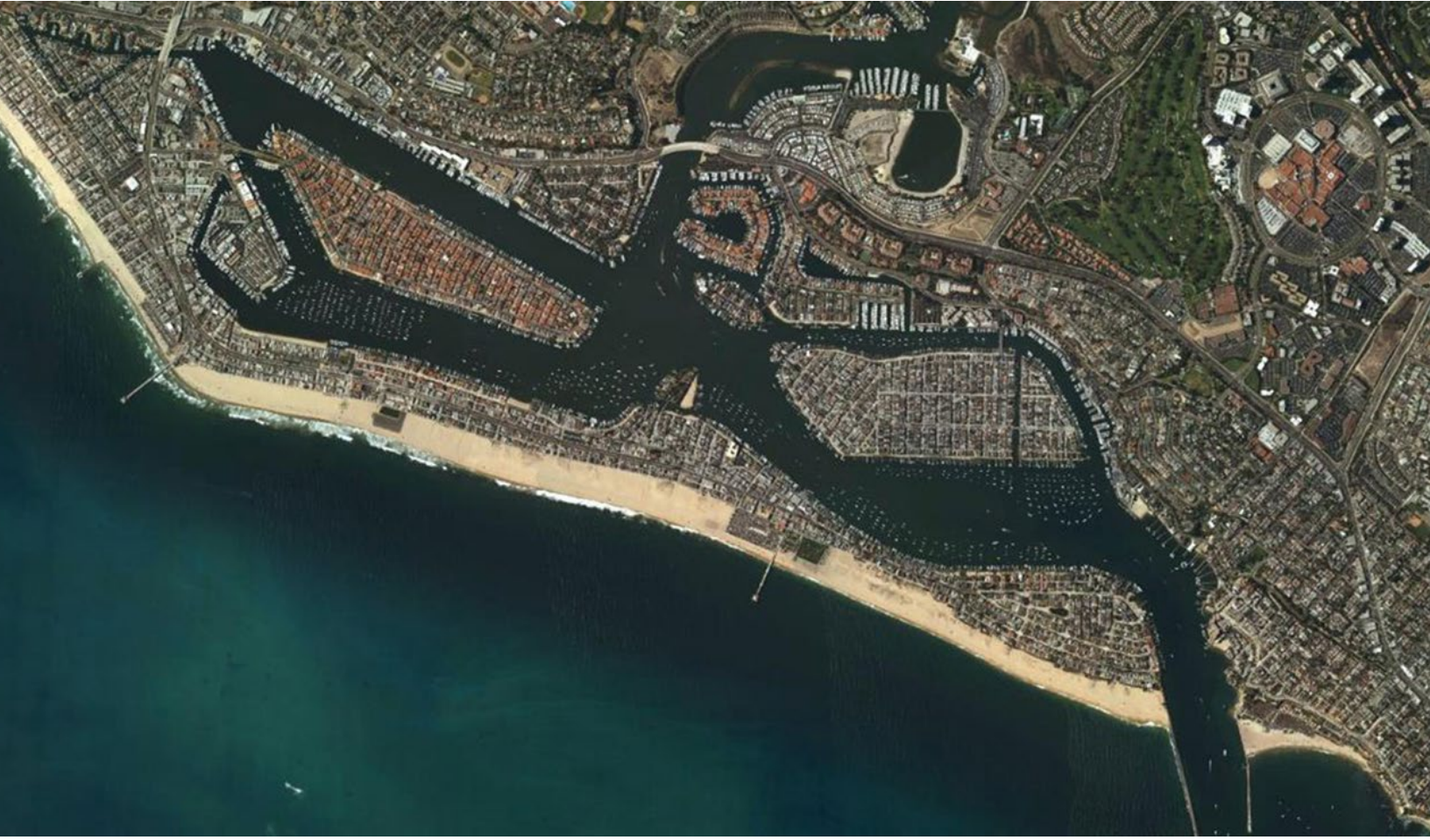

April 2021
Lower Newport Bay Confined Aquatic Disposal (CAD) Construction Project
(PA2019-020) State Clearinghouse Number: 2019110340

ANCHOR QEA

# Final Environmental Impact Report
# DRAFT

Prepared for the City of Newport Beach

April 2021
Lower Newport Bay Confined Aquatic Disposal (CAD) Construction Project (PA2019-020) State Clearinghouse Number: 2019110340

# Final Environmental Impact Report
# DRAFT

**Prepared for**
City of Newport Beach
Public Works Department
100 Civic Center Drive
Newport Beach, California 92660

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9700 Research Drive
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Project Number: 180243-02.01

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# ABBREVIATIONS

| | |
|---|---|
| µg/$m^3$ | microgram per cubic meter |
| µm | micron |
| AB | Assembly Bill |
| AHIP | Affordable Housing Implementation Plan |
| APST | Aboveground Petroleum Storage Tank |
| AQMP | Air Quality Management Plan |
| ARB | California Air Resources Board |
| Basin Plan | Santa Ana River Basin Water Quality Control Plan |
| BMP | best management practice |
| BODR | Basis of Design Report |
| CAA | Clean Air Act |
| CAAQS | California Ambient Air Quality Standards |
| CAD | Confined Aquatic Disposal |
| Cal/OSHA | California Division of Occupational Safety and Health |
| CalARP | California Accidental Release Prevention |
| CalEPA | California Environmental Protection Agency |
| Caltrans | California Department of Transportation |
| CAO | Cleanup and Abatement Order |
| CAPCOA | California Air Pollution Control Officers |
| CARB | California Air Resource Board |
| CCA | California Coastal Act |
| CCAA | California Clean Air Act |
| CCC | California Coastal Commission |
| CCR | California Code of Regulations |
| CDF | Confined Disposal Facility |
| CDFW | California Department of Fish and Wildlife |
| CDP | Coastal Development Permit |
| CEMP | California Eelgrass Mitigation Policy |
| CEQA | California Environmental Quality Act |
| CESA | California Endangered Species Act |
| CFR | Code of Federal Regulations |
| CGS | California Geological Survey |
| $CH_4$ | methane |
| CHRIS | California Historic Resources Information System |
| CHSC | California Health and Safety Code |
| City | City of Newport Beach |

| | |
|---|---|
| CLUP | Coastal Land Use Plan |
| CNDDB | California Natural Diversity Database |
| CNEL | community noise equivalent level |
| CNPS | California Native Plant Society |
| CO | carbon monoxide |
| $CO_2$ | carbon dioxide |
| $CO_2e$ | $CO_2$ equivalence |
| CRHR | California Register of Historical Resources |
| CSLC | California State Lands Commission |
| CSTF LTMS | *Los Angeles Contaminated Sediments Task Force: Long-Term Management Strategy* |
| CUPA | Certified Unified Program Agency |
| CWA | Clean Water Act |
| cy | cubic yard |
| dB | decibel |
| dBA | A-weighted decibel |
| DEIR | Draft Environmental Impact Report |
| DMMP | *Los Angeles Dredged Material Management Plan Feasibility Study, Baseline Conditions (F3) Report* |
| DMMT | Dredge Material Management Team |
| DOT | U.S. Department of Transportation |
| DPM | diesel particulate matter |
| DTSC | California Department of Toxic Substances Control |
| EA | Environmental Assessment |
| EAP | Energy Action Plan |
| EFH | essential fish habitat |
| EIR | Environmental Impact Report |
| EO | Executive Order |
| EOC | Emergency Operations Center |
| EOP | Emergency Operations Plan |
| EPA | Environmental Protection Agency |
| EPCRA | Emergency Planning and Community Right-to-Know Act |
| ESA | Endangered Species Act |
| FDA | U.S. Food and Drug Administration |
| Fed. Reg. | Federal Register |
| FEMA | Federal Emergency Management Agency |
| FGC | California Fish and Game Code |
| Final EIR | Final Environmental Impact Report |

| | |
|---|---|
| FMP | Fishery Management Plan |
| g | ground acceleration rate based on both probabilistic and deterministic seismic ground motion |
| GHG | greenhouse gas |
| GHG Rx | Greenhouse Gas Reduction Exchange |
| GWP | global warming potential |
| H:V | horizontal to vertical ratio |
| Harbor Patrol | Orange County Sheriff's Department Harbor Patrol-Marine Operations Bureau |
| HHW | higher high water |
| HLW | higher low water |
| HMMP | Hazardous Material Management Plan |
| HMTA | Hazardous Materials Transportation Act |
| HMTUSA | Hazardous Materials Transportation Uniform Safety Act |
| hp | horsepower |
| HRA | health risk assessment |
| HW | Hazardous Waste |
| IS | Initial Study |
| LA-3 | LA-3 Ocean Dredged Material Disposal Site |
| LCP | Local Coastal Program |
| LHW | lower high water |
| LLW | lower low water |
| MATES | Multiple Air Toxics Exposure Study |
| MBTA | Migratory Bird Treaty Act |
| mg/L | milligram per liter |
| MLLW | mean lower low water |
| MMPA | Marine Mammal Protection Act |
| MMRP | Mitigation Monitoring and Reporting Program (MMRP) |
| MND | mitigated negative declaration |
| MRZ-1 | Mineral Resource Zone 1 |
| MSA | Magnuson-Stevens Fishery Conservation and Management Act |
| MSDS | material safety data sheet |
| mty | metric tons per year |
| $N_2O$ | nitrous oxide |
| NAAQS | National Ambient Air Quality Standards |
| NAHC | Native American Heritage Commission |
| NCCP/HCP | Natural Community Conservation Plan/Habitat Conservation Plan |
| NEPA | National Environmental Policy Act |

| | |
|---|---|
| NHTSA | National Highway Traffic Safety Administration |
| NMFS | National Marine Fisheries Service |
| NNCPC | North Newport Center Planned Community |
| $NO_2$ | nitrogen dioxide |
| NOAA | National Oceanic and Atmospheric Administration |
| NOP | Notice of Preparation |
| $NO_X$ | nitrogen oxides |
| NPDES | National Pollutant Discharge Elimination System |
| NRHP | National Register of Historic Places |
| NTU | nephelometric turbidity unit |
| $O_3$ | ozone |
| ODMDS | ocean dredged material disposal site |
| OEHHA | Office of Environmental Health Hazard Assessment |
| OMMP | Operations, Maintenance, and Monitoring Plan |
| OPR | Governor's Office of Planning and Research |
| OSHA | Occupational Safety and Health Administration |
| PCB | polychlorinated biphenyl |
| PL | Public Law |
| PM | particulate matter |
| $PM_{10}$ | particulate matter less than 10 microns in diameter |
| $PM_{2.5}$ | particulate matter less than 2.5 microns in diameter |
| Porter-Cologne Act | Porter-Cologne Water Quality Control Act |
| ppm | parts per million |
| PPV | peak particle velocity |
| PRC | Public Resources Code |
| proposed Project | Lower Newport Bay Confined Aquatic Disposal Facility Construction Project |
| re 1 µPa | relative to 1 micropascal of pressure |
| RGP 54 | Regional General Permit 54 |
| ROG | reactive organic gases |
| RWQCB | Regional Water Quality Control Board |
| SB | Senate Bill |
| SCAB | South Coast Air Basin |
| SCAQMD | South Coast Air Quality Management District |
| sf | square feet |
| SIP | State Implementation Plan |
| SMCA | State Marine Conservation Area |
| SMP | Sediment Management Plan |

| | |
|---|---|
| $SO_2$ | sulfur dioxide |
| SPCC | Spill Prevention, Control, and Countermeasure |
| SMCA | State Marine Conservation Area |
| SR | State Route |
| STFATE | Short-Term Fate |
| SWRCB | State Water Resources Control Board |
| TAC | toxic air contaminant |
| TMDL | total maximum daily load |
| TPH | total petroleum hydrocarbon |
| TSS | total suspended solids |
| USACE | U.S. Army Corps of Engineers |
| USC | United States Code |
| USCG | U.S. Coast Guard |
| USEPA | U.S. Environmental Protection Agency |
| USFWS | U.S. Fish and Wildlife Service |
| USGS | U.S. Geological Survey |
| UST | Underground Storage Tank |
| VOC | volatile organic compound |
| WEC | Watershed Executive Committee |

# 1 Introduction

## 1.1 Final Environmental Impact Report Purpose and Organization

This Final Environmental Impact Report (Final EIR) was prepared in compliance with the California Environmental Quality Act (CEQA; Public Resources Code [PRC] Division 13, Section 21000 et seq.) and the CEQA Guidelines (14 California Code of Regulations [CCR] 15000 et seq.) to assist the City of Newport Beach (City) in considering the approval of the proposed Lower Newport Bay Confined Aquatic Disposal (CAD) Facility Construction Project (PA2019-020), hereafter referred to as the proposed Project, in accordance with 22 California Code of Regulations (CCR) Section 66265 et seq. Under the proposed Project, the City would construct a CAD facility in the central portion of Lower Newport Bay between Bay Island, Lido Isle, and Harbor Island where dredged sediment unsuitable for open ocean disposal or nearshore placement can be contained. Clean material suitable for beach nourishment generated from constructing the CAD facility will be transported and disposed of at an approved open ocean disposal site (LA-3 Ocean Dredged Material Disposal Site) or along the nearshore ocean beaches. The City is also proposing to allow maintenance dredging in sections of the Harbor outside the Federal Channels maintenance dredging program area to re-establish safe navigation.

> *This document, in conjunction with the Draft Environmental Impact Report (DEIR), collectively constitutes the Final Environmental Impact Report. The DEIR remains available on https://www.newportbeachca.gov/harbordredging*

This Final EIR will support the permitting process of all agencies whose discretionary approvals must be obtained for particular elements of the proposed Project. The Final EIR is intended to provide decision-makers and the public with the most up-to-date information available regarding the proposed Project, required mitigation measures, and alternatives.

### *1.1.1 FEIR Purpose*

The purpose of an Environmental Impact Report (EIR) is to inform decision-makers and the general public of the potential environmental impacts resulting from a project, as well as the mitigation measures or alternatives that would avoid or minimize identified significant impacts. The City has the principal responsibility for approving the proposed Project and, as the CEQA lead agency, is responsible for the preparation and distribution of this FEIR pursuant to PRC 21067. The Final EIR will be used by the City and other responsible agencies in conjunction with all approvals necessary for the implementation of the proposed Project.

This document, in conjunction with the Draft Environmental Impact Report (DEIR), collectively constitutes the Final EIR. As described in CEQA Guidelines Sections 15089, 15090, and 15132, the

lead agency must prepare and consider the information contained in a Final EIR before approving a project. Pursuant to CEQA Guidelines Section 15132, a Final EIR comprises the following materials:

- The DEIR or a revision of the DEIR
- Comments and recommendations received on the DEIR
- A list of persons, organizations, and public agencies commenting on the DEIR

### *1.1.2 Final Environmental Impact Report Organization*

Section 1 presents background and introductory information for the proposed approval and implementation of the proposed Project. Section 2 presents information regarding the distribution of and comments received on the DEIR, as well as the responses to all comments received during the public comment period. Section 3 presents a description of modifications to the DEIR.

### *1.1.3 California Environmental Quality Act Baseline*

CEQA Guidelines Section 15125 requires that an EIR include a description of the physical environmental conditions in the vicinity of the proposed Project as they exist at the time the Notice of Preparation (NOP) is published, or if no NOP is published, at the time the environmental analysis is commenced, from both a local and regional perspective. These environmental conditions are referred to as the Environmental Setting. Further, CEQA Guidelines Section 15125(a) states that "the environmental setting normally constitutes the baseline physical conditions by which a Lead Agency determines whether an impact is significant." The CEQA baseline is the set of conditions that prevail at the time this NOP is circulated.

#### 1.1.3.1 Environmental Setting

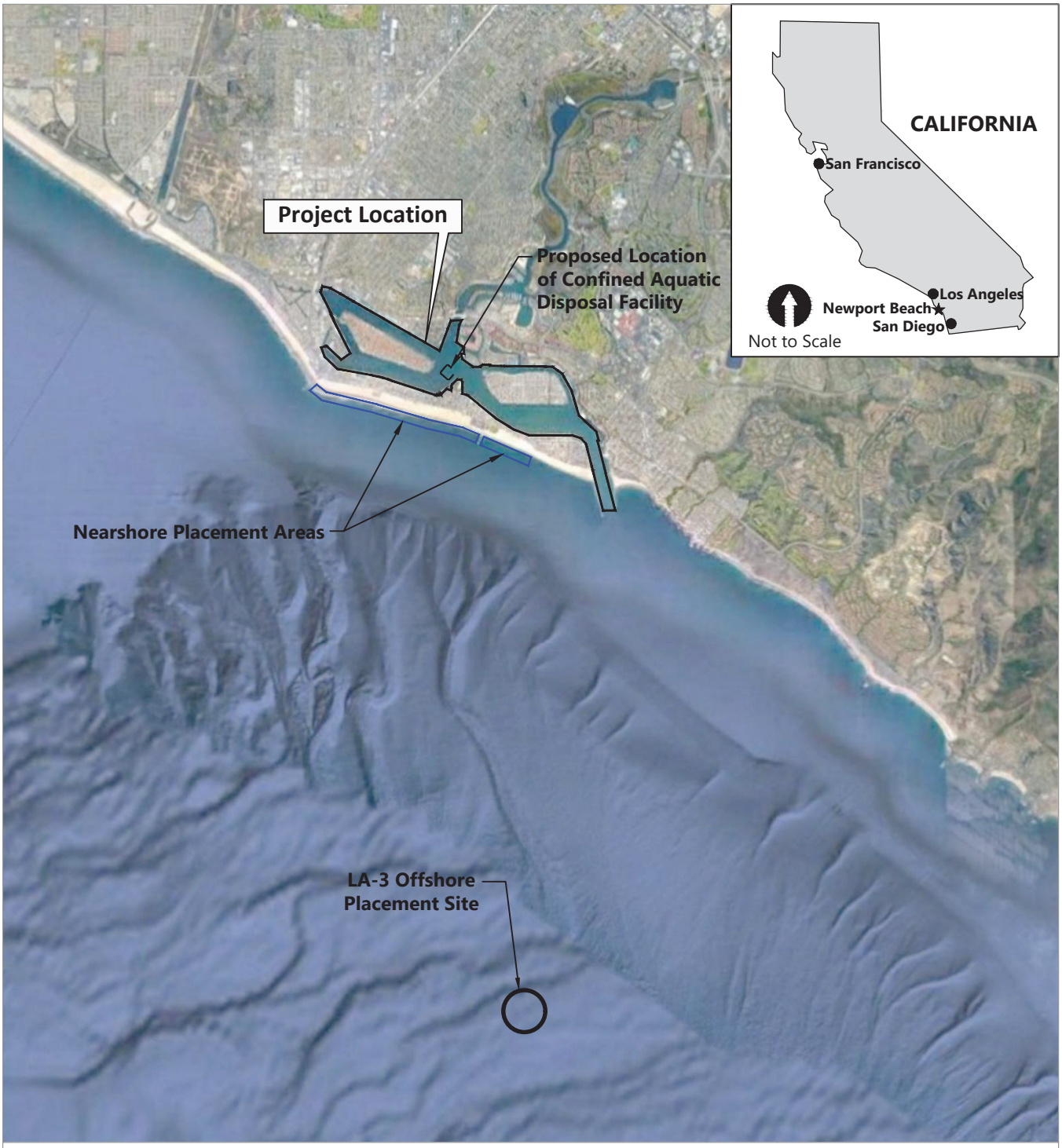
The proposed Project area is located in the City of Newport Beach, Orange County, California (Figure 1-1). The City is located at the western edge of Orange County, adjacent to the Pacific Ocean. It is a charter city with approximately 87,182 residents that is bordered by Costa Mesa to the northwest, Huntington Beach to the west, Irvine to the northeast, Laguna Beach to the south, and unincorporated portions of Orange County to the southeast.

> *Newport Bay is the coastal body in which Newport Harbor was developed. The Harbor was developed in the early 1900s. The Bay is often discussed in context of location, with the Upper Bay referring to the area north of the Highway 1 Bridge which includes the Upper Newport Bay State Marine Conservation Area (SMCA), and Lower Bay synonymous with Newport Harbor. The Federal Channels are the main navigation channels and include the Entrance Channel.*

The proposed Project will occur within the Lower Harbor and offshore waters (Figure 1-1). Upon entering the Lower Harbor from the Pacific Ocean, the Main Channel runs the 3-mile length of the Lower Harbor, down the inside of the Balboa Peninsula, and among the seven harbor islands that make up several residential communities and villages of the City. The Coast Highway Bridge serves as

the unofficial boundary of the Lower Harbor and Upper Harbor (i.e., Upper Bay). The Lower Harbor is a small craft harbor offering a wide range of recreational boating activities ranging from single-person kayaks to larger sailing and motor vessels capable of transocean navigation. Local beachfront and harbor-front communities support water-use recreational services.

The location of the proposed CAD facility and non-federal maintenance dredging (shaded yellow) is shown in Figure 1-2.




**SOURCE**: Image from Bing maps.
**HORIZONTAL DATUM**: California State Plane, Zone 6, NAD83
**VERTICAL DATUM**: Mean Lower Low Water (MLLW)

**Approximate Project Location:**
33° 36.540', 117° 54.230'

0 1.5
Miles

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Filepath: K:\Projects\0243-City of Newport Beach\Federal Channel\0243-RP-024 EIR VIC MAP.dwg Figure ES-1

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**Figure 1-1**
**Project Site and Vicinity**

Draft Environmental Impact Report
Lower Newport Harbor Confined Aquatic Disposal (CAD) Construction Project (PA2019-020)


**SOURCE**: Drawing prepared from Bing maps. Bathymetric contours from U.S. Army Corps of Engineers survey dated June 2017. Dredge units from U.S. Army Corps of Engineers.
**HORIZONTAL DATUM**: California State Plane, Zone 6, NAD83
**VERTICAL DATUM**: Mean Lower Low Water (MLLW)

**LEGEND:**

- Authorized Federal Channel Limits and Dredge Unit Boundaries
- (-20) Authorized Depth
- —10— Existing Bathymetry
- Dredged Material Not Suitable for Open Ocean or Nearshore Disposal
- Dredged Material Suitable for Open Ocean or Nearshore Disposal
- Proposed Confined Aquatic Disposal Facility
- Nearshore Placement Area

0 1,800
Feet

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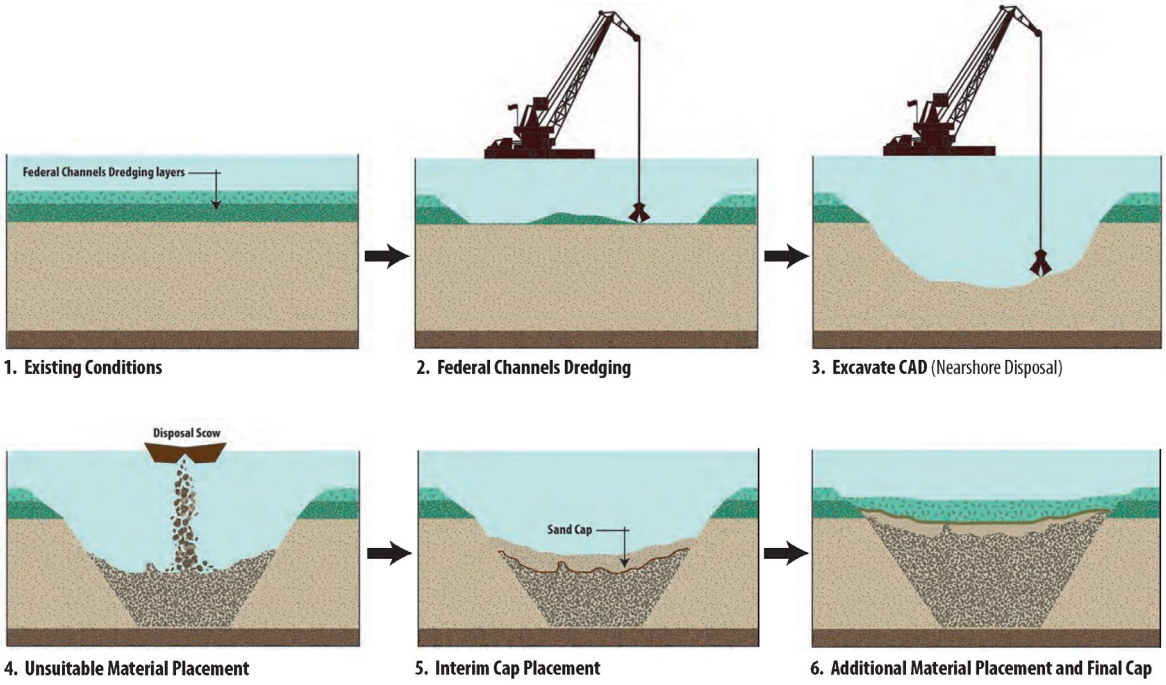
**Figure 1-2**
**Federal Channels Maintenance Dredging Sediment Suitability Map**

Draft Environmental Impact Report
Lower Newport Bay Confined Aquatic Disposal (CAD) Construction Project (PA2019-020)

**Figure 1-3**
**CAD Facility Construction Overview**




## *1.1.4 Project Purpose and Objectives*

The fundamental underlying purpose of the proposed Project is to provide a safe, efficient, and effective dredged material management option that allows for navigation maintenance dredging to proceed while protecting the marine environment and recreational users of the Lower Harbor.

Additional project objectives are as follows:

- Identify a disposal location for dredged material deemed unsuitable for open ocean disposal that meets the following requirements:
  - Contains chemically impacted sediment safely and permanently
  - Is located within the southern California area and is available for disposal
  - Accommodates a small volume of dredged material from outside the Federal Channels
- Dispose of unsuitable dredged sediment in a manner that is safe to human and ecological health and minimizes secondary environmental impacts.
- Promote beneficial reuse through beach nourishment.
- Dredge limited areas outside the Federal Channels.

## 1.2 Project Description

Newport Harbor is one of the largest recreational harbors in the United States. Natural processes result in the movement and accumulation of sediment in Lower Newport Bay from Upper Newport Bay, which must be dredged periodically by the U.S. Army Corps of Engineers (USACE) to maintain channel depth for safe navigation in the Harbor. USACE and the City conduct surveys to determine the need for federal dredging and to determine the sediment characteristics for disposal options. The most recent sediment sampling effort, in 2018 and 2019, determined that most dredged material is suitable for disposal at a permitted ocean disposal location or can be used to nourish the adjacent beaches. However, dredging in the main Federal Channel and channel offshoots will expose some sediment that is deemed unsuitable for ocean disposal and therefore requires an alternate management location.

To manage the unsuitable material, the City proposes constructing a CAD facility in the central portion of the Lower Harbor between Bay Island, Lido Isle, and Harbor Island where dredged sediment unsuitable for open ocean disposal or nearshore placement can be contained (Figure 1-3). Clean material suitable for beach nourishment generated from constructing the CAD facility will be transported for disposal at an approved open ocean disposal site or along the nearshore ocean beaches. The City is also proposing to use the CAD facility to accommodate sediment from maintenance dredging in sections of Newport Harbor outside the Federal Channels to re-establish safe navigation under and adjacent to private, public, and commercial docks, floats, and piers.

Potential CAD facility locations were selected based on preliminary feedback from the City's Harbor Commissioners. The Harbor Commissioners recommended siting the CAD facility adjacent to or within locations where sediment was determined to be unsuitable and will require placement in the CAD facility. Although the recommendation was integral to the siting process, other factors were evaluated including the following: 1) analyses of geotechnical data to demonstrate compliance with current engineering standards and practices; 2) the suitability of the excavated material for beneficial reuse; 3) feasibility to design and construct the CAD based on the volume of sediment to be managed; 4) logistics during construction; 5) disruption to existing harbor moorings and anchorages; and 6) public outreach. In addition, the proposed CAD location is in a central area, thereby reducing overall transit distances for dredged sediments and providing access for deeper water that will enable the barges to be filled to their capacity. This in turn will reduce construction duration, costs, and air quality/greenhouse gas emissions that would otherwise result from increased barge travel and tugboat operations.

> *A CAD facility is a depression in an aquatic seafloor used to contain and store sediment. Figure 1-3 presents an overview of construction.*

### 1.2.1 Need for Dredging

Lower Newport Bay requires periodic maintenance dredging to remove sediment that accumulates over time and impedes navigation and full use of the Harbor. Lower Newport Bay was last dredged between May 2012 and January 2013, when 600,000 cubic yards (cy) of sediment were removed. Based on USACE harbor-wide bathymetric surveys in 2018, sedimentation has occurred in many areas of Lower Newport Bay.

USACE is proposing to dredge the Federal Channels to the currently authorized design depths as part of the Federal Channels maintenance dredging program authorized by the Rivers and Harbors Act of 1937 (maintenance) and 1945, modified by the Water Resources Development Act of 1986. In preparation for dredging in Lower Newport Bay, sediment sampling was conducted in 2018 and 2019 to determine the suitability of the sediments requiring removal during the Federal Channels maintenance dredging program. The study found that most of the sediments would be approved for open ocean disposal. However, due to elevated concentrations of polychlorinated biphenyls (PCBs) and/or mercury, the Turning Basin and portions of Main Channel 1 and 2 and Newport Channel 1 were deemed not suitable for open ocean disposal.

> *Technical support for the design and operation of the CAD facility is included in the Basis of Design Report (Anchor QEA 2020a) summarized in this DEIR and available at: https://www.newportbeachca.gov/government/departments/community-development/planning-division/projects-environmental-document-download-page/environmental-document-download-page*

### 1.2.2 Project Construction

Material will be dredged from the Federal Channels to maintain authorized navigational depths. Material in portions of Main Channel North 1 and 2, Turning Basin, and Newport Channel 1 is unsuitable for open ocean disposal. Dredging would be accomplished primarily via mechanical dredge with disposal from a split-hull barge.

The CAD facility is being constructed to accommodate approximately 106,900 cy of unsuitable dredged material anticipated to be generated by the Federal Channels maintenance dredging program and an additional 50,000 cy resulting from maintenance dredging primarily of unsuitable material from outside the Federal Channels, for a total of 156,900 cy. Clean material excavated during construction of the CAD facility will be transported to, and disposed along, the nearshore ocean beaches or transported to LA-3 for open ocean disposal.

CAD facility construction will likely occur using mechanical equipment and bottom-dump barges (also called a dump scow) to excavate the depression and deposit the resulting material within the nearshore zone along the ocean beaches of Newport Beach. Following construction of the CAD facility, unsuitable sediment will be dredged using mechanical equipment and placed within the CAD

facility using a bottom-dump barge. During the time that the CAD facility is open (i.e., during placement of the unsuitable material in the CAD facility), the City and its residents will have an initial opportunity to place material dredged from outside the Federal Channels into the CAD facility. This activity will be permitted through either the City's Regional General Permit 54 (RGP 54) or through an Individual Permit depending on the scope of work.

Sediment within the CAD facility will then be covered with clean sediment dredged from the remainder of the Federal Channels as part of USACE's maintenance dredging program. This clean sediment will serve as an interim cover containment layer to isolate the unsuitable material placed as part of Federal Channels maintenance dredging.

Approximately 2 years following completion of construction of the CAD facility and placement of an interim cover containment layer, there will be a second opportunity during a 6-month period for the City and its residents to place material determined unsuitable for open ocean disposal in the CAD facility. The combined total allowance for the initial and second opportunity will be 50,000 cy of unsuitable material. If there is remaining capacity (within this 50,000 cy allowance) at the end of the 6-month period, the City and its residents will be able to place material from the RGP 54 Plan Area determined suitable for open ocean disposal in the CAD facility. This opportunity will provide a more cost-effective and convenient disposal location within the Lower Harbor and will bolster the CAD facility's final cap layer.

At the end of the second 6-month placement period for the public and the City, the final cap layer will be placed in the CAD facility by the City to chemically isolate the underlying sediments from burrowing organisms and biota residing in the overlying water column. This clean sediment final cap layer has been designed to a thickness of 3 feet (or 33,600 cy) of additional sediment sourced by the City. This layer will likely consist of undredged suitable material within Newport Channel 3. Other sources of sediment to be considered include future dredging at the Entrance Channel, sediment dredged under the City's RGP 54 program, and maintenance dredging at the Santa Ana River as a contingency.[1]

The final elevation of the CAD facility infill will be restricted to an elevation that is at or below the water depths necessary for navigation within the Lower Harbor.

## 1.3 Regulatory

USACE is responsible for National Environmental Policy Act (NEPA) compliance for the Federal Channels maintenance dredging component of the proposed Project. In September 2020, USACE

[1] If the City identifies additional sources for the final cap layer, material will require testing and confirmation that the sourced material meets the performance criteria of sediment tested and modelled as part of the BODR (Appendix C).

released the *Final Environmental Assessment for Lower Newport Bay Maintenance Dredging Project* (EA; USACE 2020) to support a portion of the dredging which includes the Entrance Channel extending to the first section of the Main Channel, and which is not reliant on the CAD facility. USACE will need to supplement this EA to support dredging in the rest of the Main Channel and channel offshoots, as described in the Final EIR. As the lead federal agency and part of the Federal Channels maintenance dredging program, USACE has assumed responsibility for coordinating with resource agencies such as the National Marine Fisheries Service (NMFS) and California Department of Fish and Wildlife (CDFW) and for ensuring compliance with requirements of statutes such as the Endangered Species Act (ESA) and the Magnuson-Stevens Fishery Conservation and Enhancement Act (MSA). USACE will also obtain a federal Consistency Determination from the California Coastal Commission (CCC) to satisfy requirements of the Coastal Zone Management Act and a Clean Water Act (Section 401) water quality certification from the Santa Ana Regional Water Quality Control Board (RWQCB). In addition, a review under 33 United States Code Section 408 (Section 14 of the Rivers and Harbors Act of 1899, as amended) will be required for approval of any proposed activity that might interfere with, injure, or impair the use of a river or harbor improvement project. This approach furthers USACE's interest, expressed throughout the Rivers and Harbors Act of 1899, in protecting the navigability of United States waters by prohibiting the use or alteration of navigation or flood control works where contrary to the public interest or where doing so would impair those works' usefulness. USACE has also assumed the lead role in addressing cultural and historic resource issues, including requirements of Section 106 of the National Historic Properties Act. The identification, design, permitting, and construction of an alternate disposal location is the responsibility of the City as the local sponsor and is assessed in this Final EIR.

Maintenance dredging in most areas of Newport Harbor outside the Federal Channels is authorized by Regional General Permit 54 (RGP 54), which was issued to the City by the USACE and Santa Ana RWQCB in 2020, and the CCC in 2015; it is currently anticipated that the CCC permit will be reauthorized prior to November 2021.

Identification, design, permitting, and construction of an alternate disposal location is the responsibility of the City as the local sponsor. However, several aspects of the proposed Project require permitting from other regulatory agencies. Following completion of the EIR, the City will submit the following permit applications to the specified agencies:

- Coastal Development Permit: The CCC is the agency responsible for this permit.
- Clean Water Act Section 401 Water Quality Certification: This certification is required by the Santa Ana RWQCB.
- Surface Lease Agreement: This agreement from the California State Lands Commission (CSLC) may be required.

Under CEQA Guidelines Section 15086, lead agencies must consult with, and request comments on, a draft Environmental Impact Report (EIR) from public agencies that are responsible agencies; trustee agencies with resources affected by the project; and any state, federal, or local agency that has jurisdiction by law with respect to the project or that exercises authority over resources that may be affected by the project as follows:

- **Responsible Agency**: A responsible agency is a public agency that proposes to carry out or approve a project for which a lead agency is preparing or has prepared an EIR or a Negative Declaration. For the purposes of CEQA, the term "responsible agency" includes all public agencies other than the lead agency that have discretionary approval authority over a project (CEQA Guidelines Section 15381).
- **Trustee Agency**: A trustee agency is a state agency that has jurisdiction over natural resources affected by a project that are held in trust for the people of the state of California (CEQA Guidelines Section 15386). Trustee agencies include the following: 1) The California Department of Fish and Wildlife (CDFW), regarding fish and wildlife, native plants designated as rare or endangered, game refuges, and ecological reserves; 2) The California State Lands Commission (CSLC), regarding state-owned "sovereign" lands such as the beds of navigable waters and state school lands; 3) The California Department of Parks and Recreation, regarding units of the state park system; and 4) The University of California, regarding sites in the Natural Land and Water Reserves System.

Table 1-1 summarizes the regulatory agencies with potential oversight of the proposed Project and their statutory authority as it relates to the proposed Project.

**Table 1-1**
**Regulatory Agencies and Authority Applicable to the Proposed Project**

| Regulatory Agency | Jurisdiction | Statutory Authority/Implementing Regulations |
|---|---|---|
| U.S. Army Corps of Engineers | N/A | Lead Federal Agency for Federal Channels dredging. Reviews and authorizes confined aquatic disposal under Section 404 of the Clean Water Act, Section 10 of the Rivers and Harbors Act, and Section 103 of the Marine Protection, Research and Sanctuaries Act; subject to NEPA<br>Additionally, pursuant to 33 United States Code 408 (Section 14 of the Rivers and Harbors Act of 1899, as amended), review under Section 408 is required for any proposed activity that might interfere with, injure, or impair the use of a river or harbor improvement project. This approach furthers the USACE's interest, expressed throughout the Rivers and Harbors Act of 1899, in protecting the navigability of United States waters by prohibiting the use or alteration of navigation or flood control works where contrary to the public interest or where it would impair those works' usefulness |

| Regulatory Agency | Jurisdiction | Statutory Authority/Implementing Regulations |
|---|---|---|
| National Oceanic and Atmospheric Administration | N/A | Ensure compliance with the Endangered Species Act and Magnuson-Stevens Fishery Conservation and Management Act; subject to NEPA. |
| National Marine Fisheries Service | | |
| U.S. Navy | | |
| **State Agencies** | | |
| California State Lands Commission | Trustee Agency | Reviews dredging and dredged material disposal activities in state tidelands and would oversee development of the CAD facility.<br>The CSLC would consider the City's EIR in consideration of issuing the Surface Lease Agreement. |
| California Coastal Commission | Responsible Agency | The CCC would reviews the EIR to ensure compliance with the Coastal Zone Management Act and consistency with the California Coastal Act. The CCC would perform a federal Consistency Determination in support of federal dredging. The CCC would consider the City's EIR in consideration of issuing a Coastal Development Permit for the CAD and beach nourishment upon project approval by the City. |
| California Department of Fish and Wildlife | Trustee Agency | Reviews and submits recommendations in accordance with the California Environmental Quality Act; the City will consult with California Department of Fish and Wildlife in accordance with the Fish and Wildlife Coordination Act |
| **Local Agencies** | | |
| Santa Ana Regional Water Quality Control Board | Responsible Agency | The RWQCB is the permitting authority for water quality, reviews proposed Project for authorization under the Porter-Cologne Water Quality Control Act, Waste Discharge Requirements, and Clean Water Act Section 401 State Certification of Water Quality and Section 402: National Pollutant Discharge Elimination System Permit<br><br>An application for reauthorization of RGP 54 was submitted to the Santa Ana RWQCB on November 27, 2019.The Santa Ana RWQCB responded to the application in mid-January 2019, requesting a more detailed analysis under CEQA for sediment dredged under the RGP 54 and disposed in the CAD facility, and therefore that component will be included in this DEIR (Section 2.3.2.1). The RGP 54 would be amended assuming certification of this DEIR. |

## 1.4 Project Alternatives

CEQA's requirements for an EIR to evaluate alternatives specifically requires that an EIR present a range of reasonable alternatives to a proposed project, or to the location of a project, that could feasibly attain most of the basic project objectives but would avoid or substantially lessen any significant effects of a project. Therefore, alternatives generally have fewer environmental impacts than the proposed project by design. Pursuant to Section 15126.6(e)(2) of the CEQA Guidelines, an

EIR must also include an analysis of a No Project Alternative. Sections 1.4.1 through 1.4.3 present brief descriptions of the alternatives to this proposed Project that were carried forward for analysis in the DEIR.

## *1.4.1 Alternatives Considered but Eliminated*

Several alternatives were considered during preparation of the DEIR. This section presents the alternatives considered but eliminated from further discussion and includes the rationale for eliminating these alternatives from further detailed analysis.

- **Use of an Electric Dredger**: Several public comments were received during scoping that requested the DEIR to consider a using an electric dredger. This analysis also considered emission controls for dredge equipment, namely an electric dredger. While an electric dredger could reduce emissions, electric dredge equipment would not be available or practical for use in the Lower Harbor. Use of an electric cable to power equipment operating in the actively navigated Lower Newport Bay is neither practical due to the electric cable nor advisable because the cable could create a navigational and safety hazard.
- **Disposal of Material at Port Fill Site**: Under this scenario, the unsuitable material would be disposed at a port fill site, similar to the last dredging event in 2012 and 2013, when approximately 120,000 cy of unsuitable sediment was placed at the Port of Long Beach's Middle Harbor Fill Site. The remaining sediment was placed at LA-3. The Port of Long Beach Middle Harbor Fill site was constructed and is no longer available to receive unsuitable material. Additionally, there are no other available fill site options for the City to use to manage unsuitable material. Therefore, this alternative disposal location is being dismissed from further analysis because there are no sites within the region currently being considered.

## *1.4.2 Alternatives Carried Forward for Analysis*

Through the alternative process, the proposed Project and two other alternatives were found to meet most of the objectives. In addition, CEQA requires an EIR to consider the No Project Alternative. The four alternatives to the proposed Project were carried forward for impact analysis in the DEIR. Sections 1.4.2.1 through 1.4.2.5 summarize these alternatives.

### 1.4.2.1 Alternative 1: No Project Alternative (No Dredging)

The No Project Alternative analyzes what would be expected to occur if the proposed Project were not approved. Under the No Project Alternative, dredging of unsuitable material within the Federal Channels or City-managed locations outside of the Federal Channels would not occur, and the CAD facility would not be constructed. As such, chemically impacted materials would remain in place in an unconfined manner. Navigation would continue to be impaired, and the Lower Harbor would continue to experience reduced tidal flushing due the shallower water depths. Not constructing the CAD facility would mean that beach nourishment would not occur, and as a result, coastal erosion

could be exacerbated. By not removing these sediments and instead allowing them to remain within the Federal Channels and other areas of Lower Newport Bay where they could be resuspended by vessel activities, the No Project Alternative does not minimize potential risks to the aquatic biota or people that recreate within the Lower Harbor. Chemicals in the environment are typically only able to cause impacts when they are mobilized within the water column through resuspension or when they diffuse into the water from the upper layers of the sediment. The proposed Project would seek to relocate the impacted sediments into a deep hole (CAD facility), which would eliminate those potential risks for future exposures. One of the added benefits of constructing the CAD facility for material disposal is that the underlying sediments in the target location for the CAD facility contain clean, high-quality, beach sand, which can be used to nourish the adjacent ocean shoreline. This benefit would be eliminated under the No Project Alternative

#### 1.4.2.2 Alternative 2: No CAD Construction

Alternative 2 includes dredging of unsuitable material, but no CAD construction. Under the No CAD Construction Alternative, any dredged sediment deemed unsuitable for open ocean disposal would be dewatered and trucked to a permitted upland landfill facility. Because the CAD facility would not be constructed, clean material suitable for beach nourishment generated from constructing the CAD facility would not be transported and disposed at an approved open ocean disposal site or along the nearshore ocean beaches. The City would allow maintenance dredging in sections of the Lower Harbor outside the Federal Channels to re-establish safe navigation under this alternative.

#### 1.4.2.3 Alternative 3: Reduced Dredging

Under this scenario, less dredging would occur (likely in Newport Channel), and the CAD facility would be constructed but with a smaller footprint. Because the CAD facility would be smaller, less suitable material would be available for beach nourishment. All impacts that would occur as part of the proposed Project would likely occur under this reduced project scenario, except air and GHG emissions would likely be less because dredging and construction equipment use would be reduced. Under this scenario, however, there would be impacts to navigation in the areas where dredging would not occur.

#### 1.4.2.4 Alternative 4: Upland Trucking of Material

Under this scenario, the same amount of dredging would occur, and the CAD facility would be constructed but with a smaller footprint. It is assumed that approximately half of the material to be deposited in the CAD facility would instead be trucked to an upland disposal facility (similar to Alternative 2). The overall construction schedule would likely increase as the CAD facility would require a similar construction schedule and equipment list. A new construction element to dewater and transport a portion of the material by truck would be added. Under this scenario, all impacts that would occur as part of the proposed Project would likely occur, with several resource areas likely to have more impacts. Air and GHG emissions would increase because construction equipment uses

and added emissions from truck trips would occur. Air emissions may also be located closer to sensitive receptors during upland construction elements and truck trips. Increased noise impacts may occur, and the staging area for dewatering and truck transfer may be located closer to residential and other sensitive receptors.

#### 1.4.2.5 Alternative 5: Other CAD Facility Locations Within Newport Harbor

Alternative 5 includes an analysis of alternate locations in the Lower Harbor for the potential CAD facility. The following three alternate potential locations within Lower Newport Bay are being evaluated: Turning Basin, Newport Channel 1, and adjacent to Main Channel 1. In reviewing the alternate locations, factors such as availability of existing sediment data, review of historic bathymetric surveys to understand the rate of sedimentation since the Lower Harbor's initial construction, and availability of existing geotechnical data were considered. If the alternate location is within an area where the existing sediment would likely be determined unsuitable, a dual-cell CAD concept would be required, wherein an initial temporary CAD cell is created to hold the veneer sediments, and a second CAD cell receives the remainder of the bay sediments. Once the second CAD facility is constructed, the veneer sediment from the initial CAD facility would then be excavated and placed in the second CAD cell, requiring double-handling of the material. Alternatively, both the initial and second CAD facilities could remain intact permanently. Table 1-2 present a comparison of the proposed alternative sites.

**Table 1-2**
**Comparison of Proposed Alternative Sites**

| Site | Approximate Dimensions (feet) | Total Area (sf) | Advantages | Disadvantages |
|---|---|---|---|---|
| Turning Basin | 600 × 600 | 360,000 | • Close proximity to unsuitable material areas (Main Channel North 1 and 2, Turning Basin)<br>• In area of commercial properties (less public housing in Turning Basin) | • Potential area of unsuitable material: would likely require disposing of unsuitable layer first or two CAD sites<br>• Additional chemistry and geotechnical data would be required in central portion of Turning Basin<br>• Authorized depths within Turning Basin deeper than other alternative sites: placement of material in the CAD facility would be suspended longer in the water column, potentially resulting in greater water quality impacts |

| Site | Approximate Dimensions (feet) | Total Area (sf) | Advantages | Disadvantages |
|---|---|---|---|---|
| Main Channel 1 | 250 × 1,300 | 325,000 | • Outside the main Federal Channels<br>• Close proximity to other unsuitable material areas (Main Channel North 1 and 2 and Turning Basin) | • Potential area of unsuitable material would likely require disposing of unsuitable layer first or two CAD sites<br>• Additional chemistry and geotechnical data would be required<br>• Slope stability may be required between the Main Channel (-20 feet MLLW) and top of CAD (-10 feet MLLW)<br>• Narrower channel and adjacent to residential (Lido Isle) – potential temporary access restrictions to residential docks during construction |
| Newport Channel 1 | 590 × 590 | 348,100 | • Close to unsuitable material in Newport Channel 1<br>• Close proximity to geotechnical sample | • Potential area of unsuitable material: would likely require disposing of unsuitable layer first or two CAD sites<br>• Adjacent to residential (Lido Isle and peninsula)<br>• Existing mooring area<br>• Additional chemistry sampling required in this location |

### *1.4.3 Comparison of Alternatives*

Table 1-3 provides a summary comparison of the potential environmental impacts after implementation of mitigation measures resulting from the proposed Project and alternatives relative to the topics analyzed in the DEIR. The No Project Alternative results in the least environmental impacts. However, the No Project Alternative does not meet any project objectives.

**Table 1-3**
**Comparison of Potential Impacts from Proposed Project and Alternatives (with Incorporation of Mitigation)**

| Resource Area | Proposed Project | Alternative 1 | Alternative 2 | Alternative 3 | Alternative 4 | Alternative 5 |
|---|---|---|---|---|---|---|
| Aesthetics | LTS | LTS | LTS | LTS | LTS | LTS |
| Air Quality | LTS | LTS- | SU | LTS- | LTS- | LTS- |
| Biological Resources | LTS | LTS | LTS | LTS | LTS | LTS |
| Cultural Resources | LTS | LTS | LTS | LTS | LTS | LTS |
| Geology/Soils | LTS | NI- | LTS | LTS | LTS | NI- |

| Resource Area | Proposed Project | Alternative 1 | Alternative 2 | Alternative 3 | Alternative 4 | Alternative 5 |
|---|---|---|---|---|---|---|
| Greenhouse Gas Emissions | LTS | LTS | SU+ | LTS | SU+ | LTS |
| Hazards and Hazardous Materials | LTS | SU+ | SU+ | LTS | SU+ | SU+ |
| Hydrology/Water Quality | LTS | LTS | SU+ | LTS | SU+ | LTS |
| Land Use and Planning | LTS | NI- | LTS | LTS | LTS | NI- |
| Noise | LTS | LTS | LTS | LTS | LTS | LTS |
| Recreation | LTS | NI- | LTS | LTS | LTS | NI- |
| Tribal Cultural Resources | LTS | NI- | LTS | LTS | LTS | NI- |

Notes:
+: Impacts would increase as compared to proposed Project.
- : Impacts would be reduced as compared to proposed Project.
LTS: Less-Than-Significant Impact
NI: No Impact
SU: Significant and Unavoidable

## 1.5 Summary of Impacts and Mitigation Measures

Table 1-4 presents a summary of the environmental impacts of, proposed mitigation measures for, and residual impacts of the proposed Project. Full descriptions of the mitigation measures noted in Table 1-4 are provided following the table. With incorporation of mitigation measures, the proposed Project would result in either no project-level impacts or less-than-significant project-level impacts to the following resource areas: aesthetics; agriculture and forestry resources; biological resources; cultural resources; energy; geology and soils; GHG emissions; hazards and hazardous materials; hydrology and water quality; land use and planning; mineral resources; noise; population and housing; public services; recreation; transportation; tribal cultural resources; utilities and service systems; and wildfire. The proposed Project would not result in significant and unavoidable impacts.

**Table 1-4**
**Summary of Proposed Project Impacts and Proposed Mitigation Measures**

| | Impact Determination | Mitigation Measures | Impact Determination after Mitigation |
|---|---|---|---|
| Aesthetics | | | |
| A-1: Would the project have a substantial adverse effect on a scenic vista? | Less than significant | None | Less than significant |
| A-2: Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings along a scenic highway? | Less than significant | None | Less than significant |
| A-3: Would the project substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality? | Less than significant | None | Less than significant |
| A-4: Would the project create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area? | Less than significant | None | Less than significant |
| Air Quality | | | |
| AQ-1: Would the project's emissions conflict with or obstruct implementation of the applicable air quality plan? | Less than significant | None | Less than significant |
| AQ-2: Would the project's emissions result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard? | Significant | MM-AQ-1 | Less than significant |
| AQ-3: Would the project expose sensitive receptors to substantial pollutant concentrations? | Less than significant | None | Less than significant |
| AQ-4: Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people? | Less than significant | None | Less than significant |
| **Biological Resources** | | | |
| BIO-1: Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service? | Less than significant | None | Less than significant |

| | Impact Determination | Mitigation Measures | Impact Determination after Mitigation |
|---|---|---|---|
| BIO-2: Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service? | Potentially significant | MM-BIO-1<br>MM-BIO-2 | Less than significant |
| BIO-3: Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marshes, vernal pools, and coastal wetlands) through direct removal, filling, hydrological interruption, or other means? | No impact | None | No impact |
| BIO-4: Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites? | Potentially significant | MM-BIO-1<br>MM-BIO-2 | Less than significant |
| BIO-5: Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? | No impact | None | No impact |
| BIO-6: Would the project conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan? | No impact | None | No impact |
| Cultural Resources | | | |
| CHR-1: Would the project cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5? | No impact | None | No impact |
| CHR-2: Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5? | Potentially significant | MM-CHR-1 | Less than significant |
| CHR-3: Would the project disturb any human remains, including those interred outside of dedicated cemeteries? | Potentially significant | MM-CHR-1 | Less than significant |
| Geology/Soils | | | |
| GEO-1: Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:<br>• Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?<br>• Strong seismic ground shaking?<br>• Seismic-related ground failure, including liquefaction?<br>• Landslides? | No impact | None | No impact |

| | Impact Determination | Mitigation Measures | Impact Determination after Mitigation |
|---|---|---|---|
| GEO-2: Would the project result in substantial soil erosion or the loss of topsoil? | Less than significant | None | Less than significant |
| GEO-3: Would the project be located on a geologic unit or soil that is unstable or that would become unstable as a result of the project and potentially result in an on-site or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse? | Potentially significant | MM-GEO-1 | Less than significant |
| GEO-4: Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property? | No impact | None | No impact |
| GEO-5: Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems in areas where sewers are not available for the disposal of wastewater? | No impact | None | No impact |
| GEO-6: Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? | No impact | None | No impact |
| Greenhouse Gas Emissions | | | |
| GHG-1: Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? | Potentially significant | MM-GHG-1 | Less than significant |
| GHG-2: Would the project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases? | Less than significant | None | Less than significant |
| Hazards and Hazardous Materials | | | |
| HAZ-1: Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? | Less than significant | None | Less than significant |
| HAZ-2: Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment? | Less than significant | None | Less than significant |
| HAZ-3: Would the project emit hazardous emissions or involve handling hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school? | No impact | None | No impact |
| HAZ-4: Would the project be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment? | No impact | None | No impact |

| | Impact Determination | Mitigation Measures | Impact Determination after Mitigation |
|---|---|---|---|
| HAZ-5: Would the project be located within an airport land use plan area or, where such a plan has not been adopted, be within 2 miles of a public airport or public use airport, and result in a safety hazard or excessive noise for people residing or working in the project area? | No impact | None | No impact |
| HAZ-6: Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? | No impact | None | No impact |
| HAZ-7: Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires? | No impact | None | No impact |
| **Hydrology/Water Quality** | | | |
| HYDRO-1: Would the project Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality? | Potentially significant | MM-HYDRO-1<br>MM-HDYRO-2<br>MM-HYDRO-3 | Less than significant |
| HYDRO-2: Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge, such that the project may impede sustainable groundwater management of the basin? | No impact | None | No impact |
| HYDRO-3: Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or through the addition of impervious surfaces, in a manner which would:<br>• Result in substantial erosion or siltation on site or off site?<br>• Substantially increase the rate or amount of surface runoff in a manner that would result in flooding on site or off site?<br>• Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?<br>• Impede or redirect flood flows? | No impact | None | No impact |
| HYDRO-4: Would the project in flood hazard tsunami, or seiche zones, risk release of pollutants due to project inundation? | No impact | None | No impact |
| HYDRO-5: Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan? | No impact | None | No impact |
| Land Use/Planning | | | |
| LU-1: Would the project physically divide an established community? | No impact | None | No impact |

| | Impact Determination | Mitigation Measures | Impact Determination after Mitigation |
|---|---|---|---|
| LU-2: Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect? | No impact | None | No impact |
| Noise | | | |
| NV-1: Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies? | Less than significant | None | Less than significant |
| NV-2: Would the project result in generation of excessive groundborne vibration or groundborne noise levels? | No impact | None | No impact |
| NV-3: Would the project result in, for a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels? | No impact | None | No impact |
| **Recreation** | | | |
| R-1: Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? | Potentially significant | MM-REC-1 | Less than significant |
| R-2: Would the project Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment? | No impact | None | No impact |
| **Tribal Cultural Resources** | | | |
| TCR-1: Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or ii)A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe? | Potentially significant | MM-CHR-1 | Less than significant |

### *1.5.1 Mitigation Measures*

The following mitigation measures are included in the Mitigation Monitoring and Reporting Program (MMRP) that will be considered by the City as part of the Final EIR approval process:

- **MM-AQ-1 Tugboats Used During Construction:** The tugboats used during construction must meet USEPA Tier 4 engine standards by 2024; if Tier 4 tugboats are not available in years 2021 and 2022, tugboats must meet Tier 3 compliant standards. If applicable Tier-compliant tugboats are not available, the City shall purchase Emission Reduction Credits from South Coast Air Quality Management District (SCAQMD) to offset the exceedance of $NO_X$ emissions.
- **MM-BIO-1 Pre- and Post-Construction Survey:** Consistent with the California Eelgrass Mitigation Policy (CEMP) (NOAA 2014) and *Caulerpa Control Protocol* (NOAA 2008), a pre-construction eelgrass and *Caulerpa* survey shall be performed by the City in the proposed Project area 30 to 60 days prior to commencement of proposed construction activities in the Harbor.
  - If eelgrass is located during the pre-construction survey, a post-construction survey shall also be performed by the City within 30 days following completion of construction to evaluate any immediate effects to eelgrass habitat.
  - If *Caulerpa* is found, the City will immediately notify the Southern California Caulerpa Action Team, and construction shall not be conducted until such time as the infestation has been isolated and treated, or the risk of spread from the proposed construction is eliminated.
- **MM-BIO-2 Eelgrass Mitigation:** If a post-construction survey is required and indicates loss of eelgrass habitat within the proposed Project area, any impacts to eelgrass that have not previously been mitigated for will be mitigated in accordance with the CEMP (NOAA 2014). In-kind compensatory mitigation is the creation, restoration, or enhancement of habitat to mitigate for adverse impacts to the same type of habitat. Per the CEMP guidelines for southern California, for each square meter of vegetated eelgrass cover adversely impacted, 1.38 square meters of new habitat with suitable conditions to support eelgrass should be planted with a comparable bottom coverage and eelgrass density as impacted habitat (NOAA 2014). The 1.38:1 ratio assumes the following: 1) there is no eelgrass function at the mitigation site prior to mitigation efforts; 2) eelgrass function at the mitigation site is achieved within 3 years; 3) mitigation efforts are successful; and 4) there are no landscape differences (e.g., degree of urban influence, proximity to freshwater source) between the impact site and the mitigation site.
- **MM-CHR-1: Stop Work in the Area If Prehistoric or Historical Archaeological Resources Are Encountered**. In the event that any artifact, or an unusual amount of bone, shell, or non-native stone, is encountered during construction, work would be immediately stopped and relocated to another area. The contractor would stop dredging until a qualified

archaeologist can be retained by the City to evaluate the find (36 CFR 800.11.1 and 14 CCR 15064.5[f]). Examples of such cultural materials might include ground stone tools such as mortars, bowls, pestles, and manos; chipped stone tools such as projectile points or choppers; historic artifacts such as bottles or ceramics; or resource gathering items such as fish weir stakes. Native American tribes and the Office of Historic Preservation would be notified of the find. Native American tribes consulted on the proposed Project to date include the Gabrieleño Band of Mission Indians – Kizh Nation, and the Juaneño Band of Mission Indians Acjachemen Nation. If the resources are found to be significant, they would be avoided or mitigated.

- **MM-GEO-1: Periodic Monitoring of the CAD Facility**. An OMMP (Appendix H to the BODR) has been developed for the proposed Project to conduct periodic monitoring of the CAD facility, including bathymetric surveys and cap coring. In the event of a significant earthquake,[2] these techniques could be used to monitor the integrity of the CAD facility final cap layer. As noted, if any changes in environmental conditions or design assumptions become apparent, then management actions will be considered for the CAD facility. Initial management actions would likely include increasing the level or frequency of monitoring. If indicated, the CAD facility cap design would be augmented in one or more of the following ways:
  - Adding more sediment to form a thicker cap
  - Changing the cap material to a coarser, more erosion-resistant material type (coarse sand or gravel)
  - Adding enhanced materials to the cap, such as less porous or chemically absorbent materials
- **MM-GHG-1 Purchase GHG Emission Offsets:** The City of Newport Beach shall purchase annual GHG offset credits to offset GHG emissions during the life of the project. The amount of credits purchased shall be determined based on updated emission calculations as determined by the final equipment list secured by the contractor and using industry accepted GHG calculation methods. Off-site mitigation credits shall be real, quantifiable, permanent, verifiable, enforceable, and additional, consistent with the standards set forth in Health and Safety Code section 38562, subdivisions (d)(1) and (d)(2). Such credits shall be based on protocols consistent with the criteria set forth in Section 95972, subdivision (a), of Title 17 of the California Code of Regulations, and shall not allow the use of offset projects originating outside of California, except to the extent that the quality of the offsets, and their sufficiency under the standards set forth herein, can be verified by SCAQMD. Such credits must be

[2] According to NOAA National Centers for Environmental Information, a significant earthquake "is classified as one that meets at least one of the following criteria: caused deaths, caused moderate damage (approximately $1 million or more), magnitude 7.5 or greater, Modified Mercalli Intensity (MMI) X or greater, or the earthquake generated a tsunami." (NOAA 2020).

purchased within 90-days following the conclusion of each operational year through one of the following: (i) a CARB-approved registry, such as the Climate Action Reserve, the American Carbon Registry, and the Verified Carbon Standard; (ii) any registry approved by CARB to act as a registry under the California Cap and Trade program; or (iii) through the CAPCOA GHG Rx and the SCAQMD. Proof of purchase of the off-site mitigation credits shall be retained by the City.

- **MM-HYDRO-1:** Conduct water quality monitoring during all construction activities. The project will obtain the required permits under the RWQCB and/or the USACE. Water quality monitoring will be implemented to comply with numeric receiving water limitations (Table HYDRO-1) and other permit requirements during construction activities to minimize potential water quality impacts to Lower Newport Bay.

**Table HYRO-1**
**Numeric Receiving Water Limitations**

| Parameter | Receiving Water Limitation | |
|---|---|---|
| | **Eelgrass Present Within 300 Feet** | **Eelgrass Not Present Within 300 Feet** |
| Transmissivity | 38% | 16% |
| Turbidity | 16 NTU | 47 NTU |
| pH | 7 < pH < 8.6; < 0.2 change from ambient | |
| Dissolved Oxygen | >5 mg/L | |

- **MM-HYDRO-2:** Implement Water Quality BMPs. Construction contractors shall use BMP water quality controls to ensure compliance with the water quality standards identified herein. Measures could include use of a silt curtain during dredging and/or material placement, a floating boom to be maintained around the proposed Project area, and daily inspection of construction equipment for leaks or malfunction. Storage or stockpiling of materials related to construction may be prohibited where such materials could enter the waters of Lower Newport Bay.
- **MM-HYDRO-3:** Material placement will take place outside tidal extremes. Material placement activities should be limited to neap and non-peak tides (i.e., plus or minus 2 hours from slack tide) to limit the horizontal distribution of fill material due to reduced current speeds, where possible. In addition, placement activities should be conducted during a non-peak flood tide versus a non-peak ebb tide. These measures will limit the loss of fill material outside the CAD facility during placement operations.
- **MM-REC-1 Coordinate with Sailing Centers:** The City would coordinate with the sailing organizations and yacht clubs to relocate recreational and mooring activities and minimize the disruption to marine recreational activities.

# 2 DEIR Comments and Responses

## 2.1 Draft Environmental Impact Report Distribution

The DEIR was released and distributed on December 4, 2020, for a 47-day review period, which ended on January 20, 2021. The DEIR includes a full analysis and an Executive Summary that summarizes the proposed Project, alternatives, and findings. The DEIR was posted on the City's website at www.newportbeachca.gov/ceqa where it remains available. It was also posted on the State Clearinghouse's website at https://ceqanet.opr.ca.gov/2019110340/2. Hard copies of the DEIR and electronic copies of the technical appendices are available at the following Newport Beach Public Library locations:

- Central Library
  1000 Avocado Avenue
  Newport Beach, California 92660
- Crean Mariners Library
  1300 Irvine Avenue
  Newport Beach, California 92660
- Balboa Library
  100 East Balboa Boulevard
  Balboa, California 92661
- Corona Del Mar Library
  410 Marigold Avenue
  Corona Del Mar, California 92625

In addition, a hard copy of the DEIR and electronic copies of the technical appendices are available for review at the City Public Works Department counter located at the Civic Center, Bay 2-D at 100 Civic Center Drive, Newport Beach, California 92660.

## 2.2 Comments on the Draft Environmental Impact Report

The City received 50 comment letters on the DEIR. Several agencies and individuals submitted multiple comment letters. All comments received were coded as shown in Table 2-1.

**Table 2-1**
**Comments and Codes**

| Organization/Individual | Letter Code |
|---|---|
| **State Government** | |
| Santa Ana Regional Water Quality Control Board | RWQCB (1) |
| Santa Ana Regional Water Quality Control Board | RWQCB (2) |
| California Coastal Commission | CCC |
| California Department of Fish and Wildlife | CDFW (1) |
| California Department of Fish and Wildlife | CDFW (2) |
| **Local Government** | |
| Orange County Public Works | OC |
| City of Irvine | IRV |
| **Organizations** | |
| California Cultural Resource Preservation Alliance | CRPA |
| Orange County Coastkeeper | CK (1) |
| Coastkeeper | CK (2) |
| **Individuals** | |
| Brent Mardian, Pi Environmental | PE |
| Sandy Asper | Asper |
| Greg Brown | G. Brown |
| Stacey Brown | S. Brown |
| Mary Buckingham | Buckingham |
| Jacquelyn Chung | Chung |
| Ronda Clark | Clark |
| Brooke Coldren | B. Coldren |
| Robert Coldren | R. Coldren |
| Mark Conzelman | M. Conzelman |
| Shana Conzelman | S. Conzelman |
| Tom Fischbeck | Fischbeck |
| Steven Gelb | Gelb |
| Carol Green | Green |
| Sharon Grimes | Grimes |
| Joelle Hamontree | Hamontree |
| Randall Hause | Hause |
| Laurie Hunter | Hunter |
| Jim Huyck | Huyck |
| Dennis Lockard | Lockard |
| Violet Lorenzen | Lorenzen |
| Julie Luckey | J. Luckey |

| Organization/Individual | Letter Code |
|---|---|
| Palmer Luckey | P. Luckey |
| James E. "Kimo" McCormick | McCormick |
| Diana Miner | Miner |
| Pete Rabbitt | Rabbitt |
| Harry Railton | Railton |
| Camille Rizko | Rizko |
| Debbie Robson | Robson |
| Gail Rosenstein | Rosenstein |
| Brooke Sharp | Sharp |
| Greg and Louise Shaver | Shaver |
| Cary Singleton | C. Singleton |
| Will Singleton | W. Singleton |
| Donald Swanson | Swanson |
| John Thompson | J. Thompson |
| Philip Thompson | P. Thompson |
| Gina Vincent | Vincent |
| Greg and Nancy Ward | Ward |
| Bob Yates | Yates |

## 2.3 Master Responses

Because many of the comment letters received had similar concerns, a set of Master Responses was developed to address common topics in a comprehensive manner. The following master response subsections include the City's feedback on the following topics:

- Stakeholder outreach and coordination
- The possibility of creating a hazardous waste facility within the Harbor by developing the CAD facility
- Adequacy of the supporting reports and documents, including the Sediment Management Plan (SMP), and the coordination with agencies other stakeholders
- The possible impacts to recreation during construction and management of the CAD facility
- Additional alternatives to the proposed Project

Individual responses to all comment letters received on the DEIR are presented following the Master Responses and may refer to the Master Responses in total or in part.

### *2.3.1 Master Response 1: Coordination with Stakeholders*

**Several comments were received regarding the adequacy of coordination with stakeholders including regulatory agencies and the public.**

As discussed in the DEIR, the City met extensively with agencies on development of the CAD and supporting documents. The City and USACE met with the Dredged Material Management Team (DMMT) on several occasions through the sediment characterization process. In April 2020, the City provided a draft of the BODR to the USEPA for preliminary review. Coordination included several tele-conference calls in addition to an in-person meeting with USEPA, USACE, and RWQCB in San Francisco in April 2019. The final meeting with the DMMT was in August 2019 where the final sediment suitability was determined, including the design and development of a CAD facility as the most appropriate option to manage the sediment determined unsuitable for open ocean disposal.

Stakeholder outreach has also been extensive and above and beyond what is simply required by CEQA. Outreach began prior to release of the NOP and continued throughout the development of the DEIR. Beginning in spring 2019, the City engaged the public to solicit input in development of the conceptual level design of the proposed project. This included in-person meetings with residents and stakeholders, presentations and updates at Harbor Commission meetings, and publications through various local and regional newspapers. Following the NOP scoping meeting on December 4, 2019, the City continued to engage the community and its residents through in-person meetings to discuss specific comments presented or submitted at or following the scoping meeting. The list of outreach meetings, presentations and newspaper articles is as follows:

- March 13, 2019: Harbor Commission
- September 30, 2019: Local stakeholders
- October 8, 2019: Local stakeholders
- October 16, 2019: Local stakeholders
- October 17, 2019: Local stakeholders
- November 7, 2019: Water Quality/Coastal Tidelands Committee
- October 17, 2019: Chamber of Commerce
- November 12, 2019: Mayor Dixon's Lido Town Hall
- November 13, 2019: Harbor Commission
- November 14, 2019: Local stakeholders
- November 15, 2019: Media article - *Newport Beach Independent*
- November 16, 2019: Media article - *Daily Pilot*
- November 18, 2019: Media article - *Los Angeles Times*
- November 18, 2019: Media article - City News Splash
- November 19, 2019: City Council - announcement (Duffield)

- November 20, 2019: Still Protecting Our Newport (SPON)
- November 21, 2019: Media article - City Manager Week in Review
- December 4, 2019: Local stakeholders
- December 5, 2019: Water Quality/Coastal Tidelands Committee
- December 13, 2019: Local stakeholders
- January 31, 2020: Lido Isle Community Association Board
- February 3, 2020: Council Member Dixon's Town Hall
- February 19, 2020: Yachtsman's Luncheon
- March 11, 2020: Speak Up Newport
- June 10, 2020: Harbor Commission
- November 19, 2020: Juaneño Band of Mission Indians, Acjachemen Nation
- January 29, 2021: Media article - *Stu News Newport*
- February 9, 2021: Media article - Newport Navigator
- February 10, 2021: Mayor's State of the City Address
- February 12, 2021: Media article - City Manager Week in Review
- February 16, 2021: Media article - *Stu News Newport*

### *2.3.2 Master Response 2: Hazardous Waste Risks*

**Several comments were received regarding the possibility of creating a hazardous waste facility within the Harbor by developing the CAD facility.**

As fully analyzed in the DEIR, through careful design and inclusion of best management practices (BMPs), the CAD facility would not result in impacts to water quality or have the potential to release hazardous materials during initial placement of sediment or after being capped.

One of the goals of the proposed Project is to remove and contain areas of contaminated material within navigational channels. Several commenters suggested that sediment should be left where it is as it is essentially already capped. However, this assumption is not correct. As discussed in the DEIR, the areas targeted for dredging are within navigational channels that have become shallow and impact navigation; sediments in these areas could be resuspended by vessel activities. The proposed Project would seek to relocate the impacted sediments into a deep hole (CAD facility), which would eliminate those potential risks to water quality thereby resulting in a long-term benefit to the environment.

Long-term water quality impacts were considered as part of the permanent cap design for the CAD facility. Various technical studies were conducted to ensure long-term isolation of chemically impacted sediments (Anchor QEA 2020a). These studies evaluated physical disturbances of the cap (i.e., propeller wash, anchoring, bioturbation, and chemical breakthrough). Chemical isolation

modeling was conducted following USEPA and USACE guidance to simulate the transport of mercury, DDTs, and PCBs through the final cap layer (Palermo et al. 1998). Modeling indicated that within 100 years, porewater concentrations near the final cap layer's surface would not exceed porewater criteria (California Toxics Rule for porewater) and sorbed phase criteria (effects range median). Porewater is the water contained within the interstitial space (i.e., pores) of soil or sediment, and sorbed phase refers to the chemical that is adsorbed to the solid material (soil or sediment). In this case, the modeling indicates that the chemicals would not be found to exceed allowable levels within the porewater or be adsorbed within the organic materials. Based on results of these studies, a 3-foot-thick cap would be used to ensure underlying sediments remain isolated and there are no long-term impacts to water quality or benthic organisms. In addition, by removing these sediments from the Federal Channels and other areas of the Lower Harbor where they could be resuspended by vessel activities, the proposed Project reduces the potential for resuspension. The proposed Project seeks to relocate the impacted sediments into a deep hole (CAD facility) that would eliminate those potential risks to water quality, thereby resulting a long-term benefit to the environment.

### *2.3.3 Master Response 3: Supporting Reports*

**Several comments were received regarding the adequacy of supporting reports and documents, including the Sediment Management Plan.**

As discussed in Section 2.1, dredged sediment is managed in southern California by the Dredged Material Management Team (DMMT), an interagency team that provides coordinated reviews of dredging projects and policy issues in San Diego, Orange, Los Angeles, Ventura, and Santa Barbara counties and parts of San Luis Obispo County. This regional approach provides comprehensive management as well as long-term planning. Prior to dredging, sediment must be tested in accordance with the *Evaluation of Dredged Material Proposed for Ocean Disposal – Testing Manual* (USEPA/USACE 1991) to determine its suitability for unconfined aquatic disposal. Based on results of each test and coordination with the USEPA and other DMMT agencies, sediments are determined to be either suitable or unsuitable for unconfined aquatic disposal. In preparation for dredging in Lower Newport Bay, and consistent with the DMMT approach, sediment sampling was conducted in 2018 and 2019 to determine the suitability of the sediments requiring removal during the Federal Channels maintenance dredging program. The study found that most of the sediments would be approved for open ocean disposal, although sediment from some areas would be unsuitable for nearshore or open ocean disposal. The DMMT's review of sediment chemistry results and effects-based testing (i.e., toxicity and bioaccumulation) determined sediments from sections of Main Channel 1 and 2; Main Channel 3, 4, and 5; the Bay Island Area; Newport Channel 3; and the Entrance Channel were suitable for open ocean disposal.

As discussed in the DEIR, the City and USACE met with the DMMT on several occasions through the sediment characterization process, and throughout this process, the City committed to developing an SMP. The SMP is a planning document that builds on previous harbor-wide planning tools (e.g., the Harbor Area Management Plan; City 2010) to assist the City in managing sediment in Newport Harbor. Specifically, the SMP creates an inventory of all sediment in Newport Harbor that needs to be dredged, both within and outside the Federal Channels. The SMP identifies sediment management options depending on sediment characteristics, including developing alternate disposal locations, and permitting requirements.

Within the Harbor, there are many scenarios to manage sediment that are dependent on the location and recent sediment characterizations, including most recently in 2017 as part of the RGP 54 program. The SMP was developed to address each of the scenarios to manage the different types of sediment within the harbor, including sediments that could be appropriate for placement within the CAD facility. Coordination included several tele-conference calls in addition to an in-person meeting with USEPA, USACE, and RWQCB in San Francisco in April 2019. The final meeting with the DMMT was in August 2019 where the final sediment suitability was determined, including the design and development of a CAD facility as the most appropriate option to manage the sediment determined unsuitable for open ocean disposal. The development of an SMP was also part of the agreement discussed during the August 2019 DMMT meeting. As detailed in the DEIR, the SMP was fully vetted through the DMMT process and adequately supports the design of the proposed Project.

### *2.3.4 Master Response 4: Recreational Impacts*

**Several comments were received regarding the possible impacts to recreation during construction and management of the CAD facility.**

Please see Section 3.11 of the DEIR, which considers the potential for the proposed Project to affect recreational activities, including boating. The recreational analysis found that there would be a short-term impact to recreational boaters during initial CAD site construction and for the 6-month window in which residents could add materials to the CAD. Mitigation Measure-REC-1 was provided to reduce the potential for conflicts. The City will need to consider this and other potential impacts against the proposed Project benefits prior to certifying the EIR and approving (or disapproving) the proposed Project. As discussed, the City would coordinate with the Newport Harbor Yacht Club ahead of dredging and would help coordinate relocation of yacht club's moored vessels and moorings to other locations during dredging. In addition, the Anchorage area would be unavailable during CAD facility construction. Because the Anchorage area is used by many boaters, the City would relocate it to the Turning Basin during construction of the CAD facility. A Notice to Mariners would be issued via the U.S. Coast Guard (USCG), and notices would be posted on the City's website. There would be a temporary access inconvenience for boaters having to travel to the Turning Basin

rather than travel to the Anchorage area. However, this impact would be limited to the 12 months of initial construction, placement of material and interim cap placement, and the 6-month period to place additional material. In addition, a Navigation Study Memorandum was developed and is included in Appendix I to the DEIR.

### *2.3.5 Master Response 5: Alternative Disposal Strategies*

**Several comments were received regarding alternative disposal strategies, including disposing the dredged material far out to sea, upland disposal, and disposal in a Confined Disposal Facility (CDF).**

All comments received during public scoping regarding alternative dredge material management strategies were considered in development of the DEIR. Please see Appendix B, which includes all comments received as part of public scoping. Please also see Section 6.2.2 of the DEIR, which addresses alternative disposal sites. Consistent with CEQA, an EIR must describe a reasonable range of potentially feasible alternatives to a project that could attain most of the basic project objectives and would avoid or substantially lessen one or more significant adverse effects. The range of alternatives in an EIR is governed by a "rule of reason" that requires an EIR to set forth only those alternatives necessary to permit a reasonable choice. An EIR need not consider every conceivable alternative to a project. Rather, the alternatives must be limited to ones that meet the project objectives, are potentially feasible, and would avoid or substantially lessen at least one of the significant environmental effects of the project.

Regarding the possibility of not dredging material at all or only dredging areas of clean material and leaving other material in place, please see Section 6.3.1 for analysis of the No Project Alternative. As discussed, under the No Project dredging of unsuitable material within the Federal Channels or City-managed locations outside of the Federal Channels would not occur, and the CAD facility would not be constructed. As such, chemically impacted materials would remain in place in an unconfined manner. Because the material is within navigation channels, which has become shallow in areas due to sediment build-up, material could be resuspended by propellor wash and vessel wake. Navigation would continue to be impaired, and the Lower Harbor would continue to experience reduced tidal flushing due the shallower water depths. Not constructing the CAD facility would mean that beach nourishment would not occur, and as a result, coastal erosion could be exacerbated. In response to comments requesting only certain areas of the Harbor be dredged, please see Figure 1-2, which illustrates the areas of known contaminants in the sediment. As shown, dredging only certain areas of the Harbor would leave stretches of Lido Channel and Newport Channel with navigational constraints.

Regarding the possibility of disposing the material at sea, please see Section 2.1.1 for analysis of the available options for dredged material. As discussed, dredged sediment is managed in southern California by the DMMT, an interagency team that provides coordinated reviews of dredging projects and policy issues in San Diego, Orange, Los Angeles, Ventura, and Santa Barbara counties and parts of San Luis Obispo County. Sediment management options in southern California have been studied thoroughly and documented in two key regional documents: the *Los Angeles Contaminated Sediments Task Force Long-Term Management Strategy* (CSTF LTMS; CSTF 2005) and the *Los Angeles Dredged Material Management Plan Feasibility Study, Baseline Conditions (F3) Report* (DMMP; USACE 2004). Prior to ocean disposal or beach nourishment, sediment must be tested in accordance with the *Evaluation of Dredged Material Proposed for Ocean Disposal – Testing Manual* (USEPA/USACE 1991) to determine its suitability for unconfined aquatic disposal. Testing for ocean disposal includes physical and chemical analyses and biological testing. There are no specific sediment chemistry thresholds for ocean disposal. As discussed in the DEIR, sediment sampling conducted in 2018 in coordination with the DMMT has determined that a portion of the sediment is unsuitable for open ocean disposal. Therefore, the sediment cannot be disposed of at sea.

Regarding the possibility of disposing the material at a CDF, please see Response to Comment PE-3, which discusses use of a CDF as an alternative sediment management option, including the CDF. As noted, there is currently no available CDF that could accept the material. As discussed in Section 6.2.2, a CDF at the Port of Long Beach was available for material during the last dredging event but has since been closed and no other CDFs are currently available in the region. A CDF has been evaluated as a sediment management tool in Newport Harbor on past occasions and was discounted for numerous reasons, unrelated to the current project. In 2005 during the feasibility study for the Rhine Channel remediation project, a CDF was evaluated and eliminated for the following reasons: 1) the amount of space needed to construct a containment structure was too large to accommodate given the highly developed shoreline and lack of City-owned property; 2) the mitigation requirements to offset the loss of submerged tidelands would create a significant and unavoidable challenge to the program for which there were no areas in the harbor suitable for such a large mitigation area; and 3) public opposition to the construction of a highly visible fill area within the Harbor.

Regarding the possibility of upland disposal, this alternative was addressed in Section 6.3.2. As discussed, upland disposal would likely result in several significant and unavoidable environmental impacts making it less environmentally preferable to the proposed Project.

## Marine Vie

**From:** Adam Gale
**Sent:** Thursday, January 14, 2021 4:16 PM
**To:** Marine Vie; Lena DeSantis
**Subject:** FW: Requesting extension for review of DEIR, SCH # 2019110340

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**From:** Miller, Chris <CMiller@newportbeachca.gov>
**Sent:** Thursday, January 14, 2021 3:57 PM
**To:** 'Willis, Lauma@Waterboards' <Lauma.Willis@Waterboards.ca.gov>
**Subject:** RE: Requesting extension for review of DEIR, SCH # 2019110340



Hi Lauma,

Thank you for inquiring, and for taking the time to respond to the Draft EIR. Indeed, it is an extensive document – there's a lot of information to convey.

We released the Draft EIR on December 4 for the required 45 days (plus 2 extra days for the holidays). We are doing our best to maintain our schedule, and have published the deadline date on all of our notices with the state and all stakeholders, as required.

I am hoping that all of the meetings and conversations we have had with Water Board staff over the past couple of years will assist you with the review so that it's not a new project scope for you to consider. In addition, a lot of supporting documentation has already been reviewed by the Water Board via various permits and agency meetings, so I would hope that helps, a little.

While I value our relationship and hope I have demonstrated a collaborative approach over the years, I will respectfully continue to maintain our January 20, 2021 deadline as originally planned. I sincerely hope you understand my desire to keep the project on track as best I can.

As always, we are available to discuss the project or any questions you may have.

Thank you for inquiring.

Chris

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**From:** Willis, Lauma@Waterboards <Lauma.Willis@Waterboards.ca.gov>
**Sent:** Wednesday, January 13, 2021 11:56 AM
**To:** Miller, Chris <CMiller@newportbeachca.gov>
**Subject:** Requesting extension for review of DEIR, SCH # 2019110340

Draft Environmental Impact Report, “Lower Newport Bay Confined Aquatic Disposal (CAD) Construction Project” - SCH # 2019110340

RWQCB (1)-1

Hi, Chris.

I'm noticing that there is quite a bit of information associated with this DEIR, including some 1000+ pages of appendices and supporting documentation.

In addition, the DEIR was released during the holiday season, which has cut into the timeline for reviewing this extensive document.

As a result, I'm requesting a 30-day extension to provide you and your agency with more productive comments on this important project.

Thank you for your consideration.
L.

Lauma M. Willis
Environmental Program Manager
Division Chief of Planning, Implementation, and Permitting
Santa Ana Water Board
Lauma.Willis@waterboards.ca.gov

January 20, 2021

Chris Miller
City of Newport Beach
Public Works Department
100 Civic Center Drive
Newport Beach, CA 92660

cmiller@newportbeachca.gov

**SUBJECT: COMMENTS ON THE CITY OF NEWPORT BEACH'S DRAFT ENVIRONMENTAL IMPACT REPORT FOR THE LOWER NEWPORT BAY CONFINED AQUATIC DISPOSAL CONSTRUCTION PROJECT**

Dear Mr. Miller:

RWQCB (2)-1

This letter provides comments from Santa Ana Regional Water Quality Control Board (Santa Ana Water Board) staff on the City of Newport Beach's (City) Draft Environmental Impact Report (DEIR) for the Lower Newport Bay Confined Aquatic Disposal (CAD) Construction Project. We are providing these comments by close of the comment period (January 20, 2021). The purpose of this letter is to outline staffs' main comments and concerns regarding the City's California Environmental Quality Act (CEQA) analysis contained in the DEIR for the proposed CAD. Given the large size of the DEIR (10,479 pages including all appendices) and the limited review time available to staff since the documents were released during the 2020 holiday season, Santa Ana Water Board staffs' comments are limited to a few main issues.

RWQCB (2)-2

On January 15, 2020, Santa Ana Water Board staff recommended that the City of Newport Beach (City) organize and convene a Technical Advisory Committee or use the existing Southern California Dredged Material Management Team (SC-DMMT) to provide input into the proposed CAD project design, the proposed Sediment Management Plan (SMP), and the Operations Management and Monitoring Plan (OMP). This was also previously suggested in emails sent by Santa Ana Water Board staff to City staff in June and August of 2019.

A Technical Advisory Committee was not formed by the City. The City's proposed CAD project has never appeared as an agenda item in any SC-DMMT meeting. In addition, neither the SC-DMMT as a group, nor Santa Ana Water Board staff were allowed the

opportunity to provide input on the contents of the SMP or the OMP and were not aware that the City was also having an engineering basis of design documents being prepared. Santa Ana Water Board staff only learned of the existence of the majority of these documents after the City's notification that the DEIR and supporting documents were available for review on December 4, 2020.

In our January 15, 2020 comment letter on the initial Notice of Preparation (NOP), Santa Ana Water Board staff notified the City that we did not approve of the ambiguity of the proposed timeline for the project, a period of "up to ten years" that the CAD would be open for residents to use to dispose of contaminated sediments from dock, pier and slip maintenance that may fail to meet the RGP-54 401 certification requirements. In addition, there were no details provided regarding coordinating logistics with residents that would need access to the CAD for disposal of contaminated dredge materials.

RWQCB (2)-3

The December 4, 2020 DEIR indicates that "approximately 2 years" following completion of construction of the CAD there would be a second opportunity to place contaminated sediment in the facility. The Santa Ana Water Board was not previously informed of this operational plan, and therefore staff has not provided any input on its feasibility. In addition, there has been no environmental impact analysis of potential projects that may not meet conditions for coverage under the RGP-54 401 Certification. Many future dock and pier maintenance projects are expected to be excluded from RGP-54 401 Certification coverage due to failure to meet z-layer contaminant threshold requirements. This DEIR does not sufficiently address the magnitude and nature of potential impacts to the environment or water quality due to point-source discharges over the applicant's proposed project timeline.

In the DEIR section 3.8.3.1 "Baseline", the applicants claim that Bay waters met applicable standards in baseline conditions. This claim does not appear to be justified. The Lower Newport Bay is and will continue to be listed on the Clean Water Act section 303(d) priority list for chlordane, copper, DDT, indicator bacteria, nutrients, PCBs, and toxicity. The Santa Ana Water Board expects the applicants to substantiate any claim of the attainment of water quality objectives, which would be in contrast to the current USEPA-approved impairment listings. All lines of evidence used by the Santa Ana Water Board staff for evaluation for current 303(d) listing indicate that "applicable standards" are not being met.

RWQCB (2)-4

Section 2.5 of the DEIR Proposed Project Construction indicates that "clean material excavated during construction of the CAD facility will be transported to, and disposed along, the nearshore ocean beaches or transported to LA-3 for open ocean disposal." There is no indication of what would be done with the dredge material removed during the construction of the CAD if it is contaminated. There is evidence that the area proposed as the physical footprint of the CAD falls in an area where there are high levels of DDT, and potentially other contaminants. There was no indication of where this unsuitable material would be placed, or whether there were any mitigation measures proposed to manage contamination associated with the dredging of material

RWQCB (2)-5

during the construction of the CAD that could have potentially significant impacts to the environment.

RWQCB (2)-6

Section 2.5 indicates that "CAD facility construction will *likely* occur using mechanical equipment and bottom-dump barges". Since this has not been scoped sufficiently for the applicants to make a definitive declaration of the method planned for the CAD project dredging, the Santa Ana Water Board staff considers the CEQA analysis in the DEIR to be incomplete.

RWQCB (2)-7

The aforementioned comments and concerns summarize key points that should be addressed before the Santa Ana Water Board staff considers the CEQA analysis presented in the DEIR to adequately address water quality-related concerns, which include beneficial uses, water quality objectives, and antidegradation. The DEIR must sufficiently address the magnitude and nature of potential impacts to water quality and the environment due to point-source discharges that may occur during the course of the applicant's proposed project timeline.

If you require further assistance or have questions, please contact me at David.Woelfel@waterboards.ca.gov or Terri Reeder, Chief of the Coastal TMDL Section at Terri.Reeder@waterboards.ca.gov.

Sincerely,

David Woelfel
Chief of the Regional Planning Programs Section
Santa Ana Water Regional Water Quality Control Board

cc: City of Newport Beach, Dave Webb – dawebb@newportbeachca.gov
U.S. Fish and Wildlife Service, Carol Roberts – carol_a_roberts@fws.gov
U.S. Environmental Protection Agency, Melissa Scianni – Scianni.melissa@epa.gov
U.S. Army Corps of Engineers, Larry Smith – Lawrence.j.smith@usace.army.mil
California Coastal Commission, John Weber john.weber@coastal.ca.gov
Anchor QEA LLC, Adam Gale agale@anchorqea.com

## 2.4 Response to Agency Comments

### *2.4.1 Response to the Santa Ana Regional Water Quality Control Board (RWQCB)*

Please note, two comments were received from the Santa Ana RWQCB—an email (RWQCB-(1)) and a letter (RWQCB-(2)).

| Comment ID | Text |
|---|---|
| RWQCB (1)-1 | The comment was an email from the RWQCB requesting an extension of the public comment period. An email response was provided as follows:<br><br>*Thank you for inquiring, and for taking the time to respond to the Draft EIR. Indeed, it is an extensive document –there is a lot of information to convey. We released the Draft EIR on December 4 for the required 45 days (plus 2 extra days for the holidays). We are doing our best to maintain our schedule and have published the deadline date on all our notices with the state and all stakeholders, as required. I am hoping that all the meetings and conversations we have had with Water Board staff over the past couple of years will assist you with the review so that it is not a new project scope for you to consider. In addition, a lot of supporting documentation has already been reviewed by the Water Board via various permits and agency meetings, so I would hope that helps, a little. While I value our relationship and hope I have demonstrated a collaborative approach over the years, I will respectfully continue to maintain our January 20, 2021 deadline as originally planned. I sincerely hope you understand my desire to keep the project on track as best I can. As always, we are available to discuss the project or any questions you may have.* |
| RWQCB (2)-1 | Thank you for your review and comments. Consistent with CEQA requirements, copies of the DEIR were available for a 45-day public review period beginning December 4, 2020, and ending January 20, 2021, with 2 days added to the review period to accommodate the two federal holidays that occurred during the review period. See also Response to Comments RWQCB (1)-1. |
| RWQCB (2)-2 | The comment suggests that the City did not coordinate with regulatory agencies and did not convene a Technical Advisory Committee or use the existing Southern California DMMT to provide input on the CAD project design, the SMP, and the OMMP.<br><br>Please see Master Responses 1 and 3, which address outreach with stakeholders and development of supporting reports, respectively.<br><br>In response to the comment regarding a Technical Advisory Committee, the City did not feel it was necessary to convene a Technical Advisory Committee as the DMMT process already provided an opportunity to meet with regulatory and technical experts to discuss project goals and address sediment management options.<br><br>As discussed in the DEIR, the City met with the DMMT on several occasions and incorporated feedback into documents referenced. The City and USACE met with the DMMT on several occasions through the sediment characterization process. Coordination included several tele-conference calls in addition to an in-person meeting with the USEPA, USACE, and RWQCB in San Francisco in April 2019. The final meeting with the DMMT was in August 2019 where the final sediment suitability was determined, including the design and development of a CAD facility as the most appropriate option |

| Comment ID | Text |
|---|---|
| | to manage the sediment determined unsuitable for open ocean disposal. The development of an SMP was also part of the agreement discussed during the August 2019 DMMT meeting.<br><br>In April 2020, the City provided a draft of the BODR to the USEPA for preliminary review. The BODR, including the OMMP, is a necessary component to support the design and development of a CAD facility and long-term management. Based on the USEPA's extensive experience overseeing design and implementation of CAD facilities on the West Coast (most recently at Port Hueneme in 2009), it was the City's intent to request a focused review from the USEPA. The USEPA provided preliminary comments in May 2020, and these comments were incorporated into the version included in the DEIR. It should also be noted that the DEIR included the full BODR for review and public input.<br><br>The City believes that the extensive public and stakeholder outreach, as well as resource and regulatory agency meetings, meet the intentions of a Technical Advisory Committee. |
| RWQCB (2)-3 | The comment reiterates the commenter's prior concern expressed in response to the NOP, that the then proposed timeline for the project "up to ten years" was ambiguous.<br><br>As discussed in the DEIR (Section 2.5), the City's original proposal was to allow the City and its residents an opportunity for up to 10 years to place material within the CAD facility. In response to public comments received on the NOP, the City modified that approach to an abbreviated timeline of 6 months approximately 2 years after the CAD facility was constructed. The intention of this 2-year period is to allow the City and its residents time to develop a dredge design, obtain applicable permits and approvals, and select a contractor so dredging can be coordinated within that 6-month window. As discussed in Section 2.3 of the DEIR, if the Final EIR is certified and permitted, the City would seek to modify the RGP 54 to allow dredging and disposal within the CAD facility. Alternatively, applicants may apply directly to the regulatory agencies through an Individual Permit process to dredge and dispose of their material within the CAD facility, if certified and permitted, or elsewhere if required after consideration of the sediment material.<br><br>The comment further claims that there has been no environmental impact analysis of potential projects that may not meet conditions for coverage under the RGP 54 or the Clean Water Act (Section 401) water quality certification and that the DEIR does not sufficiently address the magnitude and nature of potential impacts to the environment or water quality due to point-source discharges over the applicant's proposed Project timeline. The City recently renewed the RGP 54, which was set to expire in December 2020. As part of the renewal, the RWQCB included in the permit an allowance to dredge deeper to achieve a clean sand cover (Z layer). While the City is still in negotiations with other agencies, allowing for deeper dredging to achieve a clean sand cover is a key element to manage sediment within the Harbor. The USEPA and USACE also concurred with the allowance to dredge deeper with additional testing requirements. There are many scenarios to manage sediment within the Harbor that are dependent on the location and recent sediment characterizations, including most recently in 2017 as part of the RGP 54 program. The SMP was developed to address each of the scenarios to manage the different types of sediment within the Harbor, including sediments that could be appropriate for placement within the CAD facility. |

| Comment ID | Text |
|---|---|
| RWQCB (2)-4 | As the comment notes, the DEIR summarizes the baseline conditions in Section 3.8.3.1 as follows: *The proposed Project area encompasses Lower Newport Bay and the nearshore Pacific Ocean waters. Newport Harbor is an active recreational harbor and public beach with no ongoing dredging operations except periodic and limited RGP 54 maintenance dredging. Santa Ana RWQCB and USEPA have developed TMDLs for sediments, nutrients, bacteria, and toxic pollutants (i.e., heavy metals and organics) in Newport Bay. Bay waters met applicable standards in baseline conditions*.<br><br>The comment is correct, and the last sentence of Section 3.8.3.1 requires modification. As discussed in Section 3.8.1, which presents the full environmental setting used as baseline conditions, Newport Bay is designated as water quality-limited for four impairments in the federal CWA Section 303(d) List, with Section 3.8.1.2 describing the impairments and applicable TMDLs. These conditions described in the Environmental Setting were used as the basis of the analysis in Section 3.8.3. Section 3.8.3.1 has been updated appropriately as follows:<br><br>*The proposed Project area encompasses Lower Newport Bay and the nearshore Pacific Ocean waters. Newport Harbor is an active recreational harbor and public beach with no ongoing dredging operations except periodic and limited RGP 54 maintenance dredging. Santa Ana RWQCB and USEPA have developed TMDLs for sediments, nutrients, bacteria, and toxic pollutants (i.e., heavy metals and organics) in Newport Bay. <u>As described in Section 3.8.3, bay waters did not meet all</u> ~~met~~ applicable standards in baseline conditions.* |
| RWQCB (2)-5 | The comment notes that Section 2.5 of the DEIR indicates that "clean material excavated during construction of the CAD facility will be transported to, and disposed along, the nearshore ocean beaches or transported to LA-3 for open ocean disposal', but that there is no indication of what would be done with the dredge material removed during the construction of the CAD if it is contaminated.<br><br>As discussed in the DEIR, the overlying sediment (existing elevation down to the design depth) within the footprint of the CAD facility, and proposed for, was determined by the DMMT in August 2019 as suitable for open ocean disposal and, as such, would be disposed of accordingly and in compliance with the Marine Protection, Research, and Sanctuaries Act of 1972 (33 United States Code Section 1401) and USACE approval (see also https://www.epa.gov/sites/production/files/2015-10/documents/r9_la_235_smmp_01-11.pdf).<br><br>Sediments within the CAD footprint below the federally authorized design depth are "native sediments" and have never been dredged. Deep (>50 feet in depth) core samples have been collected in the vicinity of the proposed CAD location and elsewhere in Newport Bay and show that material at this depth is composed of fine- to medium-grained sand and free of contaminants. This material (material dredged below the federally authorized design depth) would be placed in the nearshore zone or at the ocean disposal site. |
| RWQCB (2)-6 | The DEIR includes detailed information about the dredging equipment that would be used for CAD construction. Section 2.5.1 of the DEIR clearly identifies what equipment would be used and why it would be used. This equipment is carried through the environmental analysis. No changes to the DEIR are warranted. |

| Comment ID | Text |
|---|---|
| RWQCB (2)-7 | Responses to this summary comment are provided in Responses to Comments RWQCB (2)-1 through RWQCB (2)-6. As discussed in the responses to these comments, the DEIR sufficiently addresses the magnitude and nature of potential impacts to water quality and the environment due to point-source discharges. |

**CALIFORNIA COASTAL COMMISSION**
South Coast Area Office
301 E. Ocean Blvd., Suite 300
Long Beach, CA 90802-4302
(562) 590-5071

January 20, 2020

SENT VIA EMAIL

Mr. Chris Miller
City of Newport Beach
100 Civic Center Drive
Newport Beach, CA 92660

**Re: Coastal Commission Staff Comments on Draft EIR for the Lower Newport Bay Confined Aquatic Disposal Construction Project, SCH No. 2019110340**

Dear Mr. Miller:

CCC-1

Coastal Commission staff appreciates the opportunity to review and provide comment on the Draft Environmental Impact Report for the Lower Newport Bay Confined Aquatic Disposal Construction Project. The following comments address, in a preliminary manner, the issue of the proposed project's consistency with the Chapter 3 policies of the California Coastal Act of 1976. This letter is an overview of the main issues Commission staff has identified at this time based on the information we have been presented and is not an exhaustive analysis. The comments contained herein are preliminary in nature, and those of Coastal Commission staff only and should not be construed as representing the opinion of the Coastal Commission itself. The following are Commission staff's comments in the order presented in the Draft EIR.

CCC-2

**2.5 Proposed Project Construction**

In this section and in various sections throughout the document, the impression is given that the proposed use of near-shore ocean beaches is currently an approved location for the City to deposit dredged sediment. To clarify, the near-shore ocean beaches disposal option will require approval by State and Federal agencies. Although the City has submitted Coastal Development Permit Application No. 5-19-1296 seeking reauthorization for dredging activities within Newport Bay, which includes a request to utilize offshore ocean beaches as an optional disposal location, that coastal development permit application is still incomplete. Other agencies may or may not provide their concurrence with the proposed activities through the pending Regional General Permit 54.

CCC-3

**2.5.1 Construction Best Management Practices**

With regard to the bottom-dump barge that will transport the dredged material unsuitable for open ocean disposal to the proposed CAD facility, the EIR should identify Best Management Practices to ensure chemical constituents of concern do not become

released into the water column after they have been released from the bottom of the barge during deposition.

CCC-4

**2.5.2.2 Unsuitable Material Placement and Interim Cover Containment Layer Placement**

During the time the CAD facility is “open”, in other words, when unsuitable material is being placed in the CAD facility, how often will the 1-foot thick interim cover containment layer be placed over the CAD to provide temporary isolation of the underlying sediments in between disposal episodes? The EIR should analyze alternative construction methods for their potential to safely isolate contaminated material and their potential for failure or leakage.

CCC-5

**3.3 Biological Resources**

This section states that potential impacts on biological resources were qualitatively evaluated based on the habitat preferences for various species known or presumed to be present in the proposed Project area, as well as the quantity and quality of existing habitat. Were there any recent in-situ subtidal surveys conducted for this project? After reviewing the 2009 Marina Park Final EIR prepared in support of the City of Newport Beach Marina Park Project that is referenced in this section to be representative of the proposed project impacts, it appears that no "on-the-ground" quantitative diver or ROV surveys or grab samples were conducted to adequately describe the species living there. Rather, the descriptions of potential bottom habitat and Essential Fish Habitat (EFH) were based on what was likely to be there, not on what was surveyed there. In order to understand the current status of the bottom habitat where the City of Newport Beach now wants to construct the CAD, please provide quantitative subtidal and biological surveys in and near the proposed project location footprint that would describe the nature of the bottom habitat and fish and invertebrate species populations specific to the project area. In addition, the EIR should include a thorough assessment of potential direct effects on benthic infauna, and also indirect effects that may result from bioaccumulation and biomagnification of contaminants of concern in higher trophic levels of marine life and marine-dependent wildlife.

CCC-6

**3.9.3.4.2.1 California Coastal Act**

As stated, Section 30221 of the Coastal Act requires that oceanfront land suitable for recreational use shall be protected for recreational use and development unless present and foreseeable future demand for public or commercial recreational activities that could be accommodated on the property is already adequately provided for in the area. According to the comments section, during construction, public and private access to the water in potions of the Project Area may be temporarily restricted during dredging, but what about during construction of the CAD? The proposed location is in the center of the harbor’s turning basin. Will the public be able to safely recreate in this area during construction of the CAD and during disposal to occur over the span of 10 years?

The EIR should identify any potential impacts to public access and recreation and provide a plan for avoiding such impacts by orienting and timing project activities so that watercraft may still access the harbor.

CCC-7

Section 30233 of the Coastal Act allows dredging and filling of coastal waters or wetlands only where feasible mitigation measures have been provided to minimize adverse environmental effects, and for only eight uses listed in the Coastal Act. Section 30233 of the Coastal Act also requires that the proposed dredging and fill of coastal waters be ***the least environmentally-damaging feasible alternative*** including the use of feasible mitigation measures to reduce adverse environmental effects (emphasis added). Please ensure that the final EIR includes a thorough analysis of all alternatives. If the CAD is the only place where certain contaminated sediments may be safely deposited, please include evidence of other disposal sites that were considered and deemed infeasible, including upland (landfill) disposal sites. Please also reference the processes and procedures that will determine which dredged materials are deposited in the CAD, which materials are deposited in open ocean sites, and which clean materials are deposited in areas suitable for beach use.

Please note the comments provided herein are preliminary in nature. More specific comments may be appropriate as the project develops and an alternative is selected. Thank you again for the opportunity to comment on the Draft EIR. We look forward to future collaboration on preservation of coastal resources within the South Coast region. If you have any questions or concerns, please do not hesitate to contact us at the Coastal Commission's Long Beach office.

Sincerely,

Mandy Revell
Coastal Program Analyst

## *2.4.2 Response to the California Coastal Commission (CCC)*

| Comment ID | Text |
|---|---|
| CCC-1 | The comment generally summarizes the commenter's mission and introduces its comments on the DEIR. Because the comment omits any significant environmental issues, no additional response is warranted (CEQA Guidelines Section 15088). Generally, however, the preparers of this EIR thank the CCC for its review and comments. |
| CCC-2 | The comment claims that the DEIR prematurely assumes that proposed use of nearshore ocean beaches is currently an approved location for the City to deposit dredged sediment. Please see the Response to Comment RWQCB (2)-3. An EIR does not allow any aspect of the proposed Project to move forward, but acts as the environmental analysis upon which decision-makers, including the lead and responsible agencies, can use to approve or disapprove a project and/or related permits. The DEIR properly discloses that several agencies need to permit several aspects of the proposed Project, including use of nearshore beaches. As discussed in Section 1.3 of the DEIR, as lead agency, the City has the primary responsibility to perform the environmental analysis. Under CEQA Guidelines Section 15086, lead agencies must "consult with, and request comments on, a draft Environmental Impact Report (EIR) from public agencies that are responsible agencies; trustee agencies with resources affected by the project; and any state, federal, or local agency that has jurisdiction by law with respect to the project or that exercises authority over resources that may be affected by the project." Table of the DEIR 1-1 notes that the CCC would be responsible for any placement of material in state tidelands (including nearshore beaches) and includes a discussion of the RGP 54 approval process. Accordingly, the DEIR presents a full analysis of the proposed Project, including all aspects requiring agency approval, for responsible and trustee agencies to review and provide comments, as well as for use in considering approval of applicable permits. Table 1-1 has been updated to clarify those aspects of the proposed Project that require approval by responsible agencies. |
| CCC-3 | The comment recommends that the DEIR identify BMPs to ensure chemical constituents of concern do not become released into the water column after they have been released from the bottom of the barge during deposition. Please see Section 2.5.4, which provides a summary of BMPs that will be required as a condition of the proposed Project and incorporated into the proposed Project plans and contract specifications as appropriate. In addition, Section 3.8.3.4.1 presents a comprehensive analysis of the potential environmental effects of nearshore placement and includes specific BMPs and mitigation measures focused on reducing any potential for impacts. The following mitigation measures were identified:<br>• **MM-HYDRO-1:** Conduct water quality monitoring during all construction activities. The project will obtain the required permits under the RWQCB and/or the USACE. Water quality monitoring will be implemented to comply with numeric receiving water limitations (Table 3-10) and other permit requirements during construction activities to minimize potential water quality impacts to Lower Newport Bay.<br>• **MM-HYDRO-2**: Implement Water Quality BMPs. Construction contractors shall use BMP water quality controls to ensure compliance with the water quality standards identified herein. Measures could include use of a silt curtain during dredging and/or material placement, a floating boom to be maintained around the proposed Project area, and daily inspection of construction equipment for leaks or malfunction. Storage or stockpiling of materials related to construction may be prohibited where such materials could enter the waters of Lower Newport Bay. |

| Comment ID | Text |
|---|---|
| | Inclusion of BMPs and MM-HYDRO 1 and MM-HYDRO 2 were found to reduce the potential for impacts to water quality to less than significant, fully addressing the CCC's comment. |
| CCC-4 | Please see comment CCC-3. Placement within the CAD facility would occur over a 6-month period with no proposed interim clean cover placement within that defined window. A similar approach was used during CAD facility placement at Port Hueneme, the City of Long Beach, and the Port of Long Beach during similar project construction events without the release of contaminants into the water column. During the modeling work to support the proposed Project, estimates for potential water column release were calculated and determined to be negligible. Water quality monitoring is standard during disposal events to look for potential sediment turbidity and chemical releases as a final precaution. |
| CCC-5 | The comment accurately notes that no physical, recent, quantifiable survey has been conducted to assess existing conditions and to evaluate impacts that could occur with implementation of the proposed Project. Rather, potential impacts to aquatic flora and fauna from the proposed nearshore ocean disposal were described in Section 3.3 of the DEIR. The analysis presented instead relies on existing information, including most notably the biological survey completed to support the City's Marina Park project (City 2009). The biological survey was later augmented based on public input received during the DEIR process through the preparation of a biological assessment that evaluated sensitive habitats and species in the vicinity of beach replacement sites used for disposal of dredged sediment in support of the project.<br><br>While the Marina Park biological survey was completed in 2009, conditions in the nearshore environment have likely not changed and the survey results remain accurate. In 2015, side-scan and underwater surveys were conducted in western Newport Beach to update information from the *1988 Supplemental Environmental Impact Statement/Environmental Impact Report 583 for the Phase II General Design Memorandum on the Santa Ana River Mainstem Project* (Chambers Group, Inc., and Moffatt & Nichol 2016) on nearshore resources at disposal areas. The survey confirmed habitat types (mostly sandy bottom) and habitat conditions remained the same. Additionally, the nearshore community tends to include a similar set of species throughout mainland southern California because only a limited number of species are adapted to the harsh open coast sand bottom environment (USACE 2012).<br><br>The City believes that the analysis described in Section 3.3 and supporting documentation fully referenced in the DEIR are adequate to assess impacts that could result from the proposed Project.<br><br>The comment requests an assessment on potential effects to benthic infauna as well as the indirect effects that may result from bioaccumulation and biomagnification of contaminants of concern. Benthic infauna at the CAD location would be displaced during excavation. Benthic organisms and other biota (fish, birds, etc.) adjacent to the site are not predicted to be impacted based on the studies that have been conducted (as noted in the *Lower Newport Bay Federal Channels Dredging, Sampling and Analysis Program Report* [Anchor QEA 2019a; Appendix B to the BODR]). Bioassays showed the materials to be placed into the CAD are not harmful to animals when placed in direct and indirect contact with the sediments. Also, chemical accumulation in animal tissues was also not at a level that would suggest that there are risks to the higher trophic level animals that might consume them. The results of water quality partitioning calculations also suggest that chemicals of concern will not be released into the overlying water either during placement or over time after placement. |

| Comment ID | Text |
|---|---|
| CCC-6 | The comment requests information related to the potential impacts to recreation in the Harbor during construction of the CAD. Please see Master Response 4. The potential impacts to recreation during construction and over the life of the proposed Project were fully analyzed in Section 3.11. Section 3.11 fully discloses the potential impacts to recreation both during initial CAD construction as well as during the periods when the CAD facility will be open for residents' use. As discussed in Section 3.11, there would be short-term restrictions on some recreational activities in the immediate area of the CAD during construction. Most recreational activities could be sufficiently relocated to other appropriate areas within Lower Newport Harbor. Approximately 2 years following construction of the CAD facility and placement of an interim cap, the City and its residents would have a second opportunity for a 6-month period to place additional material (Phase 6). During this 6-month period, boating in the immediate area of the CAD facility would also be restricted.<br><br>While most recreational activities could be relocated, interference with recreational sailing and regattas in Newport Harbor is anticipated during CAD facility construction, which could result in a potentially significant impact. Mitigation measure MM-REC-1, Coordinate with Sailing Centers, would be implemented to reduce this potential impact to less than significant. The comment suggests that disposal could be continuous over 10 years. As discussed in the DEIR (Section 2.5), the City's original proposal was to allow the City and its residents an opportunity for up to 10 years to place material within the CAD facility. In response to public comments received on the NOP, the City modified that approach to an abbreviated timeline of 6 months approximately 2 years after the CAD facility was constructed. The intention of this 2-year period is to allow the City and its residents time to develop a dredge design, obtain applicable permits and approvals, and select a contractor so dredging can be coordinated within that 6-month window. As discussed in Section 2.3.2.1 of the DEIR, if the Final EIR is certified and permitted, the City would seek to modify the Regional General Permit 54 (RGP 54) for dredging with the RGP 54 Plan Area and to include disposal within the CAD facility. Alternatively, applicants may apply directly to the regulatory agencies, and dispose of their material within the CAD facility (assuming the CAD facility is certified and permitted). |
| CCC-7 | The comment recommends that the Final EIR include feasible mitigation measures to reduce potential environmental impacts and include a thorough analysis of all alternatives. Please see Section 6 of the DEIR, which includes a robust alternatives analysis considering a no project scenario as well as alternative disposal sites, including a discussion of other disposal sites that were considered and deemed infeasible. Section 6.2.2 analyzes the disposal of Material at Port Fill Site, while Section 6.3.2 analyzes upland disposal.<br><br>In response to referencing the processes and procedures that will determine which materials are deposited in the CAD, deposited in open ocean sites, and deposited in areas suitable for beach use, please see Section 2.1 of the DEIR, which outlines the process for determining sediment suitability and placement options. Figure 1-2 presents the results of DMMT coordination and identifies sediment that is suitable for open ocean disposal or requires an alternate disposal option. Section 6.4 includes a clear comparison of all alternatives. In addition, the comment requests that the Final EIR reference the processes and procedures that will determine which dredged materials are deposited in the CAD, which materials are deposited in open ocean sites, and which clean materials are deposited in areas suitable for beach use. |

## Marine Vie

**From:** Adam Gale
**Sent:** Thursday, January 14, 2021 3:33 PM
**To:** Lena DeSantis; Marine Vie
**Subject:** FW: Lower Newport Bay CAD DEIR - request to extend review period

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**From:** Miller, Chris <CMiller@newportbeachca.gov>
**Sent:** Thursday, January 14, 2021 3:27 PM
**To:** 'Flannery, Corianna@Wildlife' <Corianna.Flannery@Wildlife.ca.gov>
**Cc:** Wilkins, Eric@Wildlife <Eric.Wilkins@wildlife.ca.gov>
**Subject:** RE: Lower Newport Bay CAD DEIR - request to extend review period

**CAUTION – EXTERNAL EMAIL:** This email originated from outside of Anchor QEA. Please exercise caution with links and attachments.

Hi Corianna,

Thank you for inquiring, and for taking the time to respond to the Draft EIR.

We released the Draft EIR on December 4 for the required 45 days (plus 2 extra days for the holidays). We are doing our best to maintain our schedule, and have published the deadline date on all of our notices with the state and all stakeholders, as required.

Respectfully, I will continue to maintain our January 20, 2021 deadline as originally planned. I sincerely hope you understand my desire to keep the project on track as best I can.

Thank you for inquiring.

Chris Miller

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**From:** Flannery, Corianna@Wildlife <Corianna.Flannery@Wildlife.ca.gov>
**Sent:** Wednesday, January 13, 2021 4:53 PM
**To:** Miller, Chris <CMiller@newportbeachca.gov>
**Cc:** Wilkins, Eric@Wildlife <Eric.Wilkins@wildlife.ca.gov>
**Subject:** Lower Newport Bay CAD DEIR - request to extend review period

**[EXTERNAL EMAIL]** DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

Dear Mr. Miller,

CDFW (1)-1

The Department requests a one-week extension to review the Lower Newport Bay Confined Aquatic Disposal Construction Project DEIR. There has been a delay in the review due to upper management schedules and the state holiday. Please let us know if you approve this extension request. Thanks for your consideration.

Best,

*Corianna Flannery* | Environmental Scientist
California Department of Fish and Wildlife – Marine Region
Environmental Review and Water Quality Project
619 Second St., Eureka, CA 95501
Cell: (707) 499-0354
Corianna.Flannery@wildlife.ca.gov
www.wildlife.ca.gov

**From:** Flannery, Corianna@Wildlife <Corianna.Flannery@Wildlife.ca.gov>
**Sent:** Wednesday, January 20, 2021 3:40 PM
**To:** Miller, Chris
**Cc:** Wilkins, Eric@Wildlife; Ota, Becky@Wildlife; Lane, Jessie@Wildlife; Scianni, Melissa; Bryant Chesney - NOAA Federal; Brown, Marc@Waterboards; Weber, John@Coastal
**Subject:** CDFW Comments - Lower Newport Bay Confined Aquatic Disposal Project DEIR (SCH# 2019110340)



Dear Mr. Miller,

CDFW (2)-1

The California Department of Fish and Wildlife (Department) received a Draft Environmental Impact Report (DEIR) from the City of Newport Beach for the Lower Newport Bay Confined Aquatic Disposal Construction Project (Project) pursuant the California Environmental Quality Act (CEQA) and CEQA Guidelines. The objective of the Project is to construct a confined aquatic disposal (CAD) facility to contain sediment that is unsuitable for ocean disposal or nearshore placement due to elevated concentrations of mercury, polychlorinated biphenyls, dichlorodiphenyltrichloroethane, and other contaminants. The Department offers the following comments:

CDFW (2)-2

**Special Status Species**
The Department has regulatory authority over projects that could result in the "take" of any species listed under the California Endangered Species Act (CESA) as threatened or endangered, or designated as a candidate for listing, pursuant to Fish and Game Code Section 2081. The Department also has jurisdiction over fully protected (FP) species pursuant to Fish and Game Code Sections 3511. Take of any fully protected animal species is prohibited and must be avoided by the Project. CESA-listed and fully protected species that occur in the Project area include:

- California least tern, *Sterna antillarum browni*, State and Federally Endangered, State FP
- California brown pelican, *Pelecanus occidentalis californicus*, State FP

Newport Bay and the surrounding beaches provide suitable nesting and foraging habitat for California least tern (least tern). The least tern was listed as endangered in 1970 under the authority of the Federal Endangered Species Act and designated by the State of California as Fully Protected in 1970, as well as endangered in 1971 under the authority of CESA. The least tern is migratory and uses habitat within and adjacent to Newport Bay during the breeding season (April 1 through September 1). The DEIR addresses temporary and minimal impacts to foraging habitat for least tern resulting from suspended sediment and increased turbidity related to dredging activities. The DEIR also acknowledges that noise and operation of equipment could deter tern from resting on surrounding beaches. Although nesting sites have primarily been documented in Upper Newport Bay, there is potential for least tern nest abandonment resulting from construction noise. Adult abandonment of active nests may lead to starvation or increased predation of chicks, a decline in breeding success, and an overall population decline.

Recommendation: To avoid impacts to nesting California least tern, we recommend that dredging and CAD facility construction occur outside of California least tern nesting season (typically April-September), as feasible.

CDFW (2)-3

**Upper Newport Bay State Marine Conservation Area (SMCA)**

The Upper Newport Bay SMCA provides protected nursery habitat for several fish species of commercial and recreational importance, such as halibut and sand bass. The lower boundary of the Upper Newport Bay SMCA is approximately 0.5-mile northeast of the proposed CAD facility. The Department is concerned that movement of contaminated sediment during dredging operations and sediment placement into the CAD facility may impact habitat, water quality, and species within the Upper Newport Bay SMCA. The DEIR does not discuss the proximity of the proposed CAD facility to the Upper Newport Bay SMCA and does not provide an analysis of potential impacts to the SMCA that might occur from Project activities.

Recommendations: The Department recommends the proposed Project include measures to avoid and minimize impacts to the Upper Newport Bay SMCA and provide mitigation for any remaining impacts. To reduce impacts to the SMCA to a level less than significant, the Department recommends the following:

- Include an analysis in the Final Environmental Impact Report (FEIR) of potential impacts from contaminated sediment to habitat, water quality, and species within the Upper Newport Bay SMCA. The analysis should consider impacts occurring from dredging activities, CAD construction, placement of contaminated sediment into the CAD facility, and potential movement of contaminated sediment during the interim period and during the disposal periods when the CAD facility has exposed contaminated sediment for extended periods of time.
- Use of silt curtains during active dredging and placement of sediment into the CAD facility to minimize environmental impacts of contaminated sediment and turbidity to surrounding habitats, including the Upper Newport Bay SMCA.

CDFW (2)-4

**Mobilization of Contaminated Sediment During the Interim Period**

The Department is concerned with potential exposure and mobilization of contaminated sediment from vessels anchoring and mooring within the CAD facility. Lower Newport is a busy recreational marine harbor, and the proposed CAD facility overlaps with the mooring area for the Newport Harbor Yacht Club and anchorage area east of Lido Isle. It is stated within the DEIR that private vessels anchoring in the area are likely to penetrate up to one foot into the seabed. While the CAD boundary will be closed off to anchoring and mooring during CAD construction, vessels that anchor and moor within the CAD facility during the two-year interim period might expose contaminated sediment buried under the one-foot-deep interim layer. The Operations, Management, and Monitoring Plan for the Project proposes to conduct water column monitoring during disposal operations, bathymetry surveys throughout the Project, and long-term monitoring following placement of the final cap. However, other than conducting a bathymetry survey after placement of the interim layer, the DEIR does not propose monitoring of the CAD facility during the two-year period when contaminated sediment is covered with a one-foot-thick cap.

Recommendations:

- Use of a thicker interim containment layer (>one-foot-thick) to minimize mobilization of contaminated sediments that could occur from vessels anchoring or mooring in the CAD area.
- Conduct water quality and sediment core monitoring during the two-year interim layer period to ensure there is no mobilization of contaminated sediment outside of the CAD boundary and that chemicals in the sediment remain fully isolated and do not affect resident aquatic organisms.

- Submit all monitoring reports, including construction monitoring and long-term monitoring reports, to the Department for review.

CDFW (2)-5

**Native Eelgrass**

Native eelgrass beds (*Zostera marina* and *Z. pacifica*) are an important part of the Newport Bay ecosystem and are recognized by state and federal statutes as both highly valuable and sensitive habitats. Eelgrass provides primary production and nutrients to the ecosystem along with spawning, foraging, and nursery habitat for fish and other species. Pursuant to the federal Magnuson-Stevens Fishery Conservation and Management Act, eelgrass is designated as Essential Fish Habitat for various federally managed fish species within the Pacific Coast Groundfish and Pacific Coast Salmon Fisheries Management Plans (FMP). Eelgrass is also considered a habitat area of particular concern for various species within the Pacific Coast Groundfish FMP. Eelgrass habitats are further protected under state and federal "no-net-loss" policies for wetland habitats. Additionally, the importance of eelgrass protection and restoration, as well as the ecological benefits of eelgrass is identified in the California Public Resources Code (PRC Section 35630).

The DEIR includes shallow-water eelgrass survey results from 2018 and acknowledges a more recent harbor-wide eelgrass survey was completed in 2020. The DEIR states that eelgrass beds are not present in the area proposed for the CAD facility or in the areas proposed for dredging, and that any impacts to eelgrass will be mitigated for in accordance with the California Eelgrass Mitigation Policy. However, maps provided in the 2018 Newport Bay Eelgrass Resources Report show extensive eelgrass habitat within the RGP 54 Plan Area (Figures 10-18, Appendix H). It is unclear whether impacts to eelgrass analyzed in the DEIR include impacts associated with dredging the RGP 54 Plan Area, or if those impacts are analyzed in a separate document. The Department is concerned with direct and/or indirect impacts to eelgrass habitat from dredging activities.

Recommendations: The Department recommends the proposed Project avoid and minimize impacts to eelgrass and fully mitigate for any remaining impacts. To reduce the impact to eelgrass to a level of less than significant, the FEIR should include the following:

- A comprehensive analysis of impacts to eelgrass habitat using the 2020 eelgrass survey results. The Department recommends the City include detailed maps of the proposed dredge sites and footprints overlaid with current (2020) and historic eelgrass distribution data. The Department recommends the maps delineate which sites have already implemented successful eelgrass mitigation versus sites that will require mitigation. The Department recommends the RGP 54 Plan Area dredge sites are included in this analysis.
- A comprehensive bay-wide eelgrass mitigation and monitoring plan to ensure not net loss of eelgrass habitat. This plan should include mitigation for any direct and indirect impacts to eelgrass associated with dredging and CAD construction. The Department recommends that the City, prior to commencement of any Project activities, consult with the Department and other state and federal resource agencies in a review of all eelgrass habitat surveys, impact analyses, appropriate monitoring, and any mitigation for impacts to eelgrass habitat. Prior to commencement of Project activities, the City should provide to all applicable agencies, including the Department, any survey results, impact analyses, and monitoring and mitigation protocols determined through the multiagency process and required by permitting agencies.

If transplanting of eelgrass is required for mitigation, a Scientific Collecting Permit (SCP) from the Department will be required prior to harvest and transplanting activities. The SCP may include conditions such as donor bed surveys, limits on number and density of turions collected, methods for

collection and transplanting, notification of activities, and reporting requirements. Please visit the Department's SCP webpage for more information: https://wildlife.ca.gov/Licensing/Scientific-Collecting.

CDFW (2)-6

**Sediment Management Plan**

The City developed a Sediment Management Plan (SMP; Appendix D) to address management of dredged material determined to be unsuitable for open ocean disposal. However, the SMP does not disclose how future material determined to be unsuitable for open ocean or nearshore disposal will be dealt with after completion of the CAD facility. The SMP also does not address how the City plans to meet Total Daily Maximum Load (TMDL) water quality targets for toxic pollutants and those in development such as fecal coliform. It is unclear to the Department from the SMP and the DEIR whether the SMP was developed in consultation with other state and federal resource and permitting agencies.

Recommendations:

- The Department recommends the SMP address TMDL water quality targets and disposal of future unsuitable material after completion of the CAD facility.
- Prior to completion of the FEIR, the Department recommends the City consult with the Department and other state and federal agencies in a review of the SMP.

The Department appreciates the opportunity to comment on the Lower Newport Bay Confined Aquatic Disposal Construction Project to assist the City in identifying and mitigating Project impacts on biological resources. Questions and further coordination should be directed to Corianna Flannery, Environmental Scientist at 707-499-0354 or Corianna.Flannery@wildlife.ca.gov.

*Corianna Flannery* | Environmental Scientist
California Department of Fish and Wildlife – Marine Region
Environmental Review and Water Quality Project
619 Second St., Eureka, CA 95501
Cell: (707) 499-0354
Corianna.Flannery@wildlife.ca.gov
www.wildlife.ca.gov

## *2.4.3 Response to the California Department of Fish and Wildlife (CDFW)*

Please note, two comments were received from CDFW—an email (CDFW (1)) and a letter (CDFW (2)).

| Comment ID | Text |
|---|---|
| CDFW (1)-1 | The comment was an email from the CDFW requesting an extension of the public comment period. An email response was provided as follows:<br><br>*Thank you for inquiring, and for taking the time to respond to the Draft EIR. We released the Draft EIR on December 4 for the required 45 days (plus 2 extra days for the holidays). We are doing our best to maintain our schedule and have published the deadline date on all our notices with the state and all stakeholders, as required. Respectfully, I will continue to maintain our January 20, 2021 deadline as originally planned. I sincerely hope you understand my desire to keep the project on track as best I can.* |
| CDFW (2)-1 | The comment generally summarizes the commenter's mission and introduces its comments on the DEIR. Because the comment omits any significant environmental issues, no additional response is warranted (CEQA Guidelines Section 15088). Generally, however, the preparers of this EIR thank CDFW for its review and comments. |
| CDFW (2)-2 | The comment is suggesting that the proposed Project avoid work during the least tern nesting season, if feasible. As noted in Section 3.3.4 of the DEIR, proposed activities at the CAD facility and maintenance dredging sites would not result in a significant impact on any special-status species, including least terns. The proposed Project areas are not important foraging or breeding areas for special-status species, and few, if any, individuals of this species would be present. Noise impacts would be temporary and likely within ambient levels. Impacts from proposed Project activities would be less than significant because no loss of individuals or a substantial reduction of habitat for the California least tern, western snowy plover, sea turtles, marine mammals, or other special-status species would occur, nor would loss of any critical habitat for federally listed species occur. Given the anticipated construction duration, limiting construction to outside the tern nesting season would result in extended construction delays and other impacts. Therefore, it is not a feasible measure and it is not necessary, as there is not anticipated to be any significant impacts to special-status species. |
| CDFW (2)-3 | The comment notes that the DEIR does not discuss the proximity of the proposed CAD facility to the Upper Newport Bay State Marine Conservation Area (SMCA) and does not provide an analysis of potential impacts to SMCA that might occur from proposed Project activities. While the DEIR does not specifically identify the Upper Newport Bay as the SMCA, the DEIR includes information related to the Upper Bay in various sections of the DEIR and the potential to impact such resources, including aesthetics, biological resources, and hydrology and water quality. The DEIR presents several project overview figures that show the project site in relation to other areas in the City, including the Upper Bay. The Final EIR has been amended to clarify that the Upper Bay is part of the SMCA, and the SMCA has been clearly identified in project figures where appropriate.<br><br>The comment also recommends the use of various best management practices (BMPs) and measures, including the use of a silt curtain. Please see Section 2.5.4, which provides a summary of BMPs that will be required as a condition of the proposed Project and incorporated into the proposed Project plans and contract specifications as appropriate. In addition, Mitigation Measure HYDRO-2 references the use of a silt curtain during dredging and/or material placement, use of a floating |

| Comment ID | Text |
|---|---|
| | boom maintained around the proposed Project area, and daily inspection of construction equipment for leaks or malfunction. These measures will ensure that there are no potential impacts to the SMCA. |
| CDFW (2)-4 | The comments suggest concern of potential exposure and mobilization of contaminated sediment from vessels anchoring and mooring within the CAD facility. As discussed in Section 3.7.4.4.2, the results of our chemical breakthrough modeling do not suggest that a cap greater than 1 foot in thickness is needed to prevent chemicals from migrating into the overlying water or to prevent propwash erosion. Monitoring the porewater in the overlying cap is a common technique to ensure that the cap is functioning properly and would be a beneficial component of the final site monitoring plan. At other CAD locations in southern California, this approach was employed for the first 5 years post-construction, and no breakthrough of contaminants was observed. Monitoring the porewater after the interim cap is placed is likely not necessary because its primary function is just to provide a short-term layer of protection from potential bioturbation or disturbance from vessels operating over the site. |
| CDFW (2)-5 | The comment recommends that the DEIR include updated information regarding eelgrass. As discussed in Section 3.3.1.1.2 of the DEIR, the City conducts shallow-water eelgrass surveys every 2 years in Lower Newport Bay, and harbor-wide surveys—including the deepwater habitat—are conducted every 4 years. At the time of the DEIR release, the most recent harbor-wide survey was conducted in summer 2020, but the results were not yet available. The 2020 survey results are now available and have been added to the Final EIR. As discussed further in the DEIR, and consistent with the California Eelgrass Mitigation Policy (CEMP; NOAA 2014), a pre-construction eelgrass survey will be performed by the City in the proposed Project area 30 to 60 days prior to commencement of dredging and CAD construction activities. If eelgrass is located during the pre-construction survey, a post-construction survey will also be performed by the City within 30 days following completion of construction to evaluate any immediate effects to eelgrass habitat. If the post-construction survey indicates loss of eelgrass habitat within the proposed Project area, any impacts to eelgrass that have not previously been mitigated for will be mitigated in accordance with the CEMP. This procedure will ensure that the proposed Project avoids and minimizes impacts to eelgrass and fully mitigates for any remaining impacts. |
| CDFW (2)-6 | The comment questions the adequacy of the SMP. Please see Master Response 3. Section 5.2 of the SMP presents disposal options for sediment determined unsuitable for open ocean disposal. The SMP notes that contaminated material from the previous dredge event was disposed of at the Port of Long Beach's Middle Harbor Fill Site. However, this site is closed and no longer an option for future sediment management needs. The SMP recommends that the City continue to track potential port fill opportunities in the region that may provide capacity for third-party material. The SMP also identifies upland disposal as a viable option. The DEIR considered both scenarios as alternative to the proposed Project. As described in Section 3.2.3 of the DEIR, upland landfill disposal is the costliest disposal option and should only be used for small volumes of sediment when other options are unavailable or not viable. Transporting and disposing of this material to an upland landfill is expensive and would cause impacts to air quality, traffic, noise, and other aspects associated with hauling the material via trucks on the local roads and highways.<br><br>Lastly, the SMP identifies construction of a CAD facility within the Harbor. The CAD facility would thereby accommodate additional fill volume from future maintenance dredging projects conducted as part of the City's RGP 54 programs, along with sediment that is not covered as part of the |

| Comment ID | Text |
|---|---|
| | programs (e.g., Balboa Yacht Basin and Promontory Bay) and thus requires an alternative disposal option.<br><br>The SMP was prepared in response to discussions during the August 2019 DMMT meeting where the final sediment suitability was determined. As part of that determination, the DMMT also concurred that a CAD facility was an appropriate disposal option to manage material determined unsuitable for open ocean disposal. The City presented the concept to manage other material—outside the Federal Channels—as described in the SMP.<br><br>If the Final EIR is certified, the City will prepare regulatory permit applications that will require extensive resource and regulatory agency consultation, including further discussions on management of unsuitable material in the Harbor. Further, the SMP is intended as a living document that will be updated as new information becomes available. |

ORANGE COUNTY
OC Public Works

January 20, 2021

NCL-20-0020

Chris Miller
City of Newport Beach
Public Works Department
100 Civic Center Drive,
Newport Beach, CA 92660

**Subject:** Lower Newport Bay Confined Aquatic Disposal Construction Project

Dear Chris:

OC-1

The County of Orange has reviewed the Draft Environmental Impact Report for the proposed Lower Newport Bay Confined Aquatic Disposal (CAD) Construction Project and has no comments at this time. We would like to be advised of further developments on the project. Please continue to keep us on the distribution list for future notifications related to the project.

If you have any questions, please contact Steven Giang at (714) 667-8816 in OC Development Services.

Sincerely,

Richard Vuong, Planning Division Manager
OC Public Works Service Area/OC Development Services
601 North Ross Street
Santa Ana, California 92701
Richard.Vuong@ocpw.ocgov.com

### *2.4.4 Response to the Orange County Public Works (OC)*

| Comment ID | Text |
|---|---|
| OC-1 | The comment generally summarizes the commenter's mission and requests to be kept updated on future notifications. Because the comment omits any significant environmental issues, no additional response is warranted (CEQA Guidelines Section 15088). The City appreciates Orange County Public Works' time and efforts in reviewing the DEIR and will continue to keep the County on the distribution list for future notifications related to the proposed Project. |

Community Development cityofirvine.org

City of Irvine, One Civic Center Plaza, P.O. Box 19575, Irvine, California 92623-9575 949-724-6000

January 14, 2021

Mr. Chris Miller
City of Newport Beach
Public Works Department
100 Civic Center Drive
Newport Beach, CA 92660
cmiller@newportbeachca.gov

**Subject: Draft Environmental Impact Report (DEIR) Lower Newport Bay Confined Aquatic Disposal (CAD) Construction Project in the City of Newport Beach**

Dear Mr. Miller:

IRV-1

The City of Irvine is in receipt of a notice for a DEIR for the proposed Lower Newport Bay CAD Construction project. The intent of the project is to improve navigation in Newport Harbor and identify a safe and effective disposal location to manage dredged sediments. To accomplish this, the project proposes a CAD facility that will contain dredged sediment that is unsuitable for open ocean disposal.

Staff completed its review and has no comments. If you have any questions, please contact me at 949-724-6364 or by email at jequina@cityofirvine.org. Thank you for the opportunity to review this project.

Sincerely,

Justin Equina
Associate Planner

ec: Marika Poynter, Principal Planner

### *2.4.5 Response to the City of Irvine (IRV)*

| Comment ID | Text |
|---|---|
| IRV-1 | The comment generally summarizes the commenter's mission. Because the comment omits any significant environmental issues, no additional response is warranted (CEQA Guidelines Section 15088). The City appreciates the City of Irvine's time and efforts in reviewing the DEIR. |

C.C.R.P.A.
Preserving The Past For The Future

**California Cultural Resource Preservation Alliance, Inc.**

**P.O. Box 54132**
**Irvine, CA 92619-4132**

**An alliance of American Indian and scientific communities working for the preservation of archaeological sites and other cultural resources.**

December 19, 2020

City of Newport Beach
Public Works Department, Chris Miller
100 Civic Center Drive
Newport beach, California 92660

Re: Lower Newport Bay Confined Aquatic Disposal (CAD) Construction Project

Dear Mr. Miller:

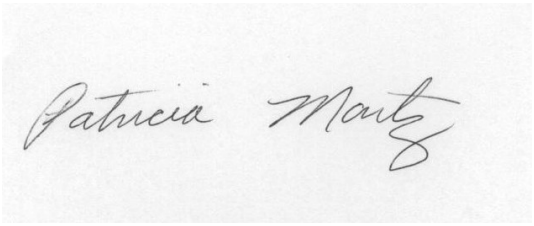
CRPA -1

Thank you for the opportunity to review the Draft Environmental Impact Report (DEIS) for the above-mentioned project. We concur with the determination that, although low, there is the potential for the presence of archaeological resources in native sediment. In addition to isolated artifacts, there could be more substantial cultural deposits representing paleo occupation during the Pleistocene, as prior to about 8,000 years ago lower sea levels significantly extended the width of the coastal plain along the entire California coast.

CRPA -2

Regarding Mitigation Measure-CHR-1, having monitored a dredging project in the San Pedro Harbor, I have doubts about the ability of the dredging contractors to observe ground stone tools such as mortars, bowls, pestles, and manos, and they are even less likely to recognize chipped stone tools or an archaeological shell midden as everything is coated in mud. Therefore, for the mitigation measure to be meaningful, it is recommended that a qualified maritime archaeologist be present to monitor when native sediments are dredged.

Sincerely,



Patricia Martz, Ph.D.
President

## 2.5 Response to Organization Comments

### *2.5.1 Response to the California Cultural Resource Preservation Alliance (CRPA)*

| Comment ID | Text |
|---|---|
| CRPA-1 | The comment generally summarizes the commenter's mission. Because the comment omits any significant environmental issues, no additional response is warranted (CEQA Guidelines Section 15088). The City appreciates the CRPA's time and efforts in reviewing the DEIR. |
| CRPA-2 | As discussed in the DEIR, because ground-disturbing activities to be undertaken as part of the proposed Project would occur only in water in previously dredged areas, the proposed Project is not expected to encounter archaeological resources. However, in the unlikely event of such a discovery, MM-CHR-1, Stop Work in the Area If Prehistoric or Historical Archaeological Resources Are Encountered, was added to the DEIR. This mitigation measure is a commonly used measure in the region, and construction contractors are familiar with the process and controls. Therefore, this measure would adequately reduce the potential for impacts, and no changes are necessary. |

[redacted]

**Subject:** FW: RE:Draft EIR of Newport's Proposed CAD System

**From:** Ray Hiemstra <ray@coastkeeper.org>
**Sent:** Monday, January 04, 2021 3:24 PM
**To:** Miller, Chris <CMiller@newportbeachca.gov>
**Cc:** Garry Brown <garry@coastkeeper.org>; Sarah Spinuzzi <sarah@coastkeeper.org>
**Subject:** RE:Draft EIR of Newport's Proposed CAD System



Hi Chris,

CK (1)-1

Happy New Year, I hope you enjoyed your Holiday Break. I see you are the contact person for the Lower Newport Bay Confined Aquatic Disposal Construction Project.

OC Coastkeeper is planning to comment on this Draft EIR but with it being released over the Holidays we need some more time. We are requesting an extension to the public comment period to January 29th. Let me know if that is OK.

Thanks,

Ray Hiemstra

Associate Director of Programs

Orange County Coastkeeper

714-850-1965 x 1003

www.coastkeeper.org

**From:** Gallagher, Karen <KGallagher@newportbeachca.gov>
**Sent:** Friday, December 4, 2020 10:20 AM
**Subject:** City of Newport Beach: Notice of Availability

## Notice of Availability

**Lower Newport Bay Confined Aquatic Disposal (CAD) Construction Project**

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**NOTICE OF AVAILABILITY**

**LOWER NEWPORT BAY CONFINED AQUATIC DISPOSAL (CAD) CONSTRUCTION PROJECT**

**ENVIRONMENTAL IMPACT REPORT**

**Access Draft Environmental Impact Report (DEIR) here**.

**Date:** December 4, 2020

**To:** All Interested Parties

**From:** City of Newport Beach, Public Works Department, 100 Civic Center Drive, Newport Beach, CA 92660

**Project Title/Subject:** Lower Newport Bay Confined Aquatic Disposal (CAD) Construction Project

**Project Applicant:** City of Newport Beach

**Notice of AVAILABILITY Review Period:** December 4, 2020 through January 20, 2021 (47 days)

The purpose of this notice is to notify any interested parties that the Lead Agency, the City of Newport Beach, has prepared a Draft Environmental Impact Report (DEIR) for the proposed Lower Newport Bay Confined Aquatic Disposal (CAD) Construction Project ("Project"), and to solicit comments on the environmental issues and alternatives addressed in the DEIR (California Environmental Quality Act [CEQA] Guidelines §15082). Due to the time limits mandated by State law, your response to this DEIR must be sent to the City of Newport Beach at the earliest possible date, but no later than **January 20, 2021**.

Consistent with CEQA requirements, copies of the DEIR and technical appendices are available for public review beginning December 4, 2020 in several locations both electronically and in hard copy. The DEIR is available on the City's website at www.newportbeachca.gov/ceqa. It is also posted on the State Clearinghouse's website at https://ceqanet.opr.ca.gov/2019110340/2. Hard copies of the DEIR and

electronic copies of the technical appendices are available at the following Newport Beach Public Library locations:

| | |
|---|---|
| Central Library | Crean Mariners Library |
| 1000 Avocado Avenue | 1300 Irvine Avenue |
| Newport Beach, California 92660 | Newport Beach, California 92660 |
| Balboa Library | Corona Del Mar Library |
| 100 East Balboa Boulevard | 410 Marigold Avenue |
| Balboa, California 92661 | Corona Del Mar, California 92625 |

In addition, a hard copy of the DEIR and electronic copies of the technical appendices are available for review at the City Public Works Department counter located at the Civic Center, Bay 2-D at 100 Civic Center Drive, Newport Beach, California 92660. Please submit all comments or other responses to this notice in writing by mail or e-mail to:

City of Newport Beach

Public Works Department, Chris Miller

100 Civic Center Drive
Newport Beach, California 92660
cmiller@newportbeachca.gov
(949) 644-3043

**PROJECT DESCRIPTION**

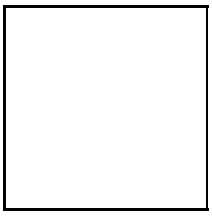
Newport Harbor, located in Newport Bay, is one of the largest recreational harbors in the United States. Natural processes result in the movement and accumulation of sediment which must be dredged periodically to maintain channel depth for safe navigation. The Federal Channels are maintained by the U.S. Army Corps of Engineers (USACE). The remainder of the Harbor is managed and maintained by the City and Orange County. USACE conducts annual bathymetric surveys to determine the amount of sediment that has accumulated in the Federal Channels and to assess the need for maintenance dredging. The most recent sediment sampling effort conducted in 2018 and 2019 determined that most of the material was determined suitable for disposal at a permitted open ocean location (or nearshore). However, dredging in the Main Channel and channel offshoots will expose some sediment that has been determined to be unsuitable for ocean disposal and therefore requires an alternate disposal location. Therefore, dredging of these areas is not feasible without also identifying a practicable management option for the unsuitable sediment.

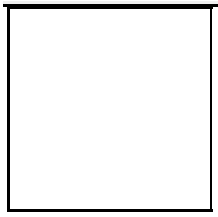
To manage the unsuitable material, the City proposes to construct a confined aquatic disposal (CAD) facility in the central portion of the Lower Harbor between Bay Island, Lido Isle and Harbor Island where

dredged sediment unsuitable for open ocean disposal or nearshore placement can be contained. Clean material suitable for beach nourishment generated from constructing the CAD facility will be transported and disposed at an approved open ocean disposal site or along the nearshore ocean beaches. The City is also proposing to allow maintenance dredging in sections of Newport Harbor outside the Federal Channels to re-establish safe navigation. Please refer to the Draft EIR posted on our website for a detailed project description.

**Please note:** This is an automated message from the City of Newport Beach. Subscription preferences may be changed by accessing your News & Alerts account from the City website.

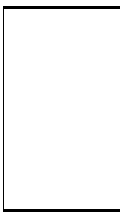




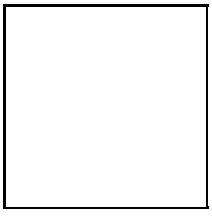


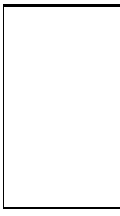
**Vince Zimmerer**

Dec 4, 2020, 12:43 PM (7 days ago)



to me, Jim, SCLAFANI, Alan, Bob





Thanks Garry for reaching out.

My personal feeling is that OCCK should be strongly against it. Why wouldn't the toxic sediment be brought to a landfill that can handle the toxic materials subject to EPA approval and not put the harbor at risk?

I am open to a meeting.

Regards,

**Vince Zimmerer** | Executive Vice President

W. Brown & Associates | 19000 MacArthur Blvd., Suite 600 | Irvine, CA 92612

Tel: (949) 851-2060 | Fax: (949) 851-2155 | License #: 0731207



Garry Brown, Founding Director

Orange County Coastkeeper
Inland Empire Waterkeeper

Coachella Valley Waterkeeper
3151 Airway Ave. Suite F-110
Costa Mesa, CA 92626
Telephone: (714) 850-1965
www.coastkeeper.org
garry@coastkeeper.org

ORANGE COUNTY COASTKEEPER
3151 Airway Avenue, Suite F-110
Costa Mesa, CA 92626
Phone 714-850-1965
www.coastkeeper.org

January 20, 2021

Mr. Chris Miller, Public Works Manager
City of Newport Beach
100 Civic Center Drive
Newport Beach, CA 92660
Email: cmiller@newportbeachca.gov

**RE: Draft Environmental Impact Report – Lower Newport Bay Confined Aquatic Disposal Construction Project**

Dear Mr. Miller:

CK (2)-1

Orange County Coastkeeper is a non-profit environmental organization with the mission to protect and promote sustainable water resources that are swimmable, drinkable, and fishable. Coastkeeper represents thousands of members, including Orange County residents and strong supporters of environmental quality and public health. In addition, Coastkeeper conducts a variety of marine habitat restoration projects within Newport Bay (the "Bay"). Coastkeeper respectfully submits the following comments on behalf of our organizational interests and our membership to express our procedural and substantive reservations regarding the Draft Program Environmental Impact Report and Appendices (DEIR) issued by the City of Newport Beach (the "City") for the Lower Newport Bay Confined Aquatic Disposal (CAD) Construction Project (the "Project") pursuant to the California Environmental Quality Act ("CEQA").

CK (2)-2

As a preliminary matter, Coastkeeper objects to the City's failure to provide adequate time for review and comment of the DEIR. The DEIR and corresponding Appendices were uploaded on December 4, 2020 and comprise over 10,500 pages of various documents, including numerous technical studies. Notwithstanding that "City Hall and most City facilities [were] closed for the holidays from Dec. 24 through Jan. 1" and again for Martin Luther King Jr. Day on Monday, January 18, 2021, the City provided just two extra days to account for holiday closures.[1] A two-day extension is insufficient to account for ten officially calendared City holidays. Likewise, the City failed to provide reasonable accommodations to account for COVID-19-related access restrictions. While hard copies of the DEIR were purportedly available at the City Public Works Department counter and different branches of the Newport Beach Public Library, all of these facilities were either closed to the public entirely or operating on limited capacity during the review period. These facilities were also subject to the holiday closures mentioned above. These closures and limitations frustrated Coastkeeper and the public's ability to review the voluminous DEIR. While Coastkeeper does not take issue with the City modifying its services in the interest of public health, Coastkeeper underscores that these modifications impart further reason for the City to provide additional time for review and comment.

[1] City of Newport Beach, *City Calendar*, https://newportbeachca.gov/government/data-hub/city-calendar/-curm-1/-cury-2021 (last visited January 20, 2021).

CK (2)-2 cont.

The Governor's Office of Planning and Research underscores that "CEQA establishes a floor and not a ceiling for public review and comment periods. Lead and responsible agencies may use their discretion to extend such time periods to allow for additional public review and comments."[2] While Coastkeeper and other interested parties requested short extensions of the comment period, the City denied these requests. This reflects a lack of honest engagement with interested parties and runs counter to the spirit of CEQA. Coastkeeper urges the City to revisit its decision and provide additional time for more meaningful public comment.

Understanding the limitations discussed above, Coastkeeper provides the following substantive comments to the DEIR for the City's consideration. As discussed in greater detail below, the DEIR fails to provide adequate protections for water quality and biological resources. The DEIR is legally inadequate under CEQA as it fails to provide adequate analysis, cumulative impacts, feasible alternatives, and appropriate mitigation with respect to Project impacts on water quality and the Newport Bay. Coastkeeper urges the City to require that the DEIR be modified in accordance with the comments below.

## I. INTRODUCTION – APPLICABLE LAW

CK (2)-3

An Environmental Impact Report (an "EIR") must disclose all potentially significant adverse environmental impacts of a project. Pub. Res. Code, § 21100(b)(1); CEQA Guidelines, § 15126(a); *Berkeley Keep Jets Over The Bay Committee v. Board of Port Commissioners of the City of Oakland* (2001) 91 Cal. App. 4th 1344, 1354. CEQA requires that an EIR not only identify the impacts, but also provide "information about how adverse the impacts will be." *Santiago County Water Dist. v. County of Orange* (1981) 118 Cal. App. 3d 818, 831. The lead agency may deem a particular impact to be insignificant only if it produces rigorous analysis and concrete substantial evidence justifying the finding. *Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal. App. 3d 692, 731. CEQA requires public agencies to avoid or reduce environmental damage when "feasible" by requiring mitigation measures. CEQA Guidelines, § 15002(a)(2)-(3); *Berkeley Keep Jets Over the Bay Committee*, 91 Cal. App. 4th at 1354. The EIR serves to provide agencies and the public with information about the environmental impacts of a proposed project and to "identify the ways that environmental damage can be avoided or significantly reduced." CEQA Guidelines, § 15002(a)(2). If the project will have a significant effect on the environment, the agency may approve the project only if it finds that it has "eliminated or substantially lessened all significant effects on the environment where feasible" and that unavoidable significant effects on the environment are "acceptable due to overriding concerns." Pub. Res. Code, § 21081; CEQA Guidelines, § 15092(b)(2)(A)-(B).

In general, mitigation measures must be designed to minimize, reduce, or avoid an identified environmental impact or to rectify or compensate for that impact. CEQA Guidelines, § 15370. Where several mitigation measures are available to mitigate an impact, each should be discussed and the basis for selecting a particular measure should be identified. *Id.* at § 15126.4(a)(1)(B). CEQA requires the lead agency to adopt feasible mitigation measures that will substantially lessen or avoid the project's potentially significant environmental impacts and describe those mitigation measures in the CEQA document. Pub. Res. Code, §§ 21100(b)(3), 21002, 21081(a); CEQA Guidelines, § 15126.4.

[2] California Governor's Office of Planning and Research, *CEQA: The California Environmental Quality Act*, https://opr.ca.gov/ceqa/ (last accessed January 20, 2021).

It is improper and harmful to the goals of CEQA for an agency to rely "on tentative plans for future mitigation after completion of the CEQA process." *Communities for a Better Environment, et al. v. City of Richmond* (2010) 184 Cal. App. 4th 70, 92 (internal citations and references omitted). Likewise, a public agency may not rely on mitigation measures of uncertain efficacy or feasibility. *Kings County*, 221 Cal. App. 3d at 727. "Feasible" means capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social and technological factors. CEQA Guidelines, § 15364. "Mitigation measures must be fully enforceable through permit conditions, agreements, or other legally binding instruments." CEQA Guidelines, § 15126.4(a)(2).

CK (2)-4

## II. THE DEIR FAILS TO ADEQUATELY PROTECT WATER QUALITY AND BIOLOGICAL RESOUCES.

The DEIR fails to adequately analyze the Project's cumulative impacts on the biological resources of Newport Bay. Newport Bay is an ecologically rich area that provides key habitat, including key nursery habitat, for a variety of species. As the DEIR acknowledges, many species which have historically called the Newport Bay home have been harmfully impacted by development and human activity over the years. (DEIR § 3.3.1.2). These historic impacts create all the more reason to carefully protect and preserve the Bay's biological resources.

As a general comment, Coastkeeper is concerned about the City's blasé "what's one more project" approach adopted throughout the DEIR. For example, the DEIR describes the proposed Project site as "an already disturbed area" and downplays impacts on marine life because of "the existing environmental baseline of almost constant human presence and recreational activity that already occurs in the area." (DEIR §§ 3.3.4.1, 3.5.3.4.6). The DEIR also states that "[t]he proposed Project site's highly developed condition precludes the presence of most special-status species." (DEIR § 3.3.1.2). Nonetheless, the DEIR goes on to discuss a handful of special-status species present in the area, but minimizes their significance in each instance. (DEIR § 3.3.1.2.1 – 3.3.1.2.6). According to the DEIR, the least tern is only "present in small numbers," the western snowy plover unsuccessful in nesting, tidewater goby "extirpated . . . due to habitat degradation," sea turtles "rare," dolphins "not expected to be present," and whales, which have been occasionally sighted in Newport Bay,[3] are entirely left out of the analysis. *Id.* (discussing occasional gray whale visits in the nearshore zone and LA-3, but not the proposed CAD facility and maintaining that "[t]he only marine mammals expected in proposed CAD facility or dredging areas would be California sea lions and harbor seals").

The DEIR declares that "[t]he proposed Project area, nearshore disposal sites, and LA-3 do not support unique or rare habitats whose alteration would significantly impact sensitive species in the area." (DEIR § 3.3.3.4.1). This declaration is made within paragraphs of a statement that "[v]arious dolphin species are known to enter Lower Newport Bay but are not expected to be present at the proposed CAD facility or dredging areas, as general activity and noise during dredging activities typically act as a deterrent." (DEIR § 3.3.1.2.6) (emphasis added). Notably, noise impacts on dolphin species are not addressed in the "Impact Analysis – Sea Turtles and Marine Mammals" section. (DEIR § 3.3.4.1). Coastkeeper urges the City to revise the DEIR to adequately account for cumulative impacts on marine life.

[3] *See, e.g.*, CBS Los Angeles, Gray Whale Spotted in Newport Beach Harbor (2017) https://youtu.be/HoYLQLEK_s0 (last accessed January 20, 2021).

CK (2)-5

Coastkeeper also notes that various sections of the DEIR rely on outdated data and unsupported assumptions for impact and feasibility analyses. For example, the DEIR presumes the existence or nonexistence of species based on existing reports and assumes "the Newport Beach nearshore habitat is not anticipated to have changed since 2009." (DEIR § 3.3.1). The DEIR also references, but does not account for, results from a harbor-wide eelgrass survey conducted in summer 2020 with "results expected in late 2020 or early 2021." (DEIR § 3.3.1.1.2). The DEIR should be updated to include the results of this survey, particularly in light of (i) the retroactive eelgrass mitigation approach contemplated in § 3.3.4.1 and (ii) the applicability of this study to receiving water limitations per § 3.8.3.4.1. (DEIR § 3.3.4.1, 3.8.3.4.1) (discussing how if eelgrass is located during a pre-construction survey, construction shall continue with a post-construction survey required to determine habitat loss and mitigation only after the fact). As a final example, the DEIR relies on bathymetric surveys from **1936** in its "analysis" of alternative CAD sites. (DEIR § 6.3.4.1 – 6.3.4.3). The DEIR should be updated to reference only the most current data, including newly obtained data if need be.

## III. THE DEIR FAILS TO ADEQUATELY ADDRESS PREVIOUSLY RECEIVED PUBLIC COMMENTS.

CK (2)-6

The DEIR fails to adequately address previously received public comments. First, Coastkeeper notes that the Santa Ana Regional Water Quality Control Board (the "RWQCB") previously recommended that "the City put together a Technical Advisory committee or use the existing Southern California Dredged Material Management Team (SC-DMMT) to provide input." (DEIR, Appx. B, p. 2). Information available to Coastkeeper indicates that neither of these actions have been taken. Instead, information available to Coastkeeper indicates that the City has been bypassing SC-DMMT and consulting with applicable agencies on a piecemeal, ad hoc basis. Coastkeeper echoes the RWQCB's request for committee and SC-DMMT input and urges the City to take the necessary actions and revise the DEIR accordingly.

CK (2)-7

Next, with respect to the availability of the CAD facility for resident disposal, the RWQCB previously objected to "the impression that this proposed use of the CAD has been approved." *Id.* at p.3. Even after receiving this comment, the DEIR maintains that "[d]uring the time that the CAD facility is open . . . the City and its residents will have an initial opportunity to place material dredged from outside the Federal Channels into the CAD facility. This activity will be permitted through either the City's RGP 54 or through an Individual Permit depending on the scope of the work." (DEIR § 2.5). Coastkeeper encourages the City to work cooperatively with the RWQCB regarding any required permits. Coastkeeper urges the City to revise the DEIR to adequately assess and analyze the cumulative impacts of any required permit issuances/expansions.

CK (2)-8

Additionally, the City failed to adequately address public comments regarding alternatives. The inadequacies of the DEIR's proposed alternatives are discussed in greater detail in Section IV below. Coastkeeper echoes and renews prior comments made by the RWQCB, South Coast Air Quality Management District, the Surfrider Foundation, and others urging the City to fully and sufficiently address all feasible alternatives with sufficient information to allow meaningful comparison iin accordance with CEQA. *See, e.g.*, (DEIR, Appx. B, p. 6, 16, 23).

CK (2)-9

## IV. THE DEIR FAILS TO ADEQUATELY EVALUATE ALTERNATIVES.

The DEIR purports to present and analyze five alternatives:

CK (2)-9 cont.

- Alternative 1: No Project Alternative/No Dredging
- Alternative 2: No CAD Construction Alternative
- Alternative 3: Reduced Dredging
- Alternative 4: Upland Trucking of Material
- Alternative 5: Alternative Location within Newport Harbor.

(DEIR § 6.3). In reality, the DEIR only addresses two of the above: Alternative 1, which is the "No Project Alternative" required per CEQA, and Alternative 2, "No CAD Construction Alternative." *Id.* The "analysis" of Alternatives 3 and 4 amounts to a mere one-page, three paragraph discussion concluding that "both scenarios [of Alternatives 3 and 4] were essentially analyzed in Alternative 1 (less dredging) and Alternative 2 . . ." (DEIR § 6.3.3). Duplication of prior analyses does not constitute new alternatives.

Alternative 5 proposes siting the CAD facility in closer proximity to the unsuitable sediment. (DEIR § 6.3.4). Per the DEIR, this alternative was specifically recommended by the Harbor Commissioners. *Id.* Disappointingly, "[b]ecause the alternative locations would require chemistry sampling to define design depths and sizes of CAD facilities, a full alternatives analysis [of Alternative 5] could not be completed." (DEIR § 6.3.4.4). Coastkeeper contends that, contrary to the DEIR, a full alternatives analysis could, in fact, be completed, but the City chose not to do so. Rather than collect the necessary samples, the City relied on outdated data (including bathymetric surveys from 1936 as mentioned above) and made assumptions about what might be expected. (DEIR § 6.3.4.1 – 6.3.4.3). If additional testing is required to fully analyze this alternative, the City should conduct the additional tests. As this specifically-requested alternative has not been adequately analyzed in the DEIR and a complete analysis would be highly influential to Project siting, Coastkeeper requests the approval of the DEIR be postponed until the required sampling is complete and Alternative 5 is fully analyzed.

Coastkeeper also notes a number of feasible alternatives left out of the DEIR – including alternatives specifically recommended by City residents and the RWQCB in CEQA scoping meetings. *See, e.g.*, (DEIR, Appx. B, p. 5-6) (suggesting two smaller CADs be constructed in areas closer to unsuitable material, such as at the mouth of the Rhine Channel). Additionally, the City is aware of the significant amount of contaminated sediment remaining in the Rhine Channel but is not sizing the CAD to accept that volume of sediment. All alternatives should incorporate removal of the remaining contaminated sediment in the Rhine Channel into their analysis.

The DEIR fails to adequately evaluate alternatives in accordance with CEQA. Coastkeeper urges the City to revise the DEIR to fully and sufficiently address all feasible alternatives.

## V. CONCLUSION

In conclusion, Orange County Coastkeeper is concerned that the City failed to provide adequate time for review and comment of the DEIR. Coastkeeper is also concerned that the DEIR fails to (i) adequately protect water quality and biological resources, (ii) address previously received public comments, and (iii) adequately evaluate alternatives.

Orange County Coastkeeper urges the City of Newport Beach to (i) allow additional time for more meaningful public review and (ii) require the DEIR to be modified in accordance with the comments submitted above. Coastkeeper thanks the City of Newport Beach for its consideration of our

comments. If you have any questions regarding Coastkeeper's comments, please feel free to call me at (714) 850-1965 or email me at lauren@coastkeeper.org.

Regards,

Lauren Chase
Staff Attorney
Orange County Coastkeeper

## 2.5.2 *Response to the Orange County Coastkeeper (CK)*

Please note, two comments were received from Orange County Coastkeeper—an email (CK (1)) and a letter (CK (2)).

| Comment ID | Text |
|---|---|
| CK (1)-1 | The comment was an email from Orange County Coastkeeper requesting an extension of the public comment period. An email response was provided as follows:<br><br>*Thank you for inquiring, and for taking the time to respond to the Draft EIR. As you know, it is an extensive document, and I am confident it addresses the issues. However, I am available to discuss if needed - please feel free to call anytime. We released the draft EIR on December 4 for the required 45 days (plus 2 extra days for the holidays). Unfortunately, we are trying to maintain our schedule as best we can, so I would like to keep the public comment period open to the published date of January 20. I sincerely hope you understand my desire to keep the process on track as best I can.* |
| CK (2)-1 | The comment generally summarizes the commenter's mission and introduces its comments on the DEIR. Because the comment omits any significant environmental issues, no additional response is warranted (CEQA Guidelines Section 15088.) Generally, however, the preparers of this EIR thank Orange County Coastkeeper for its review and comments. |
| CK (2)-2 | Comment CK (2)-2 addresses the commenter's dissatisfaction with the amount of time provided for public review and comment on the DEIR and how the City made the DEIR available. Please see Master Response 1. The City complied with all requirements of CEQA in connection with the public notice of availability and review of the EIR. Consistent with CEQA, copies of the DEIR were available for a 45-day public review period beginning December 4, 2020, and ending January 20, 2021, with 2 days added to the review period to accommodate the two federal holidays that occurred during the review period. As noted, hard copies of the DEIR were available at several locations throughout the comment period to facilitate document availability during COVID restrictions. Central Library was open for in-person services from 9:00 a.m. until 6:00 p.m. Monday through Saturday. In addition, the DEIR and other project-related documents were available online on the City of Newport Beach's website and on the State Clearinghouse's website (see https://www.newportbeachca.gov/government/departments/public-works/lower-newport-bay-dredging-and-cad-project; see also https://ceqanet.opr.ca.gov/2019110340/3).<br><br>Because the remainder of the comment does not relate to a significant environmental issue, no additional response is required (CEQA Guidelines Section 15088). |
| CK (2)-3 | Comment CK (2)-3 summarizes the requirements of CEQA and the legal standards of review used by courts in reviewing CEQA claims. It does not contain any comments that relate to an environmental issue; therefore, no response is required pursuant to CEQA Guidelines Section 15088. |
| CK (2)-4 | The comment opines that the DEIR fails to adequately analyze the proposed Project's cumulative impacts on the biological resources of Newport Bay and that the description of baseline conditions related to biological conditions is flawed. With respect to the DEIR's description of the existing baseline conditions, the commenter's disagreement with the DEIR's description and substantial evidence supporting the established baseline is noted. As required by CEQA, however, the EIR includes a description of the existing physical environmental conditions in the vicinity of the proposed Project, *as they exist at the time the notice of preparation is published*, or if no notice of preparation is published, |

| Comment ID | Text |
|---|---|
| | at the time environmental analysis is commenced, from both a local and regional perspective (CEQA Guidelines Section 15125). Where, as here, existing conditions fluctuate over time, "a lead agency may define existing conditions by referencing historic conditions, or conditions expected when the project becomes operational, or both, that are supported by substantial evidence." (CEQA Guidelines Section 15125 (a)(1).) Consequently, the rare transitory presence of dolphins and whales in the Newport Beach Harbor and, rarely, the Newport Bay, does not equate to substantial evidence that those species are likely to be present, or remain present in the Project area, during the life of the Project. The DEIR therefore properly focused its analysis on the reasonably foreseeable and potentially significant adverse impacts that could result from the proposed Project. This did not include assuming a residential/full-time presence of gray whales, dolphins, or other species listed by the commenter when, in fact, no evidence supports a conclusion that those species would be present during the life of the proposed Project. Even if such transitory species are present at some point during the construction and operation of the proposed Project, the potential effects from noise are anticipated to be less than significant as discussed in Section 3.3.3.4.1.<br><br>As such, DEIR Section 3.3.1 presents a thorough and referenced summary of the existing conditions in Lower Newport Harbor and the nearshore environment. |
| CK (2)-5 | The comment also claims that various sections of the DEIR rely on outdated data and unsupported assumptions for impact and feasibility analyses, specifically regarding the Newport Beach nearshore habitat and eelgrass.<br><br>Regarding the DEIR's conclusions regarding nearshore habitat being substantially like that identified in 2009, and the EIR's citation to prior bathymetric surveys, the comment offers no substantial evidence to the contrary. Thus, substantial evidence supports the EIR's incorporation and reliance on this information.<br><br>Regarding eelgrass, please see Response to Comment CDFW (2)-5. As discussed in Section 3.3.1.1.2 of the DEIR, the City conducts shallow-water eelgrass surveys every 2 years in Lower Newport Bay, and harbor-wide surveys—including the deepwater habitat—are conducted every 4 years. At the time of the DEIR release, the most recent harbor-wide survey was conducted in summer 2020, but the results were not yet available. The 2020 survey results are now available and have been added to the Final EIR as requested by the commenter. The conclusions of the DEIR considering this additional information remain unchanged. |
| CK (2)-6 | Please see response to RWQCB (2)-2, which addresses the RWQCB's comments. |
| CK (2)-7 | The comment suggests that the DEIR prematurely asserts that the CAD is permitted for public use. Please see Response to Comments RWQCB (2)-3 and CCC-2. An EIR does not permit a project, it is a public disclosure document that analyzes a proposed project in terms of environmental effects that can be used, if certified, for necessary project approvals. Appropriately, the DEIR discloses that several agencies need to permit several aspects of the proposed Project, including public use of the CAD facility.<br><br>Because CEQA requires lead agencies to consider "the whole of the project," moreover, the potential for residential disposal and use of the CAD was incorporated into the DEIR's analysis. |
| CK (2)-8 | The comment claims that the City failed to adequately consider alternatives to the proposed Project. Please see Master Response 5. Consistent with CEQA, an EIR must describe a reasonable range of potentially feasible alternatives to a project that could attain most of the basic project objectives and |

| Comment ID | Text |
|---|---|
| | would avoid or substantially lessen one or more significant adverse effects. The range of alternatives in an EIR is governed by a "rule of reason" that requires an EIR to set forth only those alternatives necessary to permit a reasonable choice. An EIR need not consider every conceivable alternative to a project. Rather, the alternatives must be limited to ones that meet the project objectives, are potentially feasible, and would avoid or substantially lessen at least one of the significant environmental effects of the project.<br><br>Here, the DEIR includes a summary of all public comments received during the scoping period and where comments were addressed in the DEIR (see Table 1-2), Appendix B to the DEIR provides a copy of all comment received. All comments received regarding alternatives were considered in development of the DEIR. The comment fails to identify any recommended alternatives that were not addressed beside a scenario where two smaller CADs be constructed in areas closer to unsuitable material, such as at the mouth of the Rhine Channel. However, Alternative 5 does consider alternative locations within for CAD siting. The suggestion to consider two smaller CADs in the Rhine Channel is substantially like the analysis already existing in the DEIR and, moreover, would not avoid or substantially lessen a significant adverse impact of the Project. Consequently, such additional analysis was deemed unnecessary.<br><br>In addition, as described in Section 2.3.2 of Appendix D to the DEIR (Sediment Management Plan), approximately 80,000 cy of material was dredged from the Rhine Channel and disposed of at the Port of Long Beach Middle Harbor Fill site. Because the previous work included a bulk removal of sediment from the Rhine Channel, any potential future management actions would likely be limited to one or more alternate management techniques such as thin-layer capping or in situ treatment. As such, it is not reasonably foreseeable that material from the Rhine Channel would be placed into the proposed CAD; thus, the EIR did not need to consider this hypothetical scenario.<br><br>The comment also claims that the alternatives section is not robust because Alternatives 3 and 4 are essentially the same as Alternative 1 and that Alternative 5 was not a standalone Alternative because it would require additional sampling. While there is overlap among the environmental effects associated with Alternatives 1, 3, and 4, each would involve different construction methods and would have different environmental effects. For example, as discussed in Section 6.3.3., Alternative 4 would result in increased environmental impacts as compared to the Alternative 1. Elucidating these differences allows decision-makers and the public to evaluate the different alternatives consistent with the requirements of CEQA.<br><br>Regarding Alternative 5, alternatives under CEQA need not be co-equal assessments; rather, they need to allow for a meaningful comparison and evaluate the comparative merits of the alternatives. Table 6-1 of the DEIR provides a clear and meaningful way of comparing the alternative locations identified in Table 5 of the DEIR. As provided, the alterative locations have several physical constraints that would limit the size of the CAD and present construction challenges. However, these alternatives were not dismissed from consideration due to the need for additional sampling and were carried through for decision-maker consideration. Therefore, if the Board of Harbor Commissioners wanted to select one or more of the locations of Alternative 5, additional sampling would be needed to inform the design and determine if any additional analysis was needed in terms of the EIR. This process meets the requirements of CEQA. |
| CK (2)-9 | Responses to this summary comment are provided in Responses to Comments CK (2)-1 through CK (2)-8. |

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## Comments to DEIR for CAD Construction

PE-1

As a small busines practitioner and marine environmental consultant, I feel that I have a unique perspective on the many of the issues of Newport Bay. My recent work in Newport Beach has been supporting homeowners, dock builders, and dredgers. Most of whom get mired in the supposedly expeditious Regional General Permit 54 (RGP54) dredging program and end up paying large sums of money to maintain their property due to contaminant transport from other places, and the 'agreements' the City and it's Consultants have made with regulators. The City has shown through the RGP54 process that they are more than willing to pass the exorbitant costs for dredging contaminated sediment on to the homeowners and d taxpayers of Newport Beach, but have also shown through this process, that the standards they hold everyone else too, do not apply to them.

Purposely, the City and it's sediment consultant have pushed bay-wide sediment management issues onto Newport homeowners to meet future sediment quality standards. So the idea of 'doing in the homeowners best interest', or even 'the best interest of the Bay,' hasn't been a focus of the City, as much as finding a way to pass-the-buck has been. The City, through bad consultation and conflicts, have developed a contentious relationship with the public the serve, which has limited the ability of the CEQA preparers to seek consensus for the purposes of sediment management, and has limited the ability of City CEQA staff to reach across the aisle to other Bay stakeholders and build partnerships for the long-term stewardship of Newport Bay.

I am compelled to comment on the Draft EIR because I am a practitioner in this industry, and moreover I am an owner of a small business that has worked on hundreds of sediment management related projects. I have 25 years of experience in all facets of marine science and investigations, including the main issue presented here, sediment, water quality, and biological resources. I have over a decade of working directly with regulators on many of these same issue Newport Beach faces in other parts of the region. Having said that, I can tell you with all honesty, that if my firm had brought a project like this to the regulatory agencies, tried to push the faulty conclusions and defend the obviously slanted results, we would have been laughed out of the room. And deservedly so.

I have watched this process as an interested participant, but have been disappointed in my industry, and in the public servants who are charged with finding the preferred solution for sediment management in Newport Bay. Further, the City and it's CEQA Consultants have engaged is a systematic conflation of terms, have presented a general lack of candor during the process, and has misled the Harbor Commissioners, Bay stakeholders, and homeowners on the benefits, the risks, and the long-term issues with a Confined Aquatic Disposal (CAD).

PE-2

As stated in the City of Newport Beach (City) Draft Environmental Impact Report (DEIR) for the Lower Newport Bay Confined Aquatic Disposal (CAD) Construction project (Project), *the fundamental purpose of the proposed Project is to provide a safe, efficient, and effective dredged material management option that allows navigation maintenance dredging to proceed while protecting the marine environment and recreational users of the Lower Harbor. (DEIR, Page ES-4).*

However, the proposed CAD project fails to accomplish the stated objectives to *provide a safe, efficient, and effective dredged material management option,* but also, highlights the lengths at which the City and its Consultants have deviated from a systematic and concerted good-faith effort to identify a practicable solution for effective dredge material management, and focuses in on a less than preferred alternative, using conflating language and false narratives to advance the project through the regulatory arena. The purpose of the DERI is not to explore dredging, as impacts from and associated with in water construction of that type are well documented. The issue at hand is the City's preferred alternative for sediment management, the Confined Aquatic Disposal (CAD), and not dredging as continually commingled throughout the DEIR.

PE-3

A CDF, or out-of-water confided disposal facility, is summarily dismissed after a false and factually inaccurate narrative is presented in Section 6.2 of the DEIR on page 230. The false statement made by the DEIR is that public comments for Alternatives were specific to the idea that *the unsuitable material would be disposed at a port fill site*. This is a mischaracterization of the comments and a falsehood. Public comment was offered for the City and its Consultant to investigate a CDF, or confined disposal facility Alternative, but it was not specific to a port facility.

This was requested of the City, because a CDF Alternative, or out-of-water disposal option, has several distinct advantages over the current CAD Alternative presented. Several of the CEQA evaluation areas of Aesthetics, Biological Resources, and Bay Water Quality are less impacted by a reasonable and feasible CDF option. Further, a CDF Alternative has more flexibility to deal with long-term sediment management issues, has a much higher potential to be permitted to take all homeowner material currently too impacted for coverage under RGP54, and the CDF does not incur annual waste discharge fees like a CAD. Annual fees could be greater than $100,000 per year for just having the CAD. Perhaps the biggest plus of a CDF versus a CAD is that a CDF removes the unsuitable material from the Bay, versus simply consolidating it in the middle of Lower Newport Bay with extended in-water construction.

A CDF is a preferred management Alterative to a CAD for all the stated reasons and more but was seemingly purposely omitted from CEQA or Alternatives analysis. As an example, if a viewing area (or multiple viewing areas) were engineered using the unsuitable material, or perhaps a bike path, those additions to the Bay would serve a public good as well as an effective local sediment management Alterative.

Unfortunately, a CDF Alternative has never been fully vetted or investigated by the City or its Consultants. Rather, both parties have engaged in a concerted effort to bias the potential management options available and prejudice subsequent environmental review in support of the CAD. The level of prejudice is palpable, so blatant that even the supporting documents put forth by the City and its Agents in support of the CAD Alternative intentionally and overtly omit the CDF method of managing unsuitable material (Basis of Design [BOD], Appendix C). This is particularly egregious given that a CDF at Pier G in

PE-3 cont.

the Port of Long Beach was the final disposal location during the 2012 federal dredging event, negating the need for a CAD at the time. Leaving out a CDF option in the Basis of Design nullifies any reliance upon this document or its conclusions, due to the misleading and patent partiality of the information presented, which is for the sole purpose of supporting the CAD alternative, and not for adhering to existing City plans and policies.

Through a series of CAD-approval focused documents and a seemingly purposeful and intentional marginalization of materially important environmental significance, the City staff responsible for CEQA review and their Consultants are operating outside of normal environmental analysis, and bordering on conflict of interest boundaries, that does not allow for Consultants who are capable of providing accurate and honest information in the their analysis of CEQA Alternatives and discharge of their professional responsibilities. The CAD permitting effort has unnecessarily attempted to lock the City, Harbor commissioners, and the taxpayers of Newport Beach into an expensive, unimaginative, and consultant-driven sediment management alternative, one that is not the *safest*, the most *efficient*, or the most effective *dredged management option.*

PE-4

What the CEQA process has clearly identified is that when it comes to in-water and harbor sediment, biological, and water quality issues, City Staff and their CAD Consultant are engaged in a deceptive endeavor which has conflated dredging and CAD construction, over-inflated the potential benefits to the Bay, and has sought to minimize the immediate environmental impacts associated with the City's preferred CAD Alternative. The City and its Agents have singularly focused on a bad and costly Alternative and have forced that option through the environmental review process.

PE-5

In spite of the DEIR statement that *The proposed Project is consistent with the applicable goals and policies of the CCA, CLUP, and General Plan (DEIR, Page 223),* a more detailed look at the at the factual nature of this statement suggests the opposite is true. The proposed CAD project is **not consistent** with the City's Coastal Land Use Plan (CLUP), and also **not consistent** with the intent and stated natural resources goals and objectives of the City of Newport Beach's General Plan:

> **CLUP 4.4.1-1:** *Protect and, where feasible, enhance the scenic and visual qualities of the coastal zone, including public views to and along the ocean, bay, and harbor and to coastal bluffs and other scenic coastal areas.*

A non-aquatic CDF alternative, as in an engineered or network of above-water viewing areas, bike trails, etc. The Basis of Design (BOD, appendix C) references engineered options in Table 3.1 as *Typical Options for Dredged Material Reuse*, however, the typical reuse Alternatives of engineered fill, to create parks, roadways, or tails, was not included in the DEIR Alternatives analysis. Unlike a CAD, or below water disposal option, a functional CDF Alternative additionally *offers an opportunity to enhance the scenic and visual qualities of the coastal zone, including public views to and along the ocean, bay, and harbor and to coastal bluffs and other scenic coastal areas,* consistent with CLUP 4.4.1-1.

PE-6

But scenic viewings are not the only subject area the CAD Alternative is in disagreement with among the City's plans and priorities. Other areas in which the proposed CAD Alternative are counter to the established CLUP include:

PE-6

**CLUP 4.1.2-2.** *Provide special protection to marine resource areas and species of special biological or economic significance.*

The CAD Alternative is in conflict with providing *special protection to marine resource areas* as the project will require in-bay disposal, which would not be necessary with a feasible and realistic project Alternative like a CDF. The in-bay disposal alternative associated with the CAD includes the release of dissolved DDT above regulatory criteria.

PE-7

**CLUP 4.1.2-3.** *Require that uses of the marine environment be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes.*

The CAD alternative is in conflict with 4.1.2-3 as its justification is not based on a sustainable long-term plan, but rather promulgated *ad hoc* by the City, and its Consultants who stand to profit greatly from a permitted CAD. Further, the regulatory preferred CDF Alternative, not looked at by the City or its Consultant, could create a viewing area for the public and scientists to observe and enjoy the biological resources of Newport Bay, and offers an opportunity to enhance the educational and recreational uses, consistent with CLUP 4.1.2-3. A CDF removes material from the system entirely and could have the capacity to handle more types of material than that which could be disposed of in the aquatic environment if designed with intent. The proposed CAD Alternative offers none of that.

PE-8

***CLUP 4.1.2-4.*** *Continue to cooperate with the state and federal resource protection agencies and private organizations to protect marine resources.*

The City and its Consultants have done everything possible to avoid input, reasonable Alternatives analysis, and discussions with private organizations to protect marine resources. The lack of a stakeholder involved Sediment Management Plan and the vocal opposition from homeowners in the Bay have largely been ignored, or in the case of a reasonable CDF alternative, have been misrepresented to fit the CAD permitting narrative. The desire to avoid public input is exemplified by the City's denial to extend the CEQA review process in light of the holiday season and the pandemic.

PE-9

***CLUP 4.1.4-1.*** *Continue to protect eelgrass meadows for their important ecological function as a nursery and foraging habitat within the Newport Bay ecosystem.*

The proposed CAD Alternative involves in-bay disposal, which increases the amount of turbidity and dissolved contaminants in the Bay. While there is not eelgrass within the CAD footprint, the areas adjacent to the site do in fact have eelgrass, counter to the misinformation presented in the DEIR. New and prospering eelgrass beds have been detected at the south eastern end of Lido Isle. Beyond the obvious misrepresenting of facts and status of special status species around the CAD, when compared to a CDF alternative, the proposed CAD project fails to protect eelgrass in a manner consistent with CLUP 4.1.2-4, in that the CAD Alternative needlessly exposes eelgrass beds and Essential Fish habitat (EFH) to unnecessary toxic plumes and turbidity not associated with a reasonable and functional equivalent to the CAD. A CDF by design is not aquatic disposal, and therefore does not have potential deleterious effects on adjacent eelgrass or bay biota.

The proposed CAD Alternative also conflicts with established goals of the City of Newport Beach as identified in the General Plan:

PE-10

> ***NR 3.2*** *Water Pollution Prevention: Promote pollution prevention and elimination methods that minimize the introduction of pollutants into natural waterbodies (Goal HB 8.2).*

Through modeling disposal scenarios that were largely the result of public comment, the CAD has been shown to cause contaminant plumes above established water quality criteria. The City and its Consultants are again deceptively skewing the modeling results to support their preferred Alternative, the CAD. The STFATE model used to predict the potential for toxic plumes was not developed for use in enclosed bays and estuaries. The STFATE model was developed for offshore disposal efforts and does not take into account the site-specific realities of Newport Bay, like low circulation, and residence time in the Bay, Islands, and differential flow patterns.

However, even with the wrong model, which was tweaked with some Newport Beach parameters, (depth, etc.), the less sensitive offshore model (STFATE) suggests that toxic levels of DDT will be created. Unfortunately for the City and the CAD, the results of site-specific modeling, using a smaller grid and accounting for Newport Bay hydrodynamics, would likely yield even worse water quality results.

However, a reasonable and feasible alternative of a CAD, or a confined disposal facility, would remove a majority of the in-water toxic plumes, thereby adhering to City General Plan goals. But the City and its Consultant did not evaluate an out-of-water disposal option (i.e., CDF) in spite of the need to adhere to NR 3.2. The continued insistence on an in-bay disposal Alternative, like the CAD, puts the entire Bay needlessly at risk, when a no-plume forming Alternative is available, just not looked at.

PE-11

> **NR 15.1** states that for Dredging Projects: *[The City will] Monitor dredging projects within the region to identify opportunities to reduce disposal costs and utilize dredge spoils for beach nourishment.*

**NR 15.1** is in direct conflict with the proposed CAD alternative, because it includes a mandate to dredge an additional 300,000 cubic yards (CY) of material, which is not a method to reduce disposal costs, and instead, the CAD increases them over time. To permit the CAD, the City has already spent hundreds of thousands of dollars on additional support documents like Basis of Design reports, hydrodynamic modeling, and long-term monitoring plans. Couple those costs with extended Consultant fees for permitting and monitoring, and the CAD alternative is not consistent with reduced disposal costs, even if the City and its Agents disingenuously claim the extra dredging, permitting, monitoring, and environmental impact are less costly than landside material rehandling at a CDF. The truth is, a CDF alternative would not need to include the additional dredging, all the extra studies, the waste discharge fee, or the long-term consultant support. A CDF Alternative could capture more and varying types of material, leading to overall reduction in disposal costs for everyone in the Bay, including those impacted by DDT within the RGP54 coverage areas. Therefore, it is more in agreement with the intent of the City of Newport Beach General Plan, and a preferred Alternative to the CAD.

As there is no geotechnical data from the proposed CAD placement site, any perceived benefits of sand replenishment presented in the DEIR from material dredged to build the CAD needs to be stricken from

PE-11 cont.

the DEIR. There is no data from the proposed CAD site to confirm beach replenishment. The City and its Consultants are not authorized to make suitability determinations; the USACE and EPA govern dredge and fill permitting and approvals. Therefore, the perceived benefits to Newport Beach from potential sand replenishment activities associated with CAD construction are a gross exaggeration at best and factually incorrect at worst.

This is a very important oversight by the City and its Consultants, in that there are recent examples from other areas around Newport, including Yacht Clubs and waterfront homeowners, in which dredgers have run into disposal issues when the material type changes at depth, thereby restricting disposal options during the project. The truth is that currently, the City and its Consultants have not provided data from the CAD site to support suitability analysis, and therefore have not gained regulatory approval for the material to go to the beach or nearshore environment. Therefore the "benefits" of dredging an additional 300,000 CY cannot be applied to the CAD Alternative until suitability has been determined. FUrther, since the City's General Plan identifies sand replenishment as a priority under General Plan NR 15.1, a CDF Alternative that was appropriately presented for the purposes of unbiased and honest analysis would still be able to locate and dredge sources of sand for replenishment. The unexplored CDF Alternative would likely be in complete agreement with the intent of the General Plan, whereas a CAD is clearly not.

PE-12

What is known now is that a CDF has been purposely unexplored by the City and its Consultants, in spite of its obvious environmental, water quality, and long-term sediment management benefits an Alternative like this represents. Further, the City and its Consultants have continued to charge ahead with CAD permitting, doubling down on expensive and unnecessary "support" documents which intentionally neglect the benefits of a non-aquatic disposal Alternative, like a CDF, one that does not require the agency concurrence or excessive permitting fees and Consultant costs associated with continual sediment management activities.

A reasonable and feasible CDF alternative is cheaper, better for the environment, and ensures the long-term health of the Bay by removing the unsuitable material. A CDF, or non-aquatic disposal facility, is also consistent with City priorities and plans already part of the City's management direction. Based on non-biased analysis, the real question is not why-not a CDF, but why haven't the City and its Consultants looked at it?

PE-13

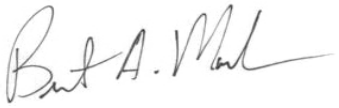
Perhaps the most significant issue surrounding a CAD is what is not encompassed by CEQA analysis, and something the DEIR makes no mention of. Negatives of a CAD are an issue the City and Port of San Diego know all too well. The City of San Diego had put an engineered CAD in the Port of San Diego, along the waterfront, and has since spent millions of dollars examining recontamination from outside sources, has had countless discussions with regulators, and has effectively lost access to a portion of their waterfront due to bad consultant recommendations and permit expediency. In fact, there are several examples of bad CAD ideas implemented along waterfronts and in ports that city and/or port managers would love to get back, including the annual fees (>$100,000), and the long-term Consultants fees for monitoring, reports, plans, etc. None of which is necessary with a more regulatory preferred approach to sediment management, like a CDF.

PE-14

Based on the clearly biased and inadequate levels of environmental review conducted by the City and its Consultants, it is recommended that:

- The City should continue with dredging of the federal sediments suitable for offshore and/or nearshore placement.
- Further, the City should compile and disseminate a comprehensive Sediment Management Plan that can be reviewed by Newport Beach stakeholders, to elicit regional concurrence and to remove Consultant subjectivity with regard to effective sediment management decisions in the Bay.
- A re-evaluation of feasible and reasonable project Alternatives for managing sediments in Newport Bay should be undertaken after the development of a comprehensive Sediment Management Plan. The CEQA process should be led by a third-party preparer if the City's CEQA agent has a financial incentive for recommended a given Alternative.

Respectfully,



Brent Mardian
Owner/ Senior Marine Scientist
Pi Environmental, LLC
C: 805.705.5632
O:760.730.5909
bmardian@pienvironmental.com

## 2.6 Responses to Individual Comments

### *2.6.1 Brent Mardian, Pi Environmental*

| Comment ID | Text |
|---|---|
| PE-1 | The comment generally summarizes the commenter's mission. Because the comment omits any significant environmental issues, no additional response is warranted (CEQA Guidelines Section 15088). |
| PE-2 | Comment PE-2 is composed entirely of allegations regarding the purpose of the EIR. Because the comment omits any significant environmental issues, no additional response is warranted (CEQA Guidelines Section 15088). |
| PE-3 | The comment suggests that the DEIR did not consider a CDF as an alternative sediment management strategy and that the DEIR did not fully consider or address public comments. In response to the comment related to public comments, all comments received during public scoping were considered in development of the DEIR. All comments were included in Appendix B of the DEIR. As indicated, the only comment received regarding a CDF was from the Santa Ana RWQCB regarding the permitting of CDFs in relationship to CDFs.<br><br>Regarding the comment about the lack of analysis of a CDF in the DEIR, please see Master Response 5. Section 6.2.2 of the DEIR addresses alternative disposal sites, including the CDF. As noted, there is currently no available CDF that could accept the material. As discussed in Section 6.2.2, a CDF at the Port of Long Beach was available for material during the last dredging event but has since been closed, and no other CDFs are currently available in the region. A CDF has been evaluated as a sediment management tool in Newport Harbor on past occasions and was discounted for numerous reasons unrelated to the current project. In 2005 during the feasibility study for the Rhine Channel remediation project, a CDF was evaluated and eliminated for the following reasons: 1) the amount of space needed to construct a containment structure was too large to accommodate given the highly developed shoreline and lack of City-owned property; 2) the mitigation requirements to offset the loss of submerged tidelands would create a significant and unavoidable challenge to the program for which there were no areas in the harbor suitable for such a large mitigation area; and 3) public opposition to the construction of a highly visible fill area within the Harbor.<br><br>As discussed in the DEIR, the proposed CAD facility would accommodate approximately 106,900 cy of unsuitable dredged material anticipated to be generated by the Federal Channels maintenance dredging program and an additional 50,000 cy resulting from maintenance dredging primarily of unsuitable material from outside the Federal Channels, for a total of 156,900 cy. To accommodate the required volumes of expected unsuitable material and sediment capping material, the estimated size of the CAD facility is approximately 590 feet by 590 feet at the assumed top of the CAD facility footprint and approximately 435 feet by 435 feet at the base footprint. Building a CDF above the mudline to hold that same volume of material would need to be approximately 30% to 40% larger in size to allow for rock dikes and clean sand buffer layers between the dredge material and the porous rock dike. It is for this reason that the City chose to eliminate the use of an "on-site" CDF in the past, and to only consider a CDF fill option if one were to be available in the region, such as at a port facility. For these reasons, a CDF is not a viable alternative. This information has been added to the Final EIR. |

| Comment ID | Text |
|---|---|
| PE-4 | Comment PE-4 is composed entirely of allegations regarding the purpose of the EIR. It does not contain any comments that relate to an environmental issue; therefore, no response is required pursuant to CEQA Guidelines Section 15088. |
| PE-5 | The comment claims that the proposed Project is not consistent with the CLUP, specifically CLUP 4.4.1-1, because a CDF would offer an opportunity to enhance the scenic and visual qualities of the coastal zone. Please see the Response to Comment PE-3, which provides an overview of the feasibility of the proffered CDF alternative. The comment does not present any basis for its claim that the proposed Project is not consistent with the CLUP and instead provides opinion; therefore, no response is required pursuant to CEQA Guidelines Section 15088. |
| PE-6 | The comment claims that the proposed Project is not consistent with CLUP Section 4.1.2-2 because disposal of material in the CAD would release DDT above regulatory criteria. Contrary to the comment, the proposed Project seeks to relocate the impacted sediments into the CAD facility, which would eliminate those potential risks to water quality and result in a long-term benefit to the environment.<br><br>As noted in Response to Comment RWQCB (2)-2, the City coordinated extensively with the DMMT through the final sediment suitability determination in August 2019. The DMMT determined the sediment within the footprint of the CAD facility to be suitable for open ocean disposal. The Response to Comment PE-11 includes a discussion on the suitability of the underlying "native material." Additionally, Appendix G to the BODR includes an analysis of short-term water quality impacts during construction activities. The analysis notes that acute condition water quality standards and TMDL water quality targets (where established) for dissolved copper, dissolved mercury, total PCBs, and total DDX were not violated. Although the dredging operation is anticipated to be short-term and intermittent, it is noted that the chronic condition water quality standard for total DDx was exceeded during disposal events of all material types. However, the existing background water quality is also greater than this standard and predicted total DDx concentrations are expected to be at or near background concentrations within 4 hours of dredging. |
| PE-7 | The comment claims that the proposed Project is not consistent with CLUP Section 4.1.2-3 because the CAD facility is not based on a sustainable long-term plan. Please see Response to Comment PE-3, which describes why the proposed CDF is not a viable alternative to the proposed Project. In response to the allegations that the proposed Project is not based on a sustainable plan, the comment does not relate to an environmental issue; therefore, no response is required pursuant to CEQA Guidelines Section 15088. |
| PE-8 | Comment PE-4 is composed entirely of allegations regarding public outreach and coordination. Please see Master Response 1. Contrary to the allegations, the City has fully complied with the requirements of CEQA. As detailed in Section 1.5 of the DEIR, the City fully noticed the availability of the NOP and DEIR and has fully considered all comments received, including those received outside of the formal comment periods. Sections 1.5.1 through 1.5.5 of the DEIR describe the actions undertaken by the City to ensure public participation; consultation sought with the public and local, state, and federal agencies; and public comments received to date, whether during the NOP public scoping meeting, or separately though direct or indirect email communication. |

| Comment ID | Text |
|---|---|
| | Regarding the comment specific to stakeholder engagement in development of the SMP, the SMP was developed in conjunction with the DMMT and was included in full as an appendix in the DEIR for public review and comment. Regarding the DEIR comment period, please see the Response to Comment RWQCB-1. Consistent with CEQA requirements, copies of the DEIR were available for a 45-day public review period beginning December 4, 2020, and ending January 20, 2021, with 2 days added to the review period to accommodate the two federal holidays that occurred during the review period. |
| PE-9 | Please see Response to Comment CDFW (2)-5. As discussed in Section 3.3.1.1.2 of the DEIR, the City conducts shallow-water eelgrass surveys every 2 years in Lower Newport Bay, and harbor-wide surveys—including the deepwater habitat—are conducted every 4 years. At the time of the DEIR release, the most recent harbor-wide survey was conducted in summer 2020, but the results were not yet available. The 2020 survey results are now available and have been added to the Final EIR.<br><br>As discussed further in the DEIR, consistent with the California Eelgrass Mitigation Policy (CEMP; NOAA 2014) a pre-construction eelgrass survey will be performed by the City in the proposed Project area 30 to 60 days prior to commencement of dredging and CAD construction activities. If eelgrass is located during the pre-construction survey, a post-construction survey will also be performed by the City within 30 days following completion of construction to evaluate any immediate effects to eelgrass habitat. If the post-construction survey indicates loss of eelgrass habitat within the proposed Project area, any impacts to eelgrass that have not previously been mitigated for will be mitigated in accordance with the CEMP. Please see Response to Comment PE-3. A CDF is not a feasible alternative to the proposed Project. |
| PE-10 | The water quality models presented in Appendix G to the BODR include an analysis of short-term water quality impacts during construction activities. The models have been customized for use within enclosed waterbodies like Newport Bay through years of development with staff from the USACE and USEPA. The models have been validated with years of actual monitoring data and are very accurate in predicting potential water quality impacts. These models have been used in the past within Newport and other adjacent harbors. Placing dredge material inside of a CDF does not reduce the potential for water column impacts. In fact, during some phases of CDF development, the potential for impacts to water quality is high. A CDF is essentially a three-sided box full of water. At first, sediment is transported inside the "box" via a barge positioned in the footprint of the CDF and deposited. As the material levels rise within the CDF and the water level drops, there becomes a point where the barge will no longer fit inside the CDF footprint, and construction shifts to pumping in sediment over the top of the wall. Pumping in sediment also adds a significant amount of water that needs to drain back out of the CDF footprint. The return flow has the potential to contain suspended sediment and contaminants and must be carefully managed. CDF construction projects typically include cleanup programs required to collect all the "lost" material after the CDF is completed. Ports use this approach frequently and have numerous examples of its occurrence.<br><br>As noted in Response to Comment RWQCB (2)-2, in April 2020, the City provided a draft of the BODR to the USEPA for preliminary review. The BODR, including the OMP, is a necessary component to support the design and development of a CAD facility and long-term management. Based on the USEPA's extensive experience overseeing design and implementation of CAD facilities on the West Coast (most recently at Port Hueneme in 2009), it was the City's intent to request a focused review from the USEPA. The USEPA provided preliminary comments on the BODR in May |

| Comment ID | Text |
|---|---|
| | 2020, and those were incorporated into the version included in the DEIR. It should also be noted that the NOP and the DEIR included the full BODR for review and public input. |
| PE-11 | Response to Comment PE-3 addresses the consideration of a CDF as an alternate sediment management option. As noted in Response to Comment RWQCB (2)-5, the overlying sediment (existing elevation down to the federally authorized design depth) within the footprint of the CAD facility was determined by the DMMT in August 2019 as suitable for open ocean disposal. Sediments within the CAD footprint below this depth are "native sediments" and have never been dredged. Deep (greater than 50 feet) core samples have been collected in the vicinity of the proposed CAD location and elsewhere in Newport Bay and show that this material is composed of fine- to medium-grained sand and free of contaminants. This material would be placed in the nearshore zone or at the ocean disposal site. |
| PE-12 | Please see Response to Comment PE-3, which addresses the consideration of a CDF as an alternate sediment management option. At the time of developing responses to public comments received during the DEIR process, the City has not filed regulatory permit applications. |
| PE-13 | This comment suggests that the DEIR analysis is faulty due to comparisons with an unnamed project in San Diego. We believe that this comment is about the Convair Lagoon CDF project, located in San Diego. Convair Lagoon is a shallow embayment that was the site of a PCB remedial action that included the construction of a sediment cap that was completed in 1997. During post-construction monitoring of the sand cap, the data indicated PCB contamination on top of the cap but not at depths immediately below the cap surface, presumably the result of ongoing contaminated sediment being deposited over the site. Subsequent investigations confirmed that material from an adjacent 60-inch storm drain had, in fact, re-contaminated the surface of the cap. That cap did not fail, in that chemicals were not migrating up through the cap but instead deposited on top of the newly placed cap surface. In 2012, the San Diego Unified Port District removed this PCB source by demolishing the facility and cleaning up the storm drains. Costs associated with this remediation were higher than normal due to regulatory fees for ongoing monitoring and by having an open Waste Discharge Requirement for the full 15-year duration of the investigation. This example is not relevant to the situation in Newport Bay because it is not an example of a cap failure but instead of a failed remediation strategy for the site where the bay sediments were capped before the ongoing source of contamination was addressed. In Newport Bay, the City, County, and other stakeholders have worked diligently to eliminate ongoing sources from the watershed. |
| PE-14 | Please see Response to Comment CDFW-6. The SMP is included in full as Appendix D to the DEIR, which was available for review. Please see Response to Comment CCC-2, which discussed the process for coordination with regulatory agencies. |

**From:** sandy asper <sasper@aol.com>
**Sent:** Thursday, January 14, 2021 11:05 AM
**To:** Miller, Chris
**Subject:** CAD




# RESPONSES TO THE 'EIR' MUST BE RECEIVED BY JANUARY 20, 2021

Do not remove the unsuitable materials in our bay, unfit for ocean disposal and consolidate them in a 450' x 450' x 47' deep hole in the middle of our beautiful, clean anchorage. This is not ***removal***, it is a plan to take our good base and ***replace*** it with the bad, unsuitable materials from the **entire harbor**. The City has a long term plan of opening this 'CAD' up and allowing future dumps. The City of Newport Beach needs to research alternatives and open up discussion from more than one consultant that is CAD driven.

**From the perspective of a local Marine Scientist experienced in this field:**

Asper-1

Asper-2

Asper-3

1. **The City does not have a sediment management plan** to guide their direction and have therefore, become a willing victim to bad engineering and environmentally intrusive project alternatives. The idea of designing a tool for sediment management (i.e. the 'CAD') and then developing a plan around it, is backwards. The City and their consultants know this.

2. When the City has evaluated project alternatives, they have biased the alternative to suit their determination. The case for a CAD was made long ago, and in lieu of changing science, more recent studies and regional norms with respect to sediment management, the CAD has been pushed by the City's consultant from day one. For almost a decade the City has gone down this path, and likely would have installed a CAD if Port of Long Beach, Pier G hadn't become available in the 2012 timeframe. **However, in spite of the costs and environmental damage, there have been no additional feasibility studies** or steps taken by the City to honestly explore project alternatives. The City and its consultants have been singularly focusing on the CAD.

3. The water quality impacts not discussed by the DEIR have the potential to cause even more impact than a normal dredge project, due to the re-handling of unsuitable material in the bay. The City's DEIR glosses over so me really **major issues with plumes, sediment transport, and dilution of contaminants in a slow circulating bay.** The analysis offers no hydrodynamic data to model and predict if a toxic plume would be an issue. The evaluation of water quality for the purposes of CEQA is incomplete and purposely vague by design.

# TAKE ACTION NOW:

## *2.6.2 Sandy Asper*

| Comment ID | Text |
|---|---|
| Asper-1 | The comment opines that the City developed the SMP to justify the CAD facility. Please see Master Response 3 and Section 2.1 of the DEIR, which presents the process of project development. |
| Asper-2 | The comment opines that the City has not adequately analyzed alternatives to the proposed Project. Please see Master Response 5 as well as Response to Comment PE-3. As noted in the DEIR, the USEPA and other DMMT determine whether sediment is suitable for ocean disposal. |
| Asper-3 | The comment notes concerns with the proposed Project, including the potential for increasing hazardous risk. Because the comment omits any significant environmental issues, no additional response is warranted (CEQA Guidelines Section 15088). The preparers direct the commenter to Master Response 2. Generally, however, the preparers of this EIR thank the commentor for their review and comments. |

**From:** Gregory Brown <gbrown@mac.com>
**Sent:** Wednesday, January 13, 2021 9:10 PM
**To:** Dixon, Diane; Avery, Brad; Duffield, Duffy; Muldoon, Kevin
**Cc:** Blom, Noah; Brenner, Joy; O'Neill, William; Miller, Chris
**Subject:** No CAD in our Bay



City Council and Public Works Manager:

G.Brown-1

Please look at this solution of putting a whole (CAD) in the ground for unfit disposal that is unfit for the ocean. The fact that we even put this in the ocean is bad enough. If you think our oceans are polluted, just dumb this stuff in the bay and wait a few years. Gosh, are we not smarter than this? Haven't we learned from all the pollution in our rivers?

Just use common sense here and stop this non solution. Have a plan that takes in consideration for future generations. Your kids, their kids, kids from everywhere.

This just doesn't seem like the best plan you can bring forward. We can do better. Please review this and find the best solution for our community, families and the earth.

Thank you,

Greg Brown
211 Via Ravenna
Newport Beach CA 92663



Do not remove the unsuitable materials in our bay, unfit for ocean disposal and consolidate them in a 450' x 450' x 47' deep hole in the middle of our beautiful, clean anchorage. This is not ***removal***, it is a plan to take our good base and ***replace*** it with the bad, unsuitable materials from the **entire harbor**. The City has a long term plan

of opening this ‘CAD’ up and allowing future dumps. The City of Newport Beach needs to research alternatives and open up discussion from more than one consultant that is CAD driven.

**From the perspective of a local Marine Scientist experienced in this field:**

1. **The City does not have a sediment management plan** to guide their direction and have therefore, become a willing victim to bad engineering and environmentally intrusive project alternatives. The idea of designing a tool for sediment management (i.e. the 'CAD') and then developing a plan around it, is backwards. The City and their consultants know this.

2. When the City has evaluated project alternatives, they have biased the alternative to suit their determination. The case for a CAD was made long ago, and in lieu of changing science, more recent studies and regional norms with respect to sediment management, the CAD has been pushed by the City’s consultant from day one. For almost a decade the City has gone down this path, and likely would have installed a CAD if Port of Long Beach, Pier G hadn‘t become available in the 2012 timeframe. **However, in spite of the costs and environmental damage, there have been no additional feasibility studies** or steps taken by the City to honestly explore project alternatives. The City and its consultants have been singularly focusing on the CAD.

3. The water quality impacts not discussed by the DEIR have the potential to cause even more impact than a normal dredge project, due to the re-handling of unsuitable material in the bay. The City’s DEIR glosses over so me really **major issues with plumes, sediment transport, and dilution of contaminants in a slow circulating bay.** The analysis offers no hydrodynamic data to model and predict if a toxic plume would be an issue. The evaluation of water quality for the purposes of CEQA is incomplete and purposely vague by design.

## *2.6.3 Greg Brown*

| Comment ID | Text |
|---|---|
| G. Brown-1 | The comment notes concerns with the proposed Project, including the potential for causing pollution in the Harbor. Because the comment omits any significant environmental issues, no additional response is warranted (CEQA Guidelines Section 15088.) Generally, however, the preparers direct commenter to Master Responses 1 through 5, which relate to these general concerns and Section 3 of the DEIR, which fully analyzes the potential impacts to environment because of the proposed Project. Generally, however, the preparers of this EIR thank the commenter for their review and comments. |

**From:** Stacey Brown <staceybrown@me.com>
**Sent:** Wednesday, January 13, 2021 4:46 PM
**To:** Miller, Chris; Dixon, Diane
**Subject:** CAD aquatic disposal facility - NO TO A CAD in Newport Bay



Dear Chris, Diane and City of Newport Beach Public Works

S.Brown-1

I'm writing to voice my concern over the move to construct and place a CAD disposal facility in Newport Bay.

I have a hard time understanding construction of a CAD facility in one of the most beautiful local recreation areas, ( as well as the bay as an important tourism draw for business,) creating risk for potential long term
health, wellness for people and the waterway, as well as the potential business impact on tourism with the bay being such a draw for the city. Our waterways are important ecological systems. We need to protect the bay.

I want to flag my concern and ask that the City of Newport Beach DOES NOT move forward on the current proposal.
Other alternatives should be explored and other options made visible to the public.

Thank you for the time and consideration.

Stacey Brown
Resident, Newport Beach 92663
staceybrown@mac.com

### *2.6.4 Stacey Brown*

| Comment ID | Text |
|---|---|
| S. Brown-1 | The comment notes concerns with the proposed Project, including impacts to the local recreation areas and ecology, creating risk for potential long-term health, wellness for people and the waterway, as well as the potential business impact on tourism with the bay being such a draw for the city. Because the comment omits any significant environmental issues, no additional response is warranted (CEQA Guidelines Section 15088). Please see Master Responses 1 through 5, which relate to the general concerns and Section 3 of the DEIR, which fully analyzes the potential impacts to environment because of the proposed Project. Generally, however, the preparers of this EIR thank the commenter for their review and comments. |

January 15, 2020

Chris Miller, Public Works Manager
City of Newport Beach, Public Works Department
100 Civic Center Drive
Newport Beach, CA 92660

SUBJECT: Lower Newport Bay Confined Aquatic Disposal (CAD)

Dear Mr. Miller,

Buckingham-1

Please record this as my opposition to the proposed CAD during the next dredging process in the Newport Harbor turning basin. I studied the materials and in brief, am stunned the EPA, OSHA or Coastal would consider any of the alternatives suitable.

As Bay residents we dutifully abide by the logical restrictions of paint, chemicals and toxic cleaners entering our water. Because of eel grass, residents cannot reconfigure their docks so it is hard to imagine “unsuitable material” would be acceptable to the watchdogs.

Thank you for the opportunity to register my concerns.

Respectfully,
Mary Buckingham
19 Bay Island
Newport Beach, CA 92661

## *2.6.5 Mary Buckingham*

| Comment ID | Text |
|---|---|
| Buckingham-1 | The comment notes the commentor's concerns with the proposed Project, including the potential for increasing hazardous risk. Because the comment omits any significant environmental issues, no additional response is warranted (CEQA Guidelines Section 15088). Please see Master Response 2. Generally, however, the preparers of this EIR thank the commenter for their review and comments. |

**From:** Jacquelyn Chung <jacquelyn@cpscoastalpermits.com>
**Sent:** Thursday, January 14, 2021 11:11 AM
**To:** Miller, Chris
**Subject:** LOWER NEWPORT BAY CONFINED AQUATIC DISPOSAL (CAD) CONSTRUCTION PROJECT



Chris,

Chung-1

After a quick review of the Lower Newport Bay Confined Aquatic Disposal Construction Project my initial reaction was FANTASTIC! Finally a place we can put less desirable dredged material. However, as I read further I questioned whether this was the best environmental option for Newport Harbor. What other options has the City of Newport Beach considered? The alternatives as presented in the Draft Environmental Impact Report insinuates no other options were entertained other than upland disposal.

When I think about this less desirable material in the direct path of all waters moving within the bay I question the ability to contain this material regardless of the depth of the CAD.

Chung-2

I looked into how other bays manage less desirable dredged material each city seems to be different from one another. But, one thing these other bays had that Newport Beach does not have is a Sediment Management Plan (SMP). The CAD may be a quick easy solution for today. But, without a SMP how can we protect the future of Newport Harbor?

I'm not saying the CAD isn't the best option for our community and I'm not saying it is. I would like to understand better the options reviewed prior to the City of Newport Beach supporting this choice. And, I would like to understand why one of the largest recreational harbors in Southern California doesn't have a Sediment Management Plan to maintain and protect it.

Sincerely,

Jacquelyn

Jacquelyn Chung


Coastal Permit Specialist
4010 Channel Place
Newport Beach, California 92663
949.274.4214
CPSCoastalPermits.com

## *2.6.6 Jacquelyn Chung*

| Comment ID | Text |
|---|---|
| Chung-1 | The comment opines that the City should study alternatives to the proposed Project. Please see Master Response 3, which addresses the Alternatives analysis. |
| Chung-2 | The comment requests more information regarding the SMP. Please see Master Response 3, which addresses the City's SMP. Please also note that the SMP is included as Appendix D to the DEIR. |

**From:** rondaclark09@gmail.com
**Sent:** Wednesday, January 20, 2021 10:30 AM
**To:** Miller, Chris; 'Diane Dixon'; Avery, Brad; Duffield, Duffy; Muldoon, Kevin; woneill@newporteachca.gov; Brenner, Joy; Blom, Noah
**Subject:** DO NOT SUPPORT CAD-Dredging in the Bay



Clark-1

Mr. Miller, Ms. Dixon, Mr. Duffield, Mr. Muldoon, Mr. Blom, Ms. Brenner, and Mr. O'Neil:
Please note that I do not support the proposed construction of a confined aquatic disposal (CAD) facility in the central portion of the Lower Harbor between Bay Island, Lido Isle and Harbor Island. Please conduct additional studies to find an alternative solution.
The construction of a CAD poses an ADDITIONAL undue RISK to the residents of this area due to possible exposure and potential health related issues. This area of the City already endures continued and increasing pollution exposure from the airport. The health of the citizens that live in this area of the City deserve a better solution with less risk. Additionally the residents of this area of the City should not continue to endure an unfair burden and risk for the benefit of the greater City and County residents when there are alternative solutions that can be identified with further study.
Please do the right thing, do not approve the CAD and instead proceed with studies for alternative solutions.
Thank you!

Best Regards,
Ronda Clark
Newport Beach Resident and Voter

## *2.6.7 Ronda Clark*

| Comment ID | Text |
|---|---|
| Clark-1 | The comment notes their opposition to the proposed Project based on the possible additional potential health-related issues and increasing pollution exposure from the airport. Because the comment omits any significant environmental issues, no additional response is warranted (CEQA Guidelines Section 15088). Generally, however, the preparers of this EIR thank the commenter for their review and comments and direct them to Sections 3.2 and 4.2.2.2 of the DEIR, which address both project-specific and cumulative impacts from air pollution. |

**From:** Brooke C <brookecoldren@gmail.com>
**Sent:** Monday, January 18, 2021 3:11 PM
**To:** cmiller@newportbeach.gov; Miller, Chris
**Subject:** Fwd: Turning basin pollution



Dear Chris - this is a comment to the city as lead agency in the current CAD plan respecting the DEIR
I understand this is timely as comment period closes end of this month. Note I have " borrowed" text from "next door" heavily and many share my view .

The City of Newport Beach needs to research alternatives and open up discussion from more than one consultant that is CAD driven.

From the perspective of a local Marine Scientist experienced in this field:

B.Coldren-1

1. The City does not have a sediment management plan to guide their direction and have therefore, become a willing victim to bad engineering and environmentally intrusive project alternatives. The idea of designing a tool for sediment management (i.e. the 'CAD') and then developing a plan around it, is backwards. The City and their consultants know this.

B.Coldren-2

2. When the City has evaluated project alternatives, they have biased the alternative to suit their determination. The case for a CAD was made long ago, and in lieu of changing science, more recent studies and regional norms with respect to sediment management, the CAD has been pushed by the City's consultant from day one. For almost a decade the City has gone down this path, and likely would have installed a CAD if Port of Long Beach, Pier G hadn't become available in the 2012 timeframe. However, in spite of the costs and environmental damage, there have been no additional feasibility studies or steps taken by the City to honestly explore project alternatives. The City and its consultants have been singularly focusing on the CAD.

B.Coldren-3

3. The water quality impacts not discussed by the DEIR have the potential to cause even more impact than a normal dredge project, due to the re-handling of unsuitable material in the bay. The City's DEIR glosses over so me really major issues with plumes, sediment transport, and dilution of contaminants in a slow circulating bay. The analysis offers no hydrodynamic data to model and predict if a toxic plume would be an issue. The evaluation of water quality for the purposes of CEQA is incomplete and purposely vague by design.
Respectfully submitted

Brooke
--
Brooke Rogers Coldren
815 Via Lido Soud
Newport Beach, CA 92663
714-606-8449

## *2.6.8 Brooke Coldren*

| Comment ID | Text |
|---|---|
| B. Coldren-1 | The comment opines that the City developed an SMP to justify the CAD facility. Please see Master Response 3 and Section 2.1 of the DEIR, which present the process of project development. |
| B. Coldren-2 | The comment opines that the City has not adequately analyzed alternatives to the proposed Project. Please see Master Response 5 as well as Response to Comment PE-3. |
| B. Coldren-3 | The comment opines that the water quality analysis in the DEIR is inadequate because it did not include hydrodynamic modeling to fully analyze how a slow circulating bay may affect water quality issues such as sediment plumes. Appendix G to the BODR includes an analysis of short-term water quality impacts during construction activities. |

**From:** rob coldren <robcoldren@gmail.com>
**Sent:** Saturday, January 16, 2021 12:08 PM
**To:** Miller, Chris
**Cc:** Brooke Coldren
**Subject:** Turning basin pollution



Dear Chris - this is a comment to the city as lead agency in the current CAD plan respecting the DEIR
I understand this is timely as comment period closes end of this month. Note I have " borrowed" text from "next door" heavily and many share my view .

The City of Newport Beach needs to research alternatives and open up discussion from more than one consultant that is CAD driven.

From the perspective of a local Marine Scientist experienced in this field:

R.Coldren-1

1. The City does not have a sediment management plan to guide their direction and have therefore, become a willing victim to bad engineering and environmentally intrusive project alternatives. The idea of designing a tool for sediment management (i.e. the 'CAD') and then developing a plan around it, is backwards. The City and their consultants know this.

R.Coldren-2

2. When the City has evaluated project alternatives, they have biased the alternative to suit their determination. The case for a CAD was made long ago, and in lieu of changing science, more recent studies and regional norms with respect to sediment management, the CAD has been pushed by the City's consultant from day one. For almost a decade the City has gone down this path, and likely would have installed a CAD if Port of Long Beach, Pier G hadn't become available in the 2012 timeframe. However, in spite of the costs and environmental damage, there have been no additional feasibility studies or steps taken by the City to honestly explore project alternatives. The City and its consultants have been singularly focusing on the CAD.

3. The water quality impacts not discussed by the DEIR have the potential to cause even more impact than a normal dredge project, due to the re-handling of unsuitable material in the bay. The City's DEIR glosses over so me really major issues with plumes, sediment transport, and dilution of contaminants in a slow circulating bay. The analysis offers no hydrodynamic data to model and predict if a toxic plume would be an issue. The evaluation of water quality for the purposes of CEQA is incomplete and purposely vague by design.
Respectfully submitted
Rob

**Robert S Coldren, Esq.**
Coldren Law Offices
3 Hutton Centre Drive 9th Floor
Santa Ana CA 92707
Office (714) 955-6106
Mobile (949) 220-6241

## *2.6.9 Robert Coldren*

| Comment ID | Text |
|---|---|
| R. Coldren-1 | The comment opines that the City developed an SMP to justify the CAD facility. Please see Master Response 3 and Section 2.1 of the DEIR, which present the process of project development. |
| R. Coldren-2 | The comment opines that the City has not adequately analyzed alternatives to the proposed Project. Please see Master Response 5 as well as Response to Comment PE-3. |

**From:** Mark Conzelman <mark@scdevelopment.net>
**Sent:** Wednesday, January 20, 2021 11:52 AM
**To:** Miller, Chris
**Subject:** DEIR 2019110340/2 Lower Newport Bay CAD



Chris Miller, Public Works Manager
City of Newport Beach, Public Works Department
100 Civic Center Drive
Newport Beach, CA. 92660

Re: Lower Newport Bay Confined Aquatic Disposal CAD Construction Project Environmental Impact Report (DEIR 2019110340/2)

Dear Mr. Miller,

M. Conzelman-1

Thank you for the opportunity to register my concerns regarding the use of a CAD to manage unsuitable material during the next dredging process. The Newport Beach Harbor is a jewel to the city and state due to its diversity of residential, commercial and recreational activities. Placing a CAD as proposed would be unprecedented in a west coast harbor as beautiful and active as Newport Beach. The CAD will not provide a method for completely cleaning up the harbor, water front homeowners should not be held hostage for toxic waste clean-up that someone else caused and the alternatives have not been properly considered.

M. Conzelman-2

In addition, the Sediment Management Plan referenced in the Draft EIR is grossly inadequate, lacking scientific data and reports that would be required by any private developer. A project of this sensitivity should not be allowed to proceed without first doing all appropriate scientific studies.

M. Conzelman-3

The EPA indicated some flexibility for ocean disposal such as LA 3 if the Water Quality is properly monitored to assure methyl-mercury is not occurring. This should be further vetted as a viable alternative.

M. Conzelman-4

The DEIR lacks a comprehensive cleanup plan. Toxic materials along all water front edges, including residential, should be a part of the cleanup. In addition, alternatives listed are not exhaustive and lack realistic assumptions with supportive scientific data. For example, a Confined Disposal Facility, CDF, which I believe to be the best solution isn't even included.

M. Conzelman-5

I fully support dredging and therefore would like the Army Corp. To move forward with dredging all areas possible and taking the suitable materials to ocean approved dumpsites. Areas with toxic materials should be left in place until further scientific studies are done.

Sincerely,

Mark L. Conzelman

939 Via Lido Soud

Newport Beach, CA. 92663

Sent from my iPad

## *2.6.10 Mark Conzelman*

| Comment ID | Text |
|---|---|
| M. Conzelman -1 | The commenter notes their opposition to the proposed Project based on general comments related to hazardous risks. Because the comment omits any significant environmental issues, no additional response is warranted (CEQA Guidelines Section 15088). Please see Master Response 2, which describes the potential for hazardous risk and recreation. |
| M. Conzelman -2 | The comment opines that the City developed an SMP to justify the CAD facility. Please see Master Response 3 and Section 2.1 of the DEIR, which presents the process of project development. |
| M. Conzelman-3 | The comment opines that the USEPA has indicated some flexibility for ocean disposal and ocean disposal should be added as an alternative. Please see Master Response 3, which addresses the Alternatives analysis. As noted in the DEIR, the USEPA and other DMMT determine whether sediment is suitable for Ocean disposal. |
| M. Conzelman -4 | The comment requests that the City consider a CDF to repurpose unsuitable materials. Please see Master Response 5 and Response to Comment PE-3, which address the feasibility of a CDF. |
| M. Conzelman -5 | The comment opines that contaminated material should just be left in place. As discussed in the DEIR, the areas targeted for dredging are within navigational channels that have become too shallow for safe vessel navigation; sediments in these areas could be resuspended by vessel activities. The proposed Project would seek to relocate the impacted sediments into a deep hole (CAD facility), which would eliminate those potential risks to water quality thereby resulting a long-term benefit to the environment. |

**From:** Shana Conzelman <sconzelman@gmail.com>
**Sent:** Saturday, January 16, 2021 7:39 PM
**To:** Miller, Chris
**Subject:** Lower Newport Bay Confined Aquatic Disposal CAD Construction Project Environmental Impact Report



Chris Miller, Public Works Manager
City of Newport Beach, Public Works Department
100 Civic Center Drive
Newport Beach, CA. 92660

Re: Lower Newport Bay Confined Aquatic Disposal CAD Construction Project Environmental Impact Report (DEIR 2019110340/2)

Dear Mr. Miller,

S. Conzelman -1

In DEIR 2019110340/2 there are extensive environmental issues without adequate investigation into alternative solutions.
Please record this as my opposition to the CAD in the Lower Newport Bay Confined Aquatic Disposal construction project.

Respectfully submitted,

Shana Conzelman
939 Via Lido Soud
Newport Beach, CA 92663

## *2.6.11 Shana Conzelman*

| Comment ID | Text |
|---|---|
| S. Conzelman-1 | The commenter notes their concerns with the Project, including the potential for increasing hazardous risk. Because the comment omits any significant environmental issues, no additional response is warranted (CEQA Guidelines Section 15088.) Generally, however, the preparers direct commenter to Master Response 2. Generally, however, the preparers of this EIR thank the commentor for their review and comments. |

**From:** Tom Fischbeck <tf@olympicequipment.com>
**Sent:** Monday, January 18, 2021 8:55 AM
**To:** Miller, Chris
**Subject:** Castaways



The City is planning to dig a 450' x 450' hole in the harbor anchorage. Dredge contaminated soil from one part of the harbor, dump it in the hole and then cover it over. The soil is too contaminated to be dumped in the ocean!! There are lots of other places it can be dumped. a) Lower Casterways is a 5 acre site. The soil would raise the level 2'. b) the new proposed Golf Course over the top of an existing dump site! c) Low lying areas subject to the rising ocean level we keep getting told about.

Fischbeck-1

Dear Mr Miller: I Paddle my canoe (human Craft) out of castaways and feel this is the perfect spot for our citizens to play on the bay with paddlecraft. The SUP boards, outriggers, canoes, fishing coanoes, are more popluar than ever! Espaecially with all the covid pandemic! The thought of dumping contaminated soil onto this 5 acre area is Ludicrous. I feel this soild could be trucked to a Land fill? Or a beter solution than to fill up a 5 acre park with contamination.

Warmest regards,

**Tom Fischbeck**

Tel#: **(310) 923-1094**
Fax#: (949) 660-9805
**TOTAL EQUIPMENT SOLUTIONS FOR THE WASTE AND RECYCLING INDUSTRY**
Web Site: **www.olympicequipment.com**


**Save a tree...please don't print this email unless you really need to.**

## *2.6.12 Tom Fischbeck*

| Comment ID | Text |
|---|---|
| Fischbeck-1 | The comment opines that the City has not adequately analyzed alternatives to the proposed Project, specifically a CDF. Please see Master Response 5 as well as Response to Comment PE-3. Please see Master Response 5 and Response to Comment PE-3, which both address the availability of a CDF. As noted in the DEIR, no CDF is currently open for disposal in the region. As fully discussed in Comment PE-3, the City chose to eliminate the use of an "on-site" CDF in the past, and to only consider a CDF fill option if one were to be available in the region, such as at a port facility. |

**From:** Steve Gelb <sgelb@aol.com>
**Sent:** Saturday, January 16, 2021 10:16 AM
**To:** Miller, Chris
**Cc:** Dept - City Council; Blom, Noah
**Subject:** Confined Aquatic Disposal (CAD) Cells in Newport Harbor - Bad Environmental Impact vs Alternatives?



Chris Miller Public Works Manager City of Newport Beach Public Works Department 100 Civic Center Drive Newport Beach, CA 92660 cmiller@newportbeachca.gov

Dear Mr. Miller

Please do not act to remove the unsuitable materials in our bay, unfit for ocean disposal and consolidate them in a 450' x 450' x 47' deep hole in the middle of our beautiful, clean anchorage. This is not removal, it is a plan to take our good base and replace it with the bad, unsuitable materials from the entire harbor.

Gelb-1

My understanding is that the City has a long term plan of opening this 'CAD' up and allowing future dumps. The City of Newport Beach should research alternatives and open up discussion from more than one consultant that is CAD driven. I've been informed that, from the perspective of a local Marine Scientist experienced in this field: 1. The City does not have a sediment management plan to guide their direction and have therefore, become a willing victim to bad engineering and environmentally intrusive project alternatives. The idea of designing a tool for sediment management (i.e. the 'CAD') and then developing a plan around it, is backwards. The City and their consultants know this. 2. When the City has evaluated project alternatives, they have biased the alternative to suit their determination. The case for a CAD was made long ago, and in lieu of changing science, more recent studies and regional norms with respect to sediment management, the CAD has been pushed by the City's consultant from day one. For almost a decade the City has gone down this path, and likely would have installed a CAD if Port of Long Beach, Pier G hadn't become available in the 2012 timeframe. However, in spite of the costs and environmental damage, there have been no additional feasibility studies or steps taken by the City to honestly explore project alternatives. The City and its consultants have been singularly focusing on the CAD. 3. The water quality impacts not discussed by the DEIR have the potential to cause even more impact than a normal dredge project, due to the re-handling of unsuitable material in the bay. The City's DEIR glosses over so many really major issues with plumes, sediment transport, and dilution of contaminants in a slow circulating bay. The analysis offers no hydrodynamic data to model and predict if a toxic plume would be an issue. The evaluation of water quality for the purposes of CEQA is incomplete and purposely vague by design.

Gelb-2

Gelb-3

I would appreciate seeing your response to these concerns that have been brought to the attention of a great many resident over the past few weeks.

Sincerely,

Steven Gelb
Lido Isle

cc:

Newport Beach Administration and City Council
**citycouncil**@newportbeachca.gov

Noah Blom
nblom@newportbeachca.gov

## *2.6.13 Steve Gelb*

| Comment ID | Text |
|---|---|
| Gelb-1 | The comment opines that the City developed a sediment management to justify the CAD facility. Please see Master Response 3 and Section 2.1 of the DEIR, which presents the process of project development. |
| Galb-2 | The comment opines that the City has not adequately analyzed alternatives to the proposed Project. Please see Master Response 5 as well as Response to Comment PE-3. |
| Gelb-3 | The comment opines that the water quality analysis in the DEIR is inadequate because not did not include hydrodynamic modeling to fully analyze how a slow circulating bay may affect water quality issues such as sediment plumes. Appendix G to the BODR includes an analysis of short-term water quality impacts during construction activities. |

January 8, 2021

Carol Green
Phone Message left to Chris Miller (transcribed)

"Hi, I'm Carol Green, and I live on Lido Island. My husband is Charlie Green. And I'm reading about the dredging in our bay, and I'm against.

Green-1

I wish you'd find another solution about the CAD, the 450 x 450 with a depth of 47' hole in the middle of the anchorage in the Lower Harbor between Bay Island, Lido Island and Harbor Island. Their plan is to place all unsuitable for ocean disposal sediment in this area. Highlighted below you will note that the clean material suitable for beach nourishment, our clean anchorage, will be transported to the ocean. Well, I don't want the sediment placed right out here at the end the Lido Island, and Bay Island and Harbor Island. I am against it, opposed, and I wish you would find another solution for this toxic sediment.

And I will text, not text, I have to email the District 1, Diane Dixon, and all the other ones. But I just noticed it. And it's just unsuitable. Just sounds terrible. I don't know why they're doing it. Okay, but thank you Chris Miller. Please, I know you're going to be doing the work but I wish you'd find some other way to do it. So, I'm opposed, and I know a lot of other people on Lido Island all say they're opposed, but they go you can't do anything about it. But, and then, you know, it's just terrible. So, anyway, just (phone number). I don't know what else I can do. So, thank you very much for listening.

## *2.6.14 Carol Green*

| Comment ID | Text |
|---|---|
| Green-1 | The comment notes the commentor's concerns with the Project including the potential for increasing hazardous risk. Because the comment omits any significant environmental issues, no additional response is warranted (CEQA Guidelines Section 15088). Please see Master Response 2. Generally, however, the preparers of this EIR thank the commentor review and comments. |

Sharon M. Grimes
219 Via Eboli
Newport Beach, CA. 92663

January 19, 2021

Dear Mr. Miller, and All Newport Beach Council Members;

Grimes-1

Please register my concerns regarding the use of a CAD to manage unsuitable material during the next dredging process. Newport Beach Harbor must be kept safe for our families, our city, and surrounding communities. Placing a CAD as proposed would be unprecedented in a west coast harbor or any waters used by our citizens. Our Bay is beautiful and active providing enjoyment to residents and visitors to Newport Beach. **The whole idea of BURYING CONTAMINATED TRASH is unbelievable.**

Grimes-2

In addition, the Sediment Management Plan referenced in the Draft EIR is extremely inadequate, lacking scientific data and reports that would be required by any private developer. **A project of this magnitude should not be allowed to proceed without first doing all appropriate scientific studies.**

Grimes-3

The EPA indicated some flexibility for ocean disposal such as LA 3 if the Water Quality is properly monitored to assure methylmercury is not occurring. Perhaps there are other Confined Disposal Facility (CDF) locations that have not been considered that would provide more appropriate solutions.

Grimes-4

Please STOP this endeavor DO YOUR Duty for the Citizens who pay your salary and give more time to investigate to all other potential alternatives. As I said, the idea that the best solution to the problem is to put a **toxic waste dump** in the middle of Newport Harbor is beyond comprehension especially by those paid to protect our environment.

Sincerely,

*Sharon M. Grimes*

## *2.6.15 Sharon Grimes*

| Comment ID | Text |
|---|---|
| S. Grimes-1 | The commenter notes their opposition to the proposed Project based on general comments related to hazardous risks. Because the comment omits any significant environmental issues, no additional response is warranted (CEQA Guidelines Section 15088). |
| S. Grimes-2 | The comment opines that the USEPA has indicated some flexibility for ocean disposal and ocean disposal should be added as an alternative. Please see Master Response 3, which addresses the Alternatives analysis. As noted in the DEIR, the USEPA and other DMMT determine whether sediment is suitable for Ocean disposal. |
| S. Grimes-3 | The comment opines that the City developed a sediment management to justify the CAD facility. Please see Master Response 3 and Section 2.1 of the DEIR, which presents the process of project development. |
| S. Grimes-4 | The commenter notes their opposition to the proposed Project based on general comments related to hazardous risks. Because the comment omits any significant environmental issues, no additional response is warranted (CEQA Guidelines Section 15088). Generally, however, the preparers of this EIR thank the commenter for their review and comments. |

**From:** Joelle Hamontree <Joelle@hamontree.com>
**Sent:** Wednesday, January 13, 2021 3:30 PM
**To:** Miller, Chris; Dixon, Diane; Avery, Brad; Duffield, Duffy
**Cc:** Muldoon, Kevin; Brenner, Joy; O'Neill, William; Blom, Noah
**Subject:** Begging you to rethink this CAD in our bay!



Dear City Council,

Hamontree-1

If it wasn't already clear, it is certainly clear now that we live in a very special place. During this pandemic, me, my family and many others took to the bay for water sports, boating and enjoyment. If this very understudied plan of opening up a CAD and dumping toxic waste into our bay goes through, you will be risking the quality of our water and possibly making people sick. THAT IS THE LAST THING WE NEED!

I'M BEGGING YOU TO PLEASE RESEARCH ALTERNATIVES AND STOP THIS PLAN NOW!

Thank you,

Joelle Hamontree
Lido Resident

## *2.6.16 Joelle Hamontree*

| Comment ID | Text |
|---|---|
| Hamontree -1 | The commenter notes their opposition to the proposed Project based on general comments related to hazardous risks and recreation. Because the comment omits any significant environmental issues, no additional response is warranted (CEQA Guidelines Section 15088). Please see Master Responses 2 and 4, which relate the potential for hazardous risk and recreation. Generally, however, the preparers of this EIR thank the commenter for their review and comments. |

**From:** randall@scdevelopment.net
**Sent:** Wednesday, January 20, 2021 9:57 AM
**To:** Miller, Chris
**Subject:** Re: Lower Newport Bay Confined Aquatic Disposal CAD Construction Project Environmental Impact Report (DEIR 2019110340/2)



Dear Chris Miller,

Chris Miller, Public Works Manager
City of Newport Beach, Public Works Department
100 Civic Center Drive
Newport Beach, CA. 92660

Re: Lower Newport Bay Confined Aquatic Disposal CAD Construction Project Environmental Impact Report (DEIR 2019110340/2)

Please accept this notification as my opposition to a CAD being considered to manage unsuitable material in Newport Beach bay. Placing a dumpsite in the middle of our harbor is a bad idea for the following reasons:

Hause-1 1. Very disruptive to boating activities and the surrounding communities. A CAD is not appropriate for our harbor.
Hause-2 2. Water quality will be negatively impacted from unsuitable material being handled twice thru the water column, once digging up and once dumping.
Hause-3 3. The Draft EIR lacks a comprehensive clean-up plan. Toxic materials along all water front edges including residential should be a part of the clean-up.
Hause-4 4. The Sediment Management Plan is grossly inadequate.
Hause-5 5. Alternatives have not been seriously considered due to the City's strong desire to utilize a CAD.
Hause-6 6. Further investigations to determine how more “unsuitable” materials can be dumped at LA3.
Hause-7 7. Confined Facility Disposal ‘CFD’ should be evaluated and utilized to repurpose unsuitable materials.
Hause-8 8. Removing the unsuitable material and hauling it upland has not been seriously vetted.
Hause-9 9. Newport Harbor is a crown jewel of the world. Why crap where we eat? The fact that this is even being considered is absolutely appalling. I am ashamed to even have to argue against something like this.

Because of the city’s strong desire to utilize a CAD, they continue to be intentionally deceptive throughout the CEQA process and fail to follow proper protocol. I support dredging and would like the Army Corp to move forward with dredging all acceptable areas and leaving unsuitable materials in place or develop an alternative plan.

Best Regards,

**Randall Hause**

Acquisition & Development Associate
SC Development
O: (714) 617-9824
C: (949) 878-6781
2151 Michelson Dr., Ste. 140
Irvine, CA 92612
www.scdevelopment.net

## *2.6.17 Randall Hause*

| Comment ID | Text |
|---|---|
| Hause-1 | The comment opines that a CAD would be disruptive to boating. Please see Master Response 4 and Response to Comment Yates 2, which addresses the potential impacts to recreational resources, including boating. |
| Hause-2 | The comment opines that water quality will be negatively impacted from unsuitable material being handled twice. Please see Master Response 2.<br><br>Regarding the suggestion that the sediment should be left where it as its essentially capped, this assumption is not correct. As discussed in the DEIR, the areas targeted for dredging are within navigational channels that have become too shallow for safe vessel navigation; sediments in these areas could be resuspended by vessel activities.<br><br>Please also see Comments RWQCB (2) -1 through RWQCB (2)-6. As discussed in the response to these comments, the DEIR sufficiently addresses the magnitude and nature of potential impacts to water quality and the environment. |
| Hause-3 | The comment opines that the proposed Project be expanded to address all contaminated material in the Harbor. The CAD facility was designed to accommodate the approximately 106,900 cy determined unsuitable for open ocean disposal. To increase the benefits of the CAD facility for the Newport Beach community, the City also intends to provide additional capacity for subsequent placement of materials dredged from other locations within Lower Newport Bay, which are also unsuitable for open ocean or nearshore disposal. The CAD facility would thereby accommodate additional fill volume from future maintenance dredging projects conducted as part of the City's RGP 54 programs as well as sediment that is not covered as part of the program and thus requires an alternative disposal option. At this stage of the design, the City considers 50,000 cy to be a reasonable target capacity for this nonfederal sediment. |
| Hause-4 | The comment opines that the SMP is grossly inadequate. Please see Master Response 3, which addresses the adequacy of the SMP. |
| Hause-5 | The comment opines that the DEIR did not include a thorough alternatives analysis. Please see Master Response 3, which addresses the alternatives analysis. |
| Hause-6 | The comment requests further investigations to determine how more "unsuitable" materials can be dumped at LA-3. This comment is beyond the scope of this environmental analysis. |
| Hause-7 | The comment requests that the City consider a CDF to repurpose unsuitable materials. Please see Master Response 5 and Response to Comment PE-3, which address the feasibility of a CDF. |
| Hause-8 | The comment opines that upland disposal has not been analyzed. Please see Section 6.3.2, which addresses the possibility of upland disposal. The alternative was carried through for analysis and remains a viable alternative for consideration. |
| Hause-9 | The comment generally summarizes the commenter's comments on the DEIR and notes opposition to the proposed Project. Because the comment omits any significant environmental issues, no additional response is warranted (CEQA Guidelines Section 15088). Generally, however, the preparers of this EIR thank the commenter for their review and comments. |

**From:** Laurie Hunter <laurie.hunter@sbcglobal.net>
**Sent:** Saturday, January 23, 2021 8:56 AM
**To:** Miller, Chris
**Cc:** Dixon, Diane
**Subject:** CAD in the Bay: No Superfund in a Box

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

Dear Mr. Miller:

I see that I missed the formal deadline, but want to register my sincere horror that the City is considering boxing up toxins to bury in the neighborhood.

I imagine when they put the iron pipes underground on Lido Isle, where I own and live, they thought it would be safe forever. These things will leak, if not in my lifetime, in our children's or future generations'.

Hunter-1

Have you surveyed the property owners to see if you could seek an assessment to properly dispose of the filthy toxins by hauling them away from our families and neighbors? I did not see any poll or survey, but did you?

Please don't do this CAD for the "unsuitable" materials..

Sincerely,

Laurie Hunter
228 Via Orvieto
Lido Isle

## *2.6.18 Laurie Hunter*

| Comment ID | Text |
|---|---|
| Hunter-1 | The comment opines that the proposed Project would create a hazardous waters site in the Harbor. Please see Master Response 2, which addresses the potential for hazardous waste risks. |

**From:** Jim Huyck <Jimonpv@aol.com>
**Sent:** Friday, January 15, 2021 8:38 AM
**To:** Miller, Chris
**Subject:** No CAD in our bay

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

Chris Miller,

I don't know the details, but CAD sounds like a ridiculous plan to relocate contaminated dredge material from one spot in Newport Harbor to another spot in Newport Harbor. I suspect CAD is mostly a politically motivated attempt to restrict future development and "human activities" in general. I assume the word "environmental", in this case, is merely an attempt to give the plan credibility with people who support anything labeled "environmental".

Huyck-1

My idea would be to haul the dredged material far out to sea and dump it there. This would seem to be safer for local residents and I would challenge CAD planners to show me how this would "contaminate" the Pacific Ocean.

So my opinion, unless I can be convinced otherwise by an actual reasonable argument, is that there should be no CAD in our bay.

Thank you.

Jim Huyck.

### *2.6.19 Jim Huyck*

| Comment ID | Text |
|---|---|
| Huyck-1 | The comment opines that the City should study alternatives to the proposed Project, namely disposal at sea. Please see Master Response 3, which addresses the Alternatives analysis. As noted in the DEIR, the USEPA and other DMMT determine whether sediment is suitable for Ocean disposal. |

January 18, 2021

Chris Miller
City of Newport Beach
100 Civic Center Drive
Newport Beach, CA 92660

**SUBJECT: Lower Newport Bay Confined Aquatic Disposal (CAD) Construction Project (PA2019-020)**

**State Clearinghouse Number: 2019110340**

Mr. Miller,

Please register opposition to the **Lower Newport Bay CAD Construction Project PA2019-020** based on the incomplete and incorrect Environmental Impact Report.

Lockard-1

The draft EIR prepared December 2020 by Anchor QEA, LLC does not identify **significant impacts to the bay and surrounding community**. The bay throughout my life has provided recreation, and community. I cannot imagine the use of this priceless part of the California coast being used as a **hazardous waste dump site**.

Alternatives including upland locations, off shore disposal and landfill locations within Newport Beach have not been fully disclosed in the EIR that would protect the fragile bay environment and conceivably lower the costs associated with the disposal of the hazardous waste identified to be remediated in this project.

The bottom line is that the City of Newport Beach and **the impacted community that enjoys and uses the Newport Bay should not be responsible for the contingent liability being created by this proposed project in perpetuity.**

Please **reject the EIR and commission a new EIR** that uses independent thinking and judgement in abating the hazardous waste to a sensible location outside the waterways of Newport Bay.

Regards,

Dennis Lockard, Deputy Chief-Fire Marshal
Newport Beach Fire Department (Retired)
chieflockard@gmail.com
714-306-3355

**From:** chieflockard@gmail.com
**Sent:** Wednesday, January 20, 2021 12:13 PM
**To:** Miller, Chris
**Cc:** state.clearinghouse@opr.ca.gov; City Clerk's Office
**Subject:** OPPSITION TO Construction Project PA2019-020



Good afternoon Mr. Miler,

This email and attachment are in opposition to the proposed Lower Newport Bay CAD project which proposes the dumping of hazardous waste into Newport Bay.

I know you have longstanding experience with the bay and all of the associated boating, recreation, commerce and revenues this bay provides the City and Orange County. Based on the comments by others and myself I hope you will take a leadership role in identifying new and better alternatives to the proposed CAD.

Kindest Regards,

Dennis Lockard

## *2.6.20 Dennis Lockard*

| Comment ID | Text |
|---|---|
| Lockard-1 | The commenter notes their opposition to the Project based on objections related to hazardous waste, alternatives, and recreation. Please see Master Responses 1 through 3. Because the comment omits any significant environmental issues, no additional response is warranted (CEQA Guidelines Section 15088). Generally, however, the preparers of this EIR thank the commenter for their review and comments. |

Lorenzen-1

Please do not bury contaminated material in the Turning Basin

Pls keep our Newport Beach waters clean

Violet Lorenzen
226 Via Koron
NB 92663

949 673 7201

1-18-21

## *2.6.21 Violet Lorenzen*

| Comment ID | Text |
|---|---|
| Lorenzen-1 | The comment opines that the proposed Project would create a hazardous waters site in the Harbor. Please see Master Response 2, which addresses this issue. |

**From:** Julie Luckey <theluckeys@gmail.com>
**Sent:** Wednesday, January 20, 2021 10:09 PM
**To:** Miller, Chris
**Subject:** CAD Proposal



Dear Chris Miller,

J.Luckey-1

I oppose the current CAD proposal and think that other alternatives need to be presented.

Please put me on the mailing list for further notices.

Julie Luckey
949-662-8400

## *2.6.22 Julie Luckey*

| Comment ID | Text |
|---|---|
| J.Luckey-1 | The comment opines that the City should study alternatives to the proposed Project. Please see Master Response 3, which addresses the Alternatives analysis. |

**From:** Palmer Luckey <palmertech@gmail.com>
**Sent:** Tuesday, January 19, 2021 11:57 PM
**To:** Miller, Chris
**Subject:** Comment on Newport Bay CAD Project, Jan 19



Having reviewed all publicly available materials, I believe that relevant technological advancements have been developed since the CAD and other alternatives underwent analysis, particularly hydraulic dredging and transport technology.

P.Luckey-1

I support dredging, and want to dredge deeply and quickly and safely across as much of the bay as possible. The current proposal is based on outdated analysis. Taking a fresh look at the problem starting from first principles should be a priority, and I would be down to fund that type of analysis out of my own pocket in a timely manner.

## *2.6.23 Palmer Luckey*

| Comment ID | Text |
|---|---|
| P.Luckey-1 | The commenter notes their opposition to the proposed Project based on the possible additional alternatives, namely hydraulic dredging, and transport technology. Please see Master Response 5, which addresses the scope of the Alternatives analysis. Because the comment omits any significant environmental issues, no additional response is warranted (CEQA Guidelines Section 15088). Generally, however, the preparers of this EIR thank the commenter for their review and comments. |

James E. "Kimo" McCormick
808 Via Lido Soud
Newport Beach, CA
(949) 729-8000
kmccormick@kimolaw.com

January 16, 2021

SENT BY US MAIL AND EMAIL

Chris Miller
Public Works Director
City of Newport Beach, Public Works Department
100 Civic Center Drive
Newport Beach, California 92660
cmiller@newportbeachca.gov

Re: Notice of Availability Lower Newport Bay Confined Aquatic Disposal (CAD) Construction Project

Dear Manager Miller:

McCormick-1

I have lived on Lido Isle since 1984 but first visited and stayed on Lido in the 1960s when I was in high school. My wife and I raised our three children on Lido. My parents bought a home on Lido in 1969 and owned it continuously until 2011 when my mother passed. My wife's grandparents owned a home on Lido and her parents have lived on the island since 1974 (her father passed in 2004 but her mother is still living here in her own home). Our families and children have played in and enjoyed the bay and all of its amenities. It is central to the Lido and Newport bay lifestyle. Our children were exceptional sailors, spending every summer day in and on the water and many other days throughout the year. Needless to say, we love and are extremely attached to Lido Isle and jealously guard against decisions that may adversely impact our health and safety.

McCormick-2

I recall in the past that a proposal to dredge the Rhine Channel resulted in a similar project to dredge and dispose of the hazardous heavy metal sediment in a confined aquatic disposal area off the south side of Lido Isle—directly across from the Lido clubhouse. Resistance from residents of Lido Isle and other bayfront communities convinced the City and other applicable agencies to alter the project. The contaminated sediment that was unsuitable for open ocean disposal was dredged and barged to either Long Beach or Los Angeles Harbor and used for landfill purposes. This was clearly a "win-win" for everyone involved. One of the original objections to this proposal was the cost, but eventually rationale minds agreed that this was the best way to handle that situation.

McCormick-3

I remind you of this past project as the approach and solution seems equally relevant and applicable to the current proposal. Dredging and relocating sediment that is unsuitable for open ocean disposal in a CAD in the very center of our busy recreational harbor is not solving the problem, it is merely disturbing the unsuitable sediment and relocating it. I am not an expert in marine dredging, but I have to believe

McCormick-3 (continued)

that the process of scooping the unsuitable sediment and dumping it presents its own adverse environmental impacts, further spreading and dispersing the unsuitable sediment. I do not believe that there is technology available today that mitigates this exposure, nor do I believe that you, as a City employee with responsibility for this project, can honestly look me in the eye and assure me that the CAD is 100% foolproof and safe or that the health of my family and neighbors will never be adversely impacted. We have to continue to vigilantly guard our precious bay and environment.

Another alternative is to find a City that would be happy to have the sediment for landfill to expand its footprint, similar to what was done years ago.

McCormick-4

If that is not available, then there have to be other alternatives that have less potential environmental, health and safety impacts. If the CAD in the very center of our busy recreational harbor is deemed by the experts to be not dangerous, and, in fact, safe, then why would it not be true if a similar CAD project were undertaken in the ocean outside of our bay away from the coastline where there is much less potential immediate contact with the human population. Sometimes you have to do a balancing of interests.

My wife and I object to this CAD facility project as proposed. Thank you for your consideration of our comments.

Very truly yours,

Kimo McCormick

James E. "Kimo" McCormick

cc Diane Dixon (District 1)
ddixon@neweportbeachca.gov

## *2.6.24 James E. "Kimo" McCormick*

| Comment ID | Text |
|---|---|
| McCormick-1 | The commenter notes their concerns about the Project, including the potential for impacts to residents' health and safety. Because the comment omits any significant environmental issues, no additional response is warranted (CEQA Guidelines Section 15088). Generally, however, the preparers of this EIR thank the commenter for their review and comments and direct them to Master Responses 1 through 5, which address several public concerns |
| McCormick-2 | The comment suggest that the City consider forgoing the CAD and instead disposing the material at a CDF. Please see Master Response 5 and Response to Comment PE-3, which both address the availability of a CDF. As noted in the DEIR, no CDF is currently open for disposal in the region. As fully discussed in Comment PE-3, the City chose to eliminate the use of an "on-site" CDF in the past, and to only consider a CDF fill option if one were to be available in the region, such as at a port facility. Regarding the potential to place material at Lower Castaways, while this area was used in the past as a staging area for the LNB 2012 dredging, it is not a CDF and would pose additional environmental impacts as discussed in PE-3. |
| McCormick-3 | The comment opines that dredging will merely disturb the unsuitable sediment and relocating it. However, this assumption is not correct. As discussed in the DEIR, the areas targeted for dredging are within navigational channels that have become too shallow for safe vessel navigation; sediments in these areas could be resuspended by vessel activities. The proposed Project would seek to relocate the impacted sediments into a deep hole (CAD facility), which would eliminate those potential risks to water quality thereby resulting a long-term benefit to the environment. |
| McCormick-4 | The comment questions if the CAD could be relocated out of the Harbor and into the ocean. A CAD is a viable alternative in a calm bay such as the Harbor but would not be viable in a dynamic system such as the open ocean. Wind, waves, and currents would be too variable, and material could not be as easily contained as in less dynamic systems, Additionally, constructing a CAD facility in the open ocean would conflict with existing federal policies and federal agencies would likely not issue regulatory permits. |

**From:** Diana Miner <daminer99@aol.com>
**Sent:** Wednesday, January 13, 2021 3:13 PM
**To:** Miller, Chris
**Subject:** NO CAD IN OUR BAY!!!



Miner-1

NO CAD IN OUR BAY!!

DO THE RIGHT THING PLEASE

**Diana Miner**
949.394.6212
**Sales Partner | Bradshaw Residential Group**
Coldwell Banker Global Realty
840 Newport Center Drive, Suite 100
Newport Beach, CA 92660
CalBRE #01919429

## *2.6.25 Diana Miner*

| Comment ID | Text |
|---|---|
| Miner-1 | The commenter notes their opposition to the proposed Project. Because the comment omits any significant environmental issues, no additional response is warranted (CEQA Guidelines Section 15088). Generally, however, the preparers of this EIR thank the commenter for their review and comments. |

Gmail **Pete Rabbitt <prabbitt41@gmail.com>**

# Bay Dredging Issues

3 messages

**Pete Rabbitt** <prabbitt41@gmail.com> Mon, Jan 11, 2021 at 12:46 PM
To: cmillller@newportbeachca.gov

P. Rabbitt-1

Hello Chris:
I see you're busy as always!
Re: dredging, I received a flyer but not sure the ramifications? Are you saying "IF" there is contaminated sediment, the city has to dispose of this by building a bin in the middle of the bay?? rather than barging out to ocean? Being a 70 year bayfront resident when city would just dredge on to nearest beach this appears ridiculous, if in fact true! What types of contaminated sediment would cause this condition, and how would material then be disposed of?
Can you enlighten me on this civic opportunity to broaden project scope and spend a huge amount of taxpayer funds?
Thanks Chris, I'll look forward to hearing from you.
Pete Rabbitt
949 351 8484

---

**Mail Delivery System** <noreply@cisco.com> Mon, Jan 11, 2021 at 12:47 PM
To: prabbitt41@gmail.com

The following message to <cmillller@newportbeachca.gov> was undeliverable.
The reason for the problem:
5.1.0 - Unknown address error 550-'5.4.1 Recipient address rejected: Access denied. AS(201806281) [DM3GCC02FT013.eop-gcc02.prod.protection.outlook.com]'

Final-Recipient: rfc822;cmillller@newportbeachca.gov

## *2.6.26 Pete Rabbitt*

| Comment ID | Text |
|---|---|
| P. Rabbitt-1 | The comment notes questions about the proposed Project and whether there is known contamination. Please see Master Responses 2 and 5. In addition, Section 2 of the DEIR presents the full project description along with the regulatory oversight involved with managing contaminated sediment. As noted in the DEIR, the USEPA and other DMMT determine whether sediment is suitable for Ocean disposal. |

**From:** oringseal@aol.com
**Sent:** Sunday, January 17, 2021 6:21 AM
**To:** Miller, Chris
**Cc:** sconzelman@gmail.com; Dixon, Diane; Avery, Brad; Duffield, Duffy; Duffield, Duffy; Blom, Noah; Brenner, Joy; O'Neill, William
**Subject:** No CAD in our BAY



**Mr Miller**

**I totally agree with what is stated below. No further action should be taken on the project until there has been further study. I do not like the current idea at all.**

**Harry Railton**
**619, Via Lido Soud**
**Newport Beach CA 92663**

Do not remove the unsuitable materials in our bay, unfit for ocean disposal and consolidate them in a 450' x 450' x 47' deep hole in the middle of our beautiful, clean anchorage. This is not ***removal***, it is a plan to take our good base and ***replace*** it with the bad, unsuitable materials from the **entire harbor**. The City has a long term plan of opening this 'CAD' up and allowing future dumps. The City of Newport Beach needs to research alternatives and open up discussion from more than one consultant that is CAD driven.

**From the perspective of a local Marine Scientist experienced in this field:**

Railton-1

1. **The City does not have a sediment management plan** to guide their direction and have therefore, become a willing victim to bad engineering and environmentally intrusive project alternatives. The idea of designing a tool for sediment management (i.e. the 'CAD') and then developing a plan around it, is backwards. The City and their consultants know this.

Railton-2

2. When the City has evaluated project alternatives, they have biased the alternative to suit their determination. The case for a CAD was made long ago, and in lieu of changing science, more recent studies and regional norms with respect to sediment management, the CAD has been pushed by the City's consultant from day one. For almost a decade the City has gone down this path, and likely would have installed a CAD if Port of Long Beach, Pier G hadn't become available in the 2012

timeframe. **However, in spite of the costs and environmental damage, there have been no additional feasibility studies** or steps taken by the City to honestly explore project alternatives. The City and its consultants have been singularly focusing on the CAD.

Railton-3

3. The water quality impacts not discussed by the DEIR have the potential to cause even more impact than a normal dredge project, due to the re-handling of unsuitable material in the bay. The City's DEIR glosses over so me really **major issues with plumes, sediment transport, and dilution of contaminants in a slow circulating bay.** The analysis offers no hydrodynamic data to model and predict if a toxic plume would be an issue. The evaluation of water quality for the purposes of CEQA is incomplete and purposely vague by design.

# TAKE ACTION NOW:

**SUBMIT ALL COMMENTS BY JANUARY 20, 2021 TO:**

**Chris Miller**
Public Works Manager
**City of Newport Beach**
**Public Works Department**
100 Civic Center Drive
Newport Beach, CA 92660
cmiller@newportbeachca.gov **949.644.3043**

**Be sure to notify the City Council as well:**

**District 1**
Diane B. Dixon
ddixon@newportbeachca.gov

**District 2**
Mayor Brad Avery
bavery@newportbeachca.gov

**District 3**
Duffy Duffield
dduffield@newportbeachca.gov

**District 4**
Mayor Pro Tem
Kevin Muldoon
kmuldoon@newportbeachca.gov

**District 5**
Noah Blom
nblom@newportbeachca.gov

**District 6**
Joy Brenner
joy@newportbeachca.gov

**District 7**
Will O'Neill
woneill@newportbeachca.gov

## *2.6.27 Harry Railton*

| Comment ID | Text |
|---|---|
| Railton-1 | The comment opines that the City developed a sediment management plan to justify the CAD facility. Please see Master Response 3 and Section 2.1 of the DEIR, which presents the process of project development. |
| Railton-2 | The comment opines that the City has not adequately analyzed alternatives to the proposed Project. Please see Master Response 5 as well as Response to Comment PE-3. |
| Railton-3 | The comment opines that the water quality analysis in the DEIR is inadequate because not did not include hydrodynamic modeling to fully analyze how a slow circulating bay may affect water quality issues such as sediment plumes. Appendix G to the BODR includes an analysis of short-term water quality impacts during construction activities. |

**From:** Camille Rizko <camille@rizkocircle.com>
**Sent:** Monday, January 18, 2021 11:23 AM
**To:** Miller, Chris; Dixon, Diane
**Subject:** I am against dumping the dredging refuse in the turning basin



Rizko-1

Dear sir and Madam,
I have lived on Lido Isle since 2009. I am against dumping the contaminated material in the turning basin. We should dump it outside the bay as has been done in the past.

--
Best Regards,

Camille Rizko

## *2.6.28 Camille Rizko*

| Comment ID | Text |
|---|---|
| Rizko-1 | The comment opines that the proposed Project would create a hazardous waters site in the Harbor. Please see Master Response 2. Because the comment omits any significant environmental issues, no additional response is warranted (CEQA Guidelines Section 15088). Generally, however, the preparers direct commenter to Master Response 2. Generally, however, the preparers of this EIR thank the commentor for their review and comments. |

**From:** Debbie Robson <drobson@salushomecare.com>
**Sent:** Friday, December 04, 2020 10:11 AM
**To:** Miller, Chris
**Cc:** Mark Robson
**Subject:** LOWER NEWPORT BAY CONFINED AQUATIC DISPOSAL (CAD) CONSTRUCTION PROJECT ENVIRONMENTAL IMPACT REPORT



Mr. Miller,

Robson-1

How can it possibly be healthy for the residents of Lido Isle, Bay Isle, and other nearby populated areas to have waste material that has been deemed unfit for swimmers in the ocean to be near their homes? This seems like a very bad idea and not well thought out.

Robson-2

I would like to vote NOT to see this as a solution. There must be a better idea. what about taking the toxic material out in the ocean a few miles? Similar to being a place where boats can dump their holding tanks.

Sincerely,
Debbie

*Debbie Robson*
*Vice President / Home Health and Hospice*

Office: (949) 390-7308
Direct: (949) 390-7370
Fax: (949) 407-5141

630 Roosevelt
Irvine, CA 92620

***salushomecare.com***

strictly prohibited.  If you are not a listed recipient or someone authorized to receive e-mail on behalf of a listed recipient, please reply to the sender that the e-mail was misdirected and delete the e-mail.  Thank you.

## *2.6.29 Debbie Robson*

| Comment ID | Text |
|---|---|
| Robson-1 | The commenter notes their concerns to the Project regarding hazardous risks. Because the comment omits any significant environmental issues, no additional response is warranted (CEQA Guidelines Section 15088). Please see Master Response 2, which relate the potential for hazardous risk. Generally, however, the preparers of this EIR thank the commentor for their review and comments. |
| Robson-2 | The comment opines that the City should study alternatives to the proposed Project, namely disposal at sea. Please see Master Response 3, which addresses the Alternatives analysis. As noted in the DEIR, the USEPA and other DMMT determine whether sediment is suitable for Ocean disposal. |

**From:** gail rosenstein <gailboom@me.com>
**Sent:** Friday, December 04, 2020 12:34 PM
**To:** Miller, Chris; Dept - City Council
**Subject:** Cad trash can



I hope you all know what you are doing !
Rosenstein-1 If a leak in this cad should happen, and contaminates the bay.
Newport Beach is ruined
and all business and homes and restaurants With it.
Gail Rosenstein
933 Via Lido Soud
Newport Beach Ca

## *2.6.30 Gail Rosenstein*

| Comment ID | Text |
|---|---|
| Rosenstein-1 | The commenter notes their concerns to the Project regarding hazardous risks. Because the comment omits any significant environmental issues, no additional response is warranted (CEQA Guidelines Section 15088). Please see Master Response 2, which relate the potential for hazardous risk. Generally, however, the preparers of this EIR thank the commentor for their review and comments. |

To Whom It May Concern:

Sharp-1

I am writing in opposition to the CAD placement within Newport Harbor. The Draft EIR does not adequately reflect the impact of the project on Recreation. The Draft EIR states that 3 yacht clubs are in the vicinity of the project when, in actuality, Balboa Island Yacht Club, Balboa Yacht Club and Bahia Corinthian Yacht Club all use the proposed site as well. The site is not only used as an anchorage but is actively used by the boating community for local and national regattas. Six yacht clubs and multiple sailing associations use the proposed site regularly throughout the year. The Draft EIR's mitigation method for this is not thoroughly analyzed. It ignores the location of the proposed relocation of sailing activities in the Harbor. There is not another area of Newport Harbor that is appropriate for such activities with 100+ boat fleets without interfering with boat traffic and navigational channels.

Sharp-2

Appendix I claims that 120 boats (15% of vessels berthed in the area) can use the Lido Channel and that that percentage of boat use "is high even for a summer weekend." I would like to see the research associated with this claim. This also does not account for the fact that boats berthed in that area are not the only users, especially with the proposed relocation of the Anchorage to the Turning Basin. As someone who works on the water and sees firsthand, the boating activity has increased on the Harbor due to the coronavirus pandemic and the need for social distancing.

Sharp-3

In addition, the Draft EIR also states that question AQ-4 (odors adversely affecting a substantial number of people) is of "less than significant impact". Dredging up any part of Newport Bay draws a strong odor as any resident can attest from years of dredging projects. This question is not adequately researched if deemed less than significant.

Sharp-4

With reference to GEO-3 (soil that is unstable or that would become unstable), multiple houses on Lido have broken foundations of nearby structures when building basements – what is the potential for damage to nearby structures if there is a collapse either during construction or due to an earthquake?

This project should not go forward until the effects on Recreation, Air Quality and Geology are further analyzed.

Sincerely,
Brooke Sharp
Sailing Director, LIYC
sailingdirector@liyc.net
949.673.5119

## *2.6.31 Brooke Sharp*

| Comment ID | Text |
|---|---|
| Sharp-1 | The comment opines that the proposed Project would impact recreational resources, especially sailing. Please see Master Response 2. |
| Sharp-2 | The comment requests the research associated with the number of boats presented in Appendix I (120 boats (15% of vessels berthed in the area) can use the Lido Channel). Appendix I presents the formula for calculating the number of vessels that can use the Main Navigation Channel between Mariners' Mile and Lido Isle, which comes out to be 20 vessels, or approximately 15% of the total number of vessels berthed in this area. The calculation assumes a 35-foot average vessel length, four 50-foot-wide design lanes, and adequate spacing between vessels. |
| Sharp-3 | The comment opined that odors would be an issue during construction of the CAD. This issue was addressed in Section 3.2.3.4.4. of the DEIR. As discussed in the DEIR, residential receptors would be approximately 500 feet from the CAD facility construction and at that distance any odor would dissipate. |
| Sharp-4 | The comment raises a question on the potential for damage to nearby structures if there is a nearby home collapse either during construction or due to an earthquake. It is unclear if the commentor is questioning whether there would be damage to the CAD structure in case of failure of a landside home, or whether construction under the proposed Project could lead to home failure in case of an earthquake. In either scenario, the CAD site not likely be directly affect nor directly affect landside homes in case of a geological event. As discussed in Section 3.5.3.4, if slope instability occurs along the slopes of the CAD facility due to ground shaking and causes material migration onto the cap, it is expected that the material sloughing onto the final cap layer would enhance the thickness and thus the effectiveness of the final cap because these sediments are not chemically impacted. As discussed in Section 3.5.1.2, bathymetric surveys would be used to monitor for changes to the final cap if a significantly large ground shaking event were to occur. |

**From:** G. Shaver <shaverman@gmail.com>
**Sent:** Wednesday, January 20, 2021 3:21 PM
**To:** Miller, Chris; Dixon, Diane; Avery, Brad; Duffield, Duffy; Muldoon, Kevin; Blom, Noah; Brenner, Joy; O'Neill, William
**Subject:** Newport Harbor CAD 2021



Jan 19, 2021
Regarding the proposed Confined Aquatic Disposal (CAD) for the upcoming dredging of Newport Harbor...

Shaver-1

I will attempt to be brief, as your time is valuable, but this issue is of a serious note. As a 50+ year resident of Newport Beach, I am strongly opposed to this proposal. This so-called "solution" reflects an "out of sight, out of mind" mentality, to sweep hazardous materials under the rug by dumping them beneath the water in the middle of Newport Harbor and pretending that's the end of it.

Shaver-2

Within living memory, the ecology of Newport Harbor has seen its ups and downs. In the 60's, it was vibrant, with barracuda feeding on schools of anchovies, delicate octopus and sea slugs, fat (and edible) halibut, and colorful anemones and sea urchins on every dock. In the 70's and 80's, this declined shockingly, until mostly only garbage fish could be found in the bay and a thriving and picturesque dorey fleet dwindled to a handful of active boats. This was turned around in the 90's, and slowly a more thriving ecosystem has been returning. This in turn has promoted more public use of the bay, as "swimming in *this* Harbor" was not something the wise did for a couple decades, but of late has become a concern of the past. Paddle boards and other in-the-water activities have seen an upturn, all directly related to the public's returning confidence in the cleanliness of our waters.

The recent dredging of the Rhine channel was a long-term boon for this, as the various heavy metals associated with the boatworks at that end of the harbor were doing no favors for the health of the bay. With respect to the upcoming dredging, I have to believe that the "unsuitable" sediment is related to the historic underwater runoff from this area.

To dredge those toxins up, giving them a good stirring, and then splash them back into the center of the bay is short-sighted and counter-productive to both the water sports of Newport and the casual appreciation of the abundant wildlife associated with our shores. Without those irreplaceable elements, it should be obvious that the tourism of Newport would suffer. There is an Instagram account, #NewportBeach (associated with the NB Tourist board), that posts picturesque images of the harbor and beaches, of dolphin, whales, pelicans, beaches, surfers, sailboats, and other water-related images. Simply put, none of these would be as prevalent without a clean, inviting harbor, and the CAD would harm that goal immeasurably and irrevocably. Currently, any sediment has naturally compacted and been sealed under additional sediment and thus is (relatively) stable; once dredged, these layers would be changed from something resembling mud to more pudding-like, and then be exposed to the flow of harbor water, and would leach out for decades to come.

An apt analogy would be a beautiful and popular park - and a proposition to dig a 47' deep by 450' square hole, fill it with toxic waste, and then top if off with a layer of topsoil and nice green grass - and

Shaver-2 continued

then expect our children and citizens to continue using it without repercussions. Because they would use it - until the adverse effects became undeniable public knowledge, and those responsible for not preventing such a travesty held accountable, on a public if not a legal level.

The 2 main differences in the above analogy are, first, that the addition of water which would not only promote the spread of the toxic material but also put it in direct and immediate contact with any who take their recreation there. And, second, that while an above-ground toxic dumpsite can be dug up again, the same underwater is, practically speaking, not feasible to recover. So this CAD, once put in place, would set in motion a pernicious force that would have an adverse effect on Newport Bay and the inhabitants - and economy - of Newport for decades to come, if not longer. And the legacy of same would echo in the hearts and minds of its citizens likewise.

Shaver-3

Nearby harbors such as Los Alamitos and Long Beach are not considered "as clean" as Newport for a reason - they are industrial. Their waters are polluted because of short-sighted, short-term profit-minded decisions that haunt those who would use those waters and beaches. This CAD is an industrial solution in a residential-use area. Please do not allow this CAD to destroy the progress that our harbor has made for the public's enjoyment of the water or its wildlife, do not allow it to threaten the health and peace of mind of its citizens and tourists, or to handicap the broader, long-term economic benefits of that enjoyment.

Thank you for your time, and your service to Newport Beach, its residents, and our guests,

Greg Shaver (949) 697-7739
Louise Shaver (949) 673-5580
(both residents of Newport Beach since '67)

## *2.6.32 Greg and Louise Shaver*

| Comment ID | Text |
|---|---|
| Shaver-1 | The comment suggests that dredging will resuspend material and the material should be left in place. Please see Master Responses 2 and 5. |
| Shaver-2 | The comment suggests that the DEIR did not consider a CDF as an alternative sediment management strategy. Please see response to Comment PE-3. As fully discussed in Comment PE-3, the City chose to eliminate the use of an "on-site" CDF in the past, and to only consider a CDF fill option if one were to be available in the region, such as at a port facility. |
| Shaver-3 | The commenters note their opposition to the proposed Project. Because the comment omits any significant environmental issues, no additional response is warranted (CEQA Guidelines Section 15088). Generally, however, the preparers of this EIR thank the commentors for their reviews and comments. |

**From:** Cary Singleton <carysingleton1@gmail.com>
**Sent:** Wednesday, January 20, 2021 11:10 AM
**To:** Miller, Chris; Dixon, Diane; Avery, Brad; dduffiled@newportbeachca.gov; Blom, Noah; Muldoon, Kevin; O'Neill, William; Brenner, Joy
**Cc:** Will Singleton
**Subject:** Re: Newport Bay CAD Project Environmental Impact Report



Singleton-1

A few days ago, my husband, Will Singleton, addressed our concerns about the proposed CAD project. In addition to those reasons, it is surprising that such a serious decision is being made during a time when affected residents cannot meet to discuss. The meeting last March only had a handful of attendees, since the entire country was advised to be "safer at home" rather than going to community meetings. It is difficult to imagine that this very critical decision will be made without the involvement and knowledge of the potentially affected residents and visitors.

We hope you will put this on hold until more research can be conducted and shared with the residents you represent.

*Cary Singleton*
CarySingleton1@gmail.com

Create Vision > Inspire Action

On Sun, Jan 17, 2021 at 10:25 AM Will Singleton <ws.singleton@gmail.com> wrote:

> Chris Miller, Public Works Manager
>
> City of Newport Beach, Public Works Department
>
> 100 Civic Center Drive
>
> Newport Beach, CA. 92660
>
> (by email)
>
> Dear Mr. Miller,
>
> I'd like to register my concerns regarding the use of a CAD to manage unsuitable material during the next dredging process. Newport Beach Harbor is a special place,

very important to the city and surrounding communities. Placing a CAD as proposed would be unprecedented in a west coast harbor as beautiful and active as Newport Beach. The whole idea borders on the unbelievable.

In addition, the Sediment Management Plan referenced in the Draft EIR is grossly inadequate, lacking scientific data and reports that would be required by any private developer. A project of this sensitivity should not be allowed to proceed without first doing all appropriate scientific studies.

The EPA indicated some flexibility for ocean disposal such as LA 3 if the Water Quality is properly monitored to assure methyl-mercury is not occurring. Perhaps there are other Confined Disposal Facility (CDF) locations that have not been considered that would provide more appropriate solutions.

I would appreciate it if the city would give further consideration to all other potential alternatives. As I said, the idea that the best solution to the problem is to put a toxic waste dump in the middle of Newport Harbor is truly unbelievable.

Sincerely,

Will Singleton

844 Via Lido Nord

Newport Beach 92663

## *2.6.33 Cary Singleton*

| Comment ID | Text |
|---|---|
| Singleton-1 | The comment opines that there has not been adequate stakeholder outreach. Please see Master Response 1, which outlines the stakeholder outreach associated with the proposed Project. |

**From:** Will Singleton <ws.singleton@gmail.com>
**Sent:** Sunday, January 17, 2021 10:25 AM
**To:** Miller, Chris
**Cc:** Dixon, Diane; Avery, Brad; dduffiled@newportbeachca.gov; Muldoon, Kevin; Blom, Noah; Brenner, Joy; O'Neill, William
**Subject:** Newport Bay CAD Project Environmental Impact Report



Chris Miller, Public Works Manager

City of Newport Beach, Public Works Department

100 Civic Center Drive

Newport Beach, CA. 92660

(by email)

Dear Mr. Miller,

Singleton-1 I'd like to register my concerns regarding the use of a CAD to manage unsuitable material during the next dredging process. Newport Beach Harbor is a special place, very important to the city and surrounding communities. Placing a CAD as proposed would be unprecedented in a west coast harbor as beautiful and active as Newport Beach. The whole idea borders on the unbelievable.

Singleton-2 In addition, the Sediment Management Plan referenced in the Draft EIR is grossly inadequate, lacking scientific data and reports that would be required by any private developer. A project of this sensitivity should not be allowed to proceed without first doing all appropriate scientific studies.

Singleton-3 The EPA indicated some flexibility for ocean disposal such as LA 3 if the Water Quality is properly monitored to assure methyl-mercury is not occurring. Perhaps there are other Confined Disposal Facility (CDF) locations that have not been considered that would provide more appropriate solutions.

Singleton-4 I would appreciate it if the city would give further consideration to all other potential alternatives. As I said, the idea that the best solution to the problem is to put a toxic waste dump in the middle of Newport Harbor is truly unbelievable.

Sincerely,

Will Singleton

844 Via Lido Nord

Newport Beach  92663

## *2.6.34 Will Singleton*

| Comment ID | Text |
|---|---|
| Singleton-1 | The commenter notes concerns about the Project, including the potential for aesthetic impacts. Because the comment omits any significant environmental issues, no additional response is warranted (CEQA Guidelines Section 15088). Please see Section 3.1 of the DEIR, which considers aesthetic resources. Generally, however, the preparers of this EIR thank the commentor for their review and comments. |
| Singleton-2 | The comment opines that the City developed a sediment management plan to justify the CAD facility. Please see Master Response 3 and Section 2.1 of the DEIR, which presents the process of project development. |
| Singleton - 3 | The comment opines that the City has not adequately analyzed alternatives to the proposed Project. Please see Master Response 5 as well as Response to Comment PE-3. As noted in the DEIR, the USEPA and other DMMT determine whether sediment is suitable for Ocean disposal. |
| Singleton - 4 | The commenter notes their concerns to the Project, including the potential for increasing hazardous risk. Because the comment omits any significant environmental issues, no additional response is warranted (CEQA Guidelines Section 15088). Please see Master Response 2. Generally, however, the preparers of this EIR thank the commenter for their review and comments. |

**From:** donald swanson <donswanson1111@icloud.com>
**Sent:** Wednesday, January 13, 2021 3:48 PM
**To:** Miller, Chris
**Subject:** NO CAD!!!

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

Swanson-1 I strongly urge the city of Newport Beach to continue with researching alternatives in an open forum. Do not proceed with the underwater trash can in our bay.

Don swanson

Sent from my iPhone

## *2.6.35 Donald Swanson*

| Comment ID | Text |
|---|---|
| Swanson-1 | The commenter notes their opposition to the proposed Project based on general comments related to hazardous risks. Because the comment omits any significant environmental issues, no additional response is warranted (CEQA Guidelines Section 15088). Please see Master Response 2, which relate the potential for hazardous risk. Generally, however, the preparers of this EIR thank the commentor for their review and comments. |

Chris Miller, Public Works Manager

City of Newport Beach, Public Works Department

100 Civic Center Drive

Newport Beach, CA. 9266

Re: Lower Newport Bay Confined Aquatic Disposal CAD Construction Project Environmental Impact Report (DEIR 2019110340/2)

Dear Mr. Miller,

Growing up on Lido Island as a sailor, I spent a tremendous amount of time on the harbor. I have experienced firsthand the beauty and diversity found in this small, but unique body of water. Both people and animals depend on the harbor for their livelihood. Others travel from all over just to experience it for an afternoon. Our harbor is known across the nation and even the world by people who have never forgotten the time they got to see it. If you think this is an exaggeration, look deeper. I am not the only one who feels this way.

J.Thompson-1

The harbor is a treasure that is ours to protect. The decisions we make for it will impact generations and reach communities far beyond our foresight today. Therefore, it is our duty to properly consider the impact of a decision while we have the chance. The CAD concerns me for a number of reasons including the health of our harbor and our people, the useability of our harbor for recreation, the revenue impact to local businesses, and the value of homes in the area. We cannot damage our harbor and our residents simply because we haven't found a better alternative.

Thank you for the opportunity to voice my concerns,

John (Jack) Thompson

104 Via Lorca

Newport Beach, CA 92663

## *2.6.36 John Thompson*

| Comment ID | Text |
|---|---|
| J. Thompson-1 | The commenter notes their concerns to the Project, including the health of our Harbor and our people, the usability of our Harbor for recreation, the revenue impact to local businesses, and the value of homes in the area. Because the comment omits any significant environmental issues, no additional response is warranted (CEQA Guidelines Section 15088). Generally, however, the preparers of this EIR thank the commenter for their review and comments and direct them to Master Responses 1 through 5, which relate to their general concerns. |

**From:** philipcthompson@aol.com
**Sent:** Saturday, January 16, 2021 9:00 AM
**To:** Miller, Chris
**Subject:** NEWPORT HARBOR CAD



Chris,

P.Thompson -1

I want to register my protest to the proposed CAD plan for Newport Harbor. I believe there are a number of sites more suitable to dump the toxic soil. This includes Lower Casterway's, possibly the new golf course planned for Newport Beach that is already a contaminated dump site and likely others. Please add me to all emailing's related to this proposal.

*Philip*
**Philip Thompson**

## *2.6.37 Philip Thompson*

| Comment ID | Text |
|---|---|
| P. Thompson-1 | The commenter notes their opposition to the proposed Project based on general comments related to hazardous risks. Because the comment omits any significant environmental issues, no additional response is warranted (CEQA Guidelines Section 15088). Please see Master Response 2, which relate the potential for hazardous risk and recreation. Generally, however, the preparers of this EIR thank the commenter for their review and comments. |

**From:** gina vincent <ginavin@msn.com>
**Sent:** Wednesday, January 20, 2021 7:36 PM
**To:** Miller, Chris
**Subject:** No cad in our bay



Vincent-1

No cad in our bay Please.
Thanks,
Gina Vincent
1502 S Bay Front
Newport Beach
92662

Sent from my iPhone

## *2.6.38 Gina Vincent*

| Comment ID | Text |
|---|---|
| Vincent-1 | The commenter notes their opposition to the Project. Because the comment omits any significant environmental issues, no additional response is warranted (CEQA Guidelines Section 15088). Generally, however, the preparers of this EIR thank the commenter for their review and comments. |

**From:** Greg Ward <gregoryaward@aol.com>
**Sent:** Tuesday, January 19, 2021 6:19 AM
**To:** Miller, Chris
**Subject:** No CAD



My wife and I are residents of Lido Isle and have been boating in the bay for 50 years now. Currently we use our 25-foot boat 1-2 times a week in our beautiful harbor. We are members of the Lido Isle Yacht Club and the Balboa Yacht Club for 5 and 22 years respectively. We also vote in every election.

Ward-1

The proposal to dig a big hole in our bay, place contaminants form our bay in the hole and then cover up the hole makes no sense. It seems a much better solution would be to take these contaminants far offshore or to the desert for remediation.

We are asking you to block the CAD project in Newport Harbor and find a better solution for the millions of people that will use and enjoy Newport Harbor for decades to come.

Sincerely,

Greg and Nancy Ward

218 Via Quito
Newport Beach, CA 90603
949.723.0664

## *2.6.39 Greg and Nancy Ward*

| Comment ID | Text |
|---|---|
| Ward-1 | The commenters note their concerns to the Project regarding alternative management strategies. Because the comment omits any significant environmental issues, no additional response is warranted (CEQA Guidelines Section 15088). Generally, however, the preparers of this EIR thank them for their review and comments and direct them to Master Response 5, which relate Project alternatives. |

To: Chris Miller, Public Works Department, City of Newport Beach

From: Bob Yates, resident and Harbor 20 Fleet Captain, 128 Via Havre, Newport Beach, Ca

Date: December 10th, 2020; Revised December 30th, 2020

Yates-1

Thank you for forwarding the **Draft Environmental Impact Report regarding the Lower Newport Bay Confined Aquatic Disposal (CAD) Construction Proposal.**

There are several items that I believe need further investigation and discussion. First, let's consider the environmental Impacts to "housing, recreation, transportation" which were not addressed adequately in the report. Your cover letter states that this Project will "have no project-level impacts or less-than significant project-level impacts on the following" areas. I differ on this conclusion. **The CAD site will have a significant negative Environmental impact.**

Yates-2

The "Five Corners" section of the Bay where you propose putting the CAD site is the center of the Bay, and all traffic that goes through the Bay must transit that space. Tour boats must pass through, along with all the boats which move from moorings to the ocean and back. This involves many hundreds of boats on any given day that must navigate around the site itself and the large tugs, dredgers, and barges which service the site. **The site is a hazard to boating.**

Nearly every weekend there are Regattas with fifty or more sailboats in the vicinity. The fleets, which include sailors from eight years to eighty years of age, vie for the schedule times to use the limited space. The area is unique in that it is the only part of the Bay where we can hold Regattas when there is a southerly breeze which is about sixty percent of the time. In addition, every day there are recreational sailors, electric boats, kayakers, paddle boarders, and other types of recreational craft. There is sailing school classes being run daily from the several Yacht Clubs, the Boy Scouts and Orange Coast College sailing center. Also, there are the rowing classes from Newport Aquatic Center and from other rowing schools. This area is already crowded with many hundreds of these boats on any given day. **Building and operating a CAD site with all the support vessels in this area will severely limit the recreational use of this space, and create numerous safety problems for everyone concerned.**

Yates-3

The area is surrounded by beautiful homes. I can't see the logic of creating a new burial site for contaminated mercury in front of these homes, especially since the contaminated soil is already buried and safe in another commercial part of the Bay. The proposed solution of building the CAD site is worse than the problem itself. **In the future, when there is an available site this soil can be mined up and disposed of, but not now and not in the middle of the center of the Bay.**

Yates-4

Your Report mentions four plausible Alternatives. Every one of them offers a potential solution which will not have a significant negative impact the recreational use of our Bay. But the Report ignores these Alternatives. Why? **I strongly recommend that these Alternatives be given front and center attention so we can develop a plan which will continue to give us the full use and enjoyment of our wonderful Bay.** Thank you for your consideration. I await your reply.

## *2.6.40 Bob Yates*

| Comment ID | Text |
|---|---|
| Yates-1 | The comment generally summarizes the commenter's mission and introduces its comments on the DEIR. Because the comment omits any significant environmental issues, no additional response is warranted (CEQA Guidelines Section 15088). Generally, however, the preparers of this EIR thank the commenter for their review and comments. |
| Yates-2 | The comment opines that the DEIR fails to adequately analyze the Project's impact to recreational resources. Please see Master Response 2. Please see Section 3.11.3.4.1, which considers the potential for the proposed Project to affect recreational and other boating in the Harbor. As discussed, the City would coordinate with the Newport Harbor Yacht Club ahead of dredging and would relocate the mooring tackle to another area (Turning Basin) of Newport Harbor during dredging. In addition, the Anchorage area would be unavailable during CAD facility construction. Because the Anchorage area is used by many boaters, the City would relocate it to the Turning Basin during construction of the CAD facility. A Notice to Mariners would be issued via the USCG, and notices would be posted on the City's website. There would be a temporary access inconvenience for boaters having to travel to the Turning Basin rather than travel to the Anchorage area. However, this impact would be limited to the 12 months of initial construction, placement of material and interim cap placement, and the 6-month period to place additional material. In addition, a Navigation Study Memorandum was developed and is included in Appendix I to the DEIR.<br><br>The recreational analysis found that there would be a short-term impact to recreational boaters during initial CAD site construction and for the 6-month window in which residents could add materials. Mitigation Measure-REC-1 was provided to reduce the potential for conflicts. The City will need to consider this and other potential impacts against the project benefits prior to certifying the EIR and approving (or disapproving) the proposed Project. |
| Yates-3 | The comment opines that the proposed Project would affect the aesthetics of area homes. Please see Master Response 1. In addition, please see Section 3.1.3, which analyzes the potential loss of scenic resources or the introduction of contrasting features that could substantially degrade the visual character of the proposed Project area. As discussed, following construction of the CAD facility, and dredging activities, the surface water views of the proposed Project area would return to existing baseline conditions and therefore, there would be no long-term impacts to visual resources. |
| Yates-4 | The comment opines that the DEIR prematurely dismissed alternatives. Please see Master Response 3. |

# 3 Modifications to the DEIR

This section of the Final EIR documents changes and additions to the DEIR that have been made to clarify, correct, or add to the information provided in that document. Text and table changes presented in Section 3 are incorporated into the Final EIR. Deleted text is marked as ~~strikeout~~ and new text is marked as <u>underlined</u>.

## 3.1 Modifications Based on Public Comment

The changes and additions listed in Section 3 are a result of public and agency comments received in response to the DEIR and/or new information that has become available since publication of the DEIR. Any revisions to supporting documentation, such as the references, list of preparers, acronyms and abbreviations, and appendices, are also presented. The numbering format from the DEIR is maintained in the sections presented here.

## 3.2 DEIR Modifications

### 3.2.1 *Section 1 Introduction*

#### 3.2.1.1 Section 1.3 Agency Roles and Responsibilities

The CEQA Guidelines defines the lead agency as the public agency with the principal responsibility for carrying out or approving a project (CEQA Guidelines Section 15367). The City is the CEQA lead agency for the proposed Project. In accordance with its responsibilities as lead agency, the City aims to do the following in this DEIR:

- Describe the proposed Project and regulatory background.
- Identify any significant environmental effects associated with construction and operation of the proposed Project.
- Discuss alternatives and feasible mitigation measures for environmental resources where significant effects are identified.

Under CEQA Guidelines Section 15086, lead agencies must consult with, and request comments on, a draft Environmental Impact Report (EIR) from public agencies that are responsible agencies; trustee agencies with resources affected by the project; and any state, federal, or local agency that has jurisdiction by law with respect to the project or that exercises authority over resources that may be affected by the project as follows:

- **Responsible Agency**: A responsible agency is a public agency that proposes to carry out or approve a project for which a lead agency is preparing or has prepared an EIR or a Negative Declaration. For the purposes of CEQA, the term "responsible agency" includes all public agencies other than the lead agency that have discretionary approval authority over a project (CEQA Guidelines Section 15381).

- **Trustee Agency**: A trustee agency is a state agency that has jurisdiction over natural resources affected by a project that are held in trust for the people of the state of California (CEQA Guidelines Section 15386). Trustee agencies include the following: 1) The California Department of Fish and Wildlife (CDFW), regarding fish and wildlife, native plants designated as rare or endangered, game refuges, and ecological reserves; 2) The California State Lands Commission (CSLC), regarding state-owned "sovereign" lands such as the beds of navigable waters and state school lands; 3) The California Department of Parks and Recreation, regarding units of the state park system; and 4) The University of California, regarding sites in the Natural Land and Water Reserves System.

USACE is responsible for National Environmental Policy Act (NEPA) compliance for the Federal Channels maintenance dredging component of the proposed Project. USACE released the Final Environmental Assessment (EA) for the Lower Newport Bay Maintenance Dredging Project (September 2020) to support a portion of the dredging which is the Entrance Channel extending to the first section of the Main Channel and which is not reliant on the CAD facility. USACE will need to supplement this EA to support dredging in the rest of the Main Channel and channel offshoots, as described in this DEIR. As the lead federal agency and part of the Federal Channels maintenance dredging program, the USACE has assumed responsibility for coordinating with resource agencies such as the National Marine Fisheries Service (NMFS) and CDFW and for ensuring compliance with requirements of statutes such as the Endangered Species Act (ESA) and the Magnuson-Stevens Fishery Conservation and Enhancement Act (MSA). The USACE will also obtain a federal Consistency Determination from the California Coastal Commission to satisfy requirements of the Coastal Zone Management Act and a Clean Water Act (Section 401) water quality certification from the Santa Ana Regional Water Quality Control Board. The identification, design, permitting, and construction of an alternate disposal location is the responsibility of the City as the local sponsor and is assessed in this DEIR.

Maintenance dredging in most areas of Newport Harbor outside the Federal Channels is authorized by Regional General Permit 54 (RGP 54), which was issued to the City by the USACE, California Coastal Commission (CCC), and Santa Ana Regional Water Quality Control Board (RWQCB) in 2015 and amended in 2019; it is currently anticipated to be reauthorized in December 2020.

Table 1-1 summarizes the regulatory agencies with potential oversight of the proposed Project and their statutory authority as it relates to the proposed Project.

**Table 1-1**
**Regulatory Agencies and Authority Applicable to the Proposed Project**

| Regulatory Agency | Jurisdiction | Statutory Authority/Implementing Regulations |
|---|---|---|
| U.S. Army Corps of Engineers | N/A | Lead Federal Agency for Federal Channels dredging. Reviews and authorizes confined aquatic disposal under Section 404 of the Clean Water Act, Section 10 of the Rivers and Harbors Act, and Section 103 of the Marine Protection, Research and Sanctuaries Act; subject to NEPA<br>Additionally, pursuant to 33 United States Code 408 (Section 14 of the Rivers and Harbors Act of 1899, as amended), review under Section 408 is required for any proposed activity that might interfere with, injure, or impair the use of a river or harbor improvement project. This approach furthers the USACE's interest, expressed throughout the Rivers and Harbors Act of 1899, in protecting the navigability of United States waters by prohibiting the use or alteration of navigation or flood control works where contrary to the public interest or where it would impair those works' usefulness |
| National Oceanic and Atmospheric Administration | N/A | Ensure compliance with the Endangered Species Act and Magnuson-Stevens Fishery Conservation and Management Act; subject to NEPA |
| National Marine Fisheries Service | | |
| U.S. Navy | | |
| **State Agencies** | | |
| California State Lands Commission | Trustee Agency | Reviews dredging and dredged material disposal activities in state tidelands and would oversee development of the CAD facility.<br>The CSLC would consider the City's EIR in consideration of issuing the Surface Lease Agreement. |
| California Coastal Commission (CCC) | Responsible Agency | Reviews DEIR to ensure compliance with the Coastal Zone Management Act and consistency with the California Coastal Act; performs a federal Consistency Determination; and reviews and issues Coastal Development Permit upon project approval. A Surface Lease Agreement may be required from the California State Lands Commission. The CCC would review the EIR to ensure compliance with the Coastal Zone Management Act and consistency with the California Coastal Act. The CCC would perform a federal Consistency Determination in support of federal dredging. The CCC would consider the City's EIR in consideration of issuing a Coastal Development Permit for the CAD and beach nourishment upon project approval by the City. |
| California Department of Fish and Wildlife | Trustee Agency | Reviews and submits recommendations in accordance with the California Environmental Quality Act; the City will consult with California Department of Fish and Wildlife in accordance with the Fish and Wildlife Coordination Act |

| Regulatory Agency | Jurisdiction | Statutory Authority/Implementing Regulations |
|---|---|---|
| **Local Agencies** | | |
| Santa Ana Regional Water Quality Control Board | Responsible Agency | Permitting authority for water quality, reviews proposed Project for authorization under the Porter-Cologne Water Quality Control Act, Waste Discharge Requirements, and Clean Water Act Section 401 State Certification of Water Quality and Section 402: National Pollutant Discharge Elimination System Permit<br><br>An application for reauthorization of RGP 54 was submitted to the Santa Ana RWQCB on November 27, 2019.The Santa Ana RWQCB responded to the application in mid-January 2019, requesting a more detailed analysis under CEQA for sediment dredged under the RGP 54 and disposed in the CAD facility, and therefore that component will be included in this DEIR (Section 2.3.2.1). The RGP 54 would be amended assuming certification of this DEIR. |

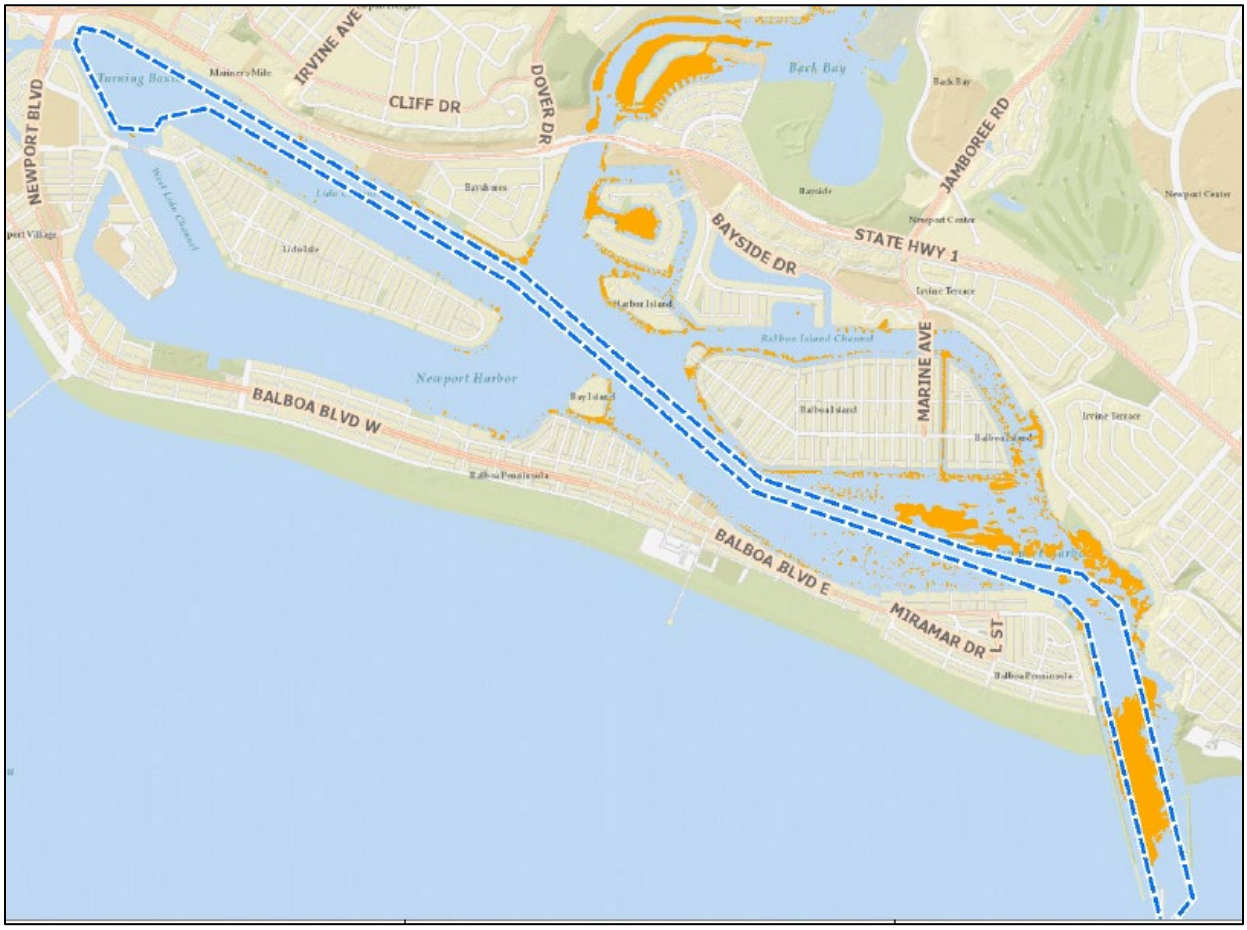
## *3.2.2 Section 3.2 Biological Resources*

### 3.2.2.1 Section 3.3.1.1.2 Eelgrass

Eelgrass is both an important marine plant species and an important habitat when found in beds. Eelgrass is a highly productive species and is considered a "foundation" or habitat-forming species due to its nursery function for invertebrates and fishes. Eelgrass contributes to ecosystem functions at multiple levels as a primary and secondary producer, as a habitat structuring element, as a substrate for epiphytes and epifauna, and as a sediment stabilizer and nutrient cycling facilitator. Eelgrass provides important foraging areas and shelter to young fish and invertebrates, food for migratory waterfowl and sea turtles, and spawning surfaces for invertebrates and fishes such as the Pacific herring (*Clupea pallasii*). Eelgrass occurs in the temperate unconsolidated substrate of shallow coastal environments, enclosed bays, and estuaries.

The City conducts shallow-water eelgrass surveys every 2 years in Lower Newport Bay, and harbor-wide surveys—including the deepwater habitat—are conducted every 4 years. The most recent shallow-water survey was completed in 2018 (Appendix E; MTS 2018). The most recent harbor-wide survey was conducted in summer 2020, and the results ~~are expected in late 2020 or early 2021.~~ are included in Appendix E. Figure 3-5 presents the results of recent deepwater (2012 and 2016) and shallow-water (2018) surveys. Figure 3-6 presents the results of the 2020 deepwater survey.

**Figure 3-6**
**City of Newport Beach Eelgrass Survey 2020**




## 3.2.2.2 Section 3.3.3.4.1: BIO-1

**BIO-1 Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?**

The proposed Project would be constructed within an active marine harbor supporting recreational activities that has previously been subject to dredging activities. The proposed Project area, nearshore disposal sites, and LA-3 do not support unique or rare habitats whose alteration would significantly impact sensitive species in the area.

Dredging and CAD construction have the potential to directly impact benthic flora and fauna, as well as lead to sediment plumes. Noise from construction activities also has the potential to indirectly affect water column species.

Nearshore placement has the potential to affect benthic and water column species. Waves and wave-related currents in the nearshore environment suspend and transport sediment along the shore as a natural process, creating an unstable environment of shifting sands. Because the nearshore is a dynamic and unstable environment, nearshore placement is not anticipated to significantly alter the environmental conditions for flora or fauna in the vicinity of the nearshore disposal.

The effects of construction activities related to dredging and construction of the CAD facility on specific special-status species directly or indirectly are described below.

**Eelgrass Beds**

As noted in Section 3.3.1.1.2, eelgrass is a highly productive species and serves as important habitat. Consistent with state and federal protocols, the City conducts shallow-water eelgrass surveys every 2 years and harbor-wide surveys every 4 years. The most recent shallow-water eelgrass survey was conducted in 2018, and the most recent harbor-wide survey was conducted in 2020. The results of the surveys ~~(MTS 2018)~~ are included as Appendix E. As described in this appendix, eelgrass is not present in or adjacent to the area proposed for the CAD facility or in the areas proposed for dredging. Impact BIO-2 addresses the impact to eelgrass habitat.

## *3.2.3 Section 3.6 Greenhouse Gas*

### 3.2.3.1 Section 3.6.3.4.1: GHG-1

**GHG-1: Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?**

GHG emissions associated with the proposed Project would come almost exclusively from direct engine emissions (Table 3-9). Table 2-1 provides the construction schedule and equipment used during construction. A full description of emission calculations is included in Appendix F.

**Table 3-9**
**Proposed Project Construction and Operational Greenhouse Gas Emissions (metric tons per year)**

| Annual | $CO_2$ | $CH_4$ | $N_2O$ | $CO_2e$ |
|---|---|---|---|---|
| 2021 | 119.5 | 0.001 | 0.006 | 119.5 |
| 2022 | 1,448.7 | 0.017 | 0.069 | 1,448.7 |
| 2024 | 119.5 | 0.001 | 0.006 | 119.5 |
| 2025 | 203 | 0.012 | 0.010 | 203 |

Notes:
Emissions may not add precisely due to rounding.
NA: not applicable

The proposed Project would result in 1,448.7 metric tons of GHG emissions during 2022, the maximum year of construction. The bulk of the proposed Project's GHG emissions would be from tugboats and mechanical dredge equipment.

**Impact Determination:** As shown in Table 3-9, construction would result in up to 1,448.7 mty during 2022. While GHG emissions associated with construction are temporary, because there is no applicable numerical threshold for construction, this level of emissions is considered significant.

**Mitigation Measures:** As shown in Table 3-9, emissions would be generated throughout construction. The following mitigation measure would be implemented annually during years of construction to ensure no net increase in Greenhouse Gas ~~Reduction Exchange (GHG Rx) and the SCAQMD. Proof of purchase of the off-site mitigation credits shall be retained by the City~~ emissions:

- **MM-GHG-1 Purchase GHG Emission Offsets:** The City of Newport Beach shall purchase annual GHG offset credits to offset GHG emissions during the life of the project. The amount of credits purchased shall be determined based on updated emission calculations as determined by the final equipment list secured by the contractor and using industry accepted GHG calculation methods. Off-site mitigation credits shall be real, quantifiable, permanent, verifiable, enforceable, and additional, consistent with the standards set forth in Health and Safety Code section 38562, subdivisions (d)(1) and (d)(2). Such credits shall be based on protocols consistent with the criteria set forth in Section 95972, subdivision (a), of Title 17 of the California Code of Regulations, and shall not allow the use of offset projects originating outside of California, except to the extent that the quality of the offsets, and their sufficiency under the standards set forth herein, can be verified by SCAQMD. Such credits must be purchased within 90-days following the conclusion of each operational year through one of the following: (i) a CARB-approved registry, such as the Climate Action Reserve, the American Carbon Registry, and the Verified Carbon Standard; (ii) any registry approved by CARB to act as a registry under the California Cap and Trade program; or (iii) through the

CAPCOA GHG Rx and the SCAQMD. Proof of purchase of the off-site mitigation credits shall be retained by the City

As discussed in Section 3.2, emissions controls for construction equipment were considered. MM-AQ-1 requires the use of Tier 4 tugboats. While Tier 4 standards do not address GHG directly, more efficient Tier 4 engines may use less fuel, which would also reduce GHG emissions. Therefore, depending on the specific construction equipment procured, emissions may be lower than reported. Consistent with this mitigation measure, emissions calculations will be updated, and the City will purchase credits to offset the resultant emissions. Offset credits would be procured from a broker certified by ARB to ensure credits are real, verified, additional, and permanent,

This analysis also considered emission controls for the dredger, namely an electric dredger, which has been required for dredging projects at southern California ports. While an electric dredger could reduce criteria air pollutant emissions, electric dredge equipment would result in GHG emissions from electricity production. In addition, electric dredgers may not be available or practical for use in the Lower Harbor as discussed in Section 3.2.3.4.2.

**Residual Impact:** With the inclusion of MM-GHG-1, impacts would be less than significant.

## *3.2.4 Section 3.8 Hydrology/Water Quality*

### 3.2.4.1 Section 3.8.3.1 Baseline

The proposed Project area encompasses Lower Newport Bay and the nearshore Pacific Ocean waters. Newport Harbor is an active recreational harbor and public beach with no ongoing dredging operations except periodic and limited RGP 54 maintenance dredging. Santa Ana RWQCB and USEPA have developed TMDLs for sediments, nutrients, bacteria, and toxic pollutants (i.e., heavy metals and organics) in Newport Bay. As described in Section 3.8.3, bay waters did not meet all ~~met~~ applicable standards in baseline conditions.

## *3.2.5 Appendix E*

The 2020 Eelgrass Survey Report has been added to Appendix E (see Appendix E of the Final EIR).

# 4 References


AECOM, 2017. *Soil and Groundwater Investigation Report, Chevron Site No. 378707, 1920 West Balboa Boulevard, Newport Beach, California*. OCHCA Case No. 16UT002. March 2017.

Anchor Environmental (Anchor Environmental CA, L.P.), 2006. *Rhine Channel Sediment Remediation Feasibility Study and Alternatives Evaluation Newport Bay, California*. Prepared for Orange County Coastkeeper, California Regional Water Quality Control Board, and City of Newport Beach. January 2006.

Anchor QEA (Anchor QEA, L.P.), 2009. *Lower Newport Bay CAD Site Feasibility Study, Conceptual Development Plan*. Prepared for the City of Newport Beach. April 2009.

Anchor QEA, 2012. Memorandum to: Santa Ana Regional Water Quality Control Board. Regarding: Lower Newport Bay Water Quality Monitoring Suspended Sediment Special Study Memorandum. May 2012.

Anchor QEA (Anchor QEA, LLC), 2016. Memorandum to: Leonie Mulvihill and Chris Miller, City of Newport Beach. Regarding: Current and Relevant Sediment, Water, and Tissue Data to Support the Newport Bay Copper (Cu) TMDLs and Non-TMDL Action Plans for Zinc (Zn), Mercury (Hg), Arsenic (As), and Chromium (Cr). October 13, 2016.

Anchor QEA, 2019a. *Lower Newport Bay Federal Channels Dredging, Sampling and Analysis Program Report*. Prepared for the City of Newport Beach. June 2019.

Anchor QEA, 2019b. Southern California Dredged Material Management Team (SC-DMMT) Meeting. Notes for August 28, 2019.

Anchor QEA, 2020a. *Basis of Design Report Sediment Dredging and Confined Aquatic Disposal*. April 2020. Prepared for City of Newport Beach.

Anchor QEA, 2020b. *Lehigh Southwest Stockton Terminal Project Draft Environmental Impact Report*. Prepared for the Port of Stockton, February 2020.

Anchor QEA, 2020c. Memorandum to: Chris Miller, City of Newport Beach. Regarding: Navigation Study for the Proposed West Anchorage in the Turning Basin - Update. October 16, 2020.

ARB (California Air Resources Board), 2000. *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles*. October 2000. Available at: https://ww2.arb.ca.gov/sites/default/files/classic//diesel/documents/rrpfinal.pdf.

ARB, 2017a. "Top 4 Summary: Select Pollutant, Years, & Area." *California Air Resources Board*. Available at: https://www.arb.ca.gov/adam/topfour/topfour1.php.

ARB, 2017b. *The 2017 Climate Change Scoping Plan Update the Proposed Strategy for Achieving California's 2030 Greenhouse Gas Target*. January 2017. Available at: https://ww2.arb.ca.gov/sites/default/files/classic/cc/scopingplan/2030sp_pp_final.pdf.

ARB, 2020. California Ambient Air Standards. Accessed April 23, 2020. Available at: https://www.arb.ca.gov/research/aaqs/caaqs/caaqs.htm

Arcadis, 2020. *Revised Vapor Intrusion Evaluation and Site Assessment Report, From Chevron Service Station N. 378707, 1920 West Balboa Boulevard, Newport Beach, California 92663*. OCHCA Case No. 16UT002. Revised January 27, 2020.

BLM (Bureau of Land Management), 2007. *Potential Fossil Yield Classification (PFYC) System for Paleontological Resources on Public Lands*. Instruction Memorandum No. 2008-009. Washington D.C.: Department of the Interior. October 15, 2007.

BLM, 2008. *Assessment and Mitigation of Potential Impacts to Paleontological Resources*. Instruction Memorandum No. 2009-011. Washington D.C.: Department of the Interior. October 10, 2008.

CalEPA (California Environmental Protection Agency), 2019. *State Agency Greenhouse Gas Reduction Report Card.* Available at https://www.energy.ca.gov/sites/default/files/2020-08/2019_CalEPA_Report_Card_ada.pdf.

Cal Fire (California Department of Forestry and Fire Protection), 2011. Very High Fire Hazard Severity Zones in LRA, As Recommended by Cal Fire (map). October 2011. Available at: https://osfm.fire.ca.gov/media/5891/c30_newportbeach_vhfhsz.pdf.

CCC (California Coastal Commission), 2011. Staff Report: Regular Calendar. Coastal Development Permit No. 5-11-006-[OC Parks]. Exhibit 6: "Grunion Protection Plan for Necessary Maintenance During the Grunion Spawning Season of March through September Document Dated September 7, 2006." May 2011.

CCCC (California Climate Change Center), 2012. *Our Changing Climate 2012: Vulnerability & Adaptation to the Increasing Risks from Climate Change in California*. July 2012. Available at https://www.cakex.org/sites/default/files/documents/CEC-500-2012-007.pdf.

CDFW (California Department of Fish and Wildlife), 2020a. "Biogeographic Information and Observation System (BIOS)." Accessed March 23, 2020. Available at: https://www.wildlife.ca.gov/Data/BIOS.

CDFW, 2020b. "California Grunion Facts and Expected Runs." Accessed April 9, 2020. Available at: https://www.wildlife.ca.gov/Fishing/Ocean/Grunion.

CGS, 2020. Earthquake Zones of Required Investigation. Accessed April 23, 2020. Available at: https://maps.conservation.ca.gov/cgs/EQZApp/app/.

Chambers Group, Inc., and Moffatt & Nichol, 2016. *Addendum IP 15-359 to the Supplemental Environmental Impact Statement/Environmental Impact Report 583 for the Phase II General Design Memorandum on the Santa Ana River Mainstem Project, Lower Santa Ana River*. Prepared for the County of Orange. April 2016.

DieselNet, 2016. Nonroad Diesel Engine Emission Standards. Last updated August 2016. Available at: https://www.dieselnet.com/standards/us/nonroad.php.

City (City of Newport Beach), 2006a. *City of Newport Beach General Plan*. Adopted July 25, 2006. Accessed October 3, 2019. Available at: https://www.newportbeachca.gov/government/departments/community-development/planning-division/general-plan-codes-and-regulations/general-plan.

City, 2006b. *Draft Environmental Impact Report, General Plan 2006 Update*. State Clearinghouse Number 2006011119. Accessed October 3, 2019. Available at: https://www.newportbeachca.gov/government/departments/community-development/planning-division/general-plan-codes-and-regulations/general-plan/general-plan-environmental-impact-repor

City, 2009. *Draft Environmental Impact Report, Marina Park*. State Clearinghouse Number 2008051096. Prepared by Michael Brandman Associates. Prepared for the City of Newport Beach Planning Department. February 2009. Available at: https://www.newportbeachca.gov/government/departments/community-development/planning-division/projects-environmental-document-download-page/environmental-document-download-page-arch.

City, 2010. *Harbor Area Management Plan*. Prepared by Weston Solutions, Inc., Everest International Consultants, Inc., Coastal Resources Management, Inc., NewFields, LLC, and Tom Johnson, Ph.D. Prepared for Harbor Resources Division. April 2010. Accessed October 7, 2020. Available at: https://www.newportbeachca.gov/Home/ShowDocument?id=9186.

City, 2019a. Newport Beach GIS. Map Viewer. Accessed October 3, 2019. Available at: https://nbgis.newportbeachca.gov/NewportHTML5Viewer/?viewer=publicsite.

City, 2019b. *City of Newport Beach Local Coastal Program, Coastal Land Use Plan*. Amended by the California Coastal Commission on October 12, 2018. Adopted January 22, 2019, Resolution No. 2019-08.

City, 2020a. "Anchorages." Accessed February 24, 2020. Available at: https://www.newportbeachca.gov/government/departments/harbor/anchorages.

City, 2020b. "Walking Trail Maps." Accessed February 25, 2020. Available at: https://www.newportbeachca.gov/government/departments/recreation-senior-services/bike-walking-trails/walking-trail-maps

CRM (Coastal Resource Management, Inc.), 2009. *Revised Marine Biological Impact Assessment Marina Park Project, Newport Beach, California*. Prepared for the City of Newport Beach. December 2009.

CSTF (Los Angeles Region Contaminated Sediments Task Force), 2005. *Los Angeles Contaminated Sediments Task Force: Long-Term Management Strategy*. May 2005. Accessed April 23, 2020. Available at: https://www.coastal.ca.gov/sediment/long-term-mgmt-strategy-5-2005.pdf.

Diaz Yourman & Associates, 2007. *Geotechnical Investigation Bay Island Sea Wall and Bridge Newport Beach, California*. January 2007.

DTSC (California Department of Toxic Substances Control), 2020. DTSC EnviroStor Database. Website search. Available at: https://www.envirostor.dtsc.ca.gov/public/.

Fredette, T.J., 2005. "Why Confined Aquatic Disposal Cells Often Make Sense." *Integrated Environmental Assessment and Management* 2(1):35–38.

Frost, N. 2017. *California Least Tern Breeding Survey, 2016 Season*. Final Report. Prepared for the California Department of Fish and Wildlife, Wildlife Branch, Nongame Wildlife Program Report, 2017-03. June 2017.

Glenn Lukos Associates, 2020. *Western Snowy Plover Management Plan for East Balboa Peninsula Beaches*. Prepared for City of Newport Beach. July 2019, revised January 2020. Accessed April 23, 2020. Available at: https://www.newportbeachca.gov/home/showdocument?id=66308.

Group Delta Consultants, Inc., 2020. *Soil and Groundwater Assessment Report, Former Newport Plating*. Prepared for Patterson-Kahle, LLC. January 20, 2020. Available at: https://geotracker.waterboards.ca.gov/getfile?filename=/esi/uploads/geo_report/9347479701/SL0605980961.PDF

Hirsch, N.D., L.H. DiSalvo, and R. Peddicord, 1978. *Effects of Dredging and Disposal on Aquatic Organisms*. Technical Report DS-78 55. NTIS No. AD A058 989. Vicksburg, Mississippi: U.S. Army Engineer Waterways Experiment Station.

IPCC, 2014. *Climate Change 2014 Synthesis Report. Contribution of Working Groups I, II, and III to the Fifth Assessment Report of the intergovernmental Panel on Climate Change*. IPCC, Geneva.

Jones & Stokes, 2004. *Transportation- and Construction-Induced Vibration Guidance Manual*. Prepared for California Department of Transportation, Noise, Vibration, and Hazardous Waste Management Office, Sacramento, California. June 2004.

Kroeber, A.L., 1976. *Handbook of the Indians of California*. New York: Dover Publications.

Love, M.S., 2011. *Certainly More Than You Want To Know About the Fishes of the Pacific Coast*. Santa Barbara: Really Big Press.

MALSF (Marine Aggregate Levy Sustainability Fund), 2009. *A Generic Investigation into Noise Profiles of Marine Dredging in Relation to the Acoustic Sensitivity of the Marine Fauna in UK waters with Particular Emphasis on Aggregate Dredging: Phase 1 Scoping and Review of Key Issues*. Report Number: MEPF Ref No. MEPF/08/P21. February 2009. Available at: https://www.researchgate.net/profile/Frank_Thomsen/publication/272740795_A_generic_investigation_into_noise_profiles_of_marine_dredging_in_relation_to_the_acoustic_sensitivity_of_the_marine_fauna_in_UK_waters_PHASE_1_Scoping_and_review_of_key_issues/links/54ec97c40cf27fbfd771165d/A-generic-investigation-into-noise-profiles-of-marine-dredging-in-relation-to-the-acoustic-sensitivity-of-the-marine-fauna-in-UK-waters-PHASE-1-Scoping-and-review-of-key-issues.pdf.

Moffatt & Nichol, 2006. *Sand Compatibility Opportunistic Use Program*. Prepared for the San Diego Association of Governments. March 2006. Available at: https://www.sandag.org/uploads/publicationid/publicationid_1203_5355.pdf

MTS (Marine Taxonomic Services, Ltd.), 2018. *2018 Monitoring of Eelgrass Resources in Newport Bay Newport Beach, California*. December 20, 2018. Accessed April 23, 2020. Accessible at: https://www.newportbeachca.gov/home/showdocument?id=62623.

MTS (Marine Taxonomic Services, Ltd.), 2020. 2020 Monitoring of Eelgrass Resources in Newport Bay Newport Beach, California. December 20, 2020. Accessed March 29, 2021. Available at: https://www.newportbeachca.gov/home/showpublisheddocument?id=69415.

National Forest, 2019. "Find A Forest." Accessed October 3, 2019. Available at: https://www.nationalforests.org/our-forests/find-a-forest.

Navy (U.S. Navy), 2018. *Final Environmental Impact Statement/Overseas Environmental Impact Statement Hawaii-Southern California Training and Testing*. October 2018. Available at: https://www.hstteis.com/portals/hstteis/files/hstteis_p3/feis/section/HSTT_FEIS_3.08_Reptiles_October_2018.pdf.

Newell, R.C., L.J. Seiderer, and D.R. Hitchcock, 1998. "The Impacts of Dredging Works in Coastal Waters: A Review of the Sensitivity to Disturbance and Subsequent Recovery of Biological Resources on the Sea Bed." *Oceanography and Marine Biology* 36 (Annual Review):127–178.

Newport Beach Fire Department, 2011. *City of Newport Beach Emergency Operations Plan*. Available at: http://www.newportbeachca.gov/home/showdocument?id=17901.

NOAA (National Oceanic and Atmospheric Administration), 2008. *Caulerpa* Control Protocol. Version 4. February 25, 2008. Available at: https://www.westcoast.fisheries.noaa.gov/publications/habitat/caulerpa_taxifolia/caulerpa_control_protocol_4_.pdf.

NOAA, 2014. *California Eelgrass Mitigation Policy and Implementing Guidelines*. October 2014. Available at: https://www.westcoast.fisheries.noaa.gov/publications/habitat/california_eelgrass_mitigation/Final%20CEMP%20October%202014/cemp_oct_2014_final.pdf.

NOAA, 2020. NCEI/WDS Global Significant Earthquake Database, 2150 BC to Present. Last Modified September 3, 2020. Available at: https://data.noaa.gov//metaview/page?xml=NOAA/NESDIS/NGDC/MGG/Hazards/iso/xml/G012153.xml&view=getDataView&header=none#:~:text=A%20significant%20earthquake%20is%20classified,the%20earthquake%20generated%20a%20tsunami.

OCHCA (Orange County Health Care Agency), 2016. Letter to Eric Roehl, Chevron Environmental Management Company. Regarding: Notice of Responsibility, Newport Gulf Station. July 5, 2016

OEHHA (Office of Environmental Health Hazard Assessment), 2003. *The Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments*. Air Toxics Hot Spots Program Risk Assessment Guidelines. August 2003.

OPR (Governor's Office of Planning and Research), 2003. *State of California General Plan Guidelines*. Available at: http://opr.ca.gov/docs/General_Plan_Guidelines_2003.pdf.

OC Watersheds, 2018. *The OC Plan, Integrated Regional Water Management for the North and Central Orange County Watershed Management Areas.* March 2018. Available at: http://prg.ocpublicworks.com/DocmgmtInternet/Download.aspx?id=1489.

Pacific Fishery Management Council, 2019. *Pacific Coast Groundfish Fishery Management Plan for The California, Oregon, and Washington Groundfish Fishery: Appendix B Part 2.* Available at: https://www.pcouncil.org/documents/2019/06/groundfish-fmp-appendix-b-part-2.pdf/.

Palermo, M.R., J.E. Clausner, M.P. Rollings, G.L. Williams, T.E. Myers, T.J. Fredette, and R. Randall, 1998. *Guidance for Subaqueous Dredged Material Capping*. Technical Report DOER-1, U.S. Army Corps of Engineer Waterways Experiment Station, Vicksburg, Mississippi.

Popper, A.N., A.D. Hawkins, R.R. Fay, D.A. Mann, S.M. Bartol, T.J. Carlson, S. Coombs, W.T. Ellison, R.L. Gentry, M.B. Halvorsen, S. Løkkeborg, P.H. Rogers, B.L. Southall, D.G. Zeddies, and

W.N. Tavolga, 2014. *ASA S3/SC1.4 TR-2014 Sound Exposure Guidelines for Fishes and Sea Turtles: A Technical Report prepared by ANSI-Accredited Standards Committee S3/SC1 and registered with ANSI.* New York, New York, and London, United Kingdom: Acoustical Society of America Press and Springer Briefs in Oceanography.

Ritchie, E.I., 2019. "Did You Know Hundreds of Sea Turtles Are Now Southern California Residents?" *The Orange County Register*. Updated April 23, 2019. Accessed May 5, 2020. Available at: https://www.ocregister.com/2019/04/23/did-you-know-hundreds-of-sea-turtles-are-now-southern-california-residents/.

RWQCB (Regional Water Quality Control Board), 1998a. Resolution No. 98-69. Amendment to the Water Quality Control Plan for the Santa Ana River Basin Establishing a Total Maximum Daily Load for Sediment for the Newport Bay/San Diego Creek Watershed and Rescinding and Replacing Resolution No. 97-77.

RWQCB, 1998b. Resolution No. 98-101. Resolution Revising the Amendment to the Water Quality Control Plan for the Santa Ana River Basin Incorporating a Total Maximum Daily Load for Sediment in Newport Bay/San Diego Creek Watershed (Resolution No. 98-69).

RWQCB, 1998c. Attachment to Resolution No. 98-9, as amended by Resolution No. 98-100. Resolution Amending the Water Quality Control Plan for the Santa Ana River Basin to Incorporate a Nutrient TMDL for the Newport Bay/San Diego Creek Watershed.

RWQCB, 1998d. *Total Maximum Daily Load for Fecal Coliform Bacteria in Newport Bay, California*. November 24, 1998.

RWQCB, 2012. *Total Maximum Daily Load Progress Report Rhine Channel (Lower Newport Bay) Metals-Organics TMDL*. Updated September 2012. Accessed April 23, 2020. Available at: https://www.waterboards.ca.gov/about_us/performance_report_1718/plan_assess/docs/fy1314/11112_r8_rhinechannel_metals_organics.pdf.

SCAQMD (South Coast Air Quality Management District), 2005. *Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning*. May 2005. Available at: http://www.aqmd.gov/docs/default-source/planning/air-quality-guidance/complete-guidance-document.pdf.

SCAQMD, 2011. *South Coast AQMD Air Quality Significance Thresholds*. Revised April 2019. Available at: http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pfdf?sfvrsn=2.

SCAQMD, 2015. Multiple Air Toxics Exposure Study in the South Coast Air Basin "Mates IV." May 2015. Available at: http://www.aqmd.gov/docs/default-source/air-quality/air-toxic-studies/mates-iv/mates-iv-final-draft-report-4-1-15.pdf?sfvrsn=7.

SCAQMD, 2016. Final Air Quality Management Plan. October 2016. Available at: http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2016-air-quality-management-plan/final-2016-aqmp/final2016aqmp.pdf?sfvrsn=15.

SCAQMD, 2018. National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) Attainment Status for South Coast Air Basin. Accessed January 24, 2020. Available at: http://www.aqmd.gov/home/air-quality/clean-air-plans.

Smith, L., 2014. Personal communication between Larry Smith, U.S. Army Corps of Engineers Los Angeles District and Steve Cappellino, Anchor QEA. May 23, 2014.

SWRCB (State Water Resources Control Board), 2020. GeoTracker database search. Accessed March 4, 2020. Available at: https://geotracker.waterboards.ca.gov/.

USACE (U.S. Army Corps of Engineers), 1989. *Requirements for Sampling, Testing and Data Analysis of Dredged Material*. U.S. Army Corps of Engineers, Los Angeles District.

USACE, 1999. *Defense Environmental Restoration Program, Formerly Used Defense Sites Findings and Determination of Eligibility*. U.S. Coast Guard Patrol Base, Newport Beach, California, Site No. J09CA745500. September 1999.

USACE, 2000. Final Supplemental Environmental Impact Statement/Environmental Impact Report. Port of Los Angeles Channel Deepening Project. April 2000. Available at: https://www.portoflosangeles.org/environment/environmental-documents.

USACE, 2004. *Los Angeles Dredged Material Management Plan Feasibility Study, Baseline Conditions (F3) Report*. August 2004. Accessed April 23, 2020. Available at: https://www.coastal.ca.gov/sediment/DMMPF3Report.pdf.

USACE, 2011. *Final Environmental Assessment for Lower Newport Bay Maintenance Dredging Project*. September 2020. Available at: https://www.spl.usace.army.mil/Portals/17/docs/publicnotices/Lower%20Newport_Maintenance%20Dredging%20Final%20EA%20signed.pdf?ver=O2_zVV3LcMeWIZgQTQBQow%3d%3d.

USACE, 2012a. *Final Environmental Assessment for the Santa Ana River Marsh Dredging Project, Newport Beach, Orange County, California*. Prepared by USACE South Pacific Division Los Angeles District. July 2012.

USACE, 2012b. Public Notice. Application for Regional General Permit (RGP). Public Notice/ Application No. SPL-2010-00868-SME. Orange County Public Works Ocean Outlet Maintenance Program.

USACE, 2020. *Final Environmental Assessment for Lower Newport Bay Maintenance Dredging Project*. September 2020. Available at https://www.spl.usace.army.mil/Portals/17/docs/publicnotices/Lower%20Newport_Maintenance%20Dredging%20Final%20EA%20signed.pdf?ver=O2_zVV3LcMeWIZgQTQBQow%3d%3d.

USACE/USEPA (U.S. Environmental Protection Agency), 2004. *Draft Environmental Impact Statement*. Proposed Site Designation of the LA-3 Ocean Dredged Material Disposal Site Off Newport Bay, Orange County, California. December 2004. Available at: https://archive.epa.gov/region9/water/archive/web/pdf/la3deis_web.pdf

USEPA, 2019. Integrated Risk Information System. Available at: https://www.epa.gov/iris.

USEPA, 2002. *Total Maximum Daily Loads for Toxic Pollutants, San Diego Creek and Newport Bay, California*. June 14, 2002.USEPA/USACE, 1991. *Evaluation of Dredged Material Proposed for Ocean Disposal – Testing Manual*. EPA- 503/8-91/001. USEPA Office of Water (4504F). February 1991.

USEPA/USACE, 1991. *Evaluation of Dredged Material Proposed for Ocean Disposal – Testing Manual*. EPA- 503/8-91/001. USEPA Office of Water (4504F). February 1991.

USEPA/USACE, 1998. *Evaluation of Dredged Material Proposed for Discharge in Waters of the U.S. – Testing Manual: Inland Testing Manual*. EPA-823-B-94-004. USEPA Office of Water (4305). February 1998.

# Appendix E
# 2020 Harbor-Wide Eelgrass Survey

*Please note, this Appendix supplements Appendix E of the DEIR to incorporate the 2020 Eelgrass Survey Results*

MARINE TAXONOMIC SERVICES, LTD

# 2020 Monitoring of Eelgrass Resources in Newport Bay Newport Beach, California

December 25, 2020

**Prepared For:**

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**Newport Harbor Shallow-Water and Deep-Water Eelgrass Survey**

**Prepared By:**


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# Contents

## Appendices

Appendix A – DWEH Sidescan Sonar Track Lines
Appendix B - Photographs

## Abbreviations

| | |
|---|---|
| ac | Acre |
| Bay | Newport Bay |
| CEQA | State of California Environmental Quality Act |
| CEMP | California Eelgrass Mitigation Policy |
| City | City of Newport Beach |
| CRM | Coastal Resources Management Inc. |
| DWEH | Deep Water Eelgrass Habitat |
| dGPS | Differential Global Positioning System |
| EFH | Essential Fish Habitat |
| EPA | Environmental Protection Agency |
| EPMP | Eelgrass Protection and Mitigation Plan for Shallow Waters in Lower Newport Bay: An Ecosystem Based Management Program |
| ft | Feet/Foot |
| °F | Degrees Fahrenheit |
| GPS | Global Positioning System |
| HAMP | City of Newport Beach Harbor Area Management Plan |
| HAPC | Habitat Areas of Particular Concern |
| MLLW | Mean Lower Low Water |
| m | Meter(s) |
| MTS | Marine Taxonomic Services, Ltd. |
| NEPA | National Environmental Policy Act |
| NMFS | National Marine Fisheries Service |
| OTS | Ocean Technology Systems |
| RGP | Regional General Permit |
| sq | Square |
| SAV | Submerged Aquatic Vegetation |
| SWEH | Shallow Water Eelgrass Habitat |
| USACE | U.S. Army Corps of Engineers |

## Introduction

Marine Taxonomic Services, Ltd. (MTS) and its sub-contractor, Coastal Resources Management, Inc, (CRM) was contracted by the City of Newport Beach (City) to provide eelgrass-mapping services in Newport Bay as part of the 2020 harbor-wide eelgrass assessment. The survey consisted of mapping shallow-water eelgrass habitat (SWEH) and deep-water eelgrass habitat (DWEH) in support of the City's Eelgrass Protection and Mitigation Plan for Shallow Waters in Lower Newport Bay: An Ecosystem Based Management Program (EPMP; City of Newport Beach 2015) and the City of Newport Beach Harbor Area Management Plan (HAMP; City of Newport Beach 2010). MTS was responsible for surveying the SWEH, data analysis, and report composition. CRM was responsible for providing MTS with survey results from DWEH and SWEH using sonar-based methods beyond 20 feet (ft) bayward of all dock structures and in areas where it was not safe to perform diver-based surveys. This was the seventh SWEH survey and fourth DWEH survey since the program was initiated in 2003. Previous eelgrass habitat assessments were conducted in 2003-2004 (CRM 2005), 2006-2008 (CRM 2010), 2009-2010 (CRM 2012), 2012-2014 (CRM 2015), 2016 (CRM 2017), and 2018 (MTS 2018).

## Project Purpose

The purpose of this assessment is to provide the City with detailed information on the distribution and abundance of eelgrass within Newport Harbor, including Lower and Upper Newport Bay (Bay) (Figure 1). Monitoring and maintaining a database of the Bay's eelgrass resources is essential for the City and regulatory and resource agencies to manage these resources. The City is committed to monitor these resources by their HAMP and EPMP. Additionally, data provided in this report will be used by the City in support of their Regional General Permit (RGP) 54 collectively issued by the U.S. Army Corps of Engineers (USACE 2020), the California Coastal Commission and the Santa Ana Regional Water Quality Control Board. This dataset is valued as it helps to inform the public of existing sensitive resources regarding infrastructure improvement projects such as construction, repair, and maintenance for bulkheads, docks, and piers, as well as activities involving beach nourishment and harbor dredging.

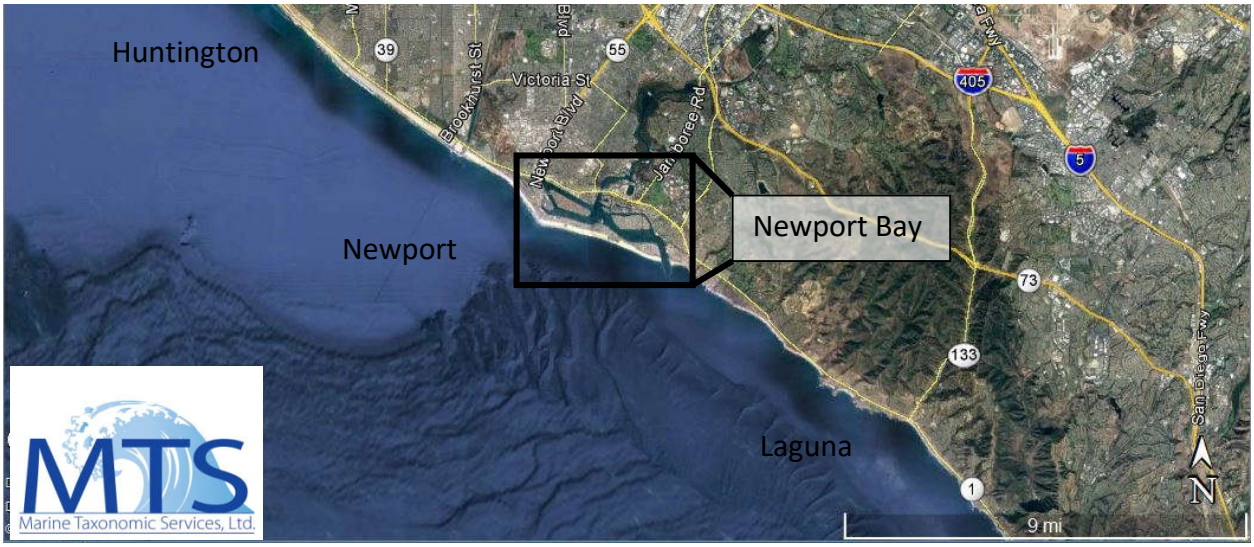


**Figure 1. Regional map of Newport Bay in Newport Beach, California.**

## Background

Comprehensive historical surveys of eelgrass resources have occurred since 2003. These surveys were conducted by CRM until the 2018 survey which was completed by MTS. Summaries of their eelgrass mapping results in Newport Bay are provided below.

2003-2004 Survey Summary

A total of 30.4 acres (ac) of eelgrass were mapped in shallow water at depths between 0-ft and -12-feet (ft) Mean Lower Low Water (MLLW). Mean station density averaged 212.8 turions per square (sq) meter (m) and ranged between 94 and 273.8 per sq m across 15 stations (CRM 2005).

2006-2008 Survey Summary

A total of 23.1 ac of eelgrass were mapped between +0.7-ft and -12-ft MLLW. Turion density averaged 130.7 turions per sq m and varied between 67.1 and 221.9 turions per sq m across 10 stations (CRM 2010).

2009-2010 Survey Summary

A total of 19.92 ac of SWEH was mapped between 2009 and 2010. Turion density averaged 123.5 and ranged between 14.3 and 629 turions per sq m (CRM 2012). CRM also conducted DWEH mapping surveys in the Harbor entrance channel and navigation channels leading into Newport Harbor using sidescan sonar and mapped 45.4 acers of DWEH to depths of -28ft MLLW.

2012-2014 Survey Summary

This survey encompassed deep and shallow water eelgrass habitats within the Bay. A total of 88.27 ac of bottom habitat was covered by eelgrass between the low tide zone and -28.5-ft MLLW. Of this a total of 42.35 ac of vegetated SWEH was mapped between 0.0-ft and -15-ft MLLW. Turion density averaged 117 turions and ranged between 39.1 and 259.3 turions per sq m (CRM 2015).

As a result of the surveys performed between 2003 and 2014 three eelgrass stability zones were identified in the Bay. The first zone is the stable eelgrass zone, where eelgrass distribution and density have been relatively constant and underwater light levels were highest. The second zone is the transitional eelgrass zone where eelgrass acreage has been highly variable and underwater light levels appeared to have had higher variation. The unvegetated eelgrass zone represents areas where eelgrass was not documented between 2003 and 2014 (CRM 2015).

2016 Survey Summary

This survey encompassed deep and shallow water eelgrass habitats within the Bay. A total of 104.5 ac of bottom habitat was covered by eelgrass between +0.5-ft and -29.5-ft MLLW. Of this a total of 53.0 ac of vegetated SWEH was mapped between +0.5-ft and -15-ft MLLW. Eelgrass turion density averaged 163.5 turions per sq m and ranged between 86.8 and 287.7 turions per sq m (CRM 2017).

2018 Survey Summary

This survey encompassed shallow water eelgrass habitats within the Bay. A total of 58.18 ac of eelgrass were mapped between +0.5-ft and -15-ft MLLW during the 2018 survey. Eelgrass turion density averaged 223 turions per sq m and ranged between 32 and 416 turions per sq m (MTS 2018).

## Project Setting

Newport Bay is located within the City of Newport Beach, California (Figure 1). The City is bordered by three coastal cities, Huntington Beach to the northwest, Costa Mesa to the north, and Laguna Beach to the southeast. Newport Bay is generally divided into two regions**:** Lower Newport Bay and Upper Newport Bay. Prior to major development, Lower Newport Bay was a coastal lagoon. The lagoon was initially formed between 1824 and 1862 as a consequence of down current sand deposition from the Santa Ana River that formed a sand spit across the mouth of Upper Newport Bay. The sand spit eventually developed into present-day Balboa Peninsula (Stevenson and Emery 1958). Lower Newport Bay is a four-mile-long body of water orientated in a northwest-to-southeast direction, parallel to the coastline. Currently, the Bay is a multi-user system with both recreational and commercial uses. The Bay functions as a major navigational harbor and anchorage for approximately 4,500 small boats and larger vessels as well as a business center for marine-related activities and tourism. The Bay is also utilized as a transitional corridor where wildlife can move between the tidally influenced channel and the more protected marsh ecosystem of Upper Newport Bay or gain access to the open coastal marine environment.

Periodic dredging within the Bay is necessary to maintain navigation for vessel traffic, particularly in active portions of the Bay (Anchor QEA 2009). The Federal Navigation Channel (FNC) in the Bay is maintained by the USACE. While dredging for the FNC may occur at -12-ft MLLW it generally occurs at depths deeper than -15-ft MLLW. Thus, most dredging activities for the FNC are largely outside of SWEH areas. On occasion, dredging for the FNC can impact eelgrass habitat that occurs at deeper depths (CRM 2017). Outside the FNC, maintenance dredging is also necessary and is generally authorized under the City's RGP 54 (USACE 2020). A portion of the RGP 54 – known as the RGP 54 Plan Area – is within the SWEH. The RGP 54 Plan Area is generally described as "The bulkhead to pierhead line plus 20 feet bayward, including those exceptions for structures that extend beyond this boundary as of 2013 in conformance with harbor development regulations or policy."

Upper Newport Bay is characterized by mudflat, salt marsh, freshwater marsh, riparian, and upland habitats (CDFW 2018). Most of this area is primarily a salt marsh system with freshwater influence. The lower one-third of Upper Newport Bay, below Shellmaker Island, has undergone continued anthropogenic influence by dredging and filling for housing development, recreational swimming, marinas, and a boat launch. The Newport Bay watershed (~ 154 square miles), bounded by the Newport Mesa bluffs to the west and the San Joaquin Terrace to the east, drains towards the Pacific Ocean via Upper Newport Bay. The watershed is a major contributor of suspended sediments, nutrients, and other pollutants into the Bay ecosystem (EPA 2017). Major large-scale, upstream projects coupled with the sediment catch basins maintained in the Upper Newport Bay have significantly reduced sediment loading into the Upper Newport Bay.

## Eelgrass Biology

Eelgrass*, Zostera,* is a marine angiosperm (Kuo et al. 2006; Hemminga and Duarte 2000). This marine plant is one of 13 genera within 5 families of seagrasses (Les et al. 1997). Seagrasses are one of the most productive and valuable resources on earth. Seagrass beds absorb large quantities of the greenhouse gas, carbon dioxide, from the atmosphere and store it, resulting in carbon sequestration and storage (Kuwae and Hori 2019). Economically important, eelgrass provides habitat to sustain commercially important fisheries further supporting the recreational and commercial fishing industry and associated tourism industries (Phillips 1985; Dewsbury et al. 2016). In Southern California, eelgrass grows at depths ranging from the mid-to-low intertidal extending to -30-m MLLW at some protected offshore areas of the eastern Pacific Ocean (Phillips and Mendez 1988; Phillips and Echeverria 1990; Mason 1957; Coyer et al. 2007).

*Zostera japonica*, dwarf eelgrass, is an introduced seagrass found along the west-coast, originally from Asia (Posey, 1988). *Z. japonica* has been known to inhabit the waters of the Pacific Northwest since the early 1900s (Phillips, 1985). Its presence in California has only been known for a short time (Shafer et al. 2008). Two types of eelgrass are found offshore in the Channel Islands and along the coast of Santa Barbara County, *Z. pacifica* and *Z. marina* (Coyer et al. 2007). Since eelgrass varies greatly given different environmental parameters, species of *Zostera* can be challenging to identify in situ (Olesen and Sand-Jensen 1993). *Zostera* species observed during the majority of this 2018 survey were believed to be *Z. marina*. However, *Z. pacifica* was likely observed near the entrance to the channel. Hybridization of *Z. marina* and *Z. pacifica* has been observed in other settings (Olsen et al. 2014). If hybridization is occurring within Newport Bay, identification of these two species in situ may not be possible and further genetic testing may be required.

Eelgrass is a photosynthetic organism that sustains fish and other marine life through nutrient transformation and by releasing oxygen into the marine environment (Yarbro and Carlson 2008). These plants can support a diversity of life by creating structure over otherwise featureless soft-bottom habitats. Eelgrasses can form extensive beds in shallow, protected, estuarine, or other near shore environments. These seagrasses host a variety of marine species including microbes, algae, invertebrates (including lobsters, crabs, worms, snail, clams, sea stars, and octopus), and fishes (Thresher et al. 1992; Valentine and Heck 1999). Some fish species are present throughout their life stages while other fishes utilize eelgrass beds during periods of juvenile development. Other vertebrates including fishes, seabirds, and sea lions utilize eelgrass beds as foraging grounds. Green sea turtles also utilize eelgrass beds. Green sea turtle occurrence in Newport Bay is not well documented. However, MTS made three separate observations of green sea turtles in Upper Newport Bay between May and October 2020.

In addition to sustaining many forms of marine life, eelgrass reduces erosion processes and increases seafloor stability (de Boer 2007). Other marine plants, sessile organisms, and sediments are secured to the seafloor by the dense rhizome mats that penetrate these areas. Additionally, the three-dimensional blade structure of eelgrass acts to dampen waves and softens the impacts of wave action. In some areas of extreme reduction in wave action, sediments and organic matter may begin to be deposited.

In Newport Bay, *Z. japonica* is not known to occur. *Z. marina* has historically grown in both Lower Newport Bay and Upper Newport Bay. However, the distribution and abundance of eelgrass in this area has varied greatly over time (CRM 2002, 2005, 2008, 2010, 2012, 2015, 2017, MTS 2018). The importance of this habitat for marine life can sometimes conflict with the need for the City of Newport Beach to maintain and sustain a viable commercial and recreational harbor, maintain safe navigation, and for the City and its residents to maintain the integrity of their boat docks and piers. Consequently, the City has committed to consistently conduct these surveys to better understand the distribution of eelgrass over time and that facilitates both the City's and resource and regulatory agencies' support of long-term planning and management of eelgrass within the harbor.

## Eelgrass Regulatory Setting

### General Eelgrass Regulations

The federal government designates eelgrass as an Essential Fish Habitat (EFH) and a Habitat Area of Particular Concern (HAPC) under the Magnuson-Stevens Fishery Conservation and Management Act in 1996 (FR 62, 244, December 19, 1997; Pacific Fishery Management Council, 2008). Eelgrass habitat is considered as EFH and a HAPC as it is a key foundation to a healthy marine habitat and provides necessary ecosystem functions to sustain populations of marine organisms. The designation as an EFH requires federal agencies to consult with the National Oceanic and Atmospheric Association (NOAA) Fisheries on ways to avoid or minimize the adverse effects of their actions on eelgrass.

NOAA provides guidelines for eelgrass management under the California Eelgrass Mitigation Policy and Implementing Guidelines (CEMP) (NOAA Fisheries, West Coast Region, 2014). These guidelines provide comprehensive and consistent information to ensure the actions taken by federal agencies result in "no net loss" of eelgrass habitat or function. Under the CEMP, biologists will assist federal agencies to mitigate for unavoidable impacts and create 20 percent more eelgrass habitat than was destroyed.

Eelgrass does not have a formal listing as a state or federal endangered, rare, or sensitive species. However, the California Department of Fish and Wildlife, U.S. Fish and Wildlife Service, and NOAA Fisheries understand the importance of protecting this resource. Additionally, eelgrass is protected under the Clean Water Act, 1972, as it is considered vegetated shallow water habitat.

Environmental legislation under the National Environmental Policy Act (NEPA) and State of California Environmental Quality Act (CEQA) dictates that project designs for coastal projects should:

- Make all possible attempts to avoid impacts to eelgrass.
- Minimize the degree or magnitude of impacts to eelgrass.
- Rectify or compensate for unavoidable eelgrass habitat loss by restoring soft-bottom habitat with eelgrass using transplant techniques.
- Reduce or eliminate impacts to eelgrass over time by preservation and maintaining eelgrass over the life of the project.

The 2018 Department of Fish and Wildlife Ocean Fishing Regulations include regulations on the collection of marine plants such as:

- There is no closed season, closed hours or minimum size limit for any species of marine aquatic plant that can be collected.
- The daily bag limit on all marine aquatic plants for which the take is authorized is 10 pounds wet weight in the aggregate.
- Marine aquatic plants may not be cut or harvested in state marine reserves.
- No eelgrass (*Zostera*), surf grass (*Phyllospadix*), or sea palm (*Postelsia*) may be cut or disturbed at any time.

The California Code of Regulations, Title 14, 650. Natural Resources, Division 1. Fish and Game Commission-Department of Fish and Wildlife. Subdivision 3, General Regulations. Chapter 1, Collecting Permits states, "Except as otherwise provided, it is unlawful to take or possess marine plants, live or dead birds, mammals, fishes, amphibians, or reptiles for scientific, educational, or propagation purposes except as authorized by a permit issues by the department."

### Newport Beach Eelgrass Regulations

Additional protection is afforded under both State and local City of Newport Beach codes and plans. The City of Newport Beach Policies state that the City of Newport Beach, within its adopted Coastal Land Use Plan (City of Newport Beach 2019), acknowledges the importance of eelgrass in Newport Harbor, as well as the "*…need to maintain and develop coastal-development uses in Newport Harbor that may result in impacts to eelgrass*" and "*Avoid impacts to eelgrass (Zostera marina) to the greatest extent possible. Mitigate losses of eelgrass at 1.2 to 1 mitigation ratio and in accordance with the Southern California Eelgrass Mitigation Policy. Encourage the restoration of eelgrass throughout Newport Harbor where feasible*" (CLUP 4.2.5-1). The Southern California Eelgrass Mitigation Policy was superseded by the CEMP in 2014.

The City of Newport Beach adopted a Newport Bay specific eelgrass mitigation plan (EPMP) in 2015 (City of Newport Beach, 2015). The EPMP is an outcome of the City of Newport Beach HAMP, as issued in April 2010 and approved by City Council in November 2010 (Weston Solutions Inc. et al. 2010). The HAMP was established to set goals and best management practices (BMPs) to ensure a healthy eelgrass population within Lower Newport Bay. The EPMP seeks to protect and promote a long-term sustainable eelgrass population while serving Lower Newport Bay's navigational and recreational beneficial uses. The goal of the EPMP is an ecosystem-based approach that works by protecting a sustainable eelgrass population in the Lower Newport Bay and enforcing BMPs that will promote eelgrass growth.

Under the RGP 54, the EPMP authorizes temporary impacts to eelgrass resulting from minor maintenance dredging activity under and adjacent to private, public, and commercial docks, floats, and piers. The amount of temporary impacts authorized under the RGP 54 is based on these biannual eelgrass surveys and dependent on the area of eelgrass within the harbor. Demolition, repair, and in-kind replacement of docks (including piers, gangways, floats, and piles), bulkheads, and piles with similar structures are excluded from the RGP 54 and the EPMP.

Impacts to eelgrass not authorized under the RGP 54 requires individual mitigation pursuant to the CEMP.

# Methods

## Project Staff

This report relies on a combination of previously collected data by CRM and results from this year's, 2020, survey efforts conducted by MTS. Integral staff for this survey included Dr. Robert Mooney (Principal Investigator), Grace Teller (Biologist, M.Sc.), Hannah Joss (Dive Technician, B.Sc.), and Raelynn Heinitz (Field Technician, B.Sc.). Dr. Mooney contributed to project oversight, client communication, and report review. Grace acted as the field team project manager responsible for training staff, scheduling, and ensuring the quality of work conducted daily. Hannah acted as the primary field team diver with additional topside support from MTS personnel, Raelynn Heinitz. Additionally, Grace was responsible for drafting the 2020 report summary. CRM staff, Rick Ware and Tom Gerlinger, supported the 2020 survey through collection of sonar data, mapping support, and review of deliverables.

## Project Location

The surveys were conducted in Newport Bay, located within Newport Beach, Orange County, California. Observations and mapping occurred between June 19, 2020 and November 9, 2020. Density measurements were taken across the Bay on October 1 and 2, 2020. The survey area included intertidal and subtidal soft-bottom habitats of Newport Bay. Many of these areas paralleled rip-rap shorelines and/or headwalls. Shallow water eelgrass habitat is defined as the area extending from the intertidal zone to a depth of -15-ft MLLW. For comparison to previous surveys performed by CRM, and to allow for simplified acreage accounting, the Bay was divided into 23 SWEH mapping regions and 1 DWEH mapping region (Figure 2).

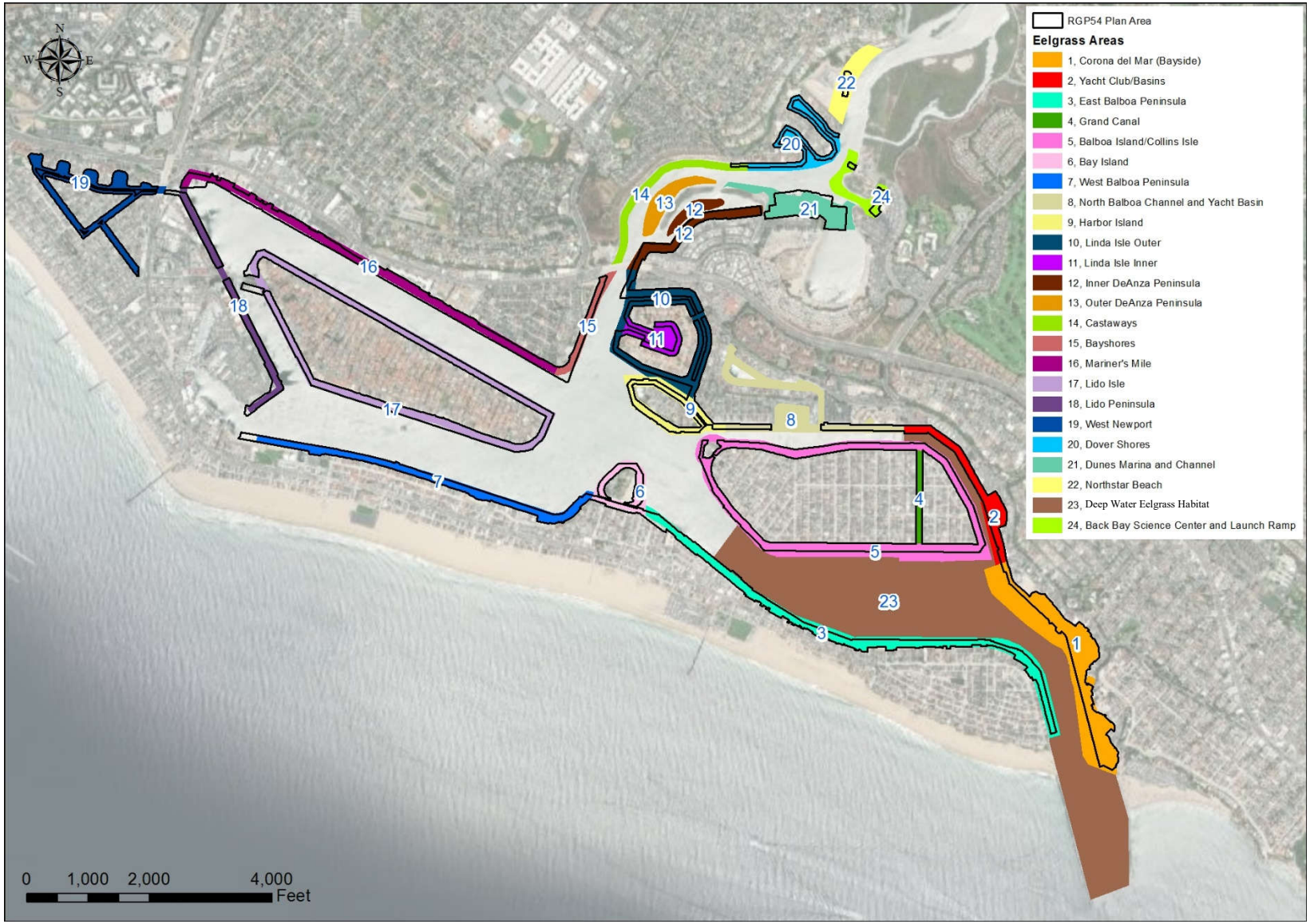



**Figure 2. Map of Newport Bay showing 23 shallow water eelgrass habitat mapping regions and the deep-water eelgrass habitat mapping region.**

## Eelgrass Survey Methods

### Environmental Parameters

Horizontal and vertical visibility observations were recorded daily. After completing a continuous section of survey area, where the visibility underwent no noticeable change, horizontal visibility observations were approximated at depth. Vertical visibility was taken at the beginning of each survey day and on occasion, at the end of the survey day. This measurement was taken by using a fiberglass measuring tape to slowly lower a Secchi disk into the water. Once the Secchi disk was no longer visible in the water column the depth of the Secchi disk was recorded. Mean underwater visibility was calculated for horizontal and vertical visibility per region. The mean and standard deviation was calculated across all survey dates and compared to historical visibility values.

Surface water temperature was taken at the start and end of most survey days. A digital probe style thermometer was held at the surface of the water for at least 30 seconds or until reaching equilibrium, and then the temperature was recorded. Mean and standard deviation was calculated for surface water temperature recordings collected in each region.

### Sonar Survey

CRM used remote sensing techniques, (traditional sonar and down-looking sonar) to supplement the diver eelgrass survey. The traditional sonar and down-looking sonar systems were used to survey areas within -26-ft to -15-ft contours where diver survey areas were either extremely large and/or where dive conditions were considered hazardous due to currents or vessel traffic.

Sonar methods were used to augment the diver mapping surveys in the larger SWEH areas and/or in SWEH navigational areas considered a risk to divers (Regions 1, 2, 5, 8, 11, 12, 13, 21). CRM's Lowrance HDS-12 Gen2 Touch Chartplotter/Ecosounder was used to acoustically collect data on bottom depth and plant height from the unit's 200-kilohertz (kHz) transducer acoustic signal associated with a Wide Area Augmentation System-corrected GPS position. In addition, a 455/800 kHz transducer and power module with dual channels (Structure scan and down-looking) provide a 180-degree view and a down-looking view of the seafloor (data were logged on the 800-kHz channel).

Acoustic beam angle for the 200-kHz signal on the 83/200-kHz dual frequency transducer (standard transducer on HDS units) was 20 degrees; the beam coverage for the 455/800 dual frequency transducer was 180 degrees with side lobe angles of 0.9 degree and the down-looking lobe of 1.1 degrees. This narrow elliptical beam essentially "scans" seafloor bottoms. Ping rates were set at 15 per second. Pulse width was dynamic and varied depending on depth, which varied between 2-ft and 30-ft. Acoustic data were collected at the Lowrance default of 3,200 bytes per second. The range window on the unit was set to Auto, which maximized the resolution of the acoustic envelope at the full range of depths sampled (approximately 2-ft and 30-ft).

GPS positions were recorded every one second, and bottom features from pings that elapsed between positional reports were averaged for each coordinate/data point. Therefore, the attribute value (e.g., depth and plant height) of each data point along a traveled path comprised

a summary of 5 to 30 pings. Each ping went through a quality test to determine whether features could be extracted and, if so, was sent on to feature detection algorithms. Those failing quality assurance tests were removed from the set considered for summarization.

Vegetation detection using down-looking sonar methods were analyzed using cloud-based software models and statistical algorithms incorporated into Navico BioBase software developed by Contour Innovations, LLC, St. Paul, Minnesota (Contour Innovations LLC 2013).

Acoustic signals from HDS 200-kHz transducers travel through submerged aquatic vegetation (SAV) on their way to the bottom. Seafloor typically registers a sharper echo return than the vegetation above. The distance between the seafloor acoustic signature and top of the plant canopy was recorded as the plant height for each ping. In the study area, depth profile and vegetation information were collected on soft-bottom features.

Plant height data included for analysis was limited to a minimum detection limit of 1% of bottom depth. Thus, at a three-foot depth, the minimum plant height detection was 0.4 inches whereas along the offshore track lines at 20-ft depths, minimum plant height was approximately 2.4 inches. Thus, the ability to detect SAV, including eelgrass was good.

Processed acoustical signal depth and vegetation point features were uploaded to the BioBase ordinary point kriging algorithm that predicted values in unsampled locations based on the geostatistical relationship of the input points. The kriging algorithm is an “exact” interpolator in locations where sample points are close in proximity and do not vary widely. Kriging smooths bottom feature values where the variability of neighborhood points is high. On sandy and mud bottom habitats echo returns may register eelgrass and the red algae such as *Acrosorium* sp, *Gracilaria* spp. and *Ulva* spp. These species are generally shorter than eelgrass. To minimize the potential for other species to be included in the mapping effort, SAV plant height data used in the data reduction process were limited to between 0.3 ft and 3.5 ft. to maximize the probability of occurrence for *Zostera*. Eelgrass polygons were then traced around the perimeter of the eelgrass point data using ArcMap to illustrate the distribution of eelgrass quantified by these acoustical data collection methods.

Combined with remote underwater camera target verification, this data reduction step reduced the potential for other species of SAV to be included in the mapping process.

Sidescan sonar methods were used to document the DWEH within the deeper channels of Newport Bay in the Entrance Channel, Balboa Reach, and the East Balboa Channel. Designated as Region 23. The DWEH data collection occurred between July 6 and August 25, 2020. The following sidescan sonar equipment was used during the survey:

- Hemisphere VS330 Global Positioning System (GPS) Receiver,
- Edgetech 4125D Sidescan Sonar System with 400/900 kHz Towfish,
- Odom Hydrographic Hydrocrack II Depth Sounder,
- Digibar Pro Sound Velocity Recorder, and
- Hypack Max Hydrographic Data Acquisition and Processing Software.

Horizontal positioning for the survey was achieved using a real time DGPS positioning system. Differential Corrections, broadcast by US Coast Guard were used to correct the raw GPS data. The horizontal datum was North American Datum of 1983 (NAD83), epoch 2011.0, the projection was California State Plane Coordinate System Zone VI, and the units were US Survey feet. The vertical datum was Mean Lower Low Water (MLLW), epoch 83-01 based on recorded water level data from the National Oceanic and Atmospheric Administration (NOAA) Outer Los Angeles Harbor tide gauge and corrected for Newport Bay).

To minimize turns during data collection, the survey area was divided in three overlapping sub-regions that were covered with straight line segments. Using the navigation display of the Hypack online software, the vessel was steered along pre-planned shore-parallel track lines spaced 100 ft apart. Vessel track lines are shown in Appendix A.

The Edgetech 4215D Sidescan Sonar System with the 400/900 kHz towfish was operated at the 30-meter (100 ft) range (each channel) providing 100% data overlap. Sidescan sonar and DGPS data were recorded using the Edgetech Discover software and processed using Chesapeake SonarWiz 7 software to produce a compilation of rectilinear corrected composite image mosaics.

The position of the towfish was determined by applying an offset to the vessel's position based on a layback as resolved from the vessel's heading and the amount of sonar tow cable laid out. Towfish altitude above the seabed was recorded continuously and used for data slant range correction. Sounding data were obtained at the same time as the sidescan sonar data.

While the DWEH sidescan and downlooking sonar survey lines were being run, GPS waypoints were marked at locations that depicted the potential presence of SAV based on the real-time downlooking sonar views. These waypoints were then used to conduct follow-up video target surveys.

The target verification survey was conducted by remote underwater video. An Ocean Systems Deep Blue "Splash Cam" was used to view the seafloor in real time using the Lowrance navigation unit's display, for target verification of waypoints collected during the sidescan and downlooking sonar survey. The unit was deployed from the vessel's davit. Run times were standardized to approximate 30 second bottom times.

A total of 276 waypoint targets were evaluated by this method to verify the presence or absence of eelgrass vegetation. This visual analysis was then used to go back into the sidescan and downlooking sonar data and refine the final DWEH maps.

### SCUBA Diver Survey

The survey involved visual SCUBA diver surveys within all SWEH extending from the intertidal zone to 20-ft in-Bay beyond the end of all channels and dock structures within Upper and Lower Newport Bay as proposed by the City.

The diver was outfitted with a full-face-mask compatible with an Ocean Technology Systems (OTS) surface-to-diver communication system. In addition to the OTS underwater communication system the diver towed a surface marker mounted with a differential global positioning system (dGPS). The topside personnel connected to the diver-towed dGPS using a computer tablet for mapping eelgrass polygons and patches, marking waypoints, and taking notes. A Juniper Systems Geode dGPS was used for the entirety of the survey. The estimated global positioning system (GPS) error of the Geode GPS is less than half-meter accuracy. The error is based on how the GPS functions in clear open skies without any interference from structures. However, on some occasions the error was higher because the survey area occurred near bulkheads, underneath piers, and between docks where open skies were not always possible. In these instances, error was estimated to be a maximum of 1 m. In cases where GPS error produced obviously erroneous results, edits were made manually using landmarks. The dGPS in use was connected to the tablet via Bluetooth. Once the tablet and dGPS were connected an application, mapitGIS, was opened on the tablet and used to collect waypoints from the dGPS and map the extent of eelgrass within the survey area.

At a survey site, the diver would enter the water and be followed by the topside person on a kayak until eelgrass was found. If eelgrass was not readily observed upon entry to the survey site, the topside person would then use compass navigation to direct the diver in the direction to continue searching. Once the diver, using underwater communications, signaled to the topside person that they were on the edge of an eelgrass bed, the topside person would ready the mapitGIS application to begin mapping a new polygon. GPS signals were collected every 2 seconds via the mapitGIS application as the topside kayaker stayed near the diver-towed GPS as the diver swam around the eelgrass bed. Once the diver got back to the first GPS recording and the entirety of the eelgrass bed was outlined, the polygon was ended. The diver then relayed details about the eelgrass bed to the topside kayaker. This information included scaled high-low density, blade height, sediment, and other marine life present. The topside kayaker would then take water depth measurements using a weighted tape measure on both the inshore and offshore edge of the polygon. If the area of eelgrass was less than 2 sq ft it was marked as a single patch waypoint and the dimensions were recorded in the mapitGIS App. At the end of each survey day, all polygons, patches, waypoints, and notes were exported as ESRI shapefiles (SHP) and in Google Earth (KML) file formats for validation and post processing.

Data validation consisted of importing the KML files into Google Earth Pro to review the polygon shapes. The surveyed area was segmented into close-up sections and converted to PDF format for document annotation. Areas where outlier signals were detected, locations where merger of two or more polygons or cut outs of polygons were needed, and segments of polygons where they were mapped more than once were redlined on the PDF document. These revisions guided post-processing eelgrass survey efforts. Post processing of data used exported SHP files and

referenced the redlined PDF documents to finalize eelgrass polygons using ArcMap. This combination of formats allowed the biologists who performed the survey to view and annotate data which were then processed in ArcMap by a GIS Specialist.

### Eelgrass Density

Turions are eelgrass units consisting of the above-sediment portion of the eelgrass. Turions consist of a single shoot and "blades" (leaves) that sprout from each shoot. To assess eelgrass habitat vegetation cover, 10 density measurements were collected at 23 stations throughout the study area. The 23 stations included all surveyed regions, excluding Region 19, West Newport. The diver counted the number of live, green shoots "turions" at the sediment/shoot interface, within replicated 1/16$^{th}$ sq m quadrats, at each station. These counts were collected along a transect, extending from the shallow to deep edge of an eelgrass bed at each sampling station. Along each transect, density measurements were collected at the same interval extending from shallow to deep. The collection interval was dependent on the length of the transect and ability to collect 10 measurements along the transect. All biologists taking density measurements of eelgrass were trained previously on how to appropriately assess the number of living eelgrass turions per quadrat. Coordinates of the 23 surveyed sites are provided within the results for eelgrass density.

Field-collected density counts were entered into an Excel spreadsheet by station and by shallow or deep location and converted into density per sq m. Summary statistics where then calculated (mean and standard deviation) for each station and location. This information was summarized in tabular and graphic format.

# Eelgrass Habitat Mapping Survey Results

## Underwater Visibility and Temperature Measurements

### Underwater Visibility

The range of horizontal and vertical visibility was dependent on environmental conditions and distance from the mouth. In cloudy sky conditions, less light penetration occurred at depth resulting in overall lower visibility conditions. Vertical visibility seemed to be related to a combination of proximity to the Bay entrance and sediment disturbance. Water was generally clearer close to the Bay entrance unless currents were able to suspend sediment. Moving away from the entrance, visibility generally declined except in areas where calm water meant minimal suspension of sediment. Vertical visibility ranged from 1-ft to 8-ft (Figure 3). Patterns of horizontal visibility were like vertical visibility. Horizontal visibility was largely impacted by tidal conditions. Two parameters, direction of tidal flow and rate of tidal exchange, influenced horizontal visibility. The best visibility was observed during periods of rising tides with moderate to low tidal exchange. Tidal influence was reduced north of the Highway 1 bridge and in protected areas around Linda Isle. In these areas, visibility was generally moderate as the more stagnant water reduced sediment suspension. Horizontal visibility was between 1-ft and 10-ft (Figure 4). However, on occasion less than 1-ft of horizontal visibility was observed for short periods of time. Average horizontal visibility is comparable to historical averages and is equal to the average reported in the prior 2018 survey (Figure 5).

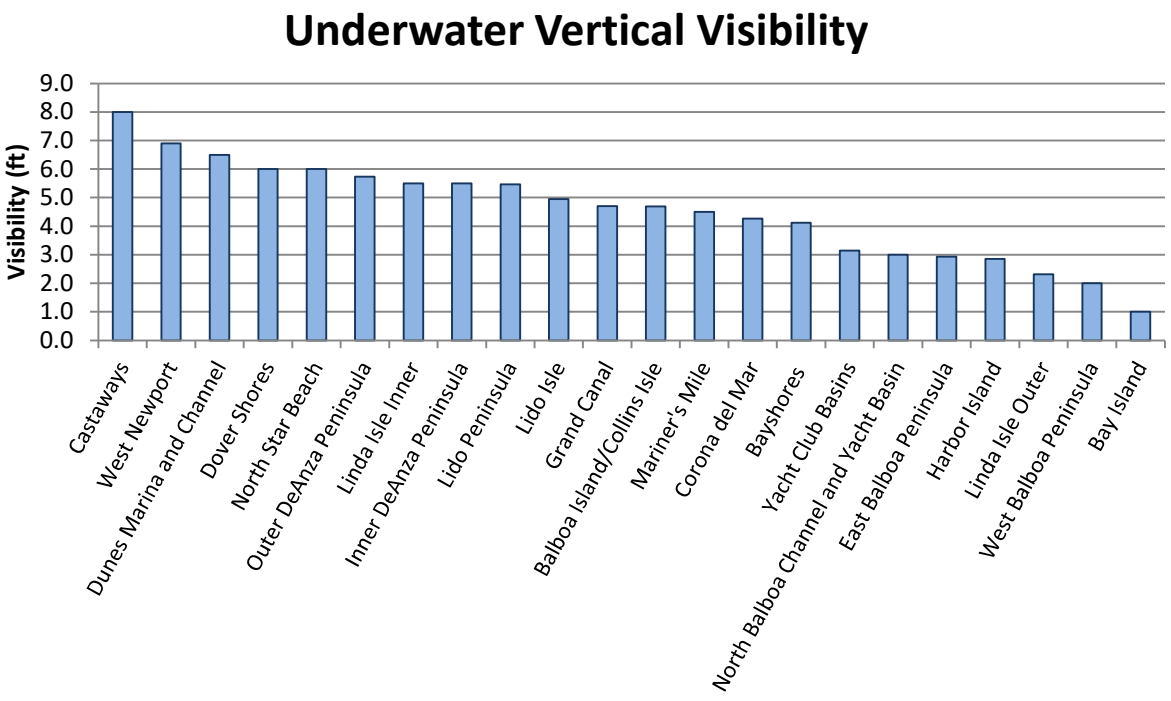



**Figure 3. Underwater vertical visibility in feet at survey areas throughout Newport Bay in 2020. Note that vertical visibility is a function of conditions at the time of the survey and does not necessarily indicate a consistent poor water quality condition at any given location.**

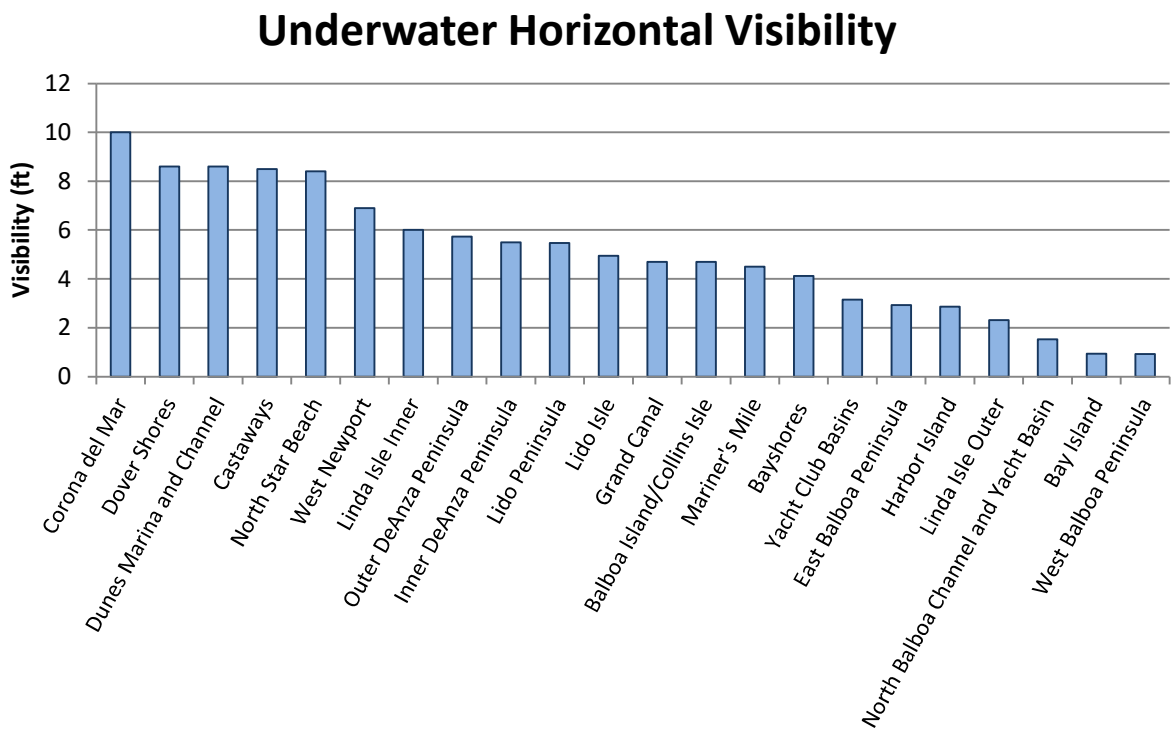



**Figure 4. Underwater horizontal visibility in feet at survey areas throughout Newport Bay in 2020. Note that horizontal visibility is a function of conditions at the time of the survey and does not necessarily indicate a consistent poor water quality condition at any given location.**

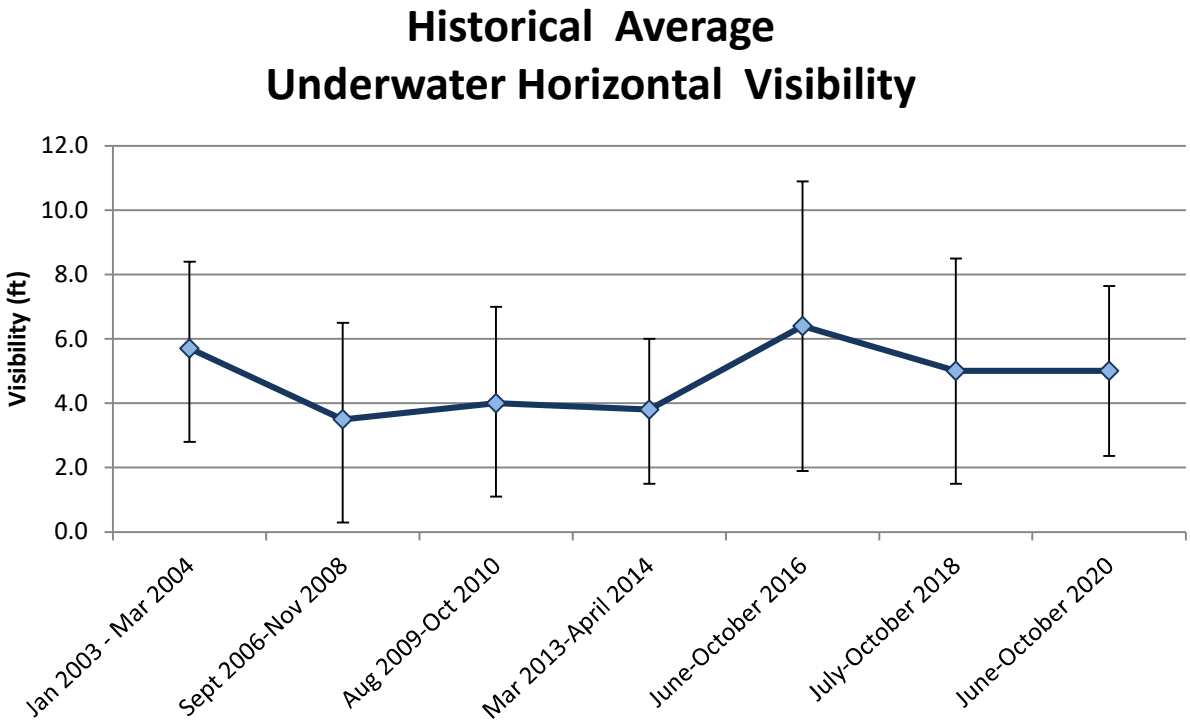



**Figure 5. Historical averages of underwater horizontal visibility from 2003 through 2020. Error bars are one standard deviation.**

### Water Temperature

Location within the Bay and time of year affect the surface temperature readings collected. Surface water temperature ranged from a low of 64 degrees Fahrenheit (°F) in Region 16, Mariners Mile, during mid-August, to a high of 75 °F in Region 8, North Balboa Channel and Yacht Basin, near the end of August (Figure 6). Overall, average surface water temperature was greatest in Region 16, Mariners Mile, and lowest in Region 8, North Balboa Channel and Yacht Basin. Surface water temperature was not consistent throughout the survey (Figure 7). Spikes in water temperature were recorded near the end of August and mid-September. Surface water temperature became more consistent near the end of September.

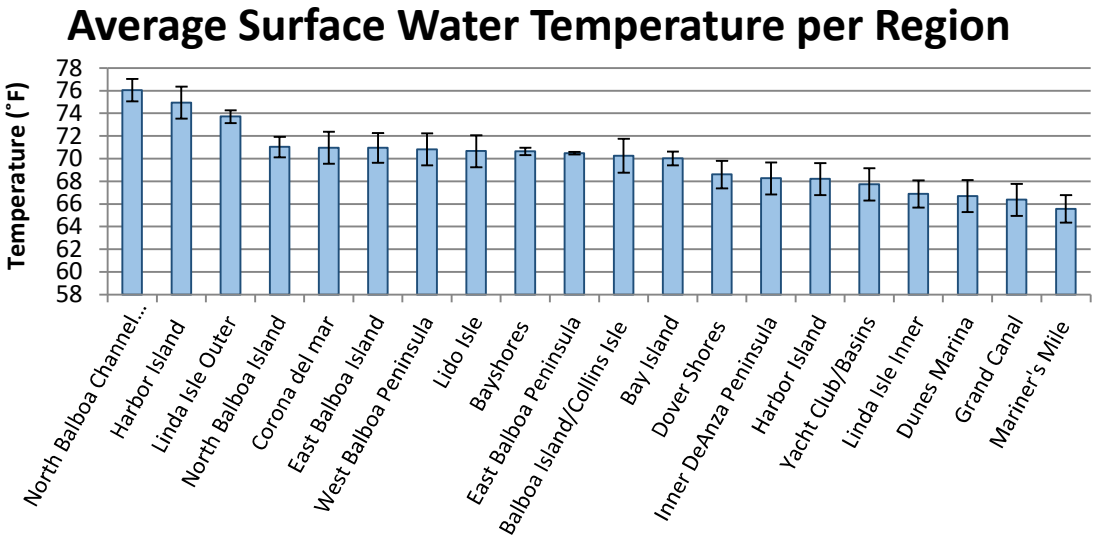



**Figure 6. Average surface water temperature by region during the 2020 eelgrass mapping survey. Error bars are one standard deviation.**

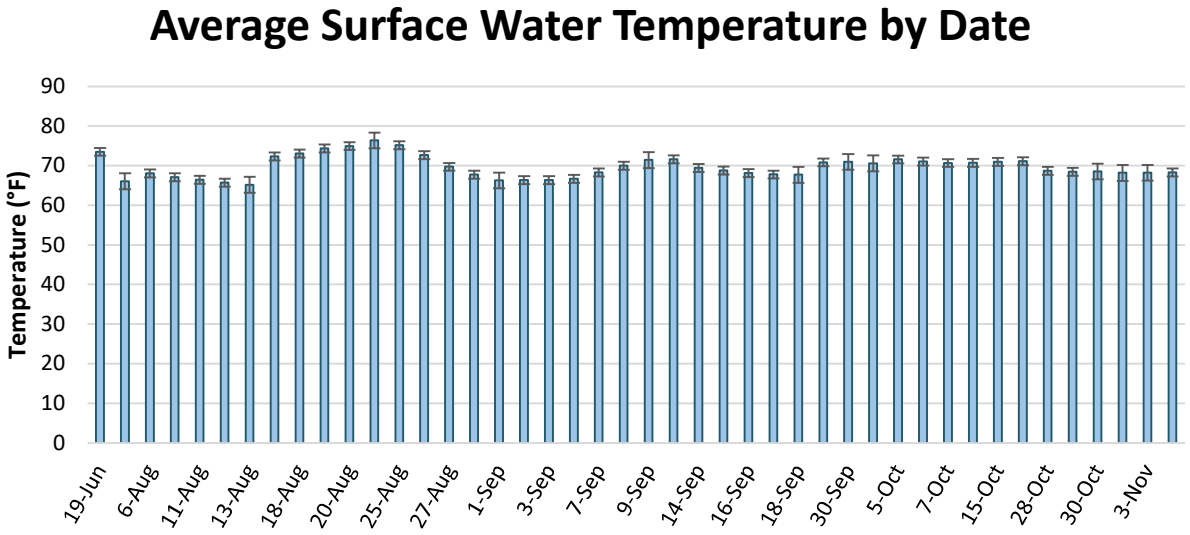



**Figure 7. Average surface water temperature by date during the 2020 eelgrass mapping survey. Error bars are one standard deviation.**

## Eelgrass Distribution and Abundance

A total of 112.38 ac of eelgrass was mapped in Newport Bay during the 2020 survey. This included 74.44 acres of SWEH and 37.94 acres of DWEH. Total acreage and percent of total reported eelgrass acreage by Region are provided in Table 1. A summary of eelgrass polygons and patches mapped within SWEH are provided in Figure 8 and Figure 9, respectively. Region 24, Back Bay Science Center and Launch Ramp was added this survey period.

SWEH was mapped at depths between +0.5 and -15-feet MLLW. The -15-feet MLLW limit was a survey limit for the SWEH and not an eelgrass depth limit. DWEH was mapped at depths between -15 and -28-feet MLLW that include the Newport Harbor Entrance Channel and the Balboa Reach located in the Federal navigation Channel. To compile this information, the survey team used a combination of Diver/GPS tracking methods and down looking sonar survey methods.

*Zostera marina* was the most widespread species of eelgrass within the Bay. MTS corroborates CRM 2016 findings that a second species of eelgrass was also present. *Zostera pacifica* was present and was observed in the entrance channel and along Corona del Mar. There was no indication that *Z. pacifica* was localized to certain depth ranges within the regions it was observed.

**Table 1. Table summarizing eelgrass acreage and percent of total reported eelgrass within the 24 survey regions.**

| ID | Region | Acres | % of Total |
|---|---|---|---|
| 1 | Corona del Mar (Bayside) | 13.85 | 12.33% |
| 2 | Yacht Club/Basins | 2.78 | 2.48% |
| 3 | East Balboa Peninsula | 3.39 | 3.01% |
| 4 | Grand Canal | 1.29 | 1.15% |
| 5 | Balboa Island/Collins Isle | 10.11 | 9.00% |
| 6 | Bay Island | 1.67 | 1.48% |
| 7 | West Balboa Peninsula | 0.57 | 0.51% |
| 8 | North Balboa Channel and Yacht Basin | 0.90 | 0.80% |
| 9 | Harbor Island | 2.83 | 2.52% |
| 10 | Linda Isle Outer | 4.07 | 3.62% |
| 11 | Linda Isle Inner | 4.84 | 4.30% |
| 12 | Inner DeAnza Peninsula | 9.09 | 8.09% |
| 13 | Outer DeAnza Peninsula | 7.27 | 6.47% |
| 14 | Castaways | 5.24 | 4.66% |
| 15 | Bayshores | 1.01 | 0.90% |
| 16 | Mariner's Mile | 1.24 | 1.10% |
| 17 | Lido Isle | 0.92 | 0.82% |
| 18 | Lido Peninsula | 0.07 | 0.06% |
| 19 | West Newport | 0.00 | 0.00% |
| 20 | Dover Shores | 1.38 | 1.23% |
| 21 | Dunes Marina and Channel | 1.69 | 1.51% |
| 22 | Northstar Beach | 0.01 | 0.01% |
| 23 | Deep Water Eelgrass | 37.94 | 33.76% |
| 24 | Back Bay Science Center and Launch Ramp | 0.22 | 0.20% |


**Figure 8. Map of eelgrass coverage observed during the 2020 survey.**


**Figure 9. Map of eelgrass patch coverage collected during the 2020 survey.**

## Deep Water Eelgrass Distribution

### Region 23. Deep Water Eelgrass Habitat (37.94 ac)

The results of the detailed sidescan and downlooking sonar surveys identified 37.94 ac of DWEH within the Newport Bay Entrance Channel and Balboa Reach (Figure 10). DWEH was mapped between -7-ft and -24.5-ft MLLW in the Entrance channel and occurred slightly shallower extending away from the harbor entrance. DWEH accounted for 4.72% of the Newport Bay soft bottom habitat during the 2020 survey.

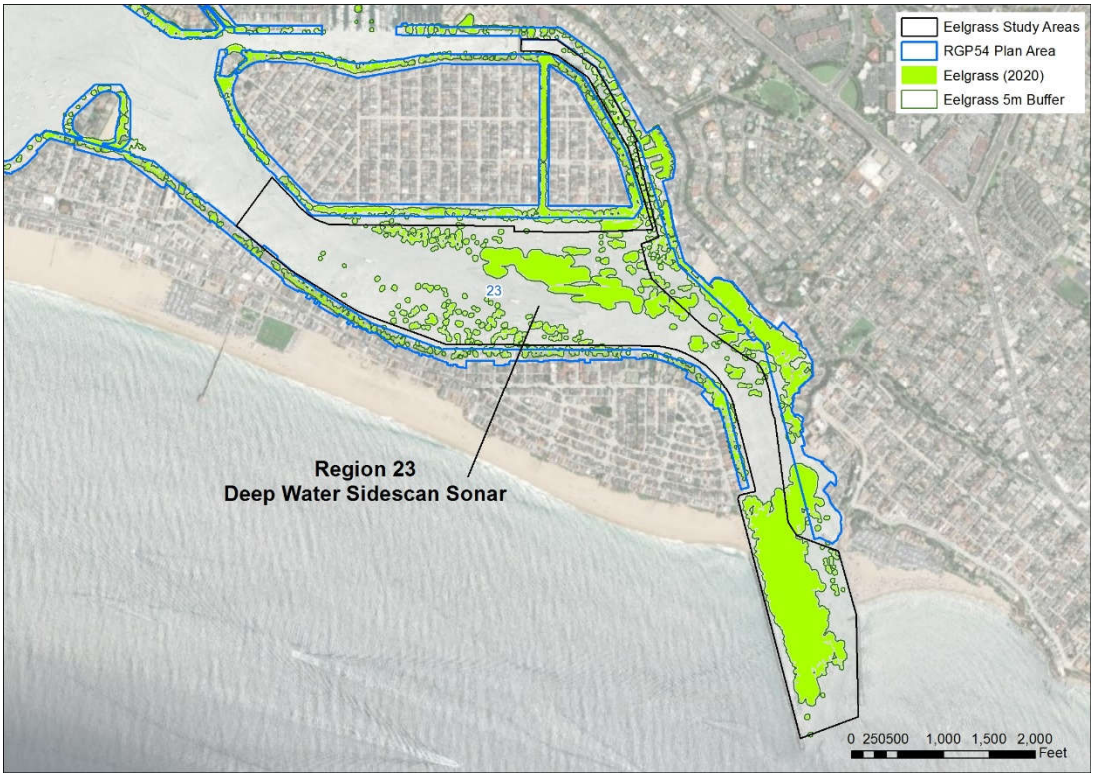



**Figure 10. Eelgrass Habitat Map. Region 23 (Deep Water Eelgrass Habitat)**

## Shallow Water Eelgrass Distribution by Region

The greatest eelgrass coverage was observed in Region 1, Corona del Mar (Bayside). Here eelgrass covered 13.85 ac and accounted for 18.61% of the total mapped SWEH. Any eelgrass mapped within SWEH that fell outside the Region boundary is included within the total acreage for the nearest associated region.

Three regions accounted for 44.41% of total eelgrass mapped:

- Corona del Mar (Bayside) (13.85 ac)
- Balboa Island/Collins Isle (10.11 ac)
- DeAnza Peninsula - Inner (9.09 ac)

**Table 2. Table summarizing eelgrass acreage and percent of total SWEH reported the 23-shallow water survey regions. Region #23 excluded from table because that was the DWEH region.**

| ID | Region | Acres | % of Total SWEH |
|---|---|---|---|
| 1 | Corona del Mar (Bayside) | 13.85 | 18.61% |
| 2 | Yacht Club/Basins | 2.78 | 3.74% |
| 3 | East Balboa Peninsula | 3.39 | 4.55% |
| 4 | Grand Canal | 1.29 | 1.73% |
| 5 | Balboa Island/Collins Isle | 10.11 | 13.59% |
| 6 | Bay Island | 1.67 | 2.24% |
| 7 | West Balboa Peninsula | 0.57 | 0.77% |
| 8 | North Balboa Channel and Yacht Basin | 0.90 | 1.21% |
| 9 | Harbor Island | 2.83 | 3.80% |
| 10 | Linda Isle Outer | 4.07 | 5.46% |
| 11 | Linda Isle Inner | 4.84 | 6.50% |
| 12 | Inner DeAnza Peninsula | 9.09 | 12.21% |
| 13 | Outer DeAnza Peninsula | 7.27 | 9.77% |
| 14 | Castaways | 5.24 | 7.04% |
| 15 | Bayshores | 1.01 | 1.35% |
| 16 | Mariner's Mile | 1.24 | 1.67% |
| 17 | Lido Isle | 0.92 | 1.23% |
| 18 | Lido Peninsula | 0.07 | 0.09% |
| 19 | West Newport | 0.00 | 0.00% |
| 20 | Dover Shores | 1.38 | 1.85% |
| 21 | Dunes Marina and Channel | 1.69 | 2.27% |
| 22 | Northstar Beach | 0.01 | 0.02% |
| 24 | Back Bay Science Center and Launch Ramp | 0.22 | 0.29% |

### Region 1. Corona del Mar (13.85 ac)

The most expansive eelgrass beds were mapped in Region 1 (Figure 11).

The 2020 mapping results indicate a continued decline in eelgrass since the 2013-2014 CRM survey (CRM 2015). A total of 8.5 ac decrease over the past six years. The amount of eelgrass within Region 1 declined from 21.65 ac in 2016 to 14.47 ac in 2018 (7.4 ac loss) and showed continued decline to 13.85 ac in 2020 (8.5 ac loss relative to 2016). The depth range of eelgrass generally extended between the low intertidal and the -15-ft MLLW survey limit.

Most of the eelgrass decline occurred along the northern portion of the Bay-front side of Region 1. Many of the polygons beyond the RGP 54 Plan Area have become patchier and less of a continuous bed as noted in CRM 2017. Eelgrass meadows covered a large continuous area within the dockside areas of this Region. Due to the height of the dock piers in this area, sunlight can penetrate areas underneath these dock features which promotes eelgrass growth and bed connectivity.

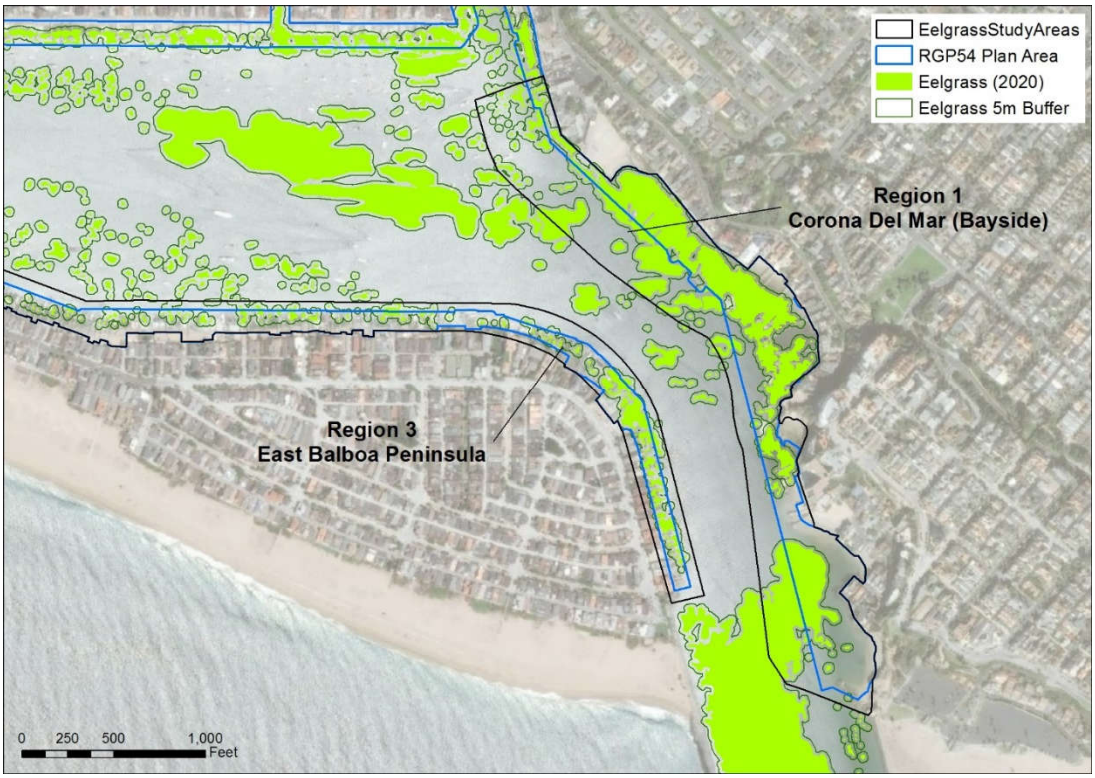



**Figure 11. 2020 Eelgrass Habitat Map. Region 1 (Corona del Mar/Bayside) and Region 3 (Balboa Peninsula-East of Bay Island, Partial). See Figure 13 for remainder of Region 3.**

### Region 2. Yacht Club Basins and Marinas (2.78 ac)

Region 2 supported eelgrass throughout much of the area, extending from the Balboa Yacht Club to the Balboa Island Bridge (Figure 12). Eelgrass in this area occurred at depths extending from -0.51-ft to -12.7-ft MLLW. Region 2 was ranked 10th for eelgrass acreage, containing 2.78 ac. Eelgrass in this area covers 3.74% of total eelgrass reported. Much of Region 2 eelgrass was contained within the Bahia Corinthian Yacht Club boat basin, the Balboa Yacht Club basin, and the Bayside Marina. Eelgrass in this area has continued to increase since the 2009-2010 survey (CRM 2011) and is 0.11 ac greater than reported during the previous 2018 survey (MTS 2018).

### Region 3. Balboa Peninsula - East (3.39 ac)

Region 3 includes SWEH between the bulkhead and the bayward ends of docks from the Entrance Channel to Bay Island (not including Bay Island) (Figure 12 and Figure 13). Region 3 was ranked 8th for eelgrass acreage, containing 3.39 ac. Eelgrass in this region occurred at depths between 0.05-ft and -15.2-ft MLLW. Eelgrass here constitutes 4.55% of total reported SWEH. Eelgrass coverage in Region 3 has increased by 0.31 ac since the 2018 survey (MTS 2018).

### Region 4. Grand Canal (1.29 ac)

The Grand Canal, Region 4, separating "Little Balboa" and "Balboa Island" was almost completely covered by eelgrass (Figure 12). Eelgrass beds extended between depths of 1.34-ft to -7.8-ft MLLW. Region 4 was ranked 14th for SWEH coverage and accounted for 1.73% of total SWEH reported. Eelgrass here has been consistent with little fluctuation among the survey years. The 1.29 ac of eelgrass mapped here represents an increase of 0.16 ac since the 2018 survey (MTS 2018). Eelgrass appears to have expanded throughout the channel, particularly the southernmost channel section.

### Region 5. Balboa Island and Collins Isle (10.11 ac)

Region 5 extends around the perimeter of Balboa Island and Collins Isle (Figure 12). Eelgrass in this area ranked 2nd, covering 10.11 ac, and accounted for 13.59% of total SWEH reported. Eelgrass beds extend between depths of 1.88-ft to -15.3-ft MLLW. Eelgrass has continued to increase since the 2009-2010 survey (CRM 2011, CRM 2015, CRM 2017, MTS 2018). Since the 2018 survey, eelgrass has increased by 1.82 ac. Overall, eelgrass coverage underwent bed expansion and growth of eelgrass patches into eelgrass beds.

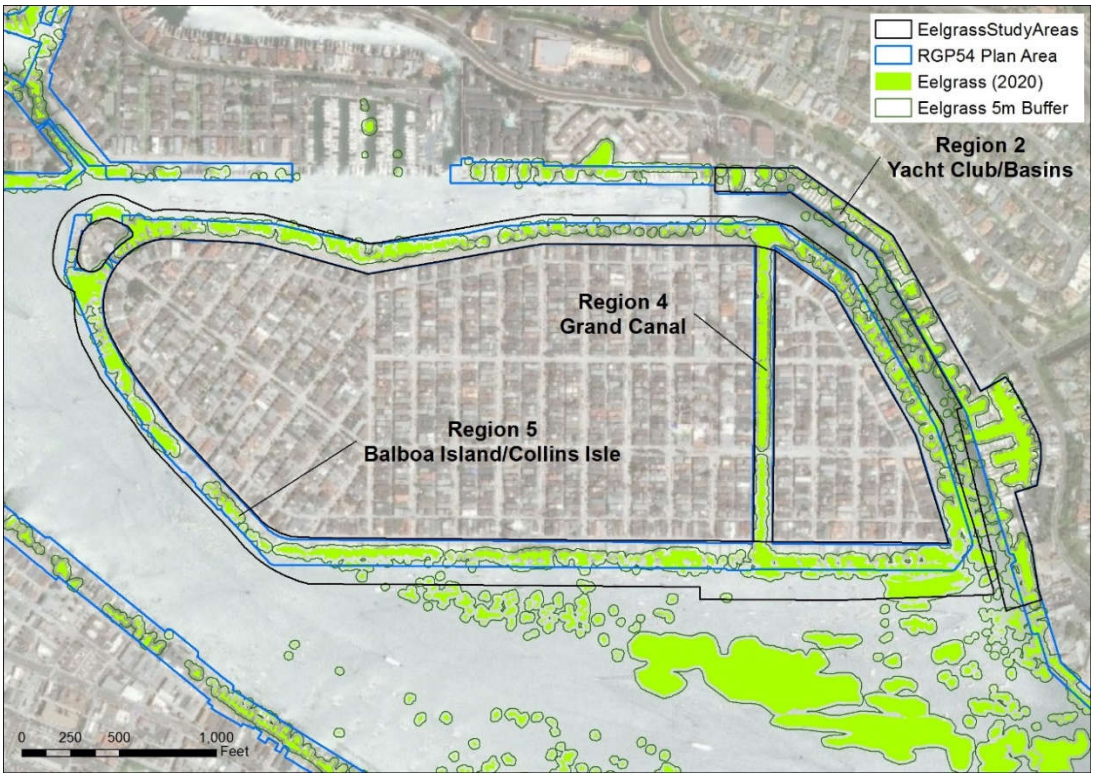



**Figure 12. 2020 Eelgrass Habitat Map. Regions 2 (East Balboa Channel Yacht Clubs/Basins), 4 (Grand Canal), and 5 (Balboa and Collins Islands).**

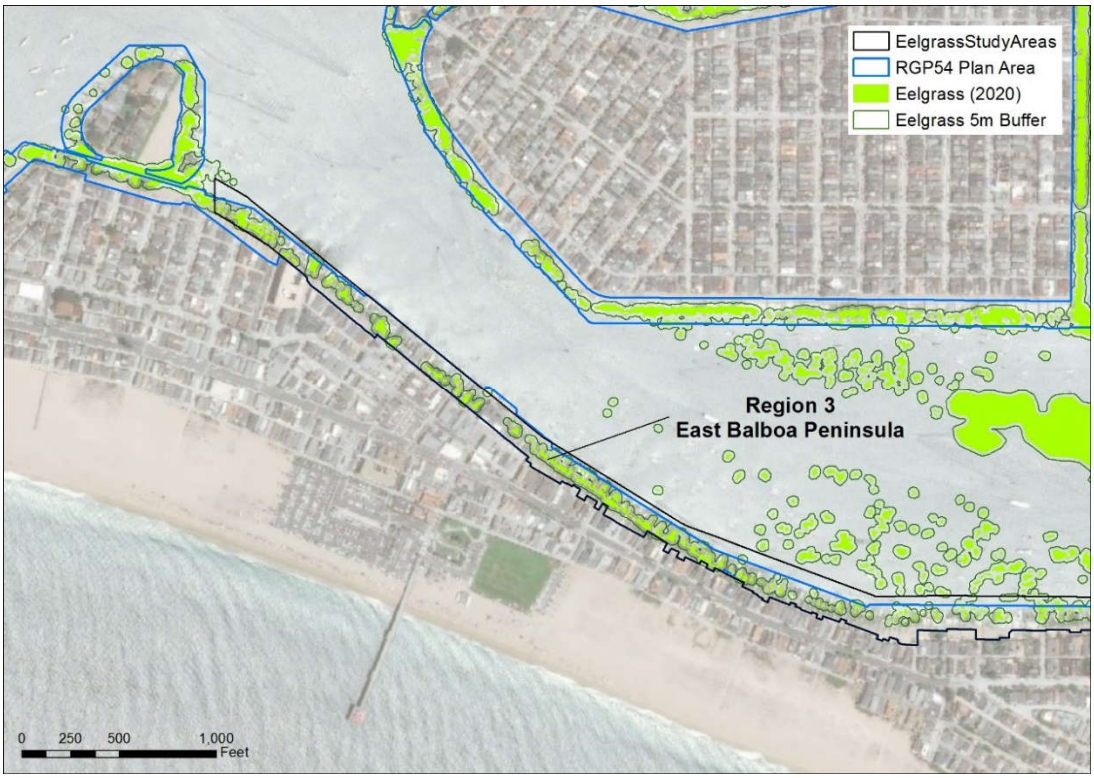



**Figure 13. 2020 Eelgrass Habitat Map. Region 3 (Balboa Peninsula-East of Bay Island, Partial).**

### Region 6. Bay Island (1.67 ac)

Bay Island, Region 6, accounts for a small amount of eelgrass habitat, 1.67 ac (Figure 14). This region is ranked 12th and accounts for 2.24% of total eelgrass reported. Eelgrass beds in this area extend from 0.86-ft to -14.9-ft MLLW. Eelgrass around Bay Island has continued to increase since the 2013-2014 survey (CRM 2015). Since the 2018 survey, eelgrass has increased by 0.86 ac (MTS 2018). The new acreage emerged around the western extent of the island.

### Region 7. Balboa Peninsula – West (0.57 ac)

Region 7 eelgrass extended from the Bay Island Bridge to 11th street, covering 0.57 ac (Figure 14). Region 7 was ranked 19th for eelgrass coverage and accounts for 0.77% of total eelgrass reported. Eelgrass extends from 0.77-ft to -10.9-ft MLLW in the region. Eelgrass here has continued to increase since the 2013-2014 survey (CRM 2015). Since the 2018 survey, eelgrass coverage has increased by 0.22 ac (MTS 2018).

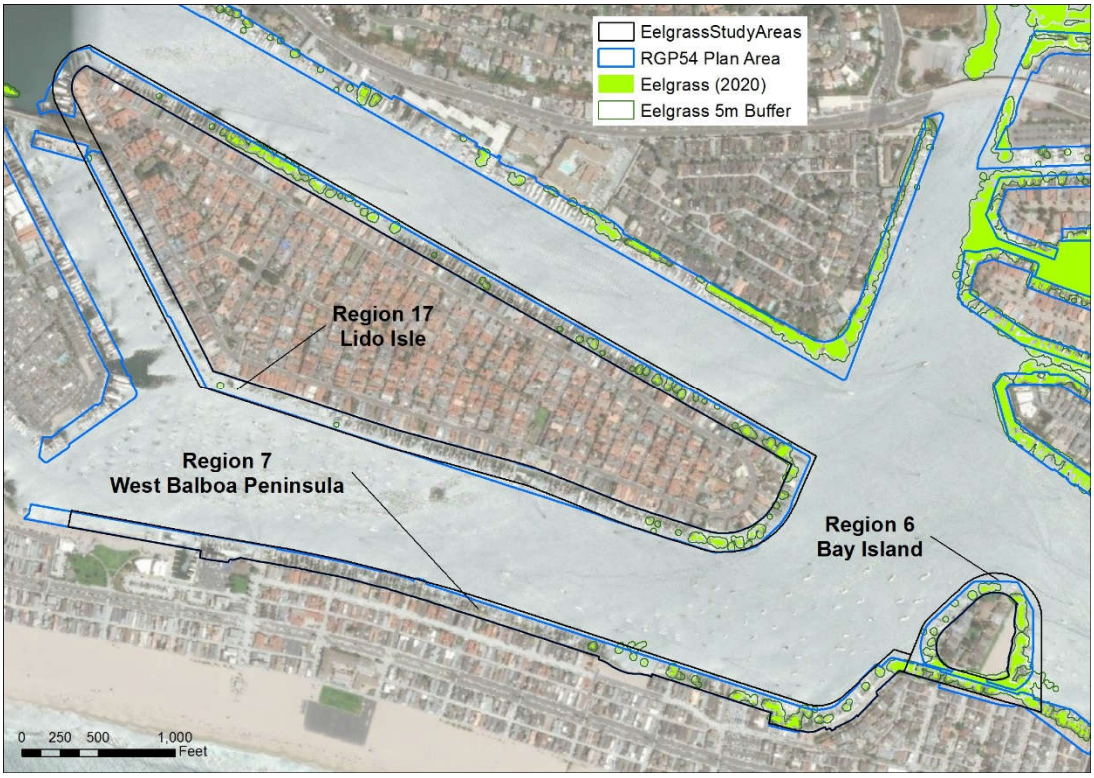



**Figure 14. 2020 Eelgrass Habitat Map. West Balboa Peninsula. Region 6 (Bay Island) and Region 7 (Balboa Peninsula-West, Partial).**

### Region 8. North Balboa Channel and Yacht Basin (0.90 ac)

Region 8 includes eelgrass from the north side of the North Balboa Channel between the Balboa Island Bridge and Beacon Bay, covering 0.90 ac (Figure 15). Eelgrass occurred between 0.50-ft and -12.5-ft MLLW between the bulkhead and dock head walk, and fairways of the marina. Eelgrass here contributed to 1.21% of total reported SWEH. Since the previous 2018 survey, eelgrass coverage has expanded by 0.35 ac (MTS 2018). Much of the eelgrass growth appears to have occurred in the fairways of Balboa Yacht Basin, the shallows of Bayside Cove behind the marina, and within the marina fairways.

### Region 9. Harbor Island (2.83 ac)

Eelgrass around Harbor Island, Region 9, accounted for 2.83 ac of mapped SWEH (Figure 15). Eelgrass extended from 0.88-ft to -12.3-ft MLLW and contributed to 3.80% of total SWEH reported. Total eelgrass coverage here has continued to increase since the second survey in 2006-2007 (CRM 2008). Since the 2018 survey, eelgrass has increased by 1.05 ac (MTS 2018). Significant increases in bed coverage appear to have occurred along the northern and western sections of Harbor Island.

### Region 10. Linda Isle - Outer (4.07 ac)

Eelgrass in Region 10, Linda Isle - Outer, covered 4.07 ac (Figure 15). Region 10 was ranked 7th and account for 5.46% of total SWEH reported. Eelgrass in this region occurs at depths from 1.20-ft to -12.5-ft MLLW. Eelgrass coverage has fluctuated since the first survey in 2003-2004 (CRM 2005), however, coverage has continuously increased since the 2013-2014 survey (CRM 2015). Since the 2018 survey, eelgrass coverage in Region 10 has increased by 1.84 ac (MTS 2018).

### Region 11. Linda Isle - Inner (4.84 ac)

Region 11, Linda Isle - Inner, eelgrass covers 4.84 ac and accounts for 6.50% of total SWEH reported (Figure 15). Eelgrass occurs from -2.0-ft to -10.2-ft MLLW. Episodic dredge events at Linda Isle, likely contributed to historical fluctuations of eelgrass cover. However, since the 2018 survey, eelgrass has increased by 1.74 ac (MTS 2018).

### Region 12. DeAnza Peninsula - Inner (9.09 ac)

Region 12, DeAnza Peninsula - Inner, eelgrass covers 9.09 ac (Figure 16). Eelgrass beds occurred from 1.02-ft to -12.9-ft MLLW and account for 12.21% of total reported SWEH. Since the most recent survey in 2018, eelgrass has increased by 2.77 ac (MTS 2018). Reported increases to SWEH are likely a factor of fringing eelgrass patch expansion.

### Region 13. DeAnza Peninsula - Outer (7.27 ac)

Ranked 4th, Region 13, DeAnza Peninsula - Outer, has 7.27 ac of eelgrass coverage (Figure 16). Eelgrass here accounts for 9.77% of total SWEH reported. Depth data is not available as Region 13 eelgrass bed outlines were not collected by diver. This was a sonar only area. Eelgrass currently covers approximately six times the area since it was first mapped in 2003-2004 (CRM 2005). Since the 2018 survey, eelgrass coverage decreased by 0.48 ac (MTS 2018). Reported changes to SWEH may be attributed to minor changes in eelgrass coverage along the periphery of the mapped bed. The depth range of eelgrass mapped in this region ranged between 0.1-ft and -12-ft MLLW.

### Region 14. Castaways (5.24 ac)

Region 14, Castaways, contributes 5.24 ac of eelgrass coverage, accounting for 7.04% of total eelgrass reported. Eelgrass here occurs at depths extending from 0.24-ft to -11.5-ft MLLW. The majority of previous year's survey efforts performed here resulted in less than 1.00 ac. Since the 2018 survey, where 0.84 ac were mapped, eelgrass has more than quadrupled (MTS 2018). Eelgrass beds mapped in 2018 are now connected, extending alongshore, resulting in a significant increase of mapped eelgrass cover.

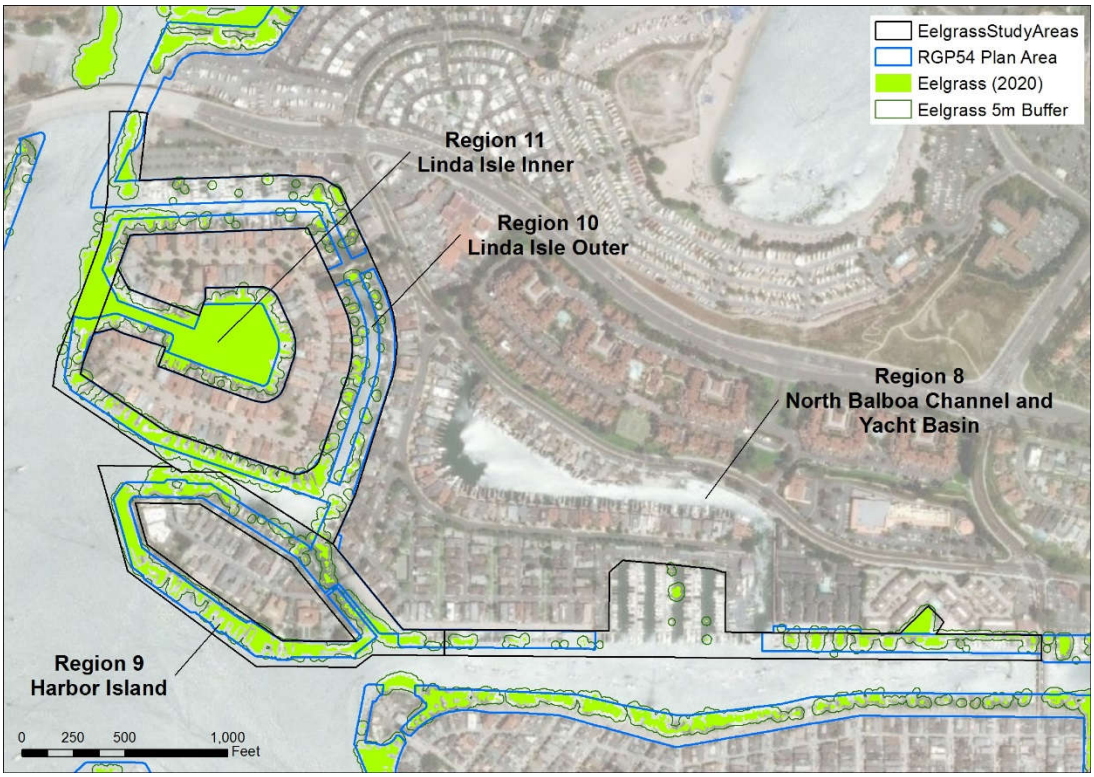



**Figure 15. 2018 Eelgrass Habitat Map. Regions 8 (North Balboa Channel and Yacht Basins), 9 (Harbor Island), 10 (Linda Isle, Outer), and 11 (Linda Isle, Inner).**


**Figure 16. 2018 Eelgrass Habitat Map. Regions 12 (DeAnza/Bayside Peninsula, East-Inner), 13 (DeAnza/Bayside Peninsula, West-Outer), and 14 (Castaways to Dover Shores).**

### Region 15. Bayshores (1.01 ac)

Region 15 extends from the Coast Highway Bridge to the junction of the Lido reach (Figure 17). The eelgrass in Region 15 covered 1.01 ac and accounted for 1.35% of total eelgrass reported. Eelgrass occurs between 0.60-ft and -10.5-ft MLLW within the Bayshores area. Eelgrass in this area has generally fluctuated, but remained less than 1.00 ac, since the initial survey in 2003-2004 (CRM 2005). Since the 2018 survey, eelgrass has increased by 0.10 ac. Eelgrass within this area generally occurs as small patches between the head wall and dock structures, and in marina fairways.

### Region 16. Mariner's Mile (1.24 ac)

Along the southern portion of Bayshores and Mariner's Mile, Region 16, eelgrass covered 1.24 ac and accounted for 1.67% total eelgrass reported (Figure 17). Eelgrass here extended from 0.50-ft to -11.5-ft MLLW. In past survey efforts, eelgrass was less than 0.69 ac (CRM 2005, 2008, 2011, 2017). Since the recent 2018 survey eelgrass increased by 0.27 ac.

### Region 17. Lido Isle (0.92 ac)

Region 17, Lido Isle, eelgrass cover was most noticeable extending from the northwest to the southeast portion of the island (Figure 17). Eelgrass here covered 0.92 ac, accounted for 1.23% of total reported SWEH, and extended from a depth of 0.63-ft to -10.2-ft MLLW. Much of the southwestern and western portion of the island was unvegetated. Eelgrass mapped during this survey represents the greatest amount of eelgrass mapped in recent surveys around Lido Isle. Since the 2018 survey, eelgrass has increased by 0.51 ac.

### Region 18. Lido Peninsula (0.07 ac)

No eelgrass has been reported in Region 18, Lido Peninsula, during any survey performed prior to 2018. During the 2018 survey a 0.13 ac eelgrass bed was discovered for the first time between Lido Peninsula and Lido Isle. Eelgrass here occurs between -3.09-ft to -10.8ft. This same eelgrass bed was mapped at 0.07 ac during this survey. A decline of 0.06 ac of SWEH.

### Region 19. West Newport (0.0 ac)

Eelgrass surveys were last conducted in Region 19 in April 2014 (CRM 2017). No eelgrass was reported during that survey, nor has been reported here in this summary. Region 19 continues to be absent of eelgrass (Figure 18).

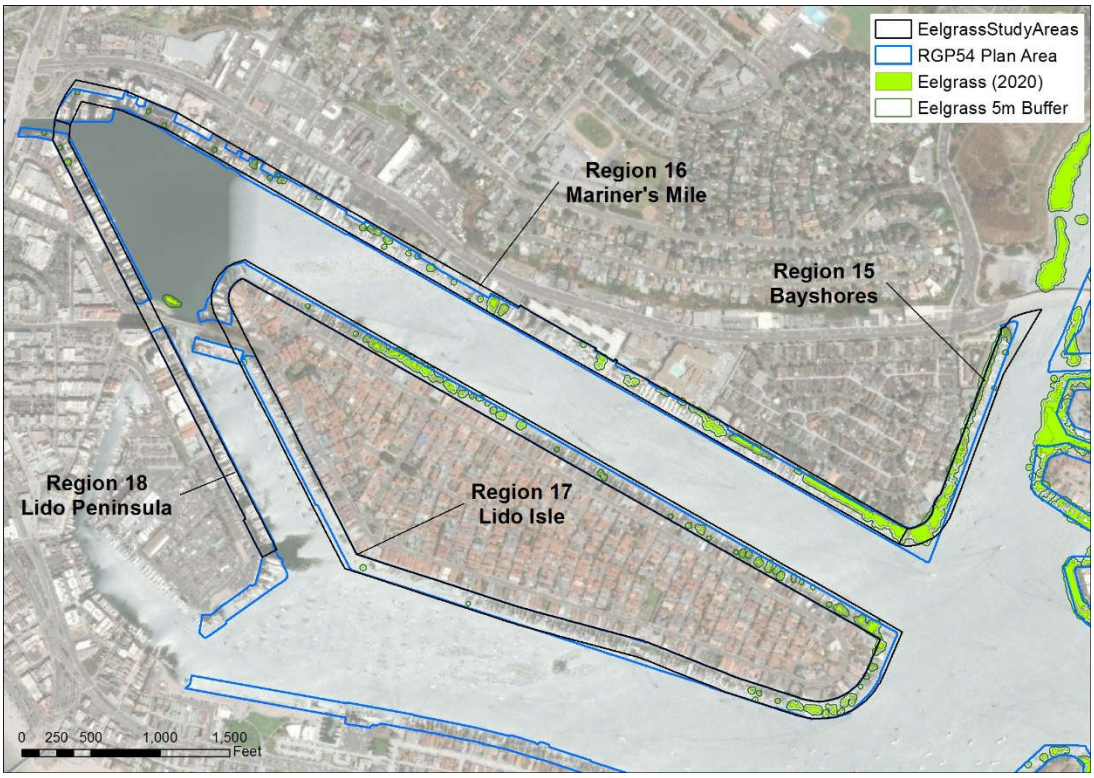



**Figure 17. 2020 Eelgrass Habitat Map. Regions 7 (Balboa Peninsula-West of Bay Island, Partial), 15 (Bayshores), 16 (Mariner's Mile), 17 (Lido Isle), and 18 (Lido Peninsula).**


**Figure 18. 2020 Eelgrass Habitat Map. Region 19 (West Newport).**

### Region 20. Dover Shores (1.38 ac)

Region 20, Dover shores, was first surveyed in 2013-2014 (Figure 19; CRM 2015). Since this survey, eelgrass cover has continued to increase. Much of the eelgrass contributing to this acreage occurs within the western portion of this region. Eelgrass covers 1.38 ac, accounting for 1.58% of total SWEH, and occurs at depths from 0.35-ft to -12.5-ft MLLW. Since the 2018 survey, eelgrass has increased by 1.06 ac.

### Region 21. Dunes Marina and Channel (1.69 ac)

Dunes Marina, Region 21, was first surveyed in 2013-2014 (Figure 19; CRM 2015). Since that survey, eelgrass has continued to increase. While instances of small eelgrass beds are present within the marina's fairways, much of the total acreage for Region 21 is attributed to eelgrass extending from Region 13 into Region 21. Eelgrass here covers 1.69 ac, accounts for 2.27% of total reported SWEH, and extends from 0.49-ft to -8.2-ft MLLW.

### Region 22. Northstar Beach (0.01 ac)

Northstar Beach, Region 22, was first surveyed in 2016 (Figure 19; CRM 2017). During the first survey 0.003 ac of eelgrass were reported. During the following 2018 survey, no eelgrass was observed. However, during this 2020 survey, 0.01 ac of SWEH was mapped in Region 22. Eelgrass in this region occurred at depths from -2.8-ft to -5.10-ft MLLW.

### Region 24. Back Bay Science Center and Launch Ramp (0.22 ac)

The Back Bay Science Center and Launch ramp was first surveyed in 2016 and was included under Region 21 eelgrass acreage (CRM 2017). During that survey one small eelgrass bed was mapped between the CDFW boat dock and Shellmaker Island. Due to the amount of eelgrass mapped around Region 21 and 24, it is appropriate to delineate these areas as separate regions. During this 2020 survey, 0.22 ac of SWEH was discovered in Region 24. Eelgrass in this region occurred at depths from -5.7-ft to -10.9 ft MLLW.

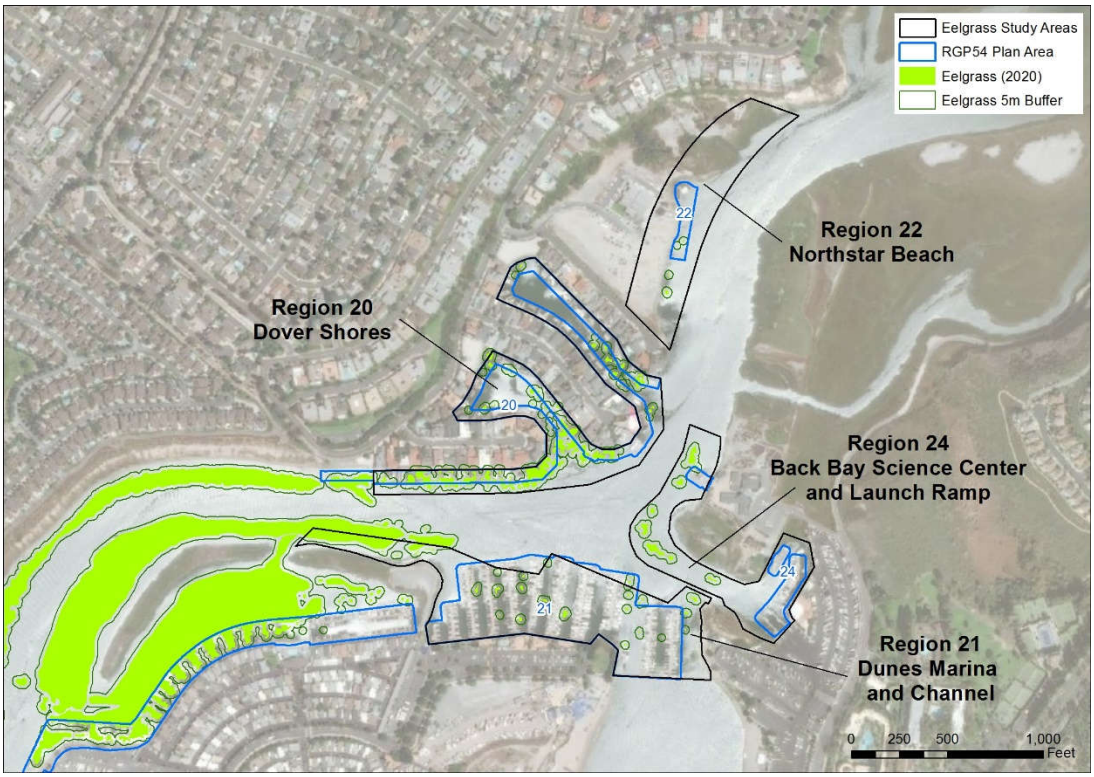



**Figure 19. 2020 Eelgrass Habitat Map. Regions 20 (Dover Shores), 21 (Dunes Marina and Channel), and 22 (Northstar Beach Area).**

## Historical Eelgrass Coverage

In general, eelgrass in the Bay has undergone periods of decrease and increase (Figure 20, Table 3). For all survey periods, Corona de Mar, Region 1, accounted for most of the eelgrass cover reported. From 2003 to 2010 the Bay's eelgrass was declining overall. However, coverage in Region 1 remained consistent with little fluctuation in eelgrass cover, indicating that other areas of the Bay were undergoing eelgrass die-off and contributing to the overall reduction in eelgrass coverage. Conversely, since the 2009-2010 survey, eelgrass across the entire Bay has increased considerably. This dramatic increase can be attributed to overall eelgrass expansion throughout the Bay, most notably in Regions 5, 7 through 12, 14, and 20, including areas around Balboa Island, Harbor Island, Linda Isle, Castaways, and Dover Shores.

The most recent survey, summarized here, indicates that eelgrass acreage, again, is largely controlled by Region 1, however the overall increase in Newport Bay shallow water eelgrass can be attributed to eelgrass bed expansion in other areas of the Bay. Eelgrass expansion is most notable Region 14, Castaways, where a 4.63 ac increase to eelgrass coverage was reported. Other notable increases were reported in Regions 5, 7 through 12, and 20, including areas around Balboa Island, Harbor Island, Linda Isle, and Dover Shores, where all areas reported at least an acre increase in eelgrass coverage since the 2018 survey (MTS 2018). In general, eelgrass has expanded to some degree within most regions surveyed. This indicates that conditions in the Bay are suitable for eelgrass growth and expansion. Future surveys will provide additional insight as to the progression and regression of eelgrass coverage within the Bay.

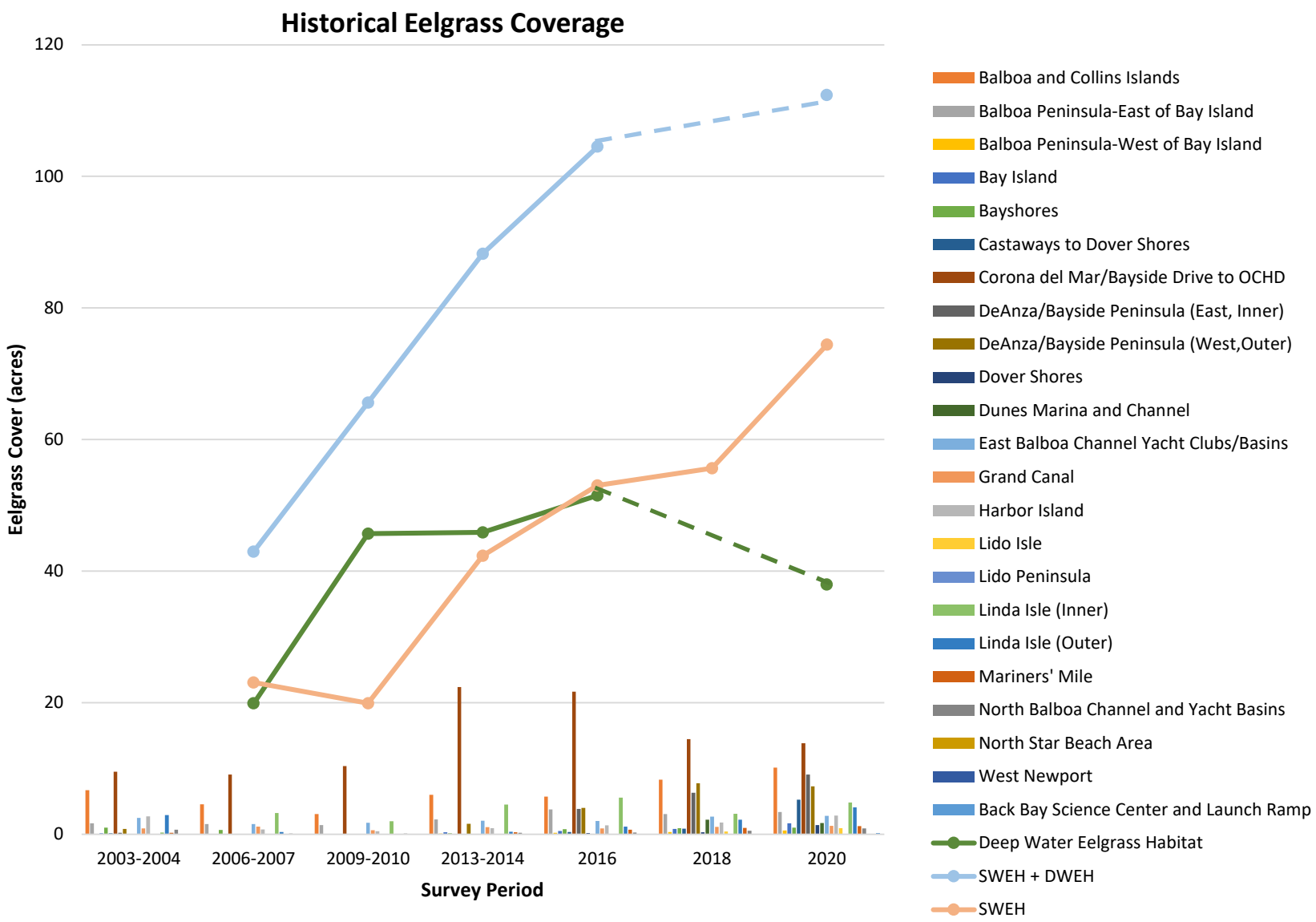



**Figure 20. Historical coverage of eelgrass by region and survey period within Newport Bay. Deep water eelgrass habitat (DWEH) was not surveyed for in 2018, thus dashed lines represent the overall change observed since the 2016 survey (CRM 2016).**

**Table 3. Table of historical eelgrass coverage by region per survey period in Newport Bay.**

| Region | Description | Historical Eelgrass Acreage | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | 2003-2004 | 2006-2007 | 2009-2010 | 2013-2014 | 2016 | 2018 | 2020 | Mean |
| 1 | Corona del Mar/Bayside Drive to OCHD | 9.52 | 9.08 | 10.36 | 22.37 | 21.65 | 14.47 | 13.85 | 14.47 |
| 2 | East Balboa Channel Yacht Clubs/Basins | 2.47 | 1.54 | 1.76 | 2.06 | 2.02 | 2.67 | 2.78 | 2.18 |
| 3 | Balboa Peninsula-East of Bay Island | 1.67 | 1.56 | 1.39 | 2.27 | 3.78 | 3.08 | 3.39 | 2.45 |
| 4 | Grand Canal | 0.90 | 1.14 | 0.62 | 1.06 | 0.89 | 1.13 | 1.29 | 1.00 |
| 5 | Balboa and Collins Islands | 6.69 | 4.55 | 3.05 | 5.98 | 5.74 | 8.30 | 10.11 | 6.35 |
| 6 | Bay Island | 0.13 | 0.05 | 0.04 | 0.30 | 0.50 | 0.80 | 1.67 | 0.50 |
| 7 | Balboa Peninsula-West of Bay Island | 0.03 | 0.03 | 0.01 | 0.10 | 0.21 | 0.35 | 0.57 | 0.19 |
| 8 | North Balboa Channel and Yacht Basins | 0.70 | 0.12 | 0.12 | 0.24 | 0.25 | 0.55 | 0.90 | 0.41 |
| 9 | Harbor Island | 2.72 | 0.71 | 0.45 | 0.91 | 1.35 | 1.78 | 2.83 | 1.54 |
| 10 | Linda Isle (Outer) | 2.92 | 0.33 | 0.07 | 0.39 | 1.16 | 2.23 | 4.07 | 1.59 |
| 11 | Linda Isle (Inner) | 0.28 | 3.22 | 1.97 | 4.50 | 5.55 | 3.09 | 4.84 | 3.35 |
| 12 | DeAnza/Bayside Peninsula (East, Inner) | 0.21 | 0.01 | 0.00 | 0.08 | 3.83 | 6.32 | 9.09 | 2.79 |
| 13 | DeAnza/Bayside Peninsula (West,Outer) | 0.79 | 0.00 | 0.00 | 1.60 | 4.01 | 7.75 | 7.27 | 3.06 |
| 14 | Castaways to Dover Shores | 0.13 | 0.00 | 0.00 | 0.01 | 0.34 | 0.84 | 5.24 | 0.94 |
| 15 | Bayshores | 0.99 | 0.66 | 0.00 | 0.16 | 0.76 | 0.91 | 1.01 | 0.64 |
| 16 | Mariners' Mile | 0.23 | 0.07 | 0.07 | 0.31 | 0.71 | 0.97 | 1.24 | 0.51 |
| 17 | Lido Isle | 0.03 | 0.00 | 0.00 | 0.02 | 0.07 | 0.41 | 0.92 | 0.21 |
| 18 | Lido Peninsula | No Data | 0.00 | 0.00 | 0.00 | 0.00 | 0.13 | 0.07 | 0.03 |
| 19 | West Newport | No Data | No Data | No Data | 0.00 | No Data | 0.00 | 0.00 | 0.00 |
| 20 | Dover Shores | No Data | No Data | No Data | 0.01 | 0.18 | 0.32 | 1.38 | 0.47 |
| 21 | Dunes Marina and Channel | No Data | No Data | No Data | 0.00 | 0.03 | 2.23 | 1.69 | 0.99 |
| 22 | North Star Beach Area | No Data | No Data | No Data | No Data | 0.00 | 0.00 | 0.01 | 0.01 |
| 24 | Back Bay Science Center and Launch Ramp | No Data | No Data | No Data | No Data | 0.00 | 0.00 | 0.22 | 0.07 |
| | **SWEH Subtotal** | 30.41 | 23.07 | 19.92 | 42.35 | 53.02 | 58.18 | 74.44 | |
| 23 | Deep Water Eelgrass Habitat | No Data | 19.90 | 45.70 | 45.90 | 51.50 | No Data | 37.94 | 40.19 |
| | **SWEH + DWEH Total** | **30.41** | **42.97** | **65.62** | **88.25** | **104.52** | **58.18** | **112.38** | |

## Eelgrass Distributional Zones in Newport Bay

Previous CRM surveys developed a second grouping for summarizing eelgrass coverage (CRM 2017). The zones were developed using an eelgrass distributional model predicated upon knowledge gathered during the 2003-2004 and 2006-2007 Bay-wide eelgrass surveys (CRM 2005 & CRM 2008). This included the modeled tidal residence time periods in the Bay (Everest International, 2009) and the 2008-2009 Newport Bay oceanographic survey results (CRM 2010). The model identified three distributional zones (Figure 21), which describe stable, transitional, and unvegetated sections of the Bay.

The Stable Eelgrass Zone, describes locations where eelgrass distribution appears relatively stable from year-to-year. This zone encompasses the lower Bay, including the entrance channel, southern and eastern portions of Balboa Island and Grand Canal, Corona del Mar, and the eastern portion of the Balboa Peninsula. This zone is characterized by a tidal flushing time of less than six days. The short flushing time is thought to contribute to higher water clarity and near-bottom underwater light levels that promote eelgrass growth. Linda Isle inner is also grouped into this zone because of the long-term presence and large amount of eelgrass present between 2006 and 2016.

The Transitional Eelgrass Zone, describes areas where eelgrass is susceptible to year-to-year variation in coverage and density. This zone encompasses much of the central part of the Lower Bay including Harbor Island, Linda Isle, northern and western portions of Balboa Island, and the northern side of Lido Channel. This zone is characterized by flushing times of 7 to 14 days. Influenced by the San Diego Creek discharges during the winter months, turbidity impacts this zone by lowering water clarity and lowering near-bottom light levels. This area will expand or contract depending on environmental conditions and other influences on eelgrass growth.

The Unvegetated Zone describes areas where eelgrass has historically not been found or is only incidentally found. This zone is located within the western portion of Lower Newport Bay and in Upper Newport Bay above the DeAnza Bayside Peninsula and north of Castaways Park and the Dunes Marina. These areas are characterized by tidal flushing greater than 14 days.

During this survey, a total of 74.44 ac of SWEH was mapped within the three eelgrass zones (Figure 22). In the Stable Eelgrass Zone 32.27 ac of eelgrass was mapped. The Transition Eelgrass Zone accounted for 42.02 ac of eelgrass. Lastly, the Unvegetated Zone had only 0.15 ac. If DWEH was included in the eelgrass assessment by zones, the Stable Zone would total 69.89 ac and the Transitional zone would total 42.34 ac. Stable Zone eelgrass cover is impacted more by the inclusion of DWEH.

Since the 2018 survey, eelgrass has remained about the same in the Stable and Unvegetated Eelgrass Zones, increasing by 2.30 ac and 0.02ac, respectively. Transitional Zone eelgrass continues to expand at a high rate and is what has contributed the most to overall increases to SWEH. This is the first time total SWEH cover within the Transition Zone has surpassed coverage in the Stable Eelgrass Zone. It should be noted that the Transition Zone is larger than the Stable Eelgrass Zone.

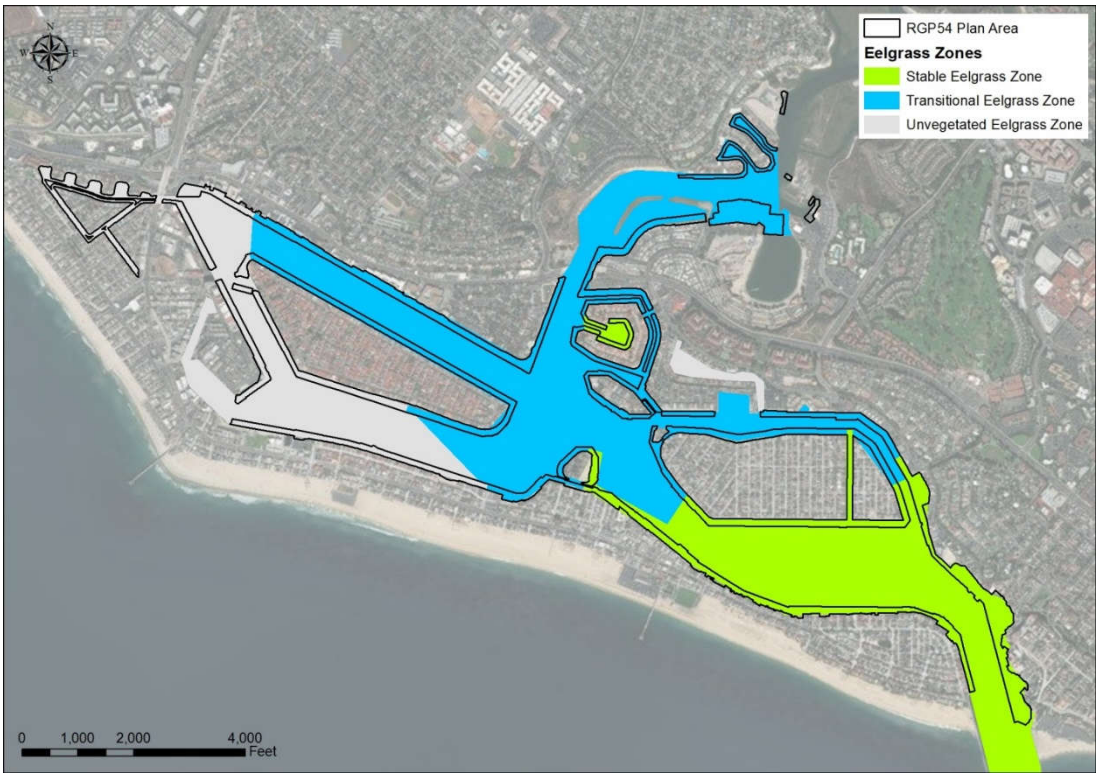



**Figure 21. Map of three distributional zones within Newport Bay.**

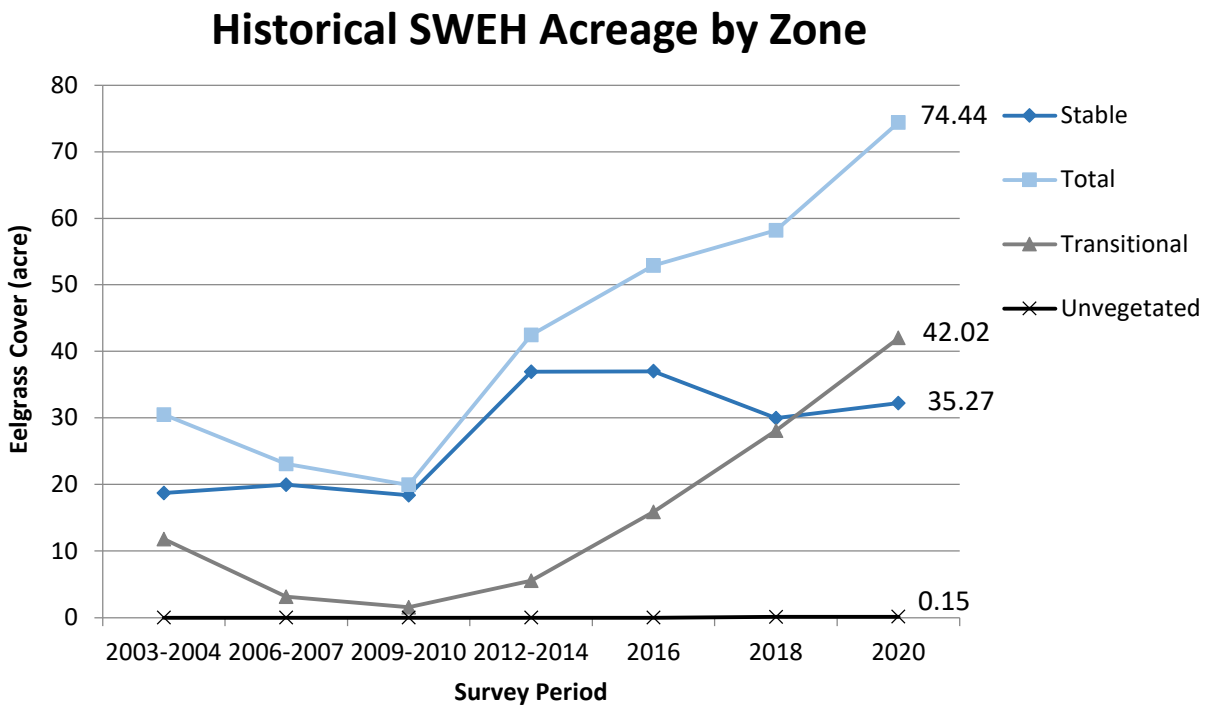



**Figure 22. Historical SWEH coverage by zone in Newport Bay.**

## Density

Density measurements were taken at 23 stations throughout the Bay and represent the 23 Regions (Figure 23). Region 9, Harbor Island, had the highest reported inshore and offshore density. Density measurements were not collected in West Newport (Region 19) because eelgrass was not mapped during the survey.

The average density for all 23 stations was 98.6 turions/sq m and ranged between 336 and 16 turions/sq m. Density averages by station and region consistently agree that eelgrass density throughout the Bay is higher in areas where eelgrass polygons are shallow/inshore when compared to deeper/offshore areas of eelgrass polygons.

Per station, average inshore density was 111.9 turions/sq m and average offshore density was 86.8 turions/sq m (Figure 24). Region 9 had the highest reported average inshore density at 262.4 turions/sq m, followed by stations 13 and 1 where eelgrass density was 259.2 turions/sq m and 182.4 turions/sq m, respectively. Offshore eelgrass density was greatest for Region 9, 172.8 turions/sq m followed by stations 1 and 13, 156.0 turions/sq m and 144.0 turions/ sq m, respectively.

**Table 4. Table of 23 stations where eelgrass density measurements occurred.**

| Region ID | Coordinates (dd.ddddd˚) | |
|---|---|---|
| | Latitude | Longitude |
| 1 | 33.600122 | -117.880116 |
| 2 | 33.607626 | -117.886208 |
| 3 | 33.599984 | -117.888688 |
| 4 | 33.60473931 | -117.8890168 |
| 5 | 33.60882133 | -117.8982086 |
| 6 | 33.606363 | -117.905925 |
| 7 | 33.606416 | -117.911454 |
| 8 | 33.60965838 | -117.8914983 |
| 9 | 33.60950288 | -117.9016533 |
| 10 | 33.61437471 | -117.904743 |
| 11 | 33.613605 | -117.902026 |
| 12 | 33.619157 | -117.900181 |
| 13 | 33.620098 | -117.90226 |
| 14 | 33.621305 | -117.898392 |
| 15 | 33.61540611 | -117.9064908 |
| 16 | 33.615301 | -117.915756 |
| 17 | 33.608487 | -117.910513 |
| 18 | 33.61675 | -117.925956 |
| 19 | N/A | N/A |
| 20 | 33.621422 | -117.89534 |
| 21 | 33.619943 | -117.895728 |
| 22 | 33.624261 | -117.893279 |
| 23 | 33.604065 | -117.885473 |
| 24 | 33.621532 | -117.892803 |

Over time, eelgrass density has fluctuated (Figure 25). The initial survey performed in 2004 reported the highest average density of 231.2 turions/sq m. Eelgrass density decreased between the 2004 and 2008 survey periods and continued to show signs of decay through 2014. The 2016 survey marked the first instance of eelgrass average density increase from 117.6 turions/sq m in 2013-2014 to 161.8 turions/sq m in 2016. Eelgrass density was stable through 2018 where values were 159.8 turions/sq m. Eelgrass density has continued to fluctuate. During this survey eelgrass density measurements indicated a decline. Average eelgrass density was lower than reported during any previous survey, however the average and range of values reported during this survey fell within similar ranges historically reported.

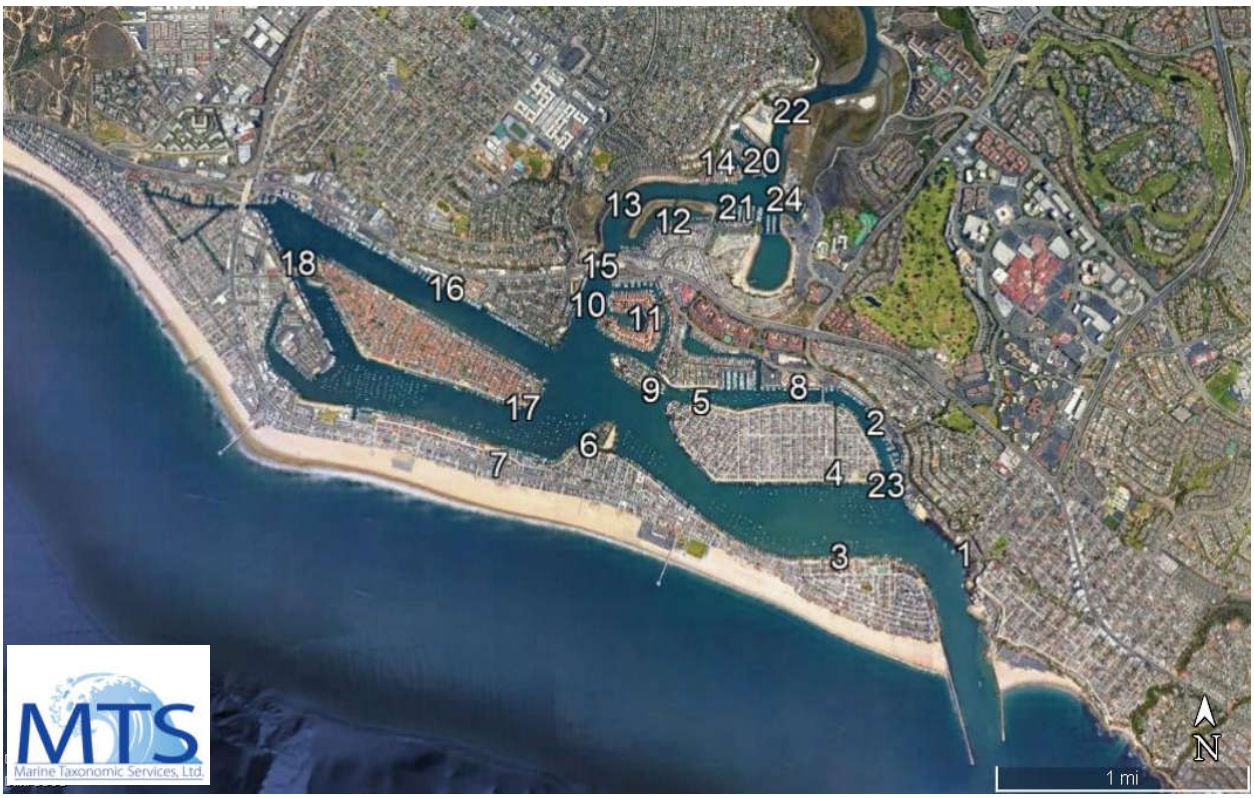



**Figure 23. Map of locations where density measurements were taken in Newport Bay during the 2020 survey.**

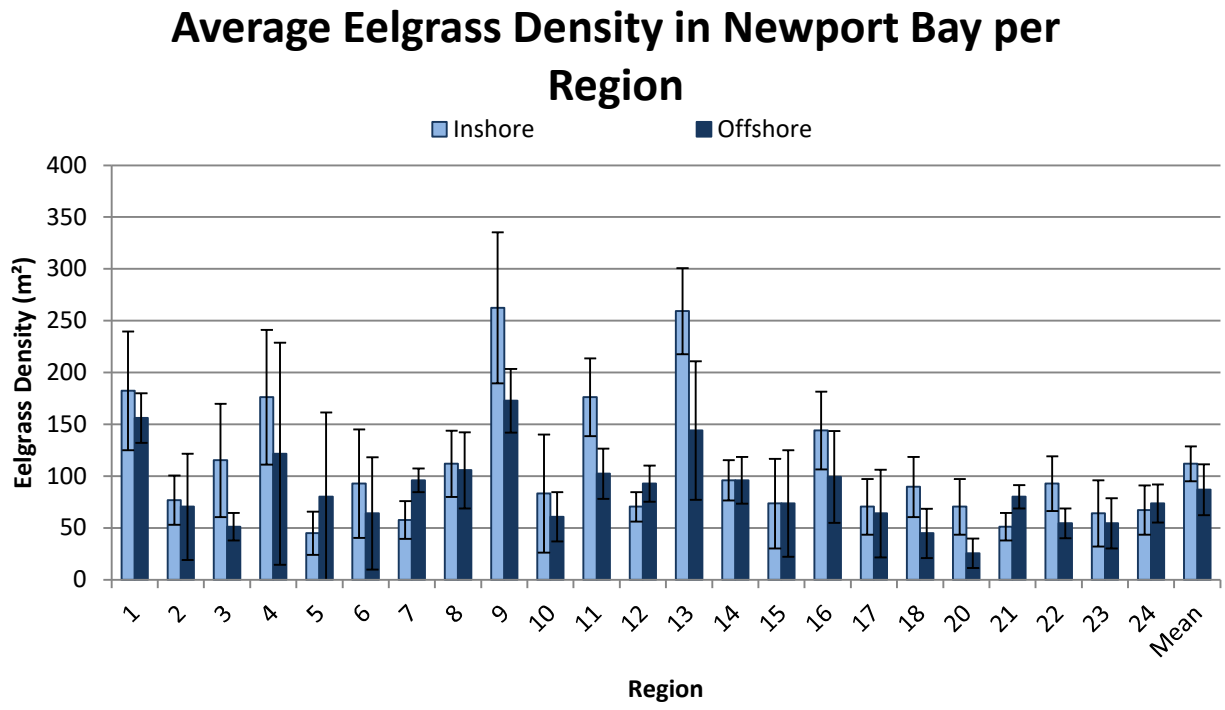



**Figure 24. Average eelgrass density per Region in Newport Bay. Error bars are one standard deviation.**

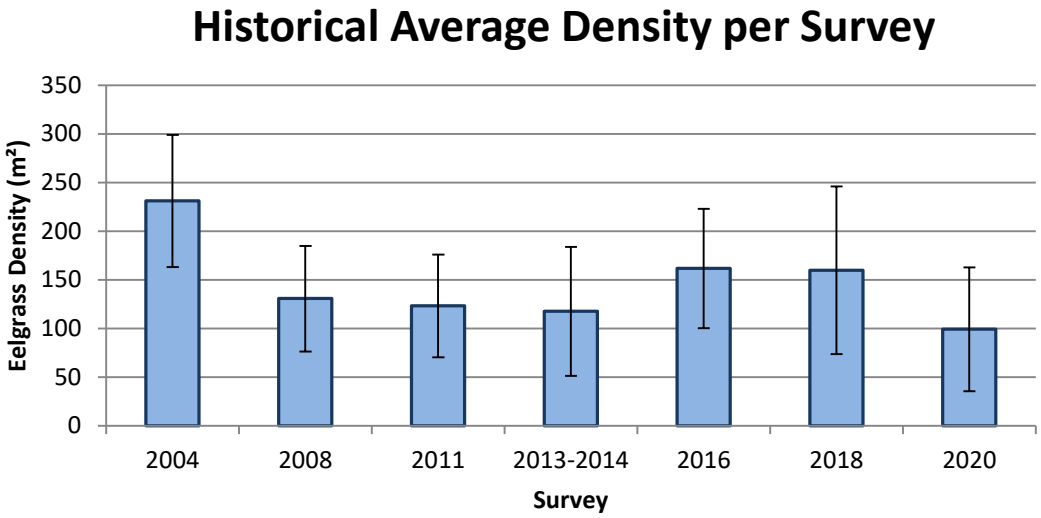



**Figure 25. Historical average eelgrass density per survey in Newport Bay. Error bars represent one standard deviation.**

# Other Marine Life

## Marine Life Observed

Numerous marine species were observed during the 2020 eelgrass habitat mapping survey (Table 5). Species presence varied with distance and direction from the mouth of the Bay. However, many species were present throughout most surveyed areas in the Bay. Most species observed were associated with either hard substrate including, dock structures, seawalls, and riprap, or soft bottom habitat including both vegetated and unvegetated habitats. Images of select species taken by an underwater camera during the survey are included in Appendix B.

A few species were only observed within Zone 1 at the entrance to the Bay. These species include the California garibaldi (*Hypsypops rubicundus*), rock wrasse (*Halichoeres semicinctus*), eelgrass (*Zostera pacifica*), and the chestnut cowrie (*Cypraea spadicea*). The entrance to the Bay is the only area where two species of eelgrass (*Z. marina* and *Z. pacifica*) were observed together.

When moving farther away from the mouth of the Bay the biodiversity appeared to decrease. When moving farther away from the entrance channel fewer fish species were observed. However, some invertebrate and vertebrate species remained present when moving from Zone 2 to Zone 3. Organisms present in abundance away from the entrance channel included round rays (*Urobatis halleri*), California aglaja (*Navanax inermis*), and anemones (*Diadumene* sp. and *Pachycerianthis fimbriatus*).

Two species were only observed along Bay-ward portions of eelgrass beds where water depth was greater than 11-ft MLLW, the sea whip (*Balticina* sp.) and the golden phoronid (*Phoronopsis californica*), reported for the first time in 2018 (MTS 2018). In rocky habitats, as found along Bayshores and western Balboa Island/Collins Isle, East Pacific red octopus (*Octopus rubenscens*) and California two spot octopus (*Octopus bimaculatus*) were common.

On multiple occasions California sea lion (*Zalopphus californicus*) and sea birds such as surf scoter (*Melanitta perspicillata*), western grebe (*Aechmophorus occidentalis*), California brown pelican (*Pelecanus occidentalis californicus*), Brant's cormorant (*Phalacrocorax penicillatus*), double crested cormorant (*Phalacrocorax auritus),* California gull (*Larus californicus*), Heermann's gull (*Larus heermanni*), western gull (*Larus occidentalis*), glaucous-winged gull (*Larus glaucescens*), great blue heron (*Ardea herodias*), snowy egret (*Egretta thula*), and black crowned night heron (*Nycticorax nycticorax*) were observed.

One observation of concern was the presence of sand stars throughout the Bay. This species was clearly in distress as many individuals observed were showing signs of withering. Only individuals observed within the entrance channel appeared to be healthy.

## Caulerpa taxifolia

*Caulerpa taxifolia* is a noxious species of marine algae. This species was eradicated from nearby Huntington Harbor (Anderson et al. 2005). This species of marine algae was **not observed** at any time within the bounds of the area surveyed in Newport Bay.

**Table 5. Table of species observed during the 2018 Newport Bay shallow water eelgrass survey. (table continued on next page)**

| Phyla | Genera | Species | All Zones (hard substrate) | All Zones (soft substrate) | Zone 1 | Zone 2 | Zone 3 |
|---|---|---|---|---|---|---|---|
| **Bacteria** | | | | | | | |
| | red/rust bacteria, unID | rust bacteria, unID | | | | X | X |
| | white sulfer bacteria, unID | sulfer bacteria, unID | | | | X | X |
| **Algae-Phaeophyta** | | | | | | | |
| | brown algae | *Colpomenia sinuosa* | X | | | | |
| | brown algae | *Cystoseira osmundacea* | X | | | | |
| | brown algae | *Dictyopteris undulata* | X | | | | |
| | brown algae | *Dictyota flabellata* | X | | | | |
| | sargassum weed | *Sargassum muticum* | X | | | | |
| **Crustacean-Arthropoda** | | | | | | | |
| | Aorid amphipod | *Grandidierella japonica* | X | | | | |
| | barnacle | *Balanus glandula* | X | | | | |
| | buckshot barnacle | *Chthamalus fissus/dalli* | X | | | | |
| | California spiny lobster | *Panulirus interruptus* | | | X | X | |
| | cancer crab | *Cancer* sp. | X | | | | |
| | lined shore crab | *Pachygrapsus crassipes* | X | | | | |
| | Mysid shrimp | Mysidacea unID | X | | | | |
| **Fish-Pisces** | | | | | | | |
| | barred sand bass | *Paralabrax nebulifer* | | X | | | |
| | barred surfperch | *Amphistichus argenteus* | | | X | X | |
| | black croaker | *Cheilotrema saturnum* | | | X | X | |
| | black surfperch | *Embiotoca jacksoni* | | | X | X | |
| | blacksmith | *Chromis punctipinnis* | | | X | X | |
| | California garibaldi | *Hypsypops rubicundus* | | | X | | |
| | California halibut | *Paralichthys californicus* | | | X | X | |
| | California lizardfish | Synodus lucioceps | | | X | X | |
| | California salema | Xenistius californiensis | | | X | X | |
| | California sargo | *Anisotremus davidsonii* | | | X | X | |
| | kelp bass | *Paralabrax clathratus* | | | X | X | |
| | kelp surfperch | *Brachyistius frenatus* | | | X | X | |
| | mullet | *Mugil cephalus* | | X | | | |
| | opaleye | *Girella nigricans* | X | | | | |
| | pile surfperch | *Domalichthys vacca* | | | X | X | |
| | rock wrasse | *Halichoeres semicinctus* | | | X | | |
| | rockfish, unID | *Scorpaenidae,* unID | X | | | | |
| | rock-pool blenny | *Parablennius parvicornis* | X | | | | |
| | round stingray | *Urobatis halleri* | | X | | | |
| | rubberlip surfperch | *Rhacochilus toxotes* | | | X | X | |
| | senorita | *Oxyjulis californica* | | | X | X | |
| | speckled sanddab | *Citharichthys stigmaeus* | | X | | | |
| | spotted sand bass | *Paralabrax maculatofasciatus* | | | X | X | |
| | topsmelt | *Atherinops affinis* | | | X | X | |
| | turbot, unID | Pleuronichthys, unID | | X | | | |
| | yellowfin croaker | *Umbrina roncador* | | | X | X | |
| **Flatworms-Platyhelminthes** | | | | | | | |
| | Polyclad worm | *Prostheceraeus bellostriatus* | | | | X | X |
| | Polyclad worm, unID | polyclad worm, unID | | | | X | X |
| **Gorgonians-Cnidaria** | | | | | | | |
| | Brown gorgonian | *Muricea fruticosa* | X | | | | |
| | California golden gorgonian | *Muricea californica* | X | | | | |
| **Green Algae-Chlorophyta** | | | | | | | |

| Phyla | Genera | Species | All Zones (hard substrate) | All Zones (soft substrate) | Zone 1 | Zone 2 | Zone 3 |
|---|---|---|---|---|---|---|---|
| | green algae | *Ulva intestinalis* | X | | | | |
| | green algae | *Codium fragile spp. tomentosoides* | X | | | | |
| | green algae | *Ulva lactuca* | X | | | | |
| | green algae | *Bryopsis corticulans* | X | | | | |
| | green algae | *Chaetomorpha aerea* | | | | X | X |
| **Jellyfish and Anemones-Cnidaria** | | | | | | | |
| | anemone | *Diadumene* sp. | X | | | | |
| | burrowing anemone | *Pachycerianthis fimbriatus* | | X | | | |
| | fairy palm hydroid | *Corymorpha palma* | | | X | X | |
| | hydroid | *Aglaophenia dispar* | X | | | | |
| | sea pen | *Styalatula elongata* (> 11ft MLLW only) | | | X | X | |
| **Marine Worms-Phoronid** | | | | | | | |
| | golden phoronid | *Phoronopsis californica* (>11ft MLLW only) | | | | X | X |
| **Moss Animals-Bryozoa/Ectoprocta** | | | | | | | |
| | bryozoan | *Thalamoporella californica* | X | | | | |
| | Red"= "chip" bryozoan | *Watersipora subtorquata* | X | | | | |
| | stoloniferan bryozoan and arborescent bryozoans | *Zoobotryon verticillatum, Bulgula neritina, Bulgula californica* | X | | | | |
| | stoloniferan bryozoan and arborescent bryozoans | *Zoobotryon verticillatum, Bulgula neritina, Bulgula californica* | | X | | | |
| **Red Algae-Rhodophyta** | | | | | | | |
| | red algae | *Gelidium* sp. | X | | X | X | |
| | red algae | *Grateloupia* sp. | X | | | | |
| | red algae | *Microcladia* sp. | X | | X | X | |
| | red algae | *Polysiphonia* sp. | X | | X | X | |
| | red algae | *Gracilariopsis sjoestedtii* | | | X | X | |
| | red algae | *Gracilaria* sp. | | | X | X | |
| | red coralline algae | *Corralina* sp. | X | | X | X | |
| **Seagrasses-Zosteracea** | | | | | | | |
| | ditchgrass | *Ruppia maritima* | | X | | | |
| | eelgrass | *Zostera pacifica* | | | X | | |
| | eelgrass | *Zostera marina* | | X | | | |
| | surf grass | *Phyllospadix torreyi* | | X | | | |
| **Sea stars, urchins, and cucumbers** | | | | | | | |
| | bat star | *Asterina miniata* | | | X | X | |
| | sand star | *Astropecten armatus* | | | X | X | |
| **Snails and Octopus-Mollusca** | | | | | | | |
| | Asian date mussel | *Musculista senhousia* | X | | | | |
| | Bay mussel | *Mytilus galloprovincialis* | X | | | | |
| | calcareous tube snail | *Serpulorbis squamigerus* | | | X | X | |
| | California horn snail | *Cerithidea californica* | | X | | | |
| | California two-spot octopus | *Octopus bimaculatus* | | | X | X | |
| | carinate gastropod | *Alia carinata* | | X | | | |
| | chestnut cowrie | *Cypraea spadicea* | | | X | | |
| | dorid nudibranch | *Doriopsilla albopunctata* | | X | | | |
| | East Pacific red octopus | *Octopus rubescens* | | | X | X | |
| | giant Pacific oyster | *Crassostrea gigas* | X | | | | |
| | giant rock scallop | *Crassadoma gigantea* | X | | | | |
| | Gould's bubble snail | *Bulla gouldiana* | | X | | | |
| | hermit crab | *Pagurus* sp. | | X | | | |

| Phyla | Genera | Species | All Zones (hard substrate) | All Zones (soft substrate) | Zone 1 | Zone 2 | Zone 3 |
|---|---|---|---|---|---|---|---|
| | Kellet's whelk | Kelletia kelletii | | | X | X | |
| | kelp scallop | *Leptopecten latiatauratus* | | X | | | |
| | Lewis' moon snail | *Polinices lewisii* | | | X | X | |
| | mossy chiton | *Mopalia muscosa* | | X | | | |
| | native oyster | *Ostrea lurida* | X | | | | |
| | predatory sea slug | *navanax inermis* | | X | | | |
| | rock jingle | *Chama* sp. | X | | | | |
| | rough limpet | *Lottia limatula* | | X | | | |
| | speckled scallop | *Argopecten ventricosa* | | X | | | |
| | wavy chione | *Chione undatella* | X | | | | |
| | wavy top snail | *Lithopoma undosa* | | | X | X | |
| **Sponges-Porifera** | | | | | | | |
| | Porifera, unID | Sponge, unID | X | | X | X | X |
| | yellow sponge | *Cliona* sp. | X | | X | X | X |
| | yellow sponge | *Haliclona* sp. | X | | X | X | X |
| **Tunicates-Urochordata** | | | | | | | |
| | colonial sea squirt, unID | colonial Ascidiacea, unID | X | | | | |
| | colonial tunicate | *Botryllus/Botrylloides* complex | X | | | | |
| | sea squirt, unID | Ascidiacea unID | X | | | | |
| | solitary tunicate | *Styela montereyensis* | X | | | | |
| | solitary tunicate | *Styela plicata* | X | X | | | |

## Conclusions

Eelgrass plays an important role for many organisms and environmental processes in bays and near shore estuaries. There are many important roles performed by eelgrass which include:

- Providing habitat for marine fish and invertebrate species.
- Providing protective cover and refuge for its inhabitants.
- Providing spawning areas for many species, including commercially important California halibut and barred sand bass.
- Providing foraging center for sea birds, sea turtles, and marine mammals.
- Contribute to decaying organic material as part of marine/estuary food web.
- Filters pollutants from the water, sequesters carbon dioxide gas.
- Protects shorelines from erosion by dampening wave energy.

Shallow-water and deep-water eelgrass surveys were conducted in Newport Bay in support of the City of Newport Beach Harbor Area Management Plan between June and November 2020. This was the seventh survey conducted in a series of surveys since 2003.

The Bay was divided into three zones enveloping 23 shallow water-mapping regions and 1 deep water mapping region. The results of this survey indicate that eelgrass is present in many parts of Newport Bay and covers 74.44 ac within the SWEH regions and 37.94 ac within the DWEH region. Eelgrass was found to extend from intertidal areas to -24.5-ft MLLW. Eelgrass occupied sediment ranging from fine silt to coarse sand and shell hash.

SWEH and DWEH eelgrass was abundant in Zone 1 near the entrance channel between Corona del Mar and Balboa Island extending to Bay Island at depths between low intertidal to -24.5-ft MLLW. Significant amounts of eelgrass were also reported in Linda Isle-Inner and Outer, DeAnza Peninsula-Inner and Outer, Castaways, and Balboa Island. Of the majority of eelgrass reported, 44.41%, was found in Corona del Mar (Region 1), Balboa Island/Collins Isle (Region 5), and DeAnza Peninsula (Regions 12 & 13).

Reductions in eelgrass cover were reported for Regions 1, 13, 18, and 21. In all other regions, eelgrass coverage was greater than values reported in the previous 2018 survey. Many of the Regions where eelgrass increased occurred within the Transitional Eelgrass Zone (Zone 2). No trend was observed for losses to eelgrass coverage, as small losses to eelgrass cover were observed in the Stable Eelgrass Zone (Zone 1). Transitional Zone eelgrass cover surpassed Stable Zone eelgrass cover for the first time since Newport Bay began conducting Bay wide eelgrass surveys and since data have been tracked by these zones.

Eelgrass density collected at 23 regions indicates that density has declined when compared to the previous 2018 survey (MTS 2018). Generally, density was greatest along the shallower portions of mapped eelgrass polygons. While density was greatest in these shallow areas, Regions 9 and 13 displayed values far above all other densities collected in other regions. Overall, average density was historically low, but fell within the range of values historically reported.

Density measurements were not collected in Region 19, West Newport, as no eelgrass was observed in that region.

Many species were observed throughout the survey effort. Species diversity generally decreased moving away from the entrance channel. Uncommon species observed included the golden phoronid (*Phoronopsis californica*). The noxious alga, *Caulerpa taxifolia,* was not found in Newport Bay.

## Literature Cited

Anchor QEA, 2009. Conceptual development plan. Lower Newport Bay CAD site feasibility study. Prepared for the City of Newport Beach Harbor Resources Division. April 2009. 47pp.

Anderson L., W.L. Tan, R. Woodfield, R. Mooney, K. Merkel. 2005. Use of Sediment Bioassays to Verify Efficacy of Caulerpa taxifolia Eradication Treatments. Journal of Plant Management. 43.

California Department of Fish and Wildlife (CDFW). 2018. Upper Newport Bay Ecological Reserve. https://www.wildlife.ca.gov/lands/places-to-visit/upper-newport-Bay-er. October 5th, 2018.

City of Newport Beach. 2010. Harbor Area Management Plan. Prepared by: Weston Solutions Inc., Everest International Consultants, Inc., Coastal Resources Management, Inc., NewFields LLC, and Tom Johnson, Ph.D. Prepared for: Harbor Resources Division, City of Newport Beach. 99pp.

City of Newport Beach 2015. Eelgrass protection and mitigation plan for shallow waters in Lower Newport Bay. An ecosystem based management program. Resource agency review draft. City of Newport Beach Public Works Department, Harbor Resources Division. November 2013. 22pp plus appendix.

City, 2019. *City of Newport Beach Local Coastal Program, Coastal Land Use Plan*. Amended by the California Coastal Commission on October 12, 2018. Adopted January 22, 2019, Resolution No. 2019-08.

Coastal Resources Management, Inc. (CRM) 2002. City of Newport Beach Local Coastal Plan. Biological Appendix. Prepared for the City of Newport Beach Planning Department. Various Paging. December 2002.

Coastal Resources Management, Inc. (CRM) 2005. Final Report. Distribution and abundance of eelgrass (*Zostera marina*) in Newport Bay. 2003-2004 eelgrass habitat mapping project. Bulkhead to pierhead line surveys. Prepared for the City of Newport Beach Harbor Resources Division. April 2005. 30pp.

Coastal Resources Management, Inc. (CRM) 2008. Letter report. Eelgrass habitat survey results for the Dover Shores Community Association Dover Shores Dredging Project. Prepared for Anchor Environmental LLC. November 11, 2008. 10pp.

Coastal Resources Management Inc. (CRM) 2010. Results of the second Newport Bay eelgrass (*Zostera marina*) Bay-wide habitat mapping survey: Status and distribution between 2006-2008 and oceanographic conditions in Newport Bay between 2008 and 2009. Prepared for the City of Newport Beach Harbor Resources Division. August 10th, 2010. 126pp.

Coastal Resources Management, Inc. (CRM) 2012. Results of the third Newport Bay eelgrass (*Zostera marina*) Bay-wide habitat mapping survey: Status and distribution between 2009-2010

with additional observations in 2011. Prepared for the City of Newport Beach Harbor Resources Division. January 2012. 52pp.

Coastal Resources Management, Inc. (CRM) 2015. Results of the fourth Newport Bay eelgrass (*Zostera marina*) Bay-wide habitat mapping survey: Status and distribution between 2013-2014. Prepared for the City of Newport Beach Harbor Resources Division. January 2015. 66pp.

Coastal Resources Management, Inc. (CRM) 2017. Results of the fifth eelgrass (*Zostera marina*) mapping survey: Status and distribution in Newport Bay, Newport Beach, California, 2016 Survey. Prepared for the City of Newport Beach Harbor Resources Division. July 2017. 79pp.

Coyer, J.A., K.A. Miller, J.M. Engle, J. Veldsink, A. Cabello-Pasini, W.T. Stam, and J.L Olsen. Eelgrass meadows in the California Channel Islands and adjacent coast reveal a mosaic of two species, evidence for introgression and variable clonality. Annals of Botany 101:73-87, 2008.

de Boer, W.F. 2007. Seagrass-sediment interactions, positive feedbacks and critical thresholds for occurrence: a review. Hydrobiologia 591 (1): 5-24.

Everest International Consultants. 2009. Appendix F: Hydrodynamic and water quality monitoring requirements technical report for the City of Newport Beach Harbor Area Management Plan (HAMP). Prepared for City of Newport Beach Harbor resources Division. June 2009. 20 pp.

Dewsbury, B.M.; Bhat, M.; Fourqurean, J.W.2016. A review of seagrass economic valuations: Gaps and progress in valuation approaches. Ecosystem Services. Vol. 18, April 2016. 68-77pp.

Donald H. Les, Maryke A. Cleland, and Michelle Waycott. 1997. Phylogenetic studies in Alismatidae, II: Evolution of marine angiosperms (Seagrasses) and Hydrophily. *Systematic Botany*. Vol. 22, No. 3 (Jul. - Sep., 1997), pp. 443-463.

Environmental Protection Agency (EPA) 2017. Newport Bay Watershed. Environmental Protection Agency Pacific Southwest, Region 9. https://19january2017snapshot.epa.gov/www3/region9/water/watershed/measurew/newport-Bay/index.html. February 14th, 2017.

Hemminga, M.A. and Duarte, C.M. 2000. *Seagrass Ecology*. Cambridge University Press. 2000.

Kuo, J.; den Hartog, C.; Larkum, A.W.D.; Orth, R.J.; Duarte, C.M. 2006. Seagrasses: biology, ecology, and conservation. 2006.

Kuwae, T. and Hori, M. 2019. Blue Carbon in Shallow Coastal Ecosystems: Carbon Dynamics, Policy, and Implementation. Springer. ISBN 978-981-13-1295-3. Due: October 3, 2018 eBook.

Marine Taxonomic Services, Ltd. 2018. 2018 Monitoring of Eelgrass Resources in Newport Bay, Newport Beach, California. Prepared for the City of Newport Beach Public Works, Harbor resources Division. November 2018.

Mason, H.L. 1957. *A Flora of the Southern California Marshes*. University of California Press, Berkeley and Los Angeles, CA. 878 pp.

National Marine Fisheries Service (NMFS). 1991. *Southern California Eelgrass Mitigation Policy*. National Marine Fisheries Service, Southwest Region, Long Beach, CA. 11th Revision.

NOAA Fisheries, West Coast Region. 2014. California eelgrass mitigation policy. October 2014. 45 pp.

Olesen, B. and Sand-Jensen, K. 199). Seasonal acclimatization of eelgrass Zostera marina growth to light. Marine Ecology Progress Series. Vol. 94. March 31st, 1993. 91-99pp.

Olsen, J.L., J.A. Coyer, B. Chesney. 2014. Numerous mitigation transplants of the eelgrass *Zostera marina* in southern California shuffle genetic diversity and may promote hybridization with *Zostera pacific*. Biological Conservation. Vol. 176: 133-143.

Pacific Fishery Management Council (PFMC) 2008. Pacific Coast Groundfish Fishery Management Plan for the California, Oregon, and Washington Groundfish Fishery as Amended Through Amendment 19.

Phillips, R.C. 1985. *The Ecology of Eelgrass Meadows of the Pacific Northwest: A Community Profile*. Contributors: national Coastal Ecosystem Team, U.S. Army Corps of Engineers. The Team. 1985. 85 pp.

Phillips, R.C. and E.G. Menez. 1988. Seagrasses. Smithsonian Contributions to the Marine Sciences: 34.

Phillips, R.C. and S.W. Echeverria. 1990. *Zostera asiatica* Miki on the Pacific Coast of North America. Pacific Science Vol 44 (2):130-134.

Posey, M.H. 1988. Community changes associated with the spread of an introduced seagrass, *Zostera japonica*. Ecology 69(4): 974-983.

Shafer, D.J; Wyllie-Echeverria, S.; Sherman, T.D. (Shafer et al.). 2008. The potential role of climate in the distribution and zonation of the introduced seagrass *Zostera japonica* in North America. Aquatic Biology. Vol. 89, Issue 3. October 2008. 297-302 pp.

Stevenson, R.E. and K.O. Emery. 1958. Marshlands at Newport Bay. Allan Hancock Foundation Publications. Occasional Paper No. 20. University of Southern California Press. Los Angeles, California.

Thresher, R.E., P.D. Nichols, J.S. Gunn, B.D. Bruce, and D.M. Furlani. 1992. Seagrass detritus as the basis of a coastal planktonic food chain. Limnology and oceanography 37(8):1754-1758.

U.S. Army Corps of Engineers (USACE). 2020. Department of The Army Regional General Permit 54. Prepared by: Los Angeles District, U.S. Army Corps of Engineers. Prepared for: City of Newport Beach. December 22, 2020.

Valentine, J.F., and K.L. Heck. 1999. Seagrass herbivory: Evidence for the continued grazing of marine grasses. Marine ecology progress series 176:291-302.

Weston Solutions, Inc. Everest International Consultants, Inc., Coastal Resources Management, Inc., Newfields LLC, and Tom Johnson, Ph.D. Harbor Area Management Plan. Prepared for Harbor Resources Division, City of Newport Beach. April 2010. 99pp. plus 8 appendices.

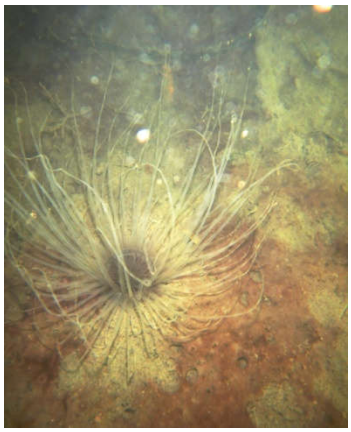
Yarbro, L.A., and P.R. Carlson. 2008. Community oxygen and nutrient fluxes in seagrass beds of Florida Bay, USA. Estuaries and coasts 31(5):877-897.

# Appendix A: DWEH Sidescan Sonar Track Lines

# Appendix B: Photographs

Colonial Anemone surrounding Eelgrass
(*Diadumene* sp.) (*Zostera marina)*

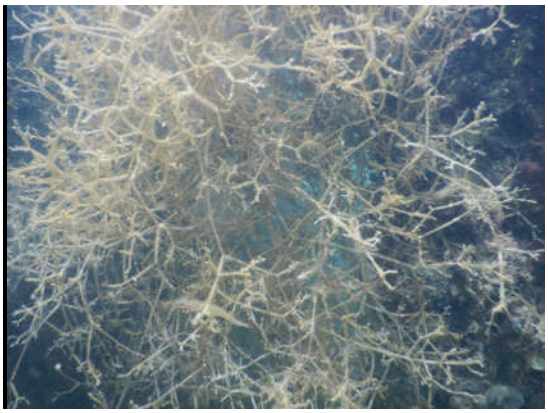
Predatory Sea Slug
(Navanax inermis)



Burrowing Anemone
(*Pachycerianthis fimbriatus*)

Gould's Bubble Snail
(*Bulla gouldiana*)

Bat Star
(*Asterina miniata*)



Bryozoan
(*Zoobotryon verticillatum*)

Mossy Chiton and Red Corralline Algae
(*Mopalia muscosa*) and (*Corralina* sp.)

Sea Whip
(*Balticina* sp.)

Hermit Crab
(*Pagurus* sp.)

Golden Phoronid
(*Phoronopsis californica*)

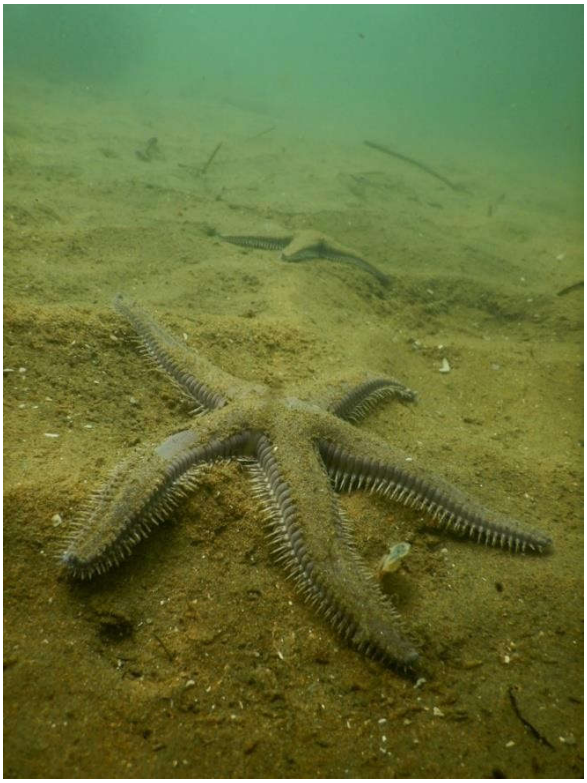
Solitary Tunicate
(*Styela plicata*)

Giant Keyhole Limpet
(*Megathura crenulata*)

Dead and Decaying Sand Stars - present beyond zone 1 (left)

Healthy and Living Sand Stars - present in eelgrass beds near entrance to Bay (right)

(*Astropecten armatus*)



Juvenile Urchin Living on Eelgrass (*Stringylocentrotus* sp.) (*Zostera marina*)

Round Stingray
(*Urobatis Halleri*)

East Pacific Red Octopus
(*Octopus rubescens*)

California Two-Spot Octopus
(*Octopus bimaculatus*)

Polyclad Worm, unID
(Platyhelmenthes)

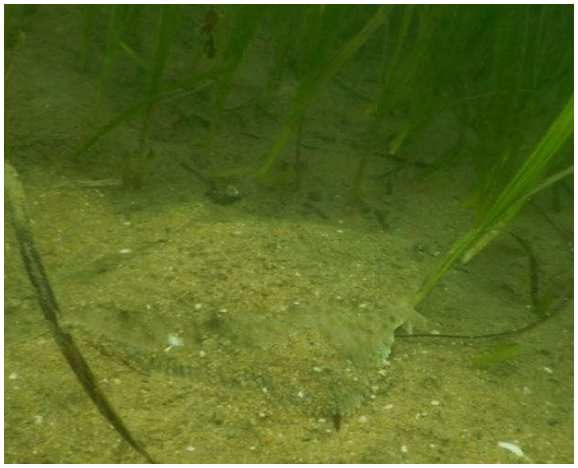
California Golden Gorgonian
(*Muricea californica*)

Giant California Sea Cucumber
(*Apostichopus californicus*)

California Spiny Lobster
(*Panulirus interruptus*)

Barred Surfperch in Eelgrass
(*Amphistichus argenteus*) (*Zostera marina*)

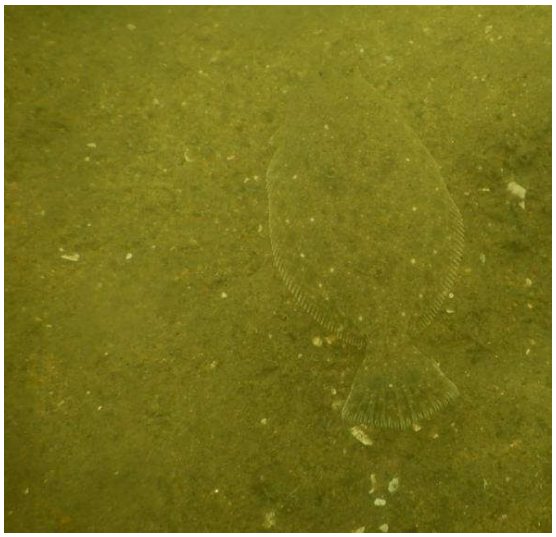
California Sargo and Opaleye
(*Anisotremus davidsonii*) (*Girella nigricans*)



Kelp Bass in Eelgrass
(*Paralabrax clathratus*) (*Zostera Marina*)

Diamond Turbot
(*Hypsopsetta guttata*)

Multiple Species of Blenny
(*Parablennius* spp.)



California Halibut
(*Paralichthys californicus*)

California Garibaldi and Kelp Bass
(*Hypsypops rubicundus*) (*Paralax clathratus*)

Barred Sand Bass in Eelgrass
(*Paralabrax nebulifer*) (*Zostera marina*)

Black Surfperch and Sargassum Weed
(*Embiotoca jacksoni*) (*Sargassum muticum*)

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