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STAFF REPORT: REGULAR CALENDAR

Consistency Determination No.: CD-0002-18

Applicant: U.S. Navy

Location: U.S. Navy Weapons Station Seal Beach and the public navigation channel connecting Anaheim Bay with the Pacific Ocean, City of Seal Beach, Orange County.
[\(Exhibits 1 and 2\)](#).

Project Description: Construction of a replacement pier for vessel ammunition loading and un-loading at a new location on the eastern side of Anaheim Bay; associated infrastructure, including a fill-constructed causeway connecting the pier to the mainland that results in the separation of public navigation from Navy operations; cut of approximately 4.7 acres of southern foredune habitat to construct a replacement public channel linking Anaheim Bay with the Pacific Ocean; dredging for the new public channel and the approach to the new ammunition pier with disposal including beneficial reuse on-site for dune and eelgrass habitat creation.

Staff Recommendation: Concurrence

SUMMARY OF STAFF RECOMMENDATION

The Navy has submitted a consistency determination for the proposed construction and operation of a replacement ammunition pier and associated facilities at U.S. Navy Weapons Station Seal

Beach (NAVWPNSTA Seal Beach) in Orange County. The project would include: a pile-supported, 1,100-foot by 125-foot ammunition pier and pile supported mooring dolphins; a breakwater seaward of the proposed pier and within the two existing jetties; a solid fill causeway and truck turnaround providing vehicle access to the pier; relocating the public navigation channel that provides boater access to Huntington Harbour; dredging for pier access, Navy ship turning basin, and public navigation channel; new mooring buoys; new operations support buildings and demolition of existing buildings; new security fencing and a floating security barrier; placement of cut and dredge material for habitat restoration; and disposal of material unsuitable for habitat restoration at already-designated offshore disposal sites.

The staff recommends that the Commission find the project consistent with the relevant recreation (Coastal Act Section 30224), marine environment (Coastal Act Section 30230), wetlands (Coastal Act Section 30233), visual (Coastal Act Section 30251), water quality (Coastal Act Section 30231), and cultural resource policies (Coastal Act Section 30244) of the Coastal Act.

The proposed project also would remove approximately 4.7 acres of southern foredune habitat near the east jetty on the seaward side of Anaheim Bay. In other projects, the Commission has found such habitat to constitute environmentally sensitive habitat pursuant to Section 30107.5 of the Coastal Act. Staff recommends that the Commission finds the southern foredune habitat at NAVWPNSTA Seal Beach to constitute ESHA pursuant to Section 30107.5. The removal of this habitat would result from the creation of the new public navigation channel, which is not a use dependent on the ESHA resource. Therefore, the staff recommends that the Commission find this aspect of the project to be inconsistent with the environmentally sensitive habitat policy of the Coastal Act (Section 30240).

However, because the proposed project is a coastal-dependent industrial facility and includes changes necessary to accommodate such a facility, it qualifies for special consideration under the Coastal Act's coastal-dependent industrial development "override" policy (Coastal Act Section 30260). Section 30260 provides that if a coastal-dependent industrial development such as the proposed project cannot feasibly be accommodated consistent with the Chapter 3 policies of the Coastal Act, the Commission may nonetheless approve such development if it finds that the proposal meets all three tests of that policy: (1) alternative locations are infeasible or more environmentally damaging; (2) to do otherwise would adversely affect the public welfare; and (3) adverse environmental effects are mitigated to the maximum extent feasible.

Staff recommends that the Commission find that the proposed project is a coastal-dependent industrial facility because of the proposed use, character of the site and its activities, and the existing infrastructure including navigation access through the maintained channel.

Staff recommends that the Commission find that the proposed project meets the first test of Section 30260 because: constructing and operating the new facilities in a different location, or in a different configuration at NAVWPNSTA Seal Beach, or providing for public boat passage in a different location from that proposed likely would result in greater environmental impacts and increased public safety and security issues; alternatives that would involve upgrades at other existing facilities (such as upgrading Naval Base Coronado, Port Hueneme, or Military Ocean

Terminal Concord) would compromise existing Navy operations and/or would be infeasible because of existing navigation-related constraints; and other alternatives involving different configurations at NAVWPNSTA Seal Beach would result in impacts to long-shore sediment transport at Sunset Beach and other direct impacts to public beach areas and a greater public safety or security risk to nearby residential areas or public use of PCH.

Staff recommends that the Commission find that the proposed project meets the second test of Section 30260 because there would be a detriment to the public welfare were the Navy not able to complete this project, since existing security and public safety concerns at NAVWPNSTA Seal Beach would not be addressed.

Staff recommends that the Commission find that the proposed project meets the third test of Section 30260 because it provides the maximum feasible mitigation, including through the proposed dune restoration and conservation and eelgrass mitigation components.

Therefore, staff recommends that the Commission find the project meets the standards set forth in Section 30260, which means it may be authorized under the Coastal Act, and, therefore, that the Commission concur with the Navy's consistency determination.

The motion and resolution are on Page 5 of this report. The standard of review for this consistency determination is the Chapter 3 policies of the Coastal Act.

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- Exhibit 16 – Existing public access at NAVWPNSTA Seal Beach

I. APPLICANT’S CONSISTENCY DETERMINATION

The U.S. Navy has determined (through CD-0002-18) that the proposed project is fully consistent with the California Coastal Management Program (CCMP) and thus, that it satisfies the standard of being consistent to the maximum extent practicable.

II. MOTION AND RESOLUTION

Motion:

I move that the Commission concur with Consistency Determination CD-0002-18 on the grounds that the project described therein would be consistent with the enforceable policies of the California Coastal Management Program (CCMP).

Staff recommends a **YES** vote on the motion. Passage of this motion will result in a concurrence with the consistency determination and adoption of the following resolution and findings. An affirmative vote of a majority of the Commissioners present is required to pass the motion.

Resolution to Concur with Consistency Determination:

The Commission hereby concurs with Consistency Determination CD-0002-18 on the grounds that the project described therein would be consistent with the enforceable policies of the CCMP.

III. APPLICABLE LEGAL AUTHORITIES

Standard of Review

The federal Coastal Zone Management Act (“CZMA”), 16 U.S.C. § 1451-1464, requires that federal agency activities affecting coastal resources be “carried out in a manner which is consistent to the maximum extent practicable with the enforceable policies of approved State management programs.” Id. at § 1456(c) (1) (A). The implementing regulations related to federal consistency for the CZMA, at 15 C.F.R. § 930.32(a) (1), define the phrase “consistent to the maximum extent practicable” to mean:

... fully consistent with the enforceable policies of management programs unless full consistency is prohibited by existing law applicable to the Federal agency.

This standard allows a federal activity that is not fully consistent with California’s Coastal Management Program (CCMP) to proceed, if full compliance with the CCMP would be “prohibited by existing law.” In its consistency determination, the Navy provided information regarding the rationale for its determination that the project is consistent to the maximum extent practicable. This information included the public safety and security requirements considered in the proposed project. However, the Navy did not specifically argue that full consistency (i.e., with the ESHA policies of the Coastal Act) is prohibited by existing law. Therefore, there is no basis to conclude that existing law applicable to the Federal agency prohibits full consistency. Since the Navy has raised no issue of practicability, as so defined, the standard before the

Commission is full consistency with the enforceable policies of the CCMP, which are the policies of Chapter 3 of the Coastal Act (Cal. Pub. Res. Code §§ 30200-30265.5).

IV. FINDINGS AND DECLARATIONS

A. PROJECT PURPOSE

The Navy proposes the construction and operation of a replacement ammunition pier and associated facilities at U.S. Navy Weapons Station Seal Beach (NAVWPNSTA Seal Beach) in Orange County (**Exhibits 1 and 2**). The existing facility occupies approximately 5,000 acres and is bounded by Interstate 405 on the north, the Pacific Ocean on the south, Bolsa Chica Road on the east, and Seal Beach Boulevard on the west (**Exhibit 2**). The focus of the proposed project is in the southwestern corner of the facility which is bounded by residential neighborhoods to the west/northwest; the Pacific Coast Highway and the Seal Beach National Wildlife Refuge to the north and northwest; and the Pacific Coast Highway, residential neighborhoods, and the beach at Surfside/Sunset Beach to the east (**Exhibit 3**). Vessel access to NAVWPNSTA is currently provided by Anaheim Channel, which is bordered by two jetties and allows for access from the Pacific Ocean to the existing ammunition pier. Anaheim Channel also provides public boating access from the Pacific Ocean to Huntington Harbour (**Exhibit 3**). Two existing jetties protect the Channel. Existing security fencing precludes public access on the jetties and shore areas bordering the Anaheim Channel that are part of NAVWPNSTA Seal Beach (**Exhibit 3**).

As described in the September 2018 Revised Draft Environmental Assessment (EA)¹ for the proposed project, NAVWPNSTA Seal Beach was commissioned in 1944 as a Naval Ammunition and Net Depot in response to the need for ammunition depots during World War II. In 1962, the facility was designated as a U.S. Navy weapons station and now is the U.S. Pacific Fleet's primary weapons station on the West Coast of the United States. Today, the primary missions of NAVWPNSTA Seal Beach are to provide for munitions loading and unloading and storage and weapons systems maintenance. The next nearest weapons station port is located in the State of Washington and is over 1,000 miles from the existing Pacific Fleet bases in San Diego that a weapons station would serve.

The Navy anticipates that the planned relocation of Navy forces from the Atlantic to the Pacific will result in approximately 60 percent of Navy forces being based in the Pacific in 2020, an increase from 40 percent in 2010. Further, the Revised Draft EA states that:

Most base infrastructure was built in the 1940s and 1950s. The station's wharf was originally built in 1944 and rebuilt in 1953. The existing wharf at NAVWPNSTA Seal Beach is over 60 years old, is past its design life, and was constructed prior to the introduction of modern seismic (earthquake) codes. Seismic design deficiencies are of significant concern due to the proximity to active faults and high liquefaction potential of underlying soils. The current condition and configuration of the existing wharf and turning basin limits the size and number of ships that can be loaded and unloaded with ammunition at the same time. The current waterfront configuration of the wharf presents safety and

¹ The Navy published an initial Draft EA in April 2017 and a Revised Draft EA in September 2018.

security concerns due to the proximity of naval munitions operations to civilian small boat traffic and Pacific Coast Highway.

In its consistency determination, the Navy states that the purpose of the proposed project is to “sustain and enhance mission capability by eliminating deficiencies associated with the condition, configuration, and capacity of the existing wharf and turning basin at NAVWPNSTA Seal Beach.” The Navy also provides the following specific rationale for the project:

- *The existing wharf was built before the introduction of modern seismic (earthquake) codes. In a major earthquake, underlying soils may not support the wharf structure, and the wharf could collapse.*
- *The existing wharf and turning basin are too small to support large general-purpose amphibious assault ships such as Landing Helicopter, Assault (LHA) and Landing Helicopter, Docks (LHD)-type vessels. Currently, these vessels must be loaded with ammunition at high cost, using helicopters offshore of Marine Corps Base (MCB) Camp Pendleton.*
- *The existing wharf is too small to support the loading of more than one medium (destroyer-sized) ship at a time. This limits the station’s ability to support the Pacific Fleet as it grows and may impede the Navy’s ability to quickly send a large number of ships overseas during a crisis.²*
- *The existing wharf is adjacent to the only civilian public navigation channel between Huntington Harbour and the ocean. This presents serious security challenges for the Navy and leads to regular bay closures, which impact civilian boaters.*

B. PROJECT DESCRIPTION

The Navy proposes to construct a replacement ammunition pier and associated waterfront facilities at NAVWPNSTA Seal Beach. The Navy estimates that construction, demolition, dredging, and sediment disposal activities would take approximately five to six years and would begin in late 2019. The existing wharf would continue to be operational until the new ammunition pier was completed, which, according to the Navy, is an important element in the design of the new facility to ensure that the mission of NAVWPMSTA Seal Beach can be continued during construction. The Navy’s consistency determination states that construction activities, other than dredging, generally would occur during daylight hours (from 7 a.m. to 7 p.m.) on weekdays. The Navy would conduct dredging activities within 1,000 feet of the Seal Beach residential areas in the west part of Anaheim Bay only during daytime hours, and outside of this area dredging would occur 24 hours per day.

As summarized from the Navy’s consistency determination, the project would include the following elements, shown in **Exhibit 4**:

New ammunition pier and pile-supported mooring dolphins

The Navy proposes a 1,100-foot by 125-foot concrete ammunition pier with concrete pile

² The types of vessels the Navy is planning of receiving at this facility would include 844-foot long LHA and LHD vessels and 530-foot long destroyers.

supports that would be designed to meet seismic code requirements. The pier would be located at the western end of the “South Mole” (**Exhibit 4**) and would allow for the loading of an LHA/LHD or two destroyer-sized vessels simultaneously. Approximately 900 piles would support the pier and would be installed initially using water jetting, followed by hammer-driving; the Navy estimates that three piles would be driven per day five days per week (during daylight or between 7:00 a.m. and 7:00 p.m.), and that it would take up to three years to complete pile-driving. Two mooring dolphins (**Exhibit 5**) would be constructed on concrete pile-support structures, one at each end of the pier, and would be connected with aluminum gangways to the new pier.

Breakwater

Seaward of the new ammunition pier and within the area enclosed by the existing jetties, the Navy would construct a new breakwater to provide shelter to berthed vessels (**Exhibit 4**). The breakwater would consist of crushed rock and a surface of armor stone. With its design informed by wave modeling conducted to determine wave protection requirements at the new pier (NAVFAC 2017), the new inner breakwater would be approximately 400 feet long.

Causeway and truck turnaround

The Navy proposes a new 930-foot causeway across the existing navigation channel to provide vehicle access to the new ammunition pier (**Exhibit 4**). This causeway would be constructed of solid fill and, because it would close off existing navigational access from Huntington Harbour to the Pacific Ocean, is a reason for the proposed new public navigation channel described below. This causeway would include a series of rock dikes interspersed with materials excavated from dredging and would be approximately 59 feet wide (allowing for two 15-foot wide asphalt lanes, a pedestrian walkway, gutters, and curbs). To enable truck maneuvering for truck operations on the pier, a truck turnaround area adjacent to the new pier would be constructed using fill material (**Exhibit 4**).

Public navigation channel

The Navy would ensure continued boating access from Huntington Harbour to the Pacific Ocean by constructing a new public navigation channel parallel to the east jetty and within the area protected by the two jetties (**Exhibit 4**). According to the Revised Draft EA for the project, the new channel would be located at a distance that maximizes safety and security requirements associated with the continued operation of NAVWPNSTA Seal Beach. The new channel would be about 250 feet wide at the top of the slope, 20 feet deep, and approximately 2,400 feet long (the combined length of dredged and cut area) to accommodate public boat traffic entering and leaving Huntington Harbour (**Exhibit 6**). New rock jetties along the channel’s edges would stabilize the channel. The Navy’s construction timing overview describes the public navigation channel as being completed in the first phase of the project, prior to construction of the new ammunition pier and causeway, to enable continued public navigation access between Huntington Harbour and the Pacific Ocean during construction.

Dredging and upland area cut

Associated with the new ammunition pier and for expanding the ship turning basin (**Exhibit 6**), the Navy would remove (dredge and remove or cut upland area) a total of approximately 1.2

million cubic yards (cy) of material. The Navy proposes dredging the larger turning basin to a depth of -39 feet to -41 feet (below MLLW) to enable vessels to berth at the new ammunition pier. Dredging also would occur in association with the new public navigation channel to a depth of approximately -20 feet MLLW. As part of the construction of this channel, the Navy would remove an upland section of existing beach inshore of the west jetty (the North Mole) (**Exhibit 6**). According to the Revised Draft EA, this area is not well maintained and is used only by Navy personnel, as it is not publically accessible given its location within the security footprint of NAVWPNSTA Seal Beach. The Navy also would excavate upland area in the South Mole for the proposed public navigation channel and to add rock revetment to the east jetty; approximately 4.7 acres of southern foredune habitat would be removed as a result of these activities. As part of dredging activities, placement of rock revetment, and other fill associated with the project, the Navy estimates that a total of 5.1 acres of intertidal habitat would be affected by the proposed project.

Mooring buoys

The Navy uses moorings to stage barges for loading and transporting ammunition from NAVWPNSTA Seal Beach to the Navy's Long Beach explosives anchorage or other facilities. As part of the proposed project, the Navy would relocate and continue to use three moorings in the inner harbor and two in the outer harbor (**Exhibit 4**). The two moorings in the outer harbor would be used for explosives loading activities, while the three inner harbor moorings would be used for storage of empty barges.

New operations support buildings and demolition of existing buildings

The Navy would construct new waterfront facilities adjacent to the new ammunition pier including an office building on the new pier, a restroom and breakroom, a guard post, an equipment storage building, a diesel forklift storage and forklift battery-charging station building, a new fire pump house, a guard house building, an electrical transformer, and a smoke shelter. The Navy would design these facilities (as well as new roadways) to withstand a 100-year storm event and in consideration of predicted sea level rise. Additionally, a guard house would be located at the entrance of the new causeway. Utilities for these facilities and for the pier would include extension of existing infrastructure, including a potable water main with a fire pump building, sewer main, new storm drain system, lightning protection, and communications.

Existing waterfront facilities no longer required to support ordnance operations would be demolished. The Navy would retain the existing wharf for use during construction of the new ammunition pier (i.e., to continue to provide vessel ammunition loading and unloading during project construction) and may retain the existing wharf for possible future operations or may demolish the pier. Once the Navy's decision on the future of the existing pier is made, the details of such an activity would be the subject of a separate federal consistency determination submitted to the Commission.

Security fencing and floating security barrier

The Navy would install a security fence and associated lighting along the east side of the new causeway and new road leading to the new pier, connecting to the existing security fencing

(Exhibit 4). The Navy also would install a new fence along the new public navigation channel connecting to a floating security barrier. This 1,500-foot floating security barrier would mark the west side of the public access channel and would extend to the west jetty **(Exhibit 4)**. The floating security barrier would open and close for Navy ship transit and would prohibit access to the pier from vessels using the new public navigation channel.

Placement of cut and dredged material for habitat restoration

To mitigate impacts to eelgrass, the Navy is proposing placement of fill to serve as substrate for creation of eelgrass habitat in two areas of Anaheim Bay **(Exhibit 7)**. The Navy’s proposal for these two areas would result in 6.1 acres of potential eelgrass habitat and would involve the placement of approximately 466,000 cy of material suitable for such habitat. The Navy’s design for these areas involves grading and sloping this fill such that, in addition to eelgrass habitat, approximately 0.9 acres of shallow subtidal habitat would be created along the proposed causeway **(Exhibit 7)**.

The Navy also proposes placement of suitable sandy material (from dredge/cut activities described above) for approximately 12.3 acres of “potential dune habitat” in three locations: south of the proposed truck access to the new pier; east of the proposed new public access navigation channel; and south and west of the Pacific Coast Highway (PCH) **(Exhibit 7)**. The Navy estimates that approximately 77,500 cy of material will be used for these activities. Finally, the Navy proposes a “beneficial reuse habitat area” south of PCH covering approximately 10.9 acres, where dredged material would be temporarily stored until ready for use in other areas. As described further below in Section F: Environmentally Sensitive Habitat, following this temporary activity, the Navy proposes to remove non-native vegetation and plant maritime-scrub species in this area.

If suitable material remained following these activities, the Navy would provide material for beach replenishment. The Navy describes its plans for beach nourishment as follows:

The initial plan for beach replenishment was to augment the Army Corps nearshore location at Surfside Beach. However, based upon a meeting with City of Seal Beach officials, the Navy is now considering offering any remaining dredged sediment for beach replenishment at Seal Beach as well. Until the final sediment sampling characterization results are known and the eelgrass mitigation and habitat conservation plan has been finalized, actual amounts of any sediment potentially available for beach replenishment will remain unknown. Regardless of the quantity of sediments available and used for beach replenishment, the standard operating procedures, avoidance and minimization measures, and best management practices used during previous dredging and beach replenishment operations for Anaheim Bay ... would be implemented. This would include listed species monitoring for nesting birds potentially affected by such operations and informal consultations with U.S. Fish and Wildlife Service if necessary. Consideration would also be made for timing of such beach replenishment activities to avoid periods of known high recreation and grunion spawning.

Off-shore sediment disposal

Clean silt and clay material (i.e., material not suitable for beach nourishment or other habitat creation activities but suitable for open ocean disposal) removed and excavated as part of the proposed project would be disposed of at an already approved offshore disposal site: either LA-2 approximately 13 miles southwest of NAVWPNSTA Seal Beach or LA-3 approximately 5.4 miles southwest of the entrance to Newport Harbor.

C. ALTERNATIVES CONSIDERED

In the Revised Draft EA for the proposed project, the Navy assessed several alternatives and the no-action alternative using six screening factors:

1. Provide ship onload and offload capacity to meet Navy Pacific Fleet operational requirements.
2. Accommodate larger vessels such as general-purpose amphibious assault ships (e.g., LHA and LHD class ships) or berthing for two destroyer class ships for simultaneous loading and unloading of ordnance.
3. Provide a wharf or pier that meets current seismic and other construction standards.
4. Minimize public exposure to ordnance-handling operations during onload and offload of Navy ships at the wharf or pier.
5. Provide a civilian boat channel to enhance security of naval operations and limit interruptions to small boat traffic using Anaheim Bay.
6. Provide continuous, safe, and efficient loading and unloading operations during and after the construction period.

Based on application of these screening factors, and in response to Commission staff comments on the initial EA in 2017, the Navy selected two alternatives for detailed evaluation, in addition to the preferred alternative that is the proposed project described previously and the no-action alternative. The two alternatives assessed in detail in the Revised Draft EA are:

1. A similar project as the proposed project except with the public navigation channel located outside of the east jetty (**Exhibit 8**) accompanied by an additional outer breakwater. This alternative would include the removal of approximately 2.6 acres of beach at the North Mole within the security footprint of NAVWPNSTA Seal Beach (**Exhibit 8**). Locating the public navigation channel outside of the east jetty also would result in the removal of approximately 3.8 acres of currently public beach near the community of Surfside (**Exhibit 8**).
2. An alternative with the ammunition pier constructed in a northwest-southeast configuration at the end of the proposed causeway (**Exhibit 9**). This alternative also would include the public navigation channel outside of the east jetty and construction of an additional outer breakwater. Other components of the project would be similar to the proposed project. This alternative would include removing approximately 1.2 acres of beach at the North Mole, within the security footprint of NAVWPNSTA Seal Beach. In this alternative, locating the public navigation channel outside of the east jetty would result in removing approximately 5.2 acres of public beach in Surfside (**Exhibit 9**).

The Revised Draft EA for the proposed project assesses each of these alternatives in addition to the Navy's proposed project. The Navy has selected its preferred option—the proposed project described above—because it meets the six screening criteria and for the following reasons. First, either of the two alternatives illustrated in **Exhibits 8 and 9** would result in adverse impacts to the public beach in Surfside to enable a new public navigation channel. The proposed project would locate the public navigation channel within the already-designated security perimeter of NAVWPNSTA Seal Beach, thus not resulting in such an impact to public beach. Second, either of the two alternatives which placed the public navigation channel outside of the existing jetty could result in changes to the patterns of nearshore sediment transport in the area, especially down-drift at Surfside beaches. Modeling done as part of the design of the proposed project indicated a potential for enhanced erosion from these two alignments (AECOM 2017).

Additionally, the Revised Draft EA identifies eight alternatives that were considered but, because they did not meet the purpose and need of the proposed project or did not meet the six screening factors, were not assessed in detail:

1. ***A new ammunition pier in the proposed location described above with no inner breakwater.*** This alternative was not considered for detailed analysis in the Revised Draft EA because, according to a wave study conducted by the Navy, there would be potential for wave action to disrupt loading operations at the pier. Such disruption would interfere with the ability of NAVWPNSTA Seal Beach to successfully conduct its mission.
2. ***A new ammunition pier at the existing wharf.*** This alternative would include construction of an ammunition pier and, in order to comply with existing Department of Defense explosives safety regulations, realignment of PCH further north into National Wildlife Refuge wetlands (**Exhibit 10**). This alternative also would require phased construction of the existing pier (i.e., construction on one end to lengthen the pier, followed by construction on the other end) to ensure that the facility would remain operational. The Navy states that it did not include this alternative for detailed analysis in the Revised Draft EA because it does not meet screening factors 2, 4, and 6, and because phased construction on an active ammunition facility would violate Department of Defense explosives safety regulations.
3. ***Refurbish existing facilities at Military Ocean Terminal Concord.*** This alternative would include refurbishing the existing, former Navy facilities in Concord, which are currently used for other civilian uses and Army activities (the facility was transferred to the Army in 2008). The Navy did not include this alternative for detailed analysis in the Revised Draft EA because of navigation constraints (vertical clearance) at the Martinez-Benecia Bridge, and because this alternative did not meet screening factors 1, 2, and 4.
4. ***Construct new offshore facility at NAVWPNSTA Seal Beach.*** This alternative would include the construction and operation of a new offshore facility which would accommodate all sizes of U.S. naval ship classes. However, security (for example, to separate civilian boat traffic from Navy operations) would be difficult, and public safety

risks would expand because of additional operational areas outside of Anaheim Bay. Thus, the Navy did not include this alternative for detailed analysis in the Revised Draft EA.

5. ***Upgrade Bravo Wharf facility at Naval Base Coronado.*** This alternative would include an upgrade to the explosives operations at the Bravo Wharf Facility at Naval Base Coronado, San Diego. The Navy did not consider this alternative further because of the significant disruption of current operations at Naval Air Station North Island, significant increases in the amount of ordnance trucks traveling through the city of Coronado, and additional safety and security concerns due to the proximity of civilian vessel navigation channels for the Port of San Diego.
6. ***New ammunition loading facility at Marine Corps Base Camp Pendleton.*** According to the Navy, this alternative would be cost-prohibitive and might result in significant environmental impacts because a new protected deep water harbor and related infrastructure would need to be constructed.
7. ***New ammunition facility at Naval Base Ventura County at Port Hueneme.*** According to the Navy, this alternative would be cost-prohibitive since new facilities for explosives handling would need to be constructed. Additionally, Port Hueneme is not large enough to support these facilities and the associated safety buffer zones, and such activities would significantly disrupt current operations.
8. ***New ammunition loading facility on island offshore.*** The Navy considered locating a loading facility on San Clemente Island but rejected this alternative stating that the island's current missions (a live shore bombardment training range, and airstrip used for training aircraft carrier pilots, and a Navy SEAL training area) are not compatible with constructing and operating an ammunition loading facility. The Navy further stated that constructing a new protected deep water harbor and associated facilities would be cost-prohibitive and would result in significant environmental impacts.

With respect to the no-action alternative, the Navy did not select it as its preferred approach because it would not meet the stated project's purpose and need.

D. RELATED COMMISSION ACTIONS

Since 2000, Commission staff has concurred with negative determinations for various projects for the repair and maintenance of structures and facilities at NAVWPNSTA Seal Beach and has agreed that consistency determinations were not required because of a lack of impacts. These include projects to:

- Perform maintenance dredging of the approach channel, entrance channel, and outer harbor of Anaheim Bay (ND-0005-18).
- Repair the east jetty (ND-0026-15).
- Construct additional security fencing on the west jetty (ND-0018-14).
- Perform small boat pier repairs (ND-007-10).

- Demolish and reconstruct 180 units of military family housing (ND-042-07).
- Repair eroded roadway channel banks (ND-030-07).
- Construct a mine assembly building and berm repair (ND-016-07).
- Install security fencing to protect Seal Beach National Wildlife Refuge (ND-090-06).
- Perform road bank maintenance (ND-083-06).
- Repair the fendering system at the Ammunition Loading Wharf (ND-063-05).
- Demolish and remove an old Pacific Coast Highway bridge (ND-031-05).
- Replace 18 deteriorated piles at the existing wharf (ND-087-04).
- Replace buoy moorings (ND-095-03).
- Construct a boat ramp (ND-053-03).
- Perform wharf repair (ND-085-01).

E. OTHER AGENCY APPROVALS AND TRIBAL CONSULTATIONS

Clean Air Act/South Coast Air Quality Management District

According to the Navy's Revised Draft EA, the South Coast Air Quality Management District has confirmed that emissions increases associated with the proposed project (including construction, demolition, and operational activities) are within the emissions budget outlined in the approved Air Quality Management Plan. The Navy states that Air Quality Management District authorizations associated with the proposed project will be obtained.

U.S. Army Corps of Engineers (USACE)

The Navy will be applying to the USACE for a Clean Water Act Section 404/Rivers and Harbors Act Section 9 and 10 permit. The USACE is a cooperating agency, for purposes of the NEPA review of the project.

U.S. Coast Guard (USCG)

Pursuant to the General Bridge Act of 1946, the USCG has authority for approving the location and plans for bridges and causeways in, over, or on navigable waters. Additionally, the USCG is responsible for maintaining federal Aids to Navigation nationwide, including in Anaheim Bay. The USCG is a cooperating agency for the project for purposes of the NEPA review of the project and permitting purposes.

Los Angeles Regional Water Quality Control Board (LARWQCB)

The Navy will be applying to the LARWQCB for a Clean Water Act Section 401 Water Quality Certification and a Clean Water Act Section 402 National Pollution Discharge Elimination System Permit. According to the Navy, these authorizations will be applied for simultaneously with the USACE Section 404 permit.

California State Historic Preservation Office (SHPO)

The Navy currently is consulting with the SHPO in accordance with Section 106 of the National Historic Preservation Act.

Other Agency Consultations

The Navy currently is consulting with the U.S. Fish and Wildlife Service and the National Marine Fisheries Service for potential effects to terrestrial and marine species, respectively, in accordance with Section 7 of the federal Endangered Species Act. The Navy is consulting with the National Marine Fisheries Service pursuant to the Magnuson-Stevens Fishery Conservation and Management Reauthorization Act. Related to the Marine Mammal Protection Act, the Navy is currently seeking a Letter of Authorization for Level B incidental takes (behavioral, non-injury impacts) of marine mammals from the National Oceanic and Atmospheric Administration.

TRIBAL CONSULTATION

The Navy submitted a letter to the CA SHPO in September, 2018 describing the proposed project and their determination that no historic properties would be affected. This letter included several tribes as interested parties, including: the Gabrielino Tongva Nation, Gabrielino Tongva Indians of California Tribal Council, Gabrieleno/Tongva Band of Mission Indians of San Gabriel, Gabrielino-Tongva Tribe, and Gabrieleno Band of Mission Indians-Kizh Nation.

During the process of reviewing the Navy's consistency determination for this project and developing this recommendation, Commission staff reached out to the Native American Heritage Commission, which provided contact information for Native American Tribes understood to have current and/or historic connections to the project area. These Tribes include the Juaneno Band of Mission Indians Acjacheman Nation, Gabrieleno/Tongva San Gabriel Band of Mission Indians, Gabrielino-Tongva Nation, Gabrieleno Band of Mission Indians, and the Gabrielino-Tongva Tribe. At the time of publication of this staff report and recommendation, no questions or concerns had been brought to the attention of Commission staff by representatives of these Tribes. Any concerns raised subsequent to the publication of this report will be brought to the attention of the Commission through the development of an addendum to this staff report.

F. ENVIRONMENTALLY SENSITIVE HABITAT

Coastal Act Section 30240 states:

(a) Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas.

(b) Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas, and shall be compatible with the continuance of those habitat and recreation areas.

Coastal Act Section 30107.5 defines environmentally sensitive area:

“Environmentally sensitive area” means any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments.

Exhibit 11 indicates the types of existing upland habitats that are found within the project area. These habitats include developed areas such as the paved areas near the existing wharf and existing structures. Within the confines of the facility are two beach areas: one comprises a majority of the “North Mole,” and another is a portion of the “South Mole.” The Navy describes the North Mole beach area as consisting of mostly groomed sand that is either unvegetated or dominated by non-native vegetation (Department of the Navy 2018). In the foredune area near the South Mole, vegetation consists of primarily red sand verbena (*Abronia maritima*), pink sand verbena (*A. umbellata*), Watson salt bush (*Atriplex watsonii*), and sea rocket (*Cakile maritima*) (Department of the Navy 2014). Landward of the foredune areas at the South Mole, the Navy describes hummocks and dunes being built up primarily by wind deposition of sand over time under and around vegetation, which generally includes dune buckwheat (*Eriogonum parviflorum*), beach ragweed (*Ambrosia chamissonis*), red sand verbena, and beach evening primrose (*Camissonia cheiranthifolia*) (Department of the Navy 2014). Human disturbance of these habitats and the foredune area has resulted in several exotic species, such as hottentot fig (*Carpobrotus edulis*), sea rocket, Australian saltbush (*Atriplex semibaccata*), and ice plant (*Carpobrotus* spp., *Mesembryanthemum* spp.) becoming more common (Department of the Navy 2014). In particular, the Navy delineates an area of non-native vegetation landward of the southern foredune area along the South Mole (**Exhibit 11**). The Navy states that there are 21 acres of foredune habitat at NAVWPNSTA Seal Beach (Department of the Navy 2014).

The area labeled as “disturbed habitat” on **Exhibit 11**, between PCH and Anaheim Bay, is upland sandy habitat that consists of non-native invasive plant species (e.g., ice plant) or is unvegetated (NAVFAC 2018). The eastern portion of this area contains mounded topography from previous deposition of dredge material; the western portion is relatively flat. The Navy also delineates areas adjacent to these habitat areas as consisting of non-native grasslands; plant surveys in 2007 and 2014 found no native needlegrass (*Stipa pulchra*) present.

Three avian species listed under the federal Endangered Species Act have been documented at NAVWPNSTA Seal Beach (including both the Seal Beach NWR and areas adjacent to Anaheim Bay). These include the endangered California least tern (*Sternula antillarum browni*), the threatened western snowy plover (*Charadrius nivosus nivosus*), and the endangered light-footed Ridgway’s rail (*Rallus obsoletus*) (Department of the Navy 2018).

The western snowy plover inhabits sandy areas (beaches and drying margins of lagoons) and tidal mud flats in California during migration and in winter. Its nesting season is March through September. According to the Navy, “the western snowy plover has used the beach areas outside the NAVWPNSTA Seal Beach for nesting and foraging in the past; there has been no known nesting on Navy-owned beaches at NAVWPNSTA Seal Beach...only a handful of wintering birds are observed annually” (Department of the Navy 2018).

The light-footed Ridgway’s rail is found in coastal salt marshes and lagoons, nesting in cordgrass habitat. In 2016, a census performed along the California coast documented 60 pairs of the species at Seal Beach NWR out of a population of 600 breeding pairs from Santa Barbara County to the Tijuana Marsh National Wildlife Refuge, the fourth highest count recorded at a particular location (Department of the Navy 2018).

California least terns forage in Anaheim Harbor and do not nest on beaches in or adjacent to Anaheim Harbor but do nest on National Aeronautics and Space Administration Island within Seal Beach NWR (Department of the Navy 2018). Predator control has enhanced fledgling success of the species at this location.

Southern Foredunes

The Navy estimates that NAVWPNSTA Seal Beach contains 21 acres of southern foredune habitat (**Exhibit 11**). The proposed project would result in the loss of approximately 4.7 acres of this type of habitat.

While the Navy states that no snowy plovers have been known to nest at NAVWPNSTA Seal Beach, wintering birds have been observed using the southern foredune and beach areas for roosting activities. The species has used adjacent beach areas for nesting and foraging in the past, indicating that Western snowy plovers have used habitats in the area for various purposes.

The Revised Draft EA states that the dunes are suitable habitat for globose dune beetles (*Coelus globosus*), a California species of special concern, and sandy beach tiger beetles (*Cicindela hirticollis gravida*), S2 rarity status. The Revised Draft EA states that southern California legless lizards, *Cicindela hirticollis gravida* (rarity status G3 S3, California species of special concern) have occurred at NAVWPNSTA Seal Beach. According to the staff's wetland ecologist, the southern foredunes at this location are unique in that the percent cover of the rare red sand verbena is higher than the more common pink sand verbena (**Exhibit 12**).

The southern foredune community is recognized by the California Department of Fish and Wildlife (CDFW) in the California Natural Diversity Database as a rare natural community of highly limited distribution because of its scarcity and declining status in southern California (CDFG 2010). Southern foredune habitats have been greatly reduced by urban and other development between Point Conception and the Mexican border; less than 20% of the original area of southern foredune habitat is estimated to remain (Mattoni 1990). Remaining areas of intact southern foredunes are ranked by CDFW as S2.1 ("imperiled, seriously threatened in California"), and are considered by CDFW to be of high priority for conservation.

Given the rarity of dune habitats in California, the Commission has considered dune plant communities, even those that are significantly degraded, to meet the definition of ESHA if they retain some connection to the beach or other dune areas or if they are inhabited by plants or animals that are rare, endangered, or have other special status³. The foredunes at NAVWPNSTA Seal Beach remain intact, though partly degraded by human activity and invasive vegetation such as ice-plant. Moreover, the dune system at NAVWPNSTA Seal Beach retains its connection to

³ For example, the Commission defined southern foredune habitats as ESHA in the following decisions: LCP Amendment No. OXN-MAJ-1-05 (Oxnard Shores); CDP 6-17-0596 (the City of Encinitas/CA Department of Parks and Recreation living shoreline system at Cardiff State Beach); 5-17-0537 (County of Los Angeles Department of Beach and Harbors to expand existing campground facility at Dockweiler State Beach); CDP 4-15-0390 (Broad Beach Geologic Hazard Abatement District in Malibu); and CD-0003-14 (Department of the Navy to construct the coastal campus at the Silver Strand Training Complex, Coronado).

the beach and provides important ecosystem functions, including roosting and potential nesting habitat for the western snowy plover. Based on the rarity of southern foredune habitat in California, the presence of rare animal species at NAVWPNSTA Seal Beach, and the fact that these resources could easily be disturbed or degraded by human activities or development, the Commission's staff ecologist has determined that the southern foredune habitat at NAVWPNSTA Seal Beach meets the Coastal Act definition of ESHA (**Exhibit 12**).

Mitigation measures

To avoid, minimize, and mitigate potential impacts to upland habitats affected by the proposed project, the Navy proposes the following mitigation measures:

- Weekly surveys for nesting birds within and adjacent to proposed activities would be performed and, if found, an appropriate buffer established around the nest to further reduce any impacts on protected bird species.
- Loss of dune habitat would be offset by creation of a dune habitat restoration area.

Sections G: Marine Resources and H: Wetlands describe aspects of other habitat impact-related mitigation measures in further detail. The Navy's proposed dune habitat restoration and conservation activities are described below.

Dune habitat conservation areas

The Navy identifies a total of 12.3 acres of the NAVWPNSTA Seal Beach property for dune conservation activities: on the South Mole near the proposed new public navigation channel; south and east of the proposed new public navigation channel (PNC); and south and west of PCH (**Exhibit 13**). The Navy describes its plans for these areas as follows:

Dune habitat conservation would occur through placement of dredge material to locations on both sides of the PNC at east (south) mole and wedge (2.8 acres); at Surfside Beach (3.1 acres); and at the ...southern portion of the east stockpile area of Inner Anaheim Bay between the Bay and PCH (6.0 acres)... Upland sand from dunes excavated to create the PNC, which has previously been treated for exotic weeds, would also be placed in the habitat conservation areas.

Since dune habitat requires the use of sandy material, upland sand excavated and salvaged from east (south) or west (north) mole would be beneficial to dune function, if it is feasible to segregate it from subtidal material. Use of this salvaged material for capping material would significantly improve the probability of a successful and cost-effective outcome for dune establishment, due to the presence of beneficial native organisms within it. While finer materials may be considered for the base of dunes, the upper 2 ft. should be covered by suitable sandy material....

At Surfside Beach, a dynamic foredune conservation area may be created on the beach-side of the existing high dune between the beach and the security fence with minor grading of the existing high dune. A symbolic fence between the foredune and the beach would be installed along with educational signage.

For these areas, the Navy describes site preparation activities (weed eradication, clearing/grubbing/grading, and soil preparation activities) that would occur, and provides plant installation specifications, timing, and irrigation (NAVFAC 2018). The Navy also describes its plans for approximately five years of monitoring and site maintenance, including weed control, horticultural treatments, erosion control, trash and debris removal, replacement planting, and site protection (NAVFAC 2018).

Exhibit 13 also depicts the area south and west of PCH which, the Navy states, provides an opportunity for the beneficial reuse of dredge material. The Navy states that approximately 10.9 acres of this area will receive suitable silty sands and sand, undergo similar site preparation activities as with other dune habitat areas, and will be similarly maintained. The amount of material placed on this area would depend on the amount of material remaining following other dune habitat-related activities.

Potential project effect on ESHA

The proposed project would result in the permanent removal of approximately 4.7 acres of southern foredune habitat. As described previously, the Commission's staff ecologist has determined that this southern foredune habitat constitutes ESHA. The Commission finds that this southern foredune habitat is ESHA and therefore the proposed project is subject to Section 30240 of the Coastal Act.

With a few limited exceptions, Section 30240 of the Coastal Act does not allow development within ESHAs, even with mitigation. The primary exception applies to proposed development that is a "use dependent on the resource." While the dune restoration activities proposed by the Navy could be found by the Commission to be consistent with the Coastal Act mandate to protect ESHA, other aspects of the project (such as those associated with the public navigation channel) that would remove ESHA would not be consistent with the protection provided by Section 30240, even with mitigation. This interpretation of the Act to prohibit the destruction of ESHA, even if it is recreated elsewhere, was confirmed in the Bolsa Chica court decision, wherein the Court found the following:

*Importantly, while the obvious goal of section 30240 is to protect habitat values, the express terms of the statute do not provide that protection by treating those values as intangibles which can be moved from place to place to suit the needs of development. Rather, the terms of the statute protect habitat values by placing strict limits on the uses which may occur in an ESHA...*⁴

Concerning the "limited exceptions" reference mentioned above, the Commission also could authorize non-resource dependent uses in ESHA under the following circumstances:

- (1) if a Commission action prohibiting such use would inevitably result in a Constitutional "taking" of private property rights (and in this circumstance only the

⁴ *Bolsa Chica Land Trust v. Superior Court* (1999). 71 Cal.App.4th 493, 507.

- minimum amount of development needed to avoid any such “taking” could be allowed);
- (2) if the Commission were to find: (a) that a project posed conflicts between one or more Coastal Act policies, in which case the Commission could apply the conflict resolution policy (i.e. Section 30007.5 of the Coastal Act); and (b) that allowing the use would resolve that conflict “in a manner which on balance is the most protective of significant coastal resources” (Section 30007.5);
 - (3) if the “consistent to the maximum extent practicable” standard applicable to federal agencies (and described above in Section III) presented a situation where avoiding development that was not a resource-dependent use within ESHA was prohibited based on existing law; or
 - (4) if the proposed project is considered to be a coastal-dependent industrial facility and thus qualifies for special consideration under the Coastal Act’s coastal-dependent industrial development “override” policy (Coastal Act Section 30260), and it meets the tests of that section. Section 30260 provides that if a coastal-dependent industrial development such as the proposed project is inconsistent with any Chapter 3 policy of the Coastal Act, the Commission may nonetheless approve such development if it finds that the proposal meets all three of the following criteria: (1) alternative locations are infeasible or more environmentally damaging; (2) to do otherwise would adversely affect the public welfare; and (3) adverse environmental effects are mitigated to the maximum extent feasible.

With respect to the first of these circumstances, there are no private property rights issues within the project footprint, as the proposed project would occur on public lands controlled by the U.S. Navy or in public tidelands of the State of California. Thus, denial of the proposal would not constitute a taking. With respect to the second of these circumstances, the Commission finds the project does not trigger the conflict resolution policy of the Coastal Act, because not authorizing the project would not conflict with any Coastal Act policy. With respect to the third of these circumstances, as noted above on pages 4-5, the Navy has not made a specific case for “consistent to the maximum extent practicable” regarding the proposed activities in ESHA. With respect to the fourth circumstance, see the analysis and findings in Section O: Coastal Dependent Industrial ‘Override’ Policy, which concludes that the proposed project meets the three tests of Section 30260.

Conclusions

For the reasons discussed above, the Commission finds that the proposed project includes a public navigation channel that would be sited within, but would not be a use dependent on, the ESHA resource, and that the project is therefore inconsistent with Section 30240 of the Coastal Act.

Note: because the proposed project would be a “coastal-dependent industrial facility,” it is presumptively subject to analysis under Section 30260 of the Coastal Act (see Section O: Coastal Dependent Industrial ‘Over-ride’ Policy). In section 30260, the Coastal Act provides for special

approval considerations of coastal-dependent industrial facilities, such as the proposed project, that are otherwise found consistent with the resource protection and use policies contained in Chapter 3 of the Coastal Act. The section 30260 industrial override policy applies only to Chapter 3 policies of the Coastal Act.

G. MARINE RESOURCES

Coastal Act Section 30230 states in part:

Marine resources shall be maintained, enhanced, and where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance. Uses of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes.

Coastal Act Section 30233(b) and (c) state:

(b) Dredging and spoils disposal shall be planned and carried out to avoid significant disruption to marine and wildlife habitats and water circulation. Dredge spoils suitable for beach replenishment should be transported for these purposes to appropriate beaches or into suitable longshore current systems.

(c) In addition to the other provisions of this section, diking, filling, or dredging in existing estuaries and wetlands shall maintain or enhance the functional capacity of the wetland or estuary.

Marine habitats in Anaheim Bay include soft bottom sediments, eelgrass beds, and hard man-made structures. Anaheim Bay is primarily soft bottom, and portions of Anaheim Bay are regularly dredged (approximately every four to six years) to maintain a channel for Navy vessels calling at the existing ammunition pier. A survey of Anaheim Bay in 2013 resulted in polychaetes and oligochaetes (various worm species) comprising 61% of the total abundance of invertebrates from these habitats. According to the Revised Draft EA for the proposed project, soft-bottom habitats in Anaheim Bay are dominated by such worm species, with large invertebrates at or above the sediment surface including bubble snails (*Bulla gouldiana*), speckled scallop (*Argopecten ventricosus*), grass shrimp (*Hippolyte* spp.), slipper shell (*Crepidula* spp.), and swimming crab (*Portunus xantusii*). The Navy describes the species composition of these soft bottom habitats as comparable to other similar areas in southern California (Department of the Navy 2018).

The Navy states that “...there are little to no natural hard surfaces in Anaheim Bay, [and] riprap and other artificial structures provide habitat that does not resemble any natural habitat in Anaheim Bay...Approximately 81 percent of the shoreline of Anaheim Bay is armored by man-made structures that protect developed sites” (Department of the Navy 2018). Eelgrass is present in Anaheim Bay, and Section H: Wetlands discusses these areas and potential impacts (and mitigation).

Anaheim Bay fish surveys in 2013 identified queenfish (*Seriphus politus*), topsmelt (*Atherinops affinis*), and northern anchovy (*Engraulis mordax*) as the most abundant species, collectively accounting for approximately 92% of the number of fish collected (Department of the Navy 2018). California grunion (*Leuresthes tenuis*) were also collected, and “grunion spawning events have occurred at varying scales on the south beach in Anaheim Bay and nearby Surfside and Sunset Beaches” (Department of the Navy 2018). Fish abundance and species richness (the number of species collected) both were higher in the summer compared to the winter. Of the species collected during these surveys, four species were captured that also are included in the Essential Fish Habitat designation pursuant to the Magnuson-Stevens Fishery Management and Conservation Act: northern anchovy, Pacific sardine (*Sardinops sagax*), kelp rockfish (*Sebastes atrovirens*), and California scorpionfish (*Scorpaena guttata*).

To determine the abundance and distribution of marine mammals in the area, in 2016 the Navy began monthly surveys of Anaheim Bay. California sea lions (*Zalophus californianus*) were the most commonly encountered marine mammal, followed by bottlenose dolphins (*Tursiops truncatus*) and Pacific harbor seals (*Phoca vitulina richardii*) (Department of the Navy 2018). No sea lion or harbor seal haul-out sites or breeding occurs within or near the project area. Whale species that are present in the Southern California Bight are unlikely to be found in Anaheim Bay, given their feeding patterns, migratory routes, and other behavior. While gray whales (*Eschrichtius robustus*) may enter bays during their migration along the California coast, there have been no sightings of that species in Anaheim Bay.

The green sea turtle (*Chelonia mydas*) is the only marine species listed under the federal Endangered Species Act that is known to frequent the marine environment in Anaheim Bay and Seal Beach NWR. The species is typically observed from Los Angeles to San Diego, often in areas with water depths less than 165 feet and in eelgrass habitat. In general, green sea turtles appear to prefer relatively warm water conditions, based on the increase in turtle sightings in the summer when waters warm. The Navy states that a recent study:

showed that acoustically tagged juvenile green sea turtles move into the San Gabriel River (north of Anaheim Bay) during winter months, when temperatures dropped below 15° Celsius (C) because the water temperature in the river is anthropogenically altered by two power plant discharges. Conversely, juvenile sea turtles moved through the Study Area to get to the 7th Street Basin (in the Seal Beach National Wildlife Refuge) during summer months to forage in eelgrass beds... While green sea turtles transit through Anaheim Bay to the waters in the Seal Beach National Wildlife Refuge adjacent to the NAVWPNSTA Seal Beach, the number of turtles using Anaheim Bay and the Seal Beach National Wildlife Refuge is uncertain. Additionally, there is limited information about their movements and behavior...

Potential project impacts to benthic habitats

The Navy states that no direct project-related impacts are expected to marine habitats in the Seal Beach National Wildlife Refuge, as almost all project activities will occur seaward of PCH. The Navy cites the results of the hydrodynamic circulation study (discussed further in Section I:

Water Quality) to indicate that model results suggest there would be no changes to the tide range or scouring potential as a result of the proposed project, and that water residence times in Huntington Harbour and Seal Beach NWR would be slightly shorter as a result of the proposed project.

Temporary marine habitat impacts in Anaheim Bay would occur as a result of the dredging that would be required for the proposed ammunition pier, turning basin, north mole removal, and the public navigation channel. The Navy anticipates a total of 1.2 million cy of material would be removed, as described previously. The Navy states that “[a]lthough dredging could decrease the amount of shallow habitat within the dredge footprint, much of this habitat is highly disturbed from previous maintenance dredging” (Department of the Navy 2018).

Dredged and cut material would be placed as fill for creation of eelgrass habitat within Anaheim Bay, for the causeway and truck turnaround area (**Exhibit 4**), and possibly for use as beach nourishment (depending on the availability of suitable, sandy material). Dredged material not suitable for these purposes but suitable for open ocean disposal would be disposed of at one of the already-designated disposal sites offshore Los Angeles (LA-2 or LA-3). The proposed project thus minimizes the amount of fill that would not be beneficially re-used in some fashion.

Anaheim Bay is not one of the 19 coastal wetlands identified by the Department of Fish and Game in its report entitled “Acquisition Priorities for the Coastal Wetlands of California.” Eelgrass is designated as Essential Fish Habitat pursuant to the Magnuson-Stevens Fisheries Conservation and Management Act. While Anaheim Bay as a whole is not designated as an area of biological significance, it does contain eelgrass habitat. The Navy proposes to mitigate for eelgrass impacts as described in Section H: Wetlands.

In addition to the impacts to eelgrass, impacts to marine habitats in Anaheim Bay would include permanent conversion of unvegetated, soft bottom habitat into different tidal habitat and into upland areas (e.g., for the truck turnaround and causeway and associated with the proposed rock revetments). However, some of these losses would be offset by the creation of the new public access channel and placement of fill associated with created eelgrass habitat. In total, the Navy estimates that 28.2 acres of subtidal habitat below 0 feet MLLW would be lost, but that 27.5 acres of such habitat would be created. The Navy calculates that the majority of the benthic habitat loss would be in relatively less biologically productive deep-water habitat that is routinely disturbed by maintenance dredging already and states that the “productive shallow subtidal and extreme shallow subtidal habitats” will experience a net gain in area (Department of the Navy 2018).

In these benthic habitat areas, proposed project activities (pier construction, and turning basin dredging), as well as pier demolition if that ultimately occurs, would result in the disturbance or loss of existing soft bottom benthic communities. The Navy states:

Some infaunal species (e.g., polychaete worms) and some epifaunal species (e.g., crustaceans) would be disturbed or lost as a result of these activities. Common epifaunal invertebrates such as sea stars could be lost from piling removal during demolition of the old ammunition pier. Invertebrates within the dredging footprint

would be directly lost, and some would be displaced with the sediment used in fill and reuse areas. However, benthic invertebrate species lost during construction activities would recolonize dredged areas from adjacent undisturbed areas within a relatively short period of time. In addition, new artificial structures from pier construction would be available to epifaunal invertebrates. Therefore, impacts to invertebrates under... [the proposed project] would be considered temporary and localized and would be less than significant.

Related to construction impacts to benthic habitat, the Navy states:

During construction, disturbance and loss of the seafloor would occur at the base of the pilings as they are driven into the sediment. The construction and subsequent operation of the new ammunition pier could result in a permanent loss of benthic habitat due to the placement of these structures on the seabed. Total loss of benthic habitat from construction of the new pier would be approximately 3,000 square feet (0.07 ac.). This loss of seafloor habitat is extremely small compared to the overall available habitat for marine species. Construction of the new ammunition pier would also represent an increase in the amount of shading and decrease in light availability compared to existing conditions. However, the amount of shading occurring over the entire footprint of the new pier (136,875 ft.²) would have minimal impact. As described above, Anaheim Bay and surrounding marine habitats are in a highly developed and disturbed location that undergo regular dredging and other disturbances.

To minimize water-quality-related effects from construction-related impacts to benthic habitat, in the consistency determination and the Revised Draft EA for the proposed project, the Navy proposes the following mitigation measures to be implemented during construction:

- The contractor would use only clean construction materials suitable for use in the oceanic environment. The contractor would ensure no debris, soil, silt, sand, sawdust, rubbish, cement or concrete washings thereof, chemicals, oil or petroleum products from construction would be allowed to enter into or placed where it may be washed by rainfall or runoff into waters of the U.S. Upon completion of the project authorized, any and all excess material or debris would be completely removed from the work area and disposed of in an appropriate upland site.
- All vessels associated with the construction project shall operate at “no wake/idle” speeds at all times while in the construction area and while in water depths where the draft of the vessel provides less than a four foot clearance from the bottom.
- Protective measures for construction and demolition would include, but would not be limited to, the use of catch devices and sheeting to prevent the release of debris and hazardous materials or wastes into Anaheim Bay.
- Where possible, equipment used for in-water construction activities would be positioned to minimize damage or shading to sensitive habitat (e.g., eelgrass). Where possible, alternative methods would be employed (e.g., use of anchors instead of spuds).
- The Navy will install silt curtains around each pile location to minimize the re-suspension of sediments in the water column during pile installation, when necessary.

In addition to these mitigation measures, the Navy undertook a model-based hydrodynamics study to assess potential for impacts to water circulation within Anaheim Bay, Seal Beach NWR, and Huntington Harbour. As described in Section I: Water Quality, the conclusions of this study were that potential effects of the proposed projects on tidal range, tidal current velocity, or water residence time would not be significant.

Based on the above-referenced assessment of the project's construction-related and permanent impacts to benthic habitat, the provision of habitat creation and enhancement measures, and the inclusion of the proposed mitigation measures addressing potential adverse effects on water quality associated with construction and demolition activities, the Commission finds that the proposed project will be carried out in a manner that maintains benthic habitat functions and sustains biological productivity.

Potential impacts of the proposed project to fish, marine mammals, and green sea turtles

Impacts to fish could occur as a result of the pile driving that is part of the proposed project due to noise effects or other pile driving-related disturbances to individuals. The Navy suggests that it is likely that fish in the vicinity of pile driving would leave the immediate construction area but would return when construction activities are completed. Similarly, the Navy suggests that fish present during dredging activities would be temporarily displaced, returning once dredging was completed, and that any such displacement would occur over a limited geographic scale considering the natural range of potentially affected species.

With respect to noise impacts to marine mammals, the Navy assessed the potential for project-related pile-driving to cause harm to the marine mammal species deemed most likely to be present in Anaheim Bay. Associated with this aspect of the project are mitigation measures intended to reduce the potential for impacts, such as a "soft start" to pile driving activities and use of qualified monitors authorized to delay or stop pile driving if a marine mammal enters Anaheim Bay. The Navy concludes that, partly because of the mitigation measures that it plans to include, potential effects to sea lions, harbor seals, and bottlenose dolphins as a result of pile-driving would be minimal with only a short-term, negligible behavioral effect on individuals of each species (Department of the Navy 2018).

Impacts on green turtles could occur from noise impacts associated with pile-driving activities, potential strikes from vessels or in-water construction equipment, disturbance of benthic habitat from dredging and fill activities, removing eelgrass that serves as foraging habitat, and temporary disturbance associated with construction of the new public navigation channel. Related to this potential, the Navy states the following (Department of the Navy 2018):

During construction, increased underwater noise from pile driving and dredging operations may cause sea turtles to leave the area. This impact would temporarily keep the sea turtles from transiting through the bay or from foraging habitat in Anaheim Bay. The permanent removal of eelgrass beds would reduce the sea turtle's ability to forage in the area; however, the creation of eelgrass mitigation areas would offset this impact by allowing sea turtles to forage in the newly created areas. The causeway would block the existing path of green sea turtle's

ability to move between Anaheim Bay, Huntington Harbour, and the Seal Beach National Wildlife Refuge and could cause sea turtles to become disorientated. However, the new public navigation channel would create a more direct path to Huntington Harbour and the Seal Beach National Wildlife Refuge, which would also be free from larger vessel traffic, and sea turtles are expected to learn the new route in a relatively short amount of time.

Sea turtles are vulnerable to vessel collisions because they regularly surface to breathe and often rest at or near the surface. Vessel strikes resulting in sea turtle injury or mortality may potentially occur in the Action Area from construction-related vessel operations and barges. However, the probability that construction-related vessels will encounter turtles in the Action Area is low as it is presumed turtles generally only transit through Anaheim Bay and spend a majority of their time in the Seal Beach National Wildlife Refuge. After the public navigation channel is created, there is the potential for additional interactions between turtles and public vessels. Boat speeds within the public navigation channel will be restricted to 5 mph, which reduces the potential vessel strikes on sea turtles in this area as sea turtles are mobile and would be able to avoid slow-moving vessels.

After the new public navigation channel is established, filling of the causeway will be a long extended process... This will allow turtles the opportunity to adjust their movements in and out of Anaheim Bay over the course of several years. It is possible that sea turtles may become temporarily disoriented due to changes in their transit route, which may increase stress and reduce body condition.

However, there is a lack of scientific understanding of green sea turtle behavior, so it is not certain how the species will react to the new connection between the Pacific Ocean and their foraging habitat in Seal Beach NWR. As a result, the Navy is cooperating with NMFS to design and implement a green sea turtle monitoring program, which will include tagging individuals to enable tracking of their behavior. This monitoring program will include an adaptive approach, meaning that the proposed program will include a commitment to identify and implement appropriate responses if it appears that green sea turtles are becoming disoriented or otherwise negatively impacted by the proposed project.

In its consistency determination and in the Revised Draft EA for the proposed project, the Navy proposes the following mitigation measures related to potential impacts of the proposed project to fish, marine mammals, and green sea turtles:

- The Navy shall contact the National Oceanic Atmospheric Administration Fisheries Stranding Coordinator immediately in the event of a watercraft collision with a marine mammal or sea turtle.
- Siltation barriers shall be made of a material that is unlikely to entangle any marine animals (i.e., reinforced impermeable polycarbonate vinyl fabric [PCV]); installed in a manner in which a sea turtle cannot become easily entangled (i.e., stretched out tightly with very little slack); installed with the minimum extent of curtain needed (in terms of

surface to bottom height, as well as total area surrounded); inspected daily to ensure proper integrity and for the presence of entangled or entrapped protected species; and removed immediately upon project completion.

- Turbidity levels would be monitored throughout dredging/placement operations with prescribed actions to be taken (e.g., slowing dredge cycle times, possible use of silt curtains) should turbidity exceed action levels.
- The Navy would use qualified observers to monitor the presence of marine mammals and sea turtles during all pile driving and dredging activities. Monitors would record the presence of marine mammals and sea turtles from pre-determined locations with a clear view of the bay and pile driving activities 30 minutes before pile driving starts and 30 minutes after pile driving is completed each day. Monitors would have the authority to stop pile driving activities if a marine mammal or sea turtle enters Anaheim Bay.
- Pile driving will re-commence if any one of the following conditions are met: (1) the animal is observed exiting Anaheim Bay, (2) the animal is thought to have exited Anaheim Bay based on its course and speed, or (3) Anaheim Bay has been clear from any additional sightings for a period of 30 minutes.
- Prior to the start of pile driving each day, after each break of more than 30 minutes, and if any increase in the intensity is required, the Navy would use a “ramp-up/dry fire start” procedure to allow any undetected species to behaviorally react and move away from the area.
- The Navy, in cooperation with the National Marine Fisheries Service, will conduct a monitoring study of green sea turtles to determine movement patterns in the project area and between the Pacific Ocean and the Seal Beach NWR. The purpose of this monitoring study will be, in part, to assess effects of the proposed project, in particular the realignment of the public navigation channel, on green sea turtle movement. The Navy has agreed to provide Commission staff with a draft of the monitoring study and future monitoring reports for review and concurrence.

With the inclusion of these mitigation measures, the Commission agrees that the proposed project’s construction-related and potential permanent impacts to fish, marine mammals, and green sea turtles will be minimized.

Conclusion

For the reasons discussed above, including the habitat mitigation and creation activities proposed by the Navy, the Commission agrees that the proposed project will maintain, enhance, and where feasible restore marine resources. The Commission also agrees that population-level effects to fish, marine mammal, or marine reptile species are not likely as a result of the proposed project, and that the dredging and disposal aspects of the proposed project will be conducted in such a way as to avoid significant disruption to marine and wildlife habitats and water circulation and to maintain the functional capacity of Anaheim Bay; for these reasons, the proposed project would maintain the functional capacity of the estuary. Therefore, the Commission finds that the proposed project is consistent with Coastal Act Section 30230 and 30233(b) and (c).

H. WETLANDS

Coastal Act Section 30233(a) states:

(a) The diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes shall be permitted in accordance with other applicable provisions of this division, where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to the following:

- (1) New or expanded port, energy, and coastal-dependent industrial facilities, including commercial fishing facilities.*
- (2) Maintaining existing, or restoring previously dredged, depths in existing navigational channels, turning basins, vessel berthing and mooring areas, and boat launching ramps.*
- (3) In open coastal waters, other than wetlands, including streams, estuaries, and lakes, new or expanded boating facilities and the placement of structural pilings for public recreation piers that provide public access and recreational opportunities.*
- (4) Incidental public service purposes, including but not limited to, burying cables and pipes or inspection of piers and maintenance of existing intake and outfall lines.*
- (5) Mineral extraction, including sand for restoring beaches, except in environmentally sensitive areas.*
- (6) Restoration purposes.*
- (7) Nature studies, aquaculture, or similar resource dependent activities.*

Anaheim Bay connects to the Seal Beach NWR through Anaheim Channel, which is the only tidal connection for the refuge and Huntington Harbour. While Huntington Harbour is extensively developed—completely channelized and almost entirely bulkheaded—the Seal Beach NWR includes extensive areas of tidal wetlands, mudflats, and open water channels. While the proposed project will not directly adversely affect Seal Beach NWR or Huntington Harbour, since project-related activities are in the areas indicated in **Exhibit 4**, as described in Section I: Water Quality, the Navy conducted an assessment of potential for hydrologic changes to Seal Beach NWR, Huntington Harbour, and south to Bolsa Bay as a result of the proposed project. These model results indicated no or very minimal changes to the tidal range, tidal velocity, and residence time of water in the refuge. Additionally, within the project footprint, only one area of salt marsh would be directly affected by the proposed project: a 0.4 acre area of salt marsh near PCH (**Exhibit 13**) would be part of the Navy's habitat enhancement activities as described below.

Eelgrass (*Zostera marina*) beds are located in Anaheim Bay and would be affected directly by the proposed project. Eelgrass is a highly productive seagrass, occurring in shallow portions of sheltered bays and estuaries, which provides important foraging and shelter to marine species, food for migratory waterfowl and sea turtles, and spawning habitat for invertebrates and fish

species (NOAA Fisheries 2014). Generally, eelgrass habitat is confined to relatively shallow water depths, areas with stable substrate and relatively low wave energy, and areas where the water is sufficiently clear to allow for photosynthesis. Within Anaheim Bay, eelgrass extent can vary annually as a result of storm damage and scouring of sediment (NAVFAC 2018). Within the area of the proposed project, in-water surveys in 2016 and 2017 identified eelgrass areas in the outer basin of Anaheim Bay with some variation on the exact location and density of the vegetation (**Exhibit 14**). A total of 11.7 acres of eelgrass habitat was documented in Anaheim Bay in 2016 (Department of the Navy 2018); a 2013 benchmark survey resulted in 8.98 acres of eelgrass within Anaheim Bay west of PCH (NAVFAC 2018).

Eelgrass has relatively low abundance statewide (it is one of the rarest marine habitats in California) and is considered at risk due to sea level rise and continued human development-related activities (dredging and filling, effluent discharge, and sediment discharge, for example). Eelgrass is protected under various State and federal regulations and is typically protected and mitigated in accordance with the California Eelgrass Mitigation Policy (NOAA Fisheries 2014).

Impacts to eelgrass would result from several components of the proposed project. In addition to areas that would be dredged (**Exhibit 6**), fill would be placed in existing subtidal habitat areas in support of eelgrass habitat mitigation and rock will be placed on existing soft-bottom subtidal habitat for the breakwater, public navigation channels, and along the west mole (**Exhibit 4**). In its consistency determination for the proposed project, the Navy focuses its analysis on the direct impacts of the proposed project to Anaheim Bay inter-tidal and sub-tidal habitats, as discussed below.

Dredging and Fill of Coastal Wetlands

Coastal Act Section 30233 requires a project that includes the dredging and fill of coastal wetlands to meet three tests. The first test requires that the proposed activity meet at least one of the seven use categories enumerated in Section 30233(a). The second test requires that there be no feasible less environmentally damaging alternative. The third and last test mandates that feasible mitigation measures be provided to minimize the project's adverse environmental effects.

Allowable use test

The proposed project has several components to assess individually to determine if the project, overall, meets the allowable use test. These components include the fill and dredging associated with the proposed causeway and pier, the dredging and placement of fill that would be part of the proposed public navigation channel, and the placement of fill that would be for habitat (primarily eelgrass) mitigation and restoration.

The seven allowable uses of dredging and fill in coastal wetlands under Section 30233(a) include "new or expanded port, energy, and coastal-dependent industrial facilities" [Section 30233(a)(1)]. The proposed project involves the construction of a new Navy ammunition pier and the expansion of an existing turning basin, along with associated dredging of the approach channel and turnaround basin and fill for the proposed causeway and truck turnaround. The Commission has historically found Navy boating facilities (including ramps and piers) in open coastal waters and estuaries to be allowable uses as coastal dependent facilities. Accordingly, the

Commission finds these components of the project (the ammunition pier, expansion of the turnaround basin, fill for the proposed causeway and truck turnaround, and associated dredging activities for the approach channel to the pier) to constitute an allowable use under Sections 30233(a)(1) of the Coastal Act.

Section 30233(a)(3) states that “[i]n open coastal waters, other than wetlands, including streams, estuaries, and lakes, new or expanded boating facilities...” are also an allowable use. The public navigational channel would include dredging of currently sub- and inter-tidal areas (**Exhibit 6**). The proposed public navigational channel would result in expanded boating access, since following construction public navigation would be separated from military operations and would result in expanded public use of the public navigation channel (currently, public navigation in the existing channel is restricted when Navy vessels are entering or leaving port or loading and unloading ordnance). For this reason, the Commission finds that the dredging and fill associated with the sub- and inter-tidal (i.e., non-upland) areas of the proposed public navigation channel is an allowable use pursuant to Section 30233(a).

Section 30233(a)(6) allows restoration in wetlands and other coastal waters. The proposed project would include placement of fill for eelgrass and other sub-tidal restoration purposes. For this reason, the Commission finds that the fill associated with the sub-tidal habitat aspects of the proposed project is an allowable use pursuant to Section 30233(a).

Summarily, for the reasons described above, the Commission finds that the wetland/coastal waters components of the proposed project comply with the allowable use test requirement of Coastal Act Section 30233(a).

Alternative test

The following discussion analyzes each of the three components listed in the prior section to determine whether the project meets the alternatives test of Section 30233(a). The Navy also analyzed alternative approaches and locations for the proposed project, as discussed in Section C: Alternatives, above.

The Navy proposes to construct the new pier and mooring dolphin to accommodate Navy vessels that call at the NAVWPNSTA Seal Beach. Inclusion of the mooring dolphins results in a shorter pier than would be required otherwise to accommodate the vessels that will call (destroyers, LHA, and LHD, as described previously). The pier would be supported by approximately 900 piles that would be spaced as necessary to meet engineering and seismic safety considerations. The Navy estimates a total benthic habitat footprint associated with these piles of approximately 3,000 square feet. The pier has been designed to accommodate the fleet requirements that the

Navy anticipates, as described previously. Orienting and placing the pier in the proposed location also would result in the dredging associated with the use of the pier as well as placement of material in support of a truck turnaround area. The Navy states that other pier designs, including different orientations and locations, either would not be feasible because of security concerns or would not meet one or more of the six screening factors applied to the proposed project, as described in Section C: Alternatives Considered.

The amount and location of dredging that is proposed is the minimum needed to provide Navy vessel access to the new pier and is designed to minimize impacts to existing wetland areas (including eelgrass). The dredging that is proposed as part of the public navigation channel is also the minimum needed to achieve the goal of continuing to provide boater access between Huntington Harbour and the ocean and would therefore minimize impacts to existing resources.

Proposed dredging depths (-39 feet to -41 feet MLLW for the ammunition pier, channel, and turnaround area, with a two-foot over-depth allowance) would provide the depths of the channels necessary to accommodate the Navy vessels that would be calling at the new ammunition pier and using the channel and turnaround area. The Navy proposes a 20 foot depth for the public navigation channel. The depths of both of these channels, and thus the amount of material that would be dredged, have been minimized to address the needs of the vessels that would be using these areas without removing any more than is necessary for these needs.

The material that is dredged will be disposed of in several ways, largely depending on its suitability for beneficial reuse. The Navy has developed a sampling plan for determining the sediment chemistry and grain size characteristics (and thus the suitability for disposal) of the material to be dredged. This sampling plan has been reviewed and approved by the Southern California Dredged Material Management Team (SC DMMT), which includes Commission staff; sediment sampling results also will be reviewed by the SC DMMT. Depending on the results of such sampling, the Navy anticipates using appropriate material for activities such as dune enhancement and beach nourishment. Additionally, there are areas that will be affected by the placement of fill material in support of eelgrass and other habitat restoration (see the mitigation discussion below). The Navy is designing these fill areas to maximize the likelihood of successful eelgrass establishment (i.e., by establishing appropriate water depths in support of eelgrass colonization). Only material that is not suitable for use as fill, or that cannot be beneficially reused, is proposed for in-water disposal at one of the already-designated offshore dredge disposal sites.

The next component analyzed is the proposed 930-foot long, 59-foot wide (at the top) solid-fill constructed causeway to vehicle access to the proposed pier. The Navy states that approximately 70,000 cy of excavated material would be placed to construct this causeway.

In discussions with the Navy as it was developing the EA for the project and considering alternatives, Commission staff requested information concerning alternatives for the proposed causeway that could reduce impacts to existing benthic habitat, including the potential construction of a pier-supported causeway (bridge).

In response, the Navy initially stated that a pier-supported causeway:

....would reduce fill impacts and was considered during early planning stages but removed from consideration due to higher maintenance and certification requirements. Additionally, the solid causeway would be constructed using the dredge spoils reducing the need for offsite disposal.....A pier supported causeway would also not as effectively address security and public access concerns which

are satisfied more fully by a complete separation of the public navigation channel from the Navy operational harbor area.

However, this explanation on its own was not sufficient to determine that the proposal for a fill-supported pier was the least environmentally damaging alternative. In response to staff's request for further information regarding the security issues with the causeway and further rationale for use of solid fill, the Navy states:

The causeway is required to serve two critical functions: 1) To provide a robust connection between the new ammunition pier and the rest of the base; and 2) To eliminate a potential access point to the inner harbor by small boat, swimmer or diver threats.

DoD and DON regulations...require the use of global threat scenarios as the baseline factors for assessing vulnerability. Based on these factors, a solid causeway was recommended by the CNO Office for Mission Assurance, as the mitigating measure given the layout for the proposed new pier in proximity to the public navigation channel. When compared to a solid causeway shielded by rock armor, bridges or culvert structures are much more susceptible to both terrorist penetration and attack, as well as damage or destruction from explosive devices.

The Navy contends that use of a pile-supported causeway in this case would not be consistent with federal regulations to address both security concerns and also would not result in complete separation of the public navigation channel from the Navy operational harbor area. The Commission agrees that, for those reasons, a fill-supported structure is not feasible in this instance.

Consequently, because of the fill-supported causeway, the new public navigation channel is also required to maintain existing public boating access, since otherwise existing navigation access would be eliminated.

Therefore, for the reasons described above, the Commission finds that the proposed project (including the design and location of the new pier, placement of fill material for habitat purposes, the fill-supported causeway, and the new public navigation channel) is the least environmentally damaging feasible alternative.

Proposed mitigation measures

The following discussion analyzes the proposed mitigation measures to determine whether the project meets the mitigation requirement of Section 30233(a). To mitigate for potential filling and dredging impacts that would result from the proposed project, the Navy proposes the following mitigation measures:

- Where possible, equipment used for in-water construction activities would be positioned to minimize damage or shading to sensitive habitat (e.g., eelgrass).
- Where possible, alternative methods would be employed [to anchor a dredge] (e.g., use of anchors instead of spuds).

- When feasible, remove piles with a vibratory hammer rather than a direct pull or clamshell method and slowly remove pile to allow sediment to slough off at or near the mudline [to minimize turbidity].⁵
- Hit or vibrate piles [at the start of removal] first to break the bond between the sediment and the pile to minimize the likelihood of the pile breaking and to reduce the amount of sediment sloughed.⁵
- Conduct pre-, post-, and two-years of post-construction eelgrass surveys , and mitigate for loss of eelgrass by creation of eelgrass beds consistent with the California Eelgrass Mitigation Policy.
- Offset loss of intertidal habitat by creation of intertidal conservation areas.
- Offset loss of shallow water habitat by creation of shallow water habitat conservation areas.

The proposed project would result in impacts to shallow water habitat, including eelgrass, and intertidal habitat. The mitigation measures that the Navy proposes to reduce or offset the adverse impacts to these wetland habitats are discussed in additional detail below.

Eelgrass impact and mitigation

The Navy states that in designing the proposed project, it sought to avoid and minimize impacts to eelgrass. However, based on the results of recent surveys the Navy estimates that between 1.6 and 3.7 acres of existing eelgrass in Anaheim Bay would be affected by the proposed project. Given the annual variability in eelgrass density and extent, the Navy would conduct pre- and post-construction surveys to confirm the area of eelgrass lost as a result of the proposed project.

The Navy proposes to mitigate for these losses by providing for eelgrass mitigation pursuant to the California Eelgrass Mitigation Policy (NOAA Fisheries 2014). The Navy proposes to reuse dredge and cut material (of appropriate grain size and with suitable sediment chemistry) to establish a total of 6.1 acres as a potential habitat area for eelgrass planting (largely based on planned fill elevation) in two locations in the inner and outer portions of Anaheim Bay (**Exhibit 13**). The Navy notes that additional planting area will likely exist on the seaward slopes of the two mitigation areas, such that a total of 12.5 acres of habitat is planned to fall within a potentially suitable elevation (water depth) range for eelgrass. The Navy states that this overplanting allowance would enable a larger mitigation footprint than is currently anticipated, for example if the pre-construction survey results in a greater extent of eelgrass than previously mapped (NAVFAC 2018). Thus, “the pre-project estimation of impacts is used to size project mitigation and establish targeted restoration goals...[t]he actual mitigation need is ultimately determined by the final impact assessment” (NAVFAC 2018). This overplanting allowance also would increase the likelihood of successfully meeting the required 1.2:1 ratio of mitigation area to impact area under the California Eelgrass Mitigation Policy.

Based on the anticipated eelgrass impact range of 1.6 to 3.7 acres and application of the 1.2:1 ratio, the Navy would be required to achieve up to 4.44 acres of eelgrass habitat after a five-year period with an initial benchmark of 5.11 acres for initial planting and interim success milestones. The Navy proposes to establish a minimum of 6.1 acres at a water depth suitable for an eelgrass

⁵ This mitigation measure would apply if the existing ammunition pier were to be removed.

planting area, which exceeds this initial benchmark but may also be required to increase if the project impact to eelgrass is larger than existing surveys suggest. Donor sites for eelgrass planting would come from existing eelgrass beds to the east of PCH, within the Seal Beach NWR.

In designing its plan for eelgrass mitigation, the Navy analyzed conditions affecting eelgrass establishment and areal variability in Anaheim Bay. Based on this analysis, the Navy identified two eelgrass mitigation areas (**Exhibit 13**) deemed most suitable for long-term eelgrass habitat. As part of its analysis, the Navy evaluated short- and long-term risks associated with establishment of eelgrass in these areas (NAVFAC 2018). This analysis included an assessment of eelgrass establishment according to water depth at an existing nearby site (Cabrillo Beach, approximately 6 miles to the west of Seal Beach) and development of site-specific plans for the two eelgrass mitigation areas. For example, in the inner portion of Anaheim Bay, west of the proposed causeway leading to the new ammunition pier, the Navy is proposing to orient and grade the proposed fill area in response to two considerations. The first issue is to minimize potential adverse effects of shading (from the raised causeway) on eelgrass. The second consideration is to establish a ramped, intertidal area on the east side of this fill area to allow drift wrack to ultimately settle there, rather than accumulating in the area proposed for eelgrass establishment (NAVFAC 2018). In the outer portion of Anaheim Bay, the Navy is proposing to situate the planned fill area for eelgrass establishment to avoid impacts to existing eelgrass. Additionally, to address potential concerns with wave erosion in this area, the Navy proposes to design and contour the fill gradients to reduce scour potential and increase the area of the proposed fill that falls within the suitable depth range for eelgrass (NAVFAC 2018).

The Navy proposes to begin eelgrass planting in the spring and early summer of 2021, after allowing time for the settling of fill material (likely from the excavation of the public navigation channel) that is placed in the outer bay in late summer of 2020 (NAVFAC 2018). The inner bay eelgrass mitigation site is anticipated also to include fill material excavated from the construction of the public navigation channel, but given construction timing will likely be slightly behind the outer bay location in terms of schedule, with planting occurring in mid-summer 2021.

Following the planting effort, the Navy would conduct a five-year monitoring program in accordance with the performance measures identified in the California Eelgrass Mitigation Policy to assess annual eelgrass establishment and spatial distribution, areal extent, percent vegetation cover, and density of transplanted eelgrass, and to compare monitoring results to nearby reference sites (NAVFAC 2018). For planted areas not meeting identified performance measures, the Navy would revegetate planted areas and, if necessary, reconstruct them to successfully meet these performance measures. Within 30 days of each monitoring interval, the Navy would prepare a monitoring report for agency review. The Navy has agreed to provide Commission staff with copies of these monitoring reports.

Intertidal habitat impact and mitigation

As mitigation for the estimated 5.1 acres of intertidal habitat that would be affected as part of the proposed project, the Navy proposed to restore tidal influence and soften the shoreline by regrading existing uplands and removing existing rip-rap and debris at a 5.1 acre area adjacent to the Pacific Coast Highway, south of the channel leading to Seal Beach NWR (**Exhibit 7**). This

area includes a 0.4 acre area of salt marsh, which will be avoided in the work that the Navy proposes and is noted as the “Saltmarsh Conservation Area” on **Exhibit 7**. Non-native and noxious weed species are present in this area and include iceplant, Russian thistle (*Salsola tragus*), Bermuda grass (*Cynodon dactylon*), sea-lavender (*Limonium duriusculum*), and five-hook bassia (*Bassia hyssopifolia*).

According to the Navy (NAVFAC 2018):

the existing intertidal area gently slopes to a berm that separates it from a brackish marsh above; the berm may have been culverted in the past, allowing more tidal influence than currently exists. The brackish marsh is currently fed by storm water from PCH and urban irrigation runoff from the housing area through a constructed biofiltration feature that has not been maintained....[o]ther portions of the site contain degraded dunes and coastal transition vegetation, both native and non-native species...

The Navy’s intent for this 5.1 acre area would be to enhance existing wetlands and coastal transition habitat. Proposed activities include removing an old fence and non-native grasses and other non-native vegetation, planting native vegetation, and improving the effectiveness of the existing stormwater treatment swale (the biofiltration feature described above).

The Navy proposes grading the existing surface to allow for expansion of the existing intertidal salt marsh and to improve tidal connection with an existing brackish marsh. Grading is intended to result in a “gradual slope [to] allow habitat migration of each habitat zone as sea levels gradually rise over the next century” by providing substrate elevations that would be suitable for a beach area, mid- and high-level marsh, and coastal transition habitat (maritime scrub) in the higher, nontidal areas (NAVFAC 2018). The Navy will assess the size of the eroded biofiltration feature (**Exhibit 7**) to ensure that it has the capacity to receive expected runoff and will enhance the feature as necessary, for example by including installing a lining and bottom substrate to stabilize its base.

Prior to any construction activities, the Navy would remove non-native invasive plant species using only wetland and intertidal herbicides approved by a restoration ecologist/biologist (NAVFAC 2018). All grading activities would occur in accordance with regional stormwater standards and construction best management practices would be followed. Planting would apply only native species and would be accompanied by irrigation (hand watering from a water truck) as necessary. Longer-term maintenance is proposed for a period of three years for the upland areas and eight years for intertidal areas (NAVFAC 2018).

Based on the above-described mitigation measures for wetland impacts, including the eelgrass habitat mitigation measures and the intertidal habitat mitigation activities described above, the Commission finds that the proposed project is consistent with the mitigation requirement of Coastal Act Section 30233(a).

Conclusion

For the reasons described above, the Commission finds the proposed project consistent with the allowable use, least environmentally damaging feasible alternative, and mitigation requirements of the wetlands policy of the Coastal Act (Section 30233[a]).

I. WATER QUALITY

Coastal Act Section 30231 states:

The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface water flow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.

Coastal Act Section 30232 states:

Protection against the spillage of crude oil, gas, petroleum products, or hazardous substances shall be provided in relation to any development or transportation of such materials. Effective containment and cleanup facilities and procedures shall be provided for accidental spills that do occur.

Anaheim Bay and Huntington Harbour are currently listed as impaired waters for metals, pesticides, and pathogens under the Clean Water Act, but Total Maximum Daily Loads have not been established for either water body. Additionally, the Santa Ana Regional Water Quality Control Board has identified Anaheim Bay and Huntington Harbour as toxic hot spots for several metals (cadmium, copper, lead, selenium, and chromium) and has identified several other potential toxic constituents (insecticides, pesticides, DDT, and polychlorinated biphenyls-PCBs, for example). Stormwater flows into the Anaheim Bay/Huntington Harbour system appear to be a significant source of such pollutants. Water quality concerns have historically extended to the beach areas of Seal Beach and Surfside as indicated by with beach closures resulting from elevated levels of bacteria, although recent years have seen declines in the number of beach closure days (Department of the Navy 2014).

Anaheim Channel and Anaheim Bay provide a tidal connection between Huntington Harbour, Bolsa Bay, and the Pacific Ocean, and tidal waters also enter and exit the wetlands that make up the Seal Beach NWR through an opening under PCH (**Exhibit 10**). Tidal exchange through the Anaheim Channel results in a nearly complete exchange of water within Anaheim Bay and Seal Beach NWR with each tidal cycle, except for perhaps the far northern extent of the wetland complex at the refuge.

The Navy operates NAVWPNSTA Seal Beach under a Stormwater Discharge Management Plan (SWDMP) under a General Permit from the State Water Resources Control Board that

establishes policy, responsibilities, procedures, and technical guidance on the prevention and reduction of pollution of storm water runoff from industrial areas. The SWDMP includes a Non-storm Water Discharge Elimination and Prevention Program, a Storm Water Pollution Prevention Plan (SWPPP), and a Monitoring and Reporting Program Plan. According to the Navy, the its objectives of the SWPPP are to “(1) identify and evaluate sources of pollutants...that may affect the quality of stormwater discharges and authorized non-storm water discharges [from] the facility, and (2) identify and implement site-specific BMPs to reduce or prevent pollutants associated with...discharges.” The Navy completed a revised Spill Prevention Control and Countermeasures (SPCC) Plan in 2012 to address petroleum and hazardous material storage and handling operations and facilities at NAVWPNSTA Seal Beach. This plan provides for procedures to prevent the discharge of oils to navigable waterways. Anaheim Bay and Huntington Harbour are designated no discharge areas with respect to vessel sanitary waste. Finally, ballast water exchange from Navy vessels is not permitted in Anaheim Bay, because of the threat of exotic species introduction which can drastically affect aquatic ecosystems.

The proposed project would occur on land and in water and would include fill placed to create a new causeway and truck turnaround for vehicles to access the new ammunition pier. In-water construction activities also would include dredging for the proposed approach channel and vessel turnaround basin and placement of fill material to create new eelgrass habitat. Land-based activities would include potential demolition of existing facilities and creation of new upland and dune habitats. All of these construction activities could adversely affect coastal waters, wetlands, and estuarine habitat. In addition to these construction-related activities, operational activities associated with vessel and equipment operations associated with ammunitions loading and unloading (e.g., such as equipment or vessel fuel spills) could also impact water quality. As summarized by the Navy in its consistency determination, “Potential project-related water quality impacts include construction and demolition debris, dust, stormwater runoff, turbidity, and sediment transportation ... and contamination by accidental fuel spills during construction activities.”

From the State of California, NAVWPNSTA Seal Beach has a National Pollutant Discharge Elimination System General Permit (NPDES General Permit) for Discharges Associated with Industrial Activities. As part of this NPDES General Permit, the Navy will prepare a project-specific SWPPP. According to the Navy in the Revised Draft EA for the proposed project,

“[t]he SWPPP would include base-wide and site-specific Best Management Practices (BMPs) to prevent impacts to surface waters. In addition, the Navy’s NPDES General Permit for Discharges Associated with Industrial Activities would be updated accordingly. The new pier would have a stormwater management system that complies with these permit requirements and the station’s Stormwater Pollution Prevention Plan...The current best available technology for stormwater pollution controls would be included in the design and construction of the pier. Protective measures for construction and demolition would include, but would not be limited to, the use of catch devices and sheeting to prevent the release of debris and hazardous materials or wastes into Anaheim Bay.

Additional water quality effects associated with the proposed project would include activities related to dredging and sediment disposal. Dredging and disposal or reuse of sediment can result in water quality issues associated with increased turbidity. Additionally, contaminants in sediments can be released into the aquatic environment if disturbed during dredging and disposal activities. A portion of the dredging included in the proposed project would occur within areas previously dredged, but the Navy is proposing a larger turning basin, reconfigured navigation channel leading to the proposed pier, and dredging and removal of material to construct the new public navigation channel. Of the total estimate of 1.2 million cy of material that is proposed to be dredged, in its consistency determination the Navy estimates that approximately 720,000 cy would be used for fill, habitat creation, and beach replenishment. The Navy would dispose remaining material, consisting of silts and clays that would not be structurally suitable for beneficial reuse but that would be chemically suitable for in-water disposal, offshore at U.S. Environmental Protection Agency-designated ocean disposal sites. The Navy would place material used for shallow water habitat creation via barge and also states that some material would be used as source material for areas intended to receive dune enhancement. No permanent upland disposal of sediment is anticipated; because of construction sequencing, some sandy materials would be stockpiled south of PCH (between Anaheim Bay Road and the Perimeter Road) until placed within the habitat restoration or enhancement areas (**Exhibit 7**).

The Navy will be obtaining a Clean Water Act Section 401 Water Quality Certification from the Santa Ana Regional Water Quality Control Board for discharges into waters of the state, including the disposal of dredge material. Related to the proposed project dredging, the Navy states in the Revised Draft EA for the proposed project that:

To reduce the potential for impacts from increased turbidity from dredging and sediment disposal and reuse, the Navy would utilize erosion and sediment control measures to minimize turbidity, as identified in the SWPPP, and monitor the turbidity of waters surrounding the dredge footprint to determine the need for additional turbidity control measures, which include a temporary cessation or limitation of work.

The Navy has several existing plans and procedures that relate to spills and handling of hazardous waste, include a Spill Control and Countermeasure Plan (focusing on oil spill potential), Hazardous Materials Business Plan, Hazardous Waste Management Plan, and an Occupational Health and Safety Contingency Plan. These plans address material storage and containment, spill response and cleanup measures, reporting, inspections, and record-keeping. In the Revised Draft EA for the proposed project, the Navy states:

“[t]he existing plans would continue to be used to respond to accidental spoils or leaks of petroleum projects and other hazardous materials that could potentially enter the stormwater drainage system....[and] the National Response Center would be notified if a harmful quantity (i.e., per Navy policy, to report and respond to any sheen on the water) of oil were spilled within the bay or the adjoining shoreline. Absorbent booms, oil skimmers, and/or vacuum trucks would be available as needed throughout the term of the project.”

The Navy has agreed to provide these plans to Commission staff for its review and concurrence.

Construction of the new public navigation channel would result in a reconfigured hydrologic connection between the Pacific Ocean and Bolsa Bay, Huntington Harbour, and Seal Beach NWR. To assess the potential hydrologic effects on Bolsa Bay, Huntington Harbour and the refuge, the Navy conducted a model-based hydrodynamic circulation study, using the final design to assess changes to tidal range, tidal velocity, and the residence time of water in these areas up-stream of Anaheim Channel. This study modeled the Anaheim Bay system under a range of hydraulic conditions, accounting for variances related to tide level, storm flood events, sea level rise, and tsunami events. Model results indicated no changes to the tide range or scouring potential as a result of the proposed project, and that residence times in Huntington Harbour and Seal Beach NWR would be slightly shorter as a result of the proposed project due to a shorter connection to Outer Anaheim Bay and the open ocean, thus possibly leading to a slight improvement in the circulation in the Anaheim Bay/Huntington Harbour system (NAVFAC 2017). According to the Revised Draft EA for the proposed project, following construction of the public navigation channel, “the flow from Huntington Harbour would go through the new public navigation channel [and] may result in erosion near the mouth of the channel and some deposition near the new causeway as channel size and depth come into equilibrium with the new flow patterns.”

Best management practices

To address potential water quality impacts, in its consistency determination the Navy describes the following best management practices that would be applied:

Construction-related best management practices

- Temporary stockpiling of construction material (e.g., vehicles, portable equipment, supplies, fuels, and chemicals) shall be restricted to designated construction staging areas within the project area.
- The contractor would use only clean construction materials suitable for use in the oceanic environment. The contractor would ensure no debris, soil, silt, sand, sawdust, rubbish, cement or concrete washings thereof, chemicals, oil or petroleum products from construction would be allowed to enter into or placed where it may be washed by rainfall or runoff into waters of the U.S. Upon completion of the project authorized, any and all excess material or debris would be completely removed from the work area and disposed of in an appropriate upland site.
- Spill kits and cleanup materials will be present during construction should there be a leak into the surrounding water.
- A spill prevention plan will be developed and implemented if a spill occurs.
- The discharge of oil, fuel or chemicals to waters of the state is prohibited; therefore, less hazardous materials will be used when practicable.
- The Navy would post signs along its perimeter fence at Seal Beach and Surfside Beach, alerting beachgoers, swimmers, and surfers of the potential for increased turbidity associated with sediment disposal activities.
- Protective measures for construction and demolition would include, but would not be limited to, the use of catch devices and sheeting to prevent the release of debris and hazardous materials or wastes into Anaheim Bay.

Pile driving and removal best management practices

- Contractor would ensure that all attachments (hydraulic connections and couplings) are in good operating order and inspected prior to the start of every day to prevent leaking or spilling of potentially hazardous or toxic products, including hydraulic fluid, diesel, gasoline and other petroleum products. Spill kits and containment booms must be maintained on-site in case of spills.
- The Navy will install silt curtains around each pile location to minimize the re-suspension of sediments in the water column during pile installation, when necessary.
- Piles would be cut at the mudline to avoid re-suspending contaminated sediments, with additional precautions taken to minimize suspension (e.g., proceed slowly).
- Any sheen associated with oil contamination at the water surface would be removed with oil absorbent materials.
- The Navy would monitor the turbidity of waters surrounding the dredge footprint to determine the need for additional turbidity control measures.

Dredging best management practices

- If appropriate, the Navy will install silt curtains around each fill area to minimize the re-suspension of sediments in the water column, when necessary.
- Turbidity levels would be monitored throughout dredging/placement operations with prescribed actions to be taken (e.g., slowing dredge cycle times, possible use of silt curtains) should turbidity exceed action levels.

In conclusion, the Commission agrees that the stormwater runoff, dredging and disposal, and other construction-related water quality measures that the Navy intends to implement will protect the biological productivity and quality of coastal waters and wetlands at NAVWPNSTA Seal Beach and will minimize wastewater discharges, control runoff, and avoid substantial interference with surface water flow. The Commission also agrees that the measures the Navy intends to implement will protect against the spillage of crude oil, gas, petroleum products, or hazardous substances. For these reasons, the Commission finds that the proposed project is consistent with the water quality policy of the CCMP (Coastal Act Section 30231) and the spill prevention policy of Section 30232 of the Coastal Act.

J. CULTURAL RESOURCES

Coastal Act Section 30244 states:

Where development would adversely impact archaeological or paleontological resources as identified by the State Historic Preservation Officer, reasonable mitigation measures shall be required.

Historic and cultural resources are places or objects that possess historical, cultural, archaeological or paleontological significance and include sites, structures, or objects significantly associated with, or representative of earlier people, cultures and human activities and events. Project-related activities have the potential to disturb or damage Native American artifacts of potential cultural resources value. Both in the onshore and offshore environment,

disturbance of surface and subsurface soils could directly destroy a previously unrecorded historic or archaeological resource, including human remains, or disrupt the site such that the historic or archaeological context of the resource is altered adversely.

According to the Revised Draft EA for the proposed project, over two dozen cultural-resources and monitoring reports have occurred for various activities at NAVWPNSTA since 2000 to identify historical properties that are listed or potentially eligible for listing in the National Register of Historic Places (NRHP). Relying upon the results of these reports and cultural resources surveys, the Revised Draft EA for the proposed project describes one archeological site that is eligible for the NRHP and located near the proposed project footprint. The Navy also identifies an existing historical landmark that is near the project footprint, and thus was evaluated as part of the Revised Draft EA.

Archeological site

The Revised Draft EA for the proposed project identifies one archeological site that is known to exist near the proposed project footprint. This site is located north of the Pacific Coast Highway, however, and according to the Navy, would not be directly affected by the proposed project.

Historical landmark

The Revised Draft EA for the proposed project identifies the presence of Anaheim Landing Historical Landmark #219 as near the project footprint. This landmark includes a plaque mounted on a rock structure and is located at the northeast corner of Seal Beach Boulevard and Electric Avenue in Seal Beach. It commemorates the establishment of Anaheim landing as a port of entry for the Santa Ana Valley in 1857. This landmark is within the viewshed of the proposed project, but, according to the Navy in its Revised Draft EA, the proposed project would not “alter either the historical context associated with Anaheim Bay (as part of a military industrial port) or the current visual environment consistent with that ongoing usage.”

Tribal engagement

The Navy coordinated with the California State Historic Preservation Office during the development of the EA for the proposed project. During the process of reviewing the Navy’s consistency determination for this project and developing this recommendation, Commission staff reached out to the Native American Heritage Commission, who provided contact information for Native American Tribes understood to have current and/or historic connections to the project area. These Tribes include the Juaneno Band of Mission Indians, Juaneno Band of Mission Indians Acjacheman Nation, Gabrieleno/Tongva San Gabriel Band of Mission Indians, Gabrielino-Tongva Nation, Gabrieleno Band of Mission Indians Kizh Nation, and the Gabrielino-Tongva Tribe. At the time of publication of this staff report and recommendation, no questions or concerns had been brought to the attention of Commission staff by representatives of these Tribes.

Proposed mitigation measures

The Navy states that “if sensitive cultural resources were to be encountered during construction, demolition, or dredging, construction would be suspended until an archaeologist or historian could determine the significance of the encountered resource(s) as well as any appropriate

actions to be taken in accordance with applicable legal requirements” (Department of the Navy 2018).

The Commission finds that with these measures in place the project will not adversely impact cultural resources and is therefore consistent with the cultural resources policy (Section 30244) of the Coastal Act.

K. PUBLIC VIEWS

Coastal Act Section 30251 states:

The scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance. Permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded areas. New development in highly scenic areas such as those designated in the California Coastline Preservation and Recreation Plan prepared by the Department of Parks and Recreation and by local government shall be subordinate to the character of its setting.

The Navy describes the existing visual character of Anaheim Bay as primarily military industrial in nature: “[v]iews include chain link fences topped with barbed wire, power poles, a wharf, cranes, barges, utilitarian concrete structures, guard towers, and Navy patrol craft” as well as Navy ships during the approximately 40 times per year when such vessels are in port. Public viewpoints of Anaheim Bay exist from PCH and other roadways surrounding NAVWPNSTA Seal Beach and beaches (**Exhibit 15**). No designated scenic roadways are in the vicinity of the proposed project.

The proposed project would include the construction of a new ammunition pier with a different orientation and location than the present situation. New buildings would be constructed as part of the proposed project near the new pier. Larger vessels would be able to dock at the new ammunition pier, and the Navy estimates that vessels could be docked at the pier up to 50 times per year (compared to approximately 40 times per year currently) for usually no more than five days at a time. New lighting would be installed that “would comply with planning, design, construction, sustainment, restoration, and modernization criteria used for Department of Defense projects....to the greatest extent practicable, energy efficient lighting would be employed and lighting would be fully shielded to control glare and light pollution” (Department of Defense 2018).

During construction of the proposed project, there would be short-term effects to the visual character of Anaheim Bay as a result of the presence of construction-related vehicles and marine vessels (trucks, barges, cranes, and tug boats, e.g.). According to the anticipated construction schedule, such effects would be present for five to six years.

As part of its analysis of potential visual effects resulting from the proposed project, the Navy concluded that during construction, the views from PCH and residential neighborhoods bordering NAVWPNSTA Seal Beach “would be consistent with the type of military activities that take place at NAVWPNSTA Seal Beach and would not seem surprising or otherwise appear to be particularly noticeable to the casual observer” (Department of the Navy 2018). The Navy also conducted an assessment of the permanent changes to the visual character of Anaheim Bay that would result from the new, re-located and re-oriented ammunition pier. This visual assessment included depiction of the largest vessel that would be able to call at the pier, from three vantage points: one at the edge of each of the residential neighborhoods to the east and west of NAVWPNSTA Seal Beach and one from PCH (**Exhibit 15**). In its consistency determination for the proposed project, the Navy stated that the visual assessment indicated that the proposed project would result in a temporary effect on some views along the coast from the beach area to the west of NAVWPNSTA Seal Beach when a ship was docked at the pier; this effect would vary based on the vessel size. This visual assessment also indicated that visual access from PCH would be slightly enhanced than the current condition because of the reoriented pier (more perpendicular to PCH, compared to the current alignment where the pier is roughly parallel to PCH). From the Surfside area, east of NAVWPNSTA Seal Beach, views when a ship was docked at the pier would be partially blocked, but the ocean and shoreline would still be visible from the public beach.

The Navy concludes that “given the existing visual setting of the area, the viewshed would not be substantially degraded because views would still be generally consistent with the [existing] marine-industrial and military operational character of the base and Anaheim Bay” (Department of the Navy 2018). View effects to residential areas adjacent to NAVWPNSTA Seal Beach resulting from the presence of vessels docked at the pier would be temporary and the visual character would be comparable to the existing situation.

Based on the above considerations, the Commission finds that the proposed project will not appreciably change the character of the public coastal views in the area and, in the case of views from PCH, will slightly enhance visual quality. Therefore, the Commission finds that the proposed project would be consistent with the visual character of the surrounding area and not adversely impact coastal public views, and is, therefore, consistent with the view protection policy (Section 30251) of the Coastal Act.

L. PUBLIC ACCESS AND RECREATION

Coastal Act Section 30210 states:

In carrying out the requirements of Section 4 of Article X of the California Constitution, maximum access, which shall be conspicuously posted, and recreational opportunities shall be provided for all the people consistent with public safety needs and the need to protect public rights, rights of private property owners, and natural resource areas from overuse.

Coastal Act Section 30211 states:

Development shall not interfere with the public's right of access to the sea where acquired through use or legislative authorization, including, but not limited to, the use of dry sand and rocky coastal beaches to the first line of terrestrial vegetation.

Coastal Act Section 30212(a) states:

Public access from the nearest public roadway to the shoreline and along the coast shall be provided in new development projects except where: (1) it is inconsistent with public safety, military security needs, or the protection of fragile coastal resources...

Coastal Act Section 30213 states in part:

Lower cost visitor and recreational facilities shall be protected, encouraged, and, where feasible, provided. Developments providing public recreational opportunities are preferred

Public access at NAVWPNSTA Seal Beach generally is not allowed within the boundaries of the facility due to military security needs and public safety concerns. Similarly, the portion of the facility that is made up of Seal Beach NWR has restricted access for security reasons, although monthly guided tours of the Refuge are generally offered. A guarded gate on Westminster Avenue provides secured access and is used by heavy trucks and service vehicles; permitted public access for special events may occur through the Liberty Gate on the west side of the station. (**Exhibit 16**).

The existing 150-foot wide (at MLLW) public navigation channel provides the only public navigation connection between Huntington Harbour and the Pacific Ocean. According to a boat count conducted by the Navy on a summer holiday weekend and a typical weekend day in September 2017, the average daily boat count was 331 with a high of 471; these numbers translate to an average 1050 individuals per day with a peak of approximately 1,818 people per day. The Navy restricts use of the public access channel when Navy vessels are transiting the harbor, if major exercises are underway, or if national security levels are heightened (e.g., following September 11, 2001, when public access was completely prohibited for three weeks, which was then followed by a two-month period when public navigation was only allowed at certain times with direct Navy escort). When a Navy vessel is transiting the harbor, closures normally last from one to 1.5 hours in duration. Currently, approximately 40 Navy vessels call annually; these closures thus happen approximately 80 times per year. Per federal regulation [33 CFR 334.930(b)(3)], jet skis, kayaks, surfboards, paddleboards, and wind surfing are prohibited at all times from using the existing channel.

Public access to beach areas within the boundaries of NAVWPNSTA Seal Beach is prohibited; a small beach area on the North Mole (**Exhibit 4**) is used by Navy personnel and their families when no ammunition loading or movement activities are occurring. A recreation facility

(Barney’s Beach House) in this area has a shaded patio, barbecue pits, and a private beach. The Navy describes this area as consisting of “groomed recreational beach” habitat that is “not well maintained and is infrequently used for recreation” (Department of the Navy 2018). As part of the proposed project, approximately 2.6 acres of this area would be removed to enable Navy vessel access to the new ammunition pier (**Exhibit 4**).

Public beaches are located adjacent to NAVWPNSTA Sea Beach along the Pacific coast. Beaches in the City of Seal Beach and Surfside are popular and used by residents from neighboring communities and other visitors. Surfing is a popular activity on the public (south) side of the East Jetty (**Exhibit 4**).

PCH carries approximately 43,000 vehicles daily in the vicinity of NAVWPNSTA Seal Beach. The Navy indicates that Caltrans is interested in adding separate bike lanes along this portion of PCH, preferably on the ocean side of the highway; however, security concerns with existing Navy ammunition loading operations at the existing facility have to date prohibited this interest from moving forward. Public access to NAVWPNSTA Seal Beach is provided through two primary access gates: the Main Gate and Westminster Gate (**Exhibit 16**). Public access to Seal Beach NWR is limited to special events or during monthly guided tours, because the Refuge is located on NAVWPNSTA Seal Beach.

The Navy states:

the majority of construction vehicles would enter and exit the base through the Westminster Gate, and a very small number (approximately 25 percent) of the construction vehicles would need to access the base through the Liberty Gate or the Navy gate adjacent to Surfside Colony with large equipment. Once the public navigation channel has been constructed, access would no longer be available through Gate 27A; construction vehicle access and equipment delivery would occur via the Westminster Gate or the Main Gate.

It is estimated that construction vehicles would enter and exit the base 50 times daily during the work week. Construction vehicles would enter and exit at different times throughout the day and may use different base access gates depending on the location of construction activities.

During the offshore disposal of dredge material as many as four barges could transit into Anaheim Bay per day (over a 24-hour period). Delivery of rock for the revetments via barge could occur up to once per day. ...

Construction traffic would constitute only a small portion of total existing traffic in the region and surrounding area. Increases in daily traffic volumes associated with proposed construction activities would be minimal and temporary. A Construction Traffic Management and Detour Plan would be developed and approved by the Navy prior to the start of construction activities on NAVWPNSTA Seal Beach. The traffic management plan would specify necessary land closures,

detours, any signage or lighting, flaggers, and other traffic control measures needed to avoid potential conflicts and provide access...

With respect to the public access navigation channel, the Navy states that it would be constructed:

... prior to constructing the causeway or the pier in order to minimize any potential impact to small boat traffic...The Navy will coordinate with the U.S. Coast Guard to issue a Notice to Mariners if further restrictions would apply during the construction phases; however, every measure to keep boat traffic flowing would be taken. When the public navigation channel is completed, recreational boat traffic would no longer be restricted for brief periods and as currently regulated by NAVWPNSTA Seal Beach when Navy ships are entering and leaving port.

Because the new public access channel would be separated from the Navy's access to the new ammunition pier (**Exhibit 4**), boating access would be improved following construction. The width of the public navigation channel would be increased to a navigable width of approximately 250 feet, compared to the existing width of approximately 150 feet. The Navy estimates that temporary closure times (when a vessel is in transit to the new ammunitions pier) would be reduced compared to the current situation by 30-50%, because of the greater distance of separation between the channel leading to the ammunition pier and the new public access channel. Finally, the Navy states that it would work with the U.S. Coast Guard and the Army Corps of Engineers to eliminate or reduce the restrictions on jet skis, kayaks, surfboards, paddleboards, and wind surfing within the public access channel.

Existing public access to the beaches in Seal Harbor and Surfside would not be directly affected by the proposed project. The Navy suggests that cut or dredge material may be available for beneficial reuse to nourish beaches in these communities, and that any such activities would follow similar protocols as past dredging activities in Anaheim Bay: review of sediment sampling by the Southern California Dredged Material Management Team to determine compatibility with beach nourishment activities; incorporation of monitoring for nesting birds and informal consultation with the U.S. Fish and Wildlife Service if necessary; and consideration of timing such beach nourishment activities to avoid periods of known high public recreation activities and grunion spawning. Beaches in the adjacent communities are the focus of other existing beach nourishment efforts (for example, Surfside is nourished approximately every five years by the US Army Corps of Engineers).

Other aspects of the proposed project would not encroach on these public beaches or related public activity, as the project footprint is within the existing security boundary of NAVWPNSTA Seal Beach (**Exhibit 4**). The Navy does indicate that the proposed project would result in ammunition loading operations being located further away from PCH, which potentially would allow for a separate bike path on the ocean side of PCH without reducing public safety (Department of the Navy 2017).

For the reasons described above, the Commission agrees that public access to the public beaches surrounding NAVWPNSTA Seal Beach would not be adversely affected by the proposed project, and that public navigation through the proposed public navigation channel will enhance public recreation in the area. Therefore, the Commission finds the proposed project consistent with the pertinent public access and recreation portions of the CCMP (Sections 30210, 30211, 30212(a), and 30213 of the Coastal Act).

M. AIR QUALITY

Coastal Act Section 30253 states in part:

New development shall do all of the following:

...

(c) Be consistent with requirements imposed by an air pollution control district or the State Air Resources Board as to each particular development.

NAVWPNSTA Seal Beach is in Orange County and thus is within the Metropolitan Los Angeles Air Quality Control Region. In Orange County, the South Coast Air Quality Management District (SCAQMD) is responsible for implementing and enforcing state and federal air quality regulations. The U.S. Environmental Protection Agency has designated Orange County to be a nonattainment area for ozone and particulate matter less than or equal to 2.5 microns in diameter (PM_{2.5}), and Orange County also is classified as “maintenance” for carbon monoxide, nitrogen dioxide, and PM10. Federal actions occurring in areas which have been so designated are required to undergo an evaluation of their potential direct and indirect emissions of non-attainment pollutants. This evaluation includes quantifying applicable direct and indirect emissions that would result from implementing the federal action.

The Navy undertook such an evaluation for the proposed project, including annual construction and operations-related impacts, since the proposed project would accommodate additional ship calls as well as larger vessels. For construction-related impacts, the Navy included emissions associated with construction equipment and vehicles, support vessels, and demolition activities, not including dredging equipment which requires separate air permits from the SCAQMD. For operations-related impacts, the Navy included emissions from vessels and the use of heavy equipment and truck traffic associated with handling and transportation ammunition.

The SCAQMD reviewed the results of the Navy’s emissions-related analyses and confirmed that, while there would be emissions increases for certain pollutants, these increases would be within the emissions budget of the approved 2016 Air Quality Management Plan for the South Coast Air Basin (which includes Orange County). In the Revised Draft EA for the proposed project, the Navy states that all construction and dredging equipment would be authorized by the SCAQMD prior to the start of construction and affirms its commitment to complying with state and local air quality requirements.

Based on the conclusion of the SCAQMD following its review of the Navy's analysis of potential emissions resulting from construction- and operations-related activities of the proposed project and the Navy's commitment to comply with air quality requirements, the Commission finds the proposed project consistent with the air quality policy Coastal Act (Section 30253).

N. HAZARDS

Coastal Act Section 30253 states in part:

New development shall do all of the following:

- (a) Minimize risks to life and property in areas of high geologic, flood, and fire hazard*
- (b) Assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs.*

Public safety and security

The Navy has identified public safety and security risks as a main reason for the design of the proposed project. These issues relate to the handling of ammunition and presence of Navy vessels. According to the Revised Draft EA for the proposed project, NAVWPNSTA has 98 above-ground, earth covered storage magazines that are activity used and three that are under construction (Department of the Navy 2018). The Navy describes its general approach to safety and security issues as follows (Department of the Navy 2018):

Safety is critically important to naval weapons station operations, both to protect the military mission and the surrounding community. The Navy's operations at NAVWPNSTA Seal Beach utilize a layered safety system that includes highly trained personnel, detailed administration, and specifically designed equipment to ensure its handling of ordnance is safe and reliable. Explosives handling (sic) personnel undergo a rigorous and continuous training and certification process, and follow strict standard operating procedures. In addition, explosives handling (sic) processes are overseen by expert safety observers, whose sole purpose is to ensure the safety of each operation.

Unlike earlier munitions from the WWII era, modern military explosives are specifically designed to be insensitive and remain safe after drops, direct exposure to fire, bullet or fragment strikes, or other mishaps. Additionally, ordnance is tested during the development and manufacturing under extreme conditions that exceed what it is subjected to during actual explosives handling operations. For these reasons, the chance of an explosives accident is extremely remote.

For the facilities at NAVWPNSTA Seal Beach, in accordance with Department of Defense and Department of the Navy policy and requirements, the Navy has established safety buffer zones

around areas where ammunition is maintained, stored, or transferred. For security reasons, the Navy does not publish specific information on the specific dimensions or locations of these buffer zones, but generally describes them for the proposed project as follows:

To help ensure the safety and security of the surrounding community, buffer zones surround areas where munitions are maintained, stored, or transferred. Buffer zones are extended from the outer walls of facilities or outer limits of designate areas where munitions are handled. The amount of explosives positioned at one location is required to be limited to a quantity that would minimize potential for damage outside of the safety buffer zone, even in a hypothetical worst-case accident. Generally, safety buffer zones are located entirely within base property.

Portions of the explosives safety buffer zone established for ammunition handling at the existing wharf extend onto two public transportation routes that traverse the installation – Pacific Coast Highway, and the public navigation boat channel from Huntington Harbor to the ocean. In order for continued public use of these routes, an explosives safety exemption was granted by the Chief of Naval Operations in 1981 after an analysis of the potential risk. The Navy Ammunition and Hazardous Materials (AMHAZ) Review Board reviews this exemption every two years to validate the operational requirements and justification for continuance. However, [the applicable] DoD [standards] mandate that an exemption or waiver must be temporary in nature, and that the Navy must have a process in place to eliminate the need for any such exemption or waiver. The proposed construction of the new ammunition pier would eliminate the need for the current...explosives safety exemption.

Specifically regarding the proposed public navigation channel, the Navy states:

The location for the public navigation channel (PNC) was driven by both safety and security considerations. The PNC is required to be located outside of the applicable safety buffer zones for medium traffic density public transportation routes. Additionally, the PNC is required to be physically separated from Navy operational areas by DoD regulations for anti-terrorism.

The Navy applies additional general security and safety measures at NAVWPNSTA Seal Beach such as:

- The support of a fire department with one engine company and approximately 16 personnel.
- Limits to vegetation height around ordnance operation areas to limit the potential for fire hazards.
- Storage of equipment, fuel, and oil only in designated areas with a 20-foot wide firebreak of bare soil around all flammable materials; there are approximately 36 locations at the facility with the potential for non-ordnance fire hazards.

According to the Navy, several alternatives it assessed in designing the proposed project would “increase risks to public safety by moving ammunition loading operations closer to civilian residences while elimination of a separate navigation channel would result in similar if not additional closures for public recreational boating for safety reasons.” In the Revised Draft EA for the proposed project, the Navy states that as part of its proposed project there would be no change to current emergency services at NAVWPNSTA Seal Beach. Furthermore, the proposed project:

would also increase public safety because it would further separate civilian boat traffic from the loading and unloading of Navy vessels, and would further limit or reduce the potential for injuries or damage to property on public transportation routes.

With construction of an ammunition pier and a dedicated public navigation channel..., the... buffer associated with explosives handling operations at the ammunition pier would be contained entirely within the installation perimeter. The proposed ammunition pier would move the buffer completely within the fence line [of NAVWPNSTA Seal Beach] and would no longer extend over any public transportation routes. Additionally, the physical separation of civilian boat traffic that would be created through construction of the public navigation channel would further reduce the possibility of individuals attempting to use a small boat to attack Navy ships or facilities.

The proposed project would occur within the footprint (and fenceline) of the existing facility with the exception of dredge material that would be disposed of offshore or used for beach nourishment. As described in Section L: Public Access and Recreation, alignment of the proposed project would result enhancement of public recreation as a result of the new public navigation channel and the potential for bike lanes to be added to PCH, in both cases partly resulting from the improvements to public safety and security that would result from the proposed project. The Commission therefore finds the project would not increase public safety risks.

Geologic hazards and sea level rise

Two active geologic faults are located within 10 miles of NAVWPNSTA Seal Beach, according to the Navy’s consistency determination. According to the Revised Draft EA for the proposed project, seismic studies and field geotechnical exploration of the existing wharf in 2014 found that the soils at and immediately landward of the existing pier have a high liquefaction potential.

NAVWPNSTA Seal Beach contains areas within the 100-year floodplain and, outside of the jetties, coastal flood zones. Tides range from 2.82 feet below mean sea level to 2.67 feet above mean sea level, and according to the Navy “[a]lthough rare, tsunamis have occurred in Southern California and could potentially threaten vulnerable low-lying areas.”

Existing infrastructure such as the two jetties in place at NAVWPNSTA Seal Beach provides protection for the facility’s other infrastructure. Given the orientation of the proposed ammunition pier, the Navy considered the potential need for additional infrastructure such as the

proposed breakwater. According to the Navy’s consistency determination, a 2014 wave study found that the proposed breakwater

would be an essential component for achieving favorable mooring conditions at the ammunition pier. The study estimated that an ammunition pier without a breakwater would experience a downtime of two weeks per year (approximately 80 hours) because of unfavorable mooring conditions. With the breakwater, the study estimated downtimes of approximately 2.5 hours per year for destroyers and 39.5 hours per year for LHAs. This is an improvement from the existing wharf, which experiences 23 hours of average downtime per year for destroyers and cannot accommodate LHAs because of size restrictions.

The proximity of the two geologic faults is considered a serious earthquake hazard, and the high liquefaction potential of the underlying soils is a significant concern. According to the Navy’s consistency determination, the pier is over 60 years old, is past its design life, and was constructed prior to the introduction of modern seismic codes. In its consistency determination, the Navy states that the “primary purpose of the Proposed Project would be to construct a pier that would meet current earthquake design standards, which would minimize the risk to damage resulting from earthquakes.”

The proposed breakwater would be located within the area of Anaheim Bay that is enclosed by the two existing jetties. Modeling completed by the Navy assessing the hydrodynamic connection between the Pacific Ocean, Anaheim Bay, and Seal Beach NWR/Huntington Harbour suggested no appreciable effects to the hydrodynamics of this system; this modeling included the proposed breakwater in its assessment. Therefore, given the location of the breakwater and the results of the existing modeling, the Commission agrees that the breakwater will not “create or contribute significantly to erosion”, as required by Coastal Act Section 30253(b).

Finally, the Navy’s consistency determination states that “all new structures and roads would be designed to withstand a 100-year storm event and would consider predicted sea level rise.”

Therefore, for the above reasons, the Commission agrees with the Navy and finds that the proposed project would be consistent with the hazards policy of the Coastal Act (Section 30253(a) and (b)).

O. COASTAL-DEPENDENT INDUSTRIAL FACILITY ‘OVER-RIDE’ POLICY

Section 30101 of the Coastal Act defines a coastal-dependent development or use as one that “requires a site on, or adjacent to, the sea to be able to function at all.”

Section 30260 of the Coastal Act provides that the Commission may authorize coastal-dependent industrial facilities that cannot feasibly be accommodated consistent with the other Chapter 3 policies of the Coastal Act if three criteria are satisfied. As described below, the Navy’s proposed project qualifies as a coastal-dependent industrial facility. Such facilities must first be tested under all applicative Coastal Act policies in Chapter 3. As is explained above, the proposed facility cannot feasibly be accommodated consistent with Section 30240. Thus,

Section 30260 applies, and it provides that a coastal-dependent industrial facility can be authorized if it satisfies the requirements of Coastal Act Section 30260, as follows:

Coastal-dependent industrial facilities shall be encouraged to locate or expand within existing sites and shall be permitted reasonable long-term growth where consistent with this division. However, where new or expanded coastal-dependent industrial facilities cannot feasibly be accommodated consistent with other policies of this division, they may nonetheless be permitted in accordance with this section and section 30261 and 30262 if (1) alternative locations are infeasible or more environmentally damaging; (2) to do otherwise would adversely affect the public welfare; and (3) adverse environmental effects are mitigated to the maximum extent possible.

A coastal-dependent industrial facility is one that first meets the definition of a coastal-dependent development. As described in the allowable use assessment in Section H: Wetlands, the Commission has historically found Navy facilities such as piers in open coastal waters and estuaries to be allowable uses as coastal dependent facilities, and the proposed project clearly requires a site on or adjacent to the shoreline in order to function (and has been located at this site since 1944). The Coastal Act does not separately define “coastal-dependent *industrial* facilities”; however, a review of local coastal plans, port plans, and the American Planning Association’s system for classifying land uses⁶ resulted in the following common aspects in defining coastal-dependent industrial facilities:

1. Has existing (deep-draft) navigational access;
2. Requires access to a navigational channel to function (receive and distribute items);
3. Includes loading and unloading goods and has a large storage component;
4. When compared to land uses that are more commercial in nature, often requires relatively large land areas.

For the proposed project, because the Navy is proposing to use an existing -39 foot channel that provides necessary access to Navy vessels for loading and unloading of ammunition, and would use an existing site that occupies more than 5,000 acres and provides for approximately 13 acres of storage for munitions, the Commission finds that the proposed project is comparable to the common aspects of industrial uses discussed above and is a coastal-dependent industrial facility pursuant to Coastal Act Section 30260.

As described in Section F: Environmentally Sensitive Habitat, the Navy’s proposed project does not meet the standards of Section 30240 of the Coastal Act. And as described in Sections IV.C: Alternatives Considered and IV.H: Wetlands, there is no other feasible alternative, so the Navy’s proposed project satisfies the requirement that it cannot feasibly be accommodated consistent with the other Chapter 3 policies. Since the project qualifies as a coastal-dependent industrial

⁶ Examples of defining “coastal-dependent industrial facilities” include Humboldt County LCP, Mendocino County LCP, San Francisco Bay Development and Conservation Commission *Bay Plan*, Port Hueneme Master Plan, and the American Planning Association Land-based classification system, available at <https://www.planning.org/lbcs/standards/activity.htm>.

facility that cannot feasibly be accommodated consistent with the other Chapter 3 policies, the Commission must proceed to apply the three requirements of Section 30260 of the Coastal Act to determine the extent of the project's conformity to them.

Requirement 1: Alternative locations

The Coastal Commission may approve the proposed development notwithstanding the project's inconsistency with one or more Chapter 3 policies if it finds that alternative project locations "are infeasible or more environmentally damaging."

As described in Section C: Alternatives Considered, in the Revised Draft EA the Navy described in detail the alternatives that were evaluated to meet the project's purpose and need. This evaluation included construction of new facilities or upgrades to existing facilities at other Navy installations in California, construction of entirely new facilities offshore California, different ammunition pier configurations at NAVWPNSTA Seal Beach, similar pier configurations as the preferred project but with different locations of the public navigation channel, and the no action alternative.

Section C summarizes the Navy's rationale for the selection of the proposed project as the preferred alternative following this analysis. In summary, constructing and operating entirely new facilities (for example, at Camp Pendleton or a new offshore facility) likely would result in greater environmental impacts and increased public safety and security issues; alternatives that would involve upgrades at existing facilities (such as upgrading Naval Base Coronado, Port Hueneme, or Military Ocean Terminal Concord) would compromise existing Navy operations and/or would be infeasible because of existing navigation-related constraints; and other alternatives involving different configurations at NAVWPNSTA Seal Beach would result in impacts to long-shore sediment transport at Sunset Beach, other direct impacts to public beach areas, and/or a greater public safety or security risk to nearby residential areas or public use of PCH. For example, modeling completed by the Navy suggested that locating the public navigation channel outside of the existing jetties could result in down-drift erosion along Sunset Beach; such a location would also impact a popular area for surfing (for example, see the Orange County Register article from October 2018 at <https://www.ocregister.com/2018/10/12/its-unfortunate-but-what-are-you-going-to-do-navys-major-overhaul-of-anaheim-bay-depot-draws-muted-objections/>). Such a location also would still result in ESHA impacts given the presence of southern foredune at Sunset Beach. Inclusion of mooring dolphins as part of the proposed project results in a shorter pier than would otherwise be necessary to moor the vessels that will call at NAVWPNSTA Seal Beach. Additionally, continuing to operate the pier at its existing location, or other alternatives that included a new ammunition pier at different locations within Anaheim Bay, would result in public safety and security concerns to PCH or to adjacent residential areas.

For these reasons, the Commission finds that there is no feasible less environmentally damaging alternative available for constructing the fuel pier, providing access to it, and maintaining boating access to Huntington Harbour.

Requirement 2: Public Welfare

The second test of 30260 requires that not proceeding with the proposed coastal-dependent industrial development “would adversely affect the public welfare.” The test requires more than a finding that, on balance, a project as proposed is in the interest of the public. It requires that the Commission find that there would be a detriment to the public welfare were the proposal not to proceed.

As a general matter, the CA Coastal Management Plan states that “[r]ecognizing its responsibilities to the rest of the nation, California in its coastal planning has made every effort to consider the national interest in issues affecting the coast. The Coastal Management Program recognizes national defense and national security as important aspects of national interest, because without the attainment of these objectives all other objectives and goals can be threatened.”

In addition, regarding the specifics of the proposed project, the Navy states that public safety and security is a primary consideration for the proposed new ammunition pier. The Navy states that Department of Defense and Navy policies regarding ammunition with respect to ammunition handling and management:

Place an emphasis on safe and efficient handling procedures. Safe and efficient handling procedures include: (1) providing the maximum possible protection to personnel and property from the effects of potential accidents involving ammunition and explosives; (2) limiting the exposure to the minimum number of personnel, the time of exposure, and amounts of ammunition and explosives; (3) providing buffer zones around areas where munitions are maintained, stored, or transferred; (4) the use of standard operating procedures that dictate how all operations are to be conducted by our personnel.

The Navy concludes that these general considerations led to the following determinations:

- 1. The new ammunition pier could not be built on the same location as the current wharf because it would not remove explosives safety exemptions over public transit routes as required by DoD regulations, and would not eliminate security concerns with the current public navigation channel. Additionally, the current wharf would not be able to remain in operation during the construction period.*
- 2. The new ammunition pier could not be built in a different position along the current shore line, because it would not remove explosives safety exemptions over public transit routes as required by DoD regulations, would not eliminate security concerns with the current public navigation channel, and would move munitions operations closer to residences either to the NW in Seal Beach or to the SE in Surfside Colony.*
- 3. The only viable option would therefore be to place the new ammunition pier further out into the center of the harbor, attached to one of the mole structures already in place, and to create a new navigation channel that would separate public boat traffic from Navy operations. The north mole was ruled out due to*

its proximity to Seal Beach residences. The south mole was thus determined to be the only viable location for the new ammunition pier....

Were the Commission to object to the proposed project and determine that the proposed project should not go forward, and were the Navy to defer to that determination, the continued operation of NAVWPNSTA Seal Beach would result in continuing security and safety issues, for example because of the presence of public transit routes (PCH and the public navigation channel) within the buffer zones established for ammunition handling and loading. The project as proposed would benefit public safety by eliminating hazard zones extending outside the perimeter of the base and onto the busy public thoroughfare.

For these reasons, the Commission finds that the proposed project satisfies the “public welfare” test of Section 30260 of the Coastal Act.

Requirement 3: Maximum Feasible Mitigation

The third test of 30260 requires that adverse environmental impacts be mitigated to the maximum extent feasible. The discussions below describe mitigation measures included as part of the proposed project meant to address impacts in the area of policy inconsistency identified above (i.e., with the environmentally sensitive habitat policies in Section 30240 of the Coastal Act). Mitigation measures addressing other impacts generated by the project are addressed in the preceding sections of these findings.

As described in Section F: Environmentally Sensitive Habitat, the proposed project would remove approximately 4.7 acres of southern foredune habitat, which the Commission finds to constitute ESHA. Section F describes the dune restoration and conservation activities the Navy proposes (sand placement, grading, clearing of invasive and non-native vegetation, planting of native vegetation, and habitat maintenance activities) encompassing approximately 12.3 acres. The Navy states that it prioritizes the use of appropriate material (sand) for these habitat restoration and conservation activities. For these areas, the Navy describes site preparation activities (weed eradication, clearing/grubbing/ grading, and soil preparation activities) that would occur, and provides plant installation specifications, timing, and irrigation (NAVFAC 2018). To maximize the habitat value of these areas, following initial site preparation activities the Navy also describes its plans for approximately five years of monitoring and site maintenance, including weed control, horticultural treatments, erosion control, trash and debris removal, replacement planting, and site protection (NAVFAC 2018).

Given the site configuration and presence of existing infrastructure and bordering land uses that limit the opportunities for dune restoration, as well as the Navy’s dune restoration and conservation activities, the Commission finds that the proposed project satisfies the “mitigated to the maximum extent feasible” test of Section 30260 of the Coastal Act with respect to environmentally sensitive habitat and is, therefore, consistent with the third test of Section 30260 of the Coastal Act.

Consequently, the Commission finds that the proposed project consists of a coastal-dependent industrial facility with all elements of the proposed project either including such a facility or resulting from necessary changes to the larger site that are mandated by such facilities. As a

result, the proposed project qualifies for evaluation under Section 30260 of the Coastal Act to determine if the Commission may authorize the proposed project even though it is not consistent with Section 30240 of the Coastal Act.

The Commission finds that the proposed project satisfies all three tests of Section 30260 of the Coastal Act. On this basis, the Commission exercises its discretion to concur with the Navy's determination that the project as a whole is consistent with the CCMP, and thus, that it is consistent to the maximum extent practicable.

SUBSTANTIVE FILE DOCUMENTS

AECOM. Sediment Transport and Tidal Flow Study for Facility Improvements to the Ammunition Pier and Turning Basin. Prepared for the US Navy. January 2017.

Department of the Navy responses to Commission letter requesting additional project information dated September 27, 2018, October 12, 2018, October 17, 2018, November 14, 2018, and November 20, 2018.

Department of the Navy. Revised Draft Environmental Assessment for Ammunitions Pier and Turning Basin Naval Weapons Station Seal Beach. September 2018.

Department of the Navy. P-224 Ammunition Pier and Turning Basin (CD-0003-17) Coastal Commission Issues and Navy Responses. August 2017.

Department of the Navy. Sampling and Analysis Plan: Sediment Evaluation for the Ammunition Pier and Turning Basin: Naval Weapons Station, Seal Beach, California. Prepared by Tierra Data, Inc. February 2016.

Department of the Navy. Final Integrated Natural Resources Management Plan Naval Weapons Station Seal Beach, California. January 2014.

Mattoni, R.H.T. 1990. Species diversity and habitat evaluation across the El Segundo Sand Dunes at LAX. Prepared by: Mattoni, R.H.T., Agresearch, Inc. Prepared for the Board of Airport Commissioners, One World Way West, Los Angeles, CA.

Naval Facilities Engineering Command (NAVFAC) Southwest. Eelgrass Mitigation and Habitat Conservation Plan, FY 2019 MCON Project P-224 Ammunition Pier and Turning Basin NAVWPNSTA, Seal Beach, CA. October 2018.

Naval Facilities Engineering Command (NAVFAC) Southwest. Ammunition Pier and Turning Basin NAVWPNSTA, Seal Beach, CA Coastal Engineering Report. Submitted by Moffatt & Nichol, December 2017.

NOAA Fisheries. California Eelgrass Mitigation Policy and Implementing Guidelines. NOAA Fisheries West Coast Region, October 2014.

Orange County Register. News article titled “‘It’s unfortunate, but what are you going to do?’ Navy’s planned overhaul of Anaheim Bay depot draws muted objections.”
<https://www.ocregister.com/2018/10/12/its-unfortunate-but-what-are-you-going-to-do-navys-major-overhaul-of-anaheim-bay-depot-draws-muted-objections/> October 12, 2018.

Revised U.S. Navy Consistency Determination CD-0002-18, dated September 24, 2018.