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F19b

3-22-0280 (SANTA CRUZ HARBOR MINOR IMPROVEMENTS PROGRAM)

DECEMBER 16, 2022 HEARING

EXHIBITS

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Santa Cruz
Small Craft Harbor

Santa Cruz
Wharf

Seabright
State Beach

Twin Lakes
State Beach

City of Capitola

City of Santa Cruz

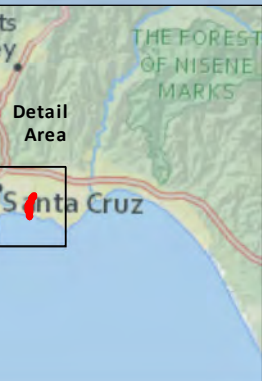
Unincorporated Santa Cruz County



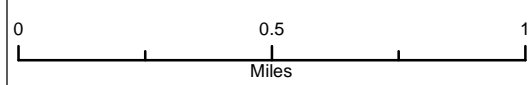
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Project Area

SANTA CRUZ HARBOR



Data Source: ESRI 2019



Study Area

Figure 1
Study Area Location



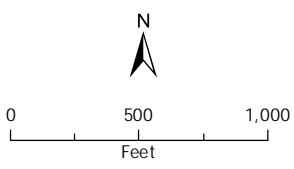
Santa Cruz Harbor
Maintenance Program



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Source: ESRI 2020

Project Features



 Project Area

Figure 2
Project Area



Routine Maintenance Activities
in the Santa Cruz Harbor

Table 3. Project Avoidance and Minimization Measures and Best Management Practices

AMM/BMP Number	BMP Title	BMP Description
Avoidance and Minimization Measures for Biological Resources		
AMM-1	Pile Removal/ Installation Work Window	In-water construction will generally occur between June 1 and November 30 to minimize adverse effects on listed fish, or as otherwise approved by USFWS and NMFS. Emergency replacement of up to five piles per year may occur between December 1 and May 31. Pile driving within 300 feet of Seabright State Beach could occur between October 1 and November 30, to avoid the breeding season for western snowy plover, unless otherwise approved by USFWS.
AMM-2	Minimize Hydroacoustic Effects of Pile Driving	During impact pile driving, contractors will utilize the “soft start” methodology, in which a pile is initially driven with low hammer energy. The initial low energy strike serves as a warning mechanism to marine mammals that may be in the area and allows them to vacate the area. Pile driving will be limited to eight piles a day between June 1 and November 30, and two piles per day between December 1 and May 31.
AMM-3	Minimize Turbidity Effects	Prior to pile removal and installation, contractors will deploy a silt boom or curtain to contain turbidity. Silt curtains will encircle piles during removal and installation and will not be removed until turbidity levels return to pre-activity levels. If turbid conditions are generated during other maintenance activities such as repair of drainage outlets, a silt curtain shall be utilized to control turbidity.
AMM-4	Sea Otter Exclusion Zone	During project activities that would generate underwater noise, such as pile driving, an exclusion zone will be implemented that includes all areas of where underwater SPLs are anticipated to reach or exceed 160 dB. If a sea otter enters the exclusion zone during pile driving work, work will stop until the animal leaves the exclusion zone of its own volition. Pile extraction or driving will not commence (or recommence following a shutdown) until sea otters are not sited within the exclusion zone for a 15-minute period.
AMM-5	Environmental Awareness Training	All project personnel will participate in a worker environmental awareness training program. Under the environmental awareness training program, project personnel will be informed about the presence of special-status species and habitats associated with the species and that unlawful take of the animal or destruction of its habitat is a violation of applicable state and/or federal laws. Prior to project activities, a qualified biologist approved by USFWS and NMFS will instruct all project personnel about: (1) the description and status of the species; (2) the importance of their associated habitats; and (3) a list of measures being taken to reduce impacts on these species during project activities. A fact sheet conveying this information will be prepared for distribution to the project crew and anyone else who enters the project area. A member of the project crew will be appointed and identified during the environmental awareness program who will be the point of contact for any employee or contractor who might encounter a listed species.

AMM/BMP Number	BMP Title	BMP Description
General Construction Best Management Practices		
GEN-1	Construction BMPs	Construction BMPs shall be implemented and maintained in accordance with all specifications governing their proper design, installation, operation, and maintenance, including BMPs to prevent the movement of sediment downstream. No debris, soil, silt, sand, bark, slash, sawdust, cement, concrete, washings, petroleum products, or other organic or earthen material shall be allowed to enter into or be placed where it may be washed by rainfall or runoff into the waterways.
GEN-2	Spill Plan and Spill Control	Retain a spill plan and appropriate spill control and clean up materials (e.g., oil absorbent pads) onsite in case spills occur.
GEN-3	Trash Confinement	Confine all trash and debris in appropriate enclosed bins with lids and dispose of the trash and debris at an approved site daily
GEN-4	Vehicle/ Equipment Leaks	All construction vehicles and equipment used on site shall be well maintained and checked daily for fuel, oil, and hydraulic fluid leaks or other problems that could result in spills of toxic materials
GEN-5	Vehicle Fueling and Storage	Designate a staging area for equipment and vehicle fueling and storage at least 50 feet away from waterways when feasible, in a location where fluids or accidental discharges cannot flow into waterways. Use secondary containment, such as a drip pan to catch leaks or spills anytime that vehicle or equipment fluids are dispensed, changed, or poured.
GEN-6	Construction Materials	All construction-related equipment, materials, and any temporary BMPs no longer needed shall be removed and cleared from the site upon completion of the project.
GEN-7	Debris Barrier	Install a debris barrier to retain debris during removal of existing pier or dock materials.
GEN-8	Pier and Dock Materials	Pier and dock materials will be prepared onshore to the extent feasible. If not possible, a tarp or netting could be installed to retain any debris from entering the water.
GEN-9	Floating Booms	Use floating booms to contain accidental debris discharges into waters. Any debris discharged shall be removed immediately.
GEN-10	Retrieval of Debris	Retrieve non-buoyant debris as soon as possible after the debris has been discharged into waters.

7 Avoidance and Minimization Measures

The following AMMs would be implemented to reduce and offset the potential adverse effects on ESA-listed species, critical habitat, and EFH:

1. Pile Removal/Installation Work Window

In-water construction will generally occur between June 1 and November 30 to minimize adverse effects on listed fish, or as otherwise approved by USFWS and NMFS. Emergency replacement of up to five piles per year may occur between December 1 and May 31. Pile driving within 300 feet of Seabright State Beach could occur between October 1 and November 30, to avoid the breeding season for western snowy plover, unless otherwise approved by USFWS.

2. Minimize Hydroacoustic Effects of Pile Driving

During impact pile driving, contractors will utilize the “soft start” methodology, in which a pile is initially driven with low hammer energy. The initial low energy strike serves as a warning mechanism to marine mammals that may be in the area and allows them to vacate the area. Pile driving will be limited to eight piles a day between June 1 and November 30, and two piles per day between December 1 and May 31.

3. Minimize Turbidity Effects

Prior to pile removal and installation, contractors will deploy a silt boom or curtain to contain turbidity. Silt curtains will encircle piles during removal and installation and will not be removed until turbidity levels return to pre-activity levels. If turbid conditions are generated during other maintenance activities such as repair of drainage outlets, a silt curtain shall be utilized to control turbidity.

4. Sea Otter Exclusion Zone

During project activities that would generate underwater noise, such as pile driving, an exclusion zone will be implemented that includes all areas of where underwater SPLs are anticipated to reach or exceed 160 dB. If a sea otter enters the exclusion zone during pile driving work, work will stop until the animal leaves the exclusion zone of its own volition. Pile extraction or driving will not commence (or recommence following a shutdown) until sea otters are not sited within the exclusion zone for a 15-minute period.

5. Environmental Awareness Training

All project personnel will participate in a worker environmental awareness training program. Under the environmental awareness training program, project personnel will be informed about the presence of special-status species and habitats associated with the species and that unlawful take of the animal or destruction of its habitat is a violation of applicable state and/or federal laws. Prior to project activities, a qualified biologist approved by USFWS and NMFS will instruct all project personnel about: (1) the description and status of the species;

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(2) the importance of their associated habitats; and (3) a list of measures being taken to reduce impacts on these species during project activities. A fact sheet conveying this information will be prepared for distribution to the project crew and anyone else who enters the project area. A member of the project crew will be appointed and identified during the environmental awareness program who will be the point of contact for any employee or contractor who might encounter a listed species.

6. General Construction Best Management Practices

The Port or its contractor shall implement the following measures:

- Construction BMPs shall be implemented and maintained in accordance with all specifications governing their proper design, installation, operation, and maintenance, including BMPs to prevent the movement of sediment downstream. No debris, soil, silt, sand, bark, slash, sawdust, cement, concrete, washings, petroleum products, or other organic or earthen material shall be allowed to enter into or be placed where it may be washed by rainfall or runoff into the waterways.
- Retain a spill plan and appropriate spill control and clean up materials (e.g., oil absorbent pads) onsite in case spills occur.
- Confine all trash and debris in appropriate enclosed bins and dispose of the trash and debris at an approved site at least weekly.
- All construction vehicles and equipment used on site shall be well maintained and checked daily for fuel, oil, and hydraulic fluid leaks or other problems that could result in spills of toxic materials.
- Designate a staging area for equipment and vehicle fueling and storage at least 50 feet away from waterways when feasible, in a location where fluids or accidental discharges cannot flow into waterways.
- All construction-related equipment, materials, and any temporary BMPs no longer needed shall be removed and cleared from the site upon completion of the project.
- Install a debris barrier to retain debris during removal of existing pier or dock materials.
- Pier and dock materials will be prepared onshore to the extent feasible. If not possible, a tarp or netting could be installed to retain any debris from entering the water.

Memorandum

Subject: Special-status Species with Potential to Occur within Santa Cruz Harbor

Date: September 21, 2022

To: Holland MacLaurie, Santa Cruz Port District (Port District)

From: Bridget Lillis, Horizon Water and Environment (Horizon)
Robin Hunter, Horizon

Introduction

The Santa Cruz Port District (Port District) is requesting issuance of a Coastal Development Permit (CDP) or CDP waiver for Routine Maintenance in the Santa Cruz Harbor (project). The Port District is responsible for maintaining Santa Cruz Harbor (harbor) facilities in the City of Santa Cruz, California (**Figure 1**). This memorandum is a supplement to the permit application package provided to the California Coastal Commission on April 18, 2022, and provides additional information on the potential for the project to impact special-status species. The California Coastal Commission requested this information in an August 25, 2022, status letter to the Port District.

Special-Status Species Analysis

For the purposes of this assessment, special-status species are those that are listed as rare, species of special concern, candidate, threatened, or endangered by the U.S. Fish and Wildlife Service (USFWS), National Marine Fisheries Service (NMFS), or California Department of Fish and Wildlife (CDFW). **Figures 2 and 3** show special-status species occurrences in the California Natural Diversity Database (CNDDB) within five miles of the project. A total of 26 special-status animal species and 26 special-status plants species are known to occur within five miles of the project. **Appendix A** lists these species, their habitat requirements, and their potential to occur within the project site. This memorandum focuses on state-listed species and California species of special concern. Impacts to species protected under the Migratory Bird Treaty Act (MBTA) and the Marine Mammal Protection Act are also addressed. Impacts to species listed under the federal Endangered Species Act (ESA) have been previously addressed in the Project's Biological Assessment (Horizon 2020).

No special-status plants have the potential to occur within the project.

Pallid bat (*Antrozous pallidus*) and Townsend's big-eared bat (*Corynorhinus townsendii*) are California species of special concern. These species, as well as other more common species of bats, have potential to roost in the Murray Street Bridge, which divides the Upper Harbor from the Lower Harbor. Project activities would not result in physical disturbance of roost sites, although pile driving activities may result in additional noise compared to existing conditions, which could result in disturbance of roosting bats.

The project area also contains suitable nesting habitat for birds, including gulls (*Larus spp.*), double-crested cormorant (*Phalacrocorax auritus*), herons, and brown pelican (*Pelecanus occidentalis*). Rookeries of great blue herons (*Ardea Herodias*) and great egrets (*Ardea alba*) are known to occur in the eucalyptus grove to the east of the upper harbor, located on a steep slope (Ecosystems West 2018). Active nests of most native birds are protected under the MBTA; California Fish and Game Code Section 3503 protects nests and eggs; and raptors are protected under California Fish and Game Code Section 3503.5. If Project activities occurred during the nesting bird season, then impacts on nesting birds could occur through noise and disturbance or direct removal of active nests.

All marine mammals are protected under the Marine Mammal Protection Act. Harbor seal (*Phoca vitulina richardsi*) and California sea lion (*Zalophus californianus*) are known to occur within the harbor (Ecosystem West 2018), and could be impacted by pile driving or other noise-generating activities.

Avoidance and Minimization Measures

The Port District will implement a combination of general construction best management practices (BMPs) and avoidance and minimization measures (AMMs) described in the submitted CDP application and Biological Assessment. In addition, the Port District will implement the following avoidance and minimization measures to further minimize potential impacts to special-status and other protected species:

AMM 6: Work Stoppage

The Port District will implement the following work stoppage zones, as shown in Table 1 if species are identified during project activities. For marine mammals, work will stop until the animal leaves the applicable radius. Bird work stoppage zones only refer to birds nesting within the applicable radius. Additional information on roosting bats is provided in AMM 10.

Table 1. Work Stoppage Zones

Species	Work stoppage radius (feet)
Marine Mammals (Pile Driving)	500
Marine Mammals (in water no pile driving)	50
Large Raptor such as Buteos	1000
Small Raptor such as Accipters	500
Special-status Passerines	250
Other MBTA-protected Avian Species	100
Roosting Bats	50

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AMM 7: Nesting Bird Surveys

- The Port District will conduct a pre-construction survey for special-status nesting avian species (and other species protected under the MBTA) within 72 hours prior to the beginning of construction activities that occur during the nesting/breeding season (typically February 15 through August 31) to ensure that the area is not actively being

used by nesting birds. If active nesting is not occurring, project construction activities may begin. If an active nest of a special-status species or species protected by the MBTA is detected, construction within the work stoppage zones in Table 1 will be postponed until after the bird has fledged or the nest is no longer active, or consultation with the CDFW has been conducted to determine alternative measures or appropriate buffers.

AMM 8: Roosting Pelican Avoidance

- If pelicans roost in the project area before construction activities have commenced for the day, construction activities will not begin until the bird/s have flushed. Workers will not engage in harassment of the bird/s or any activity to encourage flushing. If a pelican or group of pelicans enters the project area once construction activities have begun for the day, no further avoidance efforts are required.

AMM 9: Great Blue Heron and Egret Rookery Avoidance

The following measures apply to noise-generating project activities occurring during the heron breeding season (January 1 through June 15) within 300 feet of a known great blue heron or egret rookery.

- The Port District will conduct a pre-construction survey within 72 hours prior to the beginning of construction activities to determine if active nesting is occurring at the heron rookery. If active nesting is not occurring, project construction activities may begin. If active nests are observed, construction activities will not occur until the young have fledged or an appropriate buffer zone is established by a qualified biologist.
- If active nests are detected, the Port District will implement noise controls at the source, including avoiding pile driving and operating equipment at lowest possible power levels.
- A biological monitor will be on-site during nesting season to observe the rookery. If it appears that project activities may cause nest abandonment or disruption of breeding, even with noise reducing controls implemented, project activities must cease until the young are able to fly well or the USFWS has been consulted and additional measures taken to protect the heron rookeries.

AMM 10: Protection of Bats

For pile driving activities scheduled within 50 feet of the Murray Street Bridge during bat reproductive season (April 1 – August 31) or the winter roost season (October 15 – February 15), a qualified biologist will conduct focused pre-construction surveys of the Murray Street Bridge, within 72 hours prior to the initiation of project activities to determine if bats are roosting in the bridge's expansion joint crevices. If no bats are found, no further measures would be necessary. If roosting bats are found, pile driving activities within 50 feet of the bridge will be delayed until roosting bats have vacated the crevices or juvenile bats have fledged.

References

Ecosystems West. 2018. Revised Biotic Assessment of Aldo's Seawall Replacement Project, Santa Cruz Harbor, Santa Cruz, California. August.

Horizon Water and Environment. 2020. Biological Assessment for Routine Maintenance Activities in the Santa Cruz Harbor, Santa Cruz County, CA. October.