APPENDIX A:
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APPENDIX B:
CORRESPONDENCE,
2022 BIOLOGICAL ASSESMENT (USACE) AND
BIOLOGICAL OPINION (U.S. FISH AND
WILDLIFE SERVICE)

CORRESPONDENCE

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, LOS ANGELES DISTRICT
915 WILSHIRE BOULEVARD, SUITE 1109
LOS ANGELES, CALIFORNIA 90017-3409

August 31, 2022

Mr. Stephen P. Henry
Field Supervisor
2493 Portola Road, Suite B
Ventura, California 93003-7726

Dear Mr. Henry:

The U.S. Army Corps of Engineers, Los Angeles District (Corps) has completed a Biological Assessment for the proposed Channel Islands/Port Hueneme Harbors Maintenance Dredging Project Increased Quantity within the Channel Islands Harbor, Ventura County, California. The purpose of this letter is to request initiation of formal consultation pursuant to Section 7 of the Endangered Species Act of 1973, as amended.

The proposed project is part of the Channel Islands/Port Hueneme Harbors Maintenance Dredging Project which maintains the Federal Channels at their authorized depths and widths and nourishes downcoast beaches. The purpose of the proposed Channel Islands/Port Hueneme Harbors Maintenance Dredging Project Increased Quantity is to increase dredge quantity from 2.0 million cubic yards (cy) to 2.5 million cy for the purpose of additional sand bypassing to Hueneme Beach and other downcoast beaches, and to avoid sand being lost to the adjacent Hueneme Submarine Canyon. The Channel Islands/Port Hueneme Harbors Maintenance Dredging Project has been addressed in previous consultations with your agency including a 2004 and 2006 Biological Opinion (BO). Formal consultation was initiated August 16, 2018, for the current 6-year maintenance dredging cycle, 2018-2024. The USFWS issued an amendment to the 2006 biological opinion, extend coverage to 2012, and again on August 23, 2018, that extended coverage for this current 6-year cycle.

The Corps is drafting a Supplemental Environmental Assessment to analyze all impacts of the updated project design and existing conditions. That document, a supplement to the 2018 Environmental Assessment, will also be provided for your review in the near future.

A description of the current project design, as well as an evaluation of the potential effects to species and habitats protected under the Endangered Species Act are contained in the attached Biological Assessment (BA). The species of concern that may occur within the project area, associated critical habitats, and effects determinations are summarized in Table 1 below. Based upon literature review, survey results and effects analysis, the Corps is requesting formal consultation for potential adverse effects to California least tern (CLT) and Western snowy plover (WSP) and WSP Designated Critical Habitat.

Table 1. Determination for Federally List Species and Critical Habitat

Common Name	Scientific Name	Status	Corps' Determination
California least tern (CLT)	*Sterna antillarum browni*	E	May affect, likely to adversely affect
Western snowy plover (WSP)	*Charadrius nivosus nivosus*	T	May affect, likely to adversely affect
WSP critical habitat	*Charadrius nivosus nivosus*	D	May affect, likely to adversely affect

E = endangered, T = threatened, D = designated

Dredging of the Channel Islands Harbor is scheduled to begin fall of 2022 and is expected to require at least 3 months to complete, although the schedule is subject to change due to adverse weather conditions, funding shortages or other contracting issues. Offsite habitat restoration to offset potential impacts to designated critical habitat is proposed at a 1:1 ratio for 13.47 acres. Restoration plans are currently being developed in coordination with your office.

The attached BA contains details of all the information required for initiation of formal consultation pursuant to 40 CFR 402.14, including:

1. A description of the action to be considered (Chapter 1 Section 1.4);

2. A description of the specific area that may be affected by the action (Chapter 2);

3. A description of any listed species or critical habitat that may be affected by the action (Chapter 3); and

4. A description of the manner in which the action may affect any listed species or critical habitat and an analysis of any cumulative effects (Chapter 4).

If you have any questions regarding this project, please contact Kymberly Lyons, Project Biologist, at (213) 800-1024 or via e-mail at Kymberly.L.Lyons@usace.army.mil. In order to maintain the project schedule, the Corps is requesting receipt of a Draft BO by November 1, 2022, if possible.

Thank you for your attention to these documents.

Sincerely,

Maricris Lee
Deputy Chief, Planning Division

Enclosure

2022 BIOLOGICAL ASSESMENT
(USACE)

Channel Islands/Port Hueneme Harbors Maintenance Dredging Project

Increased Dredge Quantity

Biological Assessment

1.0 Introduction

This Biological Assessment (BA) has been prepared by the U.S. Army Corps of Engineers (Corps) in accordance with the requirements set forth under regulations implementing Section 7 of the Endangered Species Act (ESA) (50 CFR 402). This BA evaluates the potential effects of the Proposed Action on listed and proposed species and designated and proposed critical habitat and determines whether any species or habitat are likely to be adversely affected by the Proposed Action, as required in 50 CFR 402.12.

1.1 ESA-Protected Resources in the Action Area

Table 1 contains the ESA-protected resources that may be present in the Action Area (defined in Section 3.3) and the Corps' assessment of whether the Proposed Action is likely to adversely affect such species or habitat based on habitat suitability and best scientific and commercial data available. This table includes species that are part of the Corps' formal consultation request for the Proposed Action under Section 7 of the ESA. Supporting analyses are provided in Sections 4 and 5 of this document. An IPaC (USFWS Information for Planning and Consultation web portal) report was conducted on August 10, 2022 which revealed 18 threatened and endangered species in the larger Channel Islands Harbor area, with designated critical habitat for the Western snowy plover included. The species listed below comprise the species present in the Action Area and are analyzed here.

Table 1: ESA-Protected Resources in the Action Area

Common Name	Scientific Name	Status	Corps' Determination
California least tern (CLT)	*Sterna antillarum browni*	Endangered	May affect, likely to adversely affect
Western snowy plover (WSP)	*Charadrius nivosus nivosus*	Threatened	May affect, likely to adversely affect
WSP critical habitat	*Charadrius nivosus nivosus*	Designated	May affect, likely to adversely affect

2.0 Consultation History

2.1 Consultation History

On October 18, 2004, the Corps initiated formal consultation on maintenance dredging of the sand trap at Hollywood Beach because surveys conducted in the previous spring and summer found 51 pairs of CLT and 5 pairs of WSP had used the sand trap area for breeding and nesting. So that the Corps would not be delayed in its dredging operations, the USFWS issued a biological opinion (1-8-05-F-1) on October 21, 2004, that pertained only to dredging operations for the 2004/2005 cycle.

Formal consultation was initiated April 14, 2006, for the next 5-year maintenance dredging cycle, 2006-2011. The USFWS issued a biological opinion on September 20, 2006 (1-8-06-F-22).

Formal consultation was initiated July 30, 2012, for the next 6-year maintenance dredging cycle, 2012-2018. On September 10, 2012, the USFWS extended the time period covered by the 2006 biological opinion for this 6-year cycle.

Formal consultation was initiated August 16, 2018, for the next 6-year maintenance dredging cycle, 2018-2024. On August 23, 2018, USFWS issued an amendment to the 2006 biological opinion, as extended in 2012, that extended coverage for this 6-year cycle and included revised avoidance and minimization measures from the 2018 Environmental Assessment (EA) and the implementation of a Biological Monitoring Contingency Plan should work need to be extended beyond March 1st due to minor delays from equipment failure or late-winter storms.

3.0 Description of the Proposed Action & Action Area

3.1 Proposed Action

The Corps proposes to increase the volume of material dredged from the entrance channel and sand trap in Fiscal Year 2023 (see Figure 2) from 2.0 million cubic yards (cy) to 2.5 million cy for the purpose of additional sand bypassing to Hueneme Beach and other downcoast beaches, and to avoid sand being lost to the adjacent submarine canyon. Other elements (staging, equipment, placement locations, dredging depth and template, and timing) of the current 6-year maintenance dredging cycle remain unchanged.

3.2 Measures Intended to Avoid, Minimize or Offset Effects of the Proposed Action

The following measures have been included as part of the Proposed Action in order to avoid, minimize, or offset potential impacts. Measures 1-8 below are carried forward from the 2018 EA and the 2020 supplemental coordination between the USFWS and Corps staff.

1. The Contractor shall keep construction activities under surveillance, management, and control to avoid pollution of surface and ground waters.
2. The Contractor shall implement a Water Quality Monitoring Plan at the dredge and beach placement sites.
3. The dredge contractor will be required to have in place a Spill Prevention and Cleanup Plan that includes measures to prevent spills and to cleanup any spills that could occur.
4. All dredging and fill activities will remain within the boundaries specified in the plans. There will be no dumping of fill or material outside of the project area or within any adjacent aquatic community.
5. The Contractor shall keep construction activities under surveillance, management, and control to minimize interference with, disturbance to, and damage of fish and wildlife.
6. Dredging may begin as early as October 1. Should dredging extend past March 1 the following measures will be required:
   a. The Corps will coordinate with concerned federal and state resource agencies concerning possible impacts to threatened or endangered species;
   b. Beach placement will be limited to a diked, single-point placement site to minimize turbidity and grunion smothering;
7. The following avoidance and minimization measures would be implemented to ameliorate potential impacts from dredging and placement activities in the proposed Action Area:

• The limits of the dredging and placement activities shall be clearly marked to prevent heavy equipment from entering areas beyond the smallest footprint needed to complete the project.
• Vehicles and all dredging activities shall remain within the defined activity area and use only designated access points and staging areas.
• The work area shall be kept clean to avoid attracting predators. All food and trash shall be disposed of in closed containers and removed from the project site.
• No pets shall be allowed on the construction site.
• No dredging activities shall be conducted in the sand trap area (adjacent to Hollywood Beach) during the shorebird/seabird nesting season (March 1 – September 30).
• Prior to vehicles and equipment entering Hollywood Beach a qualified WSP monitor will survey the area. At all times a qualified WSP monitor will walk ahead of the vehicle(s) and equipment to assure that all WSPs are out of harm's way before the vehicle(s) or equipment can proceed on Hollywood Beach. Vehicles and equipment access to Hollywood Beach will be limited to safety signage installation, repairs, and removal.
• Prior to vehicles and/or heavy equipment operation on Silver Strand Beach or Port Hueneme Naval Base SWEF Beach a qualified WSP monitor will survey the beach, the monitor will remain on site while operations involving vehicles and/or heavy equipment is occurring to ensure impacts to WSP are avoided, unless the Corps biologist in coordination with the USFWS has determined there is no risk to WSP. If WSP are present the Corps Biologist will walk in front of the vehicles and/or equipment, ensuring the path taken by vehicles/equipment is one that avoids impacts to the WSP.
• If dredge material placement activities take place on Silver Strand and Hueneme Beaches during the nesting season (March 1 through September 30), measures described in the Biological Monitoring Contingency Plan (Appendix F) will be implemented.

8. Training shall be provided to the Contractor personnel to review and ensure full understanding of all project environmental protection requirements. Training shall include, but not limited to, methods of detecting and avoiding pollution, identification and avoidance measures for endangered species and marine mammals, and *Caulerpa taxifolia* identification and notification requirements.

Proposed Dune Restoration

The Corps has analyzed the current best available scientific data, new biological survey data, updated coastal geomorphology data and topographic impact data specific for Hollywood Beach. To offset potential impacts to WSP designated critical habitat for the FY 2023 dredge cycle and future dredge cycles within the same impact area (Figure 1), the Corps proposes to restore 13.47 acres (1:1 impact restoration ratio) of foredune habitat within 10 miles of the project area or other area as agreed to with USFWS. The Corps will commit to manage this area for a period of 5 years. Management activities would include strategic fencing or other measures intended to protect any nesting or foraging activities that may occur in this area without significantly impacting authorized recreational beach use, as well as installation and maintenance of native dune vegetation. The purpose of the restoration site is to provide comparable habitat function and value for the threatened WSP to offset the temporary and recurring loss of beach that would occur whenever the sand trap is excavated. The final site selection is yet to be determined. Details of the restoration plan are in development with USFWS, Ventura County and other stakeholders.

Avoidance and minimization measures would be implemented for any restoration construction work that could take place during WSP and CLT breeding seasons, as described below.

During implementation:

1. If vehicles are required to drive on Hollywood beach, a biological monitor will be present to clear the path of any vehicles by walking ahead and verifying no birds are present. If birds are present monitor will signal and stop vehicles.

2. If birds do not move out of vehicle traffic path, the biological monitor will attempt to guide vehicles on an alternate path to avoid grounding birds, walking ahead of vehicle to ensure the path is cleared, maintaining a minimum 50-yard buffer.

3.3 Action Area

The Action Area includes the Channel Islands Harbor federal dredge template and Hollywood Beach, including potential impact area immediately adjacent to the dredge template due to slope failure of the dredge cut boundaries, and the potential restoration area. The potential impact area is 200 feet on each side of sand trap area D. This 200-foot buffer is the coastal engineering projection of potential impacts due to the increased dredge quantity, comprising 10 acres. (Figures 1 and 2). The receiver beach of the dredged material is Hueneme Beach, a southern downcoast beach and adjacent to Point Mugu. The additional quantity of sand dredged will be reciprocally placed onto Hueneme Beach.

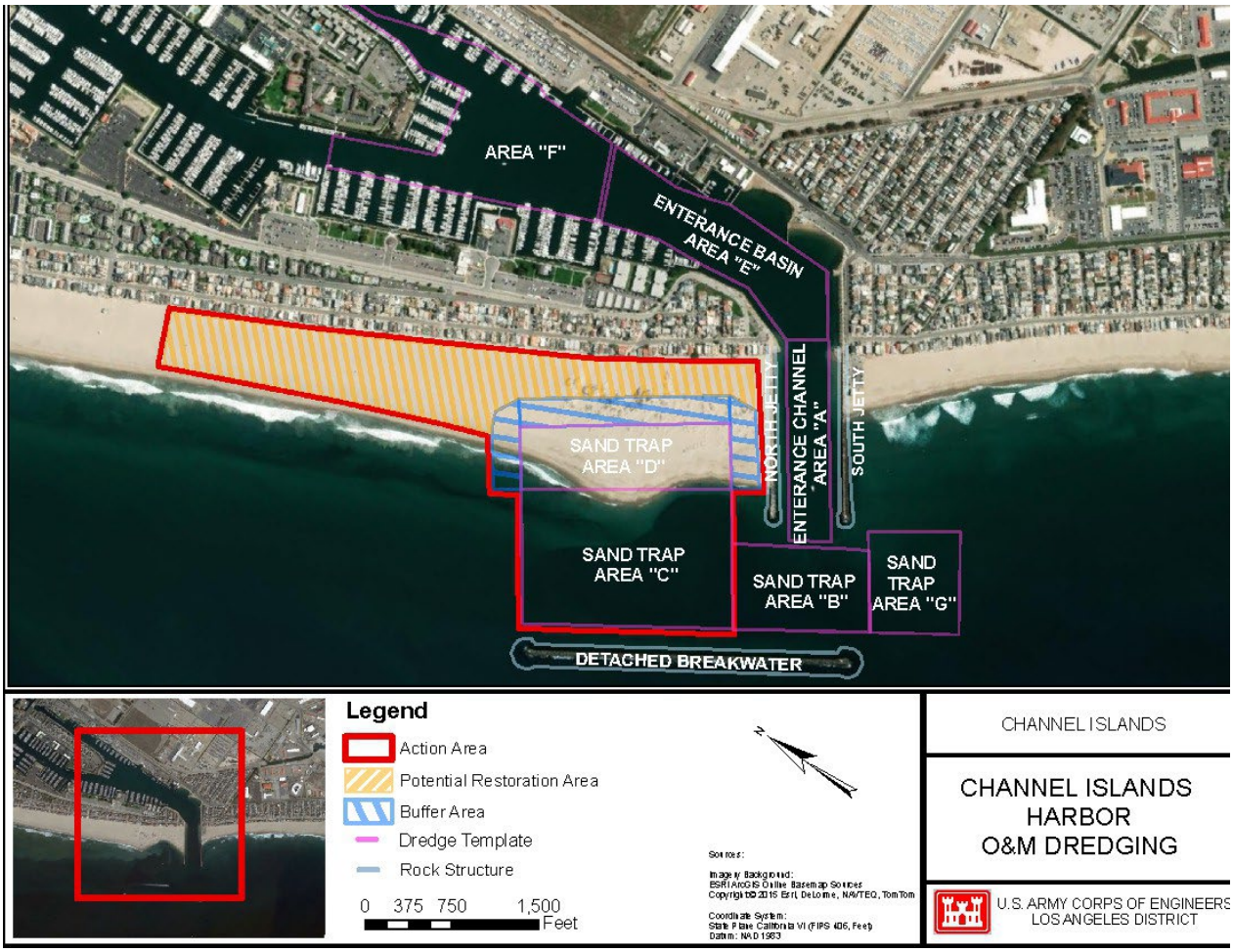

Figure 1. Action Area. Blue hatched area indicates area of potential slope failure due to projected dredging activity.

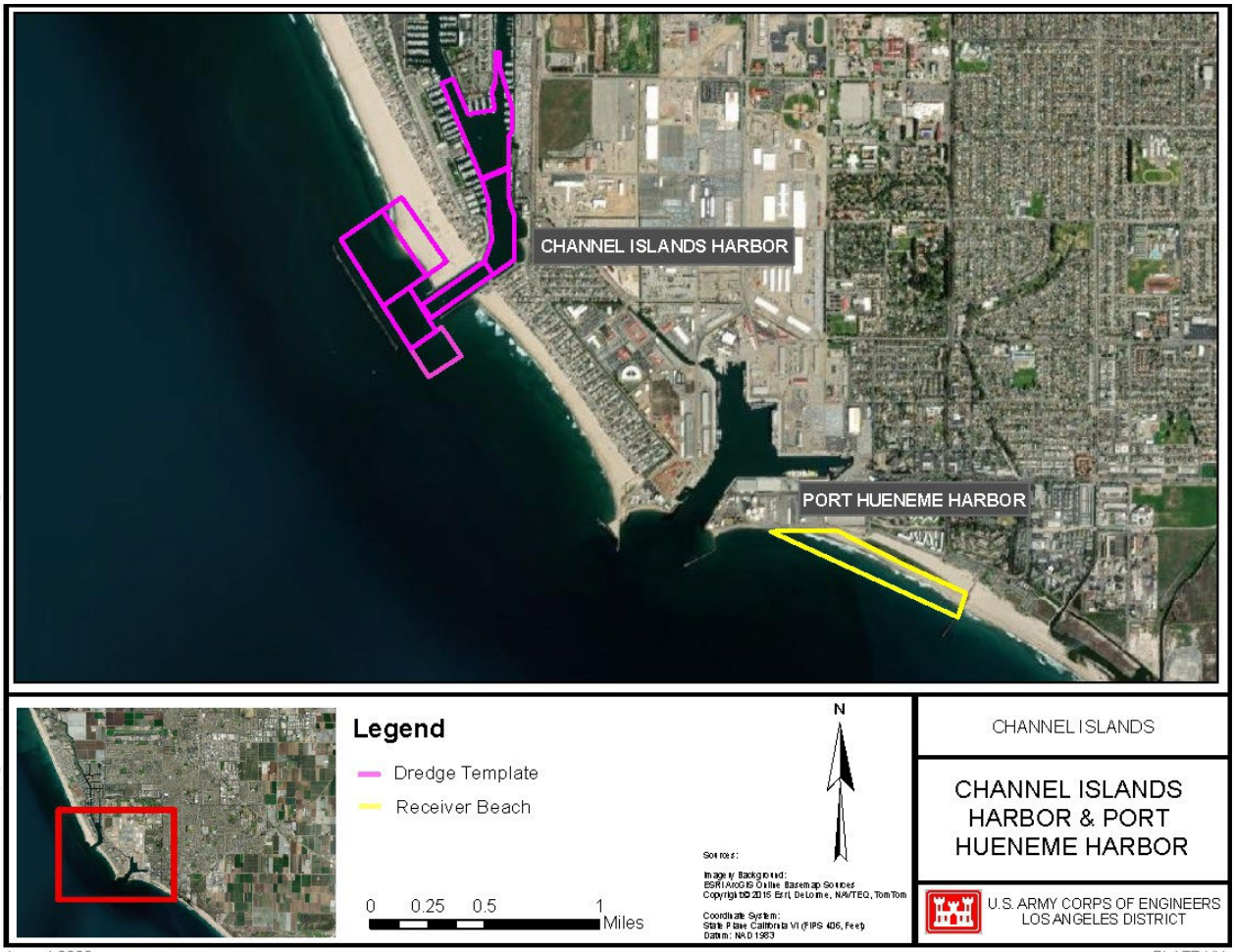

Figure 2. Channel Islands Harbor with detached breakwater depicted in upper left, Port Hueneme and Hueneme beach in image center illustrating proximity between dredge area and receiver beach.

4.0 Environmental Baseline and Status of ESA-Protected Resources

4.1 Environmental Baseline

Channel Islands Harbor is located in the city of Oxnard, Ventura County, California. Dredging for the Channel Islands Harbor began in the mid-1950s. The harbor was completed in 1963. Harbor structural features consist of a 2,300-foot-long offshore breakwater, entrance jetties, and an entrance channel leading to the harbor interior. The entrance channel is 32,000 feet in length and varies in width from 300 feet near the entrance basin to 600 feet within the harbor. The entrance channel (Area A) and Sand Trap Area G is authorized to a depth of -20 feet mean lower low water (MLLW). The Entrance Basin (Area E) and is authorized to a depth of -20 feet MLLW. Inner Basin (Area F) is authorized to a depth of -10 feet MLLW.

The offshore breakwater and jetties form a sand trap, and the entrance channel basin collects littoral drift as it moves downcoast. The sand trap is located on the north side of the Channel Islands Harbor approach and is divided into three areas (Figure 1); Areas B, C, & D. Area B is 775 feet in length and 450 feet in width. Area C is 1,650 feet in length and 1,150 feet in width. Area D is 1,650 feet in length and 460 feet in width. The traps were designed to be maintained at a depth of –10.7 m (-35 ft) MLLW.

Maintenance dredging of the Federal navigation channels and sand trap is conducted routinely at Channel Islands Harbor. The purpose of dredging is to maintain channel configurations, restore and assure safe navigability within the harbors, sustain current recreational opportunities, and provide materials for shoreline protection and beach replenishment (Corps, 2006). In 2018, the Corps issued a Final EA and finding of no significant impact (FONSI) for the selected action for the current 6-year cycle (2018-2024) at Channel Islands Harbor.

The dredging action described in the 2018 EA consisted of dredging the entrance channel, sand traps, entrance basin, and inner basin (see Figure 1). The required dredging is planned to be accomplished in three biennial dredging cycles (at years 1, 3, and 5). Each dredging cycle may remove up to 2.0 million cubic yards (cy) of material from the Channel Islands dredge template. Dredge quantities for each dredge cycle are dependent on availability of funding and the quantity of material available within the dredge template. To avoid potential direct impacts on protected federal trust resources, no dredging activity shall be conducted in the sand trap area, adjacent to Hollywood Beach, from March 1 through September 30.

By the end of each two-year dredge cycle, sand has typically built up in the sand trap extending the existing beach, sand buildup has narrowed the channel into Channel Islands Harbor, and the down coast beaches have lost sand. The northern end of Hueneme Beach erodes completely back to the revetment fronting city property. The dredging cycle is maintained at two years to provide the maximum benefit with minimum environmental impacts. Dredging also conducted during winter months for the same reason (specifically to avoid impacts to nesting CLT, WSP, and to spawning California grunion).

Figure 3 illustrates the dynamic nature of beachfront in the sand trap both within and between dredge cycles. Sand builds up in the off-dredge years according to littoral and cross shore deposition (yellow dashed line) and is subsequently dredged out the following year. The amount dredged out is dependent on quantity of available sand and the amount of funding designated for that particular year's dredge cycle.

Project authorization mandates a majority of dredge material placement on Hueneme Beach to fulfill established commitments for shore protection. Placement at Silver Strand Beach may also occur on an as-needed basis to offset periodic erosion problems, approximately 250,000 cubic yards of this material may be placed at Silver Strand Beach to offset current erosion problems.

Additional information can be found in the 2018 EA and FONSI.

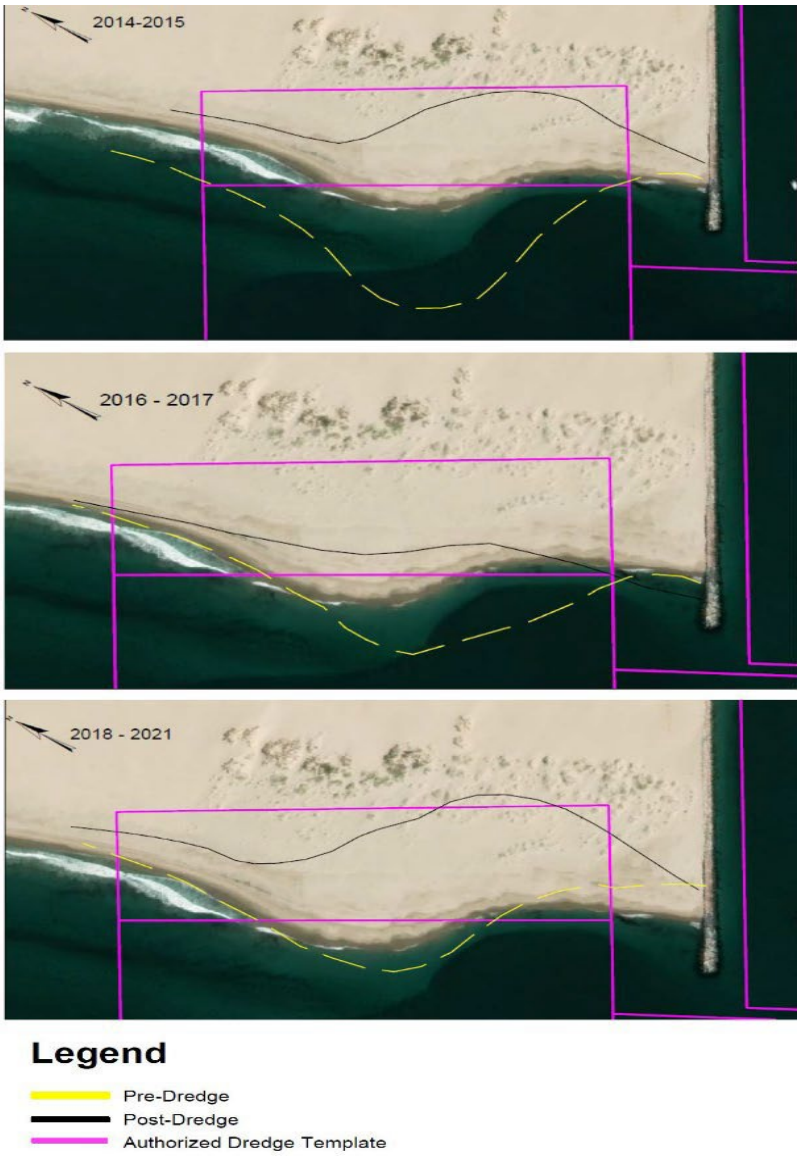

Figure 3. Aerial images of sand trap accretion and erosion including slope failure and sloughing over the last three dredge cycles. Authorized dredge template (in purple) is overlaid to illustrate the extent of beachfront buildup and retreat. Data compiled by Corps staff, 2022.

4.2 Species Overview for CLT and Status in the Action Area

The CLT, which is one of three subspecies of least tern in the United States, was listed as endangered in 1970 (35 FR 16047). No critical habitat has been designated for this species, and a recovery plan was finalized in 1980 (Service 1980). The following description of the CLT's basic ecology was compiled from the final recovery plan.

The CLT breeds along the Pacific Coast from San Francisco Bay to San Jose del Cabo, Baja California, Mexico. Large nesting colonies are discontinuous along the California coast and generally are spread out along beaches at the mouths of larger estuaries. Approximately 32 active nesting locations exist from San Francisco Bay south to the Mexican border. There are eight active nesting locations in Santa Barbara and Ventura counties. Although the subspecies is considered a colonial nester, some observations of single pairs nesting have been made at some

of these locations. The Santa Margarita River mouth in San Diego County now hosts the largest number of birds among all locations.

The CLT breeding season typically begins in April. Most commonly, two eggs are laid in the first part of May and hatching occurs in early June. Fledging of chicks usually occurs by late June. A second wave of nesting often occurs from early June to late July which is usually instigated by the failure of the first nest. Parents and fledglings remain close to the breeding site before beginning their migration southward, usually no later than mid-September. Their wintering localities are not well known, although some banded birds have been observed in Colima, Mexico. CLT appear to have strong nesting site fidelity and most return to their natal breeding beach year after year. Mass relocations have been documented when a breeding site has been destroyed or heavy predation has occurred.

For nesting, the CLT require areas that are relatively flat, open, sandy beaches, in proximity to foraging habitat, and have relative seclusion from disturbance and predation. CLT have been known to nest on artificial surfaces, such as airfields, landfills, and vacant parking lots. During the nesting season, the CLT feed on small fish captured either in ponds, bays and estuaries, or immediately offshore. Prey items include northern anchovy (*Engraulis mordax*), topsmelt (*Atherinops affinis*), California grunion (*Leuresthes tenuis*), and killifish (*Fundulus parvipinnis*). Both the male and female select a suitable site to begin scraping their nest if it is located on sand. If no sand is available in their nesting location, the birds will select a natural depression in the ground, such as a boot or tire depression in dried mud. After the eggs are laid, the nest is sometimes lined with shell fragments and small pebbles. Eggs are incubated mostly by the female for 20 to 25 days.

The decline of the CLT has been attributed primarily to destruction of breeding and foraging habitat, and human disturbances at nesting locations. Their decline was a gradual process as European settlers began establishing along the California coast. The Pacific Coast Highway, constructed in the early 1900s, is thought to have contributed substantially to the species' decline as the highway paved over many nesting locations, and promoted development and recreation along the coast. At the time of listing, a census revealed only 600 pairs of breeding CLT in the entire state, but recovery efforts instituted after the time of listing have helped raise levels of breeding birds. Statewide surveys conducted in 1995 counted 2,598 pairs (Caffrey 1995). Dramatic fluctuations in the number of breeding pairs after listing have been attributed to severe El Niño Southern Oscillations, which affect the birds' food supply.

CLT continue to utilize Hollywood Beach and the component sand traps. CLT demonstrate site fidelity to previous nesting areas and have reoccupied the sand trap in off-dredge years when the sand trap beach has built up (Figure 4). In dredge years when the sand trap beachfront retreated and previous nesting sites are not present, CLT move to other areas where nesting pairs experience increased predation. CLT nesting and subsequent fledging success has decreased according to survey data obtained by Debra Barringer (Barringer, 2021).

Figure 4. CLT nest sites on Hollywood Beach from 2013-2020.

4.3 Species Overview of WSP and Status in the Action Area

The Pacific coast population of the WSP was federally listed as threatened on March 5, 1993 (58 FR 12864) A draft recovery plan for the species has been published (Service 2001). The final rule listing the WSP as threatened describes its biology and reasons for its decline. The WSP forages for invertebrates in intertidal zones, the wrack line, dry sandy areas above the high tide line, salt pannes, and the edges of salt marshes. The Pacific coast population nests near tidal waters along the mainland coast and offshore islands from southern Washington to southern Baja California, Mexico. Most nesting occurs on unvegetated to moderately vegetated, dune-backed beaches and sand spits. Other less common nesting habitats include salt pannes, dredge spoils, and salt pond levees. Individuals are commonly faithful to nest sites.

For the WSP, nesting and chick rearing generally occur between March 1 and September 30. Both males and females incubate the eggs, which take about 27 days to hatch. The chicks are precocial (capable of a high degree of independence from birth), feeding on their own within hours of hatching. However, they are unable to fly until approximately four weeks old. Females generally desert males and broods by the sixth day, and thereafter the chicks are typically accompanied by only males. Females obtain new mates and initiate new nests while males rear the broods.

WSP may remain at breeding sites or migrate to other locations during the non-breeding season, with most wintering south of Bodega Bay, California. The California population comprises at least 90 percent of the listed Pacific Coast population (Gary Page, Point Reyes Bird Observatory, pers. comm. 2001). The most important breeding areas for the listed population are San Francisco Bay, Monterey Bay, Morro Spit and Atascadero State Beach, Vandenberg Air Force Base, and Navy Base Ventura County (formerly Point Mugu Naval Air Station). These areas are particularly important because they are able to support 80 to100 or more breeding adults (G. Page pers. comm. 2001).

The WSP bred at 53 coastal locations in California prior to 1970. Between 1970 and 1981, the WSP stopped breeding in parts of San Diego, Ventura, and Santa Barbara counties, most of Orange County, and all of Los Angeles County (Page and Stenzel 1981). By 1991, 78 percent of the remaining breeding population in coastal California nested at only 8 sites: San Francisco Bay, Monterey Bay, Morro Bay, Callendar-Mussel Rock dunes area, Point Sal to Point Conception area (Vandenberg Air Force Base), Oxnard lowlands, Santa Rosa Island, and San Nicolas Island (Page et al. 1991). The WSP had abandoned all historic breeding sites in Santa Barbara County south of Point Conception (Page and Stenzel 1981), presumably due to disturbance or habitat destruction (Lafferty 2000a). However, following the protection of a wintering population of WSP, nesting has recently been recorded at Coal Oil Point (Lafferty et. al. 2003). In 1991, the estimated breeding population of WSP in coastal California was 1,371. However, by 2000, this number had dropped to 976. The estimated breeding population in 2002 was 1387 (Page et al. 1991, Page 2000, 2002).

The Pacific coast population of WSP has experienced widespread loss of nesting habitat and reduced reproductive success at many nesting locations due to shoreline stabilization and urban development. The habitats preferred by this species are subject to erosion and accretion, making them highly susceptible to degradation by construction of seawalls, breakwaters, jetties and other developments that interfere with the natural coastal processes. The encroachment of European beachgrass (*Ammophila arenaria*) has also led to habitat loss. Human activities such as walking, jogging, unleashed pets, horseback riding, and off-road vehicles can destroy the WSP's cryptic nests and chicks. Indirect impacts from these activities include disturbance of WSP adults to the extent that they abandon nests or interference with incubation to the point that eggs become buried by sand or fail to hatch because of exposure to cold or heat (Warriner et al. 1986). WSP do not usually abandon their nests because of wind without another compounding factor such as human disturbance (G. Page, pers. comm. 2000).

Human activities can also interfere with foraging activities by disrupting the ability of adults and chicks to get to the wet beach to feed and return to the dunes or their nest (Burger 1993). Chicks can also become separated from their parents as a result of human disturbance of broods. Such disturbance could cause or contribute to chick mortality by interfering with essential chick rearing behaviors or by causing intolerable stresses directly to the chicks (Cairns and McLaren 1980). For example, separation of chicks and their parent can lead to lethal exposure to wind and cold temperatures or disturbance that interferes with foraging could result in the starvation of WSP chicks. In some instances, disturbance associated with these types of recreational activities is expected to temporarily flush WSPs and not affect the birds in such a substantial manner. In other cases, such disturbance could interfere with the metabolism and thermoregulation of WSP chicks and migrating or wintering adults such that they starve or egg production is impaired during the subsequent nesting season (Cairns 1982).

Predator density is an important factor affecting the quality of WSP nesting habitat (Stenzel et al. 1994). Predation can result in the loss of adults, chicks, or eggs; separation of chicks from adults, which can lead to chick mortality, can also be caused by predators. Predation by both native and non-native species limits WSP reproductive success at many Pacific coast sites. Non-native predators include eastern red foxes (*Vulpes vulpes regalis*), domestic and feral dogs (*Canis familiaris*), and Virginia opossums (*Didelphis marsupialis*). Coyotes (*Canis latrans*), American crows (*Corvus brachyrhynchos*), common ravens (*Corvus corax*), American kestrels (*Falco sparverius*), loggerhead shrikes (*Lanius ludovicianus*), and several gull species (*Larus* spp.) are native predators of the WSP.

Within the Action Area, WSP are known to winter and nest in the Channel Islands Harbor area. Outside of the Action Area, WSP have also historically nested and wintered on adjacent Hollywood Beach. Portions of Hollywood Beach are designated as critical habitat (see Section 4.4), and contain the supporting physical and biological features (PBFs) essential to WSP conservation. The historical dredging activity of the sand trap affects the critical habitat according to quantity dredged, prevailing cross-shore sediment transport and whether the sand trap has been dredged in a given year of the dredge cycle (Figure 3, Sand trap accretion/erosion historical data over last 6-year dredging cycle).

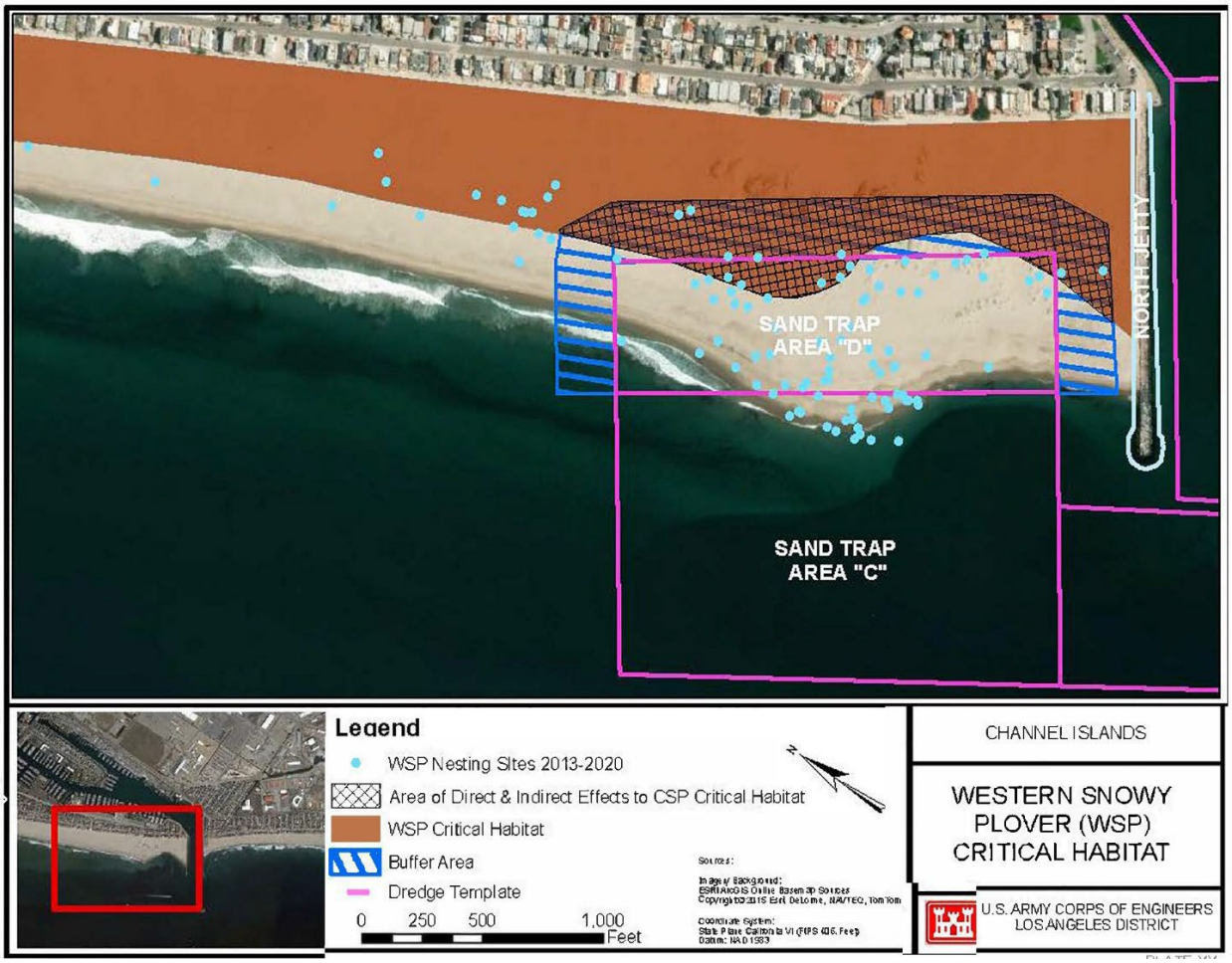

Figure 5. Map illustrating the overlap of the dredge impact area with WSP critical habitat and known WSP nest sites from 2013-2020.

4.4 WSP Critical Habitat

Critical habitat for WSP was first designated in December 1999 (64 FR 68508). That rule was remanded and partially vacated by the U.S. District Court for the District of Oregon on July 2, 2003. The USFWS published a revised rule designating critical habitat on September 29, 2005 (70 FR 56970), and later expanded in July 2012 (77 FR 36727). Hollywood Beach is included in critical habitat unit CA 38 (Oxnard Lowlands), and extends into the Action Area. Range wide, 24,526 acres are designated as critical habitat, with 16, 337 acres of that number within the State of California. The critical habitat unit CA 38, which encompasses the Action Area, consists of 672 acres. The projected impact to critical habitat from the Proposed Action equals 13.47 acres, or about 2% of the critical habitat unit. The physical and biological features (PBFs) identified as essential to the conservation of the species include:

- Sandy beaches, dune systems immediately inland of an active beach face, salt flats, mud flats, seasonally exposed gravel bars, artificial salt ponds and adjoining levees, and dredge spoil sites with:
    1. Area that are below heavily vegetated areas or developed areas and above the daily high tides;

2. Shoreline habitat areas for feeding, with no or spares vegetation, that are between the annual low tide or low-water flow and annual high tide or high-water flow, subject to inundation but not constantly under water, that support small invertebrates, such as crabs, worms, flies, beetles, spiders, sand hoppers, clams and ostracods, that are essential food sources;
3. Surf- or water-deposited organic debris, such as seaweed (including kelp and eelgrass) or driftwood located on open substrates that supports and attracts small invertebrates described in PBF2 for food, and provides cover or shelter from predators and weather, and assists in avoidance of detection (crypsis) for nests, chicks, and incubating adults; and
4. Minimal disturbance from the presence of humans, pets, vehicles, or human-attracted predators, which provide relatively undisturbed areas for individual and population growth and for normal behavior.

Of the 13.47 acres that lie within the critical habitat unit, PBF numbers 2 and 3 are present: open shoreline habitat suitable for foraging and presence of organic debris such as surf wrack and other invertebrates. PBF 1 is present on a cyclical basis, dependent on dredge cycle year. People and pets regularly transit this area of the beach, along with vehicle traffic, disincentivizing WSP from occupying this area.

Nesting and wintering WSP surveys have been conducted historically by Debra Barringer in the Channel Islands Harbor area, and has made observations in yearly reports as to the project area population level impacts of biennial dredging. Per Debra Barringer's most recent WSP report (Barringer, 2021):

> *"Prior to and during the winters of 2013 and 2014 decreased available funding reduced the dredging efforts and an unusually large amount of sand collected, forming an extra wide dune field and beach. In those two years, unprecedented increases in WSP nests (29 nests for 2013, 300% increase over average) and CLT nests (209 nests in 2013, 2,000% increase over average) were initiated. Most eggs hatched as there were virtually no predators observed during 2013. With low depredation, fledgling recruitment was high for both species but difficult to verify with no banding. Dredging occurred fall-winter of 2014, the beach lost a majority of the low foredune habitat where most of the nests occurred, and an anticipated drop of adult presence and nesting activity for both species resulted during the 2015 breeding season and has returned to more typical low numbers since. The native vegetation and foredunes have been very slow to regrow since then and continue to be removed during dredging."*

Further she adds *"Other impacts I've noticed is that following dredge years when the historically-chosen nest habitat in front of the dunes is narrowed, both species tend to place their nests further north away from the dunes. This reduces chick survival to fledging success due to less cover and food resources available on the flattened portion of the beach. Nests away from the dunes/cover are much more vulnerable to depredation and disturbances by people and dogs."* (email communication, 2021).

5.0 Effects Determinations

5.1 Effects to CLT and WSP

Direct Effects

CLT are not expected to be directly affected by dredging activities because they are typically absent from California breeding sites between September and March.

The WSP, however, is known to be present in the Action Area outside of the breeding season and therefore some direct effects may occur. While disturbance to wintering WSPs would not be directly lethal, direct impacts resulting from beach loss may have additional indirect effects on reproduction and survivorship (Lafferty 2000b). Lafferty (2000b) describes WSP' typical reaction to disturbance, which illustrates the energy expenditures involved. When beach use is high, WSPs will suspend feeding and remain motionless in the roosting area. If the disturbance continues, roosting plovers become alert, begin to walk away, and supplant each other from the depressions where they sit. They may elevate their wings or bob as a sign of distress and may eventually run or take flight. If put into flight, flocks wheel back and forth for several minutes in tight low altitude formations. After landing, they remain nervous and will take wing with little prompting (Lafferty 2000b). Although activities covered by this Proposed Action would not result in the complete removal or continual, long-term disturbance to other areas of wintering habitat, the WSP's instinctive reaction to disturbance may adversely affect their ability to effectively forage and maintain enough fat reserves to successfully reproduce during the following breeding season.

Similar effects as those described by Lafferty are expected to WSP as a result of the increased quantity of dredging. While these effects already occur as part of ongoing dredge activities and are not new, the increased dredge volume is expected to prolong the duration of these effects. Any WSPs present during implementation of the Proposed Action (to include both dredging and placement activities) are expected to move out of the impact area to forage on nearby beaches.

Indirect Effects

As described in Section 4.1, ongoing dredging activities have resulted in a cyclic pattern of increases and decreases in beach size (see Figure 3), and this cyclical pattern influences the distribution of WSP and CLT nests (Figures 6 and 7). Both CLT and WSP exhibit high nest fidelity, tend to return to the same nest sites year after year, and have attempted to breed in the Action Area in the past. Impacts associated with ongoing dredging typically include the temporary displacement of individuals from previously used nest sites, which may force some CLT and WSP returning to Hollywood Beach during the breeding season to search for nesting areas elsewhere. This disrupts their normal breeding behavior and causes birds to suspend feeding and/or expend energy in flight and movement (Lafferty 2006).

Figure 6. California least tern nesting sites surveyed between 2013 to 2020. Purple lines indicatedredge template, including sand trap. (Barringer, 2020)

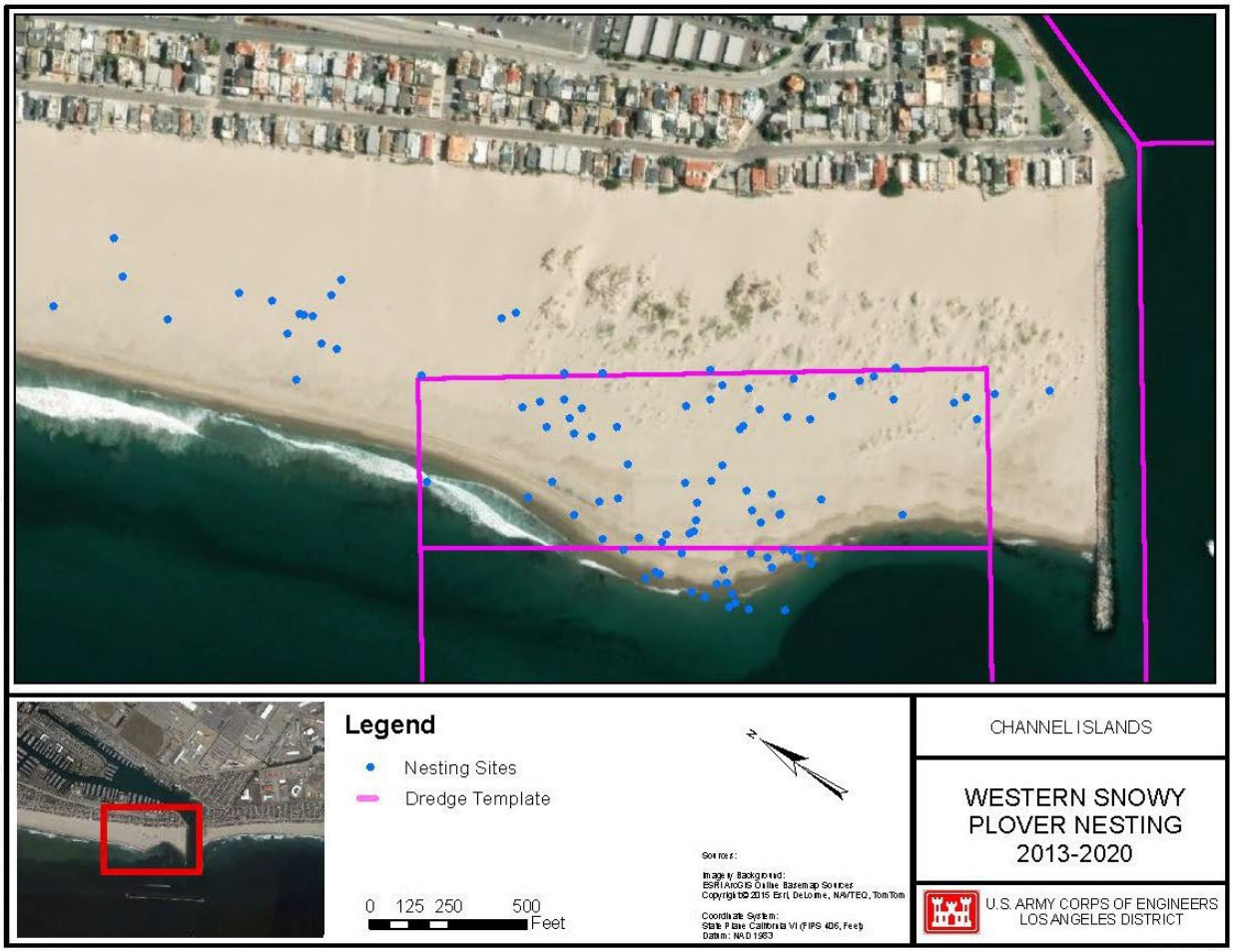

Figure 7. Western snowy plover nesting sites surveyed between 2013 to 2020. Purple lines indicate dredge template, including sand trap. (Barringer, 2020)

The effects of historic dredging activities on WSP and CLT nesting have been predominantly limited to Sand Trap Area D. However, due to the proposed 500,000 cy increase in dredge quantity, the impacts associated with dredging may expand as shown in Figure 1. While the ongoing cyclical impacts to WSP and CLT are expected to remain similar in nature, the increase in dredge quantities is expected to result in a concurrent increase in temporary impacts to CLT and WSP nesting activities and wintering WSP foraging and roosting activties, and a likely temporary displacement of additional individuals beyond those potentially displaced by ongoing dredge activities.

Lafferty (2006) suggests that the impacts of disturbance to birds most likely results in cumulative effects on reproduction and survivorship. Migrating shorebirds, such as CLT and WSP, must manage long flight distances and conditions between their wintering and breeding areas. They are already physiologically stressed when they arrive at their breeding areas from having to budget their major resources for flight (particularly fat, protein, and water) to migrate successfully. Impacts of disturbance at their breeding areas may not allow the birds to rest and recover sufficiently when they finally arrive. For example, Guglielmo et al. (2001) found that migrating western sandpipers frequently do not gain mass in the first days after arrival because they must expend more energy locating good feeding areas (energy-rich and safe) or obtaining feeding territories. Thus, birds that forage slowly or ineffectively may not build the requisite fat reserves

that are especially important to stressed or depleted migrants who must rest and feed (Lafferty 2001).

Lafferty (2001) studied the piping plover (which is ecologically similar to the WSP) and found that reproductive success is lower in areas with high human disturbance. In areas where people were absent, piping plovers spent 90 percent of their active time feeding compared with less than 50 percent in areas where people were common. In other words, the presence of people on the beach engaging in typical activities caused birds to expend energy in movement, flight, or vigilance, leading to reduced foraging time and further depletion of fat reserves. In a study on the effects of beach recreation to WSP, Lafferty (2006) found that reduction in disturbance encouraged WSPs to attempt to breed and that protection from disturbance would improve a habitat's suitability for breeding. Consequently, WSPs and CLTs may be injured when they are forced to abandon suitable breeding habitat and look for more isolated locations to breed and nest because of human disturbance.

The CLT and WSP also utilize the down coast beaches that are expected to be nourished during each dredging cycle. Sand dredged from the sand trap area placed at Hueneme Beach provides sand into a littoral cell that extends down coast to Naval Base Ventura County (NBVC). These down coast beaches, particularly Ormond Beach, are used as nesting sites by CLT and WSP. While the increased dredge quantity may result in increased impacts adjacent to the dredge site, the increase quantity of sand placed on down coast beaches may potentially increase the quantity of viable habitat for CLT and WSP at down coast locations.

Overall, based on the effects described above, the Corps has determined that the Proposed Action may affect, and is likely to adversely affect, both the CLT and WSP.

5.2 Effects to WSP Critical Habitat

The proposed action would temporarily render approximately 14 out of 672 acres in unit CA 38 of WSP critical habitat unusable by the species by periodically removing the PBFs. The dredging of the sand trap area would remove habitat that includes surf-cast kelp, sparsely vegetated foredunes, an interdunal flat, a washover area, and an intertidal flats. In off-dredge years, the impacts described above are not realized as the sand trap accretes and builds beachfront. In addition, the off-dredge years see a return of PBFs that were previously removed during dredging. The additional dredge quantity of 500,000 cubic yards on top of the historical 2,000,000 cubic yards is expected to exacerbate these impacts but not introduce any new impacts.

Based on the analysis described above, the Corps has determined that the Proposed Action may affect, likely to adversely affect WSP designated critical habitat.

5.3 Cumulative Effects

Cumulative effects include the effects of future State or private activities, not involving Federal activities, that are reasonably certain to occur within the Action Area.

Although the County of Ventura Harbor District conducts year-round beach grooming operations on portions of Hollywood Beach, they avoid beach grooming within the Action Area. However, recreational activities continue at Hollywood Beach. According to Lafferty (2001), shorebird abundance in Ventura County is low on beaches with high human use, presumably because disturbance causes birds to seek more isolated locations. People and dogs disturb birds if they approach too closely or too quickly. Pet activity, in particular, reduces shorebird abundance and

those birds that remain must spend more energy on vigilance and escape at the expense of foraging and rest (Lafferty 2001). Furthermore, recreational disturbance during the breeding season can expose nests to predation and unfavorable weather.

6.0 Literature Cited

Barringer, 2021. Western Snowy Plover and California Least Tern Annual Breeding Season Monitoring Report for Hollywood Beach, Oxnard, CA

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Cairns 1982

Corps, 2006

Guglielmo et al. (2001)

Lafferty et. al. 2003

Lafferty (2000b)

Lafferty (2001)

Lafftery (2006)

Page et al. 1991

Page and Stenzel 1981

Service 2001

Stenzel et al. 1994

Warriner et al. 1986

BIOLOGICAL OPINION
(U.S. FISH AND WILDLIFE SERVICE)

United States Department of the Interior
U.S. FISH AND WILDLIFE SERVICE
Ecological Services
Ventura Fish and Wildlife Office
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Ventura, California 93003

IN REPLY REFER TO:
08EVEN00-2022-0085983-S7

December 15, 2022

Maricris Lee
Deputy Chief, Planning Division
Department of the Army
U.S. Army Corps of Engineers, Los Angeles District
915 Wilshire Boulevard, Suite 1109
Los Angeles, California 90017-3409

Subject: Biological Opinion on the Channel Islands/Port Hueneme Harbors Maintenance Dredging Increased Quantity Project, Ventura County, California

Dear Maricris Lee:

This document transmits the U.S. Fish and Wildlife Service's (Service) biological opinion based on our review of the U.S. Army Corps of Engineers' (Corps) proposed Project, pursuant to section 404 of the Clean Water Act, of the Channel Islands/Port Hueneme Harbors Maintenance Dredging Increased Quantity Project (project) on the federally endangered California least tern (*Sterna antillarum browni*) and the federally threatened western snowy plover (*Charadrius nivosus nivosus*) and its critical habitat, in accordance with section 7 of the Endangered Species Act of 1973, as amended (Act) (16 U.S.C. 1531 et seq.). We received your August 24, 2022, request for formal consultation on August 24, 2022.

On July 5, 2022, the U.S. District Court of the Northern District Court of California vacated the 2019 regulations implementing section 7 of the Endangered Species Act. On September 21, 2022, the Ninth Circuit Court of Appeals granted a request to stay the U.S. District Court of Northern California's July 5, 2022, order that vacated the 2019 Act regulations. As a result, the 2019 regulations are again in effect, and the Service has relied upon the 2019 regulations in rendering this biological opinion. However, because the outcome of the legal challenges to the regulations is still unknown, we considered whether our substantive analyses and conclusions in this consultation would have been different if the pre-2019 regulations were applied. Our analysis included the prior definition of "effects of the action," among other prior terms and provisions. We considered all the "direct and indirect effects" and the "interrelated and interdependent activities" when determining the "effects of the action." As a result, we determined the substantive analysis and conclusions would have been the same, irrespective of which regulations applied.

We have based this biological opinion on information that accompanied your August 24, 2022, request for consultation, including the biological assessment (Corps 2022), and previous documents in our files (Corps 2018a, 2018b; Service 2006a, 2012a, 2018)

Consultation History

On October 18, 2004, the Corps initiated formal consultation on maintenance dredging of the sand trap at Hollywood Beach because surveys conducted in the previous spring and summer found 51 pairs of California least tern and 5 pairs of western snowy plover had used the sand trap area for breeding and nesting. The Service issued a biological opinion (1-8-05-F-1) on October 21, 2004, that pertained only to dredging operations for the 2004/2005 cycle.

The Corps initiated formal consultation on April 14, 2006, for the next 5-year maintenance dredging cycle, 2006-2011. The Service issued a biological opinion on September 20, 2006 (1-8-06-F-22).

The Corps initiated formal consultation on July 30, 2012, for the next 6-year maintenance dredging cycle, 2012-2018. On September 10, 2012, the Service extended the time period covered by the 2006 biological opinion for this 6-year cycle.

The Corps initiated formal consultation on August 16, 2018, for the next 6-year maintenance dredging cycle, 2018-2024. On August 23, 2018, the Service issued an amendment to the 2006 biological opinion, as extended in 2012, that extended coverage for this 6-year cycle and included revised avoidance and minimization measures from the 2018 Environmental Assessment (Corps 2018a) and the implementation of a Biological Monitoring Contingency Plan should work need to be extended beyond March 1st in any given year due to minor delays from equipment failure or late-winter storms.

BIOLOGICAL OPINION

DESCRIPTION OF THE PROPOSED ACTION

Maintenance dredging of the Federal navigation channels and sand trap is conducted routinely at Channel Islands Harbor. The purpose of dredging is to maintain channel configurations, restore and assure safe navigability within the harbors, sustain current recreational opportunities, and provide materials for shoreline protection and beach replenishment.

In this proposed project, the Corps plan to use the existing project ([Service 2006, Service 2018] incorporated by reference) and authorized equipment and extend the duration and magnitude of the impact by removing an additional 0.5 million cubic yards of sand from the action area (Figure 1). This will be done by using a dredge and pipeline to remove 0.5 million cubic yards

from the dredge template and place the sand on Hueneme Beach in winter 2023. The dredging action consists of dredging the entrance channel, sand traps, entrance basin, and inner basin (Figure 1). This proposed action will increase the sand placed on Hueneme Beach and other downcoast beaches, and avoid sand being lost to the adjacent submarine canyon. The action would occur once and would occur over a period of 4 weeks.

Measures Intended to Avoid, Minimize or Offset Effects of the Proposed Action

The following measures are included as part of the proposed action in order to avoid, minimize, or offset potential impacts. Measures 1-8 below are carried forward from the Environmental Assessment (Corps 2018a):

1) The Contractor will keep construction activities under surveillance, management, and control to avoid pollution of surface and ground waters.
2) The Contractor will implement a Water Quality Monitoring Plan at the dredge and beach placement sites.
3) The dredge contractor will be required to have in place a Spill Prevention and Cleanup Plan that includes measures to prevent spills and to cleanup any spills that could occur.
4) All dredging and fill activities will remain within the boundaries specified in the plans. There will be no dumping of fill or material outside of the project area or within any adjacent aquatic community. This includes the restriction on placement in the nearshore area to depths greater than -10 feet mean lower low water.
5) The Contractor will keep construction activities under surveillance, management, and control to minimize interference with, disturbance to, and damage of fish and wildlife.
6) Dredging may begin as early as October 1. Should dredging extend past March 1 the following measures will be implemented:
    a) The Corps will coordinate with concerned federal and state resource agencies concerning possible impacts to threatened or endangered species;
    b) Beach placement will be limited to a diked, single-point placement site to minimize turbidity and grunion smothering;
7) The following avoidance and minimization measures will be implemented to ameliorate potential impacts from dredging and placement activities in the proposed action area:
    a) The limits of the dredging and placement activities will be clearly marked to prevent heavy equipment from entering areas beyond the smallest footprint needed to complete the project;
    b) Vehicles and all dredging activities will remain within the defined activity area and use only designated access points and staging areas;
    c) The work area will be kept clean to avoid attracting predators. All food and trash will be disposed of in closed containers and removed from the project site;
    d) No pets will be allowed on the construction site;
    e) No dredging activities will be conducted in the sand trap area (adjacent to Hollywood Beach) during the shorebird/seabird nesting season (March 1 – September 30);

f) At all times a qualified snowy plover monitor will walk ahead of the vehicle(s) and equipment to assure that all snowy plovers are out of harm's way before the vehicle(s) or equipment can proceed. Qualified monitors will be those individuals who attend the on-site plover training that will be provided by the Ventura Port District and the Corps;
g) If dredge material placement activities take place on Silver Strand and Hueneme Beaches during the nesting season (March 1 through September 30), measures described in the Biological Monitoring Contingency Plan (Appendix F) will be implemented;

8) Training will be provided to the Contractor personnel to review and ensure full understanding of all project environmental protection requirements. Training will include, but not limited to, methods of detecting and avoiding pollution, identification and avoidance measures for endangered species and notification requirements.

Proposed Dune Restoration

To offset potential impacts to western snowy plover designated critical habitat, the Corps proposes to restore 13.47 acres (1:1 impact restoration ratio) of foredune habitat adjacent to the action area as agreed to with the Service. The restoration effort will include beach grass (*Ammophilla* spp.) control to zero density, recontouring of sand dunes to approximate natural dune contours using heavy equipment, restoration of native beach species using plants or seeds, and manual removal of non-native plant species. The Corps will manage this area for a period of 5 years. Management activities will include installation and maintenance of native dune vegetation, manual removal of non-native plant species, strategic fencing, predator exclosures for shorebird protection, and other measures intended to protect any nesting or foraging activities that may occur in this area without significantly impacting authorized recreational beach use. The purpose of the restoration site is to provide comparable habitat function and value for the western snowy plover to offset the temporary and recurring loss of beach that would occur whenever the Corps excavates “sand trap D”. At a minimum, weekly monitoring for California least tern and western snowy plover will occur during the proposed action and for 5 years post - dune restoration completion to verify the restoration site is fulfilling the purpose as stated above. Annual metrics monitoring of the dune restoration will occur for 5 years post - dune restoration completion to verify the restoration site will remain functional habitat for the intended species.

The final site selection and management strategy have not been completed by the Corps. Details of the restoration plan are in development with the Service, Ventura County and other stakeholders.

Avoidance and minimization measures will be implemented for any restoration construction work taking place during California least tern and western snowy plover breeding seasons, as described below.

During implementation:

1) If vehicles are required to drive on Hollywood Beach, a biological monitor will be present to clear the path of any vehicles by walking ahead and verifying no birds are present. If birds are present the monitor will signal and stop vehicles.
2) If birds do not move out of vehicle traffic path, the biological monitor will attempt to guide vehicles on an alternate path to avoid grounding birds and walk ahead of vehicle to ensure the path is cleared while maintaining a minimum 50-yard buffer.

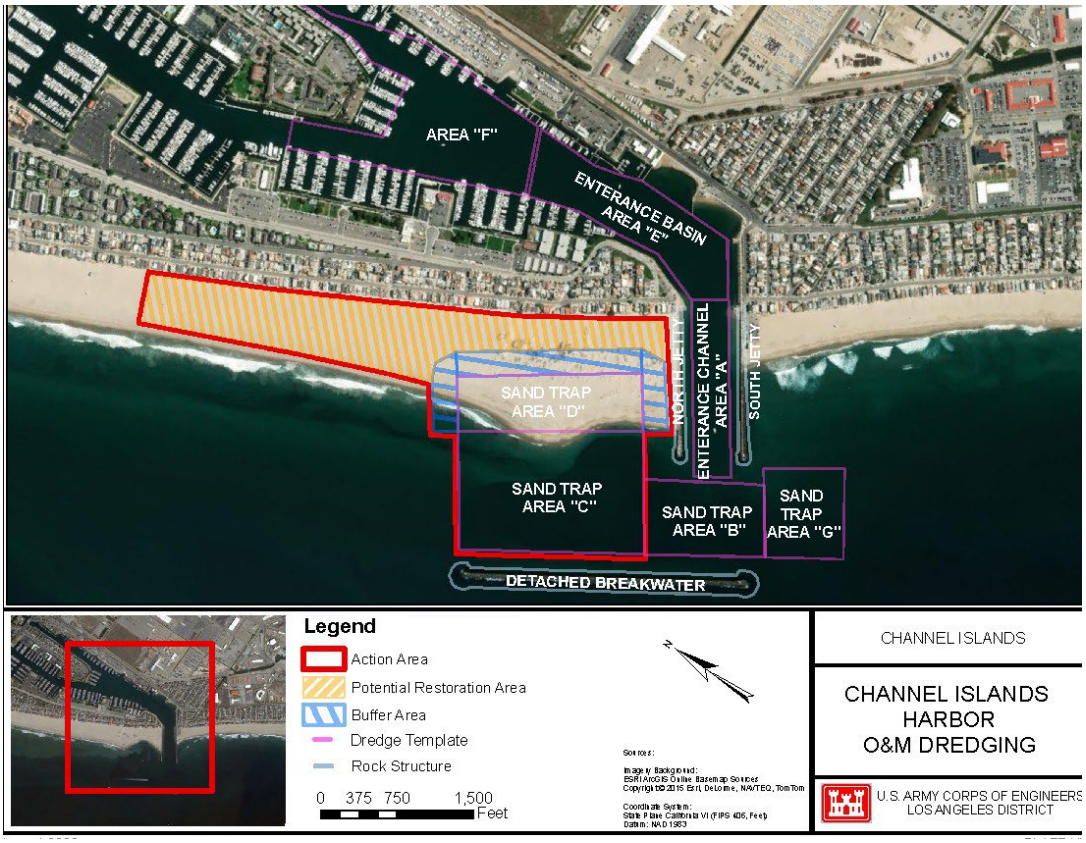

Figure 1. Map of action area, Hollywood Beach, California. Blue hatched area indicates area of potential slope failure due to projected dredging activity (Corps 2022).

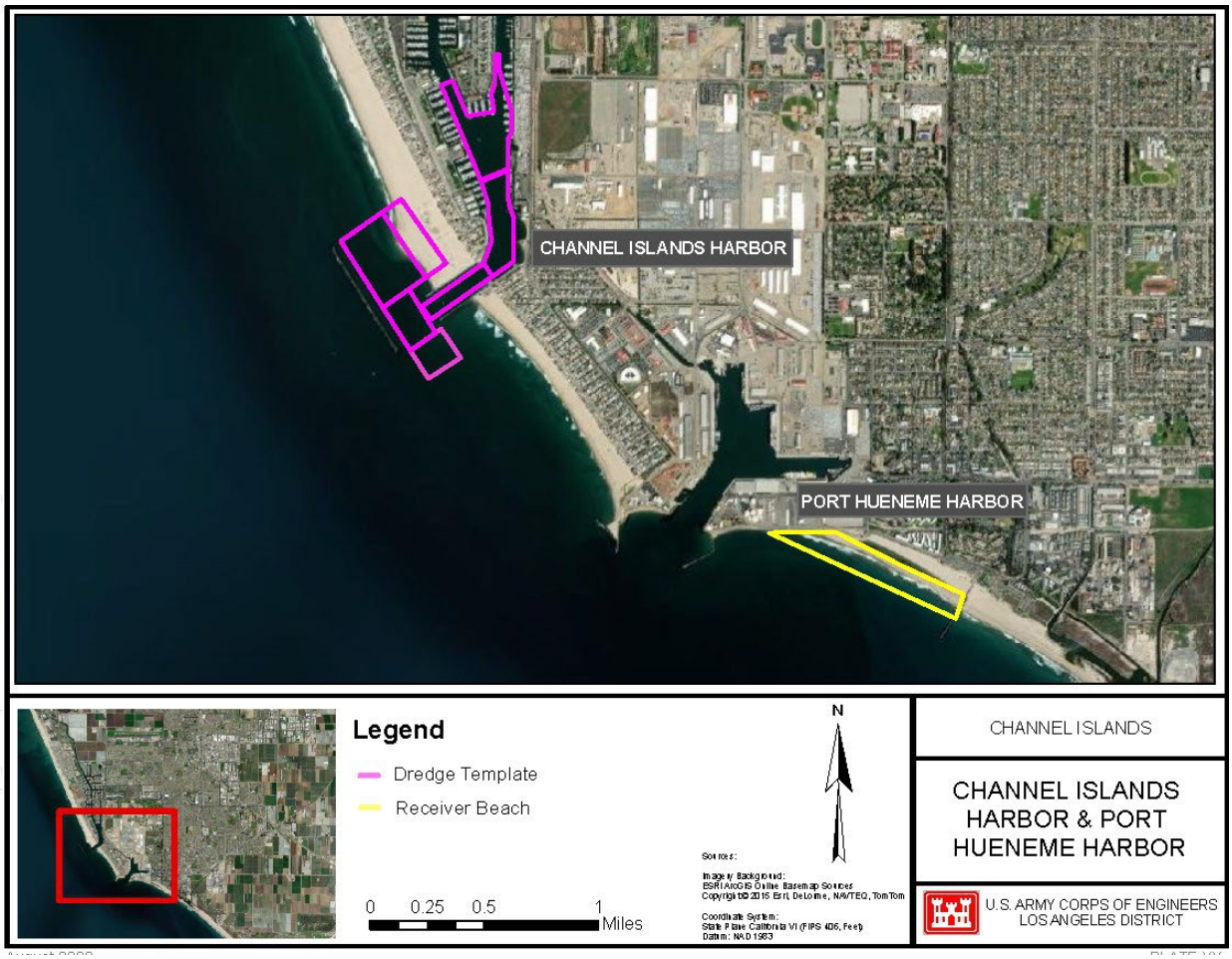

Figure 2. Channel Islands Harbor, California, with detached breakwater depicted in upper left, Port Hueneme and Hueneme beach in image center illustrating proximity between dredge area and receiver beach (Corps 2022).

ANALYTICAL FRAMEWORK FOR THE JEOPARDY AND ADVERSE MODIFICATION DETERMINATIONS

Jeopardy Determination

Section 7(a)(2) of the Act requires that Federal agencies ensure that any action they authorize, fund, or carry out is not likely to jeopardize the continued existence of listed species. "Jeopardize the continued existence of" means "to engage in an action that reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species" (50 CFR 402.02).

The jeopardy analysis in this biological opinion relies on four components: (1) the Status of the Species, which describes the current rangewide condition of the California least tern and western snowy plover, the factors responsible for that condition, and its survival and recovery needs; (2) the Environmental Baseline, which analyzes the condition of the California least tern and western snowy plover in the action area, the factors responsible for that condition, and the relationship of the action area to the survival and recovery of the California least tern and western snowy plover; (3) the Effects of the Action, which determines all consequences to the California least tern and western snowy plover caused by the proposed action that are reasonably certain to occur in the action area; and (4) the Cumulative Effects, which evaluates the effects of future, non-Federal activities, that are reasonably certain to occur in the action area, on the California least tern and western snowy plover.

In accordance with policy and regulation, the jeopardy determination is made by evaluating the effects of the proposed Federal action in the context of the current status of the California least tern and western snowy plover, taking into account any cumulative effects, to determine if implementation of the proposed action is likely to reduce appreciably the likelihood of both the survival and recovery of the California least tern and western snowy plover in the wild by reducing the reproduction, numbers, and distribution of that species.

Adverse Modification Determination

Section 7(a)(2) of the Act requires that Federal agencies ensure that any action they authorize, fund, or carry out is not likely to destroy or to adversely modify designated critical habitat. Destruction or adverse modification means a direct or indirect alteration that appreciably diminishes the value of critical habitat as a whole for the conservation of a listed species.

The destruction or adverse modification analysis in this biological opinion relies on four components: (1) the Status of Critical Habitat, which describes the rangewide condition of the critical habitat for the western snowy plover; (2) the Environmental Baseline, which evaluates the condition of the critical habitat in the action area, the factors responsible for that condition, and the recovery role of the critical habitat in the action area; (3) the Effects of the Action, which are all consequences to critical habitat caused by the proposed action that are reasonably certain to occur in the action area; and (4) Cumulative Effects, which evaluate the effects of future non-Federal activities in the action area that are reasonably certain to occur.

For the section 7(a)(2) determination regarding destruction or adverse modification, the Service begins by evaluating the effects of the proposed Federal action and the cumulative effects. The Service then examines those effects against the condition of all critical habitat described in the listing designation to determine if the proposed action’s effects are likely to appreciably diminish the value of critical habitat as a whole for the conservation of the species.

Maricris Lee

STATUS OF THE SPECIES AND CRITICAL HABITAT

California Least Tern

Legal Status

The Service listed the California least tern as endangered on June 2, 1970 (Service 1970). We issued a revised recovery plan for the species in 1985 (Service 1985) and 5-year status reviews in 2006 and 2020 (Service 2006, 2020). The Service has not designated critical habitat for the species.

Natural History

Foraging Behavior

California least terns forage in nearshore oceans, harbors, marina channels, tidal estuarine channels, and sheltered shallow bays (Atwood and Kelly 1984, pp. 35–36). Adults forage mostly within 2 miles of breeding colonies, and at many sites foraging is primarily in nearshore ocean waters less than 60 feet deep (Service 1985, p. 18). They feed on small fish that they catch by plunging into the water from flight. In a study of fish dropped by California least tern at 10 nesting areas, researchers found 49 species of fish, all individuals less than 1 year old. Northern anchovy (*Engraulis mordax*) and silverside species (Atherinidae) represented 67 percent of the total sample (Atwood and Kelly 1984, p. 38).

Breeding

California least terns are migratory colonial nesters, usually arriving in breeding areas by late April and departing in August (Massey 1974, pp. 6, 43). They exhibit a high degree of nest site fidelity from year to year. Individuals often return to breed where they previously bred successfully or to their natal sites (i.e., where they hatched) significantly more than one would predict if birds nested randomly (Atwood and Massey 1988, pp. 391–393). After the initial nesting period that begins on their arrival in April, a second wave of nesting may occur from mid-June to early August. These are mainly re-nests after initial failures and second-year birds nesting for the first time (Massey and Atwood 1981, p. 596).

Nesting California least terns usually occupy a sand-shell beach relatively free of plant growth (Massey 1974, p. 5). The nest is typically a shallow, round depression, constructed by a bird sitting and kicking its feet backwards while rotating its body. This may occur several times before the bird lays an egg (Massey 1974, pp. 10–11; Wolk 1974, p. 52). California least terns may use “sideways building” after scrape construction, which consists of the sitting bird reaching

out with its bill to pick up additional nest material, such as small shells and shell fragments, and depositing them into the nest (Wolk 1974, p. 53).

Early in the breeding season, California least terns display night roosting behavior. Prior to incubation, they will sleep at night at varying distances from the nesting sites. Once incubation begins, birds roost at night on the nest. California least terns use roosting sites away from breeding colonies prior to egg laying, apparently for predator avoidance. By not sleeping within the colony until they lay eggs, they may delay nocturnal predators discovering the colony by 2 to 3 weeks (Service 1985, p. 7).

California least terns begin incubation after laying the first egg. Both parents participate in incubation, which lasts 20 to 25 days (Massey 1974, pp. 15–16). Clutch size ranges from one to three eggs, with two eggs being most common (Massey 1974, p. 13; Ehrlich et al. 1988, p. 186).

California least tern chicks are semi-precocial (capable of a high degree of independent activity from birth) and parents can feed small fish to chicks within hours of hatching (Massey 1974, p. 17; Ehrlich et al. 1988, p. 18). Chicks will begin leaving the nest in1 to 2 days (Massey 1974, p. 17) and fledge at approximately 20 days. Juveniles and adults will fish, loaf, preen, and roost together for several weeks after fledging; adults will continue to feed juveniles during this period (Massey 1974, p. 20).

Wintering

California least terns leave nesting areas by August to spend winter months along the west coast of Baja California, the west coast of Mexico, and farther south, possibly from the Gulf of California to Guatemala (AOU 1957, p. 239; Service 1985, p. 17; Thompson et al. 1997, Distribution, Migration, and Habitat).

Rangewide Status

The historical breeding range of the California least tern extends along the Pacific coast from central California (Moss Landing) to southern Baja California (San Jose del Cabo). Observers documented potentially vagrant birds farther north in Alameda County, California (Grinnell and Miller 1944, p. 175; AOU 1957, p. 239). Since 1970, records of nesting sites extend from San Francisco Bay to Bahia de San Quintin, Baja California. The nesting range in California has been discontinuous, with most birds nesting in southern California from Santa Barbara County south through San Diego County (Service 1985, p. 3).

In 1969 and 1970, Craig (1971, pp. 1, 5) conducted breeding surveys in San Mateo, Orange, and San Diego Counties. Craig estimated 300 pairs at 15 sites in the 3 counties and made recommendations to prevent the extirpation of the California least tern in California, principally

to protect existing sites from human disturbance and create new sites in areas protected from disturbance and development (Craig 1971, entire). In 1980, 1981, 1982, and 1983, the California least tern breeding population in California was approximately 890 to 1,215; 963 to 1,171; 1,015 to 1,245; and 1,180 to 1,299 pairs, respectively (Service 1985, p. 21). Several studies attributed fluctuations in the number of breeding pairs and productivity to the El Niño Southern Oscillation, which results in limited food availability (Massey et al. 1992, pp. 982–983; Caffrey 1995, p. 12; Robinette et al. 2015, pp. 5, 10, 21–52). The effects on California least terns after a severe El Niño event may last several years (Massey et al. 1992, pp. 976, 978, 982).

Surveys have become more standardized and frequent since the 1990s (Sin 2021, p. 5). Sin reported 4,097 to 5,598 breeding pairs across 45 nesting sites in California over the 2017 breeding season (Sin 2021, p. 3). Six sites contained most of the breeding activity in California during the 2017 season: Camp Pendleton, Naval Base Coronado, Batiquitos, Point Mugu, Huntington, and Alameda Point (Sin 2021, p. 3), a trend consistently observed in previous years (Frost 2016, p. 12; 2017, p. 11). These 6 sites represented 75 percent of the state nest total and contributed 65 percent of California's fledgling production. The California Department of Fish and Wildlife (CDFW) provides annual reports of nesting California least terns in California; reports include numbers of breeding pairs, nesting sites, and fledglings to breeding pair ratios (Table 1).

Table 1. Numbers of California least tern breeding pairs and nesting sites across California; data compiled from CDFW reports (Craig, 1971, p. 1; Bender 1974a, p. 1, b, p. 1; Johnston and Obst 1992, pp. 3, 6; Obst and Johnston 1992, pp. 3, 5; Caffrey 1993, p. 2, 1994, p. 2, 1995, p. 3, 1997, p. 3, 1998, p. 3; Keane 1998, p. 3, 2000, p. 3, 2001, p. 5; Patton 2002, p. 3; Marschalek 2005, p. 3, 2006, p. 3, 2007, p. 3, 2008, p. 3, 2009, p. 3, 2010, p. 3, 2011, p. 3, 2012, p. 3; Frost 2013, p. 3, 2015, p. 3, 2016, p. 3, 2017, p. 3; Sin 2021, p. 3).

Year	*Approximate Number of Breeding Pairs*	*Number of Nesting Sites*
2017	4,097–5,598	45
2016	3,989–4,661	42
2015	4,202–5,295	41
2014	4,232–5,786	41
2012	4,293–6,421	41
2011	4,826–6,108	40
2010	6,437–6,699	41
2009	7,130–7,352	41
2008	8,223–8,226	36
2007	6,744–6,989	35
2006	7,006–7,293	31
2005	6,865–7,341	28
2004	6,354–6,805	32
2000	4,521–4,790	37
1999	3,451–3,674	36
1998	4,141–4,182	30
1997	4,017	38
1996	3,330–3,392	35
1995	2,585–2,611	37
1994	2,792	36
1993	2,400	35
1992	2,106	38
1991	1,830	26
1990	1,706	28
1974	582	20
1973	624	19
1969–1970	300	15

Recovery and Threats

The primary goals outlined in the 1985 recovery plan are to prevent extinction and return the California least tern population to a stable, non-endangered status. We state the Service may consider reclassification to threatened status if 1,200 breeding pairs in California occur in 15 secure management areas with a 3-year mean reproduction rate of 1.0 (one fledgling per breeding pair) (Service 1985, p. 26). We also state the Service may consider delisting if the

population reaches 1,200 breeding pairs distributed in at least 20 of 23 coastal management areas with the following provisions:

1) Sufficient habitat to support at least one viable colony (consisting of a minimum of 20 breeding pairs with a 5-year mean reproductive rate of at least 1.0 young fledged per year, per breeding pair) at each of the 20 coastal management areas managed to conserve California least terns (which must include San Francisco Bay, Mission Bay, and San Diego Bay); and
2) Assured land ownership and management objectives for future habitat management for the benefit of California least terns, and assessment of the security and status of Baja California colonies for incorporation into recovery objectives (Service 1985, pp. 25–26).

The breeding population of California least terns currently exceeds Objective 1. The estimated number of California least tern breeding pairs has increased from approximately 624 pairs in 1973 to a peak of approximately 7,100 pairs in 2009. The number of breeding pairs has dropped in the past few years from the peak to estimates of 3,989 pairs in 2016 and 4,097 pairs in 2017. In the 2006 5-year Review, we acknowledged the species had far exceeded this population objective (Service 2006, p. 3).

Objective 2 does not identify explicitly specific threats to alleviate but rather is a proxy for whether there is a reduction in threats to reproduction and fecundity. In the 2006 5-year review, we concluded that based on the population data at that time, the Service could likely consider the species recovered without meeting this goal (Service 2006, p. 5), as the sharp growth in pairs had occurred while estimated fledgling rates were below 1.0 fledglings per pair. Objective 2 utilizes this same definition of viability for secure nesting site requirements, though it is unclear from the recovery criteria if sites must maintain this level of viability for 3 or 5 years (Service 1985, pp. 25–26).

Overall, progress is being made toward satisfying the recovery criteria. However, as we concluded in the 2006 5-year review and based on recent data, we should revise the recovery plan and update it to provide threats-based recovery criteria and address the other shortcomings of the recovery plan. Areas of the plan that need updating include inclusion of Mexico populations of California least terns, further analysis of the fledgling per pair ratio, and future impacts from a changing climate, such as seal level rise (Service 2020, p. 62).

In the five-factor analysis in our 2020 5-year status review, we found that rising sea levels as a result of climate change (Factor A) may in the future pose a substantial threat to nesting habitat of the California least tern; that predation (Factor C) continues to threaten the California least tern (this threat is reduced, though not eliminated, by predator management conducted at the majority of active colonies, and predator management is confounded when the predator is a protected species); that food availability (Factor E) poses a threat to California least terns though

its impact varies from year to year with an uncertain overall magnitude; and that cumulative impacts of food availability, predation, and destruction of nesting habitat together pose a substantial threat to the persistence of the California least tern, although management at a majority of the U.S. nesting sites helps to reduce the impact of these combined threats. Though there are few data available on nesting areas in Mexico, lack of legal protection and conservation measures result in a higher degree of threats attributable for nesting California least terns than in the United States (Service 2020, p. 69).

While the California least tern has met the population size recommended in the recovery plan for downlisting, the population has been recently declining and exhibiting poor reproductive success, and multiple ongoing threats continue to impact the species. Primary threats include ongoing habitat loss and degradation attributed to perpetual human disturbance, urban development, introduced beachgrass and expanding predator populations. Therefore, we determined that current information does not support reclassifying the California least tern at this time. Additional information on threats, management techniques, and current population models should be obtained before reassessing the taxon again in the future (Service 2020, p. 70).

Western Snowy Plover

Legal Status

The Service listed the Pacific coast population of the western snowy plover as threatened on March 5, 1993 (58 FR 12864). We designated critical habitat in 1999 (64 FR 68508 68544) and redesignated it in 2005 (70 FR 56970 57119). In 2012, we issued a revised critical habitat designation which included a change in taxonomic nomenclature (Service 2012b, 77 FR 36727 36869). We completed a 5-year status review in 2006 and 2019 (Service 2006c, 2019), and issued a recovery plan in August 2007 (Service 2007).

Natural History

The western snowy plover is a small shorebird in the family Charadriidae, a subspecies of the snowy plover (*Charadrius nivosus*). It is pale gray-brown above and white below, with a white collar on the hind neck and dark patches on the lateral breast, forehead, and behind the eyes. The bill and legs are black.

<u>Foraging Behavior</u>

Western snowy plovers are primarily visual foragers, using the run-stop-peck method of feeding typical of most plover species. They forage on invertebrates in the wet sand and amongst surf-cast kelp within the intertidal zone, in dry sand areas above the high tide, on saltpans, on spoil

sites, and along the edges of salt marshes, salt ponds, and lagoons. They sometimes probe for prey in the sand and pick insects from low-growing plants (Service 2007, pp. 17–18).

Breeding

The Pacific coast population of the western snowy plover breeds primarily on coastal beaches from southern Washington to southern Baja California, Mexico. The main coastal habitats for nesting include sand spits, dune-backed beaches, beaches at creek and river mouths, and saltpans at lagoons and estuaries (Wilson 1980, p. 23; Page and Stenzel 1981, p. 12). Western snowy plovers nest less commonly on bluff-backed beaches, dredged material disposal sites, salt pond levees, dry salt ponds, and gravel river bars (Wilson 1980, p. 9; Page and Stenzel 1981, pp. 12, 26; Tuttle et al. 1997, pp. 1–3; Powell et al. 2002, pp. 156, 158, 164).

Their nests consist of a shallow scrape or depression, sometimes lined with beach debris (e.g., small pebbles, shell fragments, plant debris, and mud chips). As incubation progresses, western snowy plovers may add to and increase the nest lining. Driftwood, kelp, and dune plants provide cover for chicks that crouch near objects to hide from predators. Because invertebrates often occur near debris, driftwood and kelp are also important for harboring western snowy plover food sources (Page et al. 2009a, Breeding).

Along the west coast of the United States, the nesting season of the western snowy plover extends from early March through late September. The breeding season may be 2 to 4 weeks earlier in southern California than in Oregon and Washington. Fledging (reaching flying age) of late-season broods may extend into the third week of September throughout the breeding range (Service 2007, p. 11).

The approximate periods required for western snowy plover nesting events are: 3 days to more than a month for scrape construction (in conjunction with courtship and mating), usually 4 to 5 days for egg laying, and incubation averaging 28.4 days in the early season (before May 8) to 26.9 days in the late season (Warriner et al. 1986, pp. 23–24). The usual clutch size is three eggs with a range from two to six (Page et al. 2009a, Breeding). Both sexes incubate the eggs, with the female tending to incubate during the day and the male at night (Warriner et al. 1986, pp. 24–25). Adult western snowy plovers frequently will attempt to lure people and predators from hatching eggs and chicks with alarm calls and distraction displays.

Western snowy plover chicks are precocial, leaving the nest with their parents within hours after hatching (Service 2007, p. 14). They are not able to fly for approximately 1 month after hatching; fledging requires 29 to 33 days (Warriner et al. 1986, p. 26). Broods rarely remain in the nesting area until fledging (Warriner et al. 1986, p. 28; Lauten et al. 2010, p. 10). Casler et al. (1993, pp. 6, 11–12) reported broods would generally remain within a 1-mile radius of their nesting area; however, in some cases would travel as far as 4 miles.

Wintering

In winter, western snowy plovers are found on many of the beaches used for nesting, as well as beaches where they do not nest. They also occur in man-made salt ponds and on estuarine sand and mud flats. In California, the majority of wintering western snowy plovers concentrate on sand spits and dune-backed beaches. Some also occur on urban and bluff-backed beaches, which they rarely use for nesting (Page and Stenzel 1981, p. 12; Page et al. 1986, p. 148). South of San Mateo County, California, wintering western snowy plovers also use pocket beaches at the mouths of creeks and rivers on otherwise rocky (Page et al. 1986, p. 148). Western snowy plovers forage in loose flocks. Roosting western snowy plovers will sit in depressions in the sand made by footprints and vehicle tracks, or in the lee of kelp, driftwood, or low dunes in wide areas of beaches (Page et al. 2009b, Behavior). Sitting behind debris or in depressions provides some shelter from the wind and may make the birds more difficult for predators to detect.

Rangewide Status

Historical records indicate that nesting western snowy plovers were once more widely distributed and abundant in coastal Washington, Oregon, and California (Service 2007, p. 21). In Washington, western snowy plovers formerly nested at five coastal locations (Washington Department of Fish and Wildlife 1995, p. 14) and at over 20 sites on the coast of Oregon (Service 2007, p. 24). In California, by the late 1970s, nesting western snowy plovers were absent from 33 of 53 locations with breeding records prior to 1970 (Page and Stenzel 1981, p. 27).

The first quantitative data on the abundance of western snowy plovers along the California coast came from window surveys conducted during the 1977 to 1980 breeding seasons by Point Reyes Bird Observatory (Page and Stenzel 1981, p. 1). Observers recorded an estimated 1,593 adult western snowy plovers during these pioneering surveys. The results of the surveys suggested that the western snowy plover had disappeared from significant parts of its coastal California breeding range by 1980 (Service 2007, p. 27).

Breeding season and winter window survey data from 2005 to 2017 includes approximately 250 sites in Washington, Oregon, and California, with the majority of the sites located in California. In California, 1,807 western snowy plovers were counted during the 2016 breeding window survey, and 3,8021 western snowy plovers were counted during the 2016 to 2017 winter window survey (Service 2016, 2017). Across the Pacific coast range, the 2016 breeding window survey estimated 2,284 western snowy plovers, and the 2016 to 2017 winter window survey estimated 4,214 western snowy plovers in Washington, Oregon, and California (Service 2016, 2017). These numbers demonstrate that a large percentage of all western snowy plovers in the Pacific coast range were counted in California during both winter and breeding window surveys.

1 This number likely includes wintering inland birds that are not part of the listed Pacific coast population.

Table 2. Pacific Coast western snowy plover breeding window survey results, in descending order 2019 to 2005, for each recovery unit (RUl through RU6) and the U.S. Pacific coast (excludes the Baja California peninsula). All counts are breeding age adults and are uncorrected (raw). Recovery Units are RU1: Washington and Oregon; RU2: Northern California; RU3: San Francisco Bay; RU4: Monterey Bay area; RU5: San Luis Obispo area; RU6: San Diego area (Service 2019, p. 3).

Year	*RU1-*	*RU2*	*RU3*	*RU4*	*RU5*	*RU-6*	*TOTAL (U.S. Pacific Coast)*
2019	479	41	190	303	807	397	2,217
2018	402	52	235	361	874	451	2,375
2017	342	56	246	369	856	464	2,333
2016	477	46	202	366	820	373	2,284
2015	340	38	195	348	963	376	2,260
2014	269	27	178	374	822	346	2,016
2013	260	23	202	261	754	326	1,826
2012	234	21	147	324	771	358	1,855
2011	202	28	249	311	796	331	1,917
2010	196	19	275	298	686	311	1,785
2009	182	15	147	279	707	257	1,587
2008	147	18	133	257	717	269	1,541
2007	175	26	207	270	676	183	1,537
2006	158	45	102	357	917	298	1,877
2005	137	41	124	337	969	209	1,817

Critical Habitat

The phrases “primary constituent elements” (PCEs) and “physical and biological features” (PBFs) are synonymous. Critical habitat rules published before February 11, 2016, used the term PCE, while critical habitat rules published after that date use the term PBF. In cases where a critical habitat rule numbers PCEs specifically (e.g., PCE-1, PCE 1), we will use the terms as defined in the critical habitat designation to avoid confusion.

The current critical habitat designation (77 FR 36727) includes 60 units totaling 24,527 acres in Washington, Oregon, and California. The primary constituent elements (PCEs) of critical habitat (77 FR 367474) for the western snowy plover include sandy beaches, dune systems immediately inland of an active beach face, salt flats, mud flats, seasonally exposed gravel bars, artificial salt ponds and adjoining levees, and dredge spoil sites, with:

1) Areas that are below heavily vegetated areas or developed areas and above the daily high tides;
2) Shoreline habitat areas for feeding, with no or very sparse vegetation, that are between the annual low tide or low water flow and annual high tide or high water flow, subject to inundation but not constantly under water, that support small invertebrates, such as crabs, worms, flies, beetles, spiders, sand hoppers, clams, and ostracods, that are essential food sources;
3) Surf- or water-deposited organic debris, such as seaweed (including kelp and eelgrass) or driftwood located on open substrates that supports and attracts small invertebrates described in PCE 2 for food, and provides cover or shelter from predators and weather, and assists in avoidance of detection (crypsis) for nests, chicks, and incubating adults; and
4) Minimal disturbance from the presence of humans, pets, vehicles, or human-attracted predators, which provide relatively undisturbed areas for individual and population growth and or normal behavior.

Recovery and Threats

The primary objective of the recovery plan (Service 2007, p. vi) is to remove the Pacific coast population of the western snowy plover from the list of endangered and threatened wildlife and plants by:

1) Increasing population numbers distributed across the range of the Pacific coast population of the western snowy plover;
2) Conducting intensive ongoing management for the species and its habitat and developing mechanisms to ensure management in perpetuity; and
3) Monitoring western snowy plover populations and threats to determine success of recovery actions and refine management actions.

Delisting criteria for the Pacific coast population of the western snowy plover are outlined below (Service 2007, p. vii):

1) An average of 3,000 breeding adults has been maintained for 10 years, distributed among 6 recovery units as follows: Washington and Oregon, 250 breeding adults; Del Norte to Mendocino Counties, California, 150 breeding adults; San Francisco Bay, California, 500 breeding adults; Sonoma to Monterey Counties, California, 400 breeding adults; San Luis

Obispo to Ventura Counties, California, 1,200 breeding adults; and Los Angeles to San Diego Counties, California, 500 breeding adults. This criterion also includes implementing monitoring of site-specific threats, incorporation of management activities into management plans to ameliorate or eliminate those threats, completion of research necessary to modify management and monitoring actions, and development of a post-delisting monitoring plan.

2) A yearly average productivity of at least one (1.0) fledged chick per male has been maintained in each recovery unit in the last 5 years prior to delisting.
3) Mechanisms have been developed and implemented to assure long-term protection and management of breeding, wintering, and migration areas to maintain the subpopulation sizes and average productivity specified in Criteria 1 and 2. These mechanisms include establishment of recovery unit working groups, development and implementation of participation plans, development and implementation of management plans for Federal and State lands, protection and management of private lands, and public outreach and education.

Our current estimate (2,217 breeding adults) remains below the population size of 3,000 birds listed as a recovery objective in the recovery plan (Service 2007), although some local population sizes have surpassed recovery objectives for some areas (e.g., Monterey Bay, Oregon-Washington). Yearly average productivity (Criterion 2; number of fledglings/per male) are not compiled annually for the entire U.S. Pacific coast; however, the best available information indicates that the yearly average productivity has not been met (Service 2019, p. 6).

Threats to the western snowy plover include widespread habitat loss and degradation attributed to human disturbance, urban development, introduced beachgrass, and expanding predator populations. Efforts to improve habitat at current and historical breeding beaches, and efforts to reduce the impacts of human recreation and predation on nesting plovers, have improved plover numbers. Active vegetation and predator management and habitat restoration should be continued. Because of active management efforts, including increased monitoring, use of predator exclosures at some sites, predator management, and expanded beach closures, western snowy plover population numbers have increased at some locations. However, despite active vegetation and predator management, ongoing and projected changes in sea level and climate is expected to affect coastal habitat suitability, nest survival, overwinter survivorship, and quality of nesting and roosting habitats (Service 2019, p. 7).

Western Snowy Plover Critical Habitat

The final rule for western snowy plover critical habitat describes the physical and biological attributes that are essential to the conservation of the species, activities that could adversely affect critical habitat areas, and the specific areas designated as critical habitat. Hollywood

Beach is included in critical habitat unit CA 19 (Oxnard Lowlands), subunit CA 19A (Mandalay Beach to Santa Clara River) and extends into the proposed action area of this project (Figure 1).

The primary constituent elements of critical habitat for the western snowy plover have been defined as those habitat components that are essential for the primary biological needs of foraging, nesting, rearing of young, roosting, and dispersal, or the capacity to develop those habitat components. The constituent elements are found in areas that support or have the potential to support intertidal beaches, associated dune systems, and estuaries. Important components of the beach/dune/estuarine ecosystem include surf-cast kelp, sparsely vegetated foredunes, interdunal flats, spits, washover areas, blowouts, intertidal flats, salt flats, and flat rocky outcrops. Several of these components (sparse vegetation, salt flats) are mimicked in artificial habitat types used less commonly by western snowy plovers (i.e., dredge spoil sites, salt ponds, and adjoining levees). The suitability of areas containing the features listed above is also contingent upon isolation from human disturbance and predation. These attributes are considered essential to the conservation of the coastal population of the western snowy plover (70 FR 56970).

ENVIRONMENTAL BASELINE

The implementing regulations for section 7(a)(2) (50 CFR 402.02) define the environmental baseline as "the condition of the listed species or its designated critical habitat in the action area, without the consequences to the listed species or designated critical habitat caused by the proposed action. The environmental baseline includes the past and present impacts of all Federal, State, or private actions and other human activities in the action area, the anticipated impacts of all proposed Federal projects in the action area that have already undergone formal or early section 7 consultation, and the impact of State or private actions which are contemporaneous with the consultation in process. The consequences to listed species or designated critical habitat from ongoing agency activities or existing agency facilities that are not within the agency's discretion to modify are part of the environmental baseline."

Action Area

The implementing regulations for section 7(a)(2) of the Act (50 CFR 402.02) define the "action area" as all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action. The action area for this biological opinion is the Channel Islands Harbor federal dredge template, Hollywood Beach, including potential impact area immediately adjacent to the dredge template due to slope failure of the dredge cut boundaries, the potential restoration area and Hueneme Beach. The entire action area encompasses approximately 60 acres and will depend on the amount of submerged emerged material accepted by the receiver area. Of that, 60 acres, the action may impact 26.94 acres of habitat used by listed species. The potential impact area is 200 feet on each side of sand trap area D (Figure 1). This

200-foot buffer is the coastal engineering projection of potential impacts due to the increased dredge quantity, comprising 10 acres. (Figures 1 and 2). The receiver beach of the dredged material is Hueneme Beach, a southern downcoast beach and adjacent to Point Mugu. The beach is constructed during bi-annual dredge cycles. Listed species and habitat are not known to occur in that area. The additional quantity of sand dredged will be reciprocally placed onto Hueneme Beach (Figure 2).

Hollywood Beach is located in the city of Oxnard and is adjacent to Channel Islands Harbor. Harbor structural features consist of a detached breakwater, entrance jetties, and an entrance channel leading to the harbor interior. The offshore detached breakwater and entrance jetties form a sand trap. A series of sand dunes ranging from 2 to 7 feet tall are located on northeast border of the sand trap. The sand dunes, the harbor jetty, and the shoreline leave the sand trap area relatively isolated from human activity compared to the rest of the beach. This makes the sand trap area proposed for dredging an ideal breeding location for the California least tern and western snowy plover.

Approximately 13.47 acres of the sand trap area at Hollywood Beach lie within unit CA-19A of western snowy plover designated critical habitat (70 FR 56970).

Habitat Characteristics of the Action Area

The action area includes open water and sandy beaches, and dune systems immediately inland of an active beach face with areas that are below heavily vegetated areas or developed areas and above the daily high tides. There is shoreline habitat for feeding, with no or very sparse vegetation, that are between the annual low tide or low-water flow, subject to inundation but not constantly under water, that supports small invertebrates, such as crabs, worms, flies, beetles, spiders, sand hoppers, clams, and ostracods, that are essential food sources. Surf- or water-deposited organic debris, such as seaweed or driftwood are routinely located on open substrates that supports and attracts small invertebrates for food, and provides cover or shelter from predators and weather, and assists in avoidance of detection for nests, chicks, and incubating adults.

Beach grass (*Ammophila breviligulata*) is present in the restoration site. This species provides high cover for predators and its presence may increase predation risk to shorebirds.

Existing Conditions in the Action Area

Maintenance dredging is routinely conducted within the dredge template at Channel Island Harbor (Figure 1). The required dredging is accomplished in biennial dredging cycles. Each dredging cycle has removed up to 2.0 million cubic yards of material from the Channel Islands Harbor dredge template. To avoid potential direct impacts on protected federal trust resources,

no dredging activity is conducted in the sand trap area, adjacent to Hollywood Beach, from March 1 through September 30.

By the end of each two-year dredge cycle, sand builds up in the sand trap extending the existing beach, sand buildup has narrowed the channel into Channel Islands Harbor, and the down coast beaches have lost sand. The northern end of Hueneme Beach erodes back to the revetment fronting city property. The dredging cycle is maintained at two years to provide the maximum benefit with minimum environmental impacts.

Figure 3 illustrates the dynamic nature of beachfront in the sand trap both within and between dredge cycles. Sand builds up in the off-dredge years according to littoral and cross shore deposition (yellow dashed line) and is subsequently dredged out the following year. The amount dredged out is dependent on quantity of available sand and the amount of funding designated for that year's dredge cycle.

Humans frequently recreate on the beach surrounding the action area and sometimes dogs are present. The primary constituent elements for the western snowy plover within the project area include the presence of surf-cast kelp, sparsely vegetated foredunes, interdunal flats, spits, washover areas, and intertidal flats. Currently, much of unit CA-19A is subject to beach grooming conducted by the County of Ventura Harbor District, which removes surf-cast kelp, vegetation, and re-contours foredunes on a periodic basis. Additionally, this unit is subject to disturbance from human recreational use on a regular basis. According to information provided in the critical habitat designation (70 FR 56970), the role of this unit in the conservation of the western snowy plover consists of providing wintering and nesting habitat.

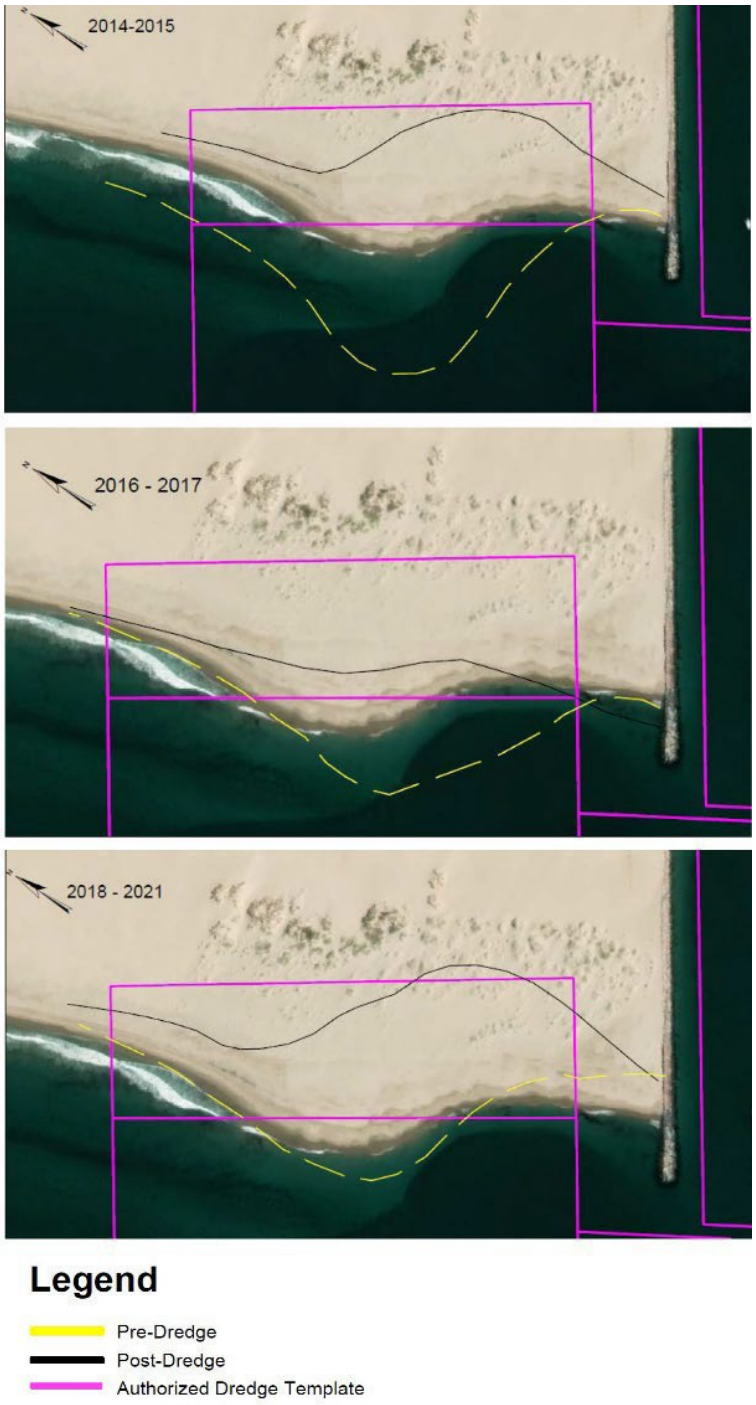

Figure 3. Aerial images of sand trap accretion and erosion including slope failure and sloughing over the last three dredge cycles, Hollywood Beach, California. Authorized dredge template is overlaid to illustrate the extent of beachfront buildup and retreat (Corps 2022).

Condition (Status) of the Species in the Action Area

California least tern

California least tern utilize Hollywood Beach and the component sand traps. California least tern demonstrate site fidelity to previous nesting areas and have reoccupied the sand trap in off-dredge years when the sand trap beach has built up (Figure 4). Specifically, the last years that least terns attempted to nest at Hollywood beach were 2013 and 2014, when dredging did not occur, and the sand trap beach was much larger than in dredge years. In 2013 and 2014, 209 and 120 nests were initiated, and 31 and 29 fledglings were observed in each respective year (Barringer 2013,2014). Since dredging resumed in 2015, terns have not been known to nest at Hollywood beach. Use of the site has continued but nesting has not occurred (Barringer 2021).

Recovery

The action area is identified in the recovery plan, is designated breeding habitat, and terns have historically bred on Hollywood Beach. Nests were typically discovered next to or within the action area when Corps did not dredge in the previous winter, which is inclusive of the only preferred habitat on the beach (i.e. native plants; Figure 4). Degradation of the habitat and the potential losses of nesting habitat may impede the recovery of the California least tern. The lack of nesting behavior on Hollywood Beach since 2014 is evidence of the potential impact of this project on recovery.

Western snowy plover

Weekly surveys conducted since 2003 indicate the area provides important migrating, nesting, foraging, resting and winter roosting western snowy plover habitat (Barringer 2021). Western snowy plovers are regularly observed in within and surrounding the action area (Figures 5 and 6). The number of nests initiated at Hollywood Beach was 3 to 4 times greater in 2013 and 2014 (27-30 nests) when the dredging had not occurred for 2 and 3 years respectively, and when the sand trap beach was much larger than in dredge years. When dredging resumed in 2015 nesting attempts declined (5-10 nests; Figure 7).

Recovery

The action area is in western snowy plover Recovery Unit 5 of the recovery plan and is designated breeding and over-wintering habitat. Western snowy plovers have attempted to breed on Hollywood Beach each year between 2003-2022 (Barringer 2021, p. 10, Hartley and Barringer 2022, p. 6). Nests are typically discovered next to or within the action area, which is inclusive of the only preferred habitat on the beach (i.e. native plants; Figures 5 and 6). Recent data show that an increasing number of birds are attempting to nest to the west of the action area

on unvegetated beach that lack food resources (Barringer 2021 p. 10). This may be due to reoccurring disturbances occurring next to or within the action area.

Monitoring data indicate that the area may provide important connectivity habitat between northern and southern populations of western snowy plover in October - March. Banded birds sighted in and around the action area during winter surveys primarily originated from Monterey County, Humboldt County, and Oregon state (Barringer 2021, p. 9). The continuous/repeating degradation of the habitat and the potential losses of wintering and nesting habitat may impact the recovery of the western snowy plover.

Figure 4. California least tern nest sites 2013-2021 on Hollywood Beach, California (Barringer 2020).

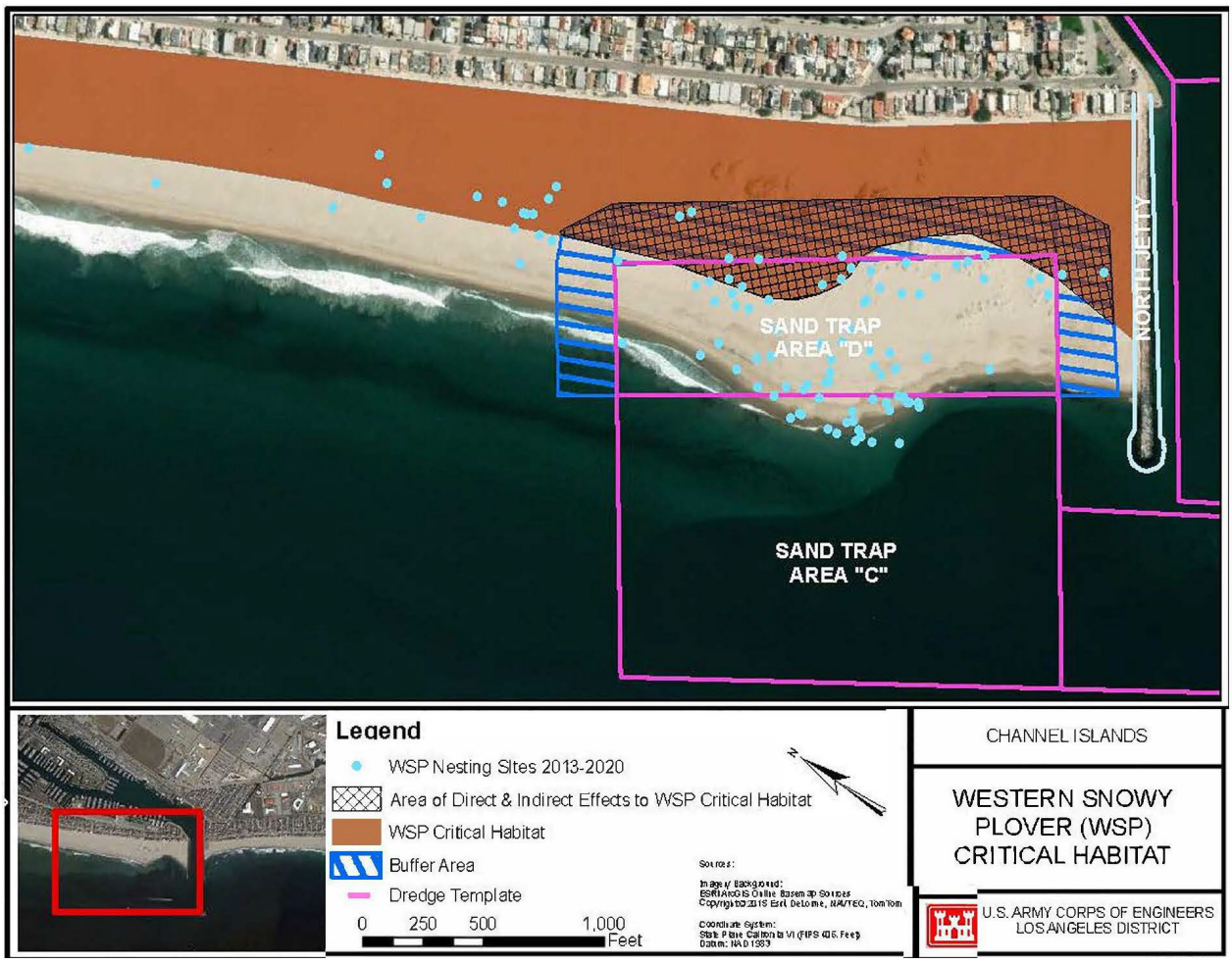

Figure 5. Map illustrating the overlap of the dredge impact area with western snowy plover critical habitat and western snowy plover nest sites from 2013-2020, Hollywood Beach, California.

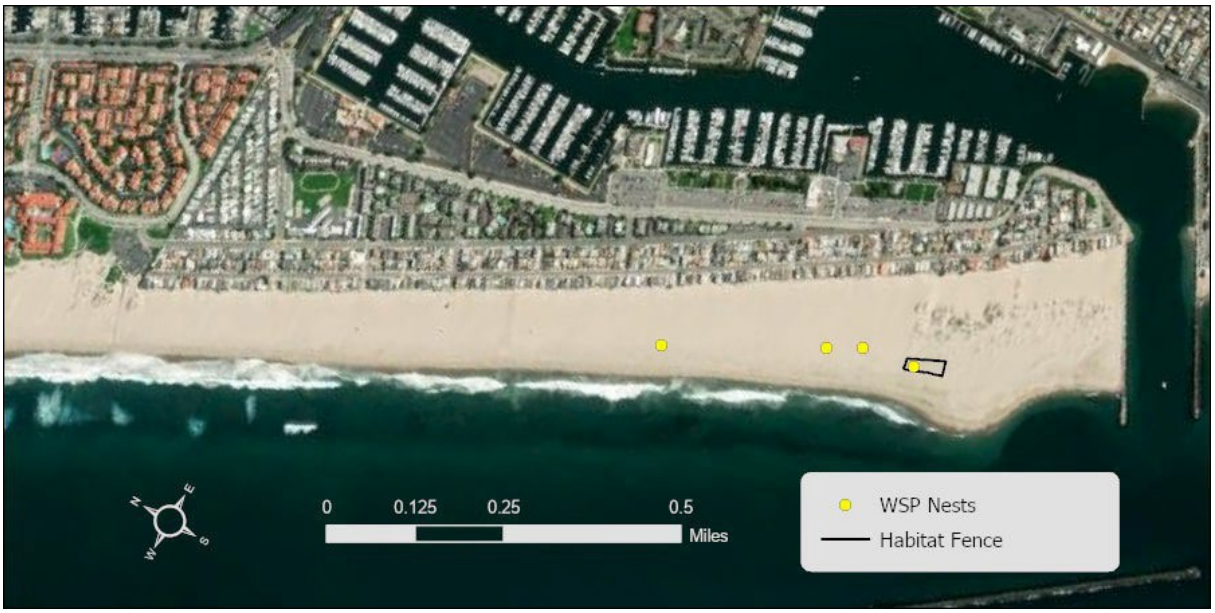

Figure 6. Map illustrating western snowy plover nest sites detected May-June 2022, Hollywood Beach, California (Hartley and Barringer 2022).

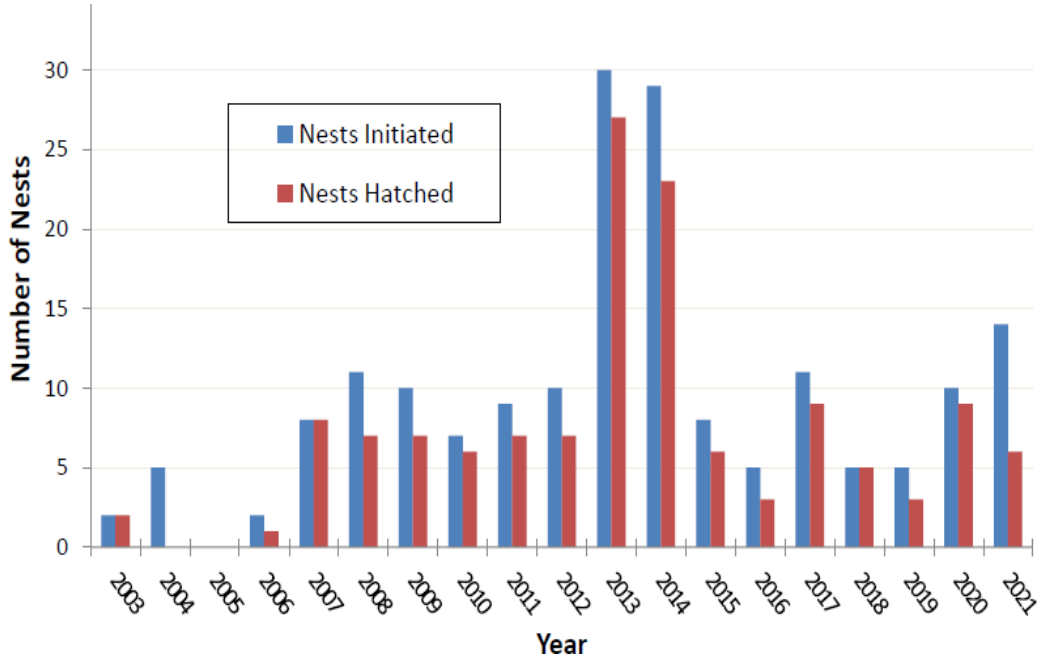

Figure 7. Hollywood Beach, California western snowy plover nest attempts and success 2003-2021 (Barringer 2021).

Condition (Status) of Critical Habitat in the Action Area

Portions of Hollywood Beach are designated as western snowy plover critical habitat and contain the supporting physical and biological features (PBFs) essential to western snowy plover conservation. The historical dredging activity affects critical habitat function, such that habitat quality varies depending on quantity of material dredged, prevailing cross-shore sediment transport and whether the sand trap has been dredged during the dredge cycle (Figure 3).

EFFECTS OF THE ACTION

The implementing regulations for section 7(a)(2) define effects of the action as "all consequences to listed species or critical habitat that are caused by the proposed action, including the consequences of other activities that are caused by the proposed action. A consequence is caused by the proposed action if it would not occur but for the proposed action and it is reasonably certain to occur. Effects of the action may occur later in time and may include consequences occurring outside the immediate area involved in the action" (50 CFR 402.02).

In conducting this analysis, we have considered factors such as previous consultations, Federal Register rules, National Environmental Policy Act documents, published scientific studies and literature, professional expertise of Service personnel, in determining whether effects are reasonably certain to occur. We have also determined that certain consequences are not caused by the proposed action, such as the increase or spread of disease, poaching, or collecting, because they are so remote in time, or geographically remote, or separated by a lengthy causal chain, so as to make those consequences not reasonably certain to occur.

Effects of the Proposed Action on the California Least Tern

<u>Effects in September through February</u>

California least terns are not expected to be in the action area while project activities are taking place because they are typically absent from California breeding sites between September and February.

<u>Beach Disturbance Effects</u>

The increased dredge quantity removed in this project may result in increased loss of potential breeding and roosting habitat for California least tern when they return to breeding sites in March. Specifically, additional material taken from Sand trap "D" may reduce the size of the beach more than is typically done in bi-annual dredge cycles (Figure 3).

The species exhibits high nest site fidelity and have attempted to breed in the action area in the past (Figure 4). The action area and immediate surrounding area contains the only native vegetation on Hollywood Beach and is historically the preferred nesting area. Disturbance of this area, including potential slope failure outside of the action area and resulting disturbance to native vegetation and cover, may increase predation risk, likelihood that adults choose to nest, quality of nesting sites, nest outcome and/or chick survival. If birds choose not to nest, the reproductive potential for the species in that area will be zero for that year. If adults choose to nest near the action area and outside of the area impacted by slope failures, it will place them closer to either the beach grass or the jetty. Both areas are more likely to conceal predators and increase predation risk to eggs, chick and adults could increase. This would reduce the number of California least terns in the region.

Effects of the Proposed Action on the Western Snowy Plover

Effects in September through February

Disturbances of the open water and beach in the action area may impact foraging and resting behaviors of western snowy plover. Disturbed foraging or resting plovers could deplete energy otherwise used to improve biological fitness (Lafferty 2001, p. 323). When beach use is high, western snowy plovers will suspend feeding and remain motionless in the roosting area. If the disturbance continues, roosting plovers become alert, begin to walk away, and supplant each other from the depressions where they sit. They may elevate their wings or bob as a sign of distress and may eventually run or take flight. If put to flight, flocks' wheel back and forth for several minutes in tight low altitude formations. After landing, they remain nervous and will take wing with little prompting (Lafferty 2001, pp. 319-322). The western snowy plover's reaction to disturbance may reduce their ability to effectively forage and maintain enough fat reserves to successfully reproduce and cause them to expend additional energy on actions besides foraging/survival.

The proposed activities such as material dredging and dune restoration may reduce reproductive success because other studies show that shorebirds may experience reduced reproductive success when disturbances increase. Lafferty (2001) studied the piping plover (which is ecologically similar to the western snowy plover) and found reduced reproductive success in areas with high human disturbance because of reduced foraging efficiency and the depletion of fat reserves (Flemming et al. 1988, p. 329). In areas where people were absent, piping plovers spent 90 percent of their active time feeding. In areas where people were common, the birds spent less than 50 percent of their active time feeding (Burger 1994). Thus, the presence of people engaging in typical activities resulted in birds expending energy in movement, flight, or vigilance, leading to reduced foraging time and depletion of energy reserves. Further, Lafferty et al. (2006; p. 2223) found that disturbance reduction increased breeding attempts in western snowy plovers. Similar effects are expected to occur in western snowy plovers because of the

increased duration of dredging activity and the proposed dune restoration effort. While these effects already occur as part of ongoing dredge activities and are not new, the increased dredge volume is expected to prolong the duration of effects, and thus increase the impacts to individual birds. Further, the proposed dune restoration would necessitate frequent presence of people at the site and a period of heavy equipment use. Any western snowy plovers present during implementation of the proposed action (including dredging, placement activities and dune restoration) are expected to display the energy intensive behaviors described above. It is also possible that western snowy plovers may be injured or killed as a result of heavy equipment used in the proposed dune restoration effort although the use of monitors at the site is intended to reduce that risk.

During the September to February period, the dredging activity will remove sand, depleting the beach and thus depleting and altering the potential foraging area for the species. While this is unlikely to reduce food availability, as the wrack will occur on the beach regardless of the dredging, there may be some effect on western snowy plover behavior as a result of this loss of beach.

March to August Effects

The increased dredge quantity removed in this project, would result in more beach removed, which would result in temporary increased loss of potential breeding habitat for western snowy plover when they return to breeding sites in March. Specifically, additional material taken from sand trap "D" may reduce the size of the beach more than is typically done in bi-annual dredge cycles (Figure 3). When dredging concludes, material from northern beaches will be naturally moved by the tides, will fill sand trap "D" over time and reconstitute the beach.

Migrating western snowy plover must endure long flight distances and conditions between their wintering and breeding areas and are physiologically stressed when they arrive at their breeding areas. Disturbances at breeding areas from the construction vehicles and workers may not allow birds to rest and recover sufficiently to complete their reproductive cycle. For example, Guglielmo et al. (2001) found that migrating western sandpipers (*Calidris mauri*) frequently do not gain mass in the first days after arrival at breeding areas because they expend significant energy locating feeding areas that are safe and resource-rich. Birds that forage slowly or ineffectively may not build the requisite fat reserves that are critical to migrants with depleted survival and reproductive capabilities (Flemming et al. 1988, p. 329). Lafferty (2006, p. 2223) found that disturbance protection improves breeding habitat suitability, so conversely, the disturbances in the action area will likely degrade breeding habitat suitability.

The species exhibits high nest site fidelity (Patton and Edwards 1996) and have attempted to breed in the action area in the past (Figures 5 and 6). The action area and immediate surrounding area contains the only native vegetation on Hollywood Beach and is historically the preferred

nesting area. Disturbance of this area could include potential slope failure because of increased dredging, which may occur outside of the action area (Figure 1). The resulting disturbance to native vegetation may decrease food availability, the quality of the nesting site, nest outcome and/or chick survival. Alternatively, birds may choose to nest further from native vegetation to avoid high density nesting conspecifics in historical nesting areas, but may unintentionally place nests too far from the food sources required by chicks (i.e. insects found in native vegetation). Nests placed to avoid the action area could lead to increased chick mortality due to reduce food availability near to the nest, energy expenditures in locating food away from the nest, and risk of trampling by people when traveling from the nest to food (Barringer 2021).

Effects on Recovery

California Least Tern

The California least tern recovery plan (Service 1985) states that habitat loss and disturbances on California beaches is the largest threat to the species. To reach recovery, suitable habitat of sufficient size must be available for nesting purposes; foraging, roosting and wintering habitat must be preserved and properly managed. Recovery actions proposed in the action area will include actions that would reduce disturbances to nesting habitat such as symbolic fencing, increased suitable nesting and foraging habitat area such as the proposed dune restoration effort, and reduced predation on adults and chicks such as the use of predator exclosures around nests.

The proposed dredging action will physically reduce the area of available habitat for nesting and foraging, increasing competition for high-quality nesting sites at Hollywood Beach. Depleting nesting areas tend to reduce the species' chances of recovery.

Western Snowy Plover

The western snowy plover recovery plan (Service 2007) states that habitat degradation caused by human disturbances and expanding predator populations have resulted in a decline in active nesting areas and in the size of the breeding and wintering populations. To reach recovery, populations must reach an average of 3,000 breeding adults for 10 years, a yearly average productivity of at least one fledged chick per male has been maintained in each recovery unit in the last 5 years, and mechanisms have been developed and implemented to assure long-term protection and management of breeding, wintering, and migration areas to maintain the subpopulation sizes and average productivity described above. Recovery actions proposed in the action area will include actions that would reduce disturbances to nesting habitat such as symbolic fencing, increased suitable nesting and foraging habitat area such as the proposed dune restoration effort, and reduced predation on adults and chicks such as the use of predator exclosures around nests.

The proposed action increases will physically reduce the area of available habitat for winter nesting, foraging, and resting. This will increase competition for high-quality nesting sites at Hollywood Beach and may reduce nesting and fledging success and thus population size. Depleting these critical resources will tend to reduce the species' chances of recovery.

Effects of the Proposed Action on Critical Habitat of Western Snowy Plover

The proposed action will temporarily render approximately up to 13.47 out of 672 acres in unit CA 38 of western snowy plover critical habitat unusable by the species by removing the PBFs. The additional dredging of the sand trap area will remove additional habitat that includes surf-cast kelp, sparsely vegetated foredunes, an interdunal flat, a washover area, and intertidal flats. In off-dredge years, the sand trap accretes and builds beachfront and a PBFs that were previously removed during dredging return to the action area. The additional dredge quantity of 500,000 cubic yards on top of the historical 2,000,000 cubic yards is expected to increase the damage to critical habitat above what is usually observed in dredge years. This damage may be more extensive in scale and impact native plants not typically impacted by dredging. The native plants may not recover to their historic status before dredging occurs again, which may degrade the historic damage and recovery cycle established at the site.

CUMULATIVE EFFECTS

Cumulative effects include the effects of future State, tribal, local or private actions that are reasonably certain to occur in the action area considered in this biological opinion. We do not consider future Federal actions that are unrelated to the proposed action in this section because they require separate consultation pursuant to section 7 of the Act.

Recreational activities are likely to frequently occur in the action area. The presence of humans and canines can have negative impacts on shorebird abundance likely because those birds that remain must spend more energy on vigilance and escape at the expense of foraging and rest (Lafferty 2001, p. 319). These recreational activities are likely to decrease shorebird abundance and nesting success either directly (via crushing or death of birds or eggs) or indirectly (via disturbance).

CONCLUSION

The regulatory definition of "to jeopardize the continued existence of the species" focuses on assessing the effects of the proposed action on the reproduction, numbers, and distribution, and their effect on the survival and recovery of the species being considered in the biological opinion. For that reason, we have used those aspects of the California least tern and western snowy plover statuses as the basis to assess the overall effect of the proposed action on the species.

California Least Tern

Reproduction

Though adverse effects are likely, we anticipate project-related adverse effects to nesting California least terns would be minimal and temporary, with pre-project conditions returning in 2024 or 2025. We expect that the proposed action would not appreciably reduce the reproductive capacity of the California least tern in Ventura County or rangewide.

Numbers

The proposed activities have a potential to contribute to the loss of individual California least tern eggs, chicks, or adults during the breeding season; however, based on results of past reporting, this loss would represent a very small portion of California least tern numbers over time. The California least tern population in the action area accounts for a small percentage of nesting adults in the range. We expect that the proposed action would not appreciably reduce the numbers of California least terns rangewide.

Distribution

This project will not appreciably change breeding area locations. There will be no change in distribution of the species as a result of this action.

Recovery

Though Hollywood Beach has not achieved its recovery goals, and has not recorded breeding terns in recent years, the rangewide numbers of California least terns have exceeded recovery goals of 1.0 fledgling per breeding pair for an overall population increase.

We expect this action may preclude successful breeding within the action area in 2023. However, consequences of the proposed action would not appreciably interfere with recovery goals or overall recovery of the California least tern because the species has not nested in the area in recent years under existing conditions.

After reviewing the current status of the California least tern, the environmental baseline for the action area, the effects of the proposed increased dredging quantity and the cumulative effects, it is the Service's biological opinion that the increased dredging quantity as proposed, is not likely to jeopardize the continued existence of the California least tern because:

1) The project would have a locally moderate, but rangewide minimal effect on reproduction of the species but would not appreciably reduce reproduction of the species

rangewide.
2) The project would cause a low decrease in the number of individuals.
3) The project would not reduce the species' distribution rangewide.
4) The project would not cause any effects that would preclude our ability to recover the species.

Western Snowy Plover

Reproduction

Though adverse effects are likely, we anticipate project-related adverse effects to nesting western snowy plovers would be temporary and moderate, with pre-project conditions returning 2024 or 2025. We expect that the proposed action would not appreciably reduce the reproductive capacity of the western snowy plover in Ventura County or rangewide.

Numbers

The proposed activities have a potential to contribute to the loss of individual western snowy plover eggs, chicks, or adults during the breeding season, but it is unknown how the reduction in wintering and breeding habitat will impact individual survival. When workers are present on the beach, the birds might flush more often, and this could lead to a reduction in fitness via increase in energy expenditure. However, we anticipate project-related adverse effects would be temporary and consequences to western snowy plovers due to the proposed action will be small relative to other impacts experienced in the region due to predation and disturbance.

RU5 comprises nearly 40 percent of breeding western snowy plovers rangewide, and we expect these sites within RU5 will continue to be managed and monitored. We expect that effects of the proposed action would not appreciably reduce the numbers of western snowy plovers rangewide.

Distribution

We expect that effects of the proposed action may have a low and temporary effect on the distribution of western snowy plovers, and therefore the proposed action would not appreciably reduce the distribution of western snowy plovers rangewide.

Recovery

Hollywood Beach represents a small portion of expected breeding pairs in the RU5 region (Service 2007). A reduction of successfully fledged chicks in this area, and reduced fitness in adult birds as a consequence of the proposed action, if temporary, would not appreciably interfere with recovery goals or overall recovery of the western snowy plover.

After reviewing the current status of the western snowy plover, the environmental baseline for the action area, the effects of the proposed increased dredging quantity and the cumulative effects, it is the Service's biological opinion that the increased dredging quantity as proposed, is not likely to jeopardize the continued existence of the western snowy plover because:

1) The project would have a locally moderate, but rangewide low effect on reproduction of the species but would not appreciably reduce reproduction of the species rangewide.
2) The project would cause a low decrease in the number of individuals.
3) The project would not reduce the species' distribution rangewide.
4) The project would not cause any effects that would preclude our ability to recover the species.

Western Snowy Plover Critical Habitat

The regulatory definition of "adverse modification" focuses on assessing if the proposed action will result in alterations that appreciably reduce the value of critical habitat for the conservation of a listed species. This includes assessing the impacts of the proposed action on the physical or biological features essential to the conservation of a listed species or assessing if those alterations preclude or significantly delay development of such features. For that reason, we have used those aspects of the western snowy plover critical habitat status as the basis to assess the overall effect of the proposed action on the critical habitat.

The proposed action will reduce the quality and quantity of the various physical and biological features (surf-cast kelp, sparsely vegetated foredunes, interdunal flats, spits, washover areas, and intertidal flats) required by western snowy plover within 13.47 acres of designated critical habitat. The reductions will likely be temporary, because 1) the open water disturbance is a single occurrence; and 2) sand tends to backfill the Sand Trap D area where beach, habitat and invertebrate prey currently occur. However, data pictured in Figure 3 pictures how the beach recovers after the historical dredging of 2,000,000 cubic yards. The additional dredge quantity of 500,000 cubic yards on top of the historical dredging may increase the damage to critical habitat, the time to recover PBFs in the critical habitat, and the likelihood of complete recovery of PBFs in the action area.

After reviewing the current status of the critical habitat of western snowy plover, the environmental baseline of critical habitat for the action area, the effects of the proposed increased dredge on critical habitat, and the cumulative effects, it is the Service's biological opinion that dredging increased quantity as proposed, is not likely to result in the destruction or adverse modification of critical habitat of the western snowy plover because:

1. The project would have a moderate effect on the various physical and biological features on Hollywood Beach, which are areas below heavily vegetated areas above the daily high

tides that include essential food sources and nesting beach habitat and native plant and invertebrate food resources.

2. The project would have a low effect on the conservation value and function of critical habitat, due to the likely recovery of the nesting habitat and shoreline habitat areas for feeding with no or very sparse vegetation that are between the annual low tide or low water flow and annual high tide or high water flow.

INCIDENTAL TAKE STATEMENT

Section 9 of the Act and Federal regulation pursuant to section 4(d) of the Act prohibit the take of endangered and threatened wildlife species, respectively, without special exemption. Take is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct. Harm in the definition of "take" in the Act means an act which actually kills or injures wildlife. Such [an] act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering (50 CFR 17.3). Under the terms of section 7(b)(4) and section 7(o)(2), taking that is incidental to and not the purpose of the agency action is not considered to be prohibited taking under the Act provided that such taking is in compliance with the terms and conditions of this incidental take statement.

AMOUNT OR EXTENT OF TAKE

We anticipate that some California least terns and western snowy plovers could be taken as a result of the proposed action. We expect the incidental take to be in the form of harm or kill.

We cannot quantify the precise number of California least terns and western snowy plovers that may be taken as a result of the action that the Corps has proposed because California least terns and western snowy plovers move over time; for example, animals may have entered or departed the action area since the time of pre-construction surveys. Other individuals may not be detected due to their cryptic nature, small size, and low mobility. In addition, finding a dead or injured California least tern or western snowy plover, particularly a chick once mobile, would be difficult or unlikely. The protective measures proposed by Corps are likely to prevent mortality or injury of most individuals. However, the activities are more likely to disturb and move the animals out of the action area where they cannot be detected by monitors.

Consequently, we are unable to reasonably anticipate the actual number of California least terns and western snowy plovers that would be taken by the proposed action; however, we must provide a level at which formal consultation would have to be reinitiated. The Environmental Baseline and Effects Analysis sections of this biological opinion indicate that adverse effects to California least terns and western snowy plovers would likely be low given the nature of the

proposed activities, and we, therefore, anticipate that take of California least terns and western snowy plovers would also be low. We also recognize that for every California least tern or western snowy plover found dead or injured, other individuals may be killed or injured that are not detected, so when we determine an appropriate take level we are anticipating that the actual take would be higher and we set the number below that level.

Therefore, if three California least tern of any life stage (egg, chick, or adult), or if three western snowy plovers of any life stage (egg, chick, or adult) are found dead or wounded, the Corps must contact our office immediately to reinitiate formal consultation. Project activities that are likely to cause additional take should cease as the exemption provided pursuant to section 7(o)(2) may lapse and any further take could be a violation of section 4(d) or 9.

REASONABLE AND PRUDENT MEASURES

The measure described below is non-discretionary, and must be undertaken by the Corps as appropriate, for the exemption in section 7(o)(2) to apply. The Corps has a continuing duty to regulate the activity covered by this incidental take statement. If the Corps (1) fails to assume and implement the term and condition of the incidental take statement through enforceable terms that are added to the permit or grant document, the protective coverage of section 7(o)(2) may lapse. To monitor the impact of incidental take, the Corps must report the progress of the action and its impact on the species to the Service as specified in the incidental take statement [50 CFR 402.14(i)(3)].

The Service believes the following reasonable and prudent measure is necessary and appropriate to minimize the impacts of the incidental take of California least tern and western snowy plover:

> The 13.47-acre dune restoration activities will be timely and benefit the California least tern and western snowy plover.

TERMS AND CONDITIONS

To be exempt from the prohibitions of section 9 of the Act, the Corps must comply with the following term and condition, which implements the reasonable and prudent measure described above and outline reporting and monitoring requirements. This term and condition is non-discretionary.

> The Corps will present a draft site selection and habitat restoration plan to the Service within 1 year of the project start date. Within 1 year of the Service's acceptance and signature on the final plan, the Corps will complete the restoration of the selected area.

REPORTING REQUIREMENTS

Pursuant to 50 CFR 402.14(i)(3), the Corps must report the progress of the action and its impact on the species to the Service as specified in this incidental take statement.

The Corps must submit a final project report to the Service's Ventura Fish and Wildlife Office via electronic mail within 90 days following completion of the proposed project. The report should be sent to fw8venturasection7@fws.gov and must describe all activities that were conducted under this biological opinion, including activities and conservation measures that were described in the proposed action and required under the term and condition, and discuss any problems that were encountered in implementing conservation measures or term and condition and any other pertinent information. The report must also include the number of California least terns and western snowy plovers observed, and the number killed or injured during project activities, if any, and the dates and times of capture, mortality, or injury.

Additionally, the Corps must submit monitoring reports at the end of the California least tern and western snowy plover breeding seasons by October 30 of 2023 and 2024, and for 5 years post-dune restoration completion. The reports will contain weekly observed abundance estimates, mortality occurrences, nest location (latitude and longitude) and nest fate during the breeding season (March – August), and a map of exclusion fencing and predator fencing placed during nesting season for California least tern and western snowy plover. Annual monitoring reports of the dune restoration will include species of non-native plants removed each year and their approximate area pre-removal, a description of observed native plant mortality and actions taken to optimize native plant coverage for use by California least tern and western snowy plover.

DISPOSITION OF DEAD OR INJURED SPECIMENS

As part of this incidental take statement and pursuant to 50 CFR 402.14(i)(1)(v), upon locating a dead or injured California least tern or western snowy plover, initial notification within 3 working days of its finding must be made by telephone and in writing to the Ventura Fish and Wildlife Office (805-644-1766). The report must include the date, time, location of the carcass, a photograph, cause of death or injury, if known, and any other pertinent information.

The Corps must take care in handling injured animals to ensure effective treatment and care, and in handling dead specimens to preserve biological material in the best possible state. The Corps must transport injured animals to a qualified veterinarian. Should any treated California least tern and western snowy plover survive, the Corps must contact the Service regarding the final disposition of the animal(s).

The remains of California least terns or western snowy plovers must be placed with educational or research institutions holding the appropriate State and Federal permits, such as

the Western Foundation of Vertebrate Zoology (Contact: Linnea S. Hall,Ph.D., Executive Director, Western Foundation of Vertebrate Zoology, 439 Calle San Pablo Camarillo, CA 93012, (805) 388-9944) or Santa Barbara Natural History Museum (Contact: PaulCollins, Santa Barbara Natural History Museum, Vertebrate Zoology Department, 2559 Puesta Del Sol, Santa Barbara, California 93460, (805) 682-4711, extension 321).

REINITIATION NOTICE

This concludes formal consultation on the action(s) outlined in the request. As provided in 50 CFR 402.16, reinitiation of formal consultation is required where discretionary Federal agency involvement or control over the action has been retained (or is authorized by law) and if: (1) the amount or extent of incidental take is exceeded; (2) new information reveals effects of the agency action that may affect listed species or critical habitat in a manner or to an extent not considered in this opinion; (3) the agency action is subsequently modified in a manner that causes an effect to the listed species or critical habitat not considered in this opinion; or (4) a new species is listed or critical habitat designated that may be affected by the action. In instances where the amount or extent of incidental take is exceeded, the exemption issued pursuant to section 7(o)(2) may have lapsed and any further take could be a violation of section 4(d) or 9. Consequently, we recommend that any operations causing such take cease pending reinitiation.

If you have any questions about this biological opinion, please contact Christina Boser of my staff at 805-677-3342, or by electronic mail at Christina_Boser@fws.gov.

Sincerely,

Stephen P. Henry
Field Supervisor

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APPENDIX C-
NATIONAL MARINE
FISHERIES SERVICE

Dodson, Gabrielle Z CIV USARMY CESPL (USA)

From: Bryant Chesney - NOAA Federal <bryant.chesney@noaa.gov>
Sent: Wednesday, September 14, 2022 9:28 AM
To: Lyons, Kymberly L CIV USARMY CESPL (USA)
Cc: Dan Lawson - NOAA Federal; Martinez-Takeshita, Natalie M CIV USARMY CESPL (USA); Dodson, Gabrielle Z CIV USARMY CESPL (USA)
Subject: Re: [URL Verdict: Neutral]Re: [Non-DoD Source] Re: Channel Islands Harbor Maintenance Dredging

Hi Kym,
I think you captured the main points, and I agree EFH re-initiation is not necessary, but I'm providing a bit more info to provide context on the re-initiation point.
The opinion I shared was that the additional dredging in Area G and associated effects are not substantially different from those analyzed and considered during the previous consultation, and the additional area wouldn't prompt any additional and/or different conservation recommendations. However, it is not entirely accurate to say there are no additional effects (e.g., increased benthic disturbance over multiple acres in Area G).
Pursuant to 50 CFR 600.920(l), the USACE 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. I think the USACE and NMFS have some discretion as to how we interpret 'substantial' revisions, and, combined with our opinion that no additional EFH CRs are necessary, I believe it reasonable to conclude that re-initiation is not necessary. Hope this helps the thought process a bit for other projects in the future.
Thank you for including Area G in the new EA that will be forthcoming, and for the coordination!
Cheers,
Bryant

On Tue, Sep 13, 2022 at 9:04 AM Lyons, Kymberly L CIV USARMY CESPL (USA) <Kymberly.L.Howo@usace.army.mil> wrote:

> Hi Bryant and Dan,
>
> I meant to send this last week, sorry about that. To recap the discussions points:
>
> - EFH re-initiation not necessary for Area G of Channel Islands Harbor dredge template, no additional impacts to EFH.
> - Caulerpa and eelgrass surveys not needed for Area G, keep surveys for entrance channels and basins.
> - Analysis for Area G will be included in new 6-year EA coming next year.
>
> Please let me know if I missed anything –
>
> Thanks,

Kym

From: Bryant Chesney - NOAA Federal <bryant.chesney@noaa.gov>
Sent: Wednesday, August 24, 2022 9:32 AM
To: Dan Lawson - NOAA Federal <dan.lawson@noaa.gov>
Cc: Martinez-Takeshita, Natalie M CIV USARMY CESPL (USA) <Natalie.M.Martinez-Takeshita@usace.army.mil>; Lyons, Kymberly L CIV USARMY CESPL (USA) <Kymberly.L.Howo@usace.army.mil>; Dodson, Gabrielle Z CIV USARMY CESPL (USA) <Gabrielle.Z.Dodson@usace.army.mil>
Subject: [URL Verdict: Neutral]Re: [Non-DoD Source] Re: Channel Islands Harbor Maintenance Dredging

Good morning,

I accepted the invite earlier today. Talk to you next week.

Cheers,
Bryant

On Tue, Aug 23, 2022 at 2:59 PM Dan Lawson - NOAA Federal <dan.lawson@noaa.gov> wrote:

> I think that will work fine for us - let's go with it.
>
> Dan
>
> On Tue, Aug 23, 2022 at 2:13 PM Martinez-Takeshita, Natalie M CIV USARMY CESPL (USA) <Natalie.M.Martinez-Takeshita@usace.army.mil> wrote:
>
> > Hi Dan,
> >
> > That sounds great. How does 930 AM on Wednesday, August 31st sound? If that works for both of you guys we will send over a Webex invite.
> >
> > Natalie
> >
> > ---
> >
> > **From:** Dan Lawson - NOAA Federal <dan.lawson@noaa.gov>
> > **Sent:** Monday, August 22, 2022 6:17 AM

To: Martinez-Takeshita, Natalie M CIV USARMY CESPL (USA) <Natalie.M.Martinez-Takeshita@usace.army.mil>
Cc: Chesney, Bryant <bryant.chesney@noaa.gov>; Lyons, Kymberly L CIV USARMY CESPL (USA) <Kymberly.L.Howo@usace.army.mil>; Dodson, Gabrielle Z CIV USARMY CESPL (USA) <Gabrielle.Z.Dodson@usace.army.mil>
Subject: Re: [Non-DoD Source] Re: Channel Islands Harbor Maintenance Dredging

Hi Natalie

Bryant and I can offer to schedule a 30 minute meeting sometime the week of Aug 29 to go over any questions you have about both the Channel Islands Harbor and the Santa Barbara Harbor dredging projects. Right now - Wednesday Aug 31 is looking free up through 2:00 PM if that happens to connect with your schedule?

Dan

On Thu, Aug 18, 2022 at 12:45 PM Martinez-Takeshita, Natalie M CIV USARMY CESPL (USA) <Natalie.M.Martinez-Takeshita@usace.army.mil> wrote:

> Thanks Dan!
>
> I have 2 quick questions regarding the previous EFH consultation.
>
> We are all new to the project here on the Corps side and found the existing EA and associated documents are not quite as clear and straightforward regarding part of the dredge template so we wanted to reach out to you to check in and make sure we have coverage to dredge this fall.
>
> I also wanted to go over updating the project based on the new Caulerpa Control Protocols unless you think we should keep it as is for any reason. As of right now the previous EFH consultation/protocol was only to do Caulerpa surveys for the entrance basin “Area E” if dredging is to occur there.
>
> I think we would only need about 15-30 minutes to go over both if we could just virtually meet and show you everything. Would one of you be available for that?
>
> Natalie

From: Dan Lawson - NOAA Federal <dan.lawson@noaa.gov>
Sent: Wednesday, August 17, 2022 8:50 AM
To: Martinez-Takeshita, Natalie M CIV USARMY CESPL (USA) <Natalie.M.Martinez-Takeshita@usace.army.mil>
Cc: Chesney, Bryant <bryant.chesney@noaa.gov>; Lyons, Kymberly L CIV USARMY CESPL (USA) <Kymberly.L.Howo@usace.army.mil>; Dodson, Gabrielle Z CIV USARMY CESPL (USA) <Gabrielle.Z.Dodson@usace.army.mil>
Subject: [Non-DoD Source] Re: Channel Islands Harbor Maintenance Dredging

Hi Natalie

The short answer is that we are running short of staff after a series of changes, and don't have anyone assigned to stand by for all the projects in this area. As a result, we may be limited in our ability to respond/engage on every project in the timely manner that we'd like to be able to do so. For now, direct your EFH inquiries to both Bryant/I, and we will shepherd them as best we can.

For this - we will be back in touch soon with a contact.

Dan

On Wed, Aug 17, 2022 at 7:55 AM Martinez-Takeshita, Natalie M CIV USARMY CESPL (USA) <Natalie.M.Martinez-Takeshita@usace.army.mil> wrote:

> Hi Bryant and Dan,
>
> I have one more routine dredging project coming up that we wanted to check in on with you all. The Channel Islands dredging project was previously assigned to Jimmy Harrison. Do you have a new staff person assigned to this area that I can coordinate with for EFH related questions?
>
> Natalie Martinez-Takeshita
>
> Biologist

Ecosystems Planning Section, Planning Division

Los Angeles District US Army Corps of Engineers

Office: (213) 452-3306

Natalie.M.Martinez-Takeshita@usace.army.mil

--

Dan Lawson

Acting Branch Chief

Long Beach Office Protected Resources Division
NOAA Fisheries West Coast Region

7600 Sand Point Way NE, Bldg 1

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206-526-4740

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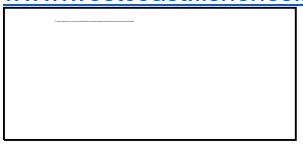


APPENDIX D:

CULTURAL RESOURCE CONSULTATION LETTERS

DEPARTMENT OF THE ARMY
LOS ANGELES DISTRICT, CORPS OF ENGINEERS
P.O. BOX 2711
LOS ANGELES, CALIFORNIA 90053-2325

September 22, 1994

REPLY TO
ATTENTION OF:
Office of the Chief
Environmental Resources Branch

Ms. Cherylin Widell
Acting State Historic Preservation Officer
Office of Historic Preservation
P.O. Box 942896
Sacramento, California 94296-0001

Dear Ms. Widell:

The Los Angeles District Corps of Engineers (COE), is proposing to engage in routine maintenance dredging and sediment disposal of Channel Islands and Port Hueneme Harbors in Ventura County. Channel Islands Harbor has been dredged every two years beginning in 1969, and Port Hueneme Harbor every fours years since 1975. All undertakings have been coordinated for compliance with Section 106 through your office. Coordination with your office most recently occurred in 1988 (COE 860715A: enclosure 1)) and again in 1990 (CoE 900320A: enclosure 2). In both cases you concurred that there were either no historic properties, or effects occurring in the area of potential effects (APE). The current project area overlaps substantially with these previously tested areas. The only area which has not been subjected to Section 106 evaluation, and which is the subject of this letter, is a portion of the sediment disposal area which lies nearshore off Hueneme Beach between the old Port Hueneme Lighthouse adjacent to the jetty, and the northwest boundary of Ormand Beach in Oxnard (enclosure 3). The proposed nearshore disposal area is located between the -10ft and -30ft MLLW depths. Some dredged material may also be disposed of at Silver Strand Beach, another routinely utilized area, which has been in use since 1984.

The proposed project is a six-year harbor maintenance program requiring the bi-annual removal of about 258,500 cubic yards of sediment per episode. Due to ecological restrictions, dredging must occur between October 1 and April 15 for each episode. The sediment will be deposited nearshore to enable wave action to distribute it on the beach, thereby renourishing Hueneme Beach.

The COE contracted Macfarlane Archaeological Consulting (MAC) to conduct a records and literature search and an updated remote sensing survey of the Hueneme Beach nearshore disposal area. The letter report prepared by MAC listed the remains of the Hueneme Pier, and a variety of shipwrecks originally reported

to have gone down in the vicinity of the APE prior to 1938 (enclosure 4). MAC's survey detected a debris field in the

nearshore disposal area. MAC equated the debris with the pilings and remnants of the old Hueneme Pier which collapsed in 1938, and suggested that the debris field might require further archeological testing.

The COE, however, disagrees with MAC's recommendation. Our research shows that major storms hit the Southern California coastline in 1938 and 1939 (enclosures 5 and 6). These storms caused the collapse of the pier and created a great deal of seafloor turbulence. The beach profile (enclosure 7) shows that the seafloor level was very high in 1938 and then much lower in successive years, indicating the storms of 1938 and 1939 removed an extremely large amount of sediment from the ocean bottom. Undoubtedly with the amount of nearshore turbulence and disturbance, the location and integrity of pre-1939 shipwrecks and the historic pier would be heavily impaired. In fact, the MAC report documents their findings as a "debris field" rather than as any distinct entity; the debris field is a likely result of storm activity and subsequent ocean bottom movement. The COE believes that there is ample historical information on the Port Hueneme Pier that would far surpass the value of underwater investigations of its disturbed and maybe nonexistent remains.

Furthermore, in the unlikely event that any remains are still in place, the COE does not consider the temporary placement of sediment a significant impact. The sediment is placed so as to migrate shoreward and would not constitute a permanent burial of the area. In addition, the MAC report states that magnetic anomalies were the identifying factor for much of this debris field, a fact which indicates that some of the debris is already buried under a protective layer of sediment.

After considering all of the information available -- clearance of similar projects in the same location on two recent occasions, knowledge of two major destructive storms in 1938 and 1939, the fact that the reported anomalies constitute unidentifiable debris rather than a distinct entity, and the conclusion that the deposition of sediment would not constitute a significant impact in the event of any potential sites -- the COE has determined that the Channel Islands/Port Hueneme Harbors Maintenance Dredging project as planned will not involve National Register listed or eligible properties.

We request that you review the enclosed information. If you agree with this determination, we would appreciate your concurrence within thirty days, otherwise we will assume your concurrence. If you have any questions concerning this project or the determination, please contact Mr. Richard Perry, Project Archeologist, at (213) 894-6087.

Sincerely,

Charles F. Enson

for Carl F. Enson, P.E.
Chief, Construction-
Operations Division

Enclosures

CALIFORNIA — THE RESOURCES AGENCY

PETE WILSON, *Governor*

OFFICE OF HISTORIC PRESERVATION
DEPARTMENT OF PARKS AND RECREATION
P.O. BOX 942896
SACRAMENTO 94296-0001
(916) 653-6624
FAX: (916) 653-9824

5 October 1994

Reply to: COE940926F

Col. R.L. Van Antwerp, District Engineer
US Army Corps of Engineers
ATTN: Carl Enson
Post Office Box 2711
LOS ANGELES CA 90053-2325

Subject: 13TH BIANNUAL HARBOR DREDGING, CHANNEL ISLANDS AND PORT HUENEME

Dear Col. Van Antwerp:

Thank you for requesting my review of the undertaking noted above and for including the documentation which justifies your determination.

I do not object to your determination that this undertaking will not affect historic properties. Accordingly, you have fulfilled federal agency responsibilities pursuant to 36 CFR 800, regulations implementing Section 106 of the National Historic Preservation Act. Please note that your agency may have additional responsibilities under 36 CFR 800 under any of the following circumstances;

1. If any person requests that the Advisory Council on Historic Preservation review your findings in accordance with 36 CFR 800.6(e);
2. If this undertaking changes in ways that could affect historic properties [36 CFR 800.5(c)];
3. If previously undocumented properties are discovered during the implementation of this undertaking or if a known historic property will be affected in an unanticipated manner [36 CFR 800.11];
4. If a property that was to be avoided has been inadvertently or otherwise affected [36 CFR 800.4(c);800.5];
5. If any condition of the undertaking, such as a delay in implementation or implementation in phases over time, may justify reconsideration of the current National Register status of properties within the undertaking's Area of

Thank you for considering historic properties during project planning. If you have any questions, please call staff archaeologist Nicholas Del Cioppo at (916) 653-9696.

Sincerely,

Ms. Cherilyn Widell
State Historic Preservation Officer

CESPL-PD-RN

MEMORANDUM FOR RECORD **MARCH 22, 2000**

SUBJECT: *COMPLIANCE WITH SECTION 106 OF THE NATIONAL HISTORIC PRESERVATION ACT FOR THE YEAR 2000 MULTI-YEAR MAINTENCE DREDGING PROJECT IN THE CHANNEL ISLAND AND PORT HUENEME HARBORS, VENTURA COUNTY, CALIFORNIA*

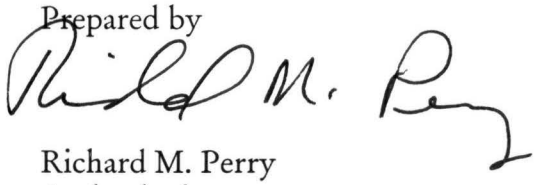
1. The implementing regulations for Section 106, 36 CFR 800 revised on May 18, 1999 contain a new section, 800.3(a)(1), that allows a Federal agency to proceed with a project without further consultation if the project does not have the potential to cause effects on historic properties. Compliance with Section 106 of the National Historic Preservation Act is completed without input from the State Historic Preservation Officer (SHPO). The Channel Islands/Port Hueneme Harbors Maintenance Dredging Project meets this criteria. This Memorandum for Record (MFR) explains the Corps of Engineers decision.

2. Both harbors have extensive histories for maintenance dredging and the attendant sediment disposal. Channel Islands Harbor has been dredged every two years since 1969. Port Hueneme Harbor has been dredged every four years beginning in 1975. Dredged materials have routinely been placed either on Silver Strand Beach or Hueneme Beach. Compliance with Section 106 has been conducted for these dredging episodes most in 1986, 1990, and most recently, 1994. The SHPO project numbers for these three episodes are: (1) 1986 – CoE 860715A; (2) 1990 – CoE 900320A, and (3) CoE 9400926F. Compliance in 1994 was conducted for a six-year project cycle. The current project is a six-year renewal of the last one.

3. New nearshore disposal areas were used for the last project. The two locations needed to be surveyed before they could be used. Macfarlane Archaeological Associates (MAC) conducted a negative survey of the two spots. One of these two locations may be used for this new project.

4. The new project meets the criteria for Section 106 compliance without SHPO consultation. Thirty years of dredging at Channel Island Harbor and twenty-five years at Port Hueneme Harbor have failed to impact any cultural resources. Additionally, beach disposal is generally used to replenish eroded beach sediments. There is no potential for cultural resources to be involved on these locations. The 1994 survey by MAC failed to identify any historic properties in the APE for the two new nearshore disposal locations.

Prepared by



Richard M. Perry
Archeologist
Ecosystem Planning System

Attachment: 1994 SHPO coordination letter

STATE OF CALIFORNIA – THE RESOURCES AGENCY GRAY DAVIS, *Governor*

OFFICE OF HISTORIC PRESERVATION
DEPARTMENT OF PARKS AND RECREATION
BOX 942896
AMENTO, CA 94296-0001
653-6624 Fax: (916) 653-9824
calshpo@mail2.quiknet.com

March 28, 2000

REPLY TO: COE940926F

Mr. Robert E. Koplin, P.E.
Chief Planning Division
Attn: Mr. Richard Perry (CESPL-PD-RN)
U.S. Army Corps of Engineers
P.O. Box 532711
LOS ANGELES CA 90355-2325

Re: East and West Jetty Repair Project and Harbor Deepening Project, Port of Hueneme Harbor, Port Hueneme, Ventura County.

Dear Mr. Koplin:

Thank you for submitting to our office your letters dated February 9, 2000 and February 22, 2000 and supporting documentation regarding a proposed project involving the repair of the east and west jetties at the entrance to the Port of Hueneme Harbor (PoHH) and the deepening of the harbor to provide anchorage for deeper draft vehicles. PoHH is located in the City of Port Hueneme, Ventura County. The proposed jetty repair project is designed to restore the 61-year old structures to their original configuration. Details of the proposed jetty repair project are contained in Enclosure 4 of the supporting documentation.

The Army Corps of Engineers (Corps) is seeking our comments on its determination of the eligibility of the east and west jetties at the entrance to the PoHH for inclusion on the National Register of Historic Places (NRHP) in accordance with 36 CFR 800, regulations effective June 17, 1999 implementing Section 106 of the National Historic Preservation Act. The Corps is also seeking our comments on its determination of the effects the proposed project will have on historic properties in accordance with 36 CFR 800. Our review of the submitted documentation leads to concur with the Corp's determination that the east and west jetties are not eligible for inclusion on the NRHP under any of the criteria established by 36 CFR 800. The jetties have no strong associations with significant historical events or persons, and are not examples of outstanding engineering design or function. We also concur with the Corp's determination that the aforementioned jetty repair and harbor deepening projects, as described, will have no effect on historic properties.

Thank you again for seeking our comments on your project. If you have any questions, please contact staff historian Clarence Caesar at (916) 653-8902.

Sincerely,

Daniel Abeyta, Acting
State Historic Preservation Officer

DEPARTMENT OF THE ARMY
LOS ANGELES DISTRICT, U.S. ARMY CORPS OF ENGINEERS
915 WILSHIRE BOULEVARD, SUITE 930
LOS ANGELES, CALIFORNIA 90017

June 29, 2018

Planning Division

Ms. Julianne Polanco
State Historic Preservation Officer
Office of Historic Preservation
1725 23rd Street, Suite 100
Sacramento, California 95816

Dear Ms. Polanco:

The U.S. Army Corps of Engineers, Los Angeles District (Corps), is initiating consultation with the State Historic Preservation Officer (SHPO), regarding a proposal to repair the Channel Islands Harbor Breakwater and Jetties. We are consulting with you in accordance with Title 36 Code of Federal Regulation Part 800 (36 C.F.R. 800), implementing Section 106 of the National Historic Preservation Act. At this time, the Corps is only consulting on the area of potential effects (APE) established for the undertaking. We will further consult regarding any potential effect of the project on cultural resources at a later date.

Description of the Undertaking

The Corps proposes to repair the two parallel entrance channel jetties and an offshore breakwater at the entrance to the Channel Island Harbor from damage caused by heavy surf and wave action. The work would restore the structures to original condition in order to maintain safe passage for vessels entering and exiting the harbor. Channel Islands Harbor is located near the City of Oxnard, Ventura County, California (see enclosed maps).

Repair work would consist of resetting existing armor stone as needed and placement of approximately 20,000 tons of new armor stone. The new stone would have a median stone size of 15-tons. Repairs would be conducted by a barge-mounted crane, barges carrying rock, tugboats, and other various small boats. Transport of stone would likely be by sea but may occur on land using dump trucks or other heavy equipment vehicles. The primary terrestrial (on shore) staging/storage area for construction equipment and supplies would be within the paved Kiddie Beach Park parking lot along South Victoria Avenue. An additional staging/storage area adjacent to the south jetty would likely be used to allow land-based equipment to perform the work on the south jetty. This additional staging area would be located either within the paved parking lot at Silver Strand Beach or an area of the heavily disturbed beach adjacent to the southwest side of the parking lot that was used during the 1995 breakwater repairs.

Channel Islands Harbor is an entirely manmade harbor that was mechanically dug out of the shoreline. Construction on the harbor began in 1958, and expansion continued into the 1970s. The stone breakwater and jetties were originally constructed in 1958-1960 to protect the newly created harbor. Major maintenance was last completed in 1996, which included repairs to the

north jetty and a small section of the detached breakwater to address damages from the 1982-1983 storm season and the 1994 Northridge earthquake. There is no documentation of repairs prior to this event.

APE

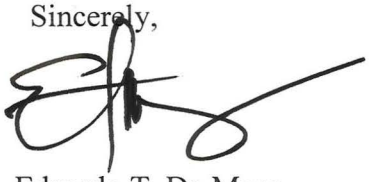
The repair work would be limited to the footprint of the existing stone structures. Staging would occur within the Kiddie Beach Park or Silver Strand Beach paved parking lots. If the local jurisdiction wants to keep the Silver Strand Beach parking lot open for public use, the staging could be moved to an area of the active and highly disturbed Silver Strand Beach adjacent to the southwest side of the parking lot that was used as a staging area during the 1996 breakwater repair. The Corps' area of potential effects is defined as the footprint of the breakwater (approximately 90' x 2,400') and jetties (approximately 70' x 1,250' each). Staging areas could be set up in the two existing paved public parking lots or on a 150' x 300' area of the Silver Strand beach. The vertical extent of the APE would be limited to incidental disturbance and would not extend deeper than 12 inches from the ground surface. Access to the project area will be by existing paved public roads and by sea.

Finding

At this time, the Corps is requesting your review and agreement with our definition of the APE. The Corps will consult regarding any potential effects of the project under a separate letter after tribal consultation is complete and the breakwater has been recorded. We appreciate your consideration of our request.

If you have specific questions, concerns, or want any clarification about this request, please contact Mr. Travis Bone at (602) 230-6969 or via e-mail at Travis.S.Bone@usace.army.mil.

Sincerely,



Eduardo T. De Mesa
Chief, Planning Division

Enclosure(s)


Channel Islands Harbor Breakwater/Jetty
Area of Potential Effect
Hollywood Beach
Oxnard Beach
Hollywood by the Sea
Silver Strand
Pt Hueneme
NAVAL
OCEAN
BREAKWATER
DRIVE
Jetty
Jetty
Channel Islands Harbor Jetties
Kiddie Park Staging Area
Silver Strand Staging Area
Channel Islands Harbor Breakwater
Project Locations
Miles
0 0.125 0.25 0.5
1:18,000
N
W
E
S
Copyright:© 2013 National Geographic Society, i-cubed


Channel Islands Harbor Breakwater/Jetty
Area of Potential Effect
Channel Islands Harbor Jetties
Kiddie Park
Staging Area
Silver Strand
Staging Area
Channel Islands
Harbor Breakwater
Project Locations
Miles
0
0.125
0.25
0.5
1:18,000
N
W
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DEPARTMENT OF PARKS AND RECREATION
OFFICE OF HISTORIC PRESERVATION
Lisa Ann L. Mangat, *Director*
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Telephone: (916) 445-7000 FAX: (916) 445-7053
calshpo.ohp@parks.ca.gov www.ohp.parks.ca.gov

July 30, 2018

In reply refer to: COE_2018_0705_003

Mr. Eduardo T. De Mesa
Chief, Planning Division
U.S. Army Corps of Engineers
Los Angeles District
915 Wilshire Boulevard, Suite 930
Los Angeles, CA 90017

Subject: Section 106 Consultation for the Channel Islands Harbor Breakwater and Jetties Repair Project, Ventura County, California

Dear Mr. De Mesa:

The California State Historic Preservation Officer (SHPO) received a letter from the U.S. Army Corps of Engineers (COE) on July 05, 2018 initiating consultation on the proposed undertaking to repair the Channel Islands Harbor breakwater and jetties. The COE is consulting with the SHPO in order to comply with Section 106 of the National Historic Preservation Act of 1966 (as amended) and its implementing regulations at 36 CFR Part 800.

The COE is proposing to repair the two parallel entrance channel jetties and offshore breakwater at the entrance to the Channel Island Harbor from damage caused by heavy surf and wave action. Repair work would include resetting the existing armor stone and placement of new armor stone to restore the structures to their original condition. The COE has defined the Area of Potential Effects (APE) as the footprint of the breakwater and jetties as well as the proposed staging areas within the Kiddie Beach Park or Silver Strand Beach parking lots, or the highly disturbed portion of Silver Strand Beach adjacent to the parking lot. The vertical APE will not exceed 12 inches below existing ground surface.

The COE is currently requesting comments on their APE and will continue consultation on their historic property identification efforts and finding of effect. The APE appears to be appropriately defined pursuant to 36 CFR 800.4(a)(1) and the SHPO has no comments at this time.

I look forward to continuing consultation with the COE for this undertaking under 36 CFR Part 800. For more information or if you have any questions, please contact Koren Tippett, Archaeologist, at (916) 445-7017 or koren.tippett@parks.ca.gov.

Sincerely,

Julianne Polanco
State Historic Preservation Officer

DEPARTMENT OF THE ARMY
LOS ANGELES DISTRICT, U.S. ARMY CORPS OF ENGINEERS
915 WILSHIRE BOULEVARD, SUITE 930
LOS ANGELES, CALIFORNIA 90017-3849

October 19, 2018

Planning Division

Ms. Julianne Polanco
State Historic Preservation Officer
Office of Historic Preservation
1725 23rd Street, Suite 100
Sacramento, California 95816

SUBJECT: Section 106 of the National Historic Preservation Act consultation for the Port of Hueneme Harbor Deepening

Dear Ms. Polanco:

The U.S. Army Corps of Engineers, Los Angeles District (Corps) proposes to deepen the Port of Hueneme Harbor, located near the City of Oxnard, Ventura County, California. We are consulting with you in accordance with Title 36 Code of Federal Regulation Part 800 (36 C.F.R. 800), implementing Section 106 of the National Historic Preservation Act. We are renewing consultation (COE940926F) to consider alterations in the proposed project and modifying our previous determination that no historic properties would be affected to a finding that there would be no adverse effect to historic properties.

Description of the Undertaking

The Port of Hueneme is the only deep-water harbor between Los Angeles and the San Francisco Bay area. The primary purposes of the proposed harbor improvement project are efficient accommodation of larger deep-draft vessels, increased cargo efficiency, and reduced overall transit costs. The project would also benefit Hueneme Beach, which has been subject to erosion since the harbor jetties were constructed in 1939-1940. Most of the dredged sediment would be used to nourish Hueneme Beach, either by placing it directly onto the beach or into the nearshore disposal area.

The current authorized depths of the harbor are -40 feet mean lower low water (MLLW) in the Approach Channel, -36 feet MLLW in the Entrance Channel, and -35 feet in the Turning Basin. The Recommended Plan (2a) proposes to deepen the Approach Channel to -44 feet MLLW, and the Entrance Channel, Turning Basin, and Channel A would be dredged to -40 feet MLLW. Due to the nature of imprecise nature of dredging, two additional feet of overdepth allowance are planned to ensure that the final functional depth meets the target. Thus, the total depth of ground disturbance under the Recommended Plan would be -46/-42 feet respectively. Approximately 390 kilo-cubic yards (kcy) of material would be dredged, with an estimated 363 kcy of sand placed onto Hueneme Beach, 7 kcy place into the nearshore disposal area, and 20 kcy disposed of on the existing Confined Aquatic Disposal (CAD) site located within the harbor. Some sediment may also be placed in a newly created trench within Channel A. The entire project would take approximately 4 months to complete and could begin as early as June 2019.

The other alternatives analyzed for this project vary only in the depth to which dredging would occur. Alternative 4 would dredge the deepest, with the Approach Channel being -46 feet MLLW, and the Entrance Channel and Turning Basin would be dredged to -43 feet MLLW. Considering a 2-foot

overdepth allowance, the deepest depth would be -48 feet MLLW in the Approach Channel in Alternative 4. The area of potential effects (APE) for this project is the Approach and Entrance Channels, the Turn Basin and Channel A within the harbor, the CAD Hueneme Beach, and the existing nearshore disposal area. The horizontal area of the APE would be the same for all alternatives, since they vary only in the vertical depth of dredging.

Previous Consultation

The Port of Hueneme is a man-made harbor that was initially constructed by local interests in 1939-1940. It was expanded after the U.S. military took control of the harbor in 1942. The harbor has been maintained and modified over the past decades to meet the needs of the Navy and the commercial Oxnard Harbor District. The Corps has conducted routine dredging of the harbor every four years since 1975. The Corps consulted on previous dredging in 1988 (COR860715A) and again in 1990 (COR900320A).

The Corps approved an Environmental Assessment (EA) in 1994 that added the nearshore disposal area to the available disposal options (e.g. placement on Silver Strand and Hueneme Beaches) and changed the dredging schedule to a two-year cycle. The Corps consulted with the State Historic Preservation Officer (SHPO) on this undertaking in a letter dated September 22, 1994 and proposed the undertaking would have no effect on historic properties. The SHPO did not object in her reply letter (COE940926F) dated October 5, 1994.

The Corps originally initiated consultation on the proposed Port of Hueneme Harbor deepening project in a letter to the SHPO dated February 22, 1999. In this letter, the Corps proposed to deepen the harbor to -14.5 meters MLLW. Other components of the proposed project included removal of the existing fender system, reinforcement of the sheet pile toe wall, and installation of a new timber fender system. This consultation also included removing an estimated 350 cut off pilings from the 1938 wharf that may have been left in below the mud line when the wharf was removed in the early 1970s. The APE defined for that project included the Approach and Entrance Channels, the Turn Basin and Channel A within the harbor, Hueneme Beach, and the nearshore disposal area. The SHPO agreed with the Corps' determination that the project would not affect any historic properties by countersigning the letter on March 23, 1999.

The Corps sent another letter to the SHPO on February 9, 2000 regarding proposed repairs to the east and west jetties. The Corps proposed to repair the jetties to their original design standards. The APE included the jetties and an area along the east jetty that might require dredging to allow barge access to the east jetty. The Corps determined that the east and west jetties were not eligible for the National Register of Historic Places (NRHP) and that the project would not have an adverse effect on historic properties. The SHPO concurred with the determination that the jetties were not eligible and concurred that the proposed project would have no effect on historic properties in a letter dated March 28, 2000 (again, COE940926F). The discrepancy in effect determinations is because the Corps had made an inappropriate determination of effect in the consultation letter. Since the jetties were determined not eligible for the NRHP and no other historic properties were present, no historic properties were present to be adversely affected. The SHPO's language that the project "will have no effect on historic properties" was correct in that situation.

Subsequent sediment sampling indicated that some of the sediment in the harbor contained contaminants that made it unsuitable for onshore or nearshore placement. Maintenance dredging was suspended in the contaminated area while the Corps and the Navy cooperated to establish a Confined Aquatic Disposal (CAD) site within the harbor on Navy property to dispose of the contaminated sediments. The CAD was designed as an area of deeper excavation where the contaminated sediment would be placed, covered with clean sediment, and capped with rock.

In a letter to the SHPO dated April 3, 2008, the Navy introduced a project to conduct maintenance dredging, beach nourishment, and to establish the CAD site. The Navy defined the APE for this project as the area to be dredged within the harbor, including the CAD site, and the Hueneme Beach disposal area. The Navy disclosed in the letter that site CA-VEN-663, the location of which had previously been unknown to the Corps, may be present in the project area. Site CA-VEN-663 was reported in 1933 as a Late Prehistoric shell midden located in the area where the harbor was subsequently constructed. More recent examinations have failed to relocate the site, so the Navy concluded that it was likely destroyed by the development of the Harbor. Because the proposed dredging would occur within the previously constructed and dredged harbor, the Navy further concluded that the area of potential effect (APE) was outside the site boundary, should any portion of it still exist, and determined that the proposed project would have no adverse effect on historic properties. In a letter dated May 20, 2008 (USN080414A), the SHPO concurred with the Navy's determination that the proposed dredging and CAD project would have no adverse effect on historic properties. That project was subsequently implemented and the CAD site created.

Revisions and Clarification of Proposed Action

The alternatives currently being considered, particularly the Recommended Plan (2a), differ slightly from the activities previously consulted on. Other points of ambiguity in the consultation history have also come to light. Those changes are discussed below and any ambiguities clarified.

Project Effect- The previous Corps' consultations with the SHPO have concluded that the proposed project would have no effect on historic properties (i.e. no historic properties affected). However, the Navy consultation in 2008 resulted in a determination that there would be no adverse effect to historic properties due to the unresolved location and condition of site CA-VEN-663. Now that the Corps is aware of the site, a finding of no adverse effect is deemed appropriate for the proposed harbor deepening project.

Use of the CAD site- As discussed previously, the Navy consulted with the SHPO in 2008 regarding creation and use of the CAD site. The Corps was not explicitly named in the correspondence between the Navy and the SHPO. However, the Corps and the Navy cooperated on that previous project, and the Corps agrees with the determination that there would be no adverse effect to historic properties reached in that previous consultation. The Corps proposes to use the existing CAD site to dispose of contaminated sediment as part of the currently proposed project. The existing CAD site has adequate remaining capacity to accommodate the proposed project without being expanded.

Creation of a disposal trench in Channel A- Based upon the results of additional sediment analysis, the Corps has elected to manage sediments from five individual core locations within the harbor separate from the other dredged material. These sediments would not be placed onshore or in the nearshore disposal area. These sediments are suitable for unconfined disposal within the harbor, so they do not necessarily need to be placed in the CAD site. Instead, a trench 900 feet long and up to 220 feet wide may be excavated to a depth of -47 feet MLLW adjacent to Wharf 1 within Channel A. The clean sediment dredged from the trench would be used to nourish Hueneme Beach, and the unacceptable sediment placed in the trench. The "trench" would be created because only a limited area within Channel A would be excavated to a depth of -47 feet MLLW, resulting in less than the total amount of dredged area described in the previous consultation. The Corps has designed the trench so that it would fit within the -47.5 feet MLLW dredge depth described in the 1999 consultation. However, an additional 2-foot overdepth allowance should be considered for to account for the imprecision of dredging operations. Thus, the maximum depth of disturbance could extend to -49 feet MLLW within the trench. A portion of the trench area has already been scoured to a depth

over -48 feet MLLW, presumably by prop wash from ships being moved from their berths. Considering that the trench has been designed with a target depth of -47 feet MLLW and that a portion of the trench area has already been scoured to a depth greater than that, it is unlikely that the trench, if implemented, would disturb a substantial amount of sediment beyond what was discussed in the previous consultations.

Conversion from metric to English measurements- The Corps consulted on deepening the harbor to a depth of -14.5 m MLLW in the 1999 letter to the SHPO. The current project is being designed in feet. The original -14.5 m MLLW is the equivalent of approximately -47.5 feet MLLW, which is adequate to fully accommodate the Recommended Plan (2a). Alternative 4, which is the alternative with the deepest dredging, would dredge to a depth of -46 feet MLLW. However, adding the additional 2 feet of overdepth allowance means that ground disturbance could extend to -48 feet MLLW. If Alternative 4 were selected instead of the Recommended Plan, dredging could extend an additional 0.5 foot within the Approach Channel beyond the -47.5 feet MLLW (converted from metric) considered in the 1999 consultation but would not result in any adverse effects to historic properties.

Entrance Channel slope protection- The eastern slope of the Entrance Channel along a length of approximate 1,000 feet, from Station 20+00 to 30+00, is protected from slumping by a rock revetment. Deepening the channel from its current design depth of -36 feet MLLW to a new design depth of -40 feet MLLW may destabilize the base of the slope. In order to maintain the required factor of safety and stabilize the existing revetment, the deepened slope would be covered with an approximately 3.5 foot thick layer of rock revetment to match the design of the existing revetment. Approximately 14,000 ton of stone would be placed along the toe of the eastern slope to stabilize the slope and prevent the existing rock revetment from slumping into the deepened navigation channel. This estimate is based on historical design documents. Actual conditions may not warrant the placement of additional rock revetment, so that limited or no rocks may need to be placed as part of this project. The need and exact volumes would be determined during construction when dredging obstructions would be used to determine the nature and location of the current rock revetment. Any necessary rock would be placed by derrick barge. The additional rock would be placed below the existing rock revetment to support it and would not disturb or displace any of the existing stone.

Sediment disposal areas- A pipeline would be placed on top of the ground surface to convey dredged sediments from the harbor to Hueneme Beach. Setting up temporary pipelines to transport the sediment to the beach has been the standard method used for all past maintenance dredging and was presumably covered in previous consultations. All other sediments would be placed directly into the various disposal areas by dredge or barge.

Timber pile removal- A maximum of six hundred and forty cut off pile bases could still be present below the mud line. The 1990 consultation considered removing the remaining piles. Past investigations did not locate any piles, and previous dredging make it unlikely that any remain. However, the currently proposed project would screen any remaining piles out of the dredged sediment and dispose of them separately from the sediment.

Finding

The Corps has carefully reviewed all the previous consultation documentation prior to requesting your concurrence to ensure: (1) numerous similar projects have been cleared previously within the APE; (2) the dredging would occur in areas that have been routinely dredged; and (3) sediment would be placed in disposal areas that have been previously approved and used. The proposed project would not change the character or use of any historic property, nor diminish the integrity of the location, design, setting,

materials, workmanship, feeling, or association of such. The Corps concludes that there would be no adverse effect to historic properties as a result of the proposed project.

At this time, the Corps is requesting your concurrence with our determination that no historic properties would be adversely affected by the proposed project. We appreciate your consideration of our request. If you have specific questions or if we can provide any clarification about this request, please contact Mr. Travis Bone at (602) 230-6969 or via e-mail at Travis.S.Bone@usace.army.mil.

Sincerely,

Eduardo T. De Mesa
Chief, Planning Division

Enclosure

DEPARTMENT OF PARKS AND RECREATION Lisa Ann L. Mangat, *Director*
OFFICE OF HISTORIC PRESERVATION
Julianne Polanco, State Historic Preservation Officer
1725 23rd Street, Suite 100, Sacramento, CA 95816-7100
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calshpo.ohp@parks.ca.gov www.ohp.parks.ca.gov

November 06, 2018

In reply refer to: COE940926F

Mr. Eduardo T. De Mesa
Chief, Planning Division
U.S. Army Corps of Engineers
Los Angeles District
915 Wilshire Boulevard, Suite 930
Los Angeles, CA 90017

Subject: Section 106 Consultation for the Port of Hueneme Harbor Deepening Project, Ventura County, California

Dear Mr. De Mesa:

The California State Historic Preservation Officer (SHPO) received a letter from the U.S. Army Corps of Engineers (COE) re-initiating consultation on the above referenced project in order to comply with Section 106 of the National Historic Preservation Act of 1966 (as amended) and its implementing regulations at 36 CFR Part 800. The COE is requesting comments on their revised finding of effect for the undertaking and have provided the following documents for review:

- APE map and project plans (5 pages)
- *Letter Report for Cultural Resource Investigations Underwater Remote Sensing Survey for the US Army Corps of Engineers, LA District Environmental Planning Division* (Statistical Research Inc. August 31, 1994).

The COE is proposing to deepen the Port of Hueneme Harbor. The recommended project plan (Plan 2a) would deepen the harbor Approach Channel from the authorized depth of -40 feet mean lower low water (MLLW) to -44 feet MLLW, the deep the Entrance Channel, Turning Basin, and Channel A to -40 feet MLLW. In other potential alternatives, the deepest depth would extend to -48 feet MLLW. The project will also include: disposal of contaminated sediment at a Confined Aquatic Disposal (CAD) site; creation of a disposal trench in Channel A; addition of additional rock revetment to the eastern slope of the Entrance Channel; placing a pipeline on top of the ground surface to convey dredged sediments from the harbor to Huemene Beach; and removing any remaining cut piles by screening them out of dredged sediment. The COE has defined the Area of Potential Effects (APE) as the Approach and Entrance Channels, the Turn Basin and Channel A within the harbor, the Confined Aquatic Disposal (CAD) site, Hueneme Beach, and the existing nearshore disposal area.

The Port of Huemene was originally constructed in 1939-1940 and expanded in 1942. The COE has conducted routine dredging on the harbor every four years since 1975. The COE previously consulted on dredging activities in 1988 (COR860715A) and 1990 (COR900320A), consulted on changing to a two-year dredging cycle and the addition of a nearshore disposal area in 1994, consulted on deepening the harbor to -14.5 meters MLLW and other harbor improvements in 1999, and consulted on repairing the east and west jetties in 2000 (COE940926F). All of these consultations resulted in the SHPO concurring with the COE's findings of *no historic properties affected*. The Navy also separately consulted on a project (USN080414A) to conduct maintenance dredging, beach nourishment, and to establish the CAD site in 2008. Although the COE cooperated with the Navy on this project, the COE was not mentioned in the Section 106 correspondence with the SHPO.

The COE is re-initiating consultation with the SHPO on this undertaking because the plans currently being considered differ slightly from those the COE already consulted on with the SHPO. In addition, the Navy's 2008 consultation concluded with a finding of no adverse effect because of the unresolved location of archaeological site CA-VEN-663, a shell midden site recorded in 1933 in the location where the harbor was subsequently constructed. The Navy concluded that the site was likely destroyed during construction of the harbor, but that the previous location appeared to be outside the APE and so the undertaking would have no adverse effect on the site. The COE was unaware of this site during their previous consultations with the SHPO, but is considering the potential effects to this site in their revised finding of effect.

The COE's analysis has concluded that similar undertakings have not affected historic properties, that dredging would occur in areas that have been routinely dredged for decades, that sediment would be placed in previously used disposal areas, and that despite the unknown location of CA-VEN-663, the undertaking will not result in an adverse effect to any historic properties. Pursuant to 36 CFR 800.5(b), **I concur** with the COE's finding of *no adverse effect* for this undertaking.

Be advised that under certain circumstances, such as unanticipated discovery or a change in project description, the COE may have additional future responsibilities for this undertaking under 36 CFR Part 800. For more information or if you have any questions, please contact Koren Tippett, Archaeologist, at (916) 445-7017 or koren.tippett@parks.ca.gov.

Sincerely,

Julianne Polanco
State Historic Preservation Officer

2022 SAMPLE TRIBAL CONSULTATION LETTER

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, LOS ANGELES DISTRICT
915 WILSHIRE BOULEVARD, SUITE 1109
LOS ANGELES, CALIFORNIA 90017-3409

September 21, 2022

Mr. Jairo Avila
Fernandeño Tataviam Band of Mission Indians
1019 2nd Street, Suite 1
San Fernando, California 91340-2916

Dear Mr. Avila:

The U.S. Army Corps of Engineers, Los Angeles District (Corps) is reinitiating consultation with you under the National Historic Preservation Act (NHPA; 54 USC § 306108) and its implementing regulations (36 CFR 800) regarding proposed changes in the implementation of the routine maintenance dredging program at Channel Islands and Port Hueneme Harbors, Ventura County, California (Undertaking). The Corps previously consulted with the California State Historic Preservation Officer (SHPO) via letter in 1986 (COE860715), 1990 (CE900320A), and 1994 (COE940926F). At that time, SHPO had no objection to the Corps' finding that the dredging program would not affect historic properties. While COE860715 and CE900320A are currently in storage, and digital copies are not available, COE940926F is included in Enclosure 1. The purpose of this letter is to obtain your concurrence that the maintenance dredging program will continue to have no effect upon historic properties with implementation of proposed changes.

Current Undertaking

The current Undertaking consists of a continuation of the Corps' routine maintenance dredging program at the Channel Islands and Port Hueneme harbors (Enclosure 2). The purpose of the Undertaking is to maintain the Federal channels at their authorized depths and widths, including maintenance dredging of a sand trap outside the Channel Islands Harbor to bypass sand to downcoast beaches avoiding sand being lost to the adjacent Hueneme Submarine Canyon (Enclosure 3). Maintaining authorized depths is needed to ensure navigational safety and to prevent the navigational channels from shoaling, potentially closing the harbors. The proposed project also provides beach replenishment material for down coast (Silver Strand and Hueneme) beaches eroded because of altered littoral transport patterns associated with Channel Islands and Port Hueneme Harbors. The Rivers and Harbors Act of 1899, as amended in 1965 (House Document 76, PL 89-298) authorized the USACE to maintain channel depths and provide suitable materials for replenishment of locally starved beaches. Legislation directs Federal dredging to occur specifically at Channel Islands and Port Hueneme Harbors with dredged material placement at local beaches/nearshore.

As previously noted, consultation for the ongoing dredge program was conducted in 1986 (COE860715), 1990 (CE900320A), and 1994 (COE940926F) for the Channel Islands and Port Hueneme harbors. The original dredge template for the Channel Islands Harbor consisted of an Entrance Channel (Area A), a Sand Trap (Areas B, C, and D), an Entrance Basin (Area E), and Inner Basin (Area F) (Enclosure 3). At that time, SHPO concurred on the Corps' determination of *No Effect* to Historic Properties. However, in order to address environmental changes, the Corps is proposing four changes to the Channel Islands and Port Hueneme Harbors Dredging Project, to include:

- Increase in material removed from 2 million cubic yards (mcy) for each biennial dredge cycle event to 2.5 mcy
- Addition of a dredge unit, the Approach Channel (Area G) to remove shoaling
- Including a 200-foot buffer along the Hollywood Beach shoreline immediately adjacent to the existing dredge template landward boundary of Sand Trap Area D
- Performing habitat restoration as mitigation for impacts to the federally listed California least tern, western snowy plover, and western snowy plover designated critical habitat on Hollywood Beach.

Background

The Channel Islands Harbor has been dredged every two years beginning in 1969, and Port Hueneme Harbor has been dredged approximately every four years since 1975. In 2018 the Corps deepened the Port Hueneme Harbor. The SHPO concurred with the Corps' determination of *No Adverse Effect* for the harbor deepening project (Enclosure 1). No change to the Port Hueneme dredge depths or boundaries will occur in the proposed Undertaking.

In recent years, established fore dunes have formed on the broad, flat beach north of the Channel Island Harbor. Two federally listed species utilize Hollywood Beach, the California least tern (*Sterna antillarum browni*) during nesting season and western snowy plover (*Charadrius nivosus nivosus*) during wintering and nesting season. The Corps is proposing to perform habitat restoration as mitigation for impacts to the federally listed California least tern, western snowy plover, and western snowy plover designated critical habitat on Hollywood Beach. Initially, beach sediment trapped around deposits of *Arundo donax* (giant reed) washed ashore during storm events in the early 2000s began forming embryo dunes. The dunes have since stabilized from the actions of native plants, as well as invasive plant species.

Dredge activities along the landward boundary of Sand Trap Area D has caused erosion and scarping along the active coastal zone where the dredge template intersects the beach face, comprising flat sandy beach habitat and sand dunes. The Corps is proposing to create a 200-foot buffer on the north, east, and south side of Area D. This buffer encompasses the portion of the beach which accounts for the collapse of the steep slope of the dredge cut along the landward boundary of the Area D dredge template.

For the proposed Undertaking, a delivery pipe would be run from the dredge barge directly to the beaches to be nourished. The delivery pipe would originate at the dredge areas, suspended at the surface of the water where possible, and underwater along the seabed in areas that must remain clear for navigation. The pipe will cross over the South Jetty onto the Silver Strand Beach. During construction mobilization, the pipe will be extended the length of Silver Strand Beach. Sand ramps will be pushed up on either side of the delivery pipe along the beach to allow beach access by personnel and equipment while dredging and nourishment is underway (*see* Enclosure 2).

The delivery pipe will be extended from the south end of Silver Strand Beach onto Naval Base Ventura County along a combination of Surface Warfare Engineering Facility (SWEF) Beach and a service road adjacent to SWEF Beach on the north side of the Port Hueneme Harbor entrance. The pipe will be submerged across the Port Hueneme Harbor entrance and extended over the jetty on the south side of the harbor entrance onto Hueneme Beach. As the

beach nourishment progresses, the delivery pipe will be extended along Hueneme Beach north to south. The Hueneme Beach nourishment will occur first, followed by Silver Strand Beach.

Area of Potential Effect

The Area of Potential Effect (APE) consists of multiple components of the project, including the dredge areas for Channel Islands and Port Hueneme harbors; the beach placement areas on Silver Strand and Hueneme beaches, the nearshore placement site adjacent to Hueneme Beach, the buffer area around the Sand Trap Area D; the biological mitigation area; and the delivery pipe corridors between the Channel Islands Harbor and Silver Strand Beach, and between Silver Strand Beach and Hueneme Beach. The APE occupies a total of 430 acres.

Channel Islands Harbor

Channel Islands Harbor is located in the city of Oxnard. Harbor structural features consist of a 2,300-foot long offshore detached breakwater, entrance jetties, and an entrance channel leading to the harbor interior. The Harbor is divided into three areas (west, east and peninsula) served by separate public roads, with each area providing different services. The west side consists of marinas, a linear park, restaurants, residential development and retail businesses. The peninsula is dominated by hotel development, marinas, apartments and condominiums. The east side is primarily commercial and serves boaters by offering boat yards, a marine supply store, boat sales, law enforcement, administration and search and rescue facilities.

The sand traps and Channel Islands Harbor federal navigation channels were divided into seven dredge units according to location and design depths. The APE encompasses all seven dredge units, including the Approach Channel (Area G), Entrance Channel (Area A), Entrance Basin (Area E), and Inner Basin (Area F); the Sand Trap, consisting of Areas B, C, and D; a buffer area around Area D; and a Biological Mitigation Area along Hollywood Beach (*see* Enclosures 2 and 3).

The entrance channel is 3,200 feet long and varies in width from 300 feet at the entrance to 600 feet within the harbor. Authorized depth of the entrance channel is -20 feet Mean Lower Low Water (MLLW). The entrance channel comprises “Area A” of the Channel Islands Harbor dredge area (*see* Enclosure 3). The Entrance Basin is comprised of Area E and is 200 feet long. The Entrance Basin varies in width from 300 feet where it abuts the Entrance Channel (Area A), to 580 feet where it abuts the Inner Basin (Area F). The Inner Basin is comprised of Area F. Area F is Y-shaped, with an arm extending into the east and west channels of the harbor, separated by the peninsula. Area F is 2,200 feet long in the east channel, and 2,000 feet long in the west channel.

The offshore detached breakwater and entrance jetties surround the sand trap which collects sand carried downcoast by littoral transport. The jetties were recommended ineligible for inclusion on the National Register of Historic Places (NRHP) during a repair project in early 2000, and SHPO concurred with that determination in a letter dated March 28, 2000 (COE940926F) (*see* Enclosure 1). The sand trap is divided into three parcels; Areas B, C, & D. Area B is 775 feet in length and 450 feet in width, and occupies 3.5 acres. Area C is 1,650 feet in length and 1,150 feet in width, and occupies 33.7 acres. Area D is 1,650 feet in length and 460 feet in width, covering 15.9 acres. The traps were designed to be maintained at a depth of 35 feet MLLW to allow for sufficient accumulation between dredge cycles. The proposed buffer for Area D occupies 18 acres, and wraps around Area D in a 200-ft wide U-shape, It measures

1,900 feet in length, northwest to southeast, and 611 feet at its widest point, southwest to northeast.

The Entrance Channel (Area A), and the Sand Trap (Areas B, C, & D) are dredged every cycle, while the Approach Channel (Area G), Entrance Basin (Area E) and the Inner Basin (Area F) may be dredged on an as needed basis. Authorized depth of the Approach Channel and Entrance Basin is -20 feet MLLW plus a 2 ft over depth. Authorized depth of the Inner Basin is -10 feet MLLW plus a 2 ft over depth (*see* Enclosure 3).

The proposed habitat restoration area occupies 53.8 acres extending approximately 4,100 feet from the north jetty along the shoreline to the north. It varies in width from 200 feet where it lies adjacent to the Area D buffer. North of the Area D buffer, the habitat restoration area extends from the water's edge to approximately 590 feet inland. It tapers slightly to the north, following the natural contours of the beach, and narrows to approximately 380 feet. Habitat restoration would occur on an as-needed basis within the area to provide adequate nesting habitat along the shoreline to replace any habitat lost or modified due to dredging activities. Habitat restoration may include the use of heavy equipment to perform activities such as, reduce the height of the sand dunes to the natural beach level, and artificially create additional nesting habitat for shorebirds along the shoreline. The Corps has committed to restoring 13.47 acres of habitat, further details of the habitat restoration will be coordinated and finalized with the US Fish & Wildlife Service.

Port Hueneme Harbor

Port Hueneme is located in the city of Port Hueneme. This harbor is located approximately one mile southeast of Channel Islands Harbor. Harbor features include two entrance jetties, an approach channel, an entrance channel, and a central turning basin. The dredge template is divided into four prisms; the approach channel, entrance channel, turning basin, and channel A. The approach channel is 1,800 feet long, 600 feet wide at its widest, and has an authorized depth of -44 feet MLLW plus a 2 ft over depth. The entrance channel is approximately 1,300 feet long, 330 feet wide, and has an authorized depth of -40 feet MLLW plus a 2 ft over depth. Authorized depth of the turning basin and channel A is -40 feet MLLW plus a 2 ft over depth (*see* Enclosures 2 & 3). No change is proposed for the Port Hueneme dredge template, which will remain consistent with previous consultation (*see* Enclosure 1).

Historic Property Identification Efforts

CH2MHill conducted surveys of the onshore portions of the APE in 2004 for the city of Oxnard (VN2978). The survey was negative for cultural resources within the APE. PS Associates (Pierson, Shiner, and Slater) conducted an archaeological survey of the offshore portions of the APE in 1987, with negative results within the APE (VN-02974). Lastly, Archaeological Research, Inc., conducted a survey of the onshore area between the Channel Island and Port Hueneme harbors in 1977, with negative results (V-1102).

Summary

The Corps is requesting your comments on our finding that the maintenance dredging program at the Channel Island and Port Hueneme harbors, including the increased dredge volume; additional dredging in Area G; addition of a 200-ft buffer around Area D; and habitat restoration along Hollywood beach, will continue to have "no effect to historic properties" per 36 CFR 800.4. The Corps will continue to consult with you regarding any future changes in scope.

If you have any questions or concerns, please contact Dr. John Hale, Corps Archaeologist, via email at john.p.hale@usace.army.mil or by phone at (213) 238-1822.

Sincerely,

Maricris Lee
Deputy Chief, Planning Division

Enclosure(s)

2022 SHPO CONSULTATION LETTERS

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, LOS ANGELES DISTRICT
915 WILSHIRE BOULEVARD, SUITE 1109
LOS ANGELES, CALIFORNIA 90017-3409

September 27, 2022

Ms. Julianne Polanco
State Historic Preservation Officer
Office of Historic Preservation
1725 23rd Street, Suite 100
Sacramento, California 95816-7100

Dear Ms. Polanco:

The U.S. Army Corps of Engineers, Los Angeles District (Corps) is reinitiating consultation with you under the National Historic Preservation Act (NHPA; 54 USC § 306108) and its implementing regulations (36 CFR 800) regarding proposed changes in the implementation of the routine maintenance dredging program at Channel Islands Harbor, Ventura County, California (Undertaking). The Corps previously consulted you via letter in 1986 (COE860715), 1990 (CE900320A), and 1994 (COE940926F), with no objection to the Corps' finding that the dredging program would not affect historic properties. While COE860715 and CE900320A are currently in storage and digital copies are not available, COE940926F is included in Enclosure 1. The purpose of this letter is to obtain your concurrence that the maintenance dredging program will continue to have no effect upon historic properties with implementation of proposed changes.

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The current Undertaking consists of a continuation of the Corps' routine maintenance dredging program at the Channel Islands and Port Hueneme harbors (Enclosure 2). The purpose of the Undertaking is to maintain the Federal channels at their authorized depths and widths, including maintenance dredging of a sand trap outside the Channel Islands Harbor to bypass sand to downcoast beaches avoiding sand being lost to the adjacent Hueneme Submarine Canyon (Enclosure 3). Maintaining authorized depths is needed to ensure navigational safety and to prevent the navigational channels from shoaling, potentially closing the harbors. The proposed project also provides beach replenishment material for down coast (Silver Strand and Hueneme) beaches eroded because of altered littoral transport patterns associated with Channel Islands and Port Hueneme Harbors. The Rivers and Harbors Act of 1899, as amended in 1965 (House Document 76, PL 89-298) authorized the USACE to maintain channel depths and provide suitable materials for replenishment of locally starved beaches. Legislation directs Federal dredging to occur specifically at Channel Islands and Port Hueneme Harbors with dredged material placement at local beaches/nearshore.

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changes, the Corps is proposing four changes to the Channel Islands and Port Hueneme Harbors Dredging Project, to include:

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For the proposed Undertaking, a delivery pipe would be run from the dredge barge directly to the beaches to be nourished. The delivery pipe would originate at the dredge areas, suspended at the surface of the water where possible, and underwater along the seabed in areas that must remain clear for navigation. The pipe will cross over the South Jetty onto the Silver Strand Beach. During construction mobilization, the pipe will be extended the length of Silver Strand Beach. Sand ramps will be pushed up on either side of the delivery pipe along the beach to allow beach access by personnel and equipment while dredging and nourishment is underway (*see* Enclosure 2).

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The sand traps and Channel Islands Harbor federal navigation channels were divided into seven dredge units according to location and design depths. The APE encompasses all seven dredge units, including the Approach Channel (Area G), Entrance Channel (Area A), Entrance Basin (Area E), and Inner Basin (Area F); the Sand Trap, consisting of Areas B, C, and D; a buffer area around Area D; and a Biological Mitigation Area along Hollywood Beach (*see* Enclosures 2 and 3).

The entrance channel is 3,200 feet long and varies in width from 300 feet at the entrance to 600 feet within the harbor. Authorized depth of the entrance channel is -20 feet Mean Lower Low Water (MLLW). The entrance channel comprises “Area A” of the Channel Islands Harbor dredge area (*see* Enclosure 3). The Entrance Basin is comprised of Area E and is 200 feet long. The Entrance Basin varies in width from 300 feet where it abuts the Entrance Channel (Area A), to 580 feet where it abuts the Inner Basin (Area F). The Inner Basin is comprised of Area F. Area F is Y-shaped, with an arm extending into the east and west channels of the harbor, separated by the peninsula. Area F is 2,200 feet long in the east channel, and 2,000 feet long in the west channel.

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460 feet in width, covering 15.9 acres. The traps were designed to be maintained at a depth of 35 feet MLLW to allow for sufficient accumulation between dredge cycles. The proposed buffer

for Area D occupies 18 acres, and wraps around Area D in a 200-ft wide U-shape. It measures 1,900 feet in length, northwest to southeast, and 611 feet at its widest point, southwest to northeast.

The Entrance Channel (Area A), and the Sand Trap (Areas B, C, & D) are dredged every cycle, while the Approach Channel (Area G), Entrance Basin (Area E) and the Inner Basin (Area F) may be dredged on an as needed basis. Authorized depth of the Approach Channel and Entrance Basin is -20 feet MLLW plus a 2 ft over depth. Authorized depth of the Inner Basin is -10 feet MLLW plus a 2 ft over depth (*see* Enclosure 3).

The proposed habitat restoration area occupies 53.8 acres extending approximately 4,100 feet from the north jetty along the shoreline to the north. It varies in width from 200 feet where it lies adjacent to the Area D buffer. North of the Area D buffer, the habitat restoration area extends from the water's edge to approximately 590 feet inland. It tapers slightly to the north, following the natural contours of the beach, and narrows to approximately 380 feet. Habitat restoration would occur on an as-needed basis within the area to provide adequate nesting habitat along the shoreline to replace any habitat lost or modified due to dredging activities. Habitat restoration may include the use of heavy equipment to perform activities such as, reduce the height of the sand dunes to the natural beach level, and artificially create additional nesting habitat for shorebirds along the shoreline. The Corps has committed to restoring 13.47 acres of habitat, further details of the habitat restoration will be coordinated and finalized with the US Fish & Wildlife Service.

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Port Hueneme is located in the city of Port Hueneme. This harbor is located approximately one mile southeast of Channel Islands Harbor. Harbor features include two entrance jetties, an approach channel, an entrance channel, and a central turning basin. The dredge template is divided into four prisms; the approach channel, entrance channel, turning basin, and channel A. The approach channel is 1,800 feet long, 600 feet wide at its widest, and has an authorized depth of -44 feet MLLW plus a 2 ft over depth. The entrance channel is approximately 1,300 feet long, 330 feet wide, and has an authorized depth of -40 feet MLLW plus a 2 ft over depth. Authorized depth of the turning basin and channel A is -40 feet MLLW plus a 2 ft over depth (*see* Enclosures 2 & 3). No change is proposed for the Port Hueneme dredge template, which will remain consistent with previous consultation (*see* Enclosure 1).

Historic Property Identification Efforts

CH2MHill conducted surveys of the onshore portions of the APE in 2004 for the city of Oxnard (VN2978). The survey was negative for cultural resources within the APE. PS Associates (Pierson, Shiner, and Slater) conducted an archaeological survey of the offshore portions of the APE in 1987, with negative results within the APE (VN-02974). Lastly, Archaeological Research, Inc., conducted a survey of the onshore area between the Channel Island and Port Hueneme harbors in 1977, with negative results (V-1102).

Summary

The Corps is requesting your concurrence with our finding that the maintenance dredging program at the Channel Island and Port Hueneme harbors, including the increased dredge volume; additional dredging in Area G; addition of a 200-ft buffer around Area D; and habitat restoration along Hollywood beach, will continue to have "no effect to historic properties" per 36 CFR 800.4. The Corps will continue to consult with you regarding any future changes in scope.

Concurrent with the Environmental Assessment conducted in 2018 for the previous iteration of this project, the Corps requested a sacred land file search from the Native American Heritage Commission (NAHC) to which the NAHC responded on May 23, 2018, stating that the records search was negative. The NAHC also provided a list of six Federally and non-Federally recognized Tribes and individuals to be contacted regarding cultural resource issues related to the proposed Project (Enclosure 5). On September 21, 2022, the Corps notified all contacts on the NAHC list, inviting them to consult on the undertaking. The Corps is requesting their comment on the appropriateness of the APE, the results of the historic property identification efforts to date, and their assistance in identifying historic properties that may be affected by the project and which may be of religious or cultural significance to the Tribe in accordance with 36 CFR 800.4(a)(4)). Once the Corps consults with all tribal representatives on the NAHC list, it will provide your office a summary of all tribal comments and concerns received.

If you have any questions or concerns, please contact Dr. John Hale, Corps Archaeologist, via email at john.p.hale@usace.army.mil or by phone at (213) 238-1822.

Sincerely,

Maricris Lee
Deputy Chief, Planning Division

Enclosure(s)

State of California • Natural Resources Agency
Gavin Newsom, *Governor*

DEPARTMENT OF PARKS AND RECREATION
OFFICE OF HISTORIC PRESERVATION
Armando Quintero, *Director*

Julianne Polanco, State Historic Preservation Officer
1725 23rd Street, Suite 100, Sacramento, CA 95816-7100
Telephone: (916) 445-7000 FAX: (916) 445-7053
calshpo.ohp@parks.ca.gov www.ohp.parks.ca.gov

October 26, 2022 In reply refer to: COE940926F

VIA ELECTRONIC MAIL

Maricris Lee
Deputy Chief, Planning Division
U.S. Army Corps of Engineers, Los Angeles District
915 Wilshire Blvd., Suite 1109
Los Angeles, CA 90017-3409

RE: Reinitiating Section 106 consultation for changes to the routine maintenance dredging at Channel Island Harbors, Ventura County

Dear Maricris Lee,

The U.S. Army Corps of Engineers (COE) is reinitiating consultation with the State Historic Preservation Officer (SHPO) to comply with Section 106 of the National Historic Preservation Act of 1966 (as amended) and its implementing regulation at 36 CFR § 800 *et seq*. By letter received on September 26, 2022, the COE is seeking concurrence on their continued finding of effect and comments on their proposed changes to the undertaking. The COE submitted copies of previous consultations between the COE and the SHPO for COE940926F; 13th Biannual Harbor Dredging, Channel Islands and Port Hueneme (September 22, 1994; October 5, 1994; March 22, 2000; March 28, 2000).

The COE is proposing to conduct routine dredging of at the Channel Islands and Port Hueneme harbors in Ventura County. Proposed project activities include dredging the Federal navigation channels, dredging a sand trap outside the Channel Islands Harbor, to distribute dredge materials to Silver Strand and Hueneme beaches. The COE is proposing to increase the amount of proposed biennially dredged materials from 2 million cubic yards to 2.5 million cubic yards; to add a dredge unit, the Approach Channel (Area G) to remove shoaling; to include a 200-foot buffer along the Hollywood Beach shoreline to the existing landward boundary of Sand Trap Area D in the APE; the temporary placement of a delivery pipe for distributing dredge materials to proposed beach-nourishment locations; and to perform habitat restoration as biological mitigation for impacts to California least tern, western snowy plover, and western snowy plover designated critical habitat on Hollywood Beach. The COE states no change to the Port Hueneme dredge depths or boundaries is proposed for this undertaking.

The COE describes proposed habitat restoration as part of the undertaking and states that the habitat restoration would occur on an as-needed basis to replace any shoreline nesting habitat lost or modified due to dredging activities. The COE states that habitat restoration may include the reduction of the height of the sand dunes to the natural beach level, and the creation of artificial shoreline nesting habitat for shorebirds. The COE states they have committed to restoring 13.47 acres of habitat within a 53.8-acre biological mitigation area, and that further details of the habitat restoration will be coordinated and finalized with the US Fish & Wildlife Service. This indicates more than one federal agency may be involved in the undertaking. Please clarify if this proposed project activity is part of the current undertaking, and if so, if the COE has been designated the lead Federal agency pursuant to 36 CFR § 800.2(a)(2). If the US Fish and Wildlife Service has designated the COE as lead Federal agency, please provide a copy of the agency letter designating such status to the COE.

The COE requested a search of the Sacred Lands File from the Native American Heritage Commission (NAHC) returning negative results on May 23, 2018. The COE states they contacted Native American entities listed by the NAHC as having cultural ties to the project area on September 21, 2022.

It is recommended that the COE use a search of the Sacred Lands File by the NAHC and use a Native American contact list from within the last two years, as the Sacred Lands File is regularly updated, and the appropriate contacts change over time. It is also recommended that in future undertakings the COE conduct follow-up emails and/or phone calls to potentially interested consulting parties to ensure a reasonable and good-faith effort has been made to allow for those parties to comment and consult on the Federal undertaking and provide documentation of those conducted efforts to the SHPO. Please provide an update on the COE's outreach to Tribes and other potentially interested consulting parties and how the COE has taken any received comments into account in making their determinations and findings.

The COE describes the APE as the dredge areas for Channel Islands and Port Hueneme harbors; the beach placement areas on Silver Strand and Hueneme beaches; the nearshore placement site adjacent to Hueneme Beach; the buffer area around the Sand Trap Area D; the biological mitigation area; and the delivery pipe corridors between the Channel Islands Harbor and Silver Strand Beach, and between Silver Strand Beach and Hueneme Beach. The APE occupies a total of 430 acres.

From review of the COE submission letter, it is my understanding that the vertical extent of the APE for the Channel Islands is described as -20 feet Mean Lower Water Level (MLWL) in the navigation channel for Channel Islands Harbor, 35 feet MLWL for the sand traps (Areas A-G), -20 MLWL plus a 2 foot over depth of the approach channel and entrance basin, -10 MLWL plus a 2 foot over depth for the Inner basin. It is my understanding that the vertical extent of the APE for Port Hueneme Harbor is -44 MLWL plus a 2 foot over depth for the approach channel, -40 MLWL plus a 2 foot over depth for the entrance channel, -40 MLWL plus a 2 foot over depth for the turning basin and channel A. Please

confirm or clarify the vertical extent of the APE. Please clarify the vertical extent of the APE in the biological mitigation area if it is part of the undertaking.

The COE describes efforts to identify historic properties as including a review of pedestrian survey of the onshore portions of the APE from 2004, review of survey of the offshore portions of the APE from 1987, review of pedestrian survey of the onshore portion of the APE between the Channel Islands and Port Hueneme harbors in 1977, and Native American outreach in 2022. Efforts to identify historic properties resulted in no cultural resources in the APE.

It is recommended that identification efforts include a recent (not more than two years old) CHRIS records search. Please clarify what, if any, and when record searches were conducted for both the onshore and offshore portions of the APE. If the COE determined that using record searches older than two years remain adequate, please covey the reasons used to come to that conclusion.

It is my understanding that surveys of onshore and offshore portions of the APE were conducted in 1977, 2004, and 1987, respectively. It is recommended that identification efforts include a recent (not more than two years old) survey of the APE. If the COE determined that information from surveys older than two years remain adequate and no update is needed, please covey the reasons used to come to that conclusion.

If the COE has determined the previously taken identification efforts are adequate and do not require updating, it is unclear from the provided information if the previously conducted identification efforts include the areas the COE is proposing to add to the APE. Please convey the information the COE used to come to its conclusions.

The COE is requesting concurrence with their finding that the maintenance dredging program at the Channel Island and Port Hueneme harbors, including the increased dredge volume; additional dredging in Area G; addition of a 200-ft buffer around Area D; and habitat restoration along Hollywood beach, will continue to have no effect to historic properties. As the COE's APE, as well as their scope and appropriateness of identification efforts are unclear, I am presently unable to concur in the COE's finding of effect. I must therefore object to this finding of effect until such time as the COE provides the information used to come to their conclusions in order to address the above comments. If you require further information, please contact Elizabeth Hodges at (916) 445-7017 or Elizabeth.Hodges@parks.ca.gov

Sincerely,

Julianne Polanco
State Historic Preservation Officer

State of California • Natural Resources Agency
Gavin Newsom, *Governor*

DEPARTMENT OF PARKS AND RECREATION
OFFICE OF HISTORIC PRESERVATION
Armando Quintero, *Director*

Julianne Polanco, State Historic Preservation Officer
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calshpo.ohp@parks.ca.gov www.ohp.parks.ca.gov

December 23, 2022 In reply refer to: COE940926F

VIA ELECTRONIC MAIL

Jodi L. Clifford
Chief, Planning Division
U.S. Army Corps of Engineers, Los Angeles District
915 Wilshire Blvd., Suite 1109
Los Angeles, CA 90017-3409

RE: Continuing consultation for changes to the routine maintenance dredging at Channel Island Harbors, Ventura County (previously misfiled as COE_2018_0705_003)

Dear Jodi Clifford,

The U.S. Army Corps of Engineers (COE) is continuing consultation with the State Historic Preservation Officer (SHPO) to comply with Section 106 of the National Historic Preservation Act of 1966 (as amended) and its implementing regulation at 36 CFR § 800 *et seq*. By letter received on November 16, 2022, the COE is addressing SHPO comments on the nature of the undertaking, outreach to other potential consulting parties, delineation of the APE, and their identification efforts, and is seeking concurrence on their continued finding of effect and comments on their proposed changes to the undertaking.

The COE reinitiated consultation with the SHPO by letter received on September 26, 2022, proposing to conduct routine dredging of at the Channel Islands and Port Hueneme harbors in Ventura County. Proposed project activities include dredging the Federal navigation channels, dredging a sand trap outside the Channel Islands Harbor, and the distribution of dredge materials to Silver Strand and Hueneme beaches.

The COE is proposing to increase the amount of proposed biennially dredged materials from 2 million cubic yards to 2.5 million cubic yards; to add a dredge unit, the Approach Channel (Area G) to remove shoaling; to include a 200-foot buffer along the Hollywood Beach shoreline to the existing landward boundary of Sand Trap Area D in the APE; the temporary placement of a delivery pipe for distributing dredge materials to proposed beach-nourishment locations; and to perform habitat restoration as biological mitigation for impacts to California least tern, western snowy plover, and western snowy plover designated critical habitat on Hollywood Beach. The COE states no change to the Port Hueneme dredge depths or boundaries is proposed for this undertaking.

The COE describes proposed habitat restoration as part of the undertaking and states that the habitat restoration would occur on an as-needed basis to replace any shoreline nesting habitat lost or modified due to dredging activities. The COE states that habitat restoration may include the reduction of the height of the sand dunes to the natural beach level, and the creation of artificial shoreline nesting habitat for shorebirds. The COE states they have committed to restoring 13.47 acres of habitat within a 53.8-acre biological mitigation area, and that further details of the habitat restoration will be coordinated and finalized with the U.S. Fish & Wildlife Service (USFWS).

By letter dated October 26, 2022, the SHPO commented that the creation of biological mitigation areas indicated that more than one federal agency may be involved in the undertaking and requested clarity on the roles of the federal agencies involved in this undertaking. By letter received on November 16, 2022, the COE clarified that the COE has conducted consultation with the USFWS for Section 7 of the Endangered Species Act, which in most circumstances does not appear to result in the COE's Federal undertaking being a Federal undertaking for the USFWS. Thank you for the clarification.

The COE requested a search of the Sacred Lands File from the Native American Heritage Commission (NAHC) returning negative results on May 23, 2018. The COE stated they contacted Native American entities listed by the NAHC as having cultural ties to the project area on September 21, 2022.

The SHPO recommended on October 26, 2022, that the COE use a search of the Sacred Lands File by the NAHC and use a Native American contact list from within the last two years. It was also recommended that in future undertakings the COE conduct follow-up emails and/or phone calls to potentially interested consulting parties. The SHPO requested an update on the COE's outreach to Tribes and other potentially interested consulting parties and how the COE has taken any received comments into account in making their determinations and findings. The COE responded on November 16, 2022, with a summary of the agency's internal procedure for identifying Indian tribes and relayed that for the current Undertaking, the NAHC list of Native American contacts was checked against the list used for an adjacent project at Ventura Harbor in 2021, with no differences noted between the lists. The COE also conveyed a copy of their tribal consultation letter, sent on September 21, 2022, and that they conducted follow up emails on October 18, 2022. The COE received one response from the Fenandeño Tatviam Band of Mission Indians stating no objection to the project and volunteering contact information for Native American monitors, should monitors be needed.

The COE describes the APE as the dredge areas for Channel Islands and Port Hueneme harbors; the beach placement areas on Silver Strand and Hueneme beaches; the nearshore placement site adjacent to Hueneme Beach; the buffer area around the Sand Trap Area D; the biological mitigation area; and the delivery pipe corridors between the Channel Islands Harbor and Silver Strand Beach, and between Silver Strand Beach and Hueneme Beach. The APE occupies a total of 430 acres.

On October 26, 2022, the SHPO conveyed the understanding that the vertical extent of the APE for the Channel Islands is as -20 feet Mean Lower Water Level (MLWL) in the navigation channel for Channel Islands Harbor, 35 feet MLWL for the sand traps (Areas A-G), -20 MLWL

plus a 2 foot over depth of the approach channel and entrance basin, -10 MLWL plus a 2 foot over depth for the Inner basin. The vertical extent of the APE is understood to be -44 MLWL plus a 2 foot over depth for the approach channel at Port Hueneme Harbor, -40 MLWL plus a 2 foot over depth for the entrance channel, -40 MLWL plus a 2 foot over depth for the turning basin and channel A. On October 26, 2022, the SHPO requested the COE confirm or clarify the vertical extent of the APE as well as the vertical extent of the APE in the biological mitigation area if it is part of the undertaking. The COE responded that this information was correct, and that the distribution of deposited materials within the beach nourishment areas on Silver Strand and Hueneme beaches will not exceed two feet.

The COE clarified in their November 16, 2022 letter that the proposed project activities within the biological mitigation area would consist of lowering accreted sand dunes by up to 25-feet to their original beach surface and to follow the natural contours of the original ground surface, allowing for up to two-feet of ground disturbance from the use of heavy equipment. Thank you for the clarification.

The COE described efforts to identify historic properties in their letter dated September 26, 2022, as including a review of pedestrian survey of the onshore portions of the APE from 2004, review of survey of the offshore portions of the APE from 1987, review of pedestrian survey of the onshore portion of the APE between the Channel Islands and Port Hueneme harbors in 1977, and Native American outreach in 2022. Efforts to identify historic properties resulted in no cultural resources in the APE.

By letter dated October 23, 2022, the SHPO recommended that identification efforts include a recent (not more than two years old) CHRIS records search and pedestrian survey. The SHPO requested the COE clarify what, if any, and when record searches and surveys were conducted for both the onshore and offshore portions of the APE, and if the COE determined that using record searches and surveys older than two years remain adequate, that the agency covey the reasons used to come to that conclusion. By letter received on November 16, 2022, the COE conveyed that no development, regulatory or permitted actions, or other projects or undertakings have occurred within the APE since previous iterations of the undertaking. It is presumed this statement is the COE’s argument that the previously conducted CHRIS record searches and surveys remain adequate and an update is unnecessary. The COE also conveyed their analysis of the depositional and erosional cycles of the APE’s environment, and their conclusion based upon this analysis that active beach zones have no reasonable potential for intact cultural deposits. Thank you for the clarification.

The SHPO also commented that it was unclear from the provided information if the previously conducted identification efforts included the areas the COE proposes to add to the APE. The COE provided clarification in their letter received on November 16, 2022, that the additional areas have been adequately covered by their identification efforts and that the nearshore placement area adjacent to Hueneme Beach is deposition only and is proposed for deposition as the area has been depleted through the regular littoral currents moving the previously existing sediments in a cyclical fashion.

The COE is requesting concurrence with their finding that the maintenance dredging program at the Channel Island and Port Hueneme harbors, including the increased dredge volume; additional dredging in Area G; addition of a 200-ft buffer around Area D; and habitat restoration along Hollywood beach, will continue to have no effect to historic properties. I do not object to a continued finding of *no historic properties affected* for this undertaking pursuant to 36 CFR § 800.4(d)(1).

Be advised that under certain circumstances, such as unanticipated discovery or a change in project description, the COE may have additional future responsibilities for this undertaking under 36 CFR § 800 *et seq*. If you require further information, please contact Elizabeth Hodges of my staff at (916) 445-7017 or Elizabeth.Hodges@parks.ca.gov.

Sincerely,

Julianne Polanco
State Historic Preservation Officer

APPENDIX E-
AIR QUALITY CALCULATIONS

National and California Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards[1]	National Standards[2]	
			Primary[3,4]	Secondary[3,5]
Ozone (O_3)	8-hour[6] 1-hour	0.070 ppm (137 μg/m^3) 0.09 ppm (180 μg/m^3)	0.070 ppm (137 μg/m^3) --	Same as Primary Standard
Carbon Monoxide (CO)	8-hour 1-hour	9.0 ppm (10 mg/m^3) 20.0 ppm (23 mg/m^3)	9.0 ppm (10 mg/m^3) 35 ppm (40 mg/m^3)	-- --
Nitrogen Dioxide (NO_2)	Annual Avg. 1-hour	0.030 ppm (57 μg/m^3) 0.18 ppm (339 μg/m^3)	0.053 ppm (100 μg/m^3) 0.100 ppm (188 μg/m^3)	0.053 ppm (100 μg/m^3) --
Sulfur Dioxide (SO_2)	24-hour 3-hour 1-hour	0.04 ppm (105 μg/m^3) -- 0.25 ppm (655 μg/m^3)	-- -- .075 ppm (196 μg/m^3)	-- 0.5 ppm (1300 μg/m^3) --
Respirable Particulate Matter (PM_{10})	24-hour Ann. Arith. Mean	50 μg/m^3 20 μg/m^3	150 μg/m^3 --	Same as Primary Standard
Suspended Particulate Matter ($PM_{2.5}$)[7]	24-hour Ann. Arith. Mean	-- 12 μg/m^3	35 μg/m^3 15 μg/m^3	Same as Primary Standard
Sulfates (SO_4)	24-hour	25 μg/m^3	NS	NS
Lead (Pb)	30-day Avg. Calendar Qtr. Rolling 3-Month Avg.	1.5 μg/m^3 NS NS	NS 1.5 μg/m^3 0.15 μg/m^3	NS Same as Primary Standard
Hydrogen Sulfide (H_2S)	1-hour	0.03 ppm (42 μg/m^3)	NS	NS
Vinyl Chloride	24-hour	0.010 ppm (26 μg/m^3)	NS	NS
Visibility Reducing Particles	8-hour	Extinction coefficient of 0.23 per kilometer - visibility of 10 miles or more due to particles when relative humidity is less than 70% (CA only)	NS	NS

Notes: NS=no standard; ppm=parts per million; g/m3=microgram per cubic meter; mg/m3=milligrams per cubic Meter

1. California standards for O3, CO, SO2 (1 and 24 hour), NO2, and PM10 and visibility reducing particles are values that are not to be exceeded. SO4, Pb, H2S, and Vinyl Chloride standards are not to be equaled or exceeded.
2. National Standards (other than O3, particulate matter, and those based on annual averages or annual arithmetic means) are not to be exceeded more than once a year. The O3 Standard is attained when the fourth highest eight hour concentration in a year, averaged over 3 years, is equal to or less than the standard. For PM10, the 24 hour standard is attained when the expected number of days per calendar year within a 24-hour average concentration above 150 µg/m3 is equal to or less than one. For PM2.5, the 24 hour standard is attained when 98% of the daily concentrations, averaged over 3 years, are equal to or less than the standard.
3. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25ºC and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25ºC and a reference pressure of 760 torr; ppm in this table refers to ppm by volume or micromoles of pollutant per mole of gas.
4. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety, to protect the public health.
5. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
6. On June 2, 2010, the U.S. EPA established a new 1-hour SO2 standard, effective August 23, 2010, which is based on the 3-year average of the annual 99th percentile of 1-hour daily maximum concentrations. The EPA also revoked both the existing 24-hour SO2 standard of 0.14 ppm and the annual primary SO2 standard of 0.030 ppm, effective August 23, 2010. The secondary SO2 standard was not revised at that time; however, the secondary standard is undergoing a separate review by EPA.
7. The ARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.
8. National lead standard, rolling 3-month average: final rule signed October 15, 2008.
Source: California Air Resources Board 2010 (http://www.arb.ca.gov)

SUMMARY TOTALS

Total Project Emissions - Daily	Pounds Per Day				
Project Emissions	**ROG**	**CO**	**NOx**	**SOx**	**PM10**
Hydraulic Dredge	15.42	66.69	214.83	6.31	6.72
On-Road Vehicles	0.23	1.87	0.17	0.01	0.05
SCAQMD Daily Significance	**75**	**550**	**100**	**150**	**150**

Total Project Emissions - Yearly	Tons Per Year				
Project Emissions	**ROG**	**CO**	**NOx**	**SOx**	**PM10**
Hydraulic Dredge*	0.87	3.79	12.18	0.36	0.38
On-Road Vehicles	0.00	0.03	0.00	0.00	0.00
de minimis Thresholds	**10**	**100**	**100**	**100**	**70**

Total Project GHG Emissions -	Tons Per Year
Project Emissions	**CO2**
Hydraulic Dredge	1064.22
On-Road Vehicles	32.74

Sources: South Coast Air Basin Fleet Average Emission Factors (Diesel)
Highest (Most Conservative) EMFAC2007 (version 2.3), Emission Factors for On-Road Passenger Vehicles & Delivery Trucks, and Heavy-Heavy-Dut Diesel Trucks; SCAQMD.
SCAQMD 2022.

Maintenance Dredging

Emission Source Data for Maintenance Dredging - Hydraulic Dredge

Equipment Type	Power Rating (bhp)	Load Factor	# Active	Hourly bhp-Hrs (Hourly)	Hours Per Day	Daily Hp-Hrs	Work Days (max)	Annual Hp-Hrs
28" Hydraulic	9,000	0.045	1	405	22	8,910	125	1,113,750
Booster Station	5200	0.045	1	234	22	5,148	125	643,500
Work Tug boats	250	0.045	1	11	22	242	125	30,250
Derrick for Pipelines	200	0.011	1	2	11	22	125	2,750
Boat/Launch (13-ft)	50	0.011	1	1	11	11	125	1,375
Tender/Crew/Survey Boat (14-ft)	100	0.045	1	5	11	55	125	6,875
Dozer (Shore) - D8	310	0.044	1	14	22	308	125	38,500
Loader (Shore) - 980	350	0.041	1	14	22	308	125	38,500
Log Skidder (Shore)	160	0.010	1	2	11	22	125	2,750

* One hydraulic dredge engine assumed to be in operation at one time (not concurrently with engines); emission calculations assumes a 9,000 power rating.

Emission Factors for Construction Dredging Equipment

Activity/Equipment Type	ROG [1]	CO	NOx	SOx	PM10
28" Hydraulic	0.47	2.02	6.48	0.18	0.20
Booster Station	0.47	2.02	6.48	0.18	0.20
Work Tug boats	0.20	1.87	8.94	0.81	0.22
Derrick for Pipelines	0.46	1.48	6.66	0.18	0.23
Boat/Launch (13-ft)	2.06	5.92	5.94	0.18	0.70
Tender/Crew/Survey Boat (14-ft)	1.11	3.77	7.56	0.18	0.77
Dozer (Shore) - D8	0.37	1.73	5.51	0.18	0.20
Loader (Shore) - 980	0.37	1.73	5.51	0.18	0.20
Log Skidder (Shore)	0.71	3.04	6.94	0.18	0.42

Daily Emission from Construction Activities - (Pounds/day)

Activity/Equipment Type	ROG [1]	CO	NOx	SOx	PM10
28" Hydraulic	9.23	39.68	127.29	3.54	3.93
Booster Station	5.33	22.93	73.54	2.04	2.27
Work Tug boats	0.11	1.00	4.77	0.43	0.12
Derrick for Pipelines	0.02	0.07	0.32	0.01	0.01
Boat/Launch (13-ft)	0.05	0.14	0.14	0.00	0.02
Tender/Crew/Survey Boat (14-ft)	0.13	0.46	0.92	0.02	0.09
Dozer (Shore) - D8	0.25	1.17	3.74	0.12	0.14
Loader (Shore) - 980	0.25	1.17	3.74	0.12	0.14
Log Skidder (Shore)	0.03	0.06	0.36	0.02	0.01
Total Daily Emissions (lbs/day)	15.42	66.69	214.83	6.31	6.72

Yearly Emission from Construction Activities - (Tons/year)

Activity/Equipment Type	**ROG [1]**	**CO**	**NOx**	**SOx**	**PM10**
28" Hydraulic	0.52	2.25	7.22	0.20	0.22
Booster Station	0.30	1.30	4.17	0.12	0.13
Work Tug boats	0.01	0.06	0.27	0.02	0.01
Derrick for Pipelines	0.00	0.00	0.02	0.00	0.00
Boat/Launch (13-ft)	0.00	0.01	0.01	0.00	0.00
Tender/Crew/Survey Boat (14-ft)	0.01	0.03	0.05	0.00	0.01
Dozer (Shore) - D8	0.01	0.07	0.21	0.01	0.01
Loader (Shore) - 980	0.01	0.07	0.21	0.01	0.01
Log Skidder (Shore)	0.00	0.01	0.02	0.00	0.00
Total Emission(Tons/year)	0.87	3.79	12.18	0.36	0.38

Assume total dredge volume about 2,500,000 cubic yards (cy) (20,000 CY/Day).
Emissions factors for Maintenance Dredging for tugboat taken from the Port San Luis Break Water Repair Project Final Environmental Assessment, April 2021.

Daily Green House Gas (GHG) Emission from Construction Activities (Pounds/day)

Activity/Equipment Type	**CO2**	**CH4**	**N2O**
28" Hydraulic	11157.14	1.57	0.20
Booster Station	6446.35	0.91	0.11
Work Tug boats	256.80	0.04	0.00
Derrick for Pipelines	27.55	0.00	0.00
Boat/Launch (13-ft)	13.77	0.00	0.00
Tender/Crew/Survey Boat (14-ft)	68.87	0.01	0.00
Dozer (Shore) - D8	385.68	0.05	0.01
Loader (Shore) - 980	385.68	0.05	0.01
Log Skidder (Shore)	23.35	0.00	0.00
Total Daily Emissions (lbs/day)	18765.19	2.65	0.33

* One hydraulic dredge engine assumed to be in operation at one time (not concurrently with engines); emission calculations assumes a 9,000 power rating.

Yearly Green House Gas (GHG) Emission from Construction Activities (Pounds/day)

Activity/Equipment Type	**CO2**	**CH4**	**N2O**
28" Hydraulic	632.61	0.09	0.01
Booster Station	365.51	0.05	0.01
Work Tug boats	14.56	0.00	0.00
Derrick for Pipelines	1.56	0.00	0.00
Boat/Launch (13-ft)	0.78	0.00	0.00
Tender/Crew/Survey Boat (14-ft)	3.91	0.00	0.00
Dozer (Shore) - D8	21.87	0.00	0.00
Loader (Shore) - 980	21.87	0.00	0.00
Log Skidder (Shore)	1.56	0.00	0.00
Total Emission(Tons/year)	1064.22	0.15	0.02

On Road Fugitive Emissions Summary

Calculations

On-road sources include:

A) 17 personnel traveling to and from work site (9 vehicles used; assume carpool); personnel would commute from approximately 20 miles roundtrip on freeway.

B) Two pickup trucks (passenger) to travel within and around project site on local roads.

V=W x (X/Y) x Z; where V=VMT, W=Distance x # of trips, X=number of vehicles, Y=1 hour, Z=estimated travel time

Passenger (Commuting): VMT = 20 miles/day x 2 trip x (9 vehicles/hr) x 1 hr = 360 miles per day

Passenger (Onsite Pickup Trucks): VMT = 5 miles/day x 1 trips x (2 vehicles/hr) x 11 hr = 110 miles per day

Estimating fugitive emissions from passenger (commuter) Vehicle Travel on Paved Roads (SCAQMD CEQA Air Quality Handbook Table A9-9-B with updates through 2010)

E = V x G (with street cleaning and is dependent on type of road; where E=emissions for passenger vehicles; V=VMT; and G=0.00065 for freeways, 0.018 for local streets (SCAQMD CEQA Air Quality Handbook Table A9-9-B-1 with updates through 2010).

Passenger (Commuting): 360 miles/day x 0.00065 lbs/mile = 0.234 lbs/day

Passenger (Onsite Pickup Truck): 110 mile/day x 0.018 lbs/mile = 1.98 lb/day

On-Road Fugitive Emissions Summary- Daily

Type of Vehicle	Number of Vehicles	VMT/DAY (On-Road)	VMT/DAY (Off-Road)	Emissions (On-Road) (lbs/day)
Passenger (Commuter)	9	360	0	0.234
Passenger (Onsite Pickup Truck)	2	110	0	1.980
Total	11	470	0	2.214

On-Road Emissions (Construction-Offsite)

SCAQMD Emission Factors- 2022 (lbs/mile)

Vehicle Type	ROG	CO	NOx	SOx	PM10	PM2.5	CO2
Passenger Vehicle (lbs/mile)	0.0004866	0.0039787	0.0003515	0.0000107	0.0000966	0.0000639	1.1101993

VMT 2022

Vehicle Type	Miles/Day	Total Days	Total Miles
Passenger Vehicle (Commuter)	360	125	45,000
Passenger Vehicle (Onsite Pickup Truck)	110	125	13,750

Dredging and Excavation

Worse-Case Daily Emissions in lbs

Vehicle Type	VMT Total	ROG	CO	NOx	SOx	PM10	PM2.5	CO2
Passenger Vehicle (Commuter)	360	0.18	1.43	0.13	0.00	0.03	0.02	399.67
Passenger Vehicle (Onsite Pickup Truck)	110	0.05	0.44	0.04	0.00	0.01	0.01	122.12
Total		0.23	1.87	0.17	0.01	0.05	0.03	521.79

On-Road Emission (lb/day): 40 mph
Travel Emission Formula= (emission factors (Exhaust+Tire wear)) x (Distance traveled (VMT))

Dredging and Excavation

Yearly Emissions in Tons

Vehicle Type	Total Miles	ROG	CO	NOx	SOx	PM10	PM2.5	CO2
Passenger Vehicle (Commuter)	45,000	0.01	0.09	0.01	0.00	0.00	0.00	24.98
Passenger Vehicle (Onsite Pickup Truck)	13750	0.00	0.03	0.00	0.00	0.00	0.00	7.63
Total		0.01	0.12	0.01	0.00	0.00	0.00	32.61

APPENDIX F-
EJSCREEN REPORT

EJScreen Report (Version 2.0)

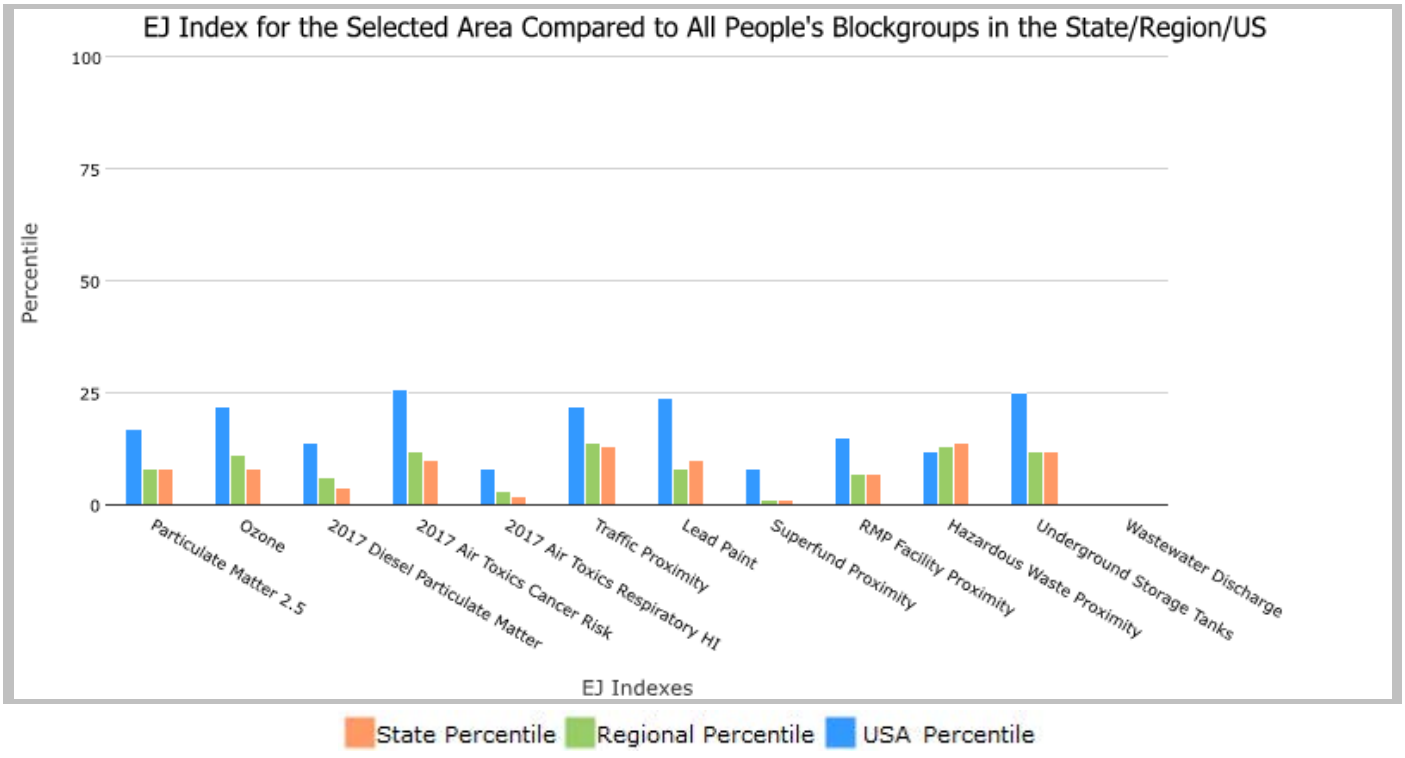
the User Specified Area, CALIFORNIA, EPA Region 9

Approximate Population: 7,415

Input Area (sq. miles): 4.11

(The study area contains 1 blockgroup(s) with zero population.)

Selected Variables	State Percentile	EPA Region Percentile	USA Percentile
Environmental Justice Indexes			
EJ Index for Particulate Matter 2.5	8	8	17
EJ Index for Ozone	8	11	22
EJ Index for 2017 Diesel Particulate Matter*	4	6	14
EJ Index for 2017 Air Toxics Cancer Risk*	10	12	26
EJ Index for 2017 Air Toxics Respiratory HI*	2	3	8
EJ Index for Traffic Proximity	13	14	22
EJ Index for Lead Paint	10	8	24
EJ Index for Superfund Proximity	1	1	8
EJ Index for RMP Facility Proximity	7	7	15
EJ Index for Hazardous Waste Proximity	14	13	12
EJ Index for Underground Storage Tanks	12	12	25
EJ Index for Wastewater Discharge	N/A	N/A	N/A



This report shows the values for environmental and demographic indicators and EJSCREEN indexes. It shows environmental and demographic raw data (e.g., the estimated concentration of ozone in the air), and also shows what percentile each raw data value represents. These percentiles provide perspective on how the selected block group or buffer area compares to the entire state, EPA region, or nation. For example, if a given location is at the 95th percentile nationwide, this means that only 5 percent of the US population has a higher block group value than the average person in the location being analyzed. The years for which the data are available, and the methods used, vary across these indicators. Important caveats and uncertainties apply to this screening-level information, so it is essential to understand the limitations on appropriate interpretations and applications of these indicators. Please see EJSCREEN documentation for discussion of these issues before using reports.

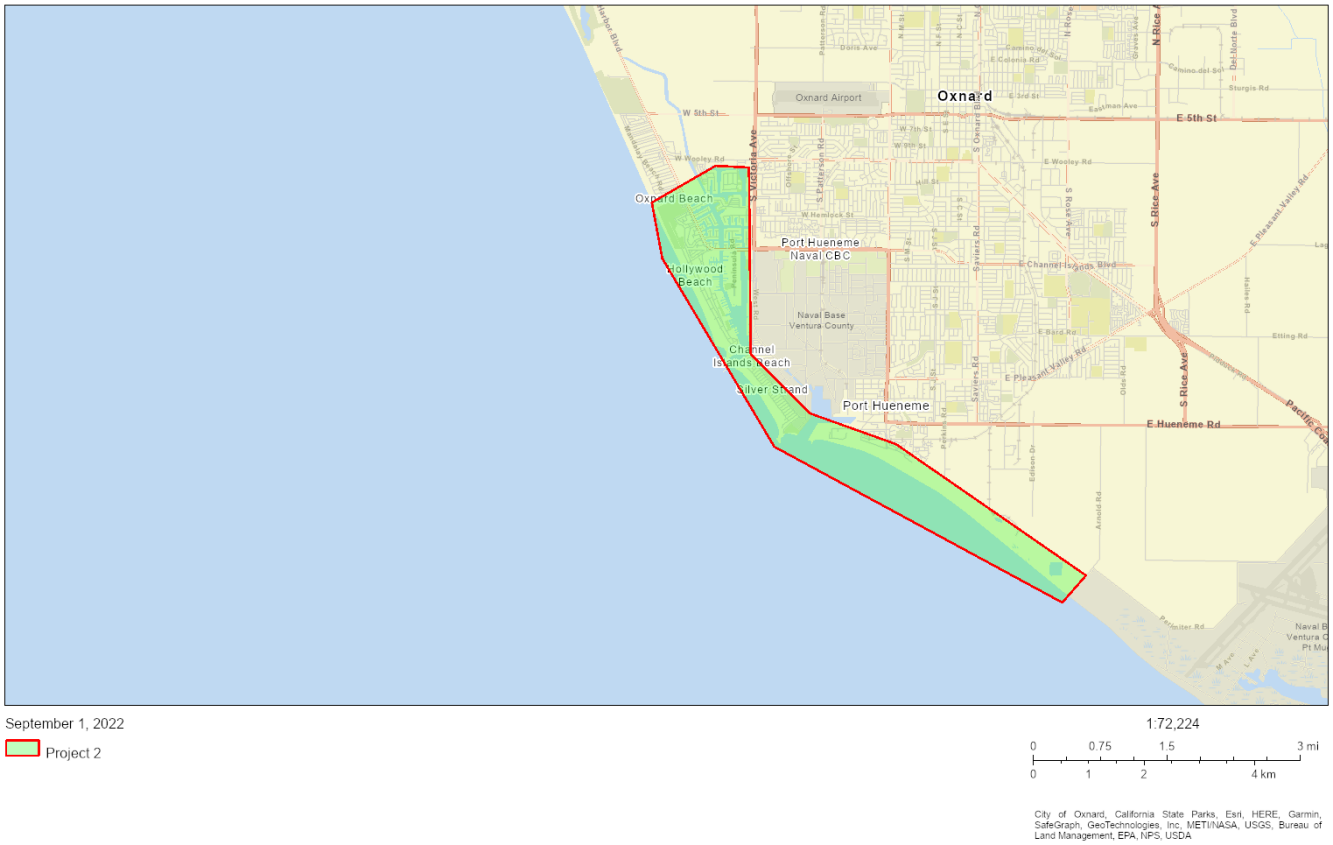
EJScreen Report (Version 2.0)

the User Specified Area, CALIFORNIA, EPA Region 9

Approximate Population: 7,415

Input Area (sq. miles): 4.11

(The study area contains 1 blockgroup(s) with zero population.)



Sites reporting to EPA	
Superfund NPL	0
Hazardous Waste Treatment, Storage, and Disposal Facilities (TSDF)	0

EJScreen Report (Version 2.0)

the User Specified Area, CALIFORNIA, EPA Region 9

Approximate Population: 7,415

Input Area (sq. miles): 4.11

(The study area contains 1 blockgroup(s) with zero population.)

Selected Variables	Value	State Avg.	%ile in State	EPA Region Avg.	%ile in EPA Region	USA Avg.	%ile in USA
Pollution and Sources							
Particulate Matter 2.5 (µg/m^3)	9.09	11.7	10	10.8	28	8.74	63
Ozone (ppb)	38.1	48.1	18	49.6	14	42.6	21
2017 Diesel Particulate Matter* (µg/m^3)	0.353	0.33	57	0.33	50-60th	0.295	70-80th
2017 Air Toxics Cancer Risk* (lifetime risk per million)	20	31	16	30	<50th	29	<50th
2017 Air Toxics Respiratory HI*	0.51	0.43	93	0.41	90-95th	0.36	95-100th
Traffic Proximity (daily traffic count/distance to road)	150	1300	36	1300	36	710	41
Lead Paint (% Pre-1960 Housing)	0.11	0.29	39	0.23	48	0.28	41
Superfund Proximity (site count/km distance)	0.25	0.18	87	0.15	89	0.13	89
RMP Facility Proximity (facility count/km distance)	0.59	1.1	50	1	55	0.75	63
Hazardous Waste Proximity (facility count/km distance)	1.3	5.2	21	4.4	27	2.2	61
Underground Storage Tanks (count/km^2)	0.61	3.7	31	3.3	34	3.9	38
Wastewater Discharge (toxicity-weighted concentration/m distance)	N/A	74	N/A	59	N/A	12	N/A
Socioeconomic Indicators							
Demographic Index	19%	47%	8	46%	9	36%	28
People of Color	22%	63%	8	60%	10	40%	39
Low Income	15%	31%	28	31%	27	31%	26
Unemployment Rate	7%	6%	65	6%	66	5%	72
Linguistically Isolated	1%	9%	18	8%	22	5%	47
Less Than High School Education	3%	17%	15	16%	16	12%	19
Under Age 5	3%	6%	15	6%	16	6%	17
Over Age 64	22%	14%	84	15%	82	16%	79

*Diesel particular matter, air toxics cancer risk, and air toxics respiratory hazard index are from the EPA's 2017 Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. Cancer risks and hazard indices from the Air Toxics Data Update are reported to one significant figure and any additional significant figures here are due to rounding. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update.

For additional information, see: www.epa.gov/environmentaljustice

APPENDIX G-
404(b)(1) EVALUATION

THE DRAFT EVALUATION OF THE EFFECTS OF THE DISCHARGE OF DREDGE OR FILL MATERIAL INTO THE WATERS OF THE UNITED STATES IN SUPPORT OF THE SUPPLEMENTAL ENVIRONMENTAL ASSESSMENT FOR THE CHANNEL ISLANDS AND PORT HUENEME HARBORS MAINTENANCE DREDGING PROJECT LOCATED IN VENTURA COUNTY, CALIFORNIA

INTRODUCTION. The following evaluation is provided in accordance with Section 404(b)(1) of the Federal Water Pollution Control Act Amendments of 1972 (Public Law 92-500) as amended by the Clean Water Act of 1977 (Public Law 95-217). Its intent is to succinctly state and evaluate information regarding the effects of discharge of excavated or fill material into the waters of the U.S. As such, it is not meant to stand alone and relies heavily upon information provided in the environmental document to which it is attached.

I. Project Description

a. Location: The proposed project encompasses a 3.3 mile stretch of shoreline extending from Channel Islands Harbor in the North to Hueneme Beach in the South. The project Area is in Ventura County, California.

b. General Description: The Los Angeles District of the U. S. Army Corps of Engineers, as part of its Operations and Maintenance Program, is proposing a modification to the Channel Islands and Port Hueneme Harbors Maintenance Dredging Project. The Corps proposes to dredge an additional 300,000 cy (cubic yards) of sediment to bring the project total up to 2.5 million cy of sediment from Channel Islands Harbor per biennial dredging cycle. This is the final dredging cycle of a six-year biennial dredging program. At Channel Islands Harbor, material will be dredged from the approach channel, entrance channel, sand traps, entrance basin, and inner basin. Project depth is -20 feet Mean Low Water (MLLW) at the channels and basins and -35 feet MLLW at the sand traps, plus a 2 foot over depth. The existing dredge template includes a dredge boundary to avoid impacts to coastal dunes and 200 ft buffer area around Area D. Dredged materials would be discharged at the previously authorized placement areas: Silver Strand Beach and Hueneme Beach. A hydraulic suction dredge would be used for the proposed project. A hydraulic suction dredge, and a dredge pipeline, would discharge dredged material onto Silver Strand and Hueneme Beaches.

Dredging of the additional quantity is anticipated to occur between November 1, 2022 and March 1, 2023 to accommodate sensitive environmental windows and high-intensity recreational use.

The proposed action has been preliminarily coordinated with the Environmental

Protection Agency, California Coastal Commission, U.S. Fish and Wildlife Service, National Marine Fisheries Service, and Los Angeles Regional Water Quality Control Board. Analysis of the proposed action and the 2017-2018 Channel Islands Harbor Sampling and Analysis Plan Report confirms the sandy material to be dredged is suitable for beach or nearshore placement at Silver Strand and Hueneme Beaches. The proposed action was presented and deemed suitable at the Southern California Dredge Materials Management Team (SC-DMMT) meeting on September 27, 2017.

c. Basic and Overall Project Purpose: This evaluation has been prepared pursuant to Section 404(b)(1) of the Clean Water Act of 1977 (38 USC 1344) which applies to the discharge of dredged or fill materials into waters of the United States. The primary purpose of the proposed project is to increase the total quantity of sand bypassing to Hueneme beach and other downcoast beaches, and to avoid sand being lost to the adjacent Hueneme Submarine Canyon.

d. General Description of Dredged or Fill Material: Dredged material is composed of sand particles, fine (0.25 mm) to coarse (1.0 mm) grained sand.

e. General Characteristics of Material (grain size, soil type): The areas to be dredged have traditionally generated sediments characterized as predominantly fine (0.25mm) to coarse (1.0 mm) grain sand particles. Previous testing of the dredged material indicates that the material is generally clean and the grain size is compatible with placement beaches. It is expected, based on historical records that less than 5% of the material will pass through a 200 sieve. Sediments at Channel Islands Harbor were sampled and tested in accordance with the Inland Testing Manual (USEPA & USACE, 1998) in 2018 and the sediments determined to be suitable for beach nourishment.

   Tier I assessment of the sediment within the proposed Channel Islands Harbor dredge template was completed in April 2018 in preparation of the first dredging cycle. Results showed that the proposed dredged material in areas A-E and area G was suitable for beach or nearshore placement.

   The dredge material in areas A-E and area G are considered to be suitable for either beach or nearshore placement, as proposed by the Corps and concurred with by the SC-DMMT on September 27, 2017.

   a. Quantity of Material: Approximately an additional 300,000 cy of sediments excavated from the project area would be placed at the beach placement sites.

   b. Source Material: Accumulated sediments in the dredge template.

f. Description of the Proposed Discharge Site: Dredged material will be placed at Silver Strand and/or Hueneme Beaches. The placement method utilized will be beach placement via a pipeline from the cutter suction dredge. The characteristic

habitat type subject to impact by dredge material placement is open-coast unvegetated sandy beach and surf zone soft-bottom, unvegetated sandy habitat.

a. Size (acres): The excavation and placement areas total approximately 132 acres.

b. Type of Site (confined, unconfined, open water): Excavation and placement activities will take place in unconfined, open water.

c. Type of Habitat: The dredge template and placement site is unvegetated sandy beach and unvegetated sandy bottom sub-tidal habitat.

g. Description of Disposal Method: The dredged material placement will be beach placement and the material will be dredged and transported via a hydraulic pipeline.

II. Factual Determinations**.**

a. Physical Substrate Determinations:

(1) Substrate Elevation and Slope:

The proposed project is not expected to result in significant substrate impacts. Project depth is -20 feet Mean Low Water (MLLW) at the Entrance Channel and Entrance Basin, and -35 feet MLLW at the Sand Trap.

(2) Sediment Type:

Evidence from past dredging indicates that the sediment consists primarily of fine (0.25 mm) to medium (1.00 mm) grain sands. Placement sediments are expected to be compatible with placement area materials. Recent sediment testing (April 2018) supports this conclusion.

(3) Excavated Material Movement:

The purpose of the project is to bypass accumulated sand at Channel Islands Harbor by dredging and placing the material onto Silver Strand and Hueneme Beaches. Dredged material will be placed on Silver Strand and Hueneme Beaches. The majority of the materials will remain in the coastal littoral system to supply sediment to sand-starved beaches downcoast.

(4) Physical Effects on Benthos (burial, changes in sediment type, etc.):

Temporary, short-term impacts will occur. However, no long-term significant impacts are expected. Organisms are expected to recolonize the area once dredging and placement activities cease.

(5) Other Effects. N/A

(6) Actions Taken to Minimize Impacts (Subpart H).

Needed: X YES ___NO

No measures can be taken to minimize direct impacts to benthic organisms from burial. Monitoring of water quality to control turbidity during dredging and placement activities would occur. If turbidity exceeds water quality criteria, dredging and placement activities would be evaluated and modifications made to get back into compliance.

If needed, Taken: X YES__NO

In accordance with the construction specifications, a water quality monitoring plan would be part of the construction contract to be approved by the Corps' Biologist and/or the Corps' Environmental Coordinator.

b. Water Circulation, Fluctuation, and Salinity Determinations

(1) Water (refer to 40 CFR sections 230.11(b), 230.22 Water, and 230.25 Salinity Gradients; testing specified in Subpart G may be required). Consider effects on salinity, water chemistry, clarity, odor, taste, dissolved gas levels, nutrients, eutrophication, others.

The proposed project is not expected to significantly effect salinity, water chemistry, clarity, odor, taste, dissolved gas levels, nutrients, eutrophication, or others.

(2) Current Patterns and Circulation (consider items in sections 230.11(b), and 230.23), Current Flow, and Water Circulation.

The proposed project is not expected to significantly effect current pattern, current circulation, current flow, or water circulation.

(3) Normal Water Level Fluctuations (tides, river stage, etc.) (consider items in sections 230.11(b) and 230.24)

The proposed project is not expected to have a significant impact on normal water level fluctuations.

(4) Salinity Gradients (consider items in sections 230.11(b) and 230.25)

The proposed project is not expected to have a significant impact on normal water salinity nor is it expected to create salinity gradients.

(5) Actions That Will Be Taken to Minimize Impacts (refer to Subpart H)

Needed: X YES _ NO

If needed, Taken: __X__YES__ NO

Dredging and placement operations would be monitored for effects on water quality, including turbidity, dissolved oxygen, light transmittance, pH, salinity, and temperature. If turbidity and/or dissolved oxygen exceeds water quality criteria, a Best Management Practice (BMP) would be implemented during dredging and placement activities to evaluate such exceedances and make modifications to placement activities to reduce and minimize impacts and to get back into compliance, in accordance with the construction contract specifications.

c. Suspended Particulate/Turbidity Determinations

(1) Expected Changes in Suspended Particulates and Turbidity Levels in Vicinity of Disposal Site (consider items in sections 230.11(c) and 230.21)

Impacts would be temporary and adverse, but not significant. Suspended particulates in the dredge area would settle after dredging and placement activities cease. It is expected that any impacts from suspended particulates and turbidity would not be significantly greater than those that are caused by natural surf zone processes at the receiver sites.

(2) Effects (degree and duration) on Chemical and Physical Properties of the Water Column (consider environmental values in section 230.21, as appropriate)

The proposed project is not expected to have a significant impact on chemical and physical properties of the water column. Only clean, sandy sediment would be excavated and placed and minor turbidity levels may exist in the immediate vicinity of the excavation and placement operations that may result in minor, temporary reductions in dissolved oxygen.

(3) Effects on Biota (consider environmental values in sections 230.21, as appropriate).

Biota may be displaced and/or crushed during excavation activities. Example species potentially affected include polychaetes, annelids and other benthic organisms. Biota would recolonize and reestablish after excavation. Biota buried during disposal are expected to recolonize and reestablish productivity rates within one to three years. Impacts will be adverse, but temporary and not significant.

(4) Actions taken to Minimize Impacts (Subpart H)

Needed: _X_YES ___NO
If needed, Taken: _X_YES ___ NO

Monitoring of water quality to control turbidity will occur. If turbidity exceeds water quality criteria, dredging and placement activities would be evaluated and modifications made to get back into compliance.

In accordance with the construction contract specifications, a water quality monitoring plan would be part of the construction contract to be approved by the Corps' Biologist and/or the Corps' Environmental Coordinator.

d. Contaminant Determinations (consider requirements in section 230.11(d)): The following information has been considered in evaluating the biological availability of possible contaminants in excavated or fill material. (Check only those appropriate.)

(1) Physical characteristics _X_

(2) Hydrography in relation to known or anticipated sources of contaminants _X_

(3) Results from previous testing of the material or similar material in the vicinity of the proposed project _X_

(4) Known, significant sources of contaminants (e.g. pesticides) from land runoff or percolation ___

(5) Spill records for petroleum products or designated (Section 311 of the CWA) hazardous substances _

(6) Other public records of significant introduction of contaminants from industries, municipalities, or other sources _____

(7) Known existence of substantial material deposits of substances which could be released in harmful quantities to the aquatic environment by man- induced discharge activities

_____

(8) Other sources (specify) _____

An evaluation of the appropriate information above indicates that there is reason to believe the proposed dredge material is not a carrier of contaminants, or that levels of contaminants are substantively similar to extraction and placement sites and are not likely to be constraints.

e. Aquatic Ecosystem and Organism Determinations (use evaluation and testing procedures in Subpart G, as appropriate).

(1) Plankton, Benthos and Nekton

Excavation and placement operations would result in short-term turbidity impacts that would affect plankton in the area. Organisms could stifle in the immediate vicinity as these small organisms are impacted by turbidity. However, these effects would be small in both area and time and the plankton would be expected to recover quickly once dredging and placement is completed. Benthic organisms would be buried by placement, but the areas would be minor in area and would recolonize and reestablish productivity rates within one to three years. Larger organisms in the nekton would be expected to avoid disposal operations and would not be impacted.

(2) Food Web

Impacts to the bottom of the food chain (plankton and nekton) would be short term and occur in a small area. Recovery would be quick once dredging and placement operations are concluded.

(3) Special Aquatic Sites

There are no special aquatic sites within the excavation area or in the placement site.

(4) Threatened & Endangered Species

The Corps has determined the Proposed Action may affect, and is likely to adversely affect California least tern, Western snowy plover, and Western snowy plover designated critical habitat. The Corps has drafted a Biological Assessment and formal consultation pursuant to section 7 of the ESA of 1973, as amended, has been initiated with the USFWS.

(5) Other fish and wildlife:

Marine mammals would not be affected by placement activities. Birds may avoid the placement site while work is occurring (due to the presence of humans and machinery), although placement activities could attract birds to the benthic organisms coming out of the discharge pipe as an alternate food source. Impacts to fish species would be no different than those already analyzed in the 2018 Final EA.

(6) Actions to Minimize Impacts (refer to Subpart H)

Needed: __X__ YES _ _ NO

Minimization and avoidance measures are needed to minimize impacts to marine resources, minimization and avoidance measures are noted in previous sections.

f. Proposed Disposal Site Determinations

(1) Mixing Zone Determination (consider factors in section 230.11(f)(2))

Is the mixing zone for each disposal site confined to the smallest practicable zone?
__X__ YES__NO

Sediments do not require a mixing zone in order to remain in compliance with water quality standards. As such, the mixing zone is considered to be the smallest practicable.

(2) Determination of Compliance with Applicable Water Quality Standards (present the standards and rationale for compliance or non-compliance with each standard)

The project will be in compliance with state water quality standards. Excavation and placement of material would result in short-term elevated turbidity levels and suspended sediment concentrations, but no appreciable long-term changes in other water quality parameters, including dissolved oxygen, pH, nutrients, or chemical contaminants. Factors considered in this assessment include the relatively localized nature of the expected turbidity plumes for the majority of the placement period and rapid diluting capacity of the receiving environment. Therefore, impacts to water quality from disposal/placement of material at the receiver site would not violate water quality objectives.

(3) Potential Effects on Human Use Characteristic

a) Municipal and Private Water Supply (refer to section 230.50)

There are no municipal or private water supply resources (i.e. aquifers, pipelines) in the project area. The proposed actions would have no effect on municipal or private water supplies or water conservation.

b) Recreational and Commercial Fisheries (refer to section 230.51)

The project area is not subject to commercial fishing. Recreational fishing would move to avoid the placement activities and to follow fish out of these areas.

c) Water Related Recreation (refer to section 230.52)

Construction equipment would be required to maintain ocean access for all uses. During dredging activities, proper advanced notice to mariners would occur and navigational traffic would not be significantly affected within the sand trap or harbor entrance channels or basins. The displacement of recreational boating would be temporary and short-term. However, the nearshore placement activities would not significantly impact surfing conditions or other water sports once completed. The currents are not expected to change in magnitude or direction. Therefore, placement activities are not expected to measurably change currents or change surfing in any discernible way. To minimize navigation impacts and threats to vessel safety, all marine equipment and tugboats would be equipped with markings and lightings in accordance with the U.S. Coast Guard regulations. The location and schedule of the work would be published in the U.S. Coast Guard Local Notice to Mariners.

d) Aesthetics (refer to section 230.53)

Minor, short term effects during excavation and placement are anticipated. The visual character of the site would be affected by presence of the dredge and tugboats; however, is the proposed activities would be temporary, and as such, would not result in permanent effects to the visual character of the site.

e) Parks, National and Historical Monuments, National Seashores, Wilderness Areas, Research Sites, and Similar Preserves (refer to section 230.54)

The proposed project would not have any effect on national and historic monuments, national seashores, wild and scenic rivers, wilderness areas or research sites.

f) Determination of Cumulative Effects on the Aquatic Ecosystem (consider requirements in section 230.11 (g))

Cumulative effects are expected to be less than significant.

g) Determination of Secondary Effects on the Aquatic Ecosystem (consider requirements in section 230.11(h))

Secondary effects of the proposed action would be negligible. Areas outside the direct impact would have only negligible turbidity effects from disposal. Turbidity levels would be low and in the immediate vicinity of the disposal operations. Impacts excavation and placement activities are all

temporary construction impacts. Movement of sand within the littoral cell would be indistinguishable from natural sand movement.

III. Findings of Compliance or Non-Compliance with the Restrictions on Discharge

a. Adaptation of the Section 404(b)(l) Guidelines to this Evaluation

No significant adaptations of the guidelines were made relative to this evaluation.

b. Evaluation of Availability of Practicable Alternatives to the Proposed Discharge Site Which Would Have Less Adverse Impact on the Aquatic Ecosystem:

Alternative placement sites would have similar impacts on the Aquatic Ecosystem as the proposed project sites. Alternative sites were not considered practicable alternatives due to the increased cost the project would incur to place materials at sites further distances from Channel Islands Harbor given the limited operations and maintenance funding available. No alternative placement locations or methodologies were identified that would avoid or further minimize impacts to waters of the U.S.

c. Compliance with Applicable State Water Quality Standards.

The proposed project meets State of California water quality standards.

d. Compliance with Applicable Toxic Effluent Standard or Prohibition Under Section 307 of the Clean Water Act.

No toxic materials/wastes are expected to be produced or introduced into the environment by nearshore disposal.

e. Compliance with Endangered Species Act of 1973.

As discussed above, the Corps has determined the Proposed Action may affect, likely to adversely affect California least tern, Western snowy plover, and Western snowy plover designated critical habitat. The Corps has drafted a Biological Assessment and formal consultation pursuant to section 7 of the ESA of 1973, as amended, has been initiated with the USFWS.

f. Compliance with Specified Protection Measures for Marine Sanctuaries Designated by the Marine Protection, Research, and Sanctuaries Act of 1972.

No sanctuaries as designated by the Marine Protection, Research and Sanctuaries Act of 1972 will be affected by sand trap placement activities.

g. Evaluation of Extent of Degradation of the Waters of the United States

(1) Significant Adverse Effects on Human Health and Welfare

(a) Municipal and Private Water Supplies

Sand trap placement activities will have no effect on municipal and private water supplies.

(b) Recreation and Commercial Fisheries

The proposed project would have minor, short-term impacts, but no significant adverse effects on recreation fisheries. The project area is not subject to commercial fishing. Recreational fishing would move to avoid the disposal activities and to follow fish out of these areas. To minimize navigation impacts and threats to vessel safety, all marine equipment and tug vessels would be equipped with markings and lightings in accordance with the U.S. Coast Guard regulations. The location and schedule of the work would be published in the U.S. Coast Guard Local Notice to Mariners.

(c) Plankton

Sediment Placement would result in short-term turbidity impacts that would affect plankton in the area. Organisms could stifle in the immediate vicinity as these small organisms are impacted by turbidity. However, these effects would be small in both area and time and the plankton would be expected to recover quickly once disposal is completed.

(d) Fish

Larger organisms in the nekton would be expected to avoid excavation and placement operations and would not be impacted.

(e) Shellfish

Benthic organisms, including shellfish, would be buried by placement, but the areas would be minor in area and would recolonize once placement activities are complete, re-establishing productivity rates within one to three years.

(f) Wildlife

Marine mammals would not be affected by disposal. Birds would generally avoid the disposal, although sand placement could attract birds to the benthic organisms coming out of the discharge pipe as an alternate food source.

(g) Special Aquatic Sites

There are no special aquatic sites in the nearshore area.

(2) Significant Adverse Effects on Life Stages of Aquatic Life and Other Wildlife Dependent on Aquatic Ecosystems: Any adverse effects would be short-term and insignificant.

(3) Significant Adverse Effects on Aquatic Ecosystem Diversity, Productivity and Stability: Any adverse effects would be short-term and less than significant.

(4) Significant Adverse Effects on Recreational, Aesthetic, and Economic Values: Any adverse effects would be short-term and less than significant.

h. Appropriate and Practicable Steps Taken to Minimize Potential Adverse Impacts of the Discharge on the Aquatic Ecosystem

Specific environmental commitments are outlined in the analysis above and will be included in the SEA. All appropriate and practicable steps have been taken which will minimize potential adverse impacts of the placement of excavated materials on the aquatic ecosystem.

i. On the Basis of the Guidelines, the Proposed Disposal Site(s) for the Discharge of Excavated or Fill Material (specify which) is:

____ (1) Specified as complying with the requirements of these guidelines; or,

_X_(2) Specified as complying with the requirements of these guidelines, with the inclusion of appropriate and practical conditions to minimize pollution or adverse effects
on the aquatic ecosystem; or,

____ (3) Specified as failing to comply with the requirements of these guidelines.

Prepared by: Gabrielle Dodson Date: 08/31/2022

APPENDIX H-
401 WATER QUALITY CERTIFICATION WAIVER AND APPLICATION

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, LOS ANGELES DISTRICT
915 WILSHIRE BLVD., SUITE 1109
LOS ANGELES, CA 90017

December 28, 2022

Emily Duncan, Ph.D.
Senior Environmental Scientist, Regional Programs Section
Los Angeles Regional Water Quality Control Board
320 West 4th Street, Suite 200
Los Angeles, California 90013

Dear Dr. Duncan:

The U.S. Army Corps of Engineers, Los Angeles District (Corps), on September 8, 2022, applied to the Los Angeles Regional Water Quality Control Board (Board) for a Water Quality Certification under Section 401 of the Clean Water Act for the Channel Islands and Port Hueneme Harbors Maintenance Dredging Project. The Board in a September 30, 2022, email requested a two month extension to the two months allowed by regulation for the Board to take final action on our request. The request was to extend the November 7, 2022, deadline to January 7, 2023. The Corps in a October 11, 2022, email did not approve the extension request due to the very tight schedule for this project. The deadline expired on November 7, 2022 without final action by the Board. I am hereby notifying you, on behalf of the District Engineer, that we are presuming a waiver from the state water quality certification requirements of Section 401 of the Clean Water Act in accordance with 33 CFR 336.1(b)(8)(iii).

If you have any questions regarding the project, please contact me at (213) 452-3783 or Gabrielle Dodson, Project Environmental Coordinator, by telephone at (213) 800-1025 or email at gabrielle.z.dodson@usace.army.mil.

Thank you for your attention to this document.

Sincerely,

Jodi L. Clifford
Chief, Planning Division

DRAFT 401
CERTIFICATION

CLEAN WATER ACT SECTION 401 WATER QUALITY CERTIFICATION AND ORDER

Reg. Meas. ID:	449168
Place ID:	883199
WDID:	4WQC40122074
R4 File No:	22-074

Effective Date: Date signed

Program Type: Dredging

Project Type: Channel Construction and Maintenance

Project: Channel Islands and Port Hueneme Harbors Maintenance Dredging Project Modification (Project)

Applicant: United States Army Corps of Engineers

Applicant Contact:
Maricris C. Lee
Deputy Chief, Planning Division
US Army Corps of Engineers
915 Wilshire Blvd
Los Angeles CA, 90017
Phone: (213) 452-3835
Email: Maricris.c.lee@usace.army.mil

Applicant's Agent:
Gabrielle Dodson
Physical Scientist, USACE
915 Wilshire Blvd
Los Angeles, CA 90017
Phone: (213) 800-1025
Email: gabrielle.z.dodson@usace.army.mil

Water Board Staff:
Emily Duncan
Senior Environmental Scientist
320 W. 4th Street, Suite 200
Los Angeles, CA 90013
Phone: 213-576-6679
Email: Emily.Duncan@waterboards.ca.gov

Water Board Contact Person:
If you have any questions, please call the Los Angeles Regional Water Quality Control Board (Los Angeles Water Board) Staff listed above or (213) 576-6600 and ask to speak with the Water Quality Certification and Wetlands Unit Program Manager. When corresponding via email, please include our general email: RB4-401Certification@waterboards.ca.gov.

Table of Contents

I. Order

This Clean Water Act (CWA) section 401 Water Quality Certification action and Order (Order) is issued at the request of Maricris Lee (hereinafter Permittee) for the Project. This Order is for the purpose described in the application and supplemental information submitted by the Permittee. The application was received on September 9, 2022. The application was deemed complete on November 4, 2022.

USACE previously applied for a 401 permit in 2018 for the larger Channel Islands Maintenance dredging permit but the water board waived their right to provide a certification.

II. Public Notice

The Los Angeles Water Board provided public notice of the application pursuant to California Code of Regulations, title 23, section 3858 from September 13, 2022, to the effective date of the Order. The Los Angeles Water Board did not receive any comments during the comment period.

III. Project Purpose

The project purpose is to dredge an additional 300,000 cubic yards from the existing sand trap within the authorized Channel Islands Harbor dredging template boundaries to provide additional sand to Hueneme Beach and other downcoast beaches.

IV. Project Description

The United States Army Corps of Engineers (USACE) has modified their Channel Islands and Port Hueneme Harbors Dredging Project. Previously the project was designed to dredge a total of 2.2 million cubic yards (cy) of sediment, and now USACE will dredge an additional 300,000 cy of sediment from the existing sand trap within the dredging template boundaries for a total of 2.5 million cy. The maintenance dredging as part of the USACE operations and maintenance occurs biennially. The dredge material has been characterized as beach compatible sandy sediment through the Southern California Dredged Material Management Team (SC-DMMT). This is the final dredging cycle of a six-year biennial dredging program. At Channel Islands Harbor, material will be dredged from the approach channel, entrance channel, sand traps, entrance basin, and inner basin. Project depth is -20 feet Mean Low water (MLLW) at the channels and basins and -35 feet MLLW at the sand traps, plus a 2-foot over dredge. Dredged materials will be discharged at the previously authorized placement areas: Silver Strand Beach and Hueneme Beach. A hydraulic suction dredge connected to a dredge pipeline will remove and transport the material to the beach placement locations.

Dredging of the additional 300,000 cy of material is planned to take place between November 1, 2022 and February 28, 2023 to accommodate sensitive environmental windows, such as the nesting season of the Western Snowy Plover and California least Tern, and avoid high-intensity recreational use.

V. Project Location

Drive down Harbor Blvd., the road will come to an end at Channel View Park. Follow the only path at Channel View Park along the jetty and walk directly on the beach, parallel to the harbor entrance.

Latitude	Longitude

34.156935 -119.227554

Maps showing the Project location are found in Attachment A of this Order.

VI. Project Impact and Receiving Waters Information

The Project is located within the jurisdiction of the Los Angeles Water Board. Receiving waters and groundwater potentially impacted by this Project are protected in accordance with the applicable water quality control plan (Basin Plan) for the region and other plans and policies which may be accessed online at: http://www.waterboards.ca.gov/plans_policies/. The Basin Plan includes water quality standards, which consist of existing and potential beneficial uses of waters of the state, water quality objectives to protect those uses, and the state and federal antidegradation policies.

It is the policy of the State of California that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes. This Order promotes that policy by requiring discharges to meet contaminant levels designed to protect human health and ensure that water is safe for domestic use.

Receiving Water:	Channel Islands Harbor (Hydrologic Unit Code: 180701030201)
Designated Beneficial Uses:	IND, NAV, REC-1, REC-2, COMM, MAR, WILD

VII. Description of Direct Impacts to Waters of the State

Total Project dredge quantities for all impacts are summarized in Table 1. Permanent impacts are categorized as those resulting in a physical loss in area and also those degrading ecological condition only.

Table 1: Total Project Dredge Quantity

Aquatic Resource Type	Temporary Impact[1]			Permanent Impact					
				Physical Loss of Area			Degradation of Ecological Condition Only		
	Acres	CY[2]	LF	Acres	CY	LF	Acres	CY	LF
Ocean/bay/ estuary	135	300,000							

VIII. Avoidance and Minimization

The project qualified as a tier 3 project and the Project is the least environmentally damaging practicable alternative. (State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State, section IV.A.1.h).

[1] Includes only temporary direct impacts to waters of the state and does not include upland areas of temporary disturbance which could result in a discharge to waters of the state. Temporary impacts, by definition, are restored to pre-project conditions and therefore do not include a physical loss of area or degradation of ecological condition.

[2] Cubic Yards (CY); Linear Feet (LF)

The dredging project will take place outside of sensitive bird nesting seasons for the Western snowy plover and the California least tern. The applicant will deploy best management mitigation measures to ensure that the project is the least environmentally damaging practicable alternative.

IX. Compensatory Mitigation

No compensatory mitigation was required for permanent impacts because all impacts from dredging are temporary.

X. California Environmental Quality Act (CEQA)

The Los Angeles Water Board has determined that the Project is exempt from review under CEQA pursuant to California Water Code of Regulations, title 14, section 15061. Specifically, the issuance of this Order and the activities described herein meet the exemption criteria under California Code of Regulations title 14, section(s) 15304, Minor alterations to land, (g) maintenance dredging where the spoil is deposited in a spoil area authorized by all applicable state and federal regulatory agencies. Additionally, the Los Angeles Water Board concludes that no exceptions to the CEQA exemption apply to the activities approved by this Order.

Pursuant to Water Code section 13160, subdivision (b)(2), the Los Angeles Water Board is issuing certification before completion of the environmental review required under Division 13 (commencing with Section 21000) of the Public Resources Code, to avoid risk of waiver of the certification authority. To the extent authorized by federal law, the Los Angeles Water Board reserves authority to reopen and, after public notice, an opportunity for comment, and, when appropriate, an opportunity for a hearing, revise the certificate or statement as appropriate to incorporate feasible measures to avoid or reduce significant environmental impacts or to make any necessary findings based on the information provided in the environmental document prepared for the project.

XI. Petitions for Reconsideration

Any person aggrieved by this action may petition the State Water Board to reconsider this Order in accordance with California Code of Regulations, title 23, section 3867. A petition for reconsideration must be submitted in writing and received within 30 calendar days of the issuance of this Order.

XII. Fees Received

This is a United States Army Corps of Engineers (Federal) project and not subject to fees.

XIII. Findings

1. This Order is adopted pursuant to section 401 of the Clean Water Act and the California Porter-Cologne Water Quality Control Act (Cal. Water Code § § 13000, et seq.). Discharges to waters of the state are prohibited except when in accordance with Water Code section 13264. Notwithstanding any determinations made by the U.S. Army Corps or other federal agency pursuant to 40 C.F.R. section 121.9, dischargers must comply with the entirety of this Order because the Order also serves as waste discharge requirements in accordance with State Water Board Water Quality General Order No. 2003-0017-DWQ.

2. Failure to comply with any condition of this Order shall constitute a violation of the Porter-Cologne Water Quality Control and the Clean Water Act. The Permittee and/or discharger may then be subject to administrative and/or civil liability pursuant to Water Code section 13385.

3. In the event of any violation or threatened violation of the conditions of this Order, the violation or threatened violation shall be subject to any remedies, penalties, process, or sanctions as provided for under state and federal law.

4. In response to a suspected violation of any condition of this Order, the Water Board may require the holder of this Order to furnish, under penalty of perjury, any technical or monitoring reports the Water Boards deem appropriate, provided that the burden, including costs, of the reports shall bear a reasonable relationship to the need for the reports and the benefits to be obtained from the reports. The additional monitoring requirements ensure that permitted discharges and activities comport with any applicable effluent limitations, water quality standards, and/or other appropriate requirement of state law.

5. This Order and all of its conditions contained herein continue to have full force and effect regardless of the expiration or revocation of any federal license or permit issued for the Project.

6. This Order does not provide coverage under the Construction General Permit. As applicable, dischargers shall maintain compliance with conditions described in, and required by, the NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Order No. 20090009-DWQ; NPDES No. CAS000002 as amended by Order No. 2010-0014-DWQ, Order No. 2012-0006-DWQ, and any amendments thereto) (General Construction Permit). Enrollment in the Construction General Permit may be required for construction activity resulting in a land disturbance of one acre or more, or less than one acre but part of a larger common plan of development or sale. For projects with ground disturbing activities that require enrollment in the Construction General Permit, dischargers shall maintain compliance with conditions described in, and required by the Permit. For ground disturbing activities that do not require enrollment in Order No. 2009-0009-DWQ, project plans included with the application shall include appropriate erosion and sediment control measures as described in the *Best Management Practices* Section (Stormwater subsection) below.

7. This Order does not authorize any act which results in the taking of a threatened, endangered or candidate species or any act, which is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (Fish & Wildlife Code, sections 2050-2097) or the federal Endangered Species Act (16 U.S.C. sections 1531-1544). If a “take” will result from any act authorized under this Order held by the discharger, the discharger must obtain authorization for the take prior to any construction or operation of the portion of the Project that may result in a take. The discharger is responsible for meeting all requirements of the applicable endangered species act for the Project authorized under this Order.

8. This Order includes monitoring and reporting requirements pursuant to Water Code section 13267. The burden of preparing these reports, including costs, are reasonable to the need and benefits of obtaining the reports. The reports confirm that the best management practices required under this Order are sufficient to protect beneficial uses and water quality objectives. The reports related to accidental discharges also ensure that corrective actions, if any, that are necessary to minimize the impact or clean up such discharges can be taken as soon as

possible. The anticipated costs are minimal as the reporting obligations require only visual monitoring, in-field measurements, and notification reporting.

XIV. Conditions

The Los Angeles Water Board has independently reviewed the record of the Project to analyze impacts to water quality and designated beneficial uses within the watershed of the Project. In accordance with this Order, the Permittee may proceed with the Project under the following terms and conditions. This Order provides reasonable assurance that the Project authorized under this Order will comply with state and federally approved water quality requirements, provided that the following conditions are adhered to.

A. Authorization

Impacts to waters of the state shall not exceed quantities shown in Table 1.

B. Reporting and Notification Requirements

Requirements for the content of these reporting and notification types are detailed in Attachment C, including specifications for photo and map documentation during the Project. Written reports and notifications must be submitted using the Reporting and Notification Cover Sheet located in Attachment C, which must be signed by the Permittee or an authorized representative.

1. Project Reporting

a. **Annual Reporting:** The Permittee shall submit an Annual Report each year on the anniversary of Project effective date. Annual Reporting requirements are detailed in Attachment C. Annual reporting shall continue until a Notice of Project Complete Letter is issued to the Permittee.

2. Project Status Notifications

a. **Commencement of Construction:** The Permittee shall submit a Commencement of Construction Report at least seven (7) days prior to start of initial ground disturbance activities.

b. **Notice of Completion of an Eelgrass Survey:** The Permittee shall submit an eelgrass survey that will be conducted at a maximum of sixty (60) days prior to the commencement of in water construction activities. The survey will be reviewed by Los Angeles Water Board staff within two weeks following submission. The Permittee shall not begin construction before approval of the eelgrass survey by the Los Angeles Regional Water Board.

c. **Request for Notice of Completion of Discharges Letter:** The Permittee shall submit a Request for Notice of Completion of Discharges Letter following completion of active Project construction activities, including any required restoration and permittee-responsible mitigation. This request shall be submitted to Los Angeles Water Board staff within thirty (30) days following completion of all Project construction activities. Upon acceptance of the request, Los Angeles Water Board staff shall issue a Notice of Completion of Discharges Letter to the Permittee, which will end the active discharge period and associated annual fees.

d. Request for Notice of Project Complete Letter: The Permittee shall submit a Request for Notice of Project Complete Letter when construction and/or any post-construction monitoring is complete,[3] and no further Project activities will occur. This request shall be submitted to Los Angeles Water Board staff within thirty (30) days following completion of all Project activities. Upon approval of the request, Los Angeles Water Board staff shall issue a Notice of Project Complete Letter to the Permittee which will end the post discharge monitoring period and associated annual fees.

3. Conditional Notifications and Reports: The following notifications and reports are required as appropriate.

a. Accidental Discharges of Hazardous Materials[4]

Following an accidental discharge of a reportable quantity of a hazardous material, sewage, or an unknown material, the following applies (Wat. Code, § 13271):

i. As soon as (A) the Permittee has knowledge of the discharge or noncompliance, (B) notification is possible, and (C) notification can be provided without substantially impeding cleanup or other emergency measures then:
- first call – 911 (to notify local response agency)
- then call – Office of Emergency Services (OES) State Warning Center at: (800) 852-7550 or (916) 845-8911
- Lastly, follow the required OES procedures as set forth in: http://www.caloes.ca.gov/FireRescueSite/Documents/CalOES-Spill_Booklet_Feb2014_FINAL_BW_Acc.pdf

ii. Following notification to OES, the Permittee shall notify the Los Angeles Water Board, as soon as practicable (ideally within 24 hours). Notification may be via telephone, e-mail, or delivered written notice.

iii. Within five (5) working days of notification to the Los Angeles Water Board, the Permittee must submit an Accidental Discharge of Hazardous Material Report.

b. Violation of Compliance with Water Quality Standards: The Permittee shall notify the Los Angeles Water Board of any event causing a violation of compliance with water quality standards. Notification may be via telephone, e-mail, or delivered written notice.

i. Examples of noncompliance events include: lack of any reporting in a timely manner, lack of storm water treatment following a rain event, discharges causing a

[3] Completion of post-construction monitoring shall be determined by Los Angeles Water Board staff and shall be contingent on successful attainment of restoration and mitigation performance criteria.

[4] "Hazardous material" means any material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment. "Hazardous materials" include, but are not limited to, hazardous substances, hazardous waste, and any material that a handler or the administering agency has a reasonable basis for believing that it would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or the environment. (Health & Saf. Code, § 25501.)

visible plume in a water of the state, water contact with uncured concrete, and exceedances of limits for the analytes for *In-Water Work or Diversions* listed below.

ii. This notification must be followed within three (3) working days by submission of a Violation of Compliance with Water Quality Standards Report.

c. In-Water Work or Diversion

i. If stream diversion will be necessary, the Permittee shall submit to Los Angeles Water Board staff a Stream Diversion Plan, with a diagram and a narrative description of the method to divert the stream and associated Best Management Practices (BMPs) for acceptance, at least 30 days in advance of any stream diversion.

ii. During in-water work or stream diversion, water quality monitoring shall be conducted. Requirements for water quality monitoring are below.

iii. The Permittee shall notify the Los Angeles Water Board at least forty-eight (48) hours prior to initiating work in water or stream diversions. Notification may be via telephone, e-mail, or delivered written notice.

iv. Within three (3) working days following completion of work in water or stream diversions, an In-Water Work/Diversions Water Quality Monitoring Report must be submitted to Los Angeles Water Board staff.

d. Modifications to Project: Project modifications may require an amendment of this Order. The Permittee shall give advance notice to Los Angeles Water Board staff if Project implementation as described in the application materials is altered in any way or by the imposition of subsequent permit conditions by any local, state or federal regulatory authority by submitting a Modifications to Project Report. The Permittee shall inform Los Angeles Water Board staff of any Project modifications that will interfere with the Permittee's compliance with this Order.

e. Transfer of Property Ownership: This Order is not transferable in its entirety or in part to any person or organization except after receiving certification for the Project from the Los Angeles Water Board. In addition:

i. The Permittee must notify the Los Angeles Water Board of any change in ownership or interest in ownership of the Project area by submitting a Transfer of Property Ownership Report. The Permittee and purchaser must sign and date the notification and provide such notification to the Los Angeles Water Board at least 30 days prior to the transfer of ownership.

ii. Until such time as a new Order has been issued, the Permittee shall continue to be responsible for all requirements set forth in this Order.

C. Water Quality Monitoring

1. **General:** If surface water is present, continuous visual surface water monitoring shall be conducted to detect accidental discharge of construction related pollutants (e.g. oil and grease, turbidity plume, or uncured concrete).

2. **Accidental Discharges/Noncompliance:** Upon occurrence of an accidental discharge of hazardous materials or a violation of compliance with a water quality standard, Los Angeles Water Board staff may require water quality monitoring based on the discharge constituents and/or related water quality objectives and beneficial uses.

3. **In-Water Work or Diversions:**

   During planned work in water, any discharge(s) to waters of the state shall conform to the following water quality standards:

   a. Oil and Grease. Waters shall not contain oils, greases, waxes or other materials in concentrations that result in a visible film or coating on the surface of the water or on objects in the water, that cause nuisance, or that otherwise adversely affect beneficial uses.

   b. Dissolved Oxygen. At a minimum, the mean annual dissolved oxygen concentration of all waters shall be greater than 7 mg/L, and no single determination shall be less than 5.0 mg/L, except when natural conditions cause lesser concentrations.

   c. pH. The pH of bays or estuaries shall not be depressed below 6.5 or raised above 8.5 as a result of waste discharges. Ambient pH levels shall not be changed more than 0.2 units from natural conditions as a result of waste discharge

   d. Turbidity. Where natural turbidity is between 0 and 50 Nephelometric Turbidity Units (NTU), increases shall not exceed 20%. Where natural turbidity is greater than 50 NTU, increases shall not exceed 10%.

   Sampling shall be conducted in accordance with Table 2 sampling parameters.[5]

[5] Pollutants shall be analyzed using the analytical methods described in 40 Code of Federal Regulations Part 136; where no methods are specified for a given pollutant, the method shall be approved by Los Angeles Water Board staff. Grab samples shall be taken between the surface and mid-depth and not be collected at the same time each day to get a complete representation of variations in the receiving water. A hand-held field meter may be used, provided the meter utilizes a U.S. EPA-approved algorithm/method and is calibrated and maintained in accordance with the manufacturer's instructions. A calibration and maintenance log for each meter used for monitoring shall be maintained onsite.

Table 2: Sample Type and Frequency Requirements			
Parameter	Unit of Measurement	Type of Sample	Minimum Frequency
Oil and Grease	N/A	Visual	Continuous
Dissolved Oxygen	mg/L & % saturation	Grab	Weekly*
pH	Standard Units	Grab	Weekly*
Turbidity	NTU	Grab	Weekly*
Temperature	°F (or as °C)	Grab	Weekly*

*When dredging activities commence or new phases of the project begin, measurements shall be conducted daily for the first week, then weekly thereafter.

Baseline sampling may be conducted at one location within the project boundary for each phase. All other sampling shall take place on both sides of silt curtains at a minimum of two locations (4 locations total). Results of the analyses shall be submitted to this Regional Board by the 15th day of each subsequent sampling month. A map or drawing indicating the locations of sampling points shall be included with each submittal. A summary of results shall discuss the analysis and compliance. Every measurement not meeting the compliance limits shall be accompanied by an explanation, the actions taken to correct the degradation to waters, and addressed in *Violation of Compliance with Water Quality Standards* report described above.

D. Standard Conditions

1. This Order is subject to modification or revocation upon administrative or judicial review, including review and amendment pursuant to Water Code section 13330, and California Code of Regulations, title 23, chapter 28, Article 6 commencing with sections 3867-3869, inclusive. Additionally, the Los Angeles Water Board reserves the right to suspend, cancel, or modify and reissue this Order, after providing notice to the Permittee, if the Los Angeles Water Board determines that: the Project fails to comply with any of the conditions of this Order; or, when necessary to implement any new or revised water quality standards and implementation plans adopted or approved pursuant to the Porter-Cologne Water Quality Control Act (Wat. Code, § 13000 et seq.) or federal Clean Water Act section 303 (33 U.S.C. § 1313). For purposes of Clean Water Act section 401(d), the condition constitutes a limitation necessary to assure compliance with water quality standards and appropriate requirements of state law.

2. This Order is not intended and shall not be construed to apply to any activity involving a hydroelectric facility requiring a Federal Energy Regulatory Commission (FERC) license or an amendment to a FERC license, unless the pertinent certification application was filed pursuant to subsection 3855(b) of chapter 28, title 23 of the California Code of Regulations, and that application specifically identified that a FERC license or amendment to a FERC license for a hydroelectric facility was being sought.

3. This Order is conditioned upon total payment of any fee required under title 23 of the California Code of Regulations and owed by the Permittee.

E. General Compliance

1. Permitted actions must not cause a violation of any applicable water quality standards, including impairment of designated beneficial uses for receiving waters as adopted in the Basin Plans by any applicable Los Angeles Water Board or any applicable State Water Board (collectively Water Boards) water quality control plan or policy. The source of any such discharge must be eliminated as soon as practicable.

2. Authorization under this General Order is granted based on the application information submitted, including engineering plans, specifications, and technical reports. Water Code section 13264 prohibits any discharge that is not specifically authorized in this General Order.

F. Administrative

1. Signatory requirements for all document submittals required by this Order are presented in Attachment B of this Order.

2. The Permittee shall grant Los Angeles Water Board staff, or an authorized representative (including an authorized contractor acting as a Water Board representative), upon presentation of credentials and other documents as may be required by law, permission to:

   a. Enter upon the Project or compensatory mitigation site(s) premises where a regulated facility or activity is located or conducted, or where records are kept.

   b. Have access to and copy any records that are kept and are relevant to the Project or the requirements of this Order.

   c. Inspect any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order.

   d. Sample or monitor for the purposes of assuring Order compliance.

3. A copy of this Order shall be provided to any consultants, contractors, and subcontractors working on the Project. Copies of this Order shall remain at the Project site for the duration of this Order. The Permittee shall be responsible for work conducted by its consultants, contractors, and any subcontractors.

4. A copy of this Order must be available at the Project site(s) during construction for review by site personnel and agencies. All personnel performing work on the Project shall be familiar with the content of this Order and its posted location at the Project site.

5. This Order shall expire **five (5) years** from date of this Order. The Applicant shall submit a complete application at least 90 days prior to termination of this Order if renewal is requested.

G. Best Management Practices

1. Dredging

a. The limits of the dredging activities shall be clearly marked to prevent dredging equipment from entering areas beyond the smallest footprint needed to complete the project. Colored flagging shall be used to delineate the project boundaries.

2. Site Management

a. The vehicles and all dredging activities shall remain within the defined activity area and use only designated access points and staging areas.

b. The work area shall be kept clean to avoid attracting predators. All food and trash shall be disposed of in closed containers and removed from the project site.

c. The contractor shall, at all times, maintain appropriate types and sufficient quantities of materials on-site to contain any spill or inadvertent release of materials that may cause a condition of pollution or nuisance if the materials reach waters of the United States and/or State.

d. The contractor shall properly manage, store, treat, and dispose of wastes in accordance with applicable federal, state, and local laws and regulations. Waste management shall be implemented to avoid or minimize exposure of wastes to precipitation or storm water runoff. The storage, handling, treatment, or disposal or waste shall not create conditions of pollution, contamination or nuisance as defined in Water Code section 13050. Upon Project completion, all Project generated debris, waste, and trash shall be removed from the Project site(s) for disposal at an authorized landfill or other disposal site in compliance with federal, state and local laws and regulations.

e. All equipment using gas, oil, hydraulic fluid, or other petroleum products shall be inspected for leaks prior to use and shall be monitored for leakage. Stationary equipment shall be positioned over drip pans or other types of containment.

3. Hazardous Materials

a. Except as authorized by this Certification, substances hazardous to aquatic life including, but not limited to, petroleum products, unused cement/concrete, asphalt, and coating materials, shall be prevented from entering waters of the United States and/or State.

4. Wildlife and Special Status Species

a. The contractor shall keep construction activities under surveillance, management, and control to minimize interference with, disturbance to, and damage of fish and wildlife.

b. A pre-construction survey for Caulerpa species shall be conducted, in accordance with the Caulerpa Control Protocol, prior to work commencing in the entrance channels and basins and in water staging areas of Channel Islands Harbor. If Caulerpa species are detected within the project area, no work shall be conducted until the infestation has been isolated, treated, and the risk of spread is eliminated.

c. A pre-construction eelgrass survey shall be conducted of the Channel Islands Harbor entrance channels, basins, and staging areas in accordance with the CEMP.

5. Stormwater

a. The project shall comply with the local regulations associated with the Los Angeles Water Board's Municipal Stormwater Permit issued to Los Angeles and Ventura County and co-

permittees under NPDES No. CAS004004 and Waste Discharge Requirements Order No. R4-2021-0105.

H. On-site Mitigation for Temporary Impacts

1. The Permittee shall restore all areas of temporary impacts to waters of the state.

Table 3: Required Project Mitigation Quantity for Temporary Impacts

Aquatic Resource Type	Mit. Type[6]	Units	Method[7]					
			Est.	Re-est.	Reh.	Enh.	Pres.	Unknown
Ocean/ Bay/ Estuary	PR	Acres			135			

XV. Water Quality Certification

I hereby issue the Order for the Channel Islands and Port Hueneme Harbors Maintenance Dredging Project Modification, 4WQC40122074 certifying that as long as all of the conditions listed in this Order are met, any discharge from the referenced Project will comply with the applicable provisions of Clean Water Act sections 301 (Effluent Limitations), 302 (Water Quality Related Effluent Limitations), 303 (Water Quality Standards and Implementation Plans), 306 (National Standards of Performance), and 307 (Toxic and Pretreatment Effluent Standards).

This discharge is also regulated pursuant to State Water Board Water Quality Order No. 2003-0017-DWQ which authorizes this Order to serve as Waste Discharge Requirements pursuant to the Porter-Cologne Water Quality Control Act (Wat. Code, § 13000 et seq.).

Except insofar as may be modified by any preceding conditions, all Order actions are contingent on: (a) the discharge being limited and all proposed mitigation being completed in strict compliance with the conditions of this Order and the attachments to this Order; and, (b) compliance with all applicable requirements of Statewide Water Quality Control Plans and Policies, the Regional Water Boards' Water Quality Control Plans and Policies.

Renee Purdy
Executive Officer
Los Angeles Water Quality Control Board

Date

[6] Mitigation type for onsite restoration of temporary impacts is Permittee Responsible (PR).

[7] Methods: establishment (Est.), reestablishment (Re-est.), rehabilitation (Reh.), enhancement (Enh.), preservation (Pres.). Unknown applies to advance credits with an unknown method and or location.

APPENDIX I-
NEGATIVE DETERMINATION CONCURRENCE LETTER (CALIFORNIA COASTAL COMMISSION)

CALIFORNIA COASTAL COMMISSION
NORTH CENTRAL COAST DISTRICT OFFICE
455 MARKET STREET, SUITE 300
SAN FRANCISCO, CA 94105
VOICE (415) 904-5260
FAX (415) 904-5400

December 2, 2022

Jodi Clifford
Deputy Chief, Planning Division
U.S. Army Corp of Engineers
915 Wilshire Boulevard, Suite 1109
Los Angeles, CA 90017

Re: Negative Determination No. ND-0042-22: Modification to Channel Islands Harbor Maintenance Dredging Project

Dear Ms. Clifford:

The California Coastal Commission (Commission) has reviewed the above-referenced negative determination (ND), dated November 22, 2022, for the U.S. Army Corp of Engineers (USACE) proposed modification to the Channel Islands Harbor (CIH) Maintenance Dredging Project to include an additional 300,000 cubic yards of sandy material for beneficial reuse placement on Hueneme Beach as well as 13.47 acres of dune restoration. USACE is proposing this additional volume of material to help address coastal erosion downcoast of the CIH entrance by increasing the amount of sand available to Hueneme Beach and other downcoast beaches.

The USACE has determined that the project is allowed to be submitted as a ND because the proposed modification "is the same as or similar to activities for which consistency determinations (CD) have been prepared in the past". The CD referenced by USACE in the ND submittal is CD-52-94 which allowed for 2.2 million cubic yards to be dredged from CIH biannually. The Executive Director previously concurred with six-year Channel Islands Harbor maintenance dredging programs in 2000 (ND-040-00), 2006 (ND-048-06), 2012 (ND-045-12), and 2018 (ND-0024-18) which were determined to be the same or similar as CD-52-94. As described by USACE in its current submittal, the modified dredging proposed in the subject ND would be the final dredging event of currently authorized six-year dredging program. Similar to all prior years, the material targeted for the proposed dredging event has been tested and determined to be suitable for placement on Hueneme Beach.

Additional material would be dredged from the entrance channel, four sand trap areas, the entrance basin, and inner basin. The target depth is -20 feet Mean Low Water (MLLW) at the entrance channel and entrance basin and -35 feet MLLW within the sand traps, with a two-foot overdepth allowance. The area adjacent to the landward side of Sand Trap D consists of coastal foredune habitat. Dredging of the landward portion of this sand trap has the potential to result in slope failure, destabilization and sloughing of immediately adjacent areas which could extend into and adversely impact the coastal foredune habitat.

Commission and USACE staff evaluated a number of alternatives to additional dredging within Sand Trap D, including increased dredging within the entrance channel and the basins or increased dredging of the other sand traps (Sand Trap B and Sand Trap C). However, USACE determined that Sand Trap D contains the majority of material and there is not sufficient material within the design depths in these other areas to meet the dredge volume targeted to help address coastal erosion downcoast of the harbor entrance[1]. Also, increased dredging in these other areas has the potential to undermine and adversely impact the stability of the detached breakwater and jetties.

To help ensure slope failure and sloughing of the coastal foredune habitat near Sand Trap D does not occur, USACE is proposing to establish and adhere to a setback of between 150 and 160 feet from the coastal dunes. Dredging would not occur within this setback and its size is based on an anticipated 3:1 slope failure assumption with the proposed 35-foot dredge depth and +10 foot beach elevation. USACE has determined that with this setback distance for the dredging, the newly established stabilized shoreline location would continue to remain seaward of the coastal foredune habitat.

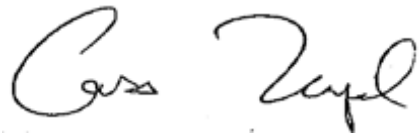
In addition to the proposed setback, USACE would also implement additional measures to help ensure the foredune habitat is protected from dredging activities. First, USACE would dredge beginning at the seaward end of Sand Trap D and only progress landward towards the setback as necessary until the target dredge material volume is reached in order to minimize approaching the area of the setback to the extent feasible. Second, if the dredging progresses within 200 feet of the coastal dunes (40 to 50 feet seaward of the setback line) USACE would begin monitoring dredging operations. One observer would be aboard the dredge vessel actively tracking the dredge head location both visually and with global positioning system (GPS) software to ensure it does not encroach into the setback area. A second observer would also be positioned on the beach at the nearest safe point along the boundary at the seaward side of the coastal foredune habitat. This observer would visually scan the perimeter of the sand pit formed as a result of dredging and monitoring for any indications of slope failure or sloughing within the setback area that may have the potential to extend into the dune habitat. The observer on the beach would monitor during daylight working hours while an observer on the dredge would be continuously monitoring during the 24-hour dredging operations. In the event that either monitor detects slope failure or sloughing affecting or approaching coastal foredune habitat, USACE would direct the dredging operator to cease dredging and would notify the Executive Director of the Commission to discuss if and how dredging operations should proceed. Finally, USACE has committed to cease dredging operations as soon as the target volume of dredge material is reached. This would help ensure that the setback area is only approached if necessary and that any unnecessary slope failure or sloughing and possible encroachment into the setback is avoided.

[1] Sand supply moves from north to south in this area and the Channel Islands Harbor entrance, breakwaters and sand traps serve to block sand movement to downcoast beaches and areas. USACE maintenance dredging at Channel Islands Harbor therefore allows material to be collected and relocated downcoast of the harbor and its infrastructure.

In addition to the proposed 300,000 cubic yard increase in dredge volume, USACE also proposes develop and implement a plan to restore up to 13.47 acres of coastal foredune habitat within 10 miles of the project area. USACE staff have committed to working closely with Commission and U.S. Fish and Wildlife Service staff on the development of this restoration plan and the identification of appropriate restoration sites. The restoration plan would be provided as part of USACE's pending federal consistency submittal for the next six-year cycle of dredging (which would cover 2023 through 2028) and would be further reviewed at that time.

With USACE's commitments to further develop and provide a dune restoration plan for Commission review as part of a pending federal consistency submittal and to adhere to the proposed setback and also implement the additional measures to ensure dredging would not adversely impact the coastal foredune habitat, Coastal Commission staff agrees that the proposed project will not adversely affect coastal zone resources. We therefore **concur** with your negative determination made pursuant to 15 CFR Section 930.35 of the NOAA implementing regulations. Please contact Wesley Horn at wesley.horn@coastal.ca.gov if you have any questions regarding this matter.

Sincerely,



Cassidy Teufel
Federal Consistency Coordinator
(for)

John Ainsworth
Executive Director

CORRESPONDENCE

Dodson, Gabrielle Z CIV USARMY CESPL (USA)

From: Horn, Wesley@Coastal <Wesley.Horn@coastal.ca.gov>
Sent: Tuesday, December 6, 2022 10:43 AM
To: Dodson, Gabrielle Z CIV USARMY CESPL (USA)
Cc: Martinez-Takeshita, Natalie M CIV USARMY CESPL (USA); Lyons, Kymberly L CIV USARMY CESPL (USA); Teufel, Cassidy@Coastal
Subject: RE: [URL Verdict: Neutral]RE: [Non-DoD Source] RE: Channel Islands Dredging - modified setback

Hi Gabrielle,

The ND concurrence letter has been published and added to the deputy director's report for the December hearing so we aren't able to change the ND. But I'll include this information in the project file so we have a record of it and we will work out the specifics of the restoration project, including the type of habitat, with you all as part of the next round of dredging.

I hope that helps, but let me know if you have any questions.

Thanks,
Wes

From: Dodson, Gabrielle Z CIV USARMY CESPL (USA) <Gabrielle.Z.Dodson@usace.army.mil>
Sent: Tuesday, December 6, 2022 9:48 AM
To: Horn, Wesley@Coastal <Wesley.Horn@coastal.ca.gov>
Cc: Martinez-Takeshita, Natalie M CIV USARMY CESPL (USA) <Natalie.M.Martinez-Takeshita@usace.army.mil>; Lyons, Kymberly L CIV USARMY CESPL (USA) <Kymberly.L.Howo@usace.army.mil>
Subject: FW: [URL Verdict: Neutral]RE: [Non-DoD Source] RE: Channel Islands Dredging - modified setback

Hi Wes,

We do have one follow up question. In the ND concurrence letter you sent to us, in paragraph one on the first page and paragraph one on the third page, there are statements that mention 13.47 acres of dune restoration, when it should be 13.47 acres of Western Snowy Plover (WSP) habitat restoration. Would you be able to make that change in the letter?

Thank you,
Gabrielle

From: Horn, Wesley@Coastal <Wesley.Horn@coastal.ca.gov>
Sent: Friday, December 2, 2022 2:42 PM
To: Lyons, Kymberly L CIV USARMY CESPL (USA) <Kymberly.L.Howo@usace.army.mil>; Teufel, Cassidy@Coastal <Cassidy.Teufel@coastal.ca.gov>
Cc: Martinez-Takeshita, Natalie M CIV USARMY CESPL (USA) <Natalie.M.Martinez-Takeshita@usace.army.mil>; Dodson, Gabrielle Z CIV USARMY CESPL (USA) <Gabrielle.Z.Dodson@usace.army.mil>
Subject: RE: [URL Verdict: Neutral]RE: [Non-DoD Source] RE: Channel Islands Dredging - modified setback

Hi Kym,

Thanks for all of your help and responding to our questions so quickly. We have concurred with ND and attached is the concurrence letter that will be reported to the Commission at the December meeting. Please let me know if you have any questions.

Thanks,
Wes

From: Lyons, Kymberly L CIV USARMY CESPL (USA) <Kymberly.L.Howo@usace.army.mil>
Sent: Friday, December 2, 2022 9:18 AM
To: Horn, Wesley@Coastal <Wesley.Horn@coastal.ca.gov>; Teufel, Cassidy@Coastal <Cassidy.Teufel@coastal.ca.gov>
Cc: Martinez-Takeshita, Natalie M CIV USARMY CESPL (USA) <Natalie.M.Martinez-Takeshita@usace.army.mil>; Dodson, Gabrielle Z CIV USARMY CESPL (USA) <Gabrielle.Z.Dodson@usace.army.mil>
Subject: RE: [URL Verdict: Neutral]RE: [Non-DoD Source] RE: Channel Islands Dredging - modified setback

That's correct Wesley. We don't feel beachside nighttime monitoring would be useful, as there are no lights on that stretch of Hollywood Beach which in turn creates some safety issues. The dredge vessel will continue to monitor throughout construction, including nighttime.

Thanks,
Kym

Sent with BlackBerry Work
(www.blackberry.com)

From: Horn, Wesley@Coastal <Wesley.Horn@coastal.ca.gov>
Date: Friday, Dec 02, 2022 at 8:57 AM
To: Lyons, Kymberly L CIV USARMY CESPL (USA) <Kymberly.L.Howo@usace.army.mil>, Teufel, Cassidy@Coastal <Cassidy.Teufel@coastal.ca.gov>
Cc: Martinez-Takeshita, Natalie M CIV USARMY CESPL (USA) <Natalie.M.Martinez-Takeshita@usace.army.mil>, Dodson, Gabrielle Z CIV USARMY CESPL (USA) <Gabrielle.Z.Dodson@usace.army.mil>
Subject: [URL Verdict: Neutral]RE: [Non-DoD Source] RE: Channel Islands Dredging - modified setback

From your email below it sounds like the beachside monitor will be monitoring every 4 hours during daylight hours, but will there be any kind of monitoring during nighttime working hours?

From: Lyons, Kymberly L CIV USARMY CESPL (USA) <Kymberly.L.Howo@usace.army.mil>
Sent: Friday, December 2, 2022 8:08 AM
To: Horn, Wesley@Coastal <Wesley.Horn@coastal.ca.gov>; Teufel, Cassidy@Coastal <Cassidy.Teufel@coastal.ca.gov>
Cc: Martinez-Takeshita, Natalie M CIV USARMY CESPL (USA) <Natalie.M.Martinez-Takeshita@usace.army.mil>; Dodson, Gabrielle Z CIV USARMY CESPL (USA) <Gabrielle.Z.Dodson@usace.army.mil>
Subject: RE: [Non-DoD Source] RE: Channel Islands Dredging - modified setback

No problem Wes - the dredging for Channel Islands is a 24 hour operation.

Sent with BlackBerry Work
(www.blackberry.com)

From: Horn, Wesley@Coastal <Wesley.Horn@coastal.ca.gov>
Date: Thursday, Dec 01, 2022 at 5:39 PM
To: Lyons, Kymberly L CIV USARMY CESPL (USA) <Kymberly.L.Howo@usace.army.mil>, Teufel, Cassidy@Coastal <Cassidy.Teufel@coastal.ca.gov>
Cc: Martinez-Takeshita, Natalie M CIV USARMY CESPL (USA) <Natalie.M.Martinez-Takeshita@usace.army.mil>, Dodson, Gabrielle Z CIV USARMY CESPL (USA) <Gabrielle.Z.Dodson@usace.army.mil>

Subject: [Non-DoD Source] RE: Channel Islands Dredging - modified setback

Great, thanks Kym. Sorry one more question that came up, does dredging happen 24 hours a day or only during daylight/normal work hours?

From: Lyons, Kymberly L CIV USARMY CESPL (USA) <Kymberly.L.Howo@usace.army.mil>
Sent: Thursday, December 1, 2022 4:12 PM
To: Horn, Wesley@Coastal <Wesley.Horn@coastal.ca.gov>; Teufel, Cassidy@Coastal <Cassidy.Teufel@coastal.ca.gov>
Cc: Martinez-Takeshita, Natalie M CIV USARMY CESPL (USA) <Natalie.M.Martinez-Takeshita@usace.army.mil>; Dodson, Gabrielle Z CIV USARMY CESPL (USA) <Gabrielle.Z.Dodson@usace.army.mil>
Subject: RE: Channel Islands Dredging - modified setback

Hi Wes,

Yes, good idea to clarify all these points.

Yes, monitoring will be done from the dredge itself with respect to the 150-160' setback boundary, both visually and in concert with their GSP positioning software. They will be dredging up to that setback boundary line while also observing the flagged orange monitoring line.

The orange monitoring line will be staked and flagged for a) beachside monitor's reference and b) visual aid for the dredge crew. The beachside monitor will scan and observe the orange monitoring line at intervals throughout the day for any encroachment. We are thinking approximately every 4 hours during daylight working hours.

Yes, that is correct: if any sloughing/slumping appears to encroach, the monitor will notify the CR (construction rep) who will then issue a stop work order. If a stop work order is issued the CCC will be notified.

Thanks,
Kym

From: Horn, Wesley@Coastal <Wesley.Horn@coastal.ca.gov>
Sent: Thursday, December 1, 2022 1:48 PM
To: Lyons, Kymberly L CIV USARMY CESPL (USA) <Kymberly.L.Howo@usace.army.mil>; Teufel, Cassidy@Coastal <Cassidy.Teufel@coastal.ca.gov>
Cc: Martinez-Takeshita, Natalie M CIV USARMY CESPL (USA) <Natalie.M.Martinez-Takeshita@usace.army.mil>; Dodson, Gabrielle Z CIV USARMY CESPL (USA) <Gabrielle.Z.Dodson@usace.army.mil>
Subject: [Non-DoD Source] RE: Channel Islands Dredging - modified setback

Hi Kym,

Thanks for recapping that info. We thought it might be good to read it back just to make sure we understand it correctly. There will be an observer on the dredge monitoring it's location with respect to the 150' setback (would this include the dredge positioning software you previously mentioned?). There will be a second observer at the toe of the coastal dunes actively monitoring the dredging and the sloughing/slumping that will be occurring as dredging takes place. If the sloughing/slumping encroaches the monitoring line (orange line) the monitor will notify CR who will contact the contractor. Is that accurate?

We were wondering if in addition to notifying the CR and contractor, can CCC also be notified?

Also what happens after notification? Would the dredgers pause or possibly move to another area?

Thanks,

Wes

From: Lyons, Kymberly L CIV USARMY CESPL (USA) <Kymberly.L.Howo@usace.army.mil>
Sent: Thursday, December 1, 2022 12:02 PM
To: Horn, Wesley@Coastal <Wesley.Horn@coastal.ca.gov>; Teufel, Cassidy@Coastal <Cassidy.Teufel@coastal.ca.gov>
Cc: Martinez-Takeshita, Natalie M CIV USARMY CESPL (USA) <Natalie.M.Martinez-Takeshita@usace.army.mil>; Dodson, Gabrielle Z CIV USARMY CESPL (USA) <Gabrielle.Z.Dodson@usace.army.mil>
Subject: RE: Channel Islands Dredging - modified setback

Hi Wes,

Hi, yes – we included some of these points in our follow up email this morning but I'll recap here:

- We anticipate one monitor to visually observe the active dredge location with respect to the dune boundary.
- The beachside monitor will be positioned at the nearest safe point on the dune boundary line to the dredge. The email sent this morning 12/1 includes a figure with an orange monitoring line (attached), seaward of the dune toe, where the monitor will be.
- The beachside monitor will be visually scanning the sand pit and adjacent beachfront for indications of any sloughing/slumping (slope failure).
- If any sloughing/slumping is observed that begins to encroach on the orange monitoring line, the monitor will immediately notify the Corps construction representative (CR) who will contact the contractor.

I think I captured all you questions, let me know if any follow up questions.

Thanks,
Kym

From: Horn, Wesley@Coastal <Wesley.Horn@coastal.ca.gov>
Sent: Thursday, December 1, 2022 10:43 AM
To: Lyons, Kymberly L CIV USARMY CESPL (USA) <Kymberly.L.Howo@usace.army.mil>; Teufel, Cassidy@Coastal <Cassidy.Teufel@coastal.ca.gov>
Cc: Martinez-Takeshita, Natalie M CIV USARMY CESPL (USA) <Natalie.M.Martinez-Takeshita@usace.army.mil>; Dodson, Gabrielle Z CIV USARMY CESPL (USA) <Gabrielle.Z.Dodson@usace.army.mil>
Subject: [Non-DoD Source] RE: Channel Islands Dredging - modified setback

Hi Kymberly,

Thanks again for meeting with us yesterday and for providing this info. I was reviewing your email and the ND submittal we received on Tuesday and I don't think I saw any specific information on the monitoring. Can you provide any more details on what the monitoring will entail including: how many monitors there will be, where they will be positioned, how they will monitor, what they will be looking for/monitoring, what would be the corrective actions if they notice something?

Thanks!
Wes

From: Lyons, Kymberly L CIV USARMY CESPL (USA) <Kymberly.L.Howo@usace.army.mil>
Sent: Thursday, December 1, 2022 9:20 AM
To: Horn, Wesley@Coastal <Wesley.Horn@coastal.ca.gov>; Teufel, Cassidy@Coastal <Cassidy.Teufel@coastal.ca.gov>
Cc: Martinez-Takeshita, Natalie M CIV USARMY CESPL (USA) <Natalie.M.Martinez-Takeshita@usace.army.mil>; Dodson,

Gabrielle Z CIV USARMY CESPL (USA) <Gabrielle.Z.Dodson@usace.army.mil>
Subject: RE: Channel Islands Dredging - modified setback

Dear Wes & Cassidy,

After our meetings this week regarding the modified dredge boundary, we have additional information to include with our ND submission.

In the ND submission, we included a modified dredge boundary in Sand Trap D. This boundary is set 150-160ft back from the toe of the dunes on Hollywood Beach. In our conversation on Monday we were asked if it would be possible to move the boundary back to 200ft. Based on our conversations with our engineers and the sediment available in the sand traps, we do not believe we would be able to reach 2.5 million cubic yards with a 200ft boundary. In addition, our engineers included an additional 15-25 foot buffer results in the setback boundary of 150-160 ft to avoid impacts to the coastal dunes.

From our meetings we have agreed to have a monitor in place once the contractor begins to dredge past the 200ft boundary and up to the 150-160 ft boundary (if they need to go that far to reach the 2.5 million cubic yards). We agree that this visual monitoring as well as the monitoring that the dredge equipment is capable of, will assist us in avoiding impacts to the dunes.

Please see attached monitoring path which is located along the toe of the dunes at Hollywood Beach.

Let me know if any questions –

Thanks,
Kym

From: Horn, Wesley@Coastal <Wesley.Horn@coastal.ca.gov>
Sent: Wednesday, November 30, 2022 11:36 AM
To: Lyons, Kymberly L CIV USARMY CESPL (USA) <Kymberly.L.Howo@usace.army.mil>; Dodson, Gabrielle Z CIV USARMY CESPL (USA) <Gabrielle.Z.Dodson@usace.army.mil>
Cc: Teufel, Cassidy@Coastal <Cassidy.Teufel@coastal.ca.gov>
Subject: [Non-DoD Source] RE: Channel Islands Dredging - modified setback

1:30 works for me and Cassidy

From: Lyons, Kymberly L CIV USARMY CESPL (USA) <Kymberly.L.Howo@usace.army.mil>
Sent: Wednesday, November 30, 2022 11:35 AM
To: Horn, Wesley@Coastal <Wesley.Horn@coastal.ca.gov>; Dodson, Gabrielle Z CIV USARMY CESPL (USA) <Gabrielle.Z.Dodson@usace.army.mil>
Cc: Teufel, Cassidy@Coastal <Cassidy.Teufel@coastal.ca.gov>
Subject: RE: Channel Islands Dredging - modified setback

Unfortunately I have a 1pm – how about 1:30?

From: Horn, Wesley@Coastal <Wesley.Horn@coastal.ca.gov>
Sent: Wednesday, November 30, 2022 11:02 AM
To: Lyons, Kymberly L CIV USARMY CESPL (USA) <Kymberly.L.Howo@usace.army.mil>; Dodson, Gabrielle Z CIV USARMY CESPL (USA) <Gabrielle.Z.Dodson@usace.army.mil>

Cc: Teufel, Cassidy@Coastal <Cassidy.Teufel@coastal.ca.gov>
Subject: [Non-DoD Source] RE: Channel Islands Dredging - modified setback

Hey Kym,

Unfortunately it doesn't sound like 3 would work. What about 1pm?

From: Lyons, Kymberly L CIV USARMY CESPL (USA) <Kymberly.L.Howo@usace.army.mil>
Sent: Wednesday, November 30, 2022 10:59 AM
To: Horn, Wesley@Coastal <Wesley.Horn@coastal.ca.gov>; Dodson, Gabrielle Z CIV USARMY CESPL (USA) <Gabrielle.Z.Dodson@usace.army.mil>
Cc: Teufel, Cassidy@Coastal <Cassidy.Teufel@coastal.ca.gov>
Subject: RE: Channel Islands Dredging - modified setback

Is 3 workable for everyone?

Kym

From: Horn, Wesley@Coastal <Wesley.Horn@coastal.ca.gov>
Sent: Wednesday, November 30, 2022 10:51 AM
To: Dodson, Gabrielle Z CIV USARMY CESPL (USA) <Gabrielle.Z.Dodson@usace.army.mil>
Cc: Lyons, Kymberly L CIV USARMY CESPL (USA) <Kymberly.L.Howo@usace.army.mil>; Teufel, Cassidy@Coastal <Cassidy.Teufel@coastal.ca.gov>
Subject: [Non-DoD Source] RE: Channel Islands Dredging - modified setback

Hi Gabrielle,

Cassidy and I are both in the office today and other than a meeting at 2:30 we are free to talk. If you can schedule a Webex for 11 that works, but I realize that is only ten minutes from now. Otherwise feel free to propose another meeting time and we'll join.

Thanks!
Wes

From: Dodson, Gabrielle Z CIV USARMY CESPL (USA) <Gabrielle.Z.Dodson@usace.army.mil>
Sent: Wednesday, November 30, 2022 9:55 AM
To: Horn, Wesley@Coastal <Wesley.Horn@coastal.ca.gov>
Cc: Lyons, Kymberly L CIV USARMY CESPL (USA) <Kymberly.L.Howo@usace.army.mil>
Subject: RE: Channel Islands Dredging - modified setback

Hi Wes,

Kym & I had a chance to talk with our engineers yesterday. Do you have time to meet between 11:00am-2:00pm or 3:00-3:30pm today? If so, I will schedule a Webex meeting.

Thank you,
Gabrielle

From: Horn, Wesley@Coastal <Wesley.Horn@coastal.ca.gov>
Sent: Monday, November 28, 2022 4:03 PM
To: Dodson, Gabrielle Z CIV USARMY CESPL (USA) <Gabrielle.Z.Dodson@usace.army.mil>

Cc: Lyons, Kymberly L CIV USARMY CESPL (USA) <Kymberly.L.Howo@usace.army.mil>; Martinez-Takeshita, Natalie M CIV USARMY CESPL (USA) <Natalie.M.Martinez-Takeshita@usace.army.mil>
Subject: [Non-DoD Source] RE: Channel Islands Dredging - modified setback

Hi Gabrielle,

Sounds good, how about tomorrow at 2?

From: Dodson, Gabrielle Z CIV USARMY CESPL (USA) <Gabrielle.Z.Dodson@usace.army.mil>
Sent: Monday, November 28, 2022 3:46 PM
To: Horn, Wesley@Coastal <Wesley.Horn@coastal.ca.gov>
Cc: Lyons, Kymberly L CIV USARMY CESPL (USA) <Kymberly.L.Howo@usace.army.mil>; Martinez-Takeshita, Natalie M CIV USARMY CESPL (USA) <Natalie.M.Martinez-Takeshita@usace.army.mil>
Subject: RE: Channel Islands Dredging - modified setback

Hi Wes,

Great! Yes, we are available to meet tomorrow afternoon between 12:30-3:00 and Wednesday between 9:45am-12:00pm.

Thank you,
Gabrielle

From: Horn, Wesley@Coastal <Wesley.Horn@coastal.ca.gov>
Sent: Monday, November 28, 2022 3:15 PM
To: Lyons, Kymberly L CIV USARMY CESPL (USA) <Kymberly.L.Howo@usace.army.mil>; Martinez-Takeshita, Natalie M CIV USARMY CESPL (USA) <Natalie.M.Martinez-Takeshita@usace.army.mil>; Dodson, Gabrielle Z CIV USARMY CESPL (USA) <Gabrielle.Z.Dodson@usace.army.mil>
Subject: [Non-DoD Source] FW: Channel Islands Dredging - modified setback

Hi Natalie, Kymberly, and Gabrielle,

We had a chance to look at the info that Kymberly shared a little while back and talk internally. Do you have time this week for a quick meeting to talk about the revised project? I have a meeting tomorrow from 11-12 and meetings Thursday from 1-3, but otherwise my week is open. Let me know if there is a day and time that works best for you all.

Thanks,
Wes

From: Lyons, Kymberly L CIV USARMY CESPL (USA) <Kymberly.L.Howo@usace.army.mil>
Sent: Tuesday, November 15, 2022 1:43 PM
To: Horn, Wesley@Coastal <Wesley.Horn@coastal.ca.gov>; Teufel, Cassidy@Coastal <Cassidy.Teufel@coastal.ca.gov>
Cc: Martinez-Takeshita, Natalie M CIV USARMY CESPL (USA) <Natalie.M.Martinez-Takeshita@usace.army.mil>; Dodson, Gabrielle Z CIV USARMY CESPL (USA) <Gabrielle.Z.Dodson@usace.army.mil>; Ryan, Joseph A CIV CESPL CESPD (USA) <Joseph.A.Ryan@usace.army.mil>; Andreas, Victor J CIV USARMY CESPL (USA) <Victor.J.Andreas@usace.army.mil>; Lovan, Hayley J CIV USARMY CESPL (USA) <Hayley.J.Lovan@usace.army.mil>
Subject: Channel Islands Dredging - modified setback

Hi Wes and Cassidy,

Thanks again for your time yesterday afternoon. As promised, here are a couple figures for your pre-review before the new ND comes to you next week. The first figure illustrates the "no pass" boundary that we've established to avoid dune impacts, which you saw yesterday. The purple boxes illustrate the dredge template, the red line is the dune toe boundary and the yellow is our proposed setback boundary. The setback boundary is based on a 3:1 slope failure assumption based on -35ft dredge template depth and +10ft beach elevation (= ~ 135 feet). An additional 15-25 feet buffer results in the yellow setback boundary 150 – 160 feet from the dunes.

During the call the question was raised as to the control and precision the contractor would have in adhering to the setback boundary, and Manson has assured us the HR Morris is capable of fine scale cutterhead placement to adhere to the setback dredge boundary. Additionally, the HR Morris will continually be observing/monitoring as they dredge closer to setback dredge boundary. If they achieve quantity before reaching setback dredge boundary, operations will cease. As we mapped dune toe boundary at beginning of dredge cycle, a backend dune toe boundary will be conducted at conclusion of dredging.

The pdf file is the pre-dredge bathymetric survey data. Our coastal engineer Joe Ryan advises as of the Sept 29th survey, the total quantity of sediment available within the federal channels and sand traps is 2,992,000 cubic yards. The majority of this material resides within Sand Traps C and D, 1,288,400 cy and 1,284,750 cy respectively. The overall quantity from all areas with respect to the yellow setback boundary line is 2,520,000 cy.

Lastly, as we discussed draft mitigation plan with USFWS comprises 13.47 acres of critical habitat restoration for Western Snowy Plover. It is currently in development and contains mix of approaches including but not limited to dune construction and invasive plant removal.

I think I captured all the questions but let me know if I missed anything or you have any other needs.

Thanks,
Kym

Kym Lyons
Biologist | Los Angeles District | U.S. Army Corps of Engineers
kymberly.l.lyons@usace.army.mil
213-800-1024