FINAL
ENVIRONMENTAL ASSESSMENT

FOR

LOWER NEWPORT BAY MAINTENANCE DREDGING PROJECT
Orange County, California

PREPARED BY

U.S. ARMY CORPS OF ENGINEERS
SOUTH PACIFIC DIVISION
LOS ANGELES DISTRICT

September 2020

FINDING OF NO SIGNIFICANT IMPACT

LOWER NEWPORT BAY MAINTENANCE DREDGING PROJECT
ORANGE COUNTY, CALIFORNIA

The U.S. Army Corps of Engineers, Los Angeles District (Corps) has conducted an environmental analysis in accordance with the National Environmental Policy Act of 1969, as amended. The Final Environmental Assessment (EA), dated September 2020, for the Lower Newport Bay Maintenance Dredging Project addresses the need to remove shoals in the Entrance Channel and Main Channel Balboa Reach of the Lower Newport Bay federal navigation channels in Orange County, California. The removal of shoals will provide continued safe and reliable commercial and recreational navigation in Lower Newport Bay.

The Final EA, incorporated herein by reference, evaluates three alternatives: The No Action Alternative, under which no maintenance dredging would occur; Alternative 1 (Proposed Action), in which dredging would occur using either a clamshell and scow or barge-mounted excavator and scow with nearshore placement of all dredged materials from the Entrance Channel in the Newport Beach Nearshore Placement Site and ocean disposal for all dredged materials from the Main Channel Balboa Reach at the LA-3 Ocean Dredged Material Disposal Site (ODMDS); and Alternative 2, in which dredging would occur using either a clamshell and scow or barge-mounted excavator and scow with ocean disposal of all dredged materials at the LA-3 ODMDS. Alternative 1 is the recommended plan and includes:

- Mechanically dredge (clamshell and scow or barge-mounted excavator and scow) approximately 68,000 cubic yards from the Entrance Channel with nearshore placement at Newport Beach Nearshore Placement Site.

- Mechanically dredge (clamshell and scow or barge-mounted excavator and scow) approximately 77,000 cubic yards from the Main Channel Balboa Reach with ocean disposal at the LA-3 ODMDS.

For all alternatives, the potential effects were evaluated, as appropriate. A summary assessment of the potential effects of the recommended plan are listed in Table S-1:

Table S-1: Summary of Potential Effects of the Recommended Plan

	Insignificant effects	Insignificant effects as a result of mitigation	Resource unaffected by action
Aesthetics	☒	☐	☐
Air quality	☒	☐	☐
Aquatic resources/wetlands	☐	☒	☐
Invasive species	☒	☐	☐
Fish and wildlife habitat	☐	☒	☐
Threatened/Endangered species/critical habitat	☐	☐	☒
Historic properties	☐	☐	☒
Other cultural resources	☐	☐	☒
Floodplains	☐	☐	☒

	Insignificant effects	Insignificant effects as a result of mitigation	Resource unaffected by action
Hazardous, toxic & radioactive waste	☐	☐	☒
Hydrology	☒	☐	☐
Land use	☐	☐	☒
Navigation	☒	☐	☐
Noise levels	☒	☐	☐
Public infrastructure	☐	☐	☒
Socio-economics	☐	☐	☒
Environmental justice	☐	☐	☒
Soils	☐	☐	☒
Tribal trust resources	☐	☐	☒
Water quality	☒	☐	☐
Climate change	☐	☐	☒

All practicable and appropriate means to avoid or minimize adverse environmental effects were analyzed and incorporated into the recommended plan, which include the environmental commitments listed in Section 6.2 of the Final EA. Of particular importance is the Corps environmental commitment to offset dredging impacts to eelgrass habitat in the Entrance Channel through the implementation of an Eelgrass Mitigation Plan developed in coordination with the National Marine Fisheries Service (NMFS), California Coastal Commission (CCC), Santa Ana Regional Water Quality Control Board (SARWQCB), and California Department of Fish and Wildlife (CDFW). Implementation of the plan will ensure there is no net loss of eelgrass habitat and will offset temporal losses of eelgrass habitat value to the extent practicable.

Public review of the draft EA and FONSI was completed on July 27, 2020. Comments were received from the USEPA, CDFW, FWS, NMFS, and SARWQCB. All comments submitted during the public review period were responded to in the Final EA. Copies of all comments received and responses to those comments are located in Appendix G.

Subsequent to the publication of the draft EA, the Corps modified the project by reducing its dredge footprint applicable to both action alternatives to further limit environmental impacts, especially impacts to the eelgrass species *Zostera pacifica*. This modification reduced estimated impacts to eelgrass beds from 4 acres to 1.5 acres. The Final EA was updated accordingly and includes a conceptual eelgrass mitigation plan (included as Appendix H to the Final EA) documenting the Corps' planned approach to offset impacts to eelgrass. The Corps intends to implement the plan as described in Appendix H unless the Corps, in consultation with NMFS and others, develops a superior and practicable approach.

The Corps provided applicable resource agencies updated information regarding project modifications subsequent to circulation of the draft EA. The outcomes of consultation and approval processes described below are reflective of the recommended plan as described in the Final EA.

Pursuant to section 7 of the Endangered Species Act of 1973, as amended, the Corps determined that the recommended plan will have no effect on federally listed species or their designated critical habitat.

Pursuant to Section 106 of the National Historic Preservation Act of 1966, as amended, the Corps determined that the recommended plan has no potential to cause effects on historic properties. A memoranda documenting that finding is included in Appendix C. In the event that previously unknown cultural resources are discovered during the project, all ground disturbing activities shall cease until the Corps has met the requirement of 36 CFR 800.13 regarding post-review discoveries.

Corps' regulations at 33 CFR 323.2(d)(3) exclude from the coverage of Clean Water Act (CWA) Section 404 the movement of sediments caused by navigational dredging, with the following provision: "(3) Section 404 authorization is not required for the following: ... (ii) incidental movement of dredged material occurring during normal dredging operations, defined as dredging for navigation in navigable waters of the United States, as that term is defined in 33 CFR part 329, with proper authorization from the Congress or the Corps pursuant to 33 CFR part 322; however, this exception is not applicable to dredging activities in wetlands, as that term is defined at Section 328.3 of this Chapter." The recommended plan proposes to dredged material using a clamshell dredge or barge-mounted excavator. Dredged material discharged into navigable waters associated with clamshell and dredge-mounted excavator dredging is considered to be "incidental movement of dredged material occurring during normal dredging operations" and are excluded from coverage of the CWA section 404.

However, the discharge of dredged material at the Newport Beach Nearshore Placement Site is subject to compliance with section 404 of the CWA. The discharge of dredged or fill material to the Newport Beach Nearshore Placement Site associated with the recommended plan has been found to be compliant with the section 404(b)(1) Guidelines (40 CFR 230). The 404(b)(1) Guidelines evaluation is found in Appendix E of the Final EA.

A water quality certification pursuant to section 401 of the Clean Water Act will be obtained from the Santa Ana Regional Water Quality Control Board prior to project implementation. All conditions of the final water quality certification shall be implemented in order to minimize adverse impacts to water quality. Once obtained, a copy of the final water quality certification will be added to Appendix G.

In accordance with the Coastal Zone Management Act the California Coastal Commission concurred with the Corps' negative determination for the recommended plan as described in the EA on September 10, 2020. A copy of the concurrence can be found in Appendix G.

In accordance with the 1996 amendments to the Magnuson-Stevens Fishery Conservation and Management Act, the Corps conducted an assessment of Essential Fish Habitat (EFH) for the proposed project. The Corps concluded that this project would not result in a substantial, adverse impact to EFH. The Corps used the NEPA process to initiate EFH consultation with the National Marine Fisheries Service (NMFS). On August 4, 2020, NMFS completed its analysis, agreed with the Corps' conclusions, and provided EFH conservation recommendations. Results of consultation with the NMFS can be found in Appendix G, including the Corps' response to the NMFS conservation recommendations dated September 2, 2020.

The United States Environmental Protection Agency (USEPA) provided conditional approval of the recommended plan's use of LA-3 ODMDS on July 24, 2020. The LA-3 ODMDS site conditions are included as environmental commitments in Section 6.2 of the Final EA. Therefore, the Corps is in compliance with section 103 of the Marine Protection, Research, and Sanctuaries Act. The USEPA's conditional approval is included in Appendix G.

The general conformity regulations do not apply to maintenance dredging and disposal where no new depths are required, and disposal will be at an approved disposal site per 40 CFR 93.153(c)(2)(ix). Therefore, a conformity determination is not required for the proposed project. The proposed project meets the requirements of Section 176(c) of the Clean Air Act.

All applicable environmental laws have been considered and coordination with appropriate agencies and officials has been completed as documented in Section 6 and Table 1 of the Final EA.

All applicable laws, executive orders, regulations, and local government plans were considered in evaluation of alternatives. Based on the Final EA, the reviews by other Federal, State and local agencies, and the review by my staff, it is my determination that the recommended plan would not have a significant effect on the quality of the human environment; therefore, preparation of an Environmental Impact Statement is not required.

15 SEP 2020
DATE

BEEMAN.JEFFREY.M.1034093047 Digitally signed by BEEMAN.JEFFREY.M.1034093047 Date: 2020.09.15 15:24:16 -07'00'

JEFFREY M. BEEMAN
Major, EN
Acting Commander

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SECTION 1 - INTRODUCTION

1.1 PROPOSED PROJECT

1.1.1 Location. The proposed project is located in Orange County, California (Figure 1) and consists of maintenance dredging the Entrance Channel and Main Channel Balboa Reach portions of the federal navigation channels in Lower Newport Bay.

1.1.2 Proposed Action. The Los Angeles District of the U.S. Army Corps of Engineers (Corps), as part of its Operations and Maintenance Program, is proposing to perform maintenance dredging in the Entrance Channel and Main Channel Balboa Reach portions of the federal navigation channels in Lower Newport Bay to re-establish authorized channel depths.

Modifications from Draft EA: One area along the western side of the Entrance Channel was removed from the dredge prism in order to reduce eelgrass impacts (Figure 6). The Corona del Mar Bend portion of the Man Channel Balboa Reach along both edges were also removed from the dredge prism Figure 5) due to concerns related to cultural resource issues and utility impact concerns. These modifications reduced estimated eelgrass impacts to 1.5 acres and reduced estimated dredge volumes from 70,000 cy to 68,000 cy for the Entrance Channel and from 90,000 cy to 77,000 cy for the Main Channel Balboa Reach.

Material would be dredged from the Entrance Channel to maintain authorized navigational depths (Figure 2) of -20 ft MLLW (feet Mean Lower Low Water). An overdepth allowance of 2 feet is included in the dredge prism to account for inaccuracies in the dredging methodology. A minimum channel depth of -20 ft MLLW is required. Dredging is allowed to a depth of -22 ft MLLW to ensure that all areas meet the minimum depth. Estimated dredge volumes include the entire overdepth allowance, although removal of the entire overdepth volume is not expected. This maintenance dredging would remove approximately 68,000 cubic yards from this area. These dredged materials are expected to be put in the Newport Beach Nearshore Placement Site (Figure 2).

Material would be dredged from the Main Channel Balboa Reach to maintain authorized navigational depths (Figure 2) of -20 ft MLLW. An overdepth allowance of 2 feet is included in the dredge prism to account for inaccuracies in the dredging methodology. A minimum channel depth of -20 ft MLLW is required. Dredging is allowed to a depth of -22 ft MLLW to ensure that all areas meet the minimum depth. Estimated dredge volumes include the entire overdepth allowance, although removal of the entire overdepth volume is not expected. This maintenance dredging would remove approximately 77,000 cubic yards of material from this area. These dredged materials are expected to be disposed of at the LA-3 Ocean Dredged Material Disposal Site (ODMDS).

Sediments were sampled and tested in 2018 (Anchor QEA, 2019) to determine suitability for ocean disposal at the LA-3 ODMDS and/or nearshore placement. Determinations were made by the Corps and presented to the Southern California Dredged Material Management Team (SC-DMMT) for review and concurrence. The approximately 68,000 cubic yards of sediments from the Entrance Channel were determined to be suitable for disposal at the LA-3 ODMDS. These

sediments were also determined to be suitable for nearshore placement. The approximately 77,000 cubic yards of sediments from the Main Channel Balboa Reach were determined to be suitable for disposal at the LA-3 ODMDS. Main Channel Balboa Reach sediments are not considered to be suitable for nearshore placement.

1.1.3 Project Authorization. The project was authorized by the Rivers and Harbors Acts of 1937 (Public Law 75-392) and 1945 (P.L. 79-14).

1.1.4 Timing of Project. Construction is scheduled to begin in October 2020. Dredging would be conducted on the basis of six days per week as detailed in Section 3.2.2. Construction activities associated with dredging in Lower Newport Bay would take approximately 3 months for a clamshell dredge and approximately 4 months for a barge-mounted excavator.

1.1.5 Staging Areas. The area normally used for staging is located in the Upper Newport Bay just north of the Pacific Coast Highway Bridge at Dover Drive. However, for this project, the staging area will be a common staging area set up in the Corona del Mar Beach Parking lot for the concurrent repairs to the East Jetty. The contractor is responsible for coordinating with the City for a mooring location for project vessels and also getting a slip for the crew boat. The parking lot to be used is the western of the two parking lots and is approximately 1-3/4 acres in size. It will accommodate an office trailer.

1.1.6 Construction Equipment. Dredging would be performed by clamshell dredge or a barge-mounted excavator. Dredged material transport and disposal would be in a split-hull scow. Auxiliary equipment in the form of a tug boat for moving the dredge about on site and for towing the scow to the placement/disposal site and a crew boat for the transfer of crew and supplies will also be used during dredging.

Clamshell Dredge. This method consists of a derrick mounted on a barge outfitted with a clamshell bucket. Dredged materials are placed on a scow for transport to the placement/ disposal site. This method can remove an average of approximately 2,500 cubic yards per day.

Excavator. This method consists of a barge-mounted excavator outfitted with a back hoe. Dredged materials are placed on a scow for transport to the placement/disposal site. This method can remove an average of approximately 1,500 cubic yards per day.

1.2 ENVIRONMENTAL ASSESSMENT PROCESS

This Environmental Assessment (EA) addresses potential impacts associated with implementing its discretionary actions as they relate to Corps policies, and those of other entities.

The Corps is the lead agency for this project. This EA is in compliance with the National Environmental Policy Act (NEPA) of 1969, as amended (42 U.S.C. 4321 et seq.); the Council on Environmental Quality (CEQ) regulations implementing NEPA (40 CFR 1500-1508); and the Corps' NEPA regulations (33 CFR Part 230).

The EA process follows a series of prescribed steps. The draft EA was circulated for a 30-day public review period; during which interested parties could submit written comments concerning the project. This Final EA incorporates and responds to comments received during that period. Responses to comments can be found in Appendix G. This Final EA will be furnished to all who commented on the draft EA and will be made available to others upon request.

If it is determined the project will have a significant effect on the human environment, an environmental impact statement (EIS) must be prepared. If it is determined the project will not have a significant impact on the human environment, the final step is preparing a Finding of No Significant Impact (FONSI). This is a concise summary of the decision made by the Corps from among the alternatives presented in the Final EA.

1.3 RELATIONSHIP TO ENVIRONMENTAL PROTECTION STATUTES, PLANS, AND OTHER REQUIREMENTS

The Corps is required to comply with all pertinent federal and state policies; project (recommended plan) compliance is summarized in Table 1.

Table 1. Summary of Environmental Compliance

Statute and Regulation	Status of Compliance
National Environmental Policy Act (NEPA) of 1969, 42 U.S.C. 4321, et seq., as amended; Council on Environmental Quality (CEQ) Regulations for Implementing the Procedural Provisions of the NEPA (40 CFR 1500-1508); and Corps NEPA implementing regulations at 33 CFR Part 230 and associated guidance	The draft EA was submitted for public review. Responses to comments on the draft EA are incorporated into this Final EA. Upon review of this Final EA, the District Engineer will issue a FONSI or require preparation of an EIS and a ROD will be issued for this project.*
Clean Air Act, 42 U.S.C. 7401, et. seq. 40 CFR 93.152, et seq.	A permit to construct will be obtained by contractor, if necessary. The general conformity regulations do not apply to maintenance dredging and disposal where no new depths are required and disposal will be at an approved disposal site per 40 CFR 93.153(c)(2)(ix). Therefore, a conformity determination is not required for the proposed project.
Section 404 of the Clean Water Act (CWA), 33 U.S.C. 1344; Corps regulations at 33 CFR Part 336, and USEPA's 404(b)(1) Guidelines at 40 CFR Part 230	A section 404(b)(1) analysis (Appendix E) was prepared for the recommended placement of dredged or fill material at the Newport Beach Nearshore Placement site, a waters of the U.S. The discharges were found to be compliant with the 404(b)(1) Guidelines. The disposal of dredge material to LA-3 ODMDS is not subject to CWA section 404 and the 404(b)(1) Guidelines because LA-3 ODMDS is not a waters of the U.S. Pursuant to Corps regulations at 33 CFR 323.2(d)(3), the dredging activities associated with this project are excluded from coverage under CWA section 404 and the 404(b)(1) Guidelines.
Section 401 of the Clean Water Act, 33 U.S.C. 1341	The Santa Ana California Regional Water Quality Control Board is expected to issue a Section 401 Water Quality Certification for discharges of dredged material to the nearshore disposal site. Once received, the certification will be incorporated into Appendix G.
Rivers and Harbors Act of 1899, 33 U.S.C. 403	Not applicable.
Section 103 of the Marine Protection, Research and Sanctuaries Act, 33 U.S.C. 1413	The USEPA has concurred with use of LA-3 ODMDS for disposal of material dredged from the Main Channel Balboa Reach (Appendix G).
Section 305(b) of the Magnuson-Stevens Fishery Conservation and Management Act, 16 U.S.C. 1855(b) and implementing regulations at 50 CFR 600.905-930	In its EFH assessment the Corps determined that the recommended plan may adversely affect EFH in the project area, but would not result in substantial adverse impacts to EFH. The NMFS concurred with that finding and provided the Corps conservation recommendations. The NMFS's conservation recommendations and the Corps' response are included in Appendix G.
Coastal Zone Management Act of 1972, 16 U.S.C. 1456, et seq., and National Oceanic and Atmospheric Administration Federal Consistency Regulation With Approved Coastal Management Program Regulations at 15 CFR Part 930	The Draft EA served as a Negative Determination for concurrence by the California Coastal Commission. The Corps provided the California Coastal Commission updated information regarding project modifications subsequent to circulation of the draft EA. By letter dated September 10, 2020, the California Coastal Commission concurred with the Corps' Negative Determination for the recommended plan (Appendix G).
Section 7 of the Endangered Species Act of 1973, 16 U.S.C. 1536, and implementing	The Corps has determined that consultation pursuant to section 7 of the Endangered

regulations at 50 CFR Part 402	Species Act is not required as the project would have no effect on any listed species or their designated critical habitat.
Fish and Wildlife Coordination Act, 16 U.S.C. 661-666c	Not applicable
Migratory Bird Treaty Act, 16 U.S.C. 703-711	The Corps has determined that the project is in compliance with the Migratory Bird Treaty Act.
Marine Mammal Protection Act, 16 U.S.C. 1361 et seq	The Corps has determined that no species of marine mammal would be impacted.
Section 106 of the National Historic Preservation Act, 54 U.S.C. 306108 and its implementing regulations at 36 CFR Part 800	Per 36 CFR 800.3(a)(1), the proposed project has no potential to cause effects, and therefore the agency official has no further obligations under Section 106 of the Act (Appendix C).
Executive Order 11593: Protection and Enhancement of the Cultural Environment, May 13, 1971	Not applicable
Executive Order 12898, Environmental Justice (EJ) in Minority and Low-Income Populations	The affected area does not constitute an EJ community. Therefore, the federal action would not result in disproportionately high and adverse impacts to minority or low income populations.

* The Council on Environmental Quality's new NEPA regulations went into effect September 14, 2020. Those new regulations were not applied here, as this project was initiated prior to that date.

SECTION 2 – HISTORY, PURPOSE, AND NEED

2.1 BACKGROUND

The project area encompasses approximately 60 acres in Lower Newport Bay. Lower Newport Bay is a small craft harbor located in Orange County, California. Lower Newport Bay represents a significant recreational resource offering a wide range of boating recreation ranging from single person rowboats to large sailing and motor vessels capable of trans-ocean navigation. Local beachfront communities support water-use recreational services.

Dredging of the Lower Newport Bay has been conducted under the Corps' Operations and Maintenance program since 1937. The last federal maintenance dredging in Lower Newport Bay occurred from May 2012 to February 2013. Approximately 490,350 cubic yards of sediment dredged from the federal channels were disposed of at the LA-3 ODMDS. An additional 112,196 cy of unsuitable sediments were placed in the Middle Harbor Slip 1 Fill Site at the Port of Long Beach (POLB). Dredging was conducted in 2003 that included the Entrance Channel. This was the most recent dredging of sediments from the Entrance Channel.

2.2 PROJECT PURPOSE AND NEED

The purpose of the proposed project is to perform maintenance dredging to provide for the need of continued, safe navigation for recreational and commercial boats in Lower Newport Bay.

SECTION 3 – PROJECT ALTERNATIVES

3.1 ALTERNATIVES

The Corps formulated a set of alternative plans for maintenance dredging in Lower Newport Bay. Alternatives considered but eliminated from further consideration are discussed in section 3.1.1. The no action alternative is discussed in section 3.1.2 and the two action alternatives are discussed in section 3.1.3. More information concerning the dredge material disposal sites is provided in section 3.1.4. Environmental commitments incorporated in the project description to avoid or minimize adverse impacts are listed in Section 6.2.

3.1.1 Alternatives Considered but Eliminated from Further Consideration. Because navigational safety requires the entire channel to be at its authorized depth, alternative dredge footprints are generally not considered. However, in this case small areas were removed from the dredge footprint for a variety of environmental concerns. These were areas that would not impact navigational safety in the Entrance Channel and in the Main Channel Balboa Reach if left undredged. Alternative disposal/placement sites are not available within the time frame required for this project. Potential disposal alternatives are limited to harbor fills associated with port development (e.g. Middle Harbor Slip 1 Fill Site at the POLB used in 2013). There are no harbor fill projects available at this time. Therefore, no other alternative disposal sites are analyzed in detail.

3.1.2 No Action Alternative. The No Action Alternative is no maintenance dredging within Lower Newport Bay. The No Action Alternative would allow the channels to shoal, which would eventually result in unsafe or impossible navigation conditions.

3.1.3 Action Alternatives Considered

Alternative 1: Proposed Project (Recommended Plan). Material would be dredged from the Entrance Channel and Main Chanel Balboa Reach to maintain authorized navigational depths of -20 ft MLLW (Figure 2). An overdepth allowance of 2 feet is included in the dredge prism to account for inaccuracies in the dredging methodology. A minimum channel depth of -20 ft MLLW is required. Dredging is allowed to a depth of -22 ft MLLW to ensure that all areas meet the minimum depth. Estimated dredge volumes include the entire overdepth allowance, although removal of the entire overdepth volume is not expected. The proposed project includes 1) maintenance dredging approximately 68,000 cubic yards (cy) from the Entrance Channel and placing the dredged material at the Newport Beach Nearshore Placement Site, which is described in 3.1.4 below; and 2) maintenance dredging approximately 77,000 cy from the Main Channel Balboa Reach and transporting if for disposal at the LA-3 ODMDS, which is described in 3.1.4 below. Dredging activities for Alternative 1 would take approximately 3 months with a clamshell and 4 months with an excavator.

Alternative 2: Ocean Disposal. The volume of dredged material as well as the dredge depth would remain the same as Alternative 1, but disposal of all 145,000 cy would occur at the LA-3 ODMDS (Figure 1). Dredging activities under Alternative 2 would take approximately 3 months with a clamshell and 4 months with an excavator.

3.1.4 Placement/Disposal Sites

Newport Beach Nearshore Placement Site: The proposed Newport Beach Nearshore Placement Site is located southeast of Balboa Pier (Figure 2). Coordinates for the Newport Beach Nearshore Placement Site are provided on Figure 2. This placement site is a subset of the site approved for use by the city of Newport Beach in placing suitable dredged sediments from Lower Newport Bay by the Corps' Regional General Permit 54 (RGP 54). RGP 54 was issued to the city of Newport Beach to cover individual dredging actions by resident dock owners for recreational vessels only. The site protects and nourishes Newport Beach and placement here is considered a beneficial reuse of dredged materials. The location of the site is shown on Figure 3. The site is approximately 35 acres in size with depths ranging from -25 ft MLLW to -40 ft MLLW.

LA-3 ODMDS: LA-3 ODMDS is located on the continental slope of Newport Submarine Canyon at a depth of about 490 meters (m; 1,600 feet [ft]), approximately 8 kilometers (km; 4.3 nautical miles [nmi]) southwest of the entrance of Newport Harbor (Figure 1). The circular boundary of the permanently designated LA-3 ODMDS is centered at 33º31'00" N and 117º53'30" W and has a 915-meter (3,000-foot) radius. However, disposal vessels must be fully within the smaller 1,000 ft (305 m) radius Surface Disposal Zone (SDZ), centered at the same coordinates, when discharging dredged material. LA-3 ODMDS was officially designated as a permanent disposal site by the U.S. EPA Region IX in 2005.

SECTION 4 - AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

This section summarizes the existing condition of the physical and human environment within the scope of analysis and provides an assessment of potential impacts associated with each alternative.

Affected environment at the LA-3 ODMDS were addressed as part of the site designation process (USEPA/USACE, 2005). Those affected environment descriptions are incorporated herein by reference.

4.1 Oceanography and Water Quality

4.1.1 Affected Environment. The tides in southern California are mixed, semi-diurnal tides with two unequal high tides and low tides roughly per day. Tidal variations are caused by the passage of two harmonic tidal waves; one with a period of 12.5 hours and one with a period of 25 hours. This causes a difference in height between successive high and low waters. The result is two high waters and two low waters each day, consisting of a higher high water and a lower high water, and a higher low water and a lower low water. Respectively referred to as HHW, LHW, HLW, and LLW.

A greater than average tidal range between HHW and LLW occurs when the moon, sun, and earth are aligned with each other to create a large gravitational effect. This spring tide corresponds to the appearance of a new or full moon. Neap tides, which occur during the first and third quarters of the moon, have a narrower range between HHW and LLW. In this situation, the moon, sun, and earth are perpendicular to each other, thereby reducing the gravitational effects on water levels.

The mean tidal range for the project site is 5.4 feet at the harbor entrance. The extreme range is about 9.5 feet. Tidal conditions are slightly muted in the interior bay, but not sufficiently to cause significant effects.

Water quality is typically characterized by salinity, pH, temperature, clarity, and dissolved oxygen (DO). Table 2 characterizes the overall water quality parameters for the project site.

Table 2 Water Quality Characteristics

Parameters	Project Site
Salinity (ppt)	32.9 to 34.4
Surface Temperature (F)	55.8 to 62.5
pH	7.4 to 7.6
Clarity (ft.)	13 to 15
D.O. (mg/l)	8.9

Lower Newport Bay is on the 303(d) list of water quality limited waterbodies for chlordane, copper, DDT, indicator bacteria, nutrients, PCB's, pesticides, chlorpyrifos, and sediment toxicity. Total Maximum Daily Loads (TMDLs) have been implemented by the Santa Ana Regional Water Quality Control Board for nutrients, fecal coliform, organochlorine compounds,

and siltation. US Environmental Protection Agency (USEPA) established a "technical" TMDL for copper, lead, and zinc. The Santa Ana Regional Water Quality Control Board is currently evaluating whether Lower Newport Bay is meeting water quality standards for copper, lead, and zinc.

4.1.2 Environmental Consequences.

Criteria

An impact to Oceanography and Water Quality will be considered significant if: the project results in the release of toxic substances that would be deleterious to human, fish, or plant life; or discharges create a pollution, contamination, or nuisance.

4.1.2.1 Alternative 1

Dredge Impacts.

Water quality would be temporarily affected during the dredging process. Decreases in DO; increases in nutrients, suspended and dissolved contaminants, and turbidity could occur. Turbidity from dredging has the potential to decrease DO in the immediate vicinity (within about 100 feet) of the dredge. The dredging would occur in Lower Newport Bay, a coastal lagoon over six kilometers (four miles) in length. Dredging impacts would be the same for all action alternatives. Water quality impacts are expected to be confined to the immediate vicinity of the dredge and are not expected to significantly impact Lower Newport Bay. Sediments were tested and determined to contain less than trace amounts of contaminants. A release of toxic substances would not be expected to occur during dredging. Dredging activities would be not result in the impairment of recreational use at the project site, and there would be no discharge creating a pollution, contamination, or nuisance.

Accidents resulting in spills of fuel, lubricants, or hydraulic fluid from the equipment used during dredging could occur during the project. These indirect impacts would depend on the amount and type of material spilled as well as specific conditions (i.e., currents, wind, temperature, waves, tidal stage, and vessel activity). In such cases, to minimize the impacts from any such spills, per the Environmental Commitments in Section 6.2, spills would be cleaned up immediately. Standard dredge specifications include a Spill Prevention and Cleanup Plan that includes measures to prevent spills, employee training, the staging of materials on site to clean up accidental spills, and a list of appropriate agencies to call in the event of a spill. The contractor responsible for operating the dredging equipment would be responsible for ensuring that such measures are adhered to. Any floating debris will be removed from the water and disposed of properly. A larger spill that could have significant impacts on water quality is not expected to occur, even under reasonable worst-case conditions.

Water quality monitoring will be performed during dredging for all action alternatives. Daily monitoring will be done for salinity, pH, temperature, dissolved oxygen, turbidity and light transmissivity for the first week. Monitoring will shift to weekly if no exceedances occur. Weekly monitoring will be done for salinity, pH, temperature, dissolved oxygen, turbidity and

light transmissivity. Monthly water samples will be taken and analyzed for total dissolved solids and TRPH with a minimum of one sample per event. Dredging will be controlled to keep water quality impacts to within acceptable levels for clarity and dissolved oxygen. Controls include modifying the dredging operation and the use of silt curtains (if warranted). Controls include modifications to the operations of the clamshell such as slowing any or all of the process to reduce chances of excess sediment entering the water column. These controls will be dependent on the nature and observed cause of any turbidity or other water quality problems observed. Turbidity will be limited to a 40% decrease in light transmittance, dissolved oxygen will be maintained at a minimum of 5 mg/l. Increases in turbidity that result from controllable water quality factors shall comply with the following: where natural turbidity is between 0 and 50 Nephelometric Turbidity Units (NTU), increases shall not exceed 20 percent; where natural turbidity is between 50 and 100 NTU, increases shall not exceed 10 NTU; and where natural turbidity is greater than 100 NTU, increases shall not exceed 10 percent. The pH of bay or estuary waters shall not be raised above 8.6 or depressed below 7.0 as a result of water quality factors; ambient pH levels shall not be changed by more than 0.2 unit.

Construction activities associated with dredging in Lower Newport Bay would take approximately 3 months for a clamshell dredge and approximately 4 months for a barge-mounted excavator.

Disposal /Placement Impacts

Nearshore Placement (Entrance Channel Sediments)

Water quality would be temporarily affected during the placement process. Decreases in DO; increases in nutrients, suspended and dissolved contaminants, and turbidity could occur. Water quality impacts are expected to be confined to the immediate vicinity of the placement site and are not expected to significantly impact the coastal waters off of Newport Beach. Sediments were tested and determined to contain less than trace amounts of contaminants. A release of toxic substances would not be expected to occur during placement, there would be no impairment of recreational use at the Newport Beach Nearshore Placement Site, and there would be no discharge creating a pollution, contamination, or nuisance as a result of placement activities. The spill prevention and clean up measures discussed above also pertain to the nearshore placement operations.

Water quality monitoring will be performed during placement at the Newport Beach Nearshore Placement Site. Water quality monitoring will meet the requirements of the CWA Section 401 Water Quality Certification issued by the Santa Ana Regional Water Quality Control Board. Daily monitoring will be done for salinity, pH, temperature, dissolved oxygen, turbidity and light transmissivity for the first week. Monitoring will shift to weekly if no exceedances occur. Weekly monitoring will be done for salinity, pH, temperature, dissolved oxygen, turbidity and light transmissivity. Monthly water samples will be taken and analyzed for total dissolved solids and TRPH. Placement will be controlled to keep water quality impacts to within acceptable levels for clarity and dissolved oxygen. Turbidity will be limited to a 40% decrease in light transmittance, dissolved oxygen will be maintained at a minimum of 5 mg/l. Increases in turbidity that result from controllable water quality factors shall comply with the following:

where natural turbidity is between 0 and 50 Nephelometric Turbidity Units (NTU), increases shall not exceed 20 percent; where natural turbidity is between 50 and 100 NTU, increases shall not exceed 10 NTU; and where natural turbidity is greater than 100 NTU, increases shall not exceed 10 percent. The pH of bay or estuary waters shall not be raised above 8.6 or depressed below 7.0 as a result of water quality factors; ambient pH levels shall not be changed by more than 0.2 unit.

Ocean Disposal (Main Channel Balboa Reach Sediments)

The disposal of dredged material at LA-3 ODMDS would create direct local turbidity impacts during disposal operations. Turbidity plumes would be expected to migrate up to 500 ft down current. As the sediments have been found to be clean, contaminants would not be introduced or biologically available for consumption. Impacts of ocean disposal of dredge materials on water quality would be similar to impacts discussed in the USEPA authorization of the LA-3 ODMDS. Per the Environmental Commitments in Section 6.2, disposal limitations and control measures specified in the USEPA LA-3 Site Use Conditions would be adhered to during disposal operations. Vessels would be operated in compliance with all applicable regulations related to the prevention of water pollution by fuel, harmful substances, and accidental discharges. For mechanical dredging, the dredged material would be secured during transport, with precautions in place to minimize any risk of spills. The spill prevention and clean up measures discussed above also pertain to the LA-3 ODMDS ocean disposal operations.

Conclusion: Oceanographic and water quality impacts of Alternative 1 are considered insignificant. It would not results in the release of toxic substances that would be deleterious to human, fish, or plant life, or discharges that create a pollution, contamination, or nuisance..

4.1.2.2 Alternative 2

Impacts

Impacts from dredging would be identical to those identified and discussed above for Alternative 1. Impacts for placement/disposal would be similar to Alternative 1 but would differ in the following ways. Impacts to the Newport Beach Nearshore Placement Area would not occur as there would be no nearshore placement associated with this alternative. Impacts to the LA-3 ODMDS would be similar in nature but would occur over a longer time period as all dredged sediments would be disposed of the site resulting in an increase from 77,000 to 145,000 cy of sediments.

Conclusion: Oceanographic and water quality impacts of Alternative 2 are considered insignificant. Alternative 2 would not results in the release of toxic substances that would be deleterious to human, fish, or plant life, or discharges that create a pollution, contamination, or nuisance.

4.1.2.3 No action alternative Under the No Action alternative, no dredging or disposal construction impacts would occur to oceanography or water quality would occur. The Entrance Channel and Main Channel Balboa Reach would continue to fill with sediments eventually

resulting in impacts to recreational and commercial boating and the creation of unsafe conditions that could lead to boat groundings.

Conclusion: Oceanographic and water quality impacts of the no action alternative would be considered insignificant.

4.2 Marine Resources

4.2.1 Affected Environment. Marine life in the dredging areas is expected to consist of sandy benthic communities. This habitat is dominated by polychaetous annelids. Annelids are numerically dominant with crustaceans, molluscs, minor phyla, and echinoderms following in decreasing order of abundance. Benthic marine organisms are also important food sources for fish, crabs, and other benthic organisms. The jetties within the Entrance Channel support algal growth typical of rocky subtidal and intertidal communities. Jetties characteristically are populated by green algae (*Ulva sp.* and *Enteromorpha sp.*), several species of red algae, and some kelp species. The federal channels in Lower Newport Bay are not known to harbor the invasive alga *Caulerpa taxifolia*.

Portions of the Entrance Channel consist of eelgrass beds primarily of the species *Zostera pacifica*. This is a special aquatic habitat. Eelgrass is also considered to be habitat areas of particular concern (HAPC) for various federally managed fish species within the Pacific Coast Groundfish FMP. Eelgrass is a highly productive species and is considered to be a "foundation" or habitat forming species. Eelgrass provides important foraging areas and shelter to young fish and invertebrates, food for migratory waterfowl, and spawning surfaces for invertebrates and fish.

The only marine mammals expected in the dredging area would be California sea lions (*Zalophus caliornianus*) and harbor seals (*Phoca vitulina*). Harbor seals and sea lions are expected to forage in the harbor and rest on the breakwater jetties, and navigational buoys.

Marine resources at the LA-3 ODMDS are discussed in the USEPA authorization of the LA-3 ODMDS and are hereby incorporated by reference (EPA and USACE 2005). Marine resources at the Newport Beach Nearshore Placement Site are typical open coast, sandy bottom habitat.

Special Aquatic Sites. The city of Newport Beach completed surveys in 2016, 2018 (shallow water only), and 2020 of Lower Newport Bay. The 2016 surveys were used to map the extent of eelgrass (*Zostera marina* and *Zostera pacifica*) beds in the bay (see Figure 4); results of the 2020 surveys are not yet available. Eelgrass beds were shown to be located in the Entrance Channel to Lower Newport Bay. There are no eelgrass beds located within the Main Channel Balboa Reach.

The area immediately south of the entrance is designated as a State Marine Conservation Area (SMCA). It is the Crystal Cove SMCA. None of the activities would take place within the SMCA and the presence of the jetties will serve to eliminate any indirect impacts to the SMCA from the proposed dredging.

Threatened and endangered species. The only threatened or endangered species which may occur at the project site is the California least tern (*Sternula antillarum browni*).

The California least tern is present in small numbers from mid-April to mid-September. The California least tern forage throughout the Upper Bay, primarily on surface fishes such as topsmelt and anchovies, occasionally entering the Lower Bay. A nesting colony is located in the Upper Newport Bay Ecological Reserve approximately 3-1/2 miles from the dredging areas. The approximate location of the nest site is shown on Figure 1. The latest year for which monitoring data is available is 2016. There were approximately 20 pair of California least tern nesting in the upper bay. There were an estimated two fledglings from this site in 2016. In 2015 the numbers were 21 pair and one fledgling.

Caulerpa taxifolia. *Caulerpa taxifolia* is a species of invasive algae that may occur within the project area. The Entrance Channel (the only habitat considered susceptible to this species) will be surveyed prior to the start of dredging to ensure that it is not present. The likelihood of presence is considered to be extremely low.

Essential Fish Habitat (EFH). In accordance with the 1996 amendments to the Magnuson-Stevens Fishery Management and Conservation Act, an assessment of Essential Fish Habitat (EFH) has been conducted for the proposed project. The proposed project occurs within EFH for various federally managed fish species within the Pacific Coast Groundfish, Coastal Pelagic Species, and Highly Migratory Species Fishery Management Plans (FMP). Many of the species federally managed under these plans are known to occur in the area and could be affected by the proposed project. Eelgrass is considered to be a Habitat Area of Particular Concern (HAPC) within the Pacific groundfish PMP as well as an Area of Special Biological Significance (ASBS).

Eelgrass (*Zostera pacifica*) is found in the Entrance Channel. This is a broad leaf species of eelgrass capable of surviving in deeper water, where clarity is good. This allows the species to survive at depth in the Entrance Channel being found in depths of -18 ft to -24 ft MLLW. The Main Chanel Balboa Reach does not support this species due to lessened water clarity in the lower bay. The narrow leaf species (*Zostera marina*) is found in other parts of Newport Bay. This species only exists in shallower water in the lower bay ranging from 0 ft to -10ft MLLW. This species cannot survive in the deeper waters of the federal navigational channels. There are no eelgrass beds of either species located within the Main Channel Balboa Reach.

4.2.3 Environmental Consequences

Criteria.

An impact to Marine Resources will be considered significant if: the population of a threatened, endangered, or candidate species is directly affected or its habitat lost or disturbed; if there is a net loss in value of a sensitive biological habitat including a marine mammal haul out site or breeding area, seabird rookery, or ASBS; if the movement or migration of fish is impeded; and/or if there is a substantial loss in the population or habitat of any native fish, wildlife, or

vegetation (a substantial loss is defined as any change in a population which is detectable over natural variability for a period of 5 years or longer).

4.2.3.1 Alternative 1

Dredge Impacts.

Temporary increase in turbidity and suspended solids may decrease the amount of dissolved oxygen near the dredge site, thus affecting fish and other marine life within the area. Mobile species are expected to relocate out of the area until dredging activities are finished. Some marine populations, particularly benthic organisms, will be destroyed by dredging, but are expected to recolonize the area once dredging has ceased. Dredging impacts would be the same for all action alternatives. It is not practicable to avoid all impacts to existing eelgrass beds and maintain safe navigation within the prescribed federal channels. The Project has been modified to avoid several acres of eelgrass within areas of the federal channels that we had initially planned to dredge. Eelgrass is the only HAPC or ASBS within or adjacent to the project area. The dredge footprint has been reduced as much as possible in the Entrance Channel to avoid impacts to eelgrass where leaving sediments in place do not represent a substantial impact to navigational safety. Restrictions on anchoring in eelgrass beds that will be imposed on the dredging contractor should also reduce potential impacts during dredging operations. Exact losses of eelgrass from the dredging operation will be determined using pre- and post-construction eelgrass surveys in the Entrance Channel. Comparison of the proposed dredge footprint with eelgrass surveys conducted in 2016 shows an estimated loss of eelgrass of approximately 1.5 acres. This loss is a temporal loss as eelgrass is expected to revegetate the area after dredging is completed. Pursuant to Environmental Commitment 14, unavoidable impacts to eelgrass in the Entrance Channel would be mitigated in consultation with the NMFS using guidance from the California Eelgrass Mitigation Policy (CEMP, NMFS 2014). , and Through this plan the Corps would ensure impacts to eelgrass are temporary and there would be no net loss of any HAPC/ASBS. See the EFH section below for more detail. Movement of fish would be temporarily impacted and there would be minor, short-term impacts to benthic populations that are expected to recover fully within one year.

Noise from operations may also impact marine life. The noise associated with dredging activities may disturb fishes, seabirds, and marine mammals. Although data on effects of noise on fishes are limited, the data suggest that fish would be more likely to be startled by sudden staccato noises than by steady noises (i.e., engine noise). Moreover, the noise of the proposed operations would occur against a background area with large amounts of vessel traffic. The sudden staccato noises of the bucket coming into contact with the sediment would likely temporarily deter many organisms from entering the dredging areas, although, not impede the movement or migration of fish species given the size of the dredge template in relation to the surrounding harbor and available area for the fish species to utilize.

The only marine mammals expected to occur in the dredge areas are California sea lions and harbor seals. These species are highly mobile and would be able to avoid the dredge areas. The noise generated by the dredge is unlikely to impact these species given the noisy background resulting from existing commercial, recreational, and safety vessels. Dredging activities would

not adversely affect marine mammals. Furthermore, the dredge areas would represent a small percentage of available resources, and project activities are considered short-term and localized. No marine mammal haul out sites, breeding area, or seabird rookery are located within the immediate vicinity of the dredging areas. Dredging would not cause a net loss in value of a sensitive biological habitat including a marine mammal haul out site or breeding area, seabird rookery, or ASBS.

Dredging activities would take approximately 3 months with a clamshell and 4 months with an excavator.

Nearshore Placement (Entrance Channel Sediments)

Temporary increase in turbidity and suspended solids may decrease the amount of dissolved oxygen near the Newport Beach Nearshore Placement Site, thus affecting fish and other marine life within the area. Mobile species are expected to relocate out of the area until placement activities are finished. Some marine populations, particularly benthic organisms, will be destroyed by placement activities, but are expected to recolonize the area once placement has ceased. Marine mammals may occur at the Newport Beach Nearshore Placement Site (although due to the short durations of disposal events this is considered to be improbable), however, they are likely to deviate their migratory course just enough to avoid ships at the site so that disposal activities would not affect marine mammals or cause a net loss in value of a sensitive biological habitat.

Ocean Disposal (Main Channel Balboa Reach Sediments)

The material discharged at LA-3 ODMDS would remain in suspension longer than at the dredge sites and some may drift as far as 1,000 yards from the disposal site. As discussed above, there may be some minor turbidity impacts from disposal on planktonic organisms, benthic organisms, and fishes. These impacts would be localized to the area and are expected to be adverse but not significant. The proposed disposal at LA-3 ODMDS would not cause a substantial loss in population or habitat of any native fish or wildlife. Marine mammals may occur at the LA-3 ODMDS (although due to the short durations of disposal events this is considered to be improbable), however, they are likely to deviate their migratory course just enough to avoid ships at the site so that disposal activities would not affect marine mammals or cause a net loss in value of a sensitive biological habitat.

Threatened and endangered species.

The Corps has determined that the proposed project will not have an affect nor jeopardize the continued existence of any federal listed threatened or endangered species. The dredging project is not expected to start until October 2020. California least terns will have migrated south and will not be present during dredging operations. Should dredging occur during the nesting season (April 15 – September 15) California least terns may be present in the harbor. Dredge impacts will be confined to a relatively small area in the immediate vicinity of the dredge. Loss of this area is considered negligible compared to the remaining areas that will still be available for foraging. Dredge areas are also outside the primary foraging areas for the nest sites located in

the upper bay. Dredge areas are approximately 3-1/2 miles from the nearest nest site, a site that has had no nesting to date since its creation as part of the Upper Newport Bay Ecosystem Restoration Project in 2007.

California least terns will have migrated south and will not be present during placement/disposal operations. Should dredging occur during the nesting season (April 15 – September 15) California least terns may be present in the harbor. The Newport Beach Nearshore Placement Site is outside the primary foraging areas for the nest sites located in the upper bay; approximately 3-3/4 miles from the nearest nest site. If the project is delayed until after the start of the California least tern nesting season, there would also be no effect at the LA-3 ODMDS due to distance from the nearest nest site and the un-impacted areas still available for foraging.

Caulerpa taxifolia

In accordance with the Environmental Commitments in section 6, pre-construction surveys for *Caulerpa taxifolia* would be conducted at the dredge sites. If *Caulerpa taxifolia* is identified during the surveys, the Corps would contact NMFS/CDFW within 24 hours of first noting the occurrence. In the event that *Caulerpa taxifolia* is detected, maintenance dredging would be delayed until such time as the infestation has been isolated, treated and the risk of spread from the proposed action eliminated.

Essential Fish Habitat (EFH).

Impacts to EFH, such as turbidity associated with dredging and disposal of dredged materials, would be temporary and insignificant. The most notable impact to EFH would be dredging impacts to eelgrass located in the Entrance Channel.

The eelgrass species *Zostera pacifica* occurs only in the Entrance Channel in Newport Bay. Eelgrass in the lower bay outside the Entrance Channel is *Zostera marina*. *Zostera marina* is found in shallow waters only and does not occur in the federal navigational channels, including the Main Channel Balboa Reach.

It is not practicable to avoid all impacts to existing *Zostera pacifica* eelgrass beds and maintain safe navigation within the prescribed federal channels. The Project has been modified to avoid several acres of eelgrass within areas of the Entrance Channel that we had initially planned to dredge to minimize impacts to eelgrass. One area along the western edge of the channel from Station 23+00 to 40+00 was determined to be non-essential for navigational purposes and was removed from the dredge prism (refer to Figures 5-7 for the original dredge prism). This resulted in a reduction of approximately 2,000 cy of dredging and 0.2 acres of eelgrass impact. The remaining areas in the Entrance Channel where predicted eelgrass impacts would occur are considered to be essential for navigational purposes and must be dredged. Figure 2 is a revised map showing the revised Entrance Channel dredge prism overlying the eelgrass map. Avoidance measures, including a prohibition on anchoring within mapped eelgrass beds and requirements for the dredge to remain within the dredge prism should keep eelgrass impacts to the minimum practicable. The current estimate of eelgrass impacts from the dredging in the Entrance Chanel is 1.5 acres. As described below, actual loss will be confirmed through detailed surveys. In

accordance with Environmental Commitment 14, actual impacts to eelgrass beds will be mitigated to ensure no net loss of eelgrass. The Corps has prepared a conceptual eelgrass mitigation plan (Appendix H), which is summarized below. As described in Appendix H, the Crops evaluated but is not pursuing alternative mitigation approaches. The Corps intends to implement the conceptual mitigation plan as described in Appendix H unless the Corps, in consultation with NMFS and others, develops a superior and practicable mitigation approach.

The prior dredging in the Entrance Channel was in 2003. Shoaling is not a big problem in the Entrance Channel, although it is sufficient to build up over time requiring occasional dredging to maintain authorized dimensions. We estimate another 15-20 years before the next dredging event in the Entrance Channel. We, therefore, expect this to be strictly a loss of temporal value and not the total loss of eelgrass presumed for mitigation in the CEMP. Eelgrass is expected to revegetate impacted areas over time even if no mitigation efforts are included. Based on our temporal loss scenario we are planning on conducting plantings in the impacted areas as a measure to reduce this temporal loss. In addition to a reduction in the temporal losses, this also results in an in-kind mitigation. We propose a five-year monitoring program following the transplant to track development of the transplanted areas. Unvegetated areas in, or adjacent to, the Entrance Channel will also be evaluated for transplants. Unvegetated areas that are at a suitable depth for *Zostera pacifica* will be added to the mitigation areas in order to achieve the 1.2:1 mitigation ratio recommended by the CEMP. These areas are being added to offset temporal losses. However, these areas are unvegetated for unknown reasons and a successful transplant is not assured. For that reason the added area would be subject to success criteria and thus to the possibility of transplanting additional eelgrass should these areas fail to meet those criteria five years down the road, however this would be limited to a single transplant effort for the added area. Furthermore the Corps does not intend to mitigate for future dredging impacts to this added area of eelgrass habitat. The original area would be subject to success criteria and thus to the possibility of transplanting additional eelgrass in accordance with the CEMP. The Corps intends to mitigate for any impacts from future dredging efforts to eelgrass habitat in the original mitigation area. Overall, this mitigation plan will result in a quicker recovery of the impacted eelgrass beds resulting in no net loss of eelgrass habitat, offsetting temporal losses (meeting the overall goals of the CEMP as modified for on-site conditions), and producing additional information about the restoration of *Zostera pacifica*.

Actual eelgrass losses and areas of impact will be identified using a combination of pre-and post-construction surveys. All surveys will be shared with NMFS, CDFW, Santa Ana RWQCB, and CCC. Once an area of impact and the location of impacts is identified, the Corps will enter into a contract for mitigation. A detailed mitigation plan will be drawn up identifying areas to be transplanted, sources of eelgrass material for the transplant, procedures (modified as needed for *Zostera pacifica*), monitoring methods and timing, and success criteria. The transplant would be conducted at the start of the next growing season in April 2021 to allow for maximum chances of success and to get better weather for the transplant activities while taking place before summer recreational boating season. The detailed mitigation plan will be developed in coordination with federal and state resource agencies (NMFS, CDFW, Santa Ana RWQCB, and CCC) prior to the start of any mitigation activities.

Resident fishes would likely avoid disturbance areas. Lethal effects of suspended sediment on fishes are not anticipated. It is likely that local tidal and current mixing, and flushing would dilute suspended sediment levels below lethal or even sublethal concentrations. Turbidity would likely be localized in time and space. The project area supports a mix of soft bottom and eelgrass habitats. As construction occurs, it is expected that bottom and pelagic fishes will temporarily relocate to avoid potential water quality impacts (i.e., turbidity plumes). It is expected that recolonization will occur quickly in the dredged areas by local fishes temporarily displaced due to construction activities.

The Corps has determined that the proposed action would have an adverse effect on essential fish habitat, but not a substantial adverse effect. The NMFS concurred with that determination and provided the Corps conservation recommendations. The NMFS's EFH comment letter, including conservation recommendations, is provided in Appendix G.

Conclusion: With the inclusion of Environmental Commitments, marine resource impacts resulting from Alternative 1 would be less than significant. Alternative 1 would not result in the loss or destruction of endangered, threatened, or candidate species or their habit; a net loss in value of a sensitive biological habitat, including eelgrass beds; the impediment of fish migration; or a substantial loss in the population or habitat of any native fish, wildlife, or vegetation.

4.2.3.2 Alternative 2

Impacts

Impacts from dredging would be identical to those identified and discussed above for Alternative 1. Impacts for placement/disposal would be similar to Alternative 1 but would differ in the following ways. Impacts to the Newport Beach Nearshore Placement Area would not occur as there would be no nearshore placement associated with this alternative. Impacts to the LA-3 ODMDS would be similar in nature but would occur over a longer time period as all dredged sediments would be disposed of the site resulting in an increase from 77,000 to 145,000 cy of sediments. The increased volume would result in in an increased deposition at the site and increased impacts to the benthic habitat at the site. Increased impacts would not result in a substantial loss in the population or habitat of any native fish, wildlife, or vegetation. The evaluation for threatened and endangered species, *Caulerpa taxifolia*, and EFH would be identical to those identified and discussed above for Alternative 1.

Conclusion: Like for Alternative 1, the Alternative 2's impacts to marine resource are considered insignificant with the inclusion of the Environmental Commitment to offset eelgrass impacts.

4.2.3.3 No action alternative.

Construction impacts would not occur. Neither would there be any of the expected beneficial impacts to recreational and commercial boating resulting from dredging of navigational channels.

Conclusion: Marine resource impacts of the no action alternatives would be insignificant.

4.3 Air Quality and Greenhouse Gases

4.3.1 Affected Environment. Newport Bay is located on the Pacific Ocean about 45 miles south of Los Angeles. Newport Bay is located in the southwestern coastal area of the South Coast Air Basin (SCAB). The climate of the SCAB is classified as Mediterranean, characterized by cool, dry summers and mild, wet winters. The project area is protected from the worst of the SCAB's air pollution problems by the daily sea breeze that brings in clean air and blows pollutants inland, but recirculation of polluted air and incomplete ventilation of the SCAB can cause smog alerts even in coastal communities. With on-going emissions reduction programs, air quality has improved markedly within the last two decades.

Air quality at a given location can be described by the concentrations of criteria air pollutants in the atmosphere near ground level. The significance of a pollutant concentration is determined by comparing it to an appropriate national and/or state ambient air quality standard. These standards represent the allowable atmospheric concentrations at which the public health and welfare are protected and include a reasonable margin of safety to protect the more sensitive individuals in the population.

The USEPA, CARB, and local air districts classify an area as attainment, unclassified, or nonattainment depending on whether the monitored ambient air quality data show compliance, lack of data, or noncompliance with the ambient air quality standards, respectively. The national ambient air quality standards (NAAQS) relevant to the project are provided in Table 3. Table 4 summarizes the federal attainment status of criteria pollutants in the SCAB based on the NAAQS.

The Clean Air Act requires the USEPA to set NAAQS for six common air pollutants (also known as "criteria air pollutants". The criteria pollutants are ozone (O3), carbon monoxide (CO), suspended particulate matter (PM), sulfur dioxide (SO2), nitrogen dioxide (NO2), and lead (Pb). PM emissions are regulated in two size classes: Particulates up to 10 microns in diameter (PM10) and particulates up to 2.5 microns in diameter (PM2.5). O3 is unique among the criteria pollutants because it is not directly emitted from No Action and action alternative sources. Rather, O3 is a secondary pollutant, formed from precursor pollutants volatile organic compounds (VOC) and nitrogen oxides (NOX) which photochemically react to form O3 in the presence of sunlight. As a result, unlike inert pollutants, O3 levels usually peak several hours after the precursors are emitted and many miles downwind of the source.

General Conformity. Section 176(c) of the CAA states that a federal agency cannot issue a permit for or support an activity unless the agency determines it will conform to the most recent USEPA approved SIP. General conformity requires that all federal actions conform to the SIP as approved or promulgated by the USEPA by determining that the action is either exempt from the General Conformity Rule requirements or subject to a formal conformity determination. In accordance with 40 CFR § 93.153(c)(2)(ix), Corps has determined the proposed agency action is exempt from the requirement to prepare a conformity determination because the project consists

of maintenance dredging, no new depths are required, and placement would be at an approved placement site.

Greenhouse Gases (GHG).

GHGs trap heat in the atmosphere and are emitted from both natural processes and human activities. Examples of GHGs produced both by natural processes and human activity include carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O). Examples of GHGs emitted through human activities alone include fluorinated gases and sulfur hexafluoride (SF_6). The natural balance of GHGs in the atmosphere regulates the Earth's temperature; without this natural greenhouse effect, the earth's surface would be approximately 60 degrees Fahrenheit (°F) cooler (USGCRP 2018).

USEPA has identified six GHGs generated by human activity that are believed to be the primary contributors to global warming: CO_2, CH_4, N_2O, hydrofluorocarbons (HFC), perfluorocarbons (PFC), and SF_6. Of these, CO_2, CH_4, and N_2O are GHGs of interest in this analysis, as only minor amounts of HFC, PFC, and SF_6 would be emitted by proposed activities.
Numerous studies document the recent trend of rising atmospheric concentrations of CO_2. The longest continuous record of CO_2 monitoring extends back to 1958 (Keeling 1960, Scripps Institution of Oceanography 2019). These data show that atmospheric CO_2 levels have risen an average of 1.6 parts per million (ppm) per year over the last 60 years (NOAA 2019). As of 2018, CO_2 levels are approximately 40 percent higher than the highest levels estimated for the 800,000 years preceding the industrial revolution, as determined from CO_2 concentrations analyzed from air bubbles in Antarctic ice core samples (USGCRP 2018).

Each GHG has a global warming potential (GWP), which is its ability to trap heat in the atmosphere. By convention, $CO_2$is assigned a GWP of one. In comparison, CH_4has a GWP of 25, which means that it has a global warming effect 25 times greater than CO_2on an equal-mass basis over a 100-year time horizon. N_2O has a GWP of 298. To account for GWP, GHG emissions are often reported as carbon dioxide equivalent (CO_2e). CO_2e is calculated by multiplying each GHG emission by its GWP and adding the results to produce a single, combined emission rate representing all GHG emissions. CO_2e emissions are commonly presented in units of metric tons (MT). One MT equals 1,000 kilograms or 1.1 short tons. Currently, there are no Federal standards for GHG emissions and no Federal regulations have been set at this time.

Table 3. National Ambient Air Quality Standards (NAAQS) Attainment Status for South Coast Air Basin

Criteria Pollutant	AVERAGING TIME	DESIGNATION [a)]	ATTAINMENT DATE[b)]
1-Hour Ozone	1979 1-Hour (0.12 ppm)	Nonattainment (Extreme)	2/6/2023 Originally 11/15/2010 (not attained)[c)]
8-hour Ozone[d)]	1997 8-Hour (0.08 ppm)	Nonattainment (Extreme)	6/15/2024
	2008 8-Hour (0.075 ppm)	Nonattainment (Extreme)	7/20/2032
	2015 8-Hour (0.070 ppm)	Nonattainment (Extreme)	8/3/2038
CO	1-Hour (35 ppm) 8-Hour (9 ppm)	Attainment (Maintenance)	6/11/2007 (attained)
NO_2[e)]	1-Hour (0.10 ppm)	Unclassified/Attainment	N/A (attained)
	Annual (0.053 ppm)	Attainment (Maintenance)	9/22/1998 (attained)
SO_2[f)]	1-Hour (75 ppb)	Designations Pending (expect Uncl/Attainment)	N/A (attained)
	24-Hour (0.14 ppm) Annual (0.03 ppm)	Unclassified/Attainment	3/19/1979 (attained)
PM10	1987 24-Hour (150 $\mu g/m^3$)	Attainment (Maintenance)[g)]	7/26/2013 (attained)
PM2.5[h)]	2006 24-Hour (35 $\mu g/m^3$)	Nonattainment (Serious)	12/31/2019
	1997 Annual (15.0 $\mu g/m^3$)	Nonattainment (Moderate)	8/24/2016
	2012 Annual (12.0 $\mu g/m^3$)	Nonattainment (Moderate)	12/31/2025
Lead	3 Months Rolling (0.15 $\mu g/m^3$)	Nonattainment (Partial) [i)]	12/31/2015

a) U.S. EPA often only declares Nonattainment areas; everywhere else is listed as Unclassifiable/Attainment or Unclassifiable

b) A design value below the NAAQS for data through the full year or smog season prior to the attainment date is typically required for attainment demonstration

c) 1-hour O_3 standard (0.12 ppm) was revoked, effective June 15, 2005 ; however, the Basin has not attained this standard based on 2008-2010 data and is still subject to anti-backsliding requirements

d) 1997 8-hour O_3 standard (0.08 ppm) was reduced (0.075 ppm), effective May 27, 2008; the revoked 1997 O_3 standard is still subject to anti-backslidingrequirements

e) New NO_2 1-hour standard, effective August 2, 2010; attainment designations January 20, 2012; annual NO_2 standard retained

f) The 1971 annual and 24-hour SO_2 standards were revoked, effective August 23, 2010; however, these 1971 standards will remain in effect until one year after U.S. EPA promulgates area designations for the 2010 SO_2 1-hour standard. Area designations are still pending, with Basin expected to be designated Unclassifiable /Attainment.

g) Annual PM10 standard was revoked, effective December 18, 2006; 24-hour PM10 NAAQS deadline was 12/31/2006; SCAQMD request for attainment redesignation and PM10 maintenance plan was approved by U.S. EPA on June 26, 2013, effective July 26, 2013.

h) Attainment deadline for the 2006 24-Hour PM2.5 NAAQS (designation effective December 14, 2009) is December 31, 2019 (end of the 10th calendar year after effective date of designations for Serious nonattainment areas). Annual PM2.5 standard was revised on January 15, 2013, effective March 18, 2013, from 15 to 12 μg/m3. Designations effective April 15, 2015, so Serious area attainment deadline is December 31, 2025. The LA County portion of the SCAB is in serious nonattainment for the 24 hour standard (2006 standard).

i) Partial Nonattainment designation – Los Angeles County portion of Basin only for near-source monitors. Expect redesignation to attainment based on current monitoring data.

4.3.2 Environmental Consequences

Criteria

Criteria air pollutants - Although the proposed maintenance action is exempt from the General Conformity Rule, the applicability rates associated with the rule are used evaluate significance of impacts for the purpose of disclosure of the impact under NEPA. An impact to Air Quality would be considered significant if the project meets or exceeds the applicability rates for the SCAB provided in Table 4.

Table 4. General Conformity Applicability Rates

Pollutant	Attainment Status	Applicability Rate (tons/year)
O_3 (VOC or NOx precursors)	Extreme Nonattainment	10
CO	Maintenance	100
NO_2	Maintenance	100
$PM_{2.5}$	Serious Nonattainment	70
PM_{10}	Maintenance	100

Source: USEPA green book and 40 CFR 93.153

GHGs - In the absence of an adopted GHG standard, the Corps will not propose a new GHG standard or make a NEPA impact determination for GHG emissions anticipated to result from any of the action alternatives. Rather, in compliance with the NEPA implementing regulations, the anticipated GHG emissions will be disclosed without expressing a judgment as to their significance.

4.3.2.1 Alternative 1

Dredge Impacts.

Dredge operations would be conducted by a clamshell or barge-mounted excavator. Split-hull scows would be used to collect and transport sediment with the assistance of a tug. A crew boat would be used to ferry crew out to the tug and for miscellaneous transport of personnel and equipment on an as-needed basis.

Emissions associated with the proposed dredging activities will come mainly from the dredge motor drive. The motor drive on a clamshell dredge and a barge-mounted excavator are approximately the same size. Emissions estimates were made for both types of dredge machinery. Estimates were made based on emissions factors for diesel fuel usage and are provided in Appendix D.

In accordance with the Environmental Commitments in section 6.2, the contractor would be required to obtain all necessary air quality permits, construction equipment would be properly maintained to reduce emissions, retarding injection timing of diesel-powered equipment for nitrogen oxide (NOx) control, and using reformulated diesel fuel to reduce reactive organic compounds and SO2.

Nearshore Placement

Distance from the dredge site to the Newport Beach Nearshore Placement Site is approximately 1-1/2 miles. Sediments would be transported from the dredge site to disposal sites by assistance of a tug. The tug would be the primary source of emissions related to material transport and disposal. The number of trips to the placement area is limited to the capacity of the dredge, which is assumed to be 2,500 cy per day for the clamshell and 1,500 cy per day for the excavator. The number of trips to the disposal area is limited to the capacity of the dredge.

Ocean Disposal

Distance from the dredge site to the LA-3 ODMDS is approximately 5 miles. The number of trips to the disposal area is limited to the capacity of the dredge, which is assumed to be 2,500 cy per day for the clamshell and 1,500 cy per day for the excavator.

Table 5. Estimated Emissions from Construction Activities

	Tons per Year*					
	VOC	**CO**	**NOx**	**NO2**	**PM10**	**PM2.5**
Clamshell Dredge						
Alternative 1	0.5	0.4	2.1	0.6	0.3	0.2
Alternative 2	0.5	0.4	2.4	0.7	0.3	0.2
Excavator Dredge						
Alternative 1	0.7	0.6	3.1	1.0	0.5	0.4
Alternative 2	0.7	0.6	3.3	1.0	0.4	0.4
Applicability Rates	**10**	**100**	**10**	**100**	**100**	**70**

* NOTE: Dredging is scheduled to start in October 2020 with an estimated duration of 3 months for a clamshell and 4 months for an excavator. Applicability rates are an annual rate by calendar year. This evaluation uses a worst-case assumption that all emissions occur during the calendar year 2020. Any emissions that occur during calendar year 2021 would not count against the applicability rate for 2020 and would reduce annual rates for calendar 2020 while creating annual rates for calendar year 2021 that would still be well below applicability rates. This could happen if an excavator is the selected methodology and/or if delays to the start of dredging push dredging into calendar year 2021.

*NOTE: These values are for the original project as described in the Draft EA. Reductions in volumes to minimize impacts to eelgrass habitat would result in slightly reduced emissions that would not be discernible at the scale (tons per year) used for this evaluation and so were not recalculated for the reduced volumes (160,000 to 145,000 cy).

Conclusion: Total estimated emissions of criteria air pollutants for Alternative 1 (including dredging) do not exceed the applicability rates for the SCAB. Air quality impacts are considered insignificant; therefore, mitigation measures are not required.

4.3.2.2 Alternative 2

Impacts

Air quality impacts from Alternative 2 would be similar to those those identified and discussed above for Alternative 1. However, air emission iunder Alternative 2 would be slightly higher, as all dredged sediments would be transported to LA-3 ODMDS for disposal. Transporting 68,000 cy of dredged material from the Entrance Channel to LA-3 ODMDS, instead of the Newport Beach Nearshore Placement Site, would result in slightly higher emissions due to the increased distance of travel between the dredge and discharge site. Those increases, reflected in Table 5, are minor.

Conclusion: Total estimated emissions of criteria air pollutants for Alternative 2 (including dredging) do not exceed the applicability rates for the SCAB. Air quality impacts are considered insignificant; therefore, mitigation measures are not required.

4.3.2.3 GHG Emissions. Greenhouse Gas (GHG) emissions were estimated for the project. GHG emissions are provided in Table 6. Calculations are shown in Appendix D.

Table 6. Total GHG Emissions

	Total Equivalent CO_2	
	Alternative 1	Alternative 2
Total project emissions (tons)	0.8	1.3

4.3.2.4 No action alternative.

Air emissions associated with construction activities would not occur. Neither would there be any of the expected beneficial impacts to recreational and commercial boating resulting from dredging of navigational channels. GHG emissions associated with the project would not occur.

Conclusion: Under the no action alternative, project emissions would not occur and SCAB applicability rates would not be exceeded. Air quality impacts would be insignificant.

4.4 Noise

4.4.1 Affected Environment. Dominant noise sources include waves, beach recreation activities, commercial and recreational vessels, and vehicle noise on adjacent roads. The sound of wave action will vary with factors including wave height, period, frequency, angle of attack, season, and wind conditions. Based on similar close coastal cities such as Marina del Rey, ambient noise levels in harbors have been measured at between Leq 56.5 and 75.5 dBA depending on the time of day and day of the week.

Noise from dredging and placement activities has the potential to effect aquatic receptors. Sensitive aquatic receptors can include species of fish and marine mammals. Ambient underwater noise levels in harbors with vessel traffic generally range around 130 decibels (dB)peak referenced to 1 micro-Pascal (re 1 μPa) (SAIC, 2007). Fish and marine mammals that

occur in the Harbor are mobile, but may occasionally be found in the vicinity of project dredging and placement areas. Dredge operations using either a clamshell dredge or an excavator produce a discontinuous and cyclic sound produced by winches and derrick movement, bucket contact with the substrate, digging into substrate, bucket closing, and emptying of material into a barge or scow. The sounds are repeated approximately every minute, with intermittent interruptions due to barge maneuvering and maintenance activities (USACE, 2019).

4.4.2 Environmental Consequences

Criteria

Project noise impacts would be considered significant if noise resulting from the project results in an increase of 10 dBA above background during the day or a night-time increase of 5 dBA above background or if fish and/or marine mammals are adversely affected. This is a short-term project and a perceived daytime doubling of noise levels is considered to be significant. A lower threshold is used for nighttime noise to reflect the increased sensitivity of people to nighttime sources of noise.

4.4.2.1 Alternative 1

Dredge Impacts.

Dredging activities shall be restricted to the hours of:
Monday thru Friday 7:00 a.m. to 6:30 p.m.
Saturday 8:00 a.m. to 6:00 p.m.
Sunday/Holidays Not permitted.

Project noise sources are limited to the dredge and its supporting vessels. The type of dredge that would most likely be used generates a Leq of 71.5 dBA at 50 feet. The closest residence along the Entrance Channel is approximately 50 feet from the dredge in the inside portion of the Entrance Channel that does not require a substantial volume of dredging. Most areas are considerably farther away and would likely experience noise levels closer to approximately 65.5 dBA or less. Dredging within 100 feet of a residence is expected to be short term, on the nature of a single day at this proximity. Based on similar close coastal cities such as Marina del Rey, ambient noise levels in harbors have been measured at between Leq 56.5 and 75.5 dBA depending on the time of day and day of the week. With dredging activities limited to daytime hours, no increase in nighttime background noise would occur. Daytime dredging is not expected to exceed the 10 dBA limitation on increased background noise. Dredging activities will result in increases in background dBA far below the doubling threshold. Therefore, noise impacts associated with dredging are not expected to have a significant impact on the area.

Although data on effects of noise on fishes are limited, the data suggest that fish would be more likely to be startled by sudden staccato noises than by steady noises (i.e., engine noise). Moreover, the noise of the proposed operations would occur against a background area with large amounts of vessel traffic. The sudden staccato noises of the bucket coming into contact with the sediment would likely temporarily deter many organisms from entering the dredging

areas, although, not impede the movement or migration of fish species given the size of the dredge template in relation to the surrounding harbor and available area for the fish species to utilize. Based on the data available for mammal responses to other anthropogenic underwater sounds, risks associated with dredging are likely limited to masking and behavioral effects (USACE, 2019). Based on observational studies, pinnipeds (seals) did not exhibit avoidance or altered behavior near dredging activities (USACE, 2019). The proposed dredging would not adversely affect fish or marine mammals.

Nearshore Placement (Entrance Channel Sediments)

The Newport Beach Nearshore Placement Site is located ¼ mile from the nearest residence. The only noise generated would be the tug's propulsion plant, which is not expected to be audible at this distance. The minimal noise associated with discharge would not impact aquatic life.

Ocean Disposal (Main Channel Balboa Reach Sediments)

The LA-3 ODMDS is located 5-1/2 mile from the nearest residence. The only noise generated would be the tug's propulsion plant, which is not expected to be audible at this distance. The minimal noise associated with discharge would not impact aquatic life.

Conclusion: Noise impacts during ocean disposal are considered insignificant; therefore, mitigation measures are not required.

4.4.2.2 Alternative 2

Impacts

Impacts from dredging would be identical to those identified and discussed above for Alternative 1. Impacts for placement/disposal would be similar to Alternative 1 but would differ in the following ways. Impacts to the Newport Beach Nearshore Placement Area would not occur as there would be no nearshore placement associated with this alternative. Impacts to the LA-3 ODMDS would be similar in nature but would occur over a longer time period as all dredged sediments would be disposed of the site resulting in an increase from 77,000 to 145,000 cy of sediments.

Conclusion: Noise impacts associated with Alternative 2 are considered insignificant; therefore, mitigation measures are not required.

4.4.2.3 No action alternative. No noise impacts associated with the project would occur.

Conclusion Noise impacts under the no action alternative are considered insignificant.

4.5 Cultural Resources

Cultural resources are locations of past human activities on the landscape. The term generally includes any material remains that are at least 50 years old and are of archaeological or historical

interest. Examples include archaeological sites such as lithic scatters, villages, procurement areas, resource extractions sites, rock shelters, rock art, shell middens; and historic era sites such as trash scatters, homesteads, railroads, ranches, and any structures that are over 50 years old. Under Section 106 of the National Historic Preservation Act, federal agencies must consider the effects of federal undertakings on cultural resources that are listed or eligible for listing in the National Register of Historic Places (NRHP). Cultural resources that are listed or eligible for listing in the NRHP are referred to as historic properties.

4.5.1 Affected Environment. The project area is limited to the confines of the federal navigation channel, an area that has been periodically dredged since 1937, and the two possible sediment disposal sites, LA-3 ODMDS or the Newport Beach Nearshore Placement Site. The navigation channel was last dredged in 2012/2013. Ground disturbance in the channel is limited to sediments that have deposited in the channel in the past seven years. No historic properties are known to exist in the federal navigation channel, LA-3 ODMDS, or the Newport Beach Nearshore Placement Site.

4.5.2 Environmental Consequences

Criterion.

The project would have a significant effect on cultural resources if it would result in a substantial adverse effect to a historic property such that the implementation of the alternative would result in the destruction of a historic property or the loss of a property's eligibility.

4.5.2.1 Alternative 1

Dredge Impacts

The Corps has determined that the maintenance dredging is the project does not have the potential to affect historic properties. The undertaking is routine maintenance that has occurred on a semi regular basis since it was authorized in 1937. The undertaking does not constitute a change in the setting or use of the harbor. The undertaking would not alter the current setting or integrity of any historic properties that may be located within the Newport Navigation Channel, assuming them to be present (36 C.F.R. 800.3(1)). Ground disturbance associated with this undertaking would be limited to soils deposited in the last ten to twenty years with no potential to contain historic properties. (see Appendix C).

Nearshore Placement

The Newport Beach Nearshore Placement Site was separately evaluated and authorized for local dredging projects under a Corps issued Regional General Permit (RGP) 54 in 2019 which included a separate analysis under Section 106. The continued use of a designated nearshore placement site does not have the potential to cause effects to historic properties.

Ocean Disposal

LA-3 ODMDS is one of the USEPA's designated and managed regional ODMDS. It is a major disposal area for the region and its impacts to historic properties have previously been analyzed (USEPA/USACE 2005). The continued use of a designated ODMDS does not have the potential to cause effects to historic properties.

Conclusion: Alternative 1 would not result in a substantial adverse effect to a historic property such that the implementation of the alternative would result in the destruction of a historic property or the loss of a property's eligibility. Cultural resources impacts are considered insignificant; therefore, mitigation measures are not required.

4.5.2.2 Alternative 2

Impacts

Impacts from dredging would be identical to those identified and discussed above for Alternative 1. Impacts for placement/disposal would be similar to Alternative 1 but would differ in the following ways. Impacts to the Newport Beach Nearshore Placement Area would not occur as there would be no nearshore placement associated with this alternative. Impacts to the LA-3 ODMDS would be similar in nature but would occur over a longer time period as all dredged sediments would be disposed of the site resulting in an increase from 77,000 to 145,000 cy of sediments. Like under Alternative 1, none of the activities under Alternative 2 have the potential to cause effects to historic properties.

Conclusion: Alternative 2 would not result in a substantial adverse effect to a historic property such that the implementation of the alternative would result in the destruction of a historic property or the loss of a property's eligibility. Cultural resources impacts are considered insignificant; therefore, mitigation measures are not required.

4.5.2.3 No action alternative. Under the no action alternative, no undertaking would occur. Therefore, no effect would occur. Continued deposition of sediments would not affect historic properties. However, the project's beneficial effects would be lost.

Conclusion:

The no action alternative would not result in a substantial adverse effect to a historic property. Cultural resource impacts of the no action alternative are insignificant.

4.6 Vessel Transportation and Safety

4.6.1 Affected Environment. Lower Newport Bay is a heavily used recreational and small commercial vessel waterbody. Boat traffic, including commercial vessels, fishing vessels, and recreational vessels, often traverse the proposed project site. Safe navigation is maintained by

well-marked channels and the presence and activity of various law enforcement agencies (i.e. County Lifeguards, U.S. Coast Guard, California Department of Fish and Wildlife).

4.6.2 Environmental Consequences

Criteria.

A significant impact would occur if the proposed project results in a substantial reduction of current safety levels for vessels in the Bay, if activities present a navigational hazard to boat traffic, or interfere with any emergency response or evacuation plans.

4.6.2.1 Alternative 1

Dredge and Placement/Disposal Impacts.

Given the general background vessel traffic levels, project impacts are not expected to significantly increase vessel traffic levels. The proposed project will be taking place near the end of the tourist season. All vessels will be marked and lighted in accordance with U.S. Coast Guard regulations and notices will be published in Local Notice to Mariners warning boat users about times, durations, and locations of construction activities. Vessel traffic should be able to easily navigate around any short-term obstacles created by construction traffic. Construction will not impede access to any channels or entranceways. The presence of the dredge will not reduce current safety levels in the bay, present a navigation hazard, or interfere with emergency response or evacuation plans. The dredge is required to move on request of police authorities in case of need for public safety. Therefore, impacts to vessel traffic are considered insignificant.

Transport of dredged material to the Newport Beach Nearshore Placement Site would add vessel movement within the placement area; however, this increase would be negligible considering the existing volume of vessel movement in the project area. Transport of dredged material to the LA-3 ODMDS would add vessel movement within the disposal area; however, this increase would be negligible considering the existing volume of vessel movement in the project area.

Conclusion: Alternative 1 would not result in a substantial reduction of current safety levels for vessels in the Bay, present a navigational hazard to boat traffic, or materially interfere with any emergency response or evacuation plan. Vessel transportation and safety impacts are considered insignificant; therefore, mitigation measures are not required.

4.6.2.2 Alternative 2

Impacts

Impacts from dredging would be identical to those identified and discussed above for Alternative 1. Impacts for placement/disposal would be similar to Alternative 1 but would differ in the following ways. Impacts to the Newport Beach Nearshore Placement Area would not occur as there would be no nearshore placement associated with this alternative. Impacts to the LA-3 ODMDS would be similar in nature but would occur over a longer time period as all dredged

sediments would be disposed of the site resulting in an increase from 77,000 to 145,000 cy of sediments.

Conclusion: Alternative 2 would not result in a substantial reduction of current safety levels for vessels in the Bay, present a navigational hazard to boat traffic, or materially interfere with any emergency response or evacuation plan. Vessel transportation and safety impacts are considered insignificant; therefore, mitigation measures are not required.

4.6.2.3 No action alternative

Additional construction vessel traffic associated with the project would not occur. However, the project's beneficial effects in terms of maintaining navigation safety would be lost.

Conclusion: The no action alternative would not immediately result in any impacts to vessel transportation and safety. However, the no action alternative could eventually result in a reduction of current safety levels for vessels in the Bay, present a navigational hazard to boat traffic, or materially interfere with any emergency response or evacuation plan.

4.7 Recreation Uses

4.7.1 Affected Environment. The project area is a mix of public and private recreational boating and commercial uses. The coastal waters provide for recreational boating and fishing. Water contact recreation (swimming/wading) occurs at small, pocket beaches located in the Lower Bay. Recreational use of LA-3 ODMDS would be limited to boating traffic transiting through the area, there is no hard substrate or reef structure at LA-3 ODMDS to support fishing and it is unlikely to be utilized as a fishing spot given the soft bottom substrate, depth and level of disturbance to the site.

4.7.2 Environmental Consequences

Criterion.

Impacts will be considered significant if the project results in a permanent loss of existing recreational uses.

4.7.2.1 Alternative 1

Dredge Impacts.

Impacts to recreational boaters will be negligible (see Section 4.6 above). Long-term impacts will be beneficial. The dredging will maintain, sustain, and support recreational and commercial boating by keeping the approaches and entrance channels open and free of navigational hazards. Dredging activities will be physically separated from the water contact recreational uses. These activities take place primarily along the edges and remain outside the federal navigational channels. Dredging at any single location will be of short duration enabling waders to move to nearby locations should the dredge be a discouraging factor in waders/swimmers decision.

Placement/Disposal Impacts

Traffic to the Newport Beach Nearshore Placement Site would average 1-2 barges per day, which is a negligible impact on local recreational vessels. No material would be placed directly on to the beach, so there would be no impacts to beach from the proposed project. Recreational activities are not expected to occur at the LA-3 ODMDS, therefore there would be no impacts to recreational use at LA-3 ODMDS.

Conclusion: Overall, the proposed project will support the recreational opportunities currently afforded to the area. Alternative 1 would not result in permanent closures or loss of existing recreational uses. Therefore, recreational impacts are considered insignificant.

4.7.2.2 Alternative 2

Impacts

Impacts from dredging would be identical to those identified and discussed above for Alternative 1. Impacts for placement/disposal would be similar to Alternative 1 but would differ in the following ways. Impacts to the Newport Beach Nearshore Placement Area would not occur as there would be no nearshore placement associated with this alternative. Impacts to the LA-3 ODMDS would be similar in nature but would occur over a longer time period as all dredged sediments would be disposed of the site resulting in an increase from 77,000 to 145,000 cy of sediments.

Conclusion: Overall, the proposed project will support the recreational opportunities currently afforded to the area. Alternative 2 would not result in permanent closures or loss of existing recreational uses. Therefore, recreational impacts are considered insignificant.

4.7.2.3 No action alternative.

Under the no action alternative, dredging to maintain authorized channel depths would not occur. Therefore, the project's recreational benefits to boating and beach use would not occur.

Conclusion: The no action alternative would have no immediate effect on recreational uses. However, under the no action alternative the authorized channel would not be maintain and recreational uses of Lower Newport Bay may eventually be impeded.

4.8 Aesthetics

4.8.1 Affected Environment. The overall aesthetic character of the project area is composed of a mix of residential and water-oriented facilities. The beaches further add to the overall impression of a recreational-oriented visual setting. The area is well maintained. The natural resources in the area provide a visually attractive setting and relaxing atmosphere for residents and tourists. LA-3 ODMDS is located 4.8 miles offshore, thus it is not visible from shore.

4.8.2 Environmental Consequences

Criterion.

The project would significantly impact the aesthetics if a landscape is changed in a manner that permanently and significantly degrades an existing viewshed or alters the character of a viewshed by adding incompatible structures.

4.8.2.1 Alternative 1

Dredge Impacts

The presence of dredging will result in mixed impacts depending on the opinion of the viewer. Many viewers will consider the presence of the dredge to be an adverse impact, interrupting viewpoints from local land points and from boats. Many other viewers will consider the presence of the dredge to be a beneficial impact providing an interesting feature to the existing view. Given that the dredge will be a short-term impact, aesthetic impacts will be insignificant.

Nearshore Placement (Entrance Channel Sediments)

Traffic to the Newport Beach Nearshore Placement Site would average 1-2 barges per day with the barge being on site for approximately 15-30 minutes, which is a negligible impact on aesthetics.

Ocean Disposal (Main Channel Balboa Reach Sediments)

Traffic to the LA-3 ODMDS would average 1-2 barges per day with the barge being on site for approximately 15-30 minutes at a site far enough out to sea to not be visible from the shore, which is a negligible impact on aesthetics.

Conclusion: Given that the dredging and placement/disposal activities would be a short-term impact, aesthetic impacts of Alternative 1 would be insignificant. The landscape would not be changed in a manner that permanently and significantly degrades an existing viewshed or alters the character of a viewshed by adding incompatible structures.

4.8.2.2 Alternative 2

Impacts

Impacts from dredging would be identical to those identified and discussed above for Alternative 1. Impacts for placement/disposal would be similar to Alternative 1 but would differ in the following ways. Impacts to the Newport Beach Nearshore Placement Area would not occur as there would be no nearshore placement associated with this alternative. Impacts to the LA-3 ODMDS would be similar in nature but would occur over a longer time period as all dredged sediments would be disposed of the site resulting in an increase from 77,000 to 145,000 cy of sediments.

Conclusion: Given that the dredging and placement/disposal activities would be a short-term impact, aesthetic impacts of Alternative 2 would be insignificant. The landscape would not be changed in a manner that permanently and significantly degrades an existing viewshed or alters the character of a viewshed by adding incompatible structures.

4.8.2.3 No action alternative.

Aesthetics of the area would remain unchanged.

Conclusion: The no action alternative would have no immediate effect on aesthetics. The landscape would not be changed in a manner that permanently and significantly degrades an existing viewshed or alters the character of a viewshed by adding incompatible structures.

4.9 Land/Water Uses

4.9.1 Affected Environment. Lower Newport Bay is primarily characterized by the marina catering to recreational boaters and sports fishing operations. Boat rentals, a public launch ramp, and a U.S. Coast Guard Station are located in the Bay.

4.9.2 Environmental Consequences

Criterion.

Impacts would be considered significant if access to existing uses is substantially restricted or is eliminated.

4.9.2.1 Alternative 1

Dredge Impacts.

The presence of the dredge and its supporting vessels will restrict vessel traffic during dredging in the immediate 25 feet from the dredge. Boat access will be maintained throughout all stages of construction.

Placement/Disposal Impacts

Placement of sediments at the Newport Beach Nearshore Placement Site or LA-3 ODMDS would have no impact on land uses/water uses. Both of these sites are marine, open ocean sites with potential impacts limited to recreational boating. Impacts to recreational boating are discussed above in section 4.7.

Conclusion: Impacts to land/water uses during placement/disposal activities are expected to result in insignificant impacts.

4.9.2.2 Alternative 2

Impacts

Impacts from dredging would be identical to those identified and discussed above for Alternative 1. Impacts for placement/disposal would be similar to Alternative 1 but would differ in the following ways. Impacts to the Newport Beach Nearshore Placement Area would not occur as there would be no nearshore placement associated with this alternative. Impacts to the LA-3 ODMDS would be similar in nature but would occur over a longer time period as all dredged sediments would be disposed of the site resulting in an increase from 77,000 to 145,000 cy of sediments.

Conclusion: Impacts to land/water uses during placement/disposal activities are expected to result in insignificant impacts.

4.9.2.3 No action alternative. No impacts to land and water uses would result, including the beneficial impacts discussed above.

Conclusion

The no action alternative would have no immediate effect on land/water uses. Access to existing uses would not be substantially restricted or eliminated.

4.10 Ground Transportation

4.10.1 Affected Environment. Lower Newport Bay and Newport beach are accessed by several major routes. Seasonal variations can result in large differences in road use. Summer is the peak season and it is the basis for design of road capacity.

4.10.2 Environmental Consequences

Criteria.

A significant impact would occur if the proposed project results in: 1) inadequate parking facilities, 2) an inadequate access or on-site circulation system, or 3) the creation of hazardous traffic conditions.

4.10.2.1 Alternatives 1 and 2

Dredge and Placement/Disposal.

Construction will require the use of heavy equipment that requires manpower. A total construction crew of 15 people is anticipated for the proposed project. The proposed project therefore, is expected to have minor adverse impacts on local traffic not adding substantially to existing traffic in the area nor creating hazardous traffic conditions. All of the large equipment would come by sea and would not impact local roads. Placing the staging area in the parking lot

at the Corona del Mar Beach will result in loss of parking in that lot. However, the adjacent lot should provide adequate parking for non-seasonal beach users.

Conclusion: Under Alternatives 1 and 2 the project would have minor, short-term impacts to parking due to crew parking near the site and the use of the Corona del Mar Beach parking lot as staging area. It would not create hazardous traffic conditions as the majority of the equipment would arrive via ships and would not require large trucks impacting local surface streets.

4.10.2.2 No action alternative

No impacts would occur to ground transportation resources.

Conclusion: The no action alternative would have no immediate effect on ground transportation. There would be no impacts to parking due to crew parking near the site and the use of the Corona del Mar Beach parking lot as staging area. It would not create hazardous traffic conditions as there would be no need to bring in the equipment and large trucks impacting local surface streets.

4.11 Utilities

4.11.1 Affected Environment.

The Entrance Channel and Main Channel Balboa Reach contain a small number of facilities, including a cast iron waterline, an AT&T armored submarine cable, and an abandoned Southern California Edison (SCE) utility cable. Only the abandoned SCE utility cable, located at the northern end of the Entrance Channel (Figure 3), runs underground and across the entrance channel at shallow enough depth to potentially be impacted by dredging. Subsequent to publishing the draft EA, the Corps modified the project to remove the area of the abandoned SCE utility cable from the dredge prism.

4.11.2 Environmental Consequences

Criteria.

Significant impacts to public utilities would occur if any of the alternatives result in:

- Substantial and long term interruption of utility service; and/or
- Substantial alteration to existing public utilities;

Because an increase in service demand would not occur with the proposed action, this analysis focuses on displacement or disruption of services and utilities.

4.11.2.1. Alternatives 1 and 2

Dredge and Placement/Disposal.

No utilities are within the placement/disposal areas. The dredge prism has been modified such that there will be no dredging near the SCE power line located in the northern end of the Entrance Channel. Consequently, no impacts to the SCE power line would occur. No impacts to the remainder of the utilities are expected because they are buried substantially deeper than dredging would be authorized. The project would not result in any interruptions of utility services, alteration to public utilities, or increased need for public utilities for any of the alternatives.

Conclusion:

Under Alternatives 1 and 2 the project would not result in any interruptions of utility services, alteration to public utilities, or increased need for public utilities. Project impacts would, therefore, be less than significant.

4.11.2.2. No action alternative

The no action alternative would not result in any interruptions of utility services, alteration to public utilities, or increased need for public utilities.

Conclusion:

The no action alternative would not result in significant impacts to utilities.

SECTION 5 - CUMULATIVE IMPACT ANALYSIS

NEPA requires that cumulative impacts of the proposed action be analyzed and disclosed. Cumulative impacts are impacts on the environment that will result from the incremental effect of the proposed action when combined with other past, present, and reasonably foreseeable planned and proposed actions. Cumulative impacts can result from individually minor, but collectively significant, actions taking place over a period of time. Cumulative impact analyses consider how the direct and indirect effects of a proposed project (i.e., the incremental impact of the project) would contribute to cumulative effects, and whether that incremental contribution is significant or not. Some impacts, like eelgrass impacts, will last beyond the construction timeframe. Other impacts, such as noise, air quality, water quality, etc. are limited to actual construction periods only.

The Corps anticipates future funding to complete maintenance dredging at Lower Newport Bay in the other portions of the federal channel. Funding is expected during the next fiscal year, but approximate dates are not available. When that funding has been secured, new NEPA documentation will be prepared to evaluate potential impacts from that dredging. Concurrence for any ocean disposal would also be sought at that time from the USEPA for proposed dredge areas that are outside this Final EA. Subsequent dredging projects would not overlap with the proposed project. This includes eelgrass mitigation, which would extend past the construction period for the proposed project because future maintenance dredging projects are not expected to impact eelgrass requiring mitigation for eelgrass losses. However, no known or reasonably foreseeable dredging projects are expected to occur in eelgrass habitat or result in eelgrass impacts. So, the eelgrass impacts of this project and reasonably foreseeable future dredging impacts are not expected to overlap or combined into cumulatively significant impacts.

Minor maintenance dredging of individual boat docks has been permitted in China Cove and around Balboa Island. This work was authorized by the regional general permit 54 issued by the Corps for maintenance dredging in Newport Bay. Disposal would be at the LA-3 ODMDS. Total dredging for these projects is not expected to exceed 5,000 cubic yards. Specific boat docks and/or timing have not been identified at this time. Dredging up to the maximum allowed by the RGP is a worst-case assumption for this cumulative impact analysis. More likely will be no dredging taking place concurrent with the proposed project.

Past activities, such as dredging, placement of fill material, and construction of Harbor and marina facilities, have reduced the physical and biological aquatic resource functions present in this area, as compared to natural undisturbed areas. Elevated noise levels and vessel traffic cause ongoing disturbances in the project vicinity. Past impacts within and adjacent to the Harbor also include negative impacts to air quality. Thus, the project area has been affected by past marina activities and continues to be similarly disturbed.

Jetty repairs would be taking place on the East Jetty in the Entrance Channel to Lower Newport Bay at approximately the same time as the dredging is currently planned to occur. Repair activities will access the jetty from the adjacent beach and will place only clean rock. The two activities will be spaced apart and will have very different impacts. The jetty repair is expected to have only minor and temporary water quality impacts due to both land-side access and the

placement of clean rocks only. Those limited water quality impacts are not expected to physically overlap with any water quality impacts associated with dredging the Entrance Channel due to the distances between the two activities. Dredging in the Entrance Channel will be approximately 275 feet from the jetty. Dredging in the Main Channel Balboa Reach will be even farther away with a closest point of ½ mile. Jetty repair activities are not expected to have any impact on eelgrass beds in the Entrance Channel. Jetty repair activities are categorically exempt from NEPA and are covered by Nationwide Permit 3 under Section 404 of the Clean Water Act and would have less than significant impacts on the environment. Taken together with the maintenance dredging, environmental impacts of both projects would not result in cumulatively significant impacts.

The Corps has concluded that when considering the impacts of the proposed project, in relation to the overall impacts from past, present, and reasonably foreseeable future activities (including maintenance, reconstruction, and upgrade activities), the incremental contribution of the proposed project to cumulative impacts in the area are not significant.

SECTION 6 - ENVIRONMENTAL COMPLIANCE AND COMMITMENTS

6.1 COMPLIANCE

6.1.1 National Environmental Compliance Act of 1969 (Public Law (PL) 91-190); National Environmental Policy Act (NEPA) of 1969 (42USC4321 et seq., PL 91-190); Council on Environmental Quality Regulations for Implementing NEPA, 40 CFR Parts 1500 to 1508; USACE Regulations for Implementing NEPA, 33 CFR Part 220.

Under the National Environmental Policy Act (NEPA), federal agencies must consider the environmental consequences of proposed federal actions. The spirit and intent of NEPA is to protect and enhance the environment through well-informed federal decisions, based on sound science. When it is determined that a proposed action could result in significant environmental effects, an EIS is prepared. NEPA is premised on the assumption that providing timely information to the decision maker and the public about the potential environmental consequences of proposed actions would improve the quality of federal decisions.

This EA has been prepared to address impacts associated with the proposed project. The Draft EA was circulated for public review and to appropriate resource agencies, environmental groups and other interested parties. Comments were received during the public review period and responses can be found in Appendix G.

6.1.2 Clean Water Act of 1972 (33 USC 1251 et seq.)

The Clean Water Act (CWA) was passed to restore and maintain chemical, physical, and biological integrity of the Nation's waters. Specific sections of the CWA control the discharge of pollutants and wastes into aquatic and marine environments. The major sections of the CWA that applies to the proposed project are Section 401, which requires certification that the permitted project complies with the State Water Quality Standards for actions within state waters; and Section 404, which addresses the discharge of dredged or fill materials into waters of the US.

Pursuant to Corps regulations at 33 CFR 323.2(d)(3), the dredging activities associated with this project are excluded from coverage under CWA. The disposal of dredge material to LA-3 ODMDS is not subject to the CWA. The Corps' disposal of dredged material to the nearshore placement site is subject to the CWA.

A section 404(b)(1) analysis (Appendix E) was prepared for the recommended placement of dredged or fill material at the Newport Beach Nearshore Placement site, a waters of the U.S. The discharges were found to be compliant with the 404(b)(1) Guidelines. The Santa Ana California Regional Water Quality Control Board has issued a Section 401 Water Quality Certification for this proposed project (Appendix G). All conditions of the 401 Water Quality Certification will be implemented in order to minimize adverse impacts to water quality.

6.1.3 Section 103 of the Marine Protection, Research and Sanctuaries Act (33 U.S.C. 1413)

Section 103 of the MPRSA of 1972, or Ocean Dumping Act, regulates the transportation of dredged material for the purpose of dumping it into ocean waters, where the Corps determines that the dumping will not unreasonably degrade or endanger human health, welfare, or amenities, or the marine environment, ecological systems, or economic potentialities. Ocean disposal of dredged material associated with Alternatives 1 & 2 would be at LA-3 ODMDS. Pursuant to 33 CFR 336.2(d)(3), the USEPA advised the Corps by email dated July 24, 2020, that the proposed disposal at LA-3 ODMDS under Alternative 1 would comply with the ocean dumping criteria at 40 CFR 227 provided the Corps complies with site use conditions for LA-3 ODMDS.

6.1.4 Endangered Species Act of 1973 (16 USC 1531 et seq.)

Under ESA Section 7(a)(2), each federal agency must ensure that any action it authorizes, funds, or carries out is not likely to jeopardize the continued existence of any listed species or result in the destruction or adverse modification of the species' designated critical habitat (16 U.S.C. § 1536(a)(2)). If an agency determines that its actions "may affect" a listed species or its critical habitat, the agency must conduct informal or formal consultation, as appropriate, with either the USFWS or the NMFS, depending on the species at issue (50 C.F.R. §§402.01, 402.14(a)–(b)). If, however, the action agency independently determines that the action would have "no effect" on listed species or critical habitat, the agency has no further obligations under the ESA.

Under the proposed action, construction impacts would not affect the Federally-listed California least tern. The project would not affect any designated critical habitat. The project would, therefore, not affect any listed species or their designated critical habitat. Consultation under section 7 of the ESA is not required.

6.1.5 Section 307(c) of the Coastal Zone Management Act of 1976 (16 USC 1456 et seq.)

Section 307 of the CZMA states that Federal activities within or outside the coastal zone that affects any land or water use or natural resource of the coastal zone shall be carried out in a manner which is consistent to the maximum extent practicable with the enforceable policies of approved State management programs. The California Coastal Act is this state's approved coastal management program applicable to the proposed Federal action. If a Federal agency determines there will not be coastal effects, the Federal agency shall provide the California Coastal Commission (CCC) with a negative determination.

The Corps' draft EA served as the negative determination for the proposed project. The Corps provided the CCC updated project information. On September 10, 2020, the CCC concurred with the Corps' negative determination on the project as described in this Final EA.

6.1.6 Clean Air Act (42 USC 7401 et seq.); General Conformity Regulations at 40 CFR 93.152, et seq.

The general conformity rule implements the CAA conformity provision, which requires federal agencies to identify, analyze, and quantify emission impacts of an action and mandates that the federal government not engage, support, or provide financial assistance for licensing or permitting, or approve any activity not conforming to an approved CAA implementation plan. The general conformity regulations do not apply to maintenance dredging and disposal where no new depths are required and disposal will be at an approved disposal site per 40 CFR 93.153(c)(2)(ix). Therefore, a conformity determination is not required for the proposed project.

6.1.7 Section 106 of the National Historic Preservation Act (54 U.S.C. 306108)

Section 106 of the NHPA requires federal agencies to take into account the effects of their undertaking on historic properties and afford the Advisory Council on Historic Preservation a reasonable opportunity to comment with regard to the undertaking. The Section 106 implementing regulations are codified in 36 CFR Part 800, which describe the procedures that federal agencies follow to consult with the State Historic Preservation Office (SHPO), the Advisory Council on Historic Preservation, Native American tribes, and interested parties.

In accordance with Section 106 of the NHPA, the Corps has determined that the proposed maintenance dredging of the Lower Newport Bay Navigation Channel meets the definition of an undertaking as defined at 36 CFR 800.16(y). The Corps has further determined that it does not have the potential to cause effects to historic properties (See Appendix C of the EA). Pursuant to 36 CFR 800.3(a)(1), the Corps has satisfied its responsibilities to take into account the effects of this undertaking on historic properties and has no further obligations under Section 106 of the NHPA. The proposed project is in compliance with this Act.

6.1.7 Section 305(b) of the Magnuson-Stevens Fishery Conservation and Management Act, as amended (16 U.S.C. 1855(b)

This EA assesses EFH as required by the Magnuson-Stevens Act. Although construction would occur within Essential Fish Habitat, the Corps has determined that the proposed project would not result in a substantial, adverse impact. In compliance with the coordination and consultation requirements of the Magnuson-Stevens Act, this Final EA includes the Corps' EFH Assessment.

By letter email dated August 4, 2020, NMFS provided the Corps three conservation recommendations. A copy of their comment letter and the statutory response letter from the Corps are included in Appendix G.

6.1.8 Executive Order 12898, Environmental Justice in Minority and Low-Income Populations

Executive Order 12898 focuses Federal attention on the environment and human health conditions of minority and low-income communities and calls on agencies to achieve environmental justice (EJ) as part of its mission. The order requires the USEPA and all other

Federal agencies (as well as state agencies receiving Federal funds) to develop strategies to address this issue as part of the NEPA process. The agencies are required to identify and address, as appropriate, any disproportionately high and adverse human health or environmental impacts of their programs, policies, and activities on minority and low-income populations. The order makes clear that its provisions apply fully to programs involving Native Americans. The CEQ has oversight responsibility for the Federal government's compliance with E.O. 12898 and NEPA. The CEQ, in consultation with the USEPA and other agencies, has developed guidance to assist Federal agencies with their NEPA procedures so that environmental justice concerns are effectively identified and addressed. According to the CEQ's Environmental Justice Guidance under the National Environmental Policy Act, agencies should consider the composition of the affected area to determine whether minority populations or low-income populations are present in the area affected by the proposed action, and if so whether there may be disproportionately high and adverse human health or environmental impacts (CEQ 1997).

An analysis of demographic data was conducted to derive information on the approximate locations of low-income and minority populations in the community of concern. Since the analysis considers disproportionate impacts, two areas must be defined to facilitate comparison between the area actually affected and a larger regional area that serves as a basis for comparison and includes the area actually affected. The larger regional area is defined as the smallest political unit that includes the affected area and is called the community of comparison. For purposes of this analysis, the affected area is a one-mile radius around the project area, and the city of Newport Beach is the community of comparison. LA-3 ODMDS, being 5-1/2 miles off the coast, is not included in the analysis.

Minority populations: EO 12898 defines a minority as an individual belonging to one of the following population groups: American Indian or Alaskan Native; Asian or Pacific Islander; Black, not of Hispanic origin; or Hispanic. A minority population, for the purposes of this environmental justice analysis, is identified when the minority population of the potentially affected area is greater than 50% or the minority population is meaningfully greater than the general population or other appropriate unit of geographic analysis. USEPA's EJScreen tool was used to obtain the study area demographics. Table 7 provides a summary of the study area demographics, complete EJScreen Reports can be found in Appendix F.

Poverty Rates: The EO does not provide criteria to determine if an affected area consists of a low-income population. For purposes of this assessment, the CEQ criterion for defining low-income population has been adapted to identify whether or not the population in an affected area constitutes a low-income population. An affected geographic area is considered to consist of a low-income population (i.e., below the poverty level, for purposes of this analysis) where the percentage of low-income persons: 1) is greater than 50%, or 2) is meaningfully greater than the low-income population percentage in the general population or other appropriate unit of geographic analysis. The United States Census Bureau poverty assessment weighs income before taxes and excludes capital gains and non-cash benefits (such as public housing, Medicaid, and food stamps). Table 7 provides a summary of the income and poverty status for the study area.

Table 7 Study Area Demographics

Demographic	Affected Area	State	City
Minority Population	15%	62%	19%
Low-income Population	12%	34%	14%

As shown in the table above, the aggregate minority population percentage in the affected area does not exceed 50%. In addition, the minority population in the affected area is not greater than the minority population in the city, which is 19%. Therefore, the affected area does not contain a high concentration of minority population.

As shown in the table above, 12% of the individuals in the affected area are considered below the poverty level. This percentage in the affected area does not exceed 50%. In addition, the affected area low-income population percentage is not greater than the low income population in the city, which is 14%, the affected area is not greater, than the state of California which is 34%. Therefore, the affected area does not contain a high concentration of a low-income population.

These findings reflect that the project area does not constitute an EJ community. Therefore, there would be no impacts resulting from the proposed project that would result in disproportionately high and adverse impacts to minority and low-income communities.

6.2 ENVIRONMENTAL COMMITMENTS

The proposed project includes the following environmental commitments that would be included in contract specifications:

1. It is the Contractor's responsibility to obtain all applicable air permits and comply with federal, state, and local air and noise regulations.

2. The Contractor shall use ARB reformulated diesel fuel in off-road equipment during construction.

3. Retarding injection timing of diesel-powered equipment to reduce NOx emissions will be implemented where practicable. Use reformulated diesel fuel to reduce reactive organic compounds and SO2.

4. The Contractor shall properly maintain all construction equipment.

5. In the event that previously unknown cultural resources are discovered during the project, all ground disturbing activities shall immediately cease within 100 feet of the discovery until the Corps has met the requirement of 36 CFR 800.13 regarding post-review discoveries. The Corps shall evaluate the eligibility of such resources for listing on the National Register of Historic Places and propose actions to resolve any anticipated adverse effects. Work shall not resume in

the area surrounding the potential historic property until the Corps re-authorizes project construction.

6. The Contractor shall keep construction activities under surveillance, management, and control to avoid pollution of surface and ground waters.

7. The Contractor shall prepare and implement a Water Quality Monitoring Plan at the dredge and Newport Beach Nearshore Placement Site. The Water Quality Monitoring Plan will include daily monitoring at the dredge and Newport Beach Nearshore Placement Sites for pH, temperature, dissolved oxygen, and turbidity for the first week. Monitoring will then shift to weekly. Dredging will be controlled to keep water quality impacts to acceptable levels, controls will include modifying the dredging operation and the use of silt curtains (if feasible). Light transmittance will limited to a 40% maximum decrease between the control station and a reference station located 300 ft downstream. Dissolved oxygen will be maintained at a minimum of 5 mg/l. Increases in turbidity that result from controllable water quality factors shall comply with the following: where natural turbidity is between 0 and 50 Nephelometric Turbidity Units (NTU), increases shall not exceed 20 percent; where natural turbidity is between 50 and 100 NTU, increases shall not exceed 10 NTU; and where natural turbidity is greater than 100 NTU, increases shall not exceed 10 percent. The pH of bay or estuary waters shall not be raised above 8.6 or depressed below 7.0 as a result of water quality factors; ambient pH levels shall not be changed by more than 0.2 unit.

8. The Contractor shall implement a Spill Prevention Plan including employee training and the staging of materials on site to clean up accidental spills.

9. All dredging and fill activities will remain within the boundaries specified in the plans. There will be no dumping of fill or material outside of the project area or within any adjacent aquatic community.

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

11. The contractor shall mark the dredge and all associated equipment in accordance with U.S. Coast Guard regulations. The contractor must contact the U.S. Coast Guard two weeks prior to the commencement of dredging. The following information shall be provided: the size and type of equipment to be used; names and radio call signs for all working vessels; telephone number for on-site contact with the project engineer; the schedule for completing the project; and any hazards to navigation. Notices shall be published in Local Notice to Mariners warning boat users about times, durations, and locations of construction activities.

12. The contractor shall move equipment upon request by the U.S. Coast guard and Harbor patrol law enforcement and rescue vessels.

13. Anchoring in eelgrass beds shall be prohibited.

14. Not earlier than 90 days and not later than 30 days prior to the start of construction, the Entrance Channel shall be surveyed and all occurrences of eelgrass shall be mapped, including a 100-foot wide buffer adjacent to the federal channel. Additionally, within 30 days of completion of the work, the project area shall be resurveyed and all occurrences of eelgrass mapped. Survey results will be provided to the NMFS, CCC, SA RWQCB, and the CDFW. Any losses will be mitigated in accordance with a detailed mitigation plan to be established in coordination with federal and state resource agencies (NMFS, CDFW, Santa Ana RWQCB, CCC). A conceptual mitigation plan is attached as Appendix H.

15. Prior to dredging at the Entrance Chanel dredge site, the Corps would conduct Surveillance Level surveys for *Caulerpa taxifolia*. Surveys shall be completed not earlier than 90 days prior to the commencement of dredging and not later than 30 days prior to the onset of work. Surveys would systematically sample at least 20% of the bottom of the entire area to be dredged to assure that widespread occurrences of *Caulerpa taxifolia* would be identified if present. Surveys would be accomplished using diver transects, remote cameras, or acoustic surveys with visual ground truthing. The Corps would submit survey results in standard format to NMFS/CDFW within 15 days of completion. If Caulerpa is identified during the surveys, the Corps would contact NMFS/CDFW within 24 hours of first noting the occurrence. In the event that Caulerpa is detected, maintenance dredging would be delayed until such time as the infestation has been isolated, treated and the risk of spread from the proposed action eliminated. In the even that NMFS/CDFW determines that the risk of *Caulerpa taxifolia* infestation has been eliminated or substantially reduced, the requirement for *Caulerpa taxifolia* surveys may be rescinded, or the frequency or level of detail of surveys may be decreased.

16. Dredging activities shall be restricted to the hours of: Monday thru Friday 7:00 a.m. to 6:30 p.m.; Saturday 8:00 a.m. to 6:00 p.m. Dredging activities on Sunday and Holidays are not permitted.

17. Adhere to site use conditions for material disposal at the LA-3 ODMDS.

18. Contractor shall post at the staging area a description of the project, including expected durations and the name and telephone number of a noise coordinator for use by the public to make noise complaints.

19. Conditions of the final Santa Ana RWQCB 401 Certification will be adhered to (Appendix G).

6.3 Public Involvement

The Draft EA was distributed for a 30-day public and agency review. The Draft EA was posted to the Corps' public notice and hard copies were mailed to the recipients on our mailing list provided in Appendix A. All comments have been documented and addressed in this Final EA. Comments received and responses to those comments are located in Appendix G.

6.4 Coordination

The principal agencies with which this project has been, and will continue to be coordinated, include: SC-DMMT, USEPA, NMFS, the Santa Ana RWQCB, and the CCC.

Southern California Dredged Material Management Team. The SC-DMMT is a multi-agency management team set up jointly by the Corps and the USEPA. The SCDMMT initially consisted of the Corps and USEPA, but has expanded to include participation by the various Regional Water Quality Control Boards and the CCC, as well as by staff from the NMFS and CDFW. The SC-DMMT currently meets monthly.

The Sampling and Analysis Plan (SAP) was discussed at a joint meeting of the SC-DMMT/CSTF held on December 2017. Initial test results were presented at the SC-DMMT in February 2019. The Corps' suitability determination and the full Sampling and Analysis Plan Report (SAPR, Appendix B; Anchor QEA, 2019) were submitted to the SC-DMMT in May 2019. Member agencies of the SC-DMMT concurred that sediments in the Entrance Chanel are suitable for nearshore placement and that Main Channel Balboa Reach are suitable for ocean disposal at the LA-3 ODMDS.

U.S. Environmental Protection Agency. The USEPA, in consultation with the Corps, reviewed and approved the SAP used in 2018-2019 to conduct sediment sampling and analysis from the federal channels, including the Entrance Channel. Results were provided to them for review. The USEPA provided a suitability determination indicating that the Entrance Channel and Main Channel Balboa Reach areas complied with 40 CFR 227 Subpart B in an email dated June 6, 2019. EPA's final ocean dumping concurrence for the Main Channel Balboa Reach sediments was provided via email dated July 24, 2020. A copy of this concurrence is included in Appendix G.

National Marine Fisheries Service.

The Draft EA included an EFH evaluation. Additional details on avoidance and minimization measures for eelgrass were provided during the 30-day public comment period via email on July 21, 2020, and July 24, 2020. The NMFS was asked in the Draft EA cover letter to review the Draft EA and the EFH evaluation and to provide comments on both as well as any conservation recommendations relative to EFH. On August 4, 2020 the NMFS provided the Corps comments on the Draft EA and EFH conservation recommendations. The Corps' statutory response to the NMFS's EFH conservation recommendations was sent to the NMFS on September 2, 2020.

Santa Ana Regional Water Quality Control Board. A copy of the draft EA was provided to the SA RWQCB during the 30-day review period. In addition, the SA RWQCB is a member agency in the SC-DMMT and participated in meetings at which the proposed project was discussed. Please refer to Section 6.1 of this EA for a discussion of project compliance with the Clean Water Act. An application for Water Quality Certification has been sent under separate cover to the SA RWQCB on July 13, 2020.

A draft water quality certification pursuant to section 401 of the Clean Water Act has been obtained from the Santa Ana Regional Water Quality Control Board. A final water quality certification will be obtained prior to project implementation and added to Appendix G. All conditions of the final water quality certification shall be implemented in order to minimize adverse impacts to water quality.

California Coastal Commission. The Corps provided a copy of the draft EA to the CCC staff during the 30-day NEPA review period and subsequently provided supplemental information regarding project modifications. The CCC concurred with the negative determination on September 10, 2020. Please refer to Section 6.1 of this EA for a discussion of project compliance with the Coastal Zone Management Act.

SECTION 7 REFERENCES

Anchor QEA, LLC. Lower Newport Bay Sampling and Analysis Report. Prepared for the city of Newport Beach. May.

NMFS. 2008 Caulerpa Control Protocol. (Version 4 - February 25, 2008)

NMFS. 2014. California Eelgrass Mitigation Policy and Implementing Guidelines. October 2014

USACE (U. S. Army Corps of Engineers). 2003. Lower Newport Bay Maintenance Dredging Project, Orange County, California. September 2003.

USACE. 2019. Evaluating Effects of Dredging-Induced Underwater Sound on Aquatic Species: A Literature Review. ERDC/EL TR-19-18. September 2019.

USEPA/USACE (U. S. Environmental Protection Agency & U. S. Army Corps of Engineers). 1991. Evaluation of Dredged Material Proposed for Ocean Disposal Testing Manual. EPA 503/8-91/001.

USEPA/USACE. (U. S. Environmental Protection Agency & U. S. Army Corps of Engineers). 2005. Final Environmental Impact Statement for the Site Designation of the LA-3 Ocean Dredged Material Disposal Site off Newport Bay Orange County, California. July.

SECTION 8 - DISTRIBUTION LIST

Federal Agencies:
U.S. Environmental Protection Agency, Region IX
U.S. Fish and Wildlife Service
National Marine Fisheries Service
U.S. Coast Guard

State Agencies:
Coastal Commission
California Department of Fish and Wildlife
Regional Water Quality Control Board, Santa Ana Region
Clearinghouse/Association of Governments
Department of Boating and Waterways
Resources Agency
South Coast Air Quality Management District

SECTION 9 - ACRONYMS

ACHP.....Advisory Council on Historic Preservation
APE.....Area of Potential Effects
ARB .....Air Resources Board
ASBS.....Area of Special Biological Significance
CAA .....Clean Air Act
CDF&G.....California Department of Fish and Game
CEQ.....Council on Environmental Quality
CO .....Carbon monoxide
Corps .....U.S. Army Corps of Engineers, Los Angeles District
CWA .....Clean Water Act
DO.....Dissolved oxygen
EA .....Environmental Assessment
EFH .....Essential Fish Habitat
EPA .....U.S. Environmental Protection Agency
ESA .....Endangered Species Act
FEA .....Final Environmental Assessment
FMP.....Fishery Management Plan
FONSI.....Finding of No Significant Impact
FWCA .....Fish and Wildlife Coordination Act
LAD .....Los Angeles District
MLLW .....Mean Lower Low Water
MPRSA.....Marine Protection Research and Sanctuaries Act
NEPA .....National Environmental Policy Act
NHPA.....National Historic Preservation Act
NMFS.....National Marine Fisheries Service
NO2.....Nitrogen dioxide
ODMDS .....Ocean Dredged Material Disposal Site
PL.....Public Law
RWQCB.....Regional Water Quality Control Board
SCAQMD .....South Coast Air Quality Management District
SHPO .....State Historic Preservation Officer
SIP.....State Implementation Plan
USACE .....U.S. Army Corps of Engineers
USFWS .....U.S. Fish and Wildlife Service

SECTION 10 - PREPARERS/REVIEWERS

10.1 Preparers

Larry Smith CORPS LAD, Ecologist, Environmental Policy Group

10.2 Reviewers

Hayley Lovan	CORPS LAD, Acting Chief, Environmental Resources Branch
Christopher Hayward	Coastal Engineering
Jim Fields	Programs and Project Management Division
Gabrielle Dodson	DQC, Ecosystem Planning Section

Figure 1 Project Location

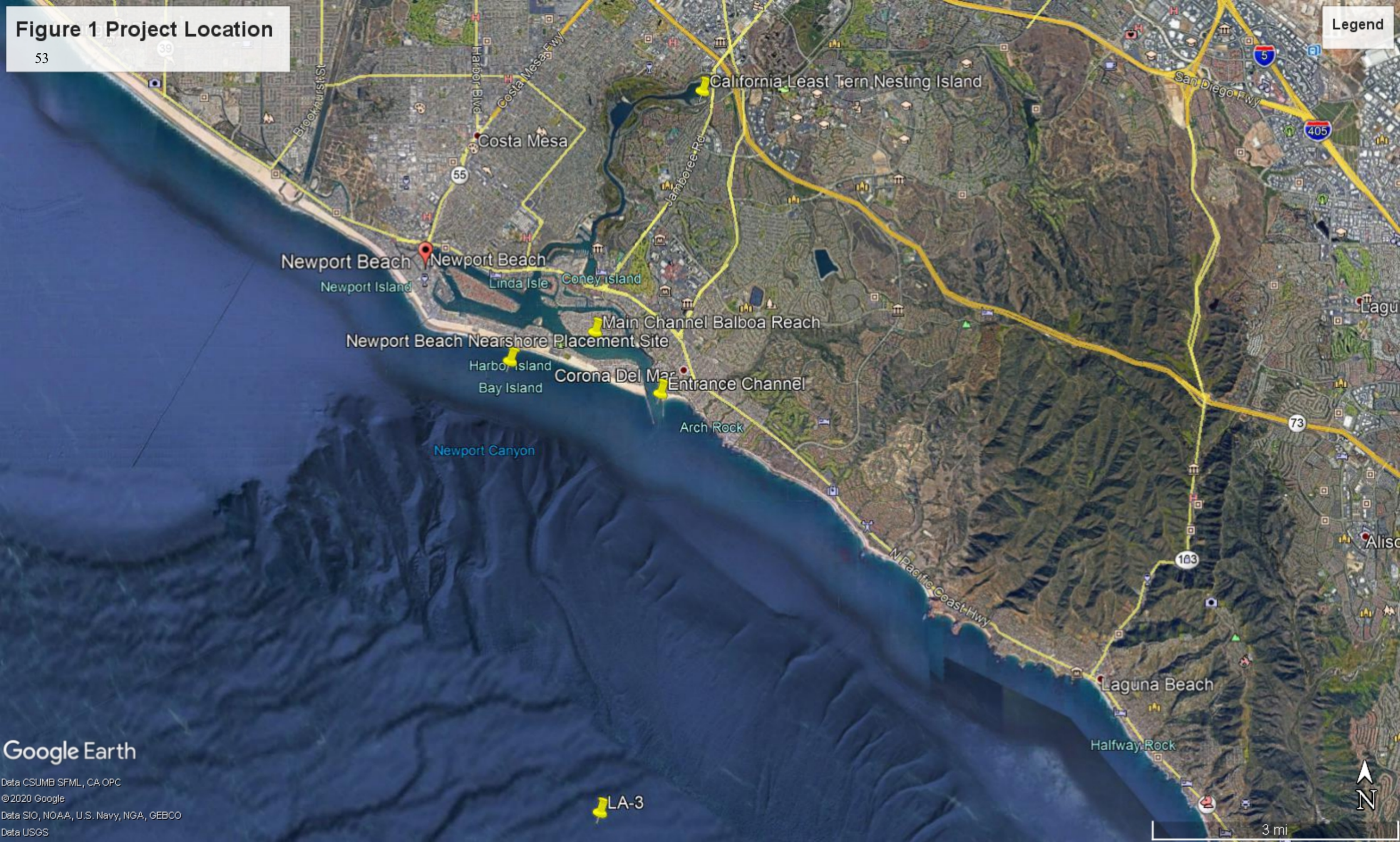
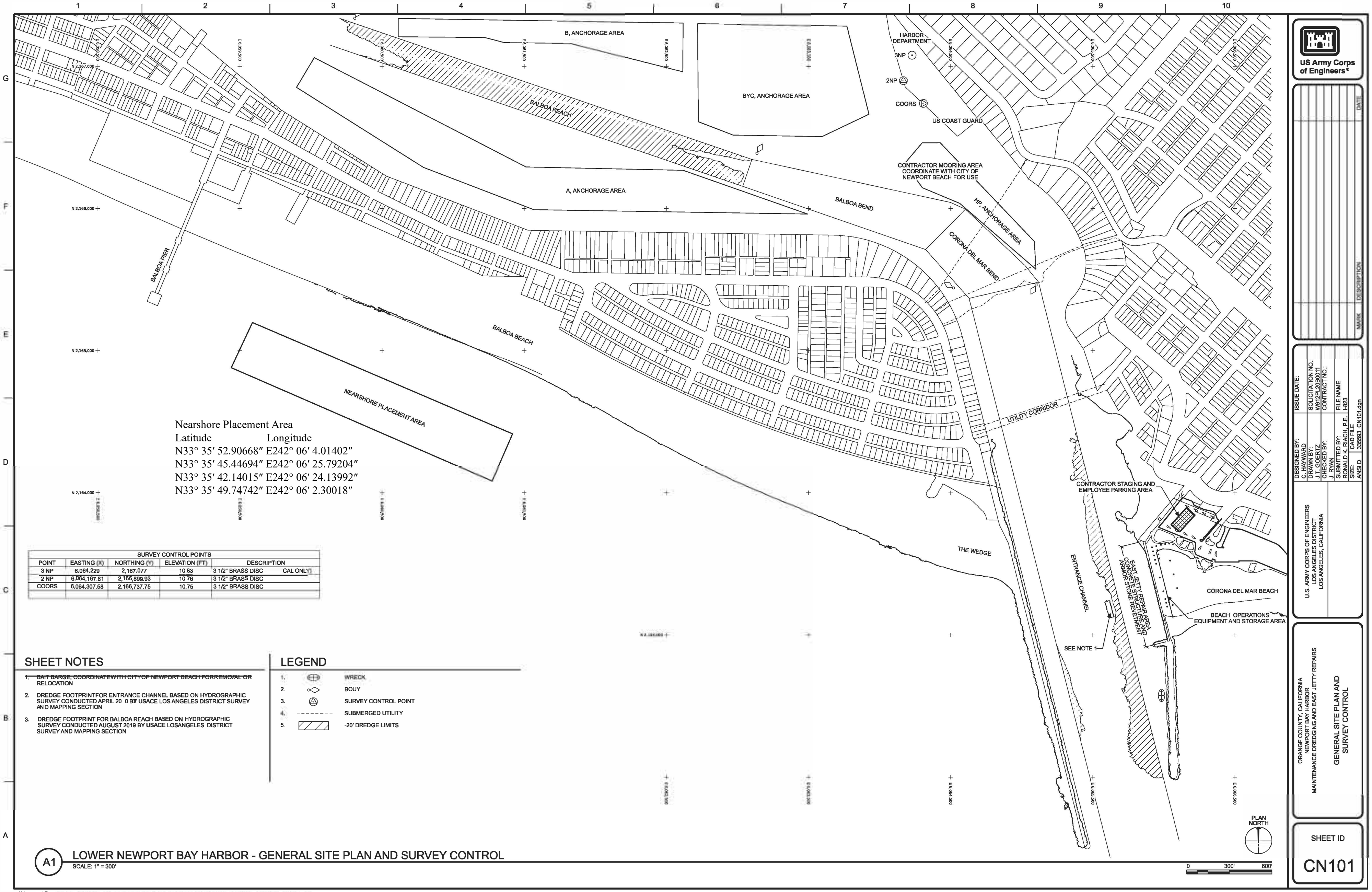


Figure 2. Entrance Channel, Main Channel Balboa Reach, Nearshore Placement Area


B, ANCHORAGE AREA
BYC, ANCHORAGE AREA
BALBOA REACH
A, ANCHORAGE AREA
HARBOR DEPARTMENT
3NP
2NP
COORS
US COAST GUARD
CONTRACTOR MOORING AREA COORDINATE WITH CITY OF NEWPORT BEACH FOR USE
BALBOA BEND
HP, ANCHORAGE AREA
CORONA DEL MAR BEND
BALBOA PIER
BALBOA BEACH
NEARSHORE PLACEMENT AREA
UTILITY CORRIDOR
THE WEDGE
ENTRANCE CHANNEL
EAST JETTY REPAIR AREA CONCRETE STRUCTURE AND ARMOR STONE REVETMENT
CONTRACTOR STAGING AND EMPLOYEE PARKING AREA
CORONA DEL MAR BEACH
BEACH OPERATIONS EQUIPMENT AND STORAGE AREA
SEE NOTE 1
Nearshore Placement Area
Latitude Longitude
N33° 35′ 52.90668″ E242° 06′ 4.01402″
N33° 35′ 45.44694″ E242° 06′ 25.79204″
N33° 35′ 42.14015″ E242° 06′ 24.13992″
N33° 35′ 49.74742″ E242° 06′ 2.30018″
SHEET NOTES
1. BAIT BARGE, COORDINATEWITH CITYOF NEWPORT BEACH FORREMOVAL OR RELOCATION
2. DREDGE FOOTPRINTFOR ENTRANCE CHANNEL BASED ON HYDROGRAPHIC SURVEY CONDUCTED APRIL 20 0 BY USACE LOS ANGELES DISTRICT SURVEY AND MAPPING SECTION
3. DREDGE FOOTPRINT FOR BALBOA REACH BASED ON HYDROGRAPHIC SURVEY CONDUCTED AUGUST 2019 BY USACE LOSANGELES DISTRICT SURVEY AND MAPPING SECTION
LEGEND
1. WRECK
2. BOUY
3. SURVEY CONTROL POINT
4. SUBMERGED UTILITY
5. -20' DREDGE LIMITS
US Army Corps of Engineers®
U.S. ARMY CORPS OF ENGINEERS
LOS ANGELES DISTRICT
LOS ANGELES, CALIFORNIA
ORANGE COUNTY, CALIFORNIA
NEWPORT BAY HARBOR
MAINTENANCE DREDGING AND EAST JETTY REPAIRS
GENERAL SITE PLAN AND SURVEY CONTROL
SHEET ID
CN101
A1
LOWER NEWPORT BAY HARBOR - GENERAL SITE PLAN AND SURVEY CONTROL
SCALE: 1" = 300'
PLAN NORTH
DRAFT

SURVEY CONTROL POINTS				
POINT	EASTING (X)	NORTHING (Y)	ELEVATION (FT)	DESCRIPTION
3 NP	6,064,229	2,167,077	10.83	3 1/2" BRASS DISC CAL ONLY
2 NP	6,064,167.81	2,166,899.93	10.76	3 1/2" BRASS DISC
COORS	6,064,307.58	2,166,737.75	10.75	3 1/2" BRASS DISC

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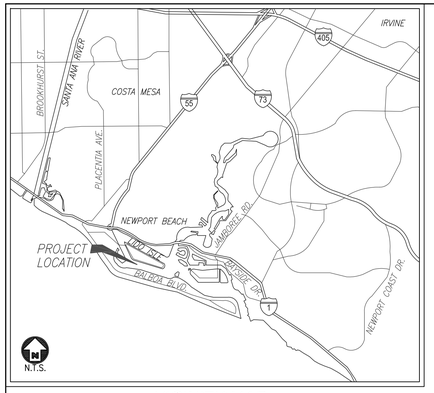
Figure 3 Entrance Channel SCE Cable

NEWPORT HARBOR CABLE LOCATING

LYING IN TRACT NO. 756 FILED IN BOOK 23 PAGES 7 THROUGH 8 AND RECORD OF SURVEY FILED IN BOOK 21 PAGE 20. IN THE CITY OF NEWPORT BEACH, COUNTY OF ORANGE, STATE OF CALIFORNIA



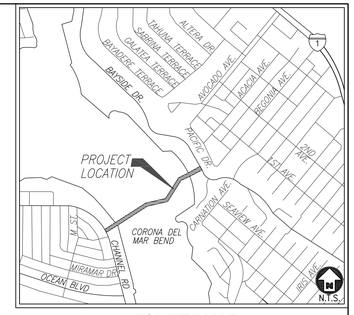
VICINITY MAP

ABBREVIATIONS:

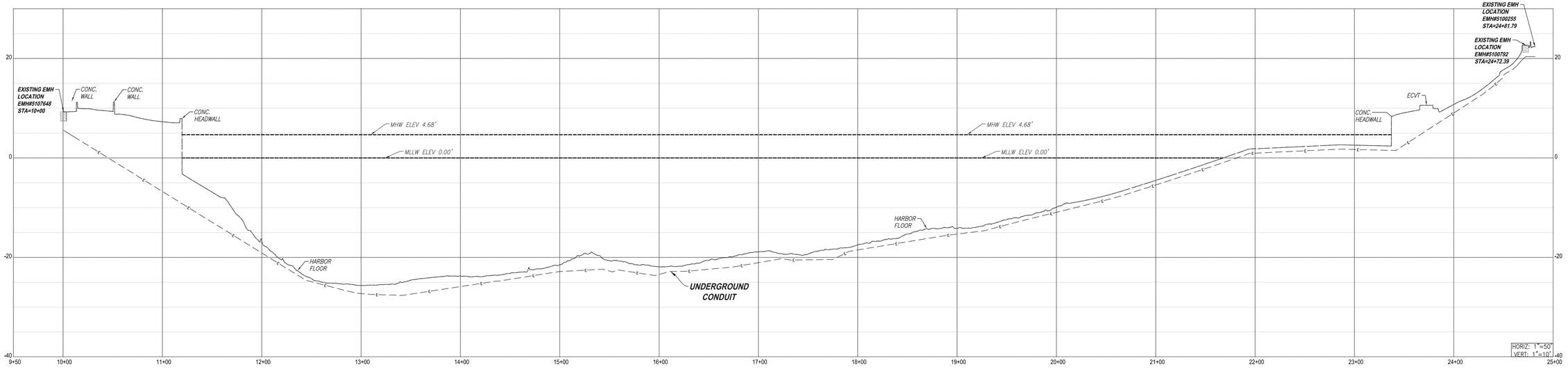
ASPH	ASPHALT
℄	CENTERLINE
CLF	CHAIN LINK FENCE
CONC	CONCRETE
EMH	ELECTRICAL MANHOLE
ELEV	ELEVATION
EVT	ELECTRIC VAULT
MHW	MEAN HIGH WATER
MLLW	MEAN LOWER LOW WATER
R/W	RIGHT OF WAY
SDMH	STORM DRAIN MANHOLE
SSMH	SANITARY SEWER MANHOLE
STLT	STREET LIGHT
TSF	TUBULAR STEEL FENCE

SURVEYOR'S NOTES:

1. BEARINGS, DISTANCES, AND COORDINATES SHOWN HEREON ARE GRID, BASED ON THE CALIFORNIA STATE PLANE COORDINATE SYSTEM, NAD 83, ZONE 6 (EPOCH 2017.5) ESTABLISHED BY A GPS SURVEY TIED TO CORS STATIONS 'TRAK' & 'SBCC'. TO OBTAIN GROUND DISTANCES, DIVIDE THE GRID DISTANCE BY AN AVERAGE COMBINED SCALE FACTOR OF 0.9999712370.
2. ELEVATIONS SHOWN HEREON ARE BASED ON THE NAVD88 REFERENCED BY A GPS SURVEY TIED TO NGS BENCHMARK PID DX1965 ELEVATION = 40.43, USING A HIGH-RESOLUTION GEOID MODEL (GEOID 12B).

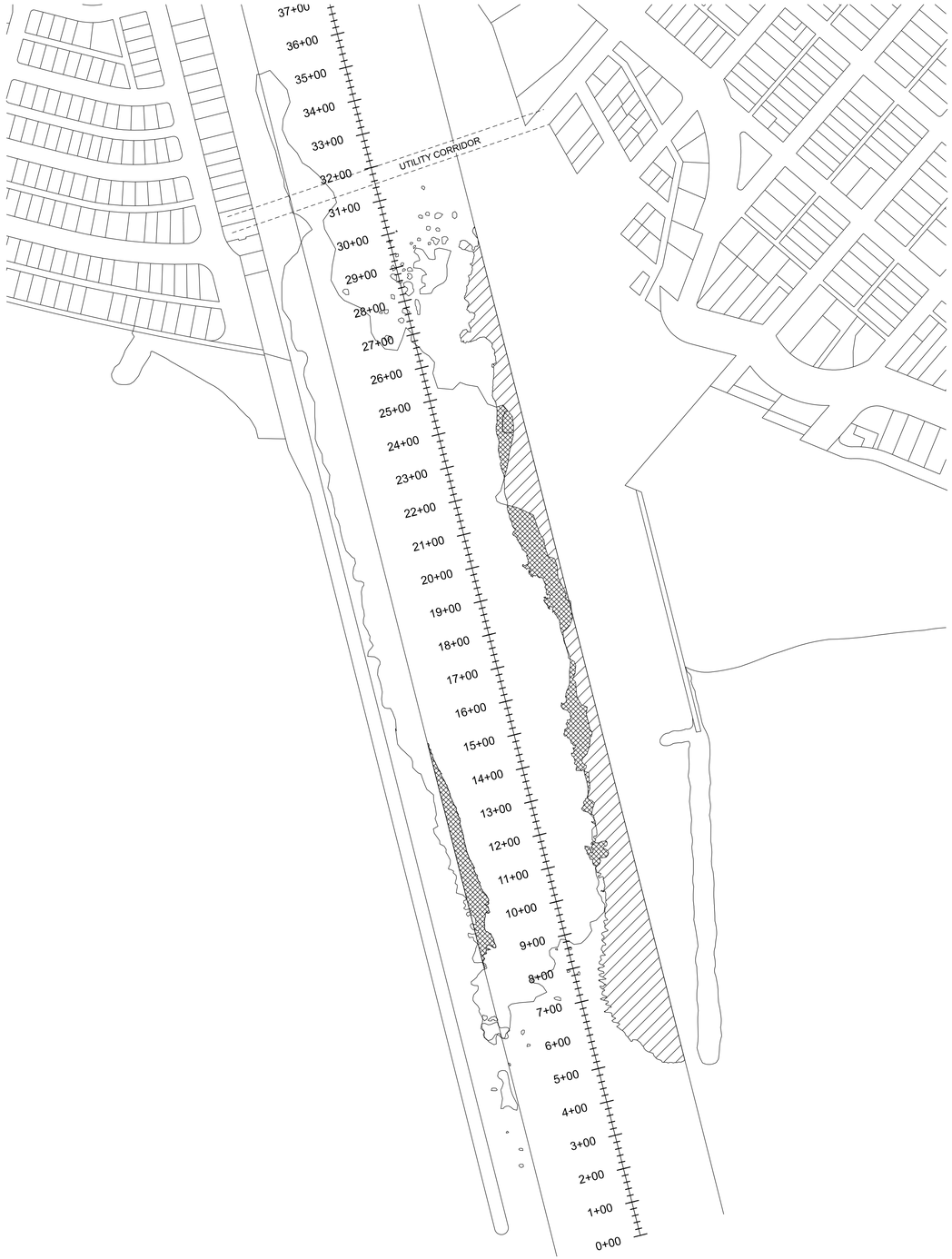


VICINITY MAP



PROJECT NAME: NEWPORT HARBOR CABLE LOCATING		M.S.:	SHEET: 5 OF 5
W.O. NO.: 801786872	NOT. NO.: 203638374	CITY: NEWPORT BEACH	COUNTY: ORANGE / STATE: CA
SURVEYED BY: K. RETTIG		SCE F.B. REF.:	DATE: 12/2/2019
DRAWN BY: S. DUNN		MAP REF.:	
CHECKED BY: D. PLUTA	TRES:	SERIAL NO.:	FILE NAME: 2019-199_VT01_SITE-4.dwg

SOUTHERN CALIFORNIA EDISON® Energy for What's Ahead



LEGEND

1. EELGRASS FOOTPRINT
2. DREDGING FOOTPRINT
3. EELGRASS/DREDGING OVERLAP

SHEET NOTES

1. OVERLAP AREA APPROXIMATELY 1.5 ACRES

PLAN NORTH

0 200' 400'

Figure 4

A1 EELGRASS AND DREDGING FOOTPRINT OVERLAP

SCALE: 1" = 200'

US Army Corps of Engineers®

MARK	DESCRIPTION	DATE

ISSUE DATE:

SOLICITATION NO.: W912PL20B0011

CONTRACT NO.:

FILE NAME

DESIGNED BY:

DRAWN BY:

CHECKED BY:

SUBMITTED BY:

SIZE: ANSI D

CAD FILE 335593_CN701.dgn

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LOS ANGELES, CALIFORNIA

ORANGE COUNTY, CALIFORNIA
NEWPORT BAY HARBOR
MAINTENANCE DREDGING AND EAST JETTY REPAIRS

SHEET ID

CN701

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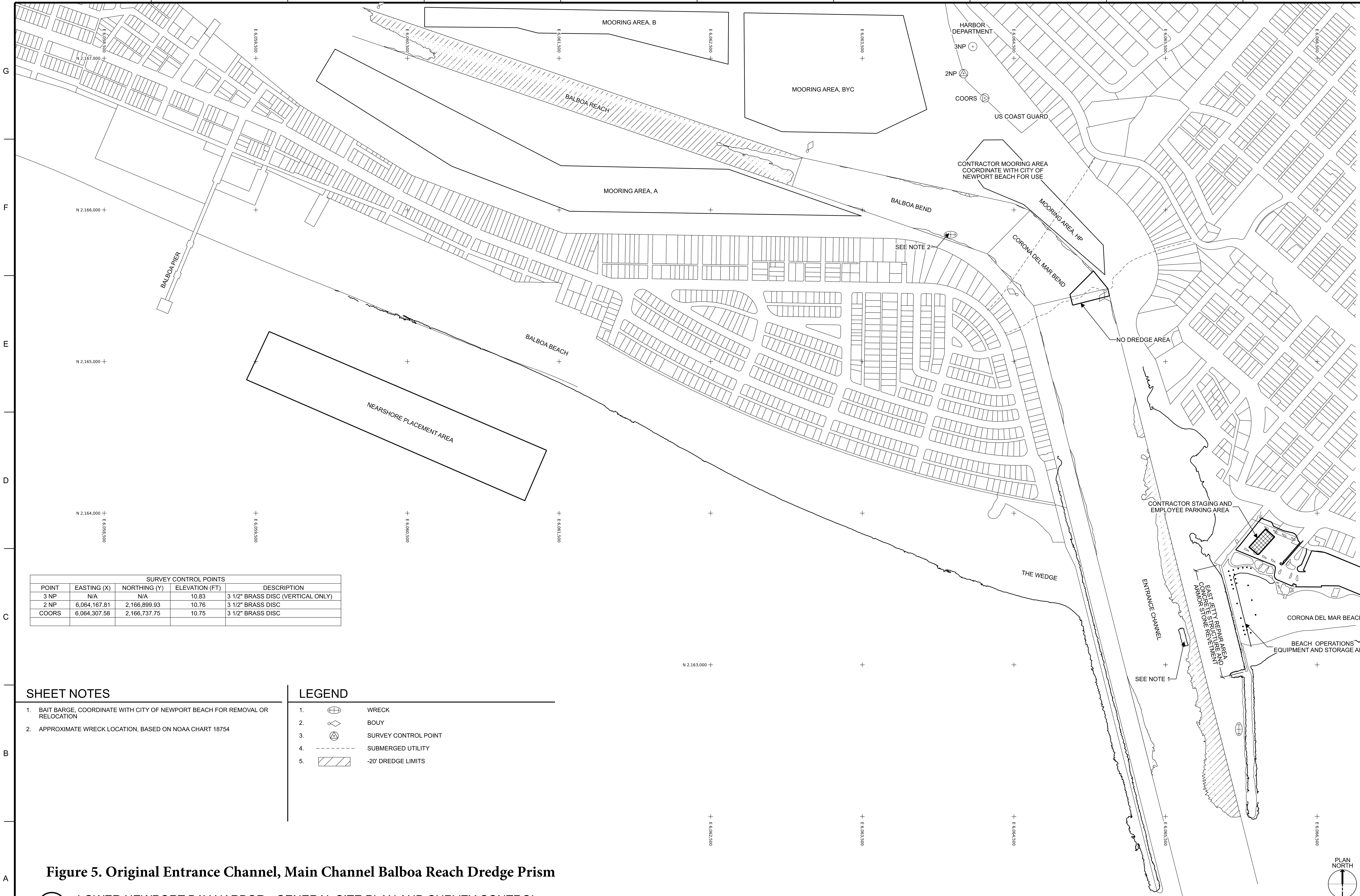

SURVEY CONTROL POINTS				
POINT	EASTING (X)	NORTHING (Y)	ELEVATION (FT)	DESCRIPTION
3 NP	N/A	N/A	10.83	3 1/2" BRASS DISC (VERTICAL ONLY)
2 NP	6,064,167.81	2,166,899.93	10.76	3 1/2" BRASS DISC
COORS	6,064,307.58	2,166,737.75	10.75	3 1/2" BRASS DISC

SHEET NOTES

1. BAIT BARGE, COORDINATE WITH CITY OF NEWPORT BEACH FOR REMOVAL OR RELOCATION
2. APPROXIMATE WRECK LOCATION, BASED ON NOAA CHART 18754

LEGEND

1. WRECK
2. BOUY
3. SURVEY CONTROL POINT
4. SUBMERGED UTILITY
5. -20' DREDGE LIMITS

Figure 5. Original Entrance Channel, Main Channel Balboa Reach Dredge Prism

A1 LOWER NEWPORT BAY HARBOR - GENERAL SITE PLAN AND SURVEY CONTROL

SCALE: 1" = 300'

US Army Corps of Engineers

U.S. ARMY CORPS OF ENGINEERS LOS ANGELES DISTRICT LOS ANGELES, CALIFORNIA

DESIGNED BY: C. HAYWARD | DRAWN BY: J.T. GOERTZ | CHECKED BY: J. RYAN | SUBMITTED BY: RONALD K. RIACH, P.E. | SIZE: ANSI D | CAD FILE 335593_CN101.dgn | ISSUE DATE: | SOLICITATION NO.: W912PL20B0011 | CONTRACT NO.: | FILE NAME I-823

MARK | DESCRIPTION | DATE

ORANGE COUNTY, CALIFORNIA NEWPORT BAY HARBOR MAINTENANCE DREDGING AND EAST JETTY REPAIRS

GENERAL SITE PLAN AND SURVEY CONTROL

SHEET ID CN101

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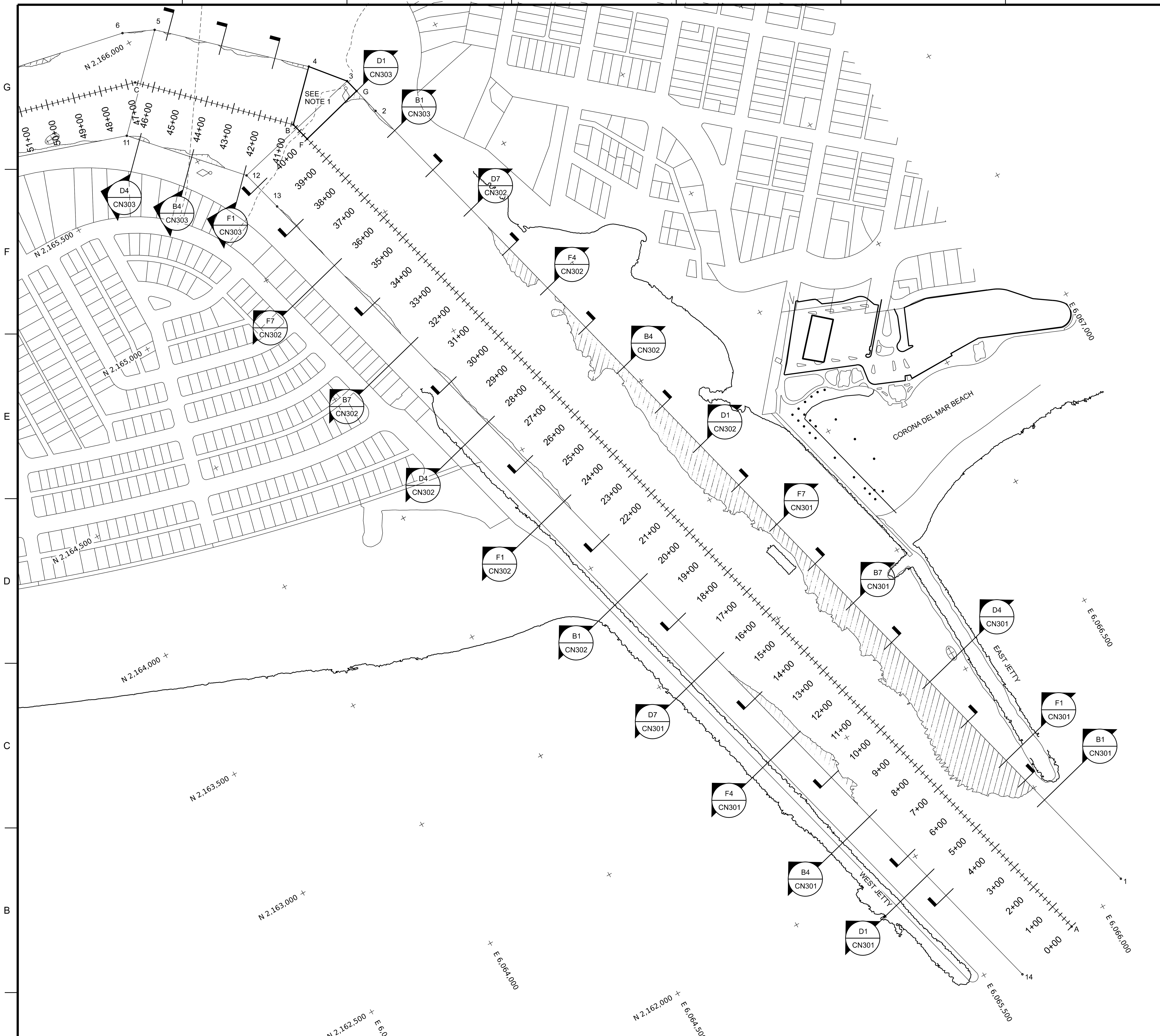

Figure 6. Original Entrance Channel Prism

A1 ENTRANCE CHANNEL AND CORONA DEL MAR BEND DREDGING PLAN

SCALE: 1"=200'

TABLE OF COORDINATES				
CHANNEL ALIGNMENT				
POINT	EASTING	NORTHING	STATION	SHEET
A	6065865.40	2161493.45	0+00.00	CN101
B	6064869.62	2165442.67	40+72.83	CN101
C	6064447.38	2165863.92	46+69.26	CN101, CN102
D	6063071.41	2166249.65	60+98.28	CN102
E	6060168.96	2167242.38	91+65.81	CN102

TABLE OF COORDINATES			
CHANNEL LIMITS			
POINT	EASTING	NORTHING	SHEET
1	6066107.81	2161554.57	CN101
2	6065154.29	2165336.21	CN101
3	6065118.83	2165481.97	CN101
4	6065024.42	2165597.83	CN101
5	6064604.93	2165994.57	CN101, CN102
6	6064497.54	2166042.84	CN101, CN102
7	6063102.14	2166344.83	CN102
8	6060201.32	2167337.00	CN102
9	6065622.99	2161432.33	CN102
10	6064669.46	2165213.97	CN102
11	6064629.67	2165367.54	CN101, CN102
12	6064324.00	2165711.03	CN101, CN102
13	6063037.42	2166155.59	CN101, CN102
14	6060136.60	2167147.76	CN101

TABLE OF COORDINATES		
NO DREDGE AREA		
POINT	EASTING	NORTHING
F	6064887.43	2165372.05
G	6065130.65	2165433.38
3	6065118.83	2165481.97
4	6065024.42	2165597.83
B	6064869.62	2165442.67

SHEET NOTES

1. NO DREDGE AREA DUE TO SUBSEA UTILITY, SEE TABLE FOR COORDINATES

LEGEND

1. WRECK
2. BOUY
3. SURVEY CONTROL POINT
4. SUBMERGED UTILITY
5. -20' DREDGE LIMITS

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DRAWN BY: J.T. GOERTZ
CHECKED BY: J. RYAN
SUBMITTED BY: RONALD K. RIACH, P.E.
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ISSUE DATE:
SOLICITATION NO.: W912PL20B0011
CONTRACT NO.:
FILE NAME I-824
CAD FILE 335593_CN102.dgn

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ENTRANCE CHANNEL DREDGING PLAN AND INDEX TO CROSS SECTIONS

SHEET ID CN102

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DQC DRAFT, JULY 1ST 2020

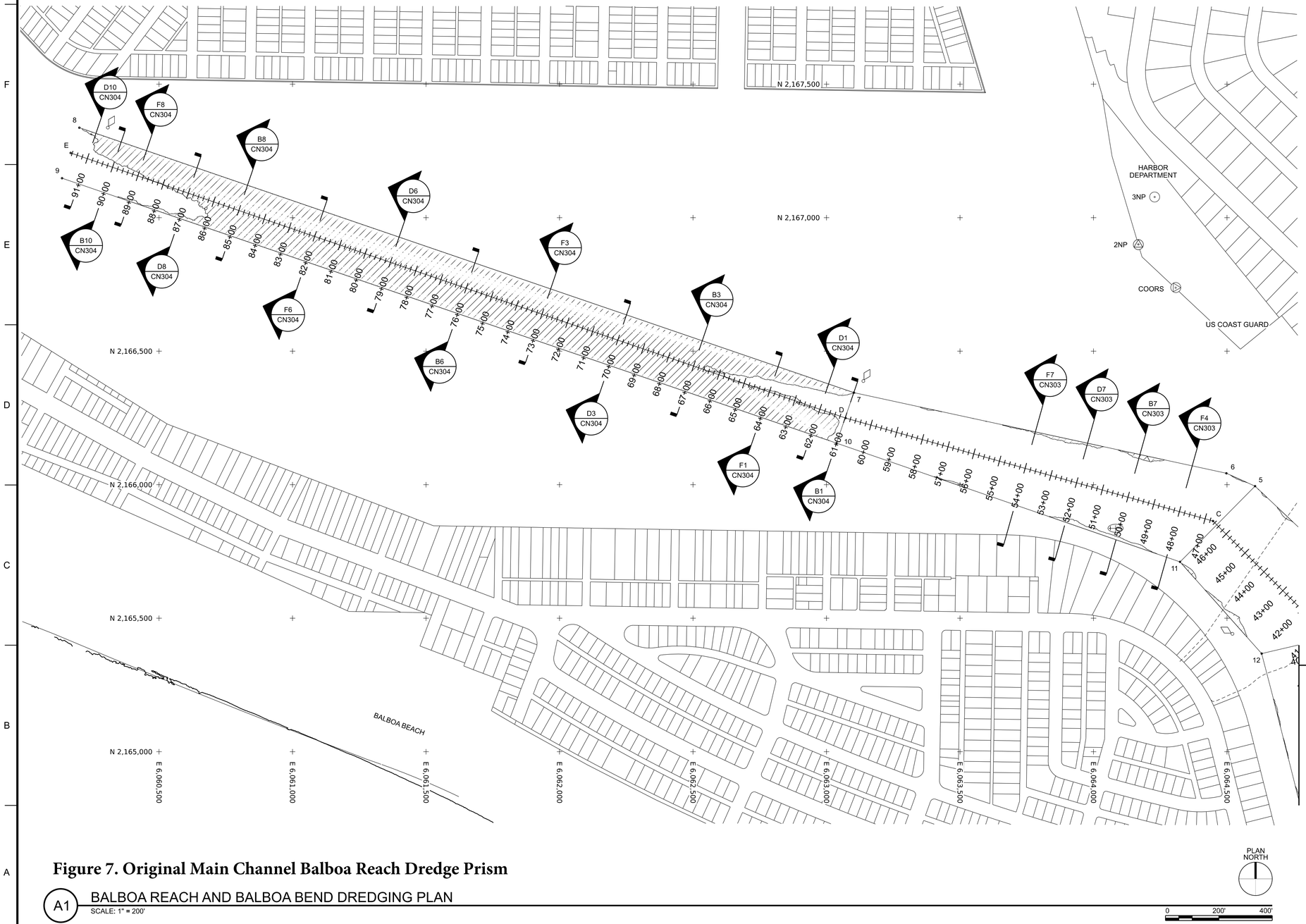

Figure 7. Original Main Channel Balboa Reach Dredge Prism

A1 BALBOA REACH AND BALBOA BEND DREDGING PLAN
SCALE: 1" = 200'

TABLE OF COORDINATES

CHANNEL ALIGNMENT

POINT	EASTING	NORTHING	STATION	SHEET
A	6065865.40	2161493.45	0+00.00	CN101
B	6064869.62	2165442.67	40+72.83	CN101
C	6064447.38	2165863.92	46+69.26	CN101, CN102
D	6063071.41	2166249.65	60+98.28	CN102
E	6060168.96	2167242.38	91+65.81	CN102

TABLE OF COORDINATES

CHANNEL LIMITS

POINT	EASTING	NORTHING	SHEET
1	6066107.81	2161554.57	CN101
2	6065154.29	2165336.21	CN101
3	6065118.83	2165481.97	CN101
4	6065024.42	2165597.83	CN101
5	6064604.93	2165994.57	CN101, CN102
6	6064497.54	2166042.84	CN101, CN102
7	6063102.14	2166344.83	CN102
8	6060201.32	2167337.00	CN102
9	6065622.99	2161432.33	CN102
10	6064669.46	2165213.97	CN102
11	6064629.67	2165367.54	CN101, CN102
12	6064324.00	2165711.03	CN101, CN102
13	6063037.42	2166155.59	CN101
14	6060136.60	2167147.76	CN101

LEGEND

1. WRECK
2. BOUY
3. SURVEY CONTROL POINT
4. SUBMERGED UTILITY
5. -20' DREDGE LIMITS

US Army Corps of Engineers®

MARK	DESCRIPTION	DATE

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DRAWN BY: J.T. GOERTZ
CHECKED BY: J. RYAN
SUBMITTED BY: RONALD K. ARACHI, P.E.
SIZE: ANSI D
ISSUE DATE:
SOLICITATION NO.: W912PL20B0011
CONTRACT NO.:
FILE NAME: 335593_CN103.dgn
SHEET: 1425

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NEWPORT BAY HARBOR
MAINTENANCE DREDGING AND EAST JETTY REPAIRS

BALBOA REACH DREDGING PLAN AND INDEX TO CROSS SECTIONS

SHEET ID
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