonnative vegetation, remove the rock-sloped island within the marsh, and potentially constructing a rock groin at the marsh inlet to block littoral sediment from entering the marsh. These changes are expected to increase mudflat habitat by 0.56 acres and increase the quality of the salt marsh habitat. The groin is expected to permanently cover 0.07 acre of eelgrass and 0.04 acre of mudflat. A temporary construction buffer would impact another 0.25 acre of eelgrass habitat, but is expected to re-establish. Another 0.23 acres of eelgrass impact is expected within salt marsh area due to the proposed grading disturbances. The placement of the rock groin may also have indirect impacts to eelgrass habitat within the immediate vicinity due to potential changes in hydrology and sedimentation.

The proposed harbor cuts will increase the amount of habitat available to fish species, as well as other marine resources, by approximately 6.8 acres. The DEIS anticipates that these inlets would not support higher fish habitat values as seen in the Outer Harbor, but would provide additional EFH value similar to that found in existing Inner Harbor areas, which include Inner Harbor channels, slips, and marinas. Based upon an agreed-upon mitigation policy between NMFS, POLA, and other resource agencies, values of different habitats have been defined relative to a system of mitigation credits accrued by creating

or enhancing habitat in the harbor and at offsite locations. Pursuant to these agreements, POLA proposes that the additional harbor cuts will generate 3.4 mitigation credits to their current Inner Harbor Mitigation Bank. Inner Harbor habitat is credited at 0.5 credit per acre rather than 1 credit per acre because of the combined effects of water quality and physical habitat alterations (e.g. riprap, bulkheads, over-water structures). NMFS is supportive of this proposal as it is consistent with an established approach and recognizes the lesser habitat value of the new harbor cuts compared to other Outer Harbor areas.

Dredging, pile driving, and other related construction activities will result in direct benthic disturbances and will increase turbidity within the project area. Turbidity can adversely affect fish and other aquatic life by impairing vision and sense of smell, injuring gills, reducing water transparency, and covering sessile organisms. If anoxic sediments are disturbed, dissolved oxygen may also be reduced in the water column during dredging in the vicinity of the dredge operation. NMFS expects these impacts will likely be temporary and minimal.

The construction activities associated with this project may generate significant underwater noise. For example, pile driving can generate intense underwater sound pressure waves that may adversely affect the ecological functioning of EFH. These pressure waves have been shown to injure and kill fish. Injuries associated directly with pile driving are poorly studied, but include rupture of the swimbladder and internal hemorrhaging. Sound pressure levels (SPL) 100 decibels (dB) above the threshold for hearing are thought to be sufficient to damage the auditory system in many fishes. Short-term exposure to peak SPL above 190 dB (re: 1 μPa) are thought to injure physical harm on fish. However, 155 dB (re: 1 μPa) may be sufficient to temporarily stun small fish. Of the reported fish kills associated with pile driving, all have occurred during use of an impact hammer on hollow steel piles. POLA proposes to utilize a vibratory approach for driving steel piles and will employ a 'soft start' approach when utilizing an impact hammer for concrete piles. Both of these techniques should help minimize impacts to EFH.

Another potential project concern is the spread of the invasive alga *Caulerpa taxifolia* from dredging activities. As you may be aware, this alga has been introduced to our coastline. Evidence of harm that can ensue as a result of an uncontrolled spread of the alga has already been seen in the Mediterranean Sea where it has destroyed local ecosystems, impacted commercial fishing areas, and affected coastal navigation and recreational opportunities. Although it is not known to be present within POLA, it has been detected in two other locations in Southern California. If the invasive alga is present within the project area, the dredging activities would adversely affect EFH by promoting its spread and increasing its negative ecosystem impacts.

EFH Conservation Recommendations

As described in the above effects analysis, NMFS has determined that the proposed action would adversely affect EFH for various federally managed fish species within the Coastal Pelagics Species and the Pacific Coast Groundfish FMPs. Therefore, NMFS

offers the following EFH conservation recommendations to avoid, minimize, mitigate, or otherwise offset the adverse effects to EFH pursuant to section 305(b)(4)(A) of the MSA.

1. NMFS is conceptually supportive of the proposed enhancement and expansion of Salinas de San Pedro Salt Marsh. To help further ensure success and accountability of the proposed mitigation, POLA should prepare a more detailed mitigation and monitoring plan in cooperation with NMFS and other relevant regulatory/resource agencies.

2. The POLA should avoid the placement of the promenade along the water's edge in the vicinity of the Salinas de San Pedro Salt Marsh/Cabrillo Youth Camp. Instead, the POLA should move the promenade to Shoshonean Road behind the salt marsh and youth camp as described in Alternative 2. By moving the promenade, impacts associated with overwater structures and pile driving to sensitive habitat areas would be minimized. According to the DEIS, this change in promenade alignment would accomplish the project goals and objectives to the same degree as the proposed Project.

3. The POLA should conduct a pre-construction eelgrass survey during the growing season (March-October), which will be valid up to 60 days prior to construction activities. A post-construction survey should also be conducted within 30 days following construction in order to determine the project's impact to eelgrass habitat. Given that impacts associated with any potential changes in hydrology and/or sedimentation patterns from placement of the groin will not become immediately apparent in the 30-day post-construction survey, two additional annual monitoring surveys should be conducted. These surveys and any necessary mitigation should be conducted in accordance with the Southern California Eelgrass Mitigation Policy (http://swr.nmfs.noaa.gov/hcd/policies/EELPOLrev11_final.pdf).

4. A pre-construction survey for Caulerpa of the project area should be conducted in accordance with the Caulerpa Control Protocol (see http://swr.nmfs.noaa.gov/hcd/caulerpa/ccp.pdf) not earlier than 90 days prior to planned construction and not later than 30 days prior to construction. The results of that survey should be transmitted to NMFS and the California Department of Fish and Game at least 15 days prior to initiation of proposed work. In the event that Caulerpa is detected within the project area, no work shall be conducted until such time as the infestation has been isolated, treated, and the risk of spread is eliminated.

Statutory Response Requirement

Please be advised that regulations at section 305(b)(4)(B) of the MSA and 50 CFR 600.920(k) of the MSA require your office to provide a written response to this letter within 30 days of its receipt and at least 10 days prior to final approval of the action. A preliminary response is acceptable if final action cannot be completed within 30 days.

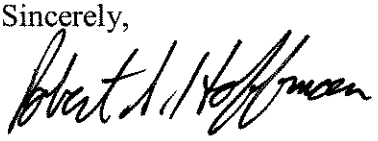
Your final response must include a description of measures to be required to avoid, mitigate, or offset the adverse impacts of the activity. If your response is inconsistent with our EFH conservation recommendations, you must provide an explanation of the reasons for not implementing those recommendations. The reasons must include the scientific justification for any disagreements over the anticipated effects of the proposed action and the measures needed to avoid, minimize, mitigate, or offset such effects.

Supplemental Consultation

Pursuant to 50 CFR 600.920(l), the Corps must reinitiate EFH consultation with NMFS if the proposed action is substantially revised in a way that may adversely affect EFH, or if new information becomes available that affects the basis for NMFS' EFH conservation recommendations.

Thank you for consideration of our comments. Please contact Monica DeAngelis at 562-980-3232 or Monica.DeAngelis@noaa.gov if you have any questions concerning our MMPA comments. If you have any questions regarding our EFH comments, please contact Bryant Chesney at 562-980-4037 or Bryant.Chesney@noaa.gov.

Sincerely,



Robert S. Hoffman
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for Habitat Conservation Division

References Cited

Laist, D.W., A.R. Knowlton, J.G. Mead, A.S. Collet, M. Podesta. 2001. Collisions between shops and whales. Marine Mammal Science, 17(1):35-75.