



United States Department of the Interior

FISH AND WILDLIFE SERVICE
San Francisco Bay-Delta Fish & Wildlife Office
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Sacramento, California 95814-4700



In reply refer to:
2023-0060760-S7-001

March 11, 2024

Jenna Rais
Senior Regulatory Project Manager
Regulatory Division
U.S. Army Corps of Engineers
San Francisco District
450 Golden Gate Avenue
San Francisco, California 94102-3406

Subject: Informal Section 7 Conference on the Port of San Francisco General Maintenance Permitting Project, City and County of San Francisco, California (U.S. Army Corps of Engineers File Number: SPN-2023-00016S)

Dear Ms. Rais:

This letter is in response to the U.S. Army Corps of Engineers' (Corps') November 29, 2023, letter requesting initiation of informal conference with the U.S. Fish and Wildlife Service (Service) for the Port of San Francisco (Port) General Maintenance Permitting Project (proposed project), in the City and County of San Francisco, California. The Corps determined the proposed project may affect but is not likely to adversely affect the federally proposed as endangered San Francisco Bay-Delta distinct population segment (DPS) of the longfin smelt (*Spirinchus thaleichthys*). Critical habitat for the longfin smelt has not been proposed. This response is provided under the authority of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*) (Act), and in accordance with the implementing regulations pertaining to interagency cooperation (50 CFR § 402).

In considering your request, we have based our evaluation on the following: (1) the Corps' November 29, 2023, letter; (2) the January 2024 *Regional General Permit for Shoreline Maintenance Repair, Rehabilitation, and Replacement Activities, Biological Assessment* (Biological Assessment) prepared by ESA; (3) several emails and a meeting on January 24, 2024; and (4) other information available to the Service.

Proposed Project Description

Proposed activities consist of maintenance, repair, and replacement activities along the Port's

7.5-

mile shoreline along the northern and eastern edge of the City of San Francisco between Hyde Street Pier in the north to India Basin in the south. The proposed activities will be restricted to repairing, replacing, or removing existing aging shoreline infrastructure and navigational equipment on an as-needed basis, as well as the repair, rehabilitation, or replacement of structures or fills recently damaged or destroyed by discrete events such as storms, flooding, fire, or collisions.

1. ***Repair and Stabilization of Existing Banks, Dikes, Riprap:*** Repair and stabilization on an estimated 500 linear feet/year (up to 2,500 linear feet total over five years) of existing banks, including armored and unarmored shorelines, seawalls, dikes, and riprap, provided that:
 - a. The structure or fill is not to be put to uses differing from those specified or contemplated in the original construction. Minor deviations, including those due to changes in materials, techniques, standards, or regulatory requirements, are authorized;
 - b. The repair, rehabilitation or replacement of structures or fills destroyed or damaged by discrete events (such as storms, flood, fire, etc.) is commenced or is under contract to commence within two years of the damaging event (unless this two-year limit is waived by the District Engineer of the Corps);
 - c. No temporary fill material is placed in a manner that will be eroded by normal or expected high flows; and
 - d. Temporary fills are removed in their entirety and the affected area returned to pre-construction elevations (and revegetated, as appropriate).

Banks, seawalls, and other shoreline protection will be repaired using either land-based or marine based equipment as described below. There will be minimum disturbance of seabed or creation of turbulence. Bank stabilization materials will include riprap and concrete.

2. ***Restoration of Navigational Aids or Regulatory Markers.*** Repair or replacement of up to 5 existing navigation aids or regulatory markers per year (1 cubic yard/year) for a total of 25 navigation aids or regulatory markers over five years (approximately 5 cubic yards). Restoration of existing navigation aids and regulatory markers will be approved by and installed in accordance with the requirements of the U.S. Coast Guard, using marine-based equipment. Floating devices will be composed of materials that will not disintegrate; including concrete, steel, plastics, or closed cell foam encapsulated sun resistant polyethylene.
3. ***Removal, Repair and Replacement of Piles.*** Repair or replacement of up to 1,000 existing non-creosote-treated piles per year (5,000 piles total over five years). Based on a typical 12-inch diameter pile, replacement would total approximately 784 square feet (or 726 cubic yard) of pile fill per year or 3,920 square feet (or 3,634 cubic yard) of pile fill over 5 years.

The majority of existing bearing and fender piles for which the maintenance and repair is proposed are polyvinyl chloride (PVC) wrapped, preservative-treated (typically Ammoniacal Copper Zinc Arsenate or similar) Douglas fir or concrete. Wrapped, treated Douglas fir piles

can last over thirty years in salt water and are capable of absorbing design ship impact energy without breaking. The Port periodically inspects, repairs, or replaces piles or pile wraps as required. When a limited number of piles require replacement without removal of the associated deck and substructure, in-kind replacement of dilapidated wood piles with piles of the same material is the most feasible repair. The Port's concrete pile repairs typically include removing areas of spalling concrete (chip hammer or water pressure), replacing deteriorated rebar, and coating the repaired pile area with shotcrete or concrete poured within formwork.

Wherever feasible, such as when a substantial contiguous area of pier deck and associated piles requires replacement, the Port will evaluate the use of alternative materials to treated wrapped wood piles (i.e., composite, steel, or concrete) where appropriate. Depending on the scale of such pile replacement activities, additional agency authorizations may be required.

Maintenance and repair of existing piles is typically performed using marine based equipment as described above. Piles will be driven using a barge-mounted pile driver. Wherever feasible, piles will be driven using a vibratory hammer to minimize hydroacoustic impacts. An impact hammer may be needed to finish pile driving and achieve the final required depth. The impact hammer (3,000 pounds [lbs.] or less) will be equipped with a 12-inch thick wooden cushion block and would employ a "soft start" technique.

Materials used in pile replacement and repair will include wood piles (typically 12-inch diameter), concrete piles (typically 18-inch diameter), steel piles (typically 12-inch diameter), pile wrap composed of PVC, wood pile stubs and cylindrical steel connectors. Pile wrap will be installed by divers.

Piles will be removed by methods that avoid turbidity including using vibratory hammer or by an excavator equipped with a rotating demolition grapple hook, and snapped off at least 2 feet below the mudline, or by a diver using a waterproof hydraulic saw and cut at the mudline.

4. ***Repair of Piers and Related Structures.*** Repair or replacement of up to 100,000 square feet per year (500,000 square feet total over five years) of existing structures including piers, aprons/decks, wharves, bulkheads, fenders, dolphins, whalers, and connecting pier structures such as joists, stringers, pipelines, pavement, and utilities (including above and under pier electrical, water, sewer, and storm water lines) attached to piers and structures, and minor coring of pier decks to install related structures. Most of the repair and replacement completed under this activity will occur above water, or landside, and will be conducted using either land-based or marine based equipment as described below.

Under-pier pipelines will be repaired and maintained by a small team of plumbers and/or boat operators in a workboat using manual plumbing tools. Work hours for under-pier work are limited by tide stage (the boat must close enough to the underside of the pier area to reach the pipelines but not dangerously close). Flow to the pipeline will be shut off at the source before the start of work. Materials used for pier maintenance and repair will include energy-absorbing fendering, wood framing and decking, asphalt, reinforcing steel and concrete.

To facilitate the repair of pile supported pier structures, material such as concrete, sand, and rock, may be placed into tightly sealed pile forms to repair structural members for standard pile supported structures, approximately 10 times/year.

5. ***Repair or Replacement of Fencing and Related Structures.*** Repair or replacement of up to 400 linear feet (200 square feet) per year or 2,000 linear feet total (1,000 square feet total) of existing fencing along piers and the shoreline. Fencing repair and maintenance will be performed from the land by laborers and possibly ironworkers. Equipment and materials will include pneumatic and welding tools and fencing materials composed of wood and aluminum.
6. ***Repair of Bulkheads and Breakwaters.*** Repair or replacement of up to 300 square feet per year (or 100 linear feet) or 1,500 square feet total (or 500 linear feet) of existing bulkheads and breakwaters. Repair/maintenance of bulkheads and breakwaters will be performed using marine based equipment as described below. Materials will include wood framing, reinforcing steel, and concrete.
7. ***Replacement or Reconfiguration of Existing Docking Facilities.*** Replacement or repair/reconfiguration of up to 150,000 square feet per year (750,000 square feet total) of existing docking facilities, including fixed piers, docks, gangways, cap beams including pier structures such as utilities. Note the majority of these structures are not within, but above, jurisdictional waters.

Docking facilities will be repaired, maintained, and replaced using marine based equipment as described above. The dock modules will be fabricated off site, placed on a barge and towed to the location where they will be installed. The sections will then be assembled, moved into place, and bolted around the piles. Specific installation methods depend on float type, framing system (structural internal members), location of pile hoops, available equipment, and other factors. Dock installation does not typically create underwater turbidity or noise and hence Best Management Practices (BMPs) are not typically required.

Gangways are typically placed into position and attached with the aid of a barge-mounted crane. The gangways are designed to be perpendicular to the pier or seawall or roughly parallel to the pier or seawall. For the perpendicular connection, a simple drop-link hinge connection to the pier or seawall is proposed. The parallel connection will require an external platform measuring approximately five feet square. In most cases, the abutment connections can be installed from the landside. At pier locations, this platform will be designed as a cantilevered connection to the pier face with sufficient strength to support the gangway for both dead and live loads.

Floating docks and gangways will be made of concrete, aluminum, or lighter-duty timber pre-cast sections. Light-transmitting materials or measures will be used or considered whenever feasible.

8. ***Repair, Replacement or Removal of Bollards, Cranes, Pier Canopies, and Equipment.*** Repair, replacement up to 50 existing bollards, pier canopies, and other appendages

(including ladders, fenders, and camels) per year (250 total appendages over five years). Note these structures are not within, but above and adjacent to jurisdictional waters.

9. ***Removal of Existing Dilapidated Piles and Associated Structures.*** Permanent removal of up to 54,000 square feet per year (approximately 2,000 cubic yards) of dilapidated piles including fender piles, bearing piles and associated structures such as pier decks, stringers, beams, and girders. This equates to an estimated 10,000 cubic yard of pile fill removal and 270,000 square feet total of structure removal over the five-year program, resulting in an overall net benefit to the in- water environment and navigation of the San Francisco Bay.

Pier and pile removal will be accomplished using marine based equipment as described above. As much asphalt as possible will be removed from the pier deck. However, where there is severe deterioration, it is not safe to remove all asphalt. Pier decks will be removed using a barge-mounted excavator mounted on a derrick barge with a crane.

Piles will be removed by methods that avoid turbidity by either a barge-mounted excavator with a rotating grapple hook or vibrated out using a vibratory hammer. Rigging straps are secured to the piles and the crane applies a large and steady upward force to dislodge the pile. Piles that cannot be pulled, or piles that are not recommended for pulling due to known contaminant levels in the surrounding substrate, will be snapped or cut two feet below the mudline to the extent feasible with an excavator equipped with a rotating grapple hook or by divers using a waterproof hydraulic saw.

Construction debris will be placed onto material barges and moved to a storage yard until a reuse has been determined. Debris will be reused or recycled to the extent feasible; for example, concrete and asphalt can be crushed and reuse on Port property. All material unsuitable for onsite reuse will be trucked to an approved recycling facility or landfill.

Barge mounted excavators will be used to remove debris from the tidal zone and place the debris on a barge with runoff and debris containment along its perimeter. Work will be done during low tides and the machines will carefully pick up debris, and not scrape or grade the shoreline.

10. ***Scientific Measurement Devices.*** Temporary installation and use of devices to measure and record scientific data, such as staff gages, tide gages, water recording and biological observation devices, water quality and sediment testing and improvement devices, and similar structures. Benthic disturbance from the installation of scientific measurement devices is anticipated to be minimal. One scientific measurement device is approximately 6 square feet. Installing 10 devices per year would result in 60 square feet annually or 300 square feet (0.007 acre) of benthic disturbance over the 5-year program. Upon completion of the use of the device, the measuring device and any other structures or fills associated with that device (e.g., foundations, anchors, buoys, lines, etc.) will be removed to the maximum extent practicable and the site restored to pre-construction elevations.
11. ***Survey Activities.*** Activities (site investigations, soil/sediment sampling, groundwater sampling/testing that are not permitted through separate authorizations) including core

sampling, seismic exploratory operations, plugging of exploratory-type bore holes, soil surveys, sampling, and historic resources surveys. Benthic disturbance from conducting survey activities is anticipated to be minimal. One survey activity results in approximately 5 square feet of associated effect. Conducting 3 survey activities per year would result in 15 square feet annually or 75 square feet (0.002 acre) of benthic disturbance over the 5-year program.

Sediment core sampling will be accomplished using various methods (e.g., sonic drilling, impact, and push). Test borings may require all three methods to collect samples: drilling (to advance a casing), impact hammer (split spoon barrel sampler), and push methods (Shelby tubes) to collect samples.

Construction Materials and Methods

The proposed activities will be conducted from land whenever possible; however, the Port cannot conduct much of the proposed maintenance and repair activities focused on in-water structures from land. Therefore, from a practical standpoint, marine-based equipment will be used for the majority of the proposed in-water activities. Land-based and marine-based activities will be conducted using the two basic suites of equipment noted below, with minor variations as needed for specific tasks.

- ***Land-Based Equipment:*** Landside work will be performed using conventional earthwork equipment such as an excavator, a side-dump truck, a mobile crane, a forklift, a small front-end loader, asphalt equipment, and various small construction tools such as pneumatic tools, welding tools, hammers, saws, and drills.
- ***Marine-Based Equipment:*** Work from the water will be performed using a suite of construction equipment staged on a material and pile-driving barge operated by trained crew. For any given repair and/or replacement project, the barge may have on board: a crane, a pile driver, a forklift, an excavator, a small front-end loader, and various small construction tools such as pneumatic tools, welding tools, hammers, saws, and drills. In addition, there may be a secondary barge used for delivery and disposal of supplies and collection of marine debris. At all times, there is an additional crew and a small vessel navigating around the construction site cleaning up fallen debris from the water. Closed debris containment booms, floating debris screens, and/or absorbent booms will be positioned beneath and alongside work areas whenever possible.

Conservation Measures

The proposed project will implement a number of general Conservation Measures such as standard BMPs and other measures. Please refer to the Biological Assessment for a full list of these BMPs. The following Conservation Measures are specific with regard to aquatic species:

1. Whenever feasible, a vibratory hammer will be used. Vibratory installation may use steel, wood, or concrete piles; any size pile, any number.

2. Pile driving with impact hammer will only be conducted during the designated work windows from June 15 to November 30.
3. Impact driving of wood (any size), concrete (≤ 18 -inch diameter), or steel piles (≤ 12 -inch diameter) will be limited to one hammer, 3000 pounds or smaller, and less than 20 piles per day.
4. If an impact hammer is utilized, a 12-inch-by-12-inch-thick wood cushion block will be used during all impact pile driving operations.
5. A “soft start” technique to pile driving will be implemented, at the start of each workday or after a break of 30 minutes or more, to give fish and marine mammals an opportunity to vacate the area.
6. In-water maintenance work with the potential to result in more than minimal short-term impacts to biological resources, including proposed project activities that are expected to create turbidity or disturb the seabed, will be conducted primarily within seasonal work windows identified to reduce potential impacts on special-status species (i.e., work will be conducted from June 15 – November 30). Maintenance actions proposed within the seasonal work window of June 15 to November 30 are listed below:
 - Bank stabilization
 - Bulkheads and breakwaters
 - Pile repair or replacement (concrete, steel, or wood)
 - Permanent removal of dilapidated piles and associated structures

It is possible that unforeseen damage to infrastructure outside of that window may require immediate action from the Port to prevent disruptions to navigation, increases in safety risk, or to maintain standard operations along the waterfront. These maintenance actions are anticipated to be rare and small in scope.

7. For small projects that arise along the waterfront and require action between December 1 and June 14, the Port would develop a project-specific notification outlining the project location, scope and duration of in-water work, construction methods, and mitigation measures. These notices would be submitted electronically to the Service, California Department of Fish and Wildlife, and National Marine Fisheries Service (NMFS) at least 30 days prior to the initiation of the proposed in-water work.
8. To ensure project actions outside of the in-water work window are sufficiently constrained such that they do not result in adverse effects on listed species, the following restrictions will be observed by the Port during this period:
 - No more than 20 non-consecutive days of in-water construction (e.g., pile repair and/or replacement, debris removal, etc.) will be conducted outside of a given in-water window (e.g., from December 1, 2024 to June 14, 2025).
 - Of those 20 days, no more than 10 non-consecutive days of pile installation will

be conducted outside of a given in-water window:

- Pile replacement will be limited to 5 piles per day and no more than 50 piles total.
- Pile size and type used for replacement will be consistent with those allowed under the 2018 Corps/NMFS Not Likely to Adversely Affect Program (wood (any size), concrete ($\leq$ 18-inch diameter), or steel piles ($\leq$ 12-inch diameter)).
- Piles will be installed using a vibratory hammer.
- Minor in-water structure or debris removal will be limited to no more than 10,000 square feet outside of a given in-water window.
- All *Conservation Measures* outlined above, will be implemented by the Port during in-water maintenance outside of the in-water work window.

The Service concurs with the Corps' determination that the proposed project may affect but is not likely to adversely affect the proposed endangered San Francisco Bay-Delta DPS of the longfin smelt. This conclusion is based on: (1) longfin smelt may occur within the central San Francisco Bay during the in-water work window but are usually associated with deep water at this time, where the waters adjacent to the Port are relatively shallow; (2) the minimal and temporary localized in-water work on existing structures is not likely to rise above baseline conditions with the exception of occasional and limited pile driving; and (3) the proposed *Conservation Measures* will be implemented to minimize hydroacoustic effects and contaminants entering the water.

This concludes informal conference on the Port of San Francisco General Maintenance Permitting Project. You may ask the Service to confirm the conference concurrence as a consultation concurrence issued through informal consultation if the action hasn't occurred yet or is ongoing when and if the longfin smelt is listed. The request must be in writing. If you determine that the proposed action has not changed and the Service finds that there have been no significant changes in the action as planned or in the information used during the conference, the Service will confirm the conference concurrence as the consultation concurrence on the proposed project and no further section 7 consultation will be necessary.

Please address any questions or concerns regarding this response to Kim Squires, Section 7 Division Manager via email at Kim_Squires@fws.gov. Please refer to the Service File Number: 2023-0060760-S7-001 in any future correspondence regarding this project.

Sincerely,

Jana Affonso
Assistant Field Supervisor