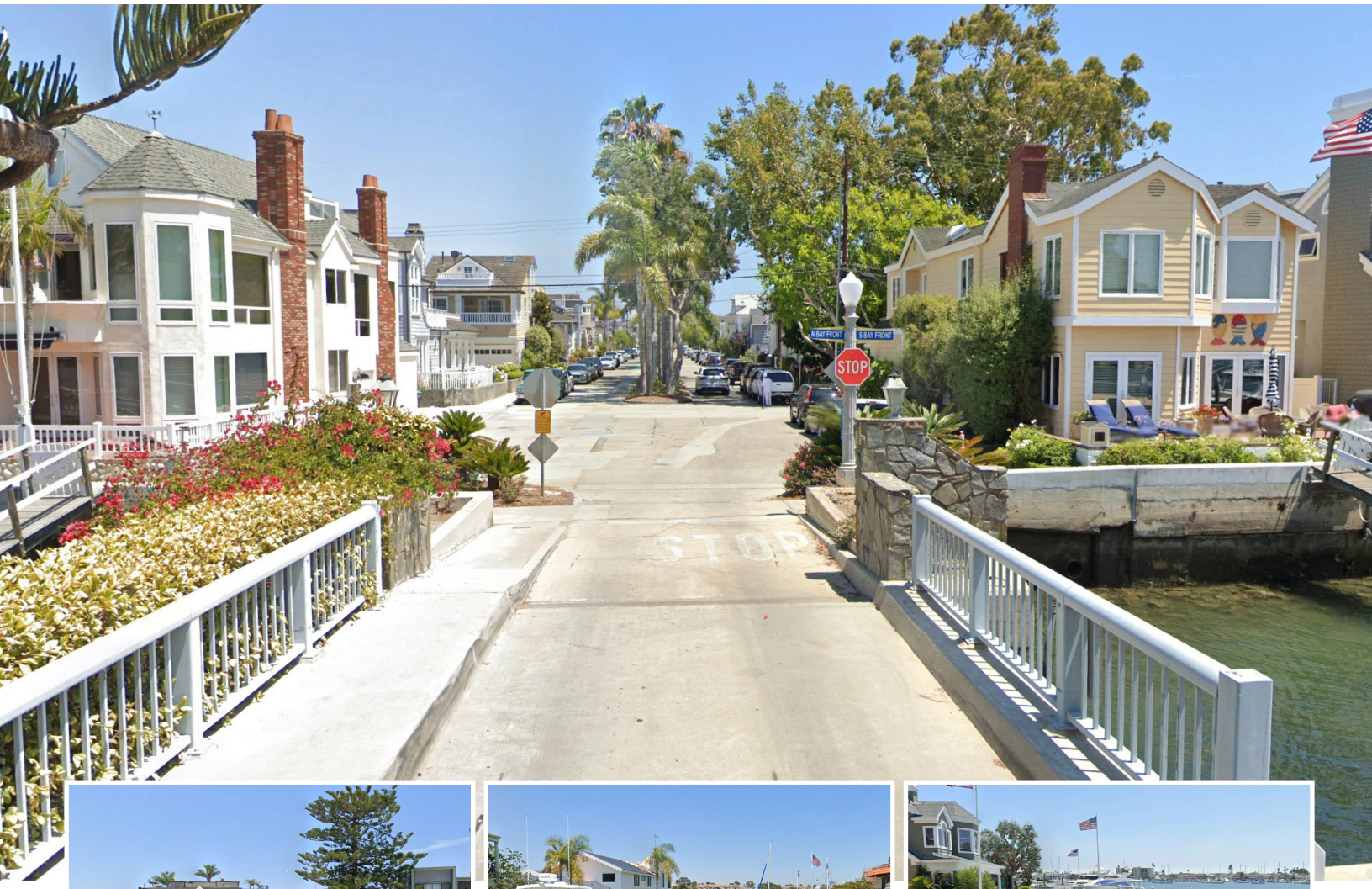
FINAL MITIGATED NEGATIVE DECLARATION

COLLINS ISLAND BRIDGE REPLACEMENT PROJECT

OCTOBER 2024



PREPARED BY

Michael Baker INTERNATIONAL

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PART I MITIGATED NEGATIVE DECLARATION

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PART I: MITIGATED NEGATIVE DECLARATION

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TECHNICAL APPENDICES

The Notice of Intent, Mitigated Negative Declaration, and Technical Appendices are available for public review on the City's website:

https://www.newportbeachca.gov/government/departments/community-development/planning-division/projects-environmental-document-download-page/environmental-document-download-page

In addition to the City's website, these documents are also available for review on the Office of Planning and Research's (OPR) CEQAnet Online Database, under State Clearinghouse No. 2024070802:

https://ceqanet.opr.ca.gov/2024070802

LIST OF EXHIBITS

LIST OF TABLES

1.0 INTRODUCTION

The proposed Collins Island Bridge Replacement Project (herein referenced as the "project") consists of three major components: 1) bridge replacement, 2) seawall improvements, and 3) future pump station accommodations. Refer to Section 2.0, *Project Description* for a detailed description of the proposed project.

Following a preliminary review of the proposed project, the City of Newport Beach (City) has determined that it is subject to the guidelines and regulations of the California Environmental Quality Act (CEQA). Pursuant to CEQA Guidelines Section 15378, a "project" is defined as the whole of an action, which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment, and that is any of the following:

- An activity directly undertaken by any public agency, including, but not limited to, public works construction and related activities clearing or grading of land, improvements to existing public structures, enactment and amendment of zoning ordinances, and the adoption and amendment of local General Plans or elements thereof pursuant to Government Code Sections 65100-65700;
- An activity undertaken by a person which is supported in whole or in part through public agency contacts, grants, subsidies, loans, or other forms of assistance from one or more public agencies; or
- An activity involving the issuance to a person of a lease, permit, license, certificate, or other entitlement for use by one or more public agencies.

This Initial Study addresses the direct, indirect, and cumulative environmental effects of the project, as proposed.

1.1 STATUTORY AUTHORITY AND REQUIREMENTS

In accordance with Sections 15051 and 15367 of the California Code of Regulations (CCR), the City is identified as the Lead Agency for the proposed project. Under CEQA (Public Resources Code Section 21000-21177) and pursuant to Section 15063 of the CCR, the City is required to undertake the preparation of an Initial Study to determine if the proposed project would have a significant environmental impact. If, as a result of the Initial Study, the Lead Agency finds that there is evidence that any aspect of the project may cause a significant environmental effect, the Lead Agency shall further find that an Environmental Impact Report (EIR) is warranted to analyze project-related and cumulative environmental impacts. Alternatively, if the Lead Agency finds that there is no evidence that the project, either as proposed or as modified to include the mitigation measures identified in the Initial Study, may cause a significant effect on the environment, the Lead Agency shall find that the proposed project would not have a significant effect on the environment and shall prepare a Negative Declaration (or Mitigated Negative Declaration). Such determination can be made only if "there is no substantial evidence in light of the whole record before the Lead Agency" that such impacts may occur (Section 21080[c], Public Resources Code).

The environmental documentation, which is ultimately selected by the City in accordance with CEQA, is intended as an informational document undertaken to provide an environmental basis for subsequent discretionary actions upon the project. The resulting documentation is not, however, a policy document and its approval and/or certification neither presupposes nor mandates any actions on the part of those agencies from whom permits, and other discretionary approvals would be required.

1.2 PURPOSE

CEQA Guidelines Section 15063 identifies specific disclosure requirements for inclusion in an Initial Study. Pursuant to those requirements, an Initial Study shall include:

- A description of the project, including the location of the project;

- Identification of the environmental setting;
- Identification of environmental effects by use of a checklist, matrix, or other method, provided that entries on a checklist or other form are briefly explained to indicate that there is some evidence to support the entries;
- Discussion of ways to mitigate significant effects identified, if any;
- Examination of whether the project is compatible with existing zoning, plans, and other applicable land use controls; and
- The name(s) of the person(s) who prepared or participated in the preparation of the Initial Study.

1.3 CONSULTATION

Pursuant to CEQA Guidelines Section 15063(g), as soon as the Lead Agency (in this case, the City) has determined that an Initial Study would be required for the project, the Lead Agency is directed to consult informally with all Responsible Agencies and Trustee Agencies that are responsible for resources affected by the project, in order to obtain the recommendations of those agencies as to whether an EIR or Negative Declaration should be prepared for the project. Following receipt of any written comments from those agencies, the Lead Agency considers any recommendations of those agencies in the formulation of the preliminary findings. Following completion of this Initial Study, the Lead Agency initiates formal consultation with these and other governmental agencies as required under CEQA and its implementing guidelines.

1.4 INCORPORATION BY REFERENCE

The following references were utilized during preparation of this Initial Study and are incorporated into this document by reference. These documents are available for review at the City of Newport Beach Community Development Department, 100 Civic Center Drive, Newport Beach, California 92660.

- *Newport Beach General Plan (July 25, 2006)*. The *Newport Beach General Plan* (General Plan) is a policy document intended to guide the long-term development within Newport Beach. The General Plan reflects the community's vision and provides a framework for Newport Beach's long-range physical and economic development and resource conservation. The General Plan consists of the following elements: Land Use; Circulation; Historical Resources; Recreation; Arts and Culture; Safety; Noise; Harbor and Bay; Housing; and Natural Resources.
- *Newport Beach General Plan Final Environmental Impact Report (July 25, 2006)*. The *Newport Beach General Plan Final Environmental Impact Report* (General Plan EIR) analyzes potential environmental impacts from implementation of the General Plan, identifies policies from the General Plan that serve to reduce and minimize impacts, and identifies additional mitigation measures, if necessary, to reduce potentially significant impacts of the General Plan. Based on analysis provided within the General Plan EIR, buildout of the General Plan was found to result in significant and unavoidable impacts related to aesthetics and visual quality, air quality, cultural resources, noise, population and housing, and transportation/traffic.
- *City of Newport Beach Local Coastal Program Coastal Land Use Plan* (adopted 2005; amended 2019). The *City of Newport Beach Local Coastal Program Coastal Land Use Plan* (CLUP) sets forth goals, objectives, and policies that address the requirements of the Coastal Act to ensure the City guides development in the Coastal Zone in a manner that is consistent with the Coastal Act.

- *Newport Beach Municipal Code (codified through Ordinance No. 2023-13, enacted passed August 22, 2023)*. The *Newport Beach Municipal Code* (Municipal Code) includes the City's regulatory, penal, and administrative ordinances. Municipal Code Title 20, *Planning and Zoning* (Zoning Code), is intended to carry out the policies of the General Plan. Additionally, the Zoning Code is intended to promote the orderly development of the City; promote and protect the public health, safety, peace, comfort, and general welfare; protect the character, social, and economic vitality of neighborhoods; and to ensure the beneficial development of the City. Municipal Code Title 21, *Local Coastal Program Implementation Plan*, implements the policies of the CLUP, consistent with the Coastal Act, by establishing and regulating zoning district standards, site planning and development standards, and other standards for specific land use types.

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2.0 PROJECT DESCRIPTION

2.1 PROJECT LOCATION

Regionally, the project site is located within the City of Newport Beach (City), in the southwestern portion of Orange County; refer to Exhibit 2-1, *Regional Vicinity*. The Pacific Ocean bounds the City to the west and surrounding jurisdictions include the cities of Huntington Beach and Costa Mesa to the north, Irvine to the east, and unincorporated Orange County to the south.

The project site is the Collins Island Bridge and its immediate vicinity located on Balboa Island in Newport Bay; refer to Exhibit 2-2, *Project Limits*. Collins Island is located on the western tip of Balboa Island and is connected to the greater Balboa Island via the Collins Island Bridge. Regional access to the project site is provided via State Route 1 (SR-1; Pacific Coast Highway) and local access to the site is provided via Marine Avenue (across the Balboa Island North Channel), and North Bay Front and Park Avenue on Balboa Island.

2.2 ENVIRONMENTAL SETTING

Balboa Island is located in Lower Newport Bay and is one of the City's older, distinct residential neighborhoods along the coastline. This early neighborhood follows a traditional subdivision pattern of homes on streets designed in a linear grid with alleyways and is generally pedestrian-oriented. Much of Balboa Island is characterized by duplex units and single-family residences, with a central retail village consisting of specialty shops, entertainment, and marine uses that serve nearby residents and visitors.

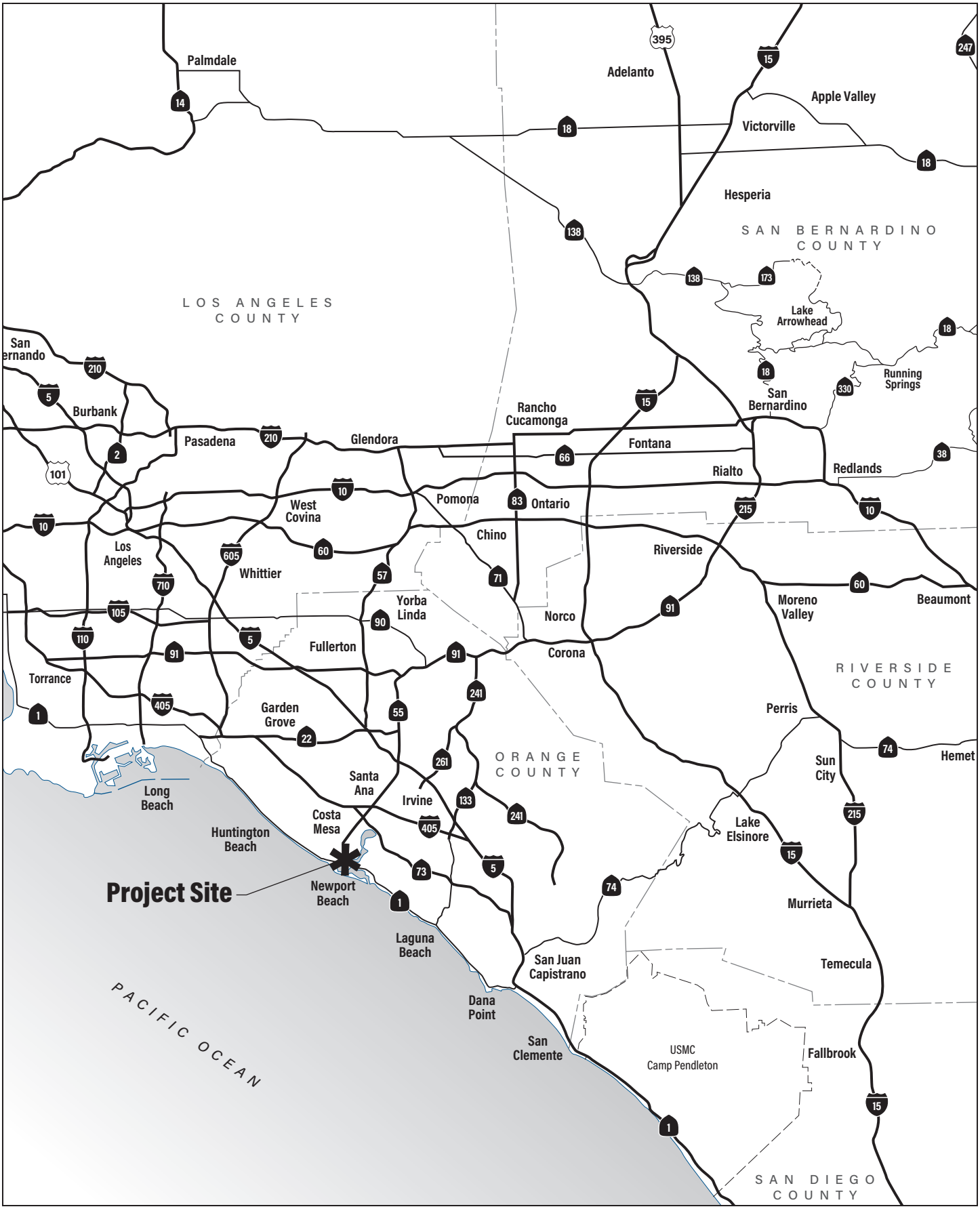
On the western tip of Balboa Island, Collins Island is developed with eight single-family residences and is accessed only by the Collins Island Bridge via Park Avenue. The existing reinforced concrete bridge was constructed in 1953 and is approximately 20 feet and 8 inches long and 19 feet wide. The bridge is supported on concrete sheet pile bulkheads, which are insufficient to resist current code level seismic loads. The bridge accommodates one lane of vehicle traffic, one raised public sidewalk, and steel railings on each side of the bridge to provide public and private access to the bridge. Essential utilities that serve Collins Island residents are currently located on the bridge. Given the age of the structure, the Collins Island Bridge does not meet current bridge code requirements and is nearing the end of its useful lifetime. According to a 2012 bridge inspection report, the Collins Island Bridge was designated as functionally obsolete and has not been improved since 2012.

2.2.1 EXISTING LAND USE DESIGNATION AND ZONING

Based on the *City of Newport Beach General Plan* (General Plan), *City of Newport Beach Coastal Zoning Map* (Zoning Map), and *City of Newport Beach GIS Map Viewer*, Collins Island is designated Single-Unit Residential Detached (RS-D) and zoned Single Unit Residential (R-1). Uses to the east of the Collins Island Bridge on the greater Balboa Island are designated Two-Unit Residential (RT) and zoned Two-Unit Residential (R-BI [Balboa Island]).[1,2] The bridge itself does not have a land use designation or zoning district.

Based on the *City of Newport Beach Local Coastal Program Coastal Land Use Plan* (CLUP), Collins Island is designated Single-Unit Residential Detached (RSD-B) with an allowed density of 6.0 to 9.9 dwelling units per acre (du/ac); uses to the east of the Collins Island Bridge on the greater Balboa Island are designated Two-Unit Residential (RT-E) with an allowed density of 30.0 to 39.9 du/ac.[3]

[1] City of Newport Beach, *Interactive Maps*, https://www.newportbeachca.gov/government/departments/city-manager-s-office/information-technology-city-division/gis-mapping/interactive-maps, accessed July 7, 2023.
[2] City of Newport Beach, *City of Newport Beach Coastal Zoning Map*, August 9, 2017.
[3] City of Newport Beach, *Local Coastal Program Coastal Land Use Plan, Map 1*, August 9, 2017.



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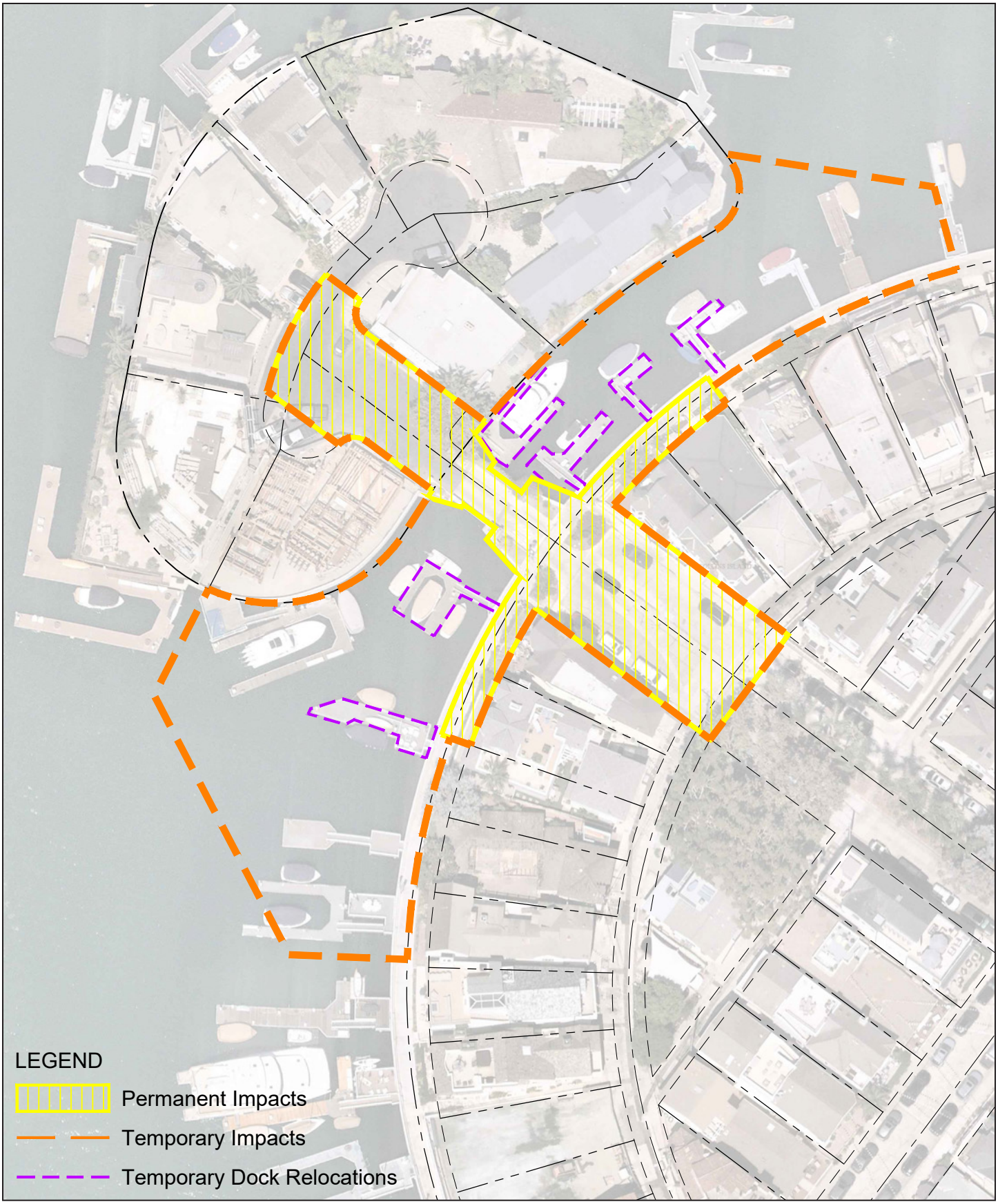
Regional Vicinity

Exhibit 2-1



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Project Limits

Exhibit 2-2

According to the General Plan, the RS-D designation applies to a range of detached single-family residential dwelling units on a single legal lot and is not intended for condominiums or cooperative housing. The RT designation applies to a range of two family residential dwelling units such as duplexes and townhomes.

Based on *Newport Beach Municipal Code* (Municipal Code) Section 20.18.010, *Purposes of Residential Zoning Districts*, the R-1 zoning district is intended to provide for areas appropriate for a range of detached single-family residential dwelling units, each located on a single legal lot, and does not include condominiums or cooperative housing. The R-BI zoning district is intended to provide for a maximum of two residential dwelling units (i.e., duplexes) located on a single legal lot on Balboa Island.

2.2.2 SURROUNDING LAND USES

Surrounding uses in the project area are primarily comprised of open waters, beach areas, and residential uses as described below.

- *North:* Open waters associated with the Newport Bay are located to the north of the project site. Harbor Island is located further north and is designated RS-D and RT and zoned R-1 and Two-Unit Residential (R-2).

- *East:* The greater Balboa Island is located to the east of the site. Balboa Island uses are primarily designated RT and zoned R-BI.

- *South:* Open waters associated with the Newport Bay are located to the south of the site. The Balboa Peninsula is located further south. Uses along the Balboa Peninsula have various land use designations, including RS-D, RT, Multiple Unit Residential (RM), Public Facilities (PF), Visitor Serving Commercial (CV), Mixed-Use Water Related (MU-W2), and Parks and Recreation (PR). Zoning districts along the Balboa Peninsula include R-2, Multi-Unit Residential (RM), Mixed-Use Vertical (MU-V), Commercial Visitor-Serving (CV), Public Facilities (PF), and Parks and Recreation (PR).

- *West:* Collins Island and open waters associated with the Newport Bay are located to the west of the site. Harbor Island is located further northwest.

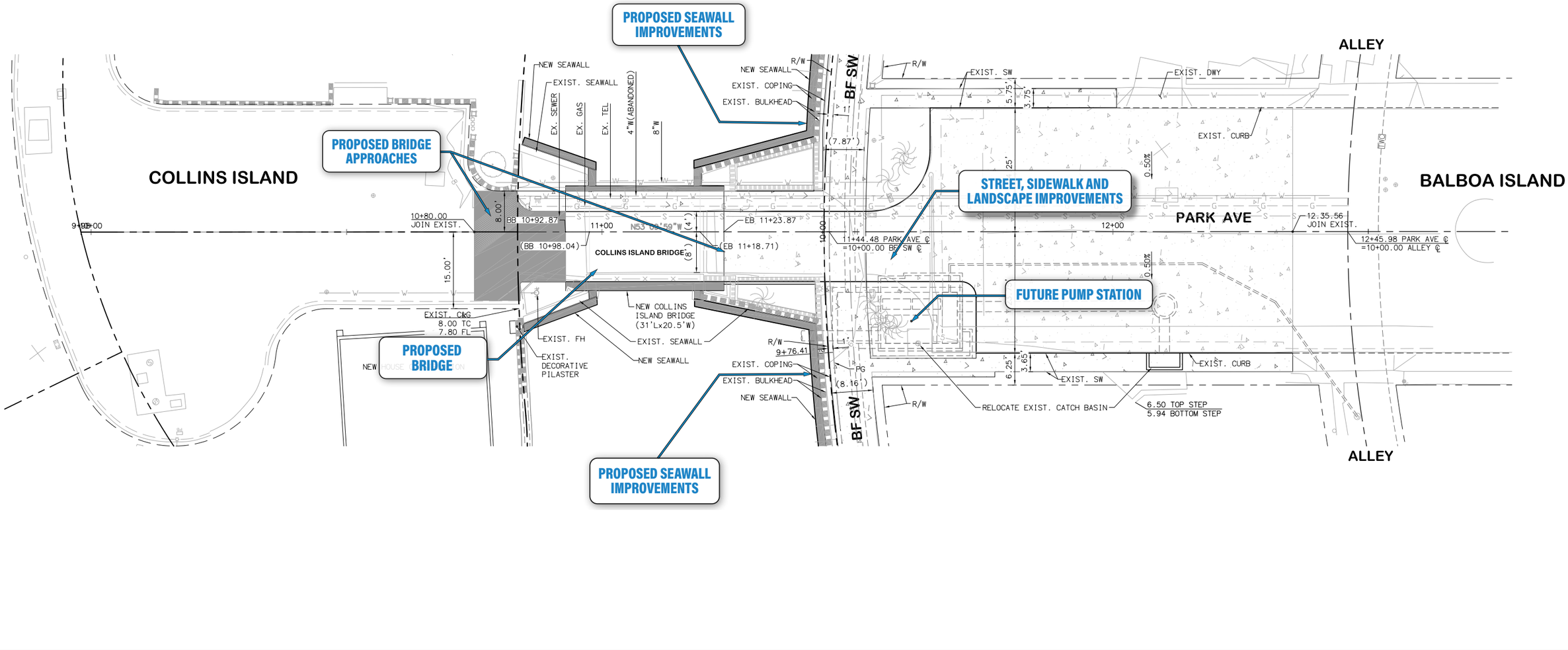
2.3 PROJECT CHARACTERISTICS

The proposed Collins Island Bridge Replacement Project (project) has three major components: 1) bridge replacement, 2) seawall improvements, and 3Public) future pump station accommodations; refer to Exhibit 2-3, *Overall Project Improvements*. The three project components are described in further detail below.

BRIDGE REPLACEMENT

As shown on Exhibit 2-4, *Conceptual Bridge Design*, the proposed bridge would be designed to be a total of 20 feet and 6 inches in width to accommodate one vehicle travel lane 13 feet and 9 inches-wide, one 4-foot wide public sidewalk, and concrete barriers on each side to provide protection from projected sea level rise. The bridge would be 31 feet in length spanning over existing concrete sheet pile bulkheads.

The current slope along the roadway and sidewalk bridge approaches on both sides of the bridge exceed five percent. Therefore, the profiles would be adjusted to comply with Americans with Disabilities Act (ADA) standards. Landscaped areas and the bridge monument would also be improved to increase sight distance along the adjacent walkways to increase pedestrian safety. A new stop sign and limit line would also be added at the intersection on both sides of the bridge.



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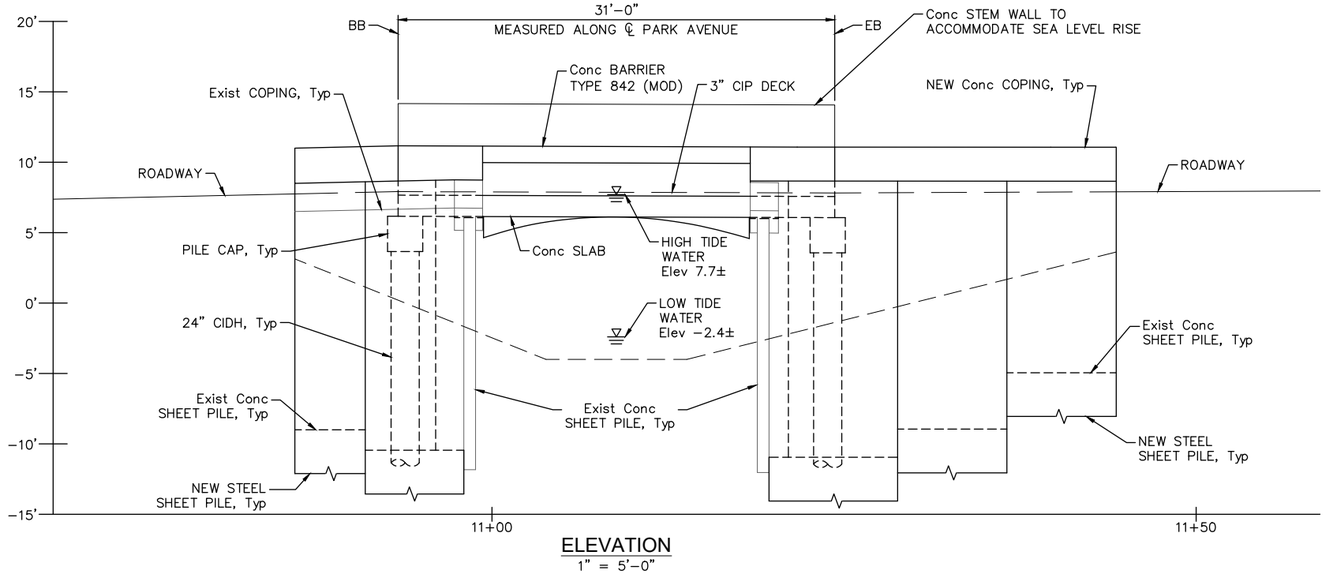
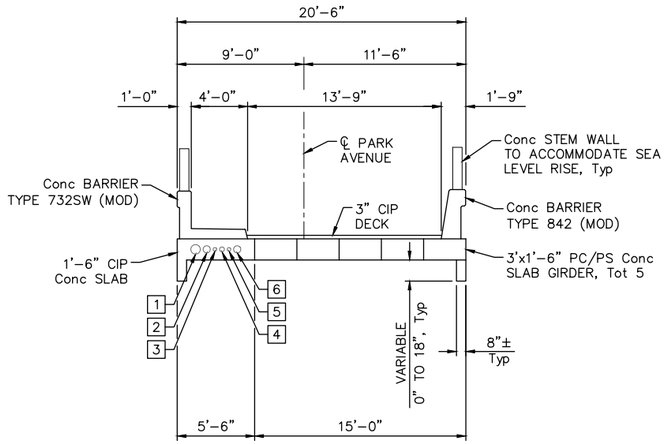
Overall Project Improvements

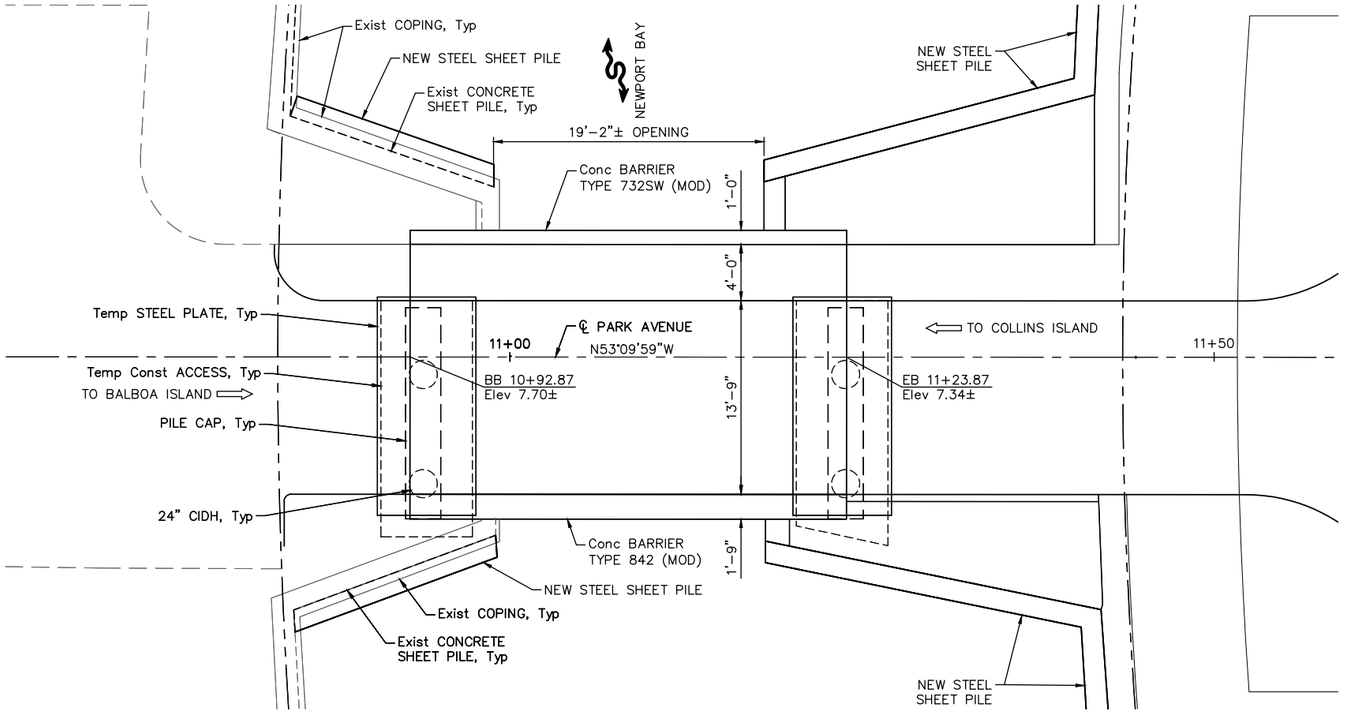
Exhibit 2-3



ELEVATION
1" = 5'-0"



TYPICAL SECTION
1" = 5'-0"



EXISTING UTILITIES:

1. 8" WATER
2. 6" WATER
3. 3" TELEPHONE
4. 4" GAS
5. 3" CONDUIT
6. 6" SEWER

Source: Michael Baker International, February 2024

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Conceptual Bridge Design

Exhibit 2-4

Street, sidewalk, and landscaping improvements are also proposed on the Balboa Island side along the Bay Front sidewalk and Park Avenue eastward until the alley; refer to Exhibit 2-3. Anticipated improvements include monument sign construction, irrigation, paving, and landscaping.

SEAWALL IMPROVEMENTS

Seawalls are designed to protect properties from water levels associated with high tides and storm surges. Water surface elevations are also expected to rise in the future due to climate change. Therefore, the project proposes to construct a new seawall in front of the existing seawalls adjacent to the bridge. Currently, most seawalls along Collins Island Bridge and along the Bay Front sidewalk consist of concrete sheet pile bulkheads with a concrete cap (coping) elevation of approximately 9 feet North American Vertical Datum of 1988 (NAVD 88). Some of the existing concrete sheet piles are structurally deficient where existing tie back anchors have corroded and no longer provide adequate support at the upper part of the walls. Therefore, the proposed seawall improvements would be installed in front of the existing seawalls and be designed to have a top of wall coping elevation of 11 feet NAVD 88 with a future cap extension elevation up to 14 feet NAVD 88.

To maintain consistency between Collins Island and Balboa Island, existing seawalls along the Bay Front sidewalk would also be improved; refer to Exhibit 2-5, *Proposed Seawall Improvements*. The seawall improvements along the Bay Front sidewalk are required where the roadway and sidewalk profiles are proposed to be adjusted to meet ADA requirements and to accommodate future sea level rise. The Bay Front sidewalks adjacent to the new proposed seawalls would also be raised to provide a minimum of 42 inches from sidewalk to top of coping for pedestrian safety. Public views along Bay Front sidewalk would be maintained.

The new seawalls would be designed to allow access to existing boat ramps and docks. However, certain docks would be temporarily relocated during construction activities. Where possible, the existing concrete sheet pile bulkhead system would remain in place to reduce disturbance and associated environmental impacts. In the case of Bay Front sidewalk seawall improvements, new steel sheet piles would be placed seaward from the existing concrete sheet piles. A new sidewalk and parapet cap would provide seawall protection; refer to Exhibit 2-5.

FUTURE PUMP STATION ACCOMODATIONS

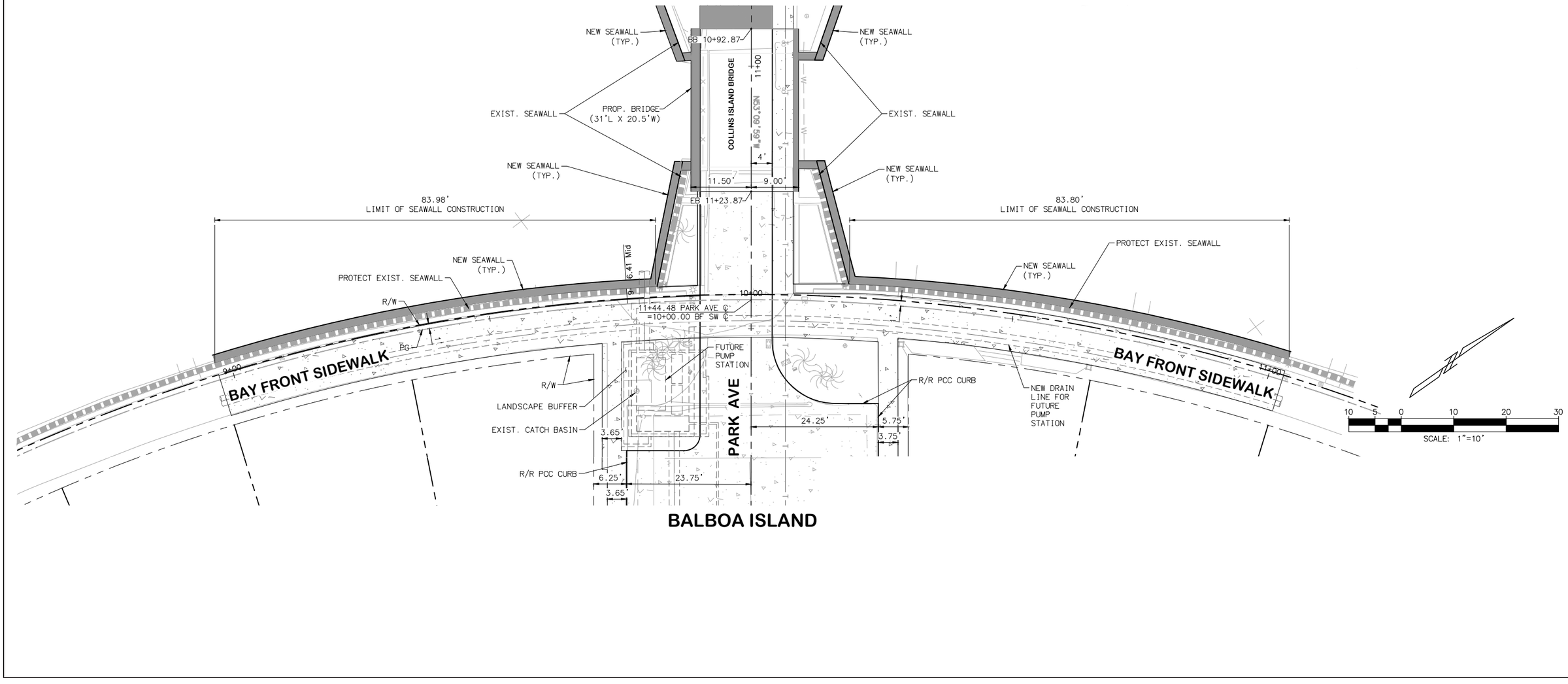
The City is currently designing storm drain improvements for Park Avenue near the Collins Island Bridge as part of a separate project. As such, given that the proposed project and pump station project are being designed concurrently in close vicinity, the project includes underground pump station accommodations to convey stormwater outflow into the bay adjacent to the new bridge. Specifically, the underground pump station and catch basin will have a discharge pipe near the new seawall and east bridge approach. It will also have a collection/distribution drainpipe located beneath the Bay Front Sidewalk adjacent to the new seawall. Given that the pump station and associated improvements would be underground, no impacts to public parking in the area would occur. The configuration is illustrated on Exhibit 2-6, *Pump Station Accommodations*. It should be noted that while the pump station project is being designed by the City concurrently with the proposed project, the pump station project is not a part of the proposed project and would be approved separately.

2.4 CONSTRUCTION/PHASING

Construction activities are scheduled to occur over a period of 11 months. Construction activities would include demolition, excavation, utility relocation, drilling for bridge pile foundations, steel sheet piling installation with press-in method, formwork framing and concrete placement for bridge and seawall improvements construction, street paving (concrete), and landscaping.

Short-term construction impact areas are illustrated in the orange polygon on Exhibit 2-2 and consists of the bridge, the segment of Park Avenue on either side of the bridge, the segment of the Bay Front sidewalk adjacent to anticipated

seawall improvements, and the waterway in the immediate vicinity of the bridge. Primary waterway activities would involve barges delivering construction materials and would require the temporary relocation of several docks outlined in purple on Exhibit 2-2. These docks consist of floats and access gangways. Floats would be temporarily relocated outside of the work area and placed along the adjacent bulkhead with the gangways attached to the top of bulkhead walls to provide safe access to the floats. Permanent project improvements would occur within the yellow hashed polygon on Exhibit 2-2 and consist of the bridge, the segment of Park Avenue on either side of the bridge, and the segment of the Bay Front sidewalk adjacent to anticipated seawall improvements.



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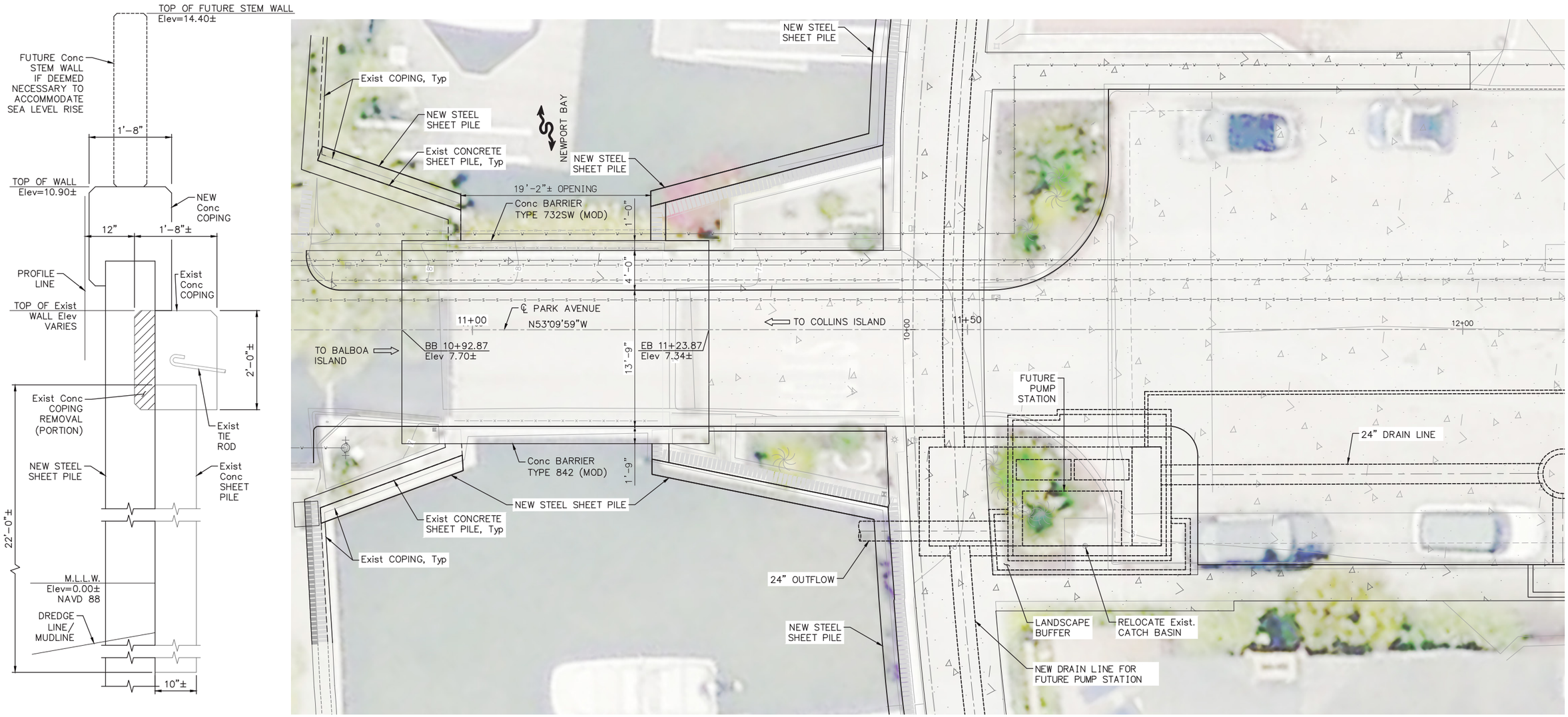
Proposed Seawall Improvements

Exhibit 2-5



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Pump Station Accommodations

Exhibit 2-6

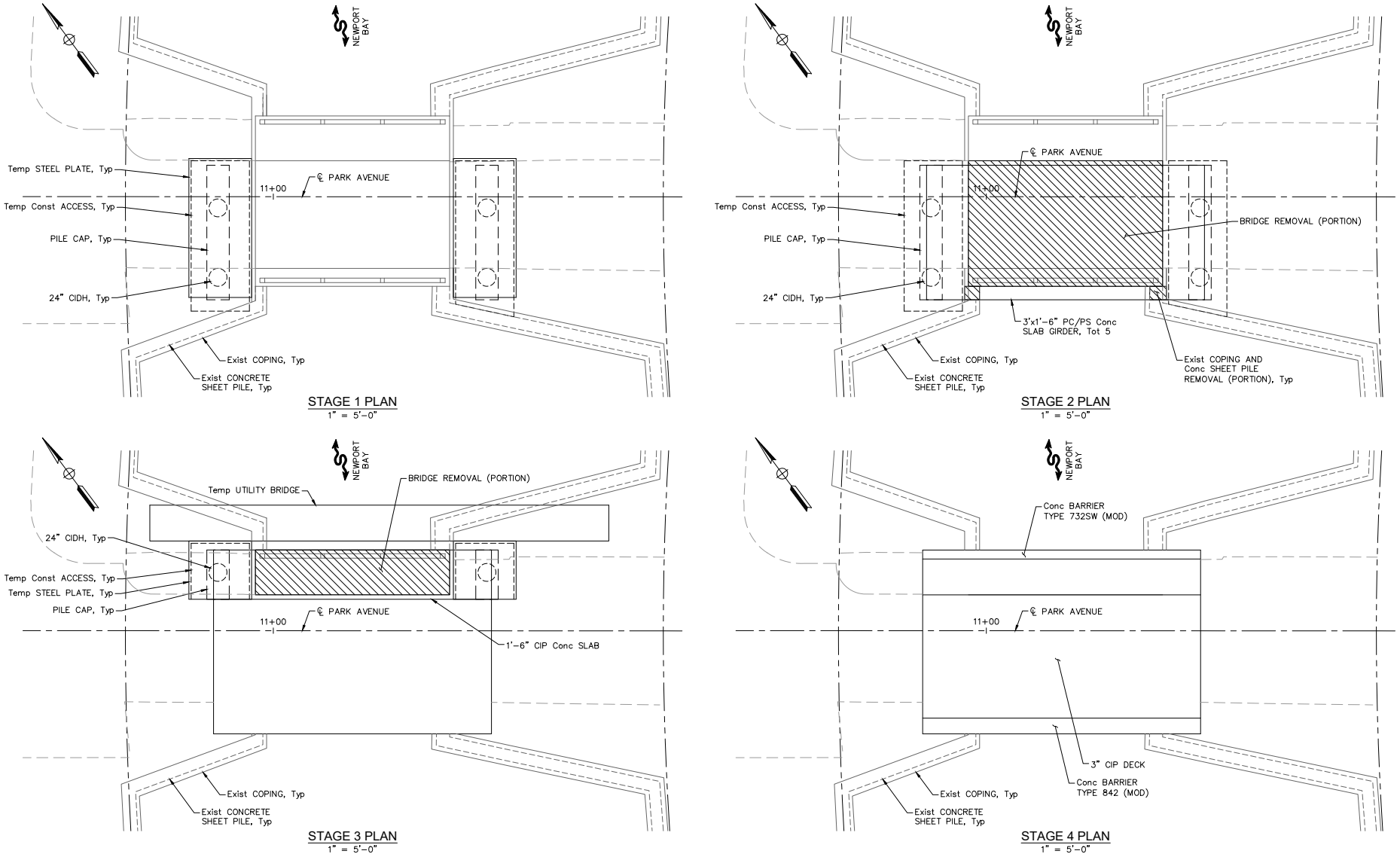
Construction activities would occur during permitted hours as detailed in the City's Noise Ordinance. Specifically, Municipal Code Section 10.28.040, *Construction Activity - Noise Regulations*, limits construction hours to weekdays 7:00 a.m. to 6:30 p.m. and Saturdays from 8:00 a.m. to 6:00 p.m. No construction activities are permitted on Sundays and federal holidays.

As shown on Exhibits 2-7a and 2-7b, *Bridge Construction Stages*, the bridge would be replaced in portions to provide access to Collins Island during construction activities to maximum extent feasible. A 14-foot wide portion would first be removed and replaced and the remaining 5-foot wide portion would be removed and replaced. Short-term bridge closures limited to a few hours in a day (i.e., not full day or multi-day closures) may be required. However, steel plates would be placed over temporary excavations to allow traffic to remain open after work hours.

Overall, the proposed project improvements would occur in two phases and generally consist of:

Phase 1 – Bridge Construction (approximately 7 months)

a. Partial demolition of the site would require removal of portions of existing concrete paving, bridge structure, sidewalks, and landscaping. The partial demolition would occur for approximately one to two months. Anticipated construction equipment includes excavators, back hoes, hydraulic hammers, concrete saws, material handlers, truck crane, and dump trucks. The bridge removal would consist of saw-cutting long portions of the bridge and lifting them onto nearby flatbed trucks for removal. A drop net placed over the waterway would be used to catch debris during removal of the concrete bridge and coping on existing seawalls.
b. All four stages of bridge replacement activities illustrated on Exhibits 2-7a and 2-7b would occur in this construction phase. Estimated duration for bridge construction is approximately two months. 24-inch concrete pile foundations would be drilled into the sea floor and precast/prestressed concrete slab girders would be utilized during construction to accelerate bridge construction and minimize impacts to adjacent residents.
c. A temporary utility bridge would be constructed on the northern side of the bridge to ensure essential utility services to Collins Island are maintained.
d. Steel sheet piling near the bridge abutments would be placed at this phase of construction to support the existing concrete sheet pile seawalls. New steel sheet piling would be installed in front of the existing concrete sheet pile wall utilizing a hydraulic press-in-method that forces the interlocking steel piling sections through loose fill and into competent sandstone substrata below grade to the depth specified in the project's geotechnical report; refer to Exhibit 2-5. No impact pile driving would be utilized. A barge mounted crane may be required to position the steel sheet piles. Steel sheet piles would be delivered to the site by truck or barge and off loaded as needed by crane to minimize the need for on-site storage and laydown areas. Once sheet piling is installed, steel outlet pipes (for the future pump station) would be constructed.
e. The proposed seawall improvements along the Bay Front sidewalk would consist of new steel sheet pilings installed on the seaward side of the existing concrete sheet piling with the hydraulic press-in-method to the depth specified in the project's geotechnical report. Concrete coping and concrete sidewalks would then be constructed. This portion of construction would occur immediately after bridge construction. Estimated duration for seawall construction is approximately four months.
f. Street improvements for bridge approaches, paving, sidewalk, and utility relocations would also occur concurrently with the seawall construction and take approximately four months.



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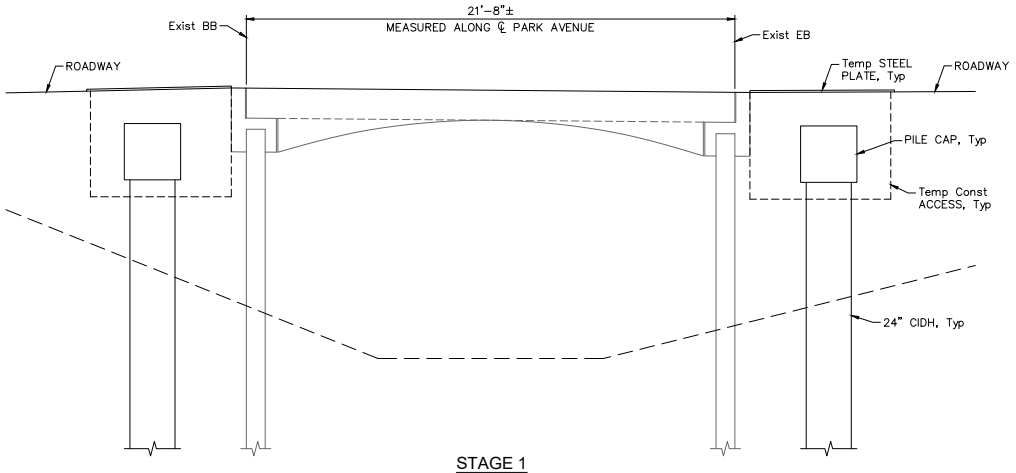
Bridge Construction Stages

Exhibit 2-7a

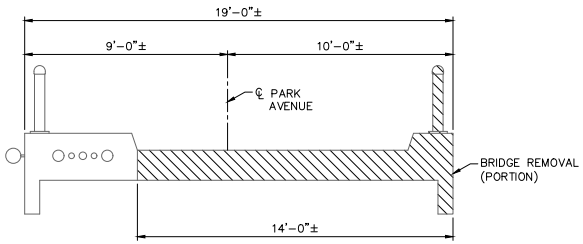


STAGE 1
3/8" = 1'–0"
SEE NOTE 1

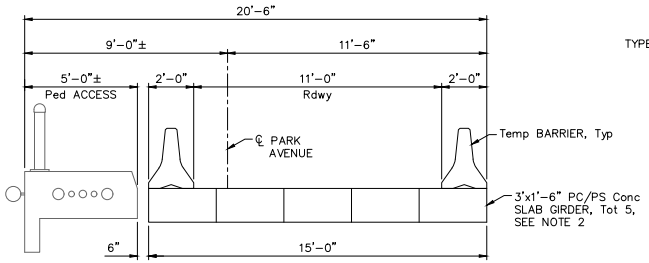
NOTES:

1. EXCAVATE AREA BEHIND THE BEGINNING AND END OF THE BRIDGE TO INSTALL 24" CAST-IN-DRILLED-HOLE PILES. WHEN CONSTRUCTION IS NOT ACTIVE, COVER THE EXCAVATED AREA WITH STEEL PLATES TO ALLOW BRIDGE ACCESS. APPROXIMATELY THREE PILES ARE REQUIRED AT EACH SUPPORT.
2. CALTRANS STANDARD PRECAST/PRESTRESSED CONCRETE SLAB GIRDERS SHOWN. FINAL CONFIGURATION WILL BE DETERMINED DURING THE DESIGN PHASE OF THE PROJECT.
3. GENERIC TEMPORARY UTILITY BRIDGE SHOWN. FINAL CONFIGURATION WILL BE DETERMINED DURING THE DESIGN PHASE OF THE PROJECT.
4. CALTRANS STANDARD BARRIERS SHOWN. FINAL BARRIER CONFIGURATION WILL BE DETERMINED DURING THE DESIGN PHASE OF THE PROJECT AND WILL BE DESIGNED TO ACCOMMODATE STEM WALLS.

LEGEND:
BRIDGE REMOVAL (PORTION)



DEMOLITION



CONSTRUCTION
STAGE 2
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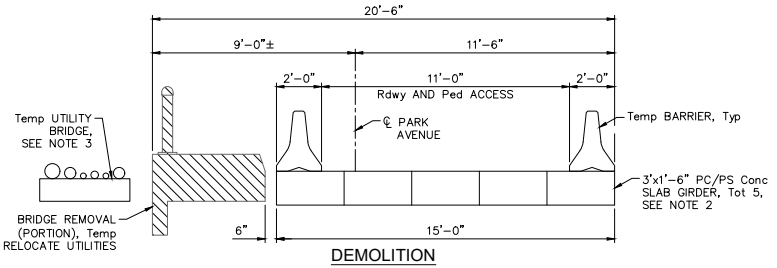
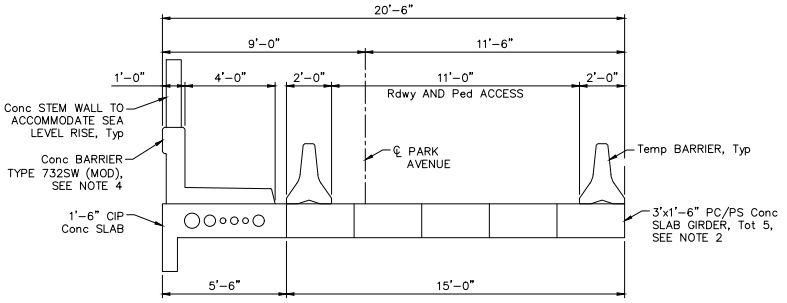
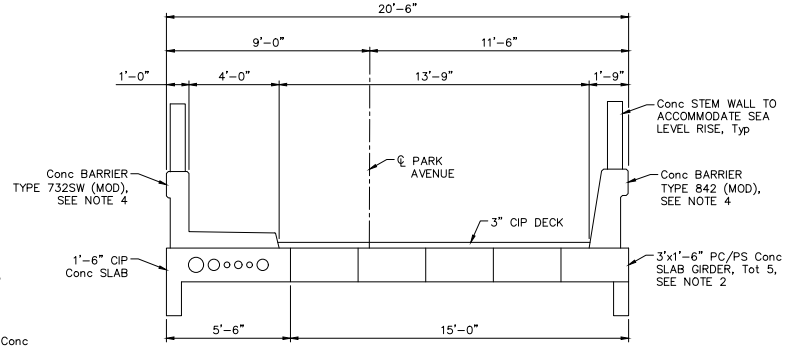


DEMOLITION



CONSTRUCTION
STAGE 3
3/8" = 1'–0"



CONSTRUCTION
STAGE 4
3/8" = 1'–0"

Source: Michael Baker International, July 2023

Michael Baker INTERNATIONAL

NOT TO SCALE

07/2023 • JN 191636

COLLINS ISLAND BRIDGE REPLACEMENT PROJECT
INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

Bridge Construction Stages

Exhibit 2-7b

Phase 2 - Park Avenue Street Improvements (approximately 4 months)

a. Demolition of the remaining portions of existing concrete paving would occur for approximately one month. Anticipated construction equipment include excavators, back hoes, hydraulic hammers, concrete saws, material handlers, truck crane, and dump trucks.
b. The remaining portions of partial street improvements would occur for a duration of approximately two months.
c. Landscaping improvements consisting of monument sign construction, sign construction, irrigation, paving, and landscaping would occur for approximately one month.

Given the site constraints, there are limited laydown areas for construction staging. Similar to other projects on Balboa Island, construction contractors would be required to bring material to the site on an as-needed basis with limited areas for truck parking to offload materials.

Construction workers would be required to park off-site and shuttle from mainland parking areas to the site in order to minimize impacts to Balboa Island parking. Potential mainland parking areas would be identified in the project's Traffic Management Plan and reviewed and approved by the City prior to initiation of construction activities. Construction activities would require approximately 20 workers on-site each day for the duration of the construction period.

HAULING ACTIVITIES

The project would require hauling of demolition materials from the project site to the local landfill. Each haul truck is capable of holding approximately 10 cubic yards of material. It is anticipated that approximately 40 truck trips would be required over the anticipated construction period.

Additionally, the project would require hauling of construction materials (i.e., steel and other miscellaneous construction materials) from the mainland to the construction area via trucks and barges. Given the limited laydown areas, construction materials would be delivered to the project site on an as-needed basis with most as pre-cast elements.

2.5 PERMITS AND APPROVALS

The City of Newport Beach and other applicable agency approvals required for project implementation would include, but are not limited to, the following:

City of Newport Beach
- California Environmental Quality Act Clearance
- Coastal Development Permit

California Coastal Commission
- Coastal Development Permit

U.S. Army Corps of Engineers
- Section 10 of the Rivers and Harbor Act/Clean Water Act Section 404 (Nationwide Permit 3, Maintenance)

Regional Water Quality Control Board
- Clean Water Act Section 401 Water Quality Certification
- National Pollutant Discharge Elimination System Construction General Permit

3.0 INITIAL STUDY CHECKLIST

3.1 BACKGROUND

1.	**Project Title:** Collins Island Bridge Replacement Project
2.	**Lead Agency Name and Address:** City of Newport Beach 100 Civic Center Drive Newport Beach, CA 92660
3.	**Contact Person and Phone Number:** Robert Stein, Assistant City Engineer 949.644.3311
4.	**Project Location:** Regionally, the project site is located within the City of Newport Beach, in the southwestern portion of Orange County; locally, the project site is the Collins Island Bridge and its immediate vicinity located on Balboa Island in the Newport Bay. Collins Island is located on the western tip of Balboa Island and is connected to the greater Balboa Island via the Collins Island Bridge.
5.	**Project Sponsor's Name and Address:** City of Newport Beach Public Works Department Robert Stein, Assistant City Engineer 100 Civic Center Drive Newport Beach, CA 92660
6.	**General Plan Designation:** Based on the *City of Newport Beach General Plan*, Collins Island is designated Single-Unit Residential Detached (RS-D). Uses to the east of the Collins Island Bridge on the greater Balboa Island are designated Two-Unit Residential (RT). As a roadway feature, the bridge itself does not have a land use designation.
7.	**Zoning:** According to the *City of Newport Beach Overview Map*, Collins Island is zoned Single Unit Residential (R-1). Uses to the east of the Collins Island Bridge on the greater Balboa Island are zoned Two-Unit Residential (R-BI [Balboa Island]). As a roadway feature, the bridge itself does not have a zoning district. Additionally, based on the *City of Newport Beach Local Coastal Program Coastal Land Use Plan*, Collins Island is designated Single-Unit Residential Detached (RSD-B) with an allowed density of 6.0 to 9.9 dwelling units per acre (du/ac); uses to the east of the Collins Island Bridge on the greater Balboa Island are designated Two-Unit Residential (RT-E) with an allowed density of 30.0 to 39.9 du/ac.
8.	**Description of the Project:** The project has three major components: 1) bridge replacement, 2) seawall improvements, and 3) future pump station accommodations. Additional details regarding the project are provided in Section 2.3, *Project Characteristics*.
9.	**Surrounding Land Uses and Setting:** Surrounding uses in the project area are primarily comprised of open waters, beach areas, and residential uses as described below: • *North:* Open waters associated with the Newport Bay are located to the north of the project site. Harbor Island is located further north and is designated RS-D and RT and zoned R-1 and Two-Unit Residential (R-2).

	• *East:* The greater Balboa Island is located to the east of the site. Balboa Island uses are primarily designated RT and zoned R-BI. • *South:* Open waters associated with the Newport Bay are located to the south of the site. The Balboa Peninsula is located further south. Uses along the Balboa Peninsula have various land use designations, including RS-D, RT, Multiple Unit Residential (RM), Public Facilities (PF), Visitor Serving Commercial (CV), Mixed-Use Water Related (MU-W2), and Parks and Recreation (PR). Zoning districts along the Balboa Peninsula include R-2, Multi-Unit Residential (RM), Mixed-Use Vertical (MU-V), Commercial Visitor-Serving (CV), Public Facilities (PF), and Parks and Recreation (PR). • *West:* Open waters associated with the Newport Bay are located to the west of the site. Harbor Island is located further northwest.
10.	**Other public agencies whose approval is required (e.g., permits, financing approval or participation agreement):** Refer to Section 2.5, *Permits and Approvals*, for a description of the permits and approvals anticipated to be required for the project. Additional approvals may be required as the project entitlement process moves forward.
11.	**Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?** In compliance with Assembly Bill (AB) 52, the City distributed letters to applicable Native American tribes to notify tribes of the opportunity to consult with the City regarding the proposed project. Refer to Section 4.18, *Tribal Cultural Resources*, for additional details.

3.2 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" or "Less Than Significant Impact with Mitigation Incorporated," as indicated by the checklist on the following pages.

	Aesthetics		Mineral Resources
	Agriculture and Forestry Resources	✓	Noise
	Air Quality		Population and Housing
✓	Biological Resources	✓	Public Services
✓	Cultural Resources		Recreation
	Energy	✓	Transportation
✓	Geology and Soils		Tribal Cultural Resources
	Greenhouse Gas Emissions		Utilities and Service Systems
✓	Hazards and Hazardous Materials		Wildfire
	Hydrology and Water Quality	✓	Mandatory Findings of Significance
	Land Use and Planning		

3.3 EVALUATION OF ENVIRONMENTAL IMPACTS

This section analyzes the potential environmental impacts associated with the proposed project. The issue areas evaluated in this Initial Study include:

- Aesthetics
- Agriculture and Forestry Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Energy
- Geology and Soils
- Greenhouse Gas 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
- Wildfire

The environmental analysis in this section is patterned after the Initial Study Checklist recommended by the *CEQA Guidelines* and used by the City of Newport Beach in its environmental review process. For the preliminary environmental assessment undertaken as part of this Initial Study's preparation, a determination that there is a potential for significant effects indicates the need to more fully analyze the development's impacts and to identify mitigation.

For the evaluation of potential impacts, the questions in the Initial Study Checklist are stated and an answer is provided according to the analysis undertaken as part of the Initial Study. The analysis considers the long-term, direct, indirect, and cumulative impacts of the development. To each question, there are four possible responses:

- *No Impact*. The development will not have any measurable environmental impact on the environment.

- *Less Than Significant Impact*. The development will have the potential for impacting the environment, although this impact will be below established thresholds that are considered to be significant.

- *Less Than Significant Impact With Mitigation Incorporated*. The development will have the potential to generate impacts which may be considered as a significant effect on the environment, although mitigation measures or changes to the development's physical or operational characteristics can reduce these impacts to levels that are less than significant.

- *Potentially Significant Impact*. The development will have impacts which are considered significant, and additional analysis is required to identify mitigation measures that could reduce these impacts to less than significant levels.

Where potential impacts are anticipated to be significant, mitigation measures will be required, so that impacts may be avoided or reduced to insignificant levels.

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4.0 ENVIRONMENTAL ANALYSIS

The following is a discussion of potential project impacts as identified in the Initial Study/Environmental Checklist. Explanations are provided for each item.

4.1 AESTHETICS

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Have a substantial adverse effect on a scenic vista?			✓	
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				✓
c. In non-urbanized areas, 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?			✓	
d. Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?			✓	

a) Have a substantial adverse effect on a scenic vista?

Less Than Significant Impact. The *City of Newport Beach General Plan* (General Plan) identifies the conservation of sensitive lands and natural resources, and enhancement of the City's visual resources as important goals. The General Plan designates visual resources, scenic corridors, public view points, ocean views, cliffs, and hillsides as important scenic resources with the City of Newport Beach. The project site is located within a developed residential area on Balboa Island/Collins Island within Newport Bay. According to General Plan Figure NR3, *Coastal Views*, and the *City of Newport Beach Local Coastal Program Coastal Land Use Plan* (CLUP) Map 4-3, *Coastal Views*, the existing Collins Island Bridge and surrounding area are not designated as a "Public View Point" or "Coastal View Road."

During project construction, views towards the project site from surrounding residences, public sidewalks, beach areas, and open water may be temporarily altered by construction activities and equipment. However, project construction would occur over a short duration (11 months) and would not block expansive public views of Newport Bay; upon completion, any disruption of public views due to construction activities would cease.

The proposed project would replace the existing Collins Island Bridge with a new bridge structure, implement seawall improvements, and install future pump station accommodations. The Bay Front sidewalks adjacent to the new proposed seawalls would also be raised to provide a minimum of 42 inches from sidewalk to top of coping for pedestrian safety and would not obstruct existing public views along the sidewalk over the seawalls. The project would also improve sight distance along the adjacent walkways to increase pedestrian safety. Overall, the project's height, mass, and scale would be similar to existing conditions, and would not introduce new structures that would further obstruct public views of Newport Bay. As such, the project would have a less than significant impact on a scenic view or vista.

Mitigation Measures: No mitigation measures are required.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?

No Impact. State Route 1 (SR-1) is the nearest Officially State Designated State Scenic Highway, located approximately 0.4-mile to the northeast of the project site.[1] Views to the project area from SR-1, however, are not afforded due to topographic conditions and intervening structures. As such, the proposed project would not affect scenic resources along SR-1. No impact would occur in this regard.

Mitigation Measures: No mitigation measures are required.

c) In non-urbanized areas, 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 Impact. The project site is located in a developed, urbanized area of Newport Beach. Based on the City's Zoning Map, Collins Island is zoned Single Unit Residential (R-1) and uses to the east of the Collins Island Bridge on the greater Balboa Island are zoned Two-Unit Residential (R-BI [Balboa Island]). However, the bridge itself and adjacent rights-of-way (e.g., Park Avenue and Bay Front sidewalk) where anticipated project improvements would occur do not have any zoning districts since they are public roadway infrastructure facilities. As described in Response 4.1(a), there are no public view points or coastal roads in the project impact area, and changes to public views of the site during construction would be temporary. As such, the proposed project would not conflict with Municipal Code Section 20.30.100, *Public View Protection*.

The proposed project would replace the existing Collins Island Bridge with a new bridge structure that would have slightly reduced slopes along the roadway and sidewalk bridge approaches compared to existing conditions to meet Americans with Disabilities (ADA) standards. Landscaped areas and the bridge monument would also be improved to increase sight distance along the adjacent walkways to increase pedestrian safety. A new stop sign and limit line would also be added at the intersection on both sides of the bridge. Street, sidewalk, and landscaping improvements are also proposed on the Balboa Island side along the Bay Front sidewalk and Park Avenue eastward until the alley. Proposed discharge and outlet pipes to accommodate a future pump station (to be processed as a future, separate project) would also be constructed.

The project would also increase the height of existing seawalls adjacent to the bridge, as well as construct new seawalls, in order to accommodate future sea level rise, maintain consistency with surrounding seawalls on Collins Island and Balboa Island, and comply with ADA standards. Specifically, the project would increase the seawall heights from 9 feet North American Vertical Datum of 1988 (NAVD 88) to 11 feet NAVD 88 with a future cap extension elevation up to 14 feet NAVD 88. Pursuant to Appendix A, *Sea Level Rise*, of Municipal Code Title 21, *Local Coastal Program Implementation Plan*, the City understands that, due to the threat of flooding and inundation from sea level rise, public and privately-owned seawall caps may need to be extended, and City standards may need to be revised to allow for the construction of new seawalls. The Bay Front sidewalk adjacent to the new proposed seawalls would also be raised to provide a minimum of 42 inches from sidewalk to top of coping for pedestrian safety. Existing public views and visual character of the harbor as viewed from the public walkway would be maintained. As such, while the project would slightly alter the visual character of the project site, this action would be consistent with local regulations. Refer also to Table 4.11-3, *Local Coastal Program Project Consistency Analysis*, in Section 4.11, *Land Use and Planning*, for a project consistency analysis with applicable *City of Newport Beach Local Coastal Program Coastal Land Use Plan* (CLUP) policies, including those related to aesthetics and scenic/coastal views.

[1] California Department of Transportation, *California State Scenic Highway System Map*, https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aacaa, accessed August 9, 2023.

Overall, the project's potential to conflict with applicable zoning and other regulations governing scenic quality would be less than significant.

Mitigation Measures: No mitigation measures are required.

d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Less Than Significant Impact. There are two primary sources of light: light emanating from building interiors that pass through windows and light from exterior sources (i.e., street lighting, parking lot lighting, building illumination, security lighting, and landscape lighting). Light introduction can be a nuisance to adjacent uses and diminish the view of the clear night sky.

Project construction could involve temporary light and glare impacts as a result of construction equipment and materials. However, based on the project's limited construction duration and scope of activities, these sources of light and glare would not be substantial. Pursuant to Municipal Code Section 10.28.040, *Construction Activity – Noise Regulation*, all construction activities associated with the proposed project shall be limited to the hours between 7:00 a.m. and 6:30 p.m. on weekdays and between the hours of 8:00 a.m. and 6:00 p.m. on Saturdays. No construction activities would occur on Sunday or federal holidays. Construction activities would not utilize any nighttime lighting that could result in temporary light and glare impacts. Thus, short-term construction light and glare impacts would be less than significant.

The project area currently experiences lighting typical of urban/suburban areas. The primary source of light and glare in the area is from streetlights, private residential lighting, and motor vehicle headlights. The proposed project may include bridge lighting for pedestrian safety and architectural character similar to the existing lighting fixtures in the project area. It is not anticipated that the project would introduce new lighting that would substantially alter nighttime views in the project area. All project lighting would be designed pursuant to Municipal Code Section 20.20.070, *Outdoor Lighting* and Municipal Code Section 21.30.070, *Outdoor Lighting*; generally, all outdoor lighting fixtures would be designed, shielded, aimed, located, and maintained to shield adjacent properties and to not produce glare onto adjacent properties or roadways. Thus, upon required Municipal Code and design guidelines compliance, a less than significant impact would occur in this regard.

Mitigation Measures: No mitigation measures are required.

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4.2 AGRICULTURE AND FORESTRY RESOURCES

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:	**Potentially Significant Impact**	**Less Than Significant Impact With Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				✓
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?				✓
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 122220(g)), timberland as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?				✓
d. Result in the loss of forest land or conversion of forest land to non-forest use?				✓
e. Involve other changes in the existing environment, which due to their location or nature, could result in conversion of Farmland to non-agricultural use or forest land to non-forest use?				✓

a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

No Impact. Based on the California Department of Conservation's *Important Farmland Finder*, the project site is not mapped as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance.[1] No active agricultural uses occur on-site or in the surrounding area. No impacts would occur in this regard.

Mitigation Measures: No mitigation measures are required.

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?

No Impact. Collins Island is zoned Single Unit Residential (R-1). Uses to the east of the Collins Island Bridge on the greater Balboa Island are zoned Two-Unit Residential (R-BI [Balboa Island]). The bridge itself does not have a zoning district and is not covered under an existing Williamson Act contract.[2] Thus, no impacts would occur in this regard.

Mitigation Measures: No mitigation measures are required.

[1] California Department of Conservation, *Farmland Mapping and Monitoring Program, California Important Farmland Finder*, https://maps.conservation.ca.gov/DLRP/CIFF/, accessed July 13, 2023.

[2] California Department of Conservation, *California Williamson Act Enrollment Finder*, https://maps.conservation.ca.gov/dlrp/WilliamsonAct/, accessed July 13, 2023.

c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 122220(g)), timberland as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

No Impact. Collins Island is zoned R-1. Uses to the east of the Collins Island Bridge on the greater Balboa Island are zoned R-BI. The bridge itself does not have a zoning district and is not occupied or used for forest land, timberland, or timberland production. Further, project implementation would not result in the rezoning of forest land, timberland, or timberland zoned timberland production. No impact would occur.

Mitigation Measures: No mitigation measures are required.

d) Result in the loss of forest land or conversion of forest land to non-forest use?

No Impact. Refer to Response 4.2(c). No impacts would occur in this regard.

Mitigation Measures: No mitigation measures are required.

e) Involve other changes in the existing environment, which due to their location or nature, could result in conversion of farmland to non-agricultural use or conversion of forest land to non-forest use?

No Impact. Refer to Responses 4.2(a) through 4.2(d). No impacts would occur in this regard.

Mitigation Measures: No mitigation measures are required.

4.3 AIR QUALITY

Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:	**Potentially Significant Impact**	**Less Than Significant Impact With Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a. Conflict with or obstruct implementation of the applicable air quality plan?			✓	
b. 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?			✓	
c. Expose sensitive receptors to substantial pollutant concentrations?			✓	
d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?			✓	

a) Conflict with or obstruct implementation of the applicable air quality plan?

Less Than Significant Impact. The project is located within the South Coast Air Basin (Basin), which is governed by the South Coast Air Quality Management District (SCAQMD). On December 2, 2022, the SCAQMD Governing Board adopted the *2022 Air Quality Management Plan* (2022 AQMP). The 2022 AQMP incorporates the latest scientific and technical information and planning assumptions, including the latest applicable growth assumptions, updated emission inventory methodologies for various source categories. Additionally, the 2022 AQMP utilized information and data from Southern California Association of Governments (SCAG) and its *2020-2045 Regional Transportation Plan/Sustainable Communities Strategy* (2020-2045 RTP/SCS). According to the SCAQMD's *CEQA Air Quality Handbook*, projects must be analyzed for consistency with two main criteria, as discussed below.

Criterion 1:

With respect to the first criterion, SCAQMD methodologies require that an air quality analysis for a project include forecasts of project emissions in relation to contributing to air quality violations and delay of attainment.

a) Would the project result in an increase in the frequency or severity of existing air quality violations?

Since the consistency criteria identified under the first criterion pertain to pollutant concentrations, rather than to total regional emissions, an analysis of a project's pollutant emissions relative to localized pollutant concentrations associated with the California Ambient Air Quality Standards (CAAQS) and National Ambient Air Quality Standards (NAAQS) is used as the basis for evaluating project consistency. As discussed under Responses 4.3(b) and 4.3(c), the project's short-term construction emissions, long-term operational emissions, and localized concentrations of carbon monoxide (CO), nitrogen oxide (NO_X), particulate matter less than 10 microns in diameter (PM_{10}), and particulate matter less than 2.5 microns in diameter ($PM_{2.5}$) would be less than significant. Due to the role volatile organic compounds (VOC) plays in ozone (O_3) formation, it is classified as a precursor pollutant and only a regional emissions threshold has been established. Overall, the project would not result in an increase in the frequency or severity of existing air quality violations.

b) Would the project cause or contribute to new air quality violations?

As discussed in Response 4.3(b), the proposed project would result in emissions that are below SCAQMD thresholds. Therefore, the proposed project would not have the potential to cause or affect a violation of the ambient air quality standards and would result in a less than significant impact.

c) Would the project delay timely attainment of air quality standards or the interim emissions reductions specified in the AQMP?

The proposed project would result in less than significant impacts with regard to regional and localized concentrations during project construction; refer to Reponses 4.3(b) and 4.3(c). Further, the project would not generate operational emissions. As such, the proposed project would not delay the timely attainment of air quality standards or AQMP emissions reductions.

Criterion 2:

With respect to the second criterion for determining consistency with SCAQMD and SCAG air quality policies, it is important to recognize that air quality planning within the Basin focuses on attainment of ambient air quality standards at the earliest feasible date. Projections for achieving air quality goals are based on assumptions regarding population, housing, and growth trends. Thus, the SCAQMD's second criterion for determining project consistency focuses on whether or not the proposed project exceeds the assumptions utilized in preparing the forecasts presented in the AQMP. Determining whether or not a project exceeds the assumptions reflected in the AQMP involves the evaluation of the three criteria outlined below. The following discussion provides an analysis of each of these criteria.

a) Would the project be consistent with the population, housing, and employment growth projections utilized in the preparation of the AQMP?

A project is consistent with the 2022 AQMP in part if it is consistent with the population, housing, and employment assumptions that were used in the development of the 2022 AQMP. In the case of the 2022 AQMP, three sources of data form the basis for the projections of air pollutant emissions: the City's General Plan, SCAG's regional growth forecast, and the SCAG's 2020-2045 RTP/SCS. The 2020-2045 RTP/SCS also provides socioeconomic forecast projections of regional population growth.

Based on the General Plan, Zoning Map, and *City of Newport Beach GIS Map Viewer*, the bridge itself does not have a land use designation or zoning district. As the project would replace the existing bridge and would not change the land use type or introduce any new land uses, the proposed development would be consistent with the General Plan and Zoning Map and would not require amendments to these local land use planning documents; refer to Section 4.11, *Land Use and Planning*. Furthermore, given the nature of the development, the project would not result in direct or indirect population growth and, therefore, would not affect Citywide plans for population growth at the project site. Additionally, the project would require minimal maintenance during operation of the proposed new bridge, seawalls, or stormwater features and therefore would not increase employment. Thus, the proposed project is consistent with the types, intensity, and patterns of land use envisioned for the site in these local plans. The population, housing, and employment forecasts adopted by SCAG's Regional Council are based on the local plans and policies applicable to the City. As such, the project would be consistent with SCAG's 2020-2045 RTP/SCS. Additionally, as the SCAQMD has incorporated these same projections into the 2022 AQMP, it can be concluded that the proposed project would be consistent with the projections.

b) Would the project implement all feasible air quality mitigation measures?

The proposed project would result in less than significant air quality impacts. Compliance with all feasible emission reduction measures identified by SCAQMD would be required as identified in Responses 4.3(b) and 4.3(c). As such, the proposed project meets this AQMP consistency criterion.

c) Would the project be consistent with the land use planning strategies set forth in the AQMP?

Land use planning strategies set forth in the 2022 AQMP are primarily based on the 2020-2045 RTP/SCS. As discussed above, the proposed project would be consistent with the City's vision for the site and would not require a General Plan or Zoning Code amendment. As such, the proposed project meets this 2022 AQMP consistency criterion.

In conclusion, the determination of 2022 AQMP consistency is primarily concerned with long-term influence of a project on air quality in the Basin. The proposed project would not result in long-term impact on the region's ability to meet federal and State air quality standards. Further, the proposed project's long-term influence on air quality in the Basin would also be consistent with the SCAQMD and SCAG's goals and policies and is considered consistent with the 2022 AQMP. Overall, development of the project would not conflict with or obstruct implementation of the 2022 AQMP and impacts would be less than significant in this regard.

Mitigation Measures: No mitigation measures are required.

b) 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?

Less Than Significant Impact.

Criteria Air Pollutants

Criteria air pollutants are defined as those pollutants for which the federal and State governments have established air quality standards for outdoor or ambient concentrations to protect public health. The national and State ambient air quality standards have been set at levels to protect human health with a determined margin of safety. For some pollutants, there are also secondary standards to protect the environment. The U.S. Environmental Protection Agency (EPA) has established ambient air quality standards for the following air pollutants:

- ozone (O_3);
- nitrogen dioxide (NO_2);
- carbon monoxide (CO);
- sulfur dioxide (SO_2);
- lead (Pb); and
- particulate matter (PM_{10} and $PM_{2.5}$).

The following is a description of the criteria air pollutants.

Ozone (O_3). Ozone (O_3), a colorless gas with a sharp odor, is a highly reactive form of oxygen. High O_3 concentrations exist naturally in the stratosphere. Some mixing of stratospheric O_3 downward through the troposphere to the earth's surface does occur; however, the extent of O_3 transport is limited. At the earth's surface in sites remote from urban areas, O_3 concentrations are normally very low (e.g., from 0.03 ppm to 0.05 ppm). Unlike most other air pollutants, ozone is not directly emitted, but instead is formed in the atmosphere. Ozone is formed when NOx and volatile organic compounds (VOCs) react in the presence of sunlight. While both NO_x and VOCs contribute to ozone, the key to attaining the ozone standard is to reduce NO_x.

Nitrogen Dioxide. Nitrogen dioxide (NO_2) is a reddish-brown gas with a bleach-like odor. Nitric oxide (NO) is a colorless gas, formed from the nitrogen (N_2) and oxygen (O_2) in air under conditions of high temperature and pressure which are generally present during combustion of fuels; NO reacts rapidly with the oxygen in air to form NO_2. NO_2 is responsible for the brownish tinge of polluted air. The two gases, NO and NO_2, are referred to collectively as NO_x. In the presence of sunlight, NO_2 reacts to form nitric oxide and an oxygen atom. The oxygen atom can react further to form O_3, via a complex series of chemical reactions involving hydrocarbons. Nitrogen dioxide may also react to form nitric acid (HNO_3) which reacts further to form nitrates, components of $PM_{2.5}$ and PM_{10}.

Carbon Monoxide. Carbon monoxide (CO) is a primary pollutant, meaning that it is directly emitted into the air, not formed in the atmosphere by chemical reaction of precursors, as is the case with ozone and other secondary pollutants. Ambient concentrations of CO in the Basin exhibit large spatial and temporal variations due to variations in the rate at which CO is emitted and in the meteorological conditions that govern transport and dilution. Unlike ozone, CO tends to reach high concentrations in the fall and winter months. The highest concentrations frequently occur on weekdays at times consistent with rush hour traffic and late night during the coolest, most stable portion of the day.

Sulfur Dioxide (SO_2). Sulfur dioxide (SO_2) is a colorless gas with a sharp odor. It reacts in the air to form sulfuric acid (H_2SO_4), which contributes to acid precipitation, and sulfates, which are components of PM_{10} and $PM_{2.5}$. Most of the SO_2 emitted into the atmosphere is produced by burning sulfur-containing fuels. SO_2 is a precursor to sulfate, which is a component of fine particulate matter, PM_{10}, and $PM_{2.5}$.

Lead (Pb). Lead (Pb) is a naturally occurring elements found in small amounts in the earth's crust. While it has some beneficial uses, it can be toxic to humans and animals, causing health effects. On May 2012, CARB approved a revision to the State Implementation Plan (SIP) to address attainment of the federal lead standard in the South Coast Air Basin portion of Los Angeles County.

Coarse Particulate Matter (PM_{10}). PM_{10} refers to suspended particulate matter, which is smaller than 10 microns or ten one-millionths of a meter. PM_{10} arises from sources such as road dust, diesel soot, combustion products, construction operations, and dust storms. PM_{10} scatters light and significantly reduces visibility. In addition, these particulates penetrate lungs and can potentially damage the respiratory tract. On June 19, 2003, the CARB adopted amendments to the statewide 24-hour particulate matter standards based upon requirements set forth in the Children's Environmental Health Protection Act (Senate Bill 25).

Fine Particulate Matter ($PM_{2.5}$). Due to recent increased concerns over health impacts related to fine particulate matter (particulate matter 2.5 microns in diameter or less), both State and federal $PM_{2.5}$ standards have been created. Particulate matter impacts primarily affect infants, children, the elderly, and those with pre-existing cardiopulmonary disease. In 1997, the EPA announced new $PM_{2.5}$ standards. Industry groups challenged the new standard in court and the implementation of the standard was blocked. However, upon appeal by the EPA, the United States Supreme Court reversed this decision and upheld the EPA's new standards.

On January 5, 2005, the EPA published a Final Rule in the Federal Register that designates the Basin as a nonattainment area for federal $PM_{2.5}$ standards. On June 20, 2002, CARB adopted amendments for statewide annual ambient particulate matter air quality standards. These standards were revised/established due to increasing concerns by CARB that previous standards were inadequate, as almost everyone in California is exposed to levels at or above the current State standards during some parts of the year, and the Statewide potential for significant health impacts associated with particulate matter exposure was determined to be large and wide-ranging. On July 8, 2016, the EPA made a finding that the Basin has attained the 1997 24-hour and annual $PM_{2.5}$ standards based on 2011-2013 data. However, the Basin remains in nonattainment as the EPA has not determined that California has met the FCAA requirements for redesignating the Basin nonattainment area to attainment.

Volatile Organic Compounds (VOCs). VOCs are hydrocarbon compounds (any compound containing various combinations of hydrogen and carbon atoms) that exist in the ambient air. VOCs contribute to the formation of smog

through atmospheric photochemical reactions and/or may be toxic. Compounds of carbon (also known as organic compounds) have different levels of reactivity; that is, they do not react at the same speed or do not form O_3 to the same extent when exposed to photochemical processes. VOCs often have an odor, and some examples include gasoline, alcohol, and the solvents used in paints. Exceptions to the VOC designation include CO, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate. The terms VOC and reactive organic gases (ROG) (see below) are often used interchangeably.

Reactive Organic Gases (ROG). Similar to VOCs, ROGs are also precursors in forming O_3 and consist of compounds containing methane, ethane, propane, butane, and longer chain hydrocarbons, which are typically the result of some type of combustion/decomposition process.

Construction Impacts

Construction Emissions

Construction activities are scheduled to occur over a period of 11 months. Construction activities would include demolition, excavation, utility relocation, drilling for bridge pile foundations, steel sheet piling installation with press-in method, formwork framing and concrete placement for bridge and seawall improvements, street paving (concrete), and landscaping. Overall, the proposed project improvements would occur in two phases: Phase 1 – Bridge Construction (approximately 7 months) and Phase 2 - Park Avenue Street Improvements (approximately 4 months). The project would require hauling of demolition materials from the project site to the local landfill. Additionally, the project would require hauling of construction materials (i.e., steel, and other miscellaneous construction materials) from the mainland to the construction area via trucks and barges. Given the limited laydown areas, construction materials would be delivered to the project site on an as-needed basis with most as pre-cast elements. Construction workers would be required to park off-site and shuttle to the site from mainland parking areas to minimize impacts to Balboa Island parking.

The California Emissions Estimator Model (CalEEMod) version 2022.1 was utilized to calculate the project's construction air pollutants emissions; refer to Appendix A, *Air Quality/Greenhouse Gas Emissions/Energy Data*, for CalEEMod outputs and results. Exhaust emission factors for typical diesel-powered heavy equipment are based on the program defaults of CalEEMod. Variables factored into estimating the total construction emissions include the level of activity, length of construction period, number of pieces and types of equipment in use, site characteristics, weather conditions, number of construction personnel, and the amount of materials to be transported on- or off-site. Table 4.3-1, *Project-Generated Construction Emissions*, presents the anticipated daily short-term construction emissions associated with the project.

Table 4.3-1
Project-Generated Construction Emissions

Emissions Source	Pollutant (pounds/day)[1,2]					
	ROG	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Construction Emissions						
Year 1	2.42	19.30	28.20	0.05	1.61	0.93
Year 2	0.73	6.40	9.78	0.02	0.45	0.28
Maximum Daily Emissions	**2.42**	**19.30**	**28.20**	**0.05**	**1.61**	**0.93**
SCAQMD Thresholds	*75*	*100*	*550*	*150*	*150*	*55*
Is Threshold Exceeded?	***No***	***No***	***No***	***No***	***No***	***No***

Notes: ROG = reactive organic gas; NO_x = nitrous oxide; CO = carbon monoxide; SO_2 = sulfur dioxide; PM_{10} = coarse particulate matter; $PM_{2.5}$ = fine particulate matter

1. Emissions were calculated using CalEEMod, version 2022.1. Maximum emissions during summer or winter are presented here to represent the worst-case scenario.
2. Modeling assumptions include compliance with SCAQMD Rule 403 which requires: properly maintain mobile and other construction equipment; replace ground cover in disturbed areas quickly; water exposed surfaces three times daily; cover stockpiles with tarps; water all haul roads twice daily; and limit speeds on unpaved roads to 15 miles per hour.

Refer to Appendix A, *Air Quality/Greenhouse Gas Emissions/Energy Data* for detailed model input/output data.

Fugitive Dust Emissions

Construction activities are a source of fugitive dust emissions that may have a substantial, temporary impact on local air quality. In addition, fugitive dust may be a nuisance to those living and working in the project area. Fugitive dust emissions are associated with land clearing, ground excavation, cut-and-fill, and truck travel on unpaved roadways (typically during demolition and construction activities). Fugitive dust emissions vary substantially from day to day, depending on the level of activity, specific operations, and weather conditions. Fugitive dust from grading, excavation and construction is expected to be short-term and would cease upon project completion. These short-term impacts, however, would not be significant for the reasons discussed below.

Dust (larger than 10 microns) generated by such activities usually becomes more of a local nuisance than a serious health problem. Of particular health concern is the amount of PM_{10} generated as a part of fugitive dust emissions. PM_{10} poses a serious health hazard alone or in combination with other pollutants. $PM_{2.5}$ is mostly produced by mechanical processes. These include automobile tire wear, industrial processes such as cutting and grinding, and re-suspension of particles from the ground or road surfaces by wind and human activities such as construction or agriculture. $PM_{2.5}$ is mostly derived from combustion sources, such as automobiles, trucks, and other vehicle exhaust, as well as from stationary sources. These particles are either directly emitted or are formed in the atmosphere from the combustion of gases such as NO_X and SO_X combining with ammonia. $PM_{2.5}$ components from material in the earth's crust, such as dust, are also present, with the amount varying in different locations.

The proposed project would implement all required dust control techniques per SCAQMD Rule 403, which requires that excessive fugitive dust emissions be controlled by regular watering or other dust prevention measures to reduce PM_{10} and $PM_{2.5}$ concentrations. It should be noted that these reductions were applied in CalEEMod. As indicated in Table 4.3-1, total fugitive dust (PM_{10} and $PM_{2.5}$) emissions during construction would not exceed applicable SCAQMD thresholds. Thus, impacts in this regard would be less than significant.

Construction Equipment and Worker Vehicle Exhaust

Exhaust emissions from construction activities include emissions associated with the transport of machinery and supplies to and from the project site, employee commutes to the site, emissions produced on-site as equipment is used, and emissions from trucks transporting materials to/from the site. As presented in Table 4.3-1, criteria pollutant

emissions, including those associated with the use of construction equipment and worker vehicle exhaust, would not exceed the applicable SCAQMD thresholds. Therefore, impacts in this regard would be less than significant.

ROG Emissions

In addition to gaseous and particulate emissions, the application of asphalt and surface coatings creates ROG emissions, which are O_3 precursors. The ROG emissions associated with roadway paving and striping have been quantified with the CalEEMod model. As presented in Table 4.3-1, criteria pollutant emissions associated with ROG emissions would not exceed the applicable SCAQMD thresholds. Therefore, impacts in this regard would be less than significant.

Naturally Occurring Asbestos

Asbestos is a term used for several types of naturally occurring fibrous minerals that are a human health hazard when airborne. The most common type of asbestos is chrysotile, but other types such as tremolite and actinolite are also found in California. Asbestos is classified as a known human carcinogen by State, federal, and international agencies and was identified as a toxic air contaminant by CARB in 1986.

Asbestos can be released from serpentinite and ultramafic rocks when the rock is broken or crushed. At the point of release, the asbestos fibers may become airborne, causing air quality and human health hazards. These rocks have been commonly used for unpaved gravel roads, landscaping, fill projects, and other improvement projects in some localities. Asbestos may be released to the atmosphere due to vehicular traffic on unpaved roads, during grading for development projects, and at quarry operations. All of these activities may have the effect of releasing potentially harmful asbestos into the air. Natural weathering and erosion processes can act on asbestos bearing rock and make it easier for asbestos fibers to become airborne if such rock is disturbed. According to the Department of Conservation Division of Mines and Geology, *A General Location Guide for Ultramafic Rocks in California – Areas More Likely to Contain Naturally Occurring Asbestos Report*, serpentinite and ultramafic rocks are not known to occur within the project area.[1] Thus, no impact would occur in this regard.

Operational Impacts

The project proposes bridge replacement, seawall improvements, as well as stormwater features to accommodate a separate, future pump station project. These features do not directly generate vehicle trips, a predominant source of air pollutant emissions. While the proposed project would provide bridge improvements, the proposed new bridge would not represent a trip generating land use nor is it anticipated to significantly increase the capacity of Collins Island Bridge, which primarily serves the eight single-family residences on Collins Island. Rather, the project would facilitate safe travel for Collins Island users by constructing a bridge that meets current bridge code requirements. Similarly, both the proposed seawall improvements as well as stormwater features for the future pump station would not represent a trip generating land use. Additionally, the project does not propose any occupied buildings and would not introduce new stationary source emissions. Overall, as the proposed project would not include new mobile sources of emissions or permanent stationary sources, the project would not have the potential to generate criteria air pollutants emissions from project operations. Impacts would be less than significant in this regard.

Air Quality Health Impacts

Adverse health effects induced by criteria pollutant emissions are highly dependent on a multitude of interconnected variables (e.g., cumulative concentrations, local meteorology and atmospheric conditions, and the number and character of exposed individual [e.g., age and gender]). In particular, O_3 precursors, VOCs and NO_X, affect air quality

[1] California Department of Conservation Division of Mines and Geology, *A General Location Guide for Ultramafic Rocks in California – Areas More Likely to Contain Naturally Occurring Asbestos Report*, August 2000.

on a regional scale. Health effects related to O_3 are therefore the product of emissions generated by numerous sources throughout a region. Existing models have limited sensitivity to small changes in criteria pollutant concentrations, and, as such, translating project-generated criteria pollutants to specific health effects or additional days of nonattainment would produce meaningless results. In other words, the project's less than significant increases in regional air pollution from criteria air pollutants would have nominal or negligible impacts on human health.

As noted in the Brief of Amicus Curiae by the SCAQMD,[2] the SCAQMD acknowledged it would be extremely difficult, if not impossible to quantify health impacts of criteria pollutants for various reasons including modeling limitations as well as where in the atmosphere air pollutants interact and form. Further, as noted in the Brief of Amicus Curiae by the San Joaquin Valley Air Pollution Control District (SJVAPCD),[3] SJVAPCD has acknowledged that currently available modeling tools are not equipped to provide a meaningful analysis of the correlation between an individual development project's air emissions and specific human health impacts.

The SCAQMD acknowledges that health effects quantification from O_3, as an example, is correlated with the increases in ambient level of O_3 in the air (concentration) that an individual person breathes. SCAQMD's Brief of Amicus Curiae goes on to state that it would take a large amount of additional emissions to cause a modeled increase in ambient O_3 levels over the entire region. The SCAQMD states that based on their own modeling in the SCAQMD's 2012 Air Quality Management Plan, a reduction of 432 tons (864,000 pounds) per day of NO_X and a reduction of 187 tons (374,000 pounds) per day of VOCs would reduce O_3 levels at highest monitored site by only nine parts per billion. As such, the SCAQMD concludes that it is not currently possible to accurately quantify O_3-related health impacts caused by NO_X or VOC emissions from relatively small projects (defined as projects with regional scope) due to photochemistry and regional model limitations. As the project would not exceed SCAQMD thresholds for construction (refer to Table 4.3-1) and would not generate operational air emissions, the project would result in less than significant air quality health impacts.

Conclusion

As summarized above, the project's short-term construction emissions would be below the SCAQMD thresholds and would result in a less than significant impact. Furthermore, the project would not result in significant long-term air quality impacts, as there would be no emissions from the proposed bridge, new seawalls, and new stormwater features, and the project would not increase existing vehicular capacity. Thus, the project's construction and operational emissions would not contribute to a cumulatively considerable air quality impact for nonattainment criteria pollutants in the Basin. Impacts would be less than significant in this regard.

Mitigation Measures: No mitigation measures are required.

c) Expose sensitive receptors to substantial pollutant concentrations?

Less Than Significant Impact. Sensitive receptors are defined as facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses.[4] Examples of these sensitive receptors are residences, schools, hospitals, daycare centers, and places of worship. CARB has identified the following groups of individuals as the most likely to be affected by air pollution: the

[2] South Coast Air Quality Management District, *Application of the South Coast Air Quality Management District for Leave to File Brief of Amicus Curiae in Support of Neither Party and Brief of Amicus Curiae. In the supreme Court of California. Sierra Club, Revive the San Joaquin, and League of Women Voters of Fresno v. County of Fresno*, 2014.

[3] San Joaquin Valley Air Pollution Control District, *Application for Leave to File Brief of Amicus Curiae Brief of San Joaquin Valley Unified Air Pollution Control District in Support of Defendant and Respondent, County of Fresno and Real Party In Interest and Respondent, Friant Ranch, L.P. In the Supreme Court of California. Sierra Club, Revive the San Joaquin, and League of Women Voters of Fresno v. County of Fresno*, 2014.

[4] Per the definition in the SCAQMD *Final Localized Significance Threshold Methodology*, revised July 2008, and various SCAQMD Rules (such as Rule 1470, paragraph [b][60]).

elderly over 65, children under 14, athletes, and persons with cardiovascular and chronic respiratory diseases such as asthma, emphysema, and bronchitis.

The nearest sensitive receptors to the bridge and proposed seawall improvements are the single-family uses along North and South Bay Front , located immediately adjacent to the site.

In order to identify impacts to sensitive receptors, the SCAQMD recommends addressing localized significance thresholds (LSTs) for construction and operations impacts (stationary sources only). The CO hotspot analysis following the LST analysis addresses localized mobile source impacts.

LSTs were developed in response to SCAQMD Governing Boards' Environmental Justice Enhancement Initiative (I-4). The SCAQMD provided the *Final Localized Significance Threshold Methodology*, dated June 2003 and revised 2008, for guidance. The LST methodology assists lead agencies in analyzing localized impacts at the project-specific level. The SCAQMD provides the LST lookup tables for one-, two-, and five-acre projects emitting CO, NO_X, $PM_{2.5}$, or PM_{10}. The LST methodology and associated mass rates are not designed to evaluate localized impacts from mobile sources traveling over the roadways.

The SCAQMD guidance on applying CalEEMod to LSTs specifies the number of acres a particular piece of equipment would likely disturb per day.[5] SCAQMD provides LST thresholds for one-, two-, and five-acre site disturbance areas; SCAQMD does not provide LST thresholds for projects over five acres. According to CalEEMod, the project would actively disturb less than one acre per day during demolition and bridge construction phases. Therefore, the LST thresholds for one-acre (minimum) were utilized for the construction LST analysis. Sensitive land uses may be potentially affected by air pollutant emissions generated during on-site construction activities. LST thresholds are provided for distances to sensitive receptors of 25, 50, 100, 200, and 500 meters. According to SCAQMD LST Methodology, projects with boundaries located closer than 25 meters to the nearest receptor should use the LSTs for receptors located at 25 meters. As the nearest sensitive uses are directly adjacent to the proposed construction boundary, the LST values for 25 meters (82 feet) were used. The project site is located within Source Receptor Area (SRA) 18, *North Coastal Orange County*.

Construction Impacts

Table 4.3-2, *Localized Significance of Construction Emissions*, shows the localized construction-related emissions for NO_X, CO, PM_{10}, and $PM_{2.5}$ compared to the LSTs for SRA 18. It is noted that the localized emissions presented in Table 4.3-2 are less than those in Table 4.3-1 because localized emissions include only on-site emissions (i.e., from construction equipment and dust from material movement), and do not include off-site emissions (i.e., from hauling activities). As shown in Table 4.3-2, localized construction emissions would not exceed the LSTs for SRA 18. Therefore, localized significance impacts from construction would be less than significant.

[5] The number of acres represent the total acres traversed by grading equipment. To properly grade a piece of land, multiple passes with equipment may be required. The disturbance acreage is based on the equipment list and days of the grading phase according to the anticipated maximum number of acres a given piece of equipment can pass over in an 8-hour workday.

Table 4.3-2
Localized Significance of Emissions

Source	Pollutant Emissions (pounds/day)[1]			
	NO_X	CO	PM_{10}	$PM_{2.5}$
Maximum Daily Emissions[2,3]	**19.10**	**26.30**	**1.14**	**0.82**
Localized Significance Threshold[4]	*92*	*647*	*4*	*3*
Thresholds Exceeded?	***No***	***No***	***No***	***No***

Notes: NOx = nitrous oxide; CO = carbon monoxide; PM_{10} = coarse particulate matter; $PM_{2.5}$ = fine particulate matter

1. Emissions were calculated using CalEEMod, version 2022.1.
2. Maximum on-site daily emissions for all four pollutants, including NOx, CO, PM_{10}, and $PM_{2.5}$, occur during the two Street Improvements Phases in year 1 (2025) and during the Landscaping/Paving Phase 2 in year 2 (2026).
3. Modeling assumptions include compliance with SCAQMD Rule 403 which requires the following: properly maintain mobile and other construction equipment; replace ground cover in disturbed areas quickly; water exposed surfaces three times daily; cover stockpiles with tarps; water all haul roads twice daily; and limit speeds on unpaved roads to 15 miles per hour.
4. The Localized Significance Threshold Mass Rate Screening Criteria was determined using Appendix C of the SCAQMD *Final Localized Significant Threshold Methodology* guidance document for pollutants NO_X, CO, PM_{10}, and $PM_{2.5}$. The Localized Significance Threshold was based on the anticipated daily acreage disturbance for construction (less than one acre) and SRA 18.

Refer to Appendix A, *Air Quality/Greenhouse Gas Emissions/Energy Data* for detailed model input/output data.

Operational Impacts

According to SCAQMD localized significance threshold methodology, LSTs would apply to the operational phase of a project if the project includes stationary sources or attracts mobile sources that may spend extended periods queuing and idling at the site (e.g., warehouse or transfer facilities). The proposed project does not include such uses. Thus, due to the lack of such emissions, no long-term localized significance threshold analysis is needed. No operational LST impacts would result in this regard.

Carbon Monoxide Hotspots

CO emissions are a function of vehicle idling time, meteorological conditions, and traffic flow. Under certain extreme meteorological conditions, CO concentrations near a congested roadway or intersection may reach unhealthful levels (i.e., adversely affecting residents, school children, hospital patients, the elderly, etc.). The Basin is designated as an attainment/maintenance area for the federal CO standards and an attainment area for State standards. There has been a decline in CO emissions even though vehicle miles traveled on U.S. urban and rural roads have increased. Nationwide estimated anthropogenic CO emissions have decreased 68 percent between 1990 and 2014. In 2014, mobile sources accounted for 82 percent of the nation's total anthropogenic CO emissions.[6] Three major control programs have contributed to the reduced per-vehicle CO emissions: exhaust standards, cleaner burning fuels, and motor vehicle inspection/maintenance programs.

As previously discussed, the proposed project does not directly generate vehicle trips, a predominant source of CO emissions. As such, it is not anticipated that the project would result in a CO hotspot. Impacts would be less than significant in this regard.

***Mitigation Measures*:** No mitigation measures are required.

[6] United States Environmental Protection Agency, *Carbon Monoxide Emissions*, https://cfpub.epa.gov/roe/indicator_pdf.cfm?i=10, accessed August 28, 2023.

d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Less Than Significant Impact. According to the SCAQMD *CEQA Air Quality Handbook*, land uses associated with odor complaints typically include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding. The project does not propose any uses identified by the SCAQMD as being associated with odors.

Construction activities associated with the project may generate detectable odors from heavy-duty equipment exhaust. However, construction-related odors would be short-term in nature and cease upon project completion. In addition, the project would be required to comply with the California Code of Regulations, Title 13, Sections 2449(d)(3) and 2485, which minimize the idling time of construction equipment either by requiring equipment to be shut off when not in use or limiting idling time to no more than five minutes. Compliance with these existing regulations would further reduce the detectable odors from heavy-duty equipment exhaust. The project would also be required to comply with the SCAQMD Rule 1113, which would minimize odor impacts from ROG emissions during roadway striping. Any odor impacts to existing adjacent land uses would be short-term and negligible. As such, the project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people. Impacts would be less than significant in this regard.

Mitigation Measures: No mitigation measures are required.

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4.4 BIOLOGICAL RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. 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 Game or U.S. Fish and Wildlife Service?		✓		
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?		✓		
c. Have a substantial adverse effect on State or Federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?		✓		
d. 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?			✓	
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?		✓		
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?			✓	

The information presented in this analysis is primarily based on the following technical studies; refer to Appendix B, *Jurisdictional Delineation/Marine Reports*:

- *Collins Island Bridge Replacement Project Essential Fish Habitat Assessment, Newport Beach, California Final Report* (EFH Assessment), prepared by Six Scientific Service and dated October 2023;
- *Pre-Construction Surveys Eelgrass (Zostera marina) & Caulerpa taxafolia, Collins Island Bridge Replacement Project, Newport Beach, California Final Report* (Eelgrass Survey Report), prepared by Six Scientific Service and dated October 2023; and
- *Delineation of State and Federal Jurisdictional Waters for the Collins Island Bridge Replacement Project, City of Newport Beach, Orange County, California* (Jurisdictional Delineation), prepared by Michael Baker International and dated November 16, 2023.

a) 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 Game or U.S. Fish and Wildlife Service?

Less Than Significant Impact With Mitigation Incorporated. As shown on Exhibit 2-2, *Project Limits*, the project site encompasses terrestrial and water areas surrounding the existing Collins Island Bridge. The terrestrial areas are

fully developed with urban uses, including the existing bridge, boat docks, Park Avenue, the Bay Front sidewalk, and associated rights-of-way. These areas have limited ornamental trees and vegetation associated with the adjacent single-family residences and along the Park Avenue right-of-way. Only one mature tree is within the project limits; the tree is located on private property on Collins Island and would not be impacted by project development. No vegetation exists within the project site or surrounding terrestrial areas that could provide habitat for endangered, rare, or threatened species. Further, while nesting birds protected under the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code, may occur within the project limits, the MBTA governs the taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests. Compliance with existing MBTA regulations would ensure construction-related impacts to potential nesting birds are reduced to less than significant levels. Thus, impacts to special status species within the terrestrial areas of the project site would be less than significant. The following analyzes potential impacts to the marine habitat in the project area.

Essential Fish Habitat

With regards to the project's water areas, an EFH Assessment was prepared to determine potential project impacts to essential fish habitat (EFH) protected under the Magnuson-Stevens Fishery Conservation and Management Act (MSFCA). EFH is defined as waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity. Newport Bay is a Habitat Area of Particular Concern (HAPC) for EFH as it contains expansive meadows of eelgrass (*Zostera marina*), as well as a broad diversity of coastal saltmarsh vegetation species considered EFH. Specifically, the project site is located within a general area designated as EFH for the Coastal Pelagic Species and Pacific Groundfish Fishery Management Plans (FMPs). The goal of a FMP includes the development and sustainability of an efficient and profitable fishery, optimal yield, adequate forage for dependent species, and long-term monitoring.

Coastal Pelagic Species FMP

The Coastal Pelagic Species FMP covers six species, including the market squid, northern anchovy, jack mackerel, Pacific mackerel, Pacific sardine, and krill. According to the EFH Assessment, none of these species were observed during 2021 and 2022 surveys conducted by the Orange County Sanitation District (OC SAN) during their semi-annual trawl, adjacent to the project area; refer to EFH Assessment Table 2, *NMFS Managed Species Observed Near Collins Island, including Abundance, Total Percent and Habitat*. However, all six covered species could occur within the project area at some point during their life stages in the project area.

Pacific Groundfish FMP

The Pacific Groundfish FMP covers 92 fish species and geographically encompasses all waters off southern California between Mean Higher High Water and depths to 11,483 feet. HAPCs of the Pacific Groundfish FMP include, but are not limited to, estuaries, canopy kelp, seagrass, and rocky reefs.

The most abundant Pacific Groundfish species captured during the OC SAN 2021 and 2022 surveys were the flatfish, rockfish, and roundfish. Of the 92 fish species covered in this FMP, 14 species were observed during the surveys; refer to EFH Assessment Table 2, *NMFS Managed Species Observed Near Collins Island, including Abundance, Total Percent and Habitat*.

Project Impacts on EFH

Construction Activities

Terrestrial construction activities are not expected to impact marine resources. However, construction activities in the water (e.g., bridge replacement and seawall improvements) may temporarily impact fish species covered by the Coastal Pelagic Species and Pacific Groundfish FMPs. Nevertheless, potential construction impacts would be temporary. Should any individuals of the covered species occur within the immediate vicinity of the project area, they would

temporarily relocate to another area of open water or other shallow water habitat as a result of construction activities (e.g., increased noise or turbidity).

Fish species passing through, or occupying the construction area, as well as benthic invertebrates and those that are resident on the existing bridge sediments and hard surfaces, would be disturbed during construction activities. Suspension of sediments with increased tidal height during construction could also adversely impact invertebrates immediately adjacent to the construction area. This impact, however, would be temporary given the tidal habitat, relative abundance, rapid colonization rates, and movement of some individuals of these species. The soft bottom benthic habitat would be able to repopulate and recolonize once construction activities cease.

Fish eggs, larvae, juveniles, and adults would experience minimal impacts from the construction activities. Fish eggs and larvae are primarily found adjacent to the water column in this area and are dispersed by water movement, while juvenile and adult fishes would move to avoid the disturbance during construction activities. Short-term water quality impacts (e.g., increase in turbidity) may affect resident fishes; however, these impacts would have no effect on the success of fish populations due to the ability of the juvenile and adult fishes to relocate to other areas. The constant water replenishment due to tidal flow in the bay transports fish larvae and eggs to various areas within the water body. A brief relocation of these transient species would not result in biologically significant impacts with regard to competition, predation, or spawning.

Other effects of in-water construction of the bridge and seawall improvements include the unnatural occurrence of light and noise. However, both would be short-term during construction activities. It is unlikely that these effects would lead to reduced survival, and if so, only a small percentage of individuals within fish populations would potentially be adversely impacted. Additionally, the bridge and seawall construction activities would not adversely impact the denser eelgrass beds located outside the construction area that serve as EFH.

Nevertheless, construction-related best practices would be implemented in accordance with Mitigation Measure BIO-1 to reduce potential construction-related impacts to EFH. Specifically, Mitigation Measure BIO-1 would require all construction equipment to be inspected regularly (daily) to ensure any leaks are found and repaired immediately; refueling of all vehicles and equipment in a designated, contained area; utilization of drip pans under all stationary equipment and covering of drip pans during any rainfall; and construction and maintenance of appropriate containment structures to prevent off-site transport of pollutants from spills and/or construction debris. Upon implementation of Mitigation Measure BIO-1, construction-related project impacts to EFH would be reduced to less than significant levels.

Operational Activities

No long-term operational impacts would occur to fish species covered by the Coastal Pelagic Species and Pacific Groundfish FMPs. Resident fish species would likely return if they were temporarily displaced during construction activities. Eelgrass habitat in Newport Bay is abundant and any disrupted or displaced species would find suitable habitat in the vicinity of the project area. It is also acknowledged that long-term project effects would potentially be beneficial, in that the supports or pilings of the new bridge and seawall improvements would provide substrate for organisms, and thus could provide additional benefit to fish populations near Balboa Island and within Newport Bay.

Eelgrass Habitat

Eelgrass is the only native plant community in the marine area of the project limits with potential to provide habitat for sensitive biological species. Eelgrass is a flowering, marine vascular plant that is considered a sensitive marine resource due to its nursery function for invertebrates and fishes and because it is considered critical foraging habitat for California least tern (*Sternula antillarum browni*), a federal and State endangered species. Eelgrass is protected by the Southern California Eelgrass Mitigation Policy, which requires impacts to this species be avoided, minimized, or compensated.

As such, an Eelgrass Survey Report was prepared to identify existing sensitive eelgrass habitats within the project limits that may be impacted by construction activities. Based on the survey, medium to low density patches of eelgrass were identified at the project site. Consistent with the City of Newport Beach's *2022 Eelgrass Monitoring in Newport Bay, Newport Beach, California*, dated February 24, 2023, the survey documented eelgrass throughout the project area in open areas where no shading is present. Visual observations indicated medium to low density eelgrass beds present near docks with the denser beds observed in the open water at the north and south border of the project limits. The majority of the plants were comprised of low numbers of turions (e.g., shoots) per plant. Medium to low density beds were found within the project limits but none immediately adjacent to the bridge. Generally, eelgrass is less dense in and around docks and moored vessels. Given the increased shading from existing trees, vessels, docks, and the bridge, either no eelgrass was observed, or low density eelgrass beds were observed within ten feet of the bridge and seawalls. Denser eelgrass beds were observed in the open waters to the north and south of the project limits. The denser eelgrass beds would experience minimal effects from the temporary construction activities. If any effects occurred, they would not contribute to any adverse long-term damage to the eelgrass health in the project area.

The replacement of the bridge and seawall improvements would add approximately 1.5 feet in width to the bridge and less than a foot in width to the seawalls. The Eelgrass Survey Report did not observe any eelgrass in the footprint of these permanently impacted areas (i.e., 1.5 feet out from the existing bridge width and one foot out from the existing seawall widths). The survey also indicated that eelgrass abundance in the project area is sun based and potential construction-related impacts to existing eelgrass communities (i.e., temporary shading, physical disturbance, decreased light [turbidity]) would be temporary and have little to no long-term adverse impact. Nevertheless, construction-related best management practices (BMPs) would be implemented per Mitigation Measure BIO-2 to provide adequate protections during in-water construction activities. Specifically, these BMPs would include decreasing sedimentation using terrestrial construction booms, where feasible, and avoiding any unneeded shading during construction. Any in-water manipulation or dock temporary relocation would be conducted with guidance from the most recent eelgrass survey to minimize disturbance of more dense eelgrass beds in the project area. Bridge and seawall construction activities would occur for approximately seven months, which would leave ample growth season for any impacted eelgrass beds, if any, to recover before the next dormant/winter season. Given the small footprint of the proposed in-water activity, short construction duration, and lack of eelgrass observed adjacent to the bridge and seawalls, the Eelgrass Survey Report concluded that the project would not result in any long-term adverse impacts to the health of eelgrass communities in the project area. As such, impacts to sensitive eelgrass habitat would be less than significant upon implementation of Mitigation Measure BIO-2.

Mitigation Measures:

BIO-1 Prior to issuance of grading permits, the City of Newport Beach City Engineer shall ensure the following construction best management practices are incorporated into the project's final construction plans and monitored with weekly inspections during construction activities within the water areas:

- Construction equipment shall be inspected regularly (daily) during construction, and any leaks found shall be repaired immediately.
- Refueling of vehicles and equipment shall be in a designated, contained area.
- Drip pans shall be used under stationary equipment when refueling or during maintenance.
- Drip pans that are used shall be covered during rainfall to prevent leaching of contaminants.
- Construction and maintenance of appropriate containment structures to prevent off-site transport of pollutants from spills and construction debris.
- Construction best management practices (BMPs) shall be monitored during weekly inspections to ensure the BMPs are implemented and kept in good working order.
- Drop nets shall be cleared of debris as soon as feasible.

Prior to issuance of grading permits, the City of Newport Beach shall also prepare and implement a Spill and Prevention Plan to minimize and/or prevent discharge of spilled material at the project site. The Spill

and Prevention Plan shall include measures to prevent and control spills, contain the spill, clean the spill, and dispose of contaminated materials in compliance with applicable regulatory requirements.

BIO-2 To the extent feasible, the construction contractor shall minimize potential impacts to existing eelgrass beds within the project area by:

- Decreasing sedimentation by utilizing terrestrial construction booms;
- Avoiding any unneeded shading during in-water construction activities;
- Locating temporary docks, barges and vessels, and all barge anchoring outside of existing eelgrass beds in the project area;
- Ensuring anchor chain designs and mooring locations of all barges and vessels avoid eelgrass habitat in the project area;
- Implementing best management practices (BMPs) such as perimeter debris booms. If debris is observed falling into the water, debris shall be retrieved as soon as feasible;
- Installing silt curtains around demolition areas, to the extent feasible, and restricting turbidity plumes to the smallest possible area during all in-water construction phases to minimize water turbidity and sedimentation;
- Conducting comprehensive pre- and post-construction surveys for eelgrass beds and patches in accordance with the National Marine Fisheries Service's California Eelgrass Mitigation Policy (CEMP). If unavoidable eelgrass impacts occur, compensatory mitigation using guidance specified in the CEMP shall be implemented; and
- If eelgrass harvest and transplant is required for mitigation, obtaining a Scientific Collecting Permit (SCP) from the California Department of Fish and Wildlife prior to harvest and transplant activities. The SCP may include permit conditions such as donor eelgrass surveys, submittal of an eelgrass harvest and transplant plan, limits on number of turions collected, methods for collection and transplanting, notification of activities, and reporting requirements.

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

Less Than Significant Impact With Mitigation Incorporated. As stated above, the terrestrial areas of the project limits are fully developed with urban uses, including the existing bridge, boat docks, Park Avenue, the Bay Front sidewalk, and associated rights-of-way. These areas have limited ornamental trees and vegetation associated with the adjacent single-family residences and along the Park Avenue right-of-way. No riparian habitat or sensitive natural communities occur in these areas and thus, no impacts would occur.

Sensitive natural communities occur within the water areas of the project limits. As analyzed in Response 4.4(a), an EFH Assessment was prepared to determine potential project impacts to EFH protected under the MSFCA, including covered species under the Coastal Pelagic Species and Pacific Groundfish FMPs. Additionally, an Eelgrass Survey Report was prepared that surveyed existing eelgrass communities within the project area and evaluated potential project impacts on such communities. Based on the studies, it was determined that project-related construction activities would not adversely impact covered species under the Coastal Pelagic Species and Pacific Groundfish FMPs or existing eelgrass communities upon implementation of construction BMPs detailed in Mitigation Measures BIO-1 and BIO-2. Thus, potential project impacts to riparian habitat and other sensitive natural communities would be reduced to a less than significant level.

Mitigation Measures: Refer to Mitigation Measures BIO-1 and BIO-2 above.

c) Have a substantial adverse effect on State or Federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Less Than Significant Impact With Mitigation Incorporated. There are four key agencies that regulate activities within coastal streams, wetlands, and riparian areas in coastal California. The U.S. Army Corps of Engineers (Corps) Regulatory Division regulates activities pursuant to Section 404 of the Clean Water Act (CWA) and Section 10 of the Rivers and Harbors Act. Of the State agencies, the CDFW regulates activities under Sections 1600 et seq. of the California Fish and Game Code (CFGC), the Regional Water Quality Control Board (RWQCB) regulates activities pursuant to Section 401 of the CWA and Section 13263 of the California Porter-Cologne Water Quality Control Act (Porter-Cologne Act), and the California Coastal Commission (CCC) regulates activities under the California Coastal Act.

As analyzed in the Jurisdictional Delineation, portions of the project site include non-wetland tidal areas of Newport Bay. The project site is subject to permanent tidal inundation and high tide events. Little to no lateral variation occurs due to the presence of sea walls around the northern and southern limits of the project site. No other jurisdictional areas were noted during the time of the assessment.

- *Corps*: Evidence of a High Tide Line (HTL) and an Ordinary High Water Mark (OHWM) was noted within the boundaries of the project site and survey area. Based on observation of surface water in the bay, the entire open water area would meet the definition of a "Waters of the U.S." (WoUS) as a Traditional Navigable Water (TNW). As shown on Jurisdictional Delineation Exhibit 6, *Jurisdictional Map*, approximately 0.01-acre of WoUS would be permanently impacted due to the installation of 250 linear feet of seawall at a two-foot width, which would be approximately two feet in width. The seawall would be installed in front of the existing seawall and would be limited to the extent necessary for sea level rise protection.

- *RWQCB*: As mentioned above, the Pacific Ocean/Newport Bay meets the definition of a WoUS as well as Wates of the State. Project impacts regulated by the RWQCB are the same as those impacts regulated by the Corps as indicated above.

- *CDFW*. Although other agencies have jurisdiction of the waters within the project site, the CDFW does not take jurisdiction of tidal/beach areas as they do not contain lakes or streambeds. CDFW jurisdiction of Newport Back Bay areas begins immediately east of the State Route 1 (SR-1) bridge. Based on the results of the field delineation, no CDFW jurisdiction is present within the boundaries of the project site; therefore, no impacts to CDFW jurisdiction are anticipated.

- *CCC*. As previously mentioned, the project site is located within the Coastal Zone. Based on the results of the field delineation, it was determined that approximately 0.01-acre (250 linear feet at a two-foot width) of CCC jurisdictional open water is located within the permanent impact area. Project impacts regulated by the CCC are the same as those impacts regulated by the Corps as indicated above.

To reduce impacts associated with the proposed seawall improvements, Mitigation Measure BIO-3 would be required to ensure the City of Newport Beach coordinates with the Corps, RWQCB, and CCC to obtain the required regulatory permits, which would include verifying delineation results, determining permanent losses and temporary impact areas, and identifying any compensatory mitigation, as applicable. Upon implementation of Mitigation Measure BIO-3, impacts in this regard would be less than significant.

Mitigation Measures:

BIO-3 Prior to any construction activity within the project limits, the City of Newport Beach shall consult with the appropriate responsible resource agency (i.e., U.S. Army Corps of Engineers, Regional Water Quality Control Board, and California Coastal Commission) to verify delineation results, determine permanent

losses and temporary impact areas, and identify compensatory mitigation, as applicable. Prior to undertaking ground-disturbing activities on or immediately adjacent to any aquatic resource areas, the City of Newport Beach and/or their designee shall obtain all applicable discretionary permits/authorizations.

d) 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?

Less Than Significant Impact. Wildlife corridors and linkages are key features for wildlife movement between habitat patches. Wildlife corridors are generally defined as those areas that provide opportunities for individuals or local populations to conduct seasonal migrations, permanent dispersals, or daily commutes, while linkages generally refer to broader areas that provide movement opportunities for multiple keystone/focal species or allow for propagation of ecological processes (e.g., for movement of pollinators), often between areas of conserved land.

As stated, nesting birds are protected pursuant to the MBTA and California Fish and Game Code. Specifically, the MBTA governs the taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests. Compliance with existing MBTA regulations would ensure construction-related impacts to potential nesting birds are reduced to less than significant levels.

The project area does not support any migratory corridors or linkages. However, Newport Bay may provide a migration corridor for fish species migrating into the Upper Newport Bay Ecological Reserve. The Upper Newport Bay Ecological Reserve is also located within the Pacific Flyway for migratory avian species. However, the proposed activities would be limited to the area adjacent to the Collins Island Bridge and would not impact potential fish migration within Newport Bay or avian migration in the area. Additionally, the *Coastal Subregion of the County of Orange Central/Coastal Natural Community Conservation Plan/Habitat Conservation Plan* (NCCP/HCP) does not identify any proposed Core or Special Linkage Areas in the project area. As such, the project would not interfere with wildlife movement, nor would it impede the use of wildlife nursery sites. Thus, impacts in this regard would be less than significant.

Mitigation Measures: No mitigation measures are required.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Less Than Significant Impact With Mitigation Incorporated. The proposed project would not conflict with local policies or ordinances protecting biological resources. The primary documents applicable to the proposed project are the Natural Resources Element of the General Plan, the *City of Newport Beach Local Coastal Program Coastal Land Use Plan* (CLUP), and California Coastal Act (Coastal Act). As analyzed under Response 4.11(b), impacts related to consistency with the General Plan Land Use Element, CLUP, and Coastal Act would be less than significant. Table 4.4-1, *General Plan Natural Resources Element Project Consistency Analysis*, provides a consistency analysis of the proposed project and relevant General Plan Natural Resources Element goals and policies related to protecting biological resources.

Table 4.4-1
General Plan Natural Resources Element Project Consistency Analysis

Relevant Policies	Project Consistency Analysis
Goal NR 10: Protection of sensitive and rare terrestrial and marine resources from urban development.	
NR 10.1: Terrestrial and Marine Resource Protection. Cooperate with the State and federal resource protection agencies and private organizations to protect terrestrial and marine resources.	Consistent. As discussed above, Mitigation Measure BIO-3 would require the project to consult with the appropriate responsible resource agency (i.e., U.S. Army Corps of Engineers, Regional Water Quality Control Board, and California Coastal Commission) to verify delineation results, determine permanent losses and temporary impact areas, and identify compensatory mitigation, as applicable.
NR 10.2: Orange County Natural Communities Conservation Plan. Comply with the policies contained within the Orange County Natural Communities Conservation Plan.	Consistent. As discussed below in Response 4.4(f), the proposed project would not conflict with any policies contained in the NCCP/HCP.
NR 10.3: Analysis of Environmental Study Areas. Require a site-specific survey and analysis prepared by a qualified biologist as a filing requirement for any development permit applications where development would occur within or contiguous to areas identified as ESAs.	Consistent. As discussed above, an EFH Assessment and Eelgrass Survey Report were prepared to evaluate potential project impacts on EFH and eelgrass communities within the project area. The studies determined that temporary project construction activities would not adversely impact any EFH or eelgrass communities upon implementation of Mitigation Measures BIO-1 and BIO-2.
NR 10.4: New Development Siting and Design. Require that the siting and design of new development, including landscaping and public access, protect sensitive or rare resources against any significant disruption of habitat values.	Consistent. Compliance with Mitigation Measures BIO-1 through BIO-3 would ensure that sensitive species and other biological resources are not significantly impacted as a result of construction and operation of the proposed project.
NR 10.7: Exterior Lighting. Shield and direct exterior lighting away from significant or rare biological resources to minimize impacts to wildlife.	Consistent. As discussed in Section 4.1, *Aesthetics*, project construction could involve temporary light and glare impacts as a result of construction equipment and materials. However, based on the project's limited construction duration and scope of activities, these sources of light and glare would not be substantial. Additionally, construction activities would be limited to the hours detailed in Municipal Code Section 10.28.040, *Construction Activity – Noise Regulation*, and no nighttime construction activities would occur. Any operational exterior lighting (e.g., bridge lighting for pedestrian safety) would be similar to the existing light fixtures in the project area and would be designed pursuant to Municipal Code Section 20.20.070, *Outdoor Lighting*. Generally, all outdoor lighting fixtures would be designed, shielded, aimed, located, and maintained to shield adjacent properties and to not produce glare onto adjacent properties or roadways.
NR 11: Protection of environmental resources in Newport Harbor while preserving and enhancing public recreational boating activities.	
NR 11.3: Eelgrass Protection. Avoid impacts to eelgrass (*Zostera marina*) to the extent feasible. Mitigate losses of eelgrass in accordance with the Southern California Eelgrass Mitigation Policy. Encourage the restoration of eelgrass in Newport Harbor at appropriate sites, where feasible.	Consistent. As concluded in the Eelgrass Survey Report and discussed in Response 4.4(a), medium to low density beds were found within the project limits but none immediately adjacent to the bridge. Given the increased shading from existing trees, vessels, docks, and the bridge, either no eelgrass was observed, or low density eelgrass beds were observed within ten feet of the bridge and seawalls. Implementation of Mitigation Measure BIO-2 would minimize temporary construction impacts to less than significant levels in this regard. No eelgrass communities would be permanently impacted in a manner that would require mitigation of loss.
Source: City of Newport Beach, *City of Newport Beach General Plan Natural Resources Element*, July 25, 2006.	

In addition, the only local tree ordinance that would apply to the project would be Local Council Policy G-1, *Retention or Removal of City Trees*, and Municipal Code Chapter 7.26, *Protection of Natural Habitat for Migratory and Other Waterfowl*, also provides guidance for tree maintenance and preservation. Only one mature tree is within the project limits; the tree is located on private property on Collins Island and would not be impacted by project development. Nominal vegetation removal would be required for the proposed project, primarily along Park Avenue and the Bay Front sidewalk right-of-way. Vegetation removal would be limited to minor ornamental landscape removal and would be replanted with new landscaping. As such, the proposed project would be consistent with the City's Local Council Policy G-1, *Retention or Removal of City Trees*, and Chapter 7.26, *Protection of Natural Habitat for Migratory and Other Waterfowl*, of the Municipal Code.

As described above, the project would not result in conflicts with local policies or ordinances protecting biological resources. Impacts in this regard would be less than significant upon implementation of Mitigation Measures BIO-1 through BIO-3.

Mitigation Measures: Refer to Mitigation Measures BIO-1 through BIO-3 above.

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

Less than Significant Impact. The project site is located within the *Coastal Subregion of the County of Orange Central/Coastal Natural Community Conservation Plan/Habitat Conservation Plan* (NCCP/HCP) but is not located within any designated Core, Reserve, Special Linkage Area, or Existing Use Area. As such, the project would not conflict with the NCCP/HCP. No impacts would occur in this regard.

Mitigation Measures: No mitigation measures are required.

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4.5 CULTURAL RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines §15064.5?				✓
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines §15064.5?		✓		
c. Disturb any human remains, including those interred outside of formal cemeteries?			✓	

The information presented in this analysis is based on the *Phase I Cultural Resources Assessment for the Collins Island Bridge Replacement Project, Newport Beach, Orange County, California* (Cultural Report), prepared by Michael Baker International and dated January 2024; refer to Appendix C, *Cultural Resources Assessment*.

a) Cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines §15064.5?

No Impact. As part of the Cultural Report, a South Central Coastal Information Center (SCCIC) records search, literature review, interested parties consultation, archaeological field survey, sensitivity analysis, and National Register of Historic Resources (National Register) and California Register of Historical Resources (California Register) evaluations were conducted to determine whether the project could result in a significant adverse change to cultural resources in accordance with CEQA. The field survey was conducted on August 22, 2023. The records search was conducted at the SCCIC to identify previously recorded cultural resources and previously conducted cultural resources studies within a 0.5-mile radius of the project site. The search results included a review of the National Register, California Register, California Inventory of Historic Resources, California Historical Landmarks, and California Historical Resources. The Cultural Report also included a review of available historic United States Geologic Survey (USGS) 7.5-minute topographic quadrangle maps, aerial photographs, and archives. Additionally, the Newport Beach Historical Society was notified via email on April 8, 2023 requesting information or concerns regarding historical resources within the project area that may be impacted by the project. No response was received from the Newport Beach Historical Society.

The records search identified six previous cultural resource studies conducted within a 0.5-mile radius of the project site, none of which overlap the project site. The record search also identified seven previously recorded cultural resources within a 0.5-mile radius of the project site, none of which overlap the project site.

During the survey of the project area, ground surface visibility was almost nonexistent due to the developed nature of the project area. Surface exposures were limited to small patches of obviously disturbed soils in planters and landscaped areas. During the pedestrian survey, the Waters Way Bridge (No. 55C-0265)[1], colloquially known as the Collins Island Bridge, is a historic-aged built environment resource and was photo-documented for the purpose of a California Register and National Register evaluation. No prehistoric or historical archaeological resources were identified. The Waters Way Bridge (No. 55C-0265) is described below, and the DPR 523 series form for the resource is included in the Cultural Report.

[1] The Collins Island Bridge is referred to as the Waters Way Bridge in this section and the Cultural Report as it is referred to as such in the California Department of Transportation directory and in bridge inspection reports.

Waters Way Bridge (No. 55C-0265)

The Waters Way Bridge (No. 55C-0265) is a reinforced concrete slab bridge constructed in 1953 that carries Park Avenue over Newport Bay between Balboa Island and Collins Island in Newport Beach. It is a local agency bridge maintained by the City. According to the *Caltrans Local Agency Historic Bridge Inventory*, this bridge is listed as a Category 5, "Bridge not eligible for NRHP."

- **Criterion A/1:** Research did not demonstrate that the Waters Way Bridge (No. 55C-0265) was associated with events significant to the broad patterns of our history at the local, state, or national level. The bridge was constructed in 1953 to replace a footbridge to facilitate automobile traffic between Balboa Island and the small, private Collins Island.

  Although the bridge made travel to Collins Island more convenient, it was not significant to the development of Collins Island, Balboa Island, or the Newport area, nor with road and bridge development in Newport Beach or Orange County. The subject bridge is not directly or significantly associated with general bridge development at the State or national level. The Waters Way Bridge (No. 55C-0265) is not known to have made a significant contribution to other broad patterns of local, regional, State, or national culture and history. The Waters Way Bridge (No. 55C- 0265) is a ubiquitous concrete slab beam bridge type in similar form in the region since the early twentieth century. As such, it is not one of the first or pioneering reinforced concrete slab bridges, nor was it significant to the development of the Newport Bay. Therefore, Waters Way Bridge (No. 55C-0265) is recommended not eligible for listing in the National Register under Criterion A and California Register under Criterion 1.

- **Criterion B/2:** William McNamara purchased Collins Island in 1948 and worked to have it subdivided for residential development. To improve island access, he replaced the existing footbridge with a privately funded automobile bridge, which he deeded to the City of Newport Beach in 1959. McNamara was a successful businessman, and he is responsible for the construction of the subject bridge. However, his local historical significance is not represented by the bridge, but rather by the increased development of Collins Island. There is no demonstrable evidence that any other persons that made significant contributions to history at the local, State, or national level are associated with the bridge. Therefore, the property is recommended not eligible for listing in the National Register under Criterion B and California Register under Criterion 2.

- **Criterion C/3:** The Waters Way Bridge (No. 55C-0265), a reinforced concrete slab bridge, is indistinguishable from other examples of this resource type. It was not the first of its type, nor the most distinguished example of a reinforced concrete slab bridge in the region, State, or nation. Its design and construction do not represent a departure from standard construction practices or design for this resource type. The Waters Way Bridge (No. 55C-0265) is not the representative work of a master, nor does it possess high artistic values. Therefore, the resource is recommended not eligible for listing in the National Register under Criterion C and the California Register under Criterion 3.

- **Criterion D/4:** The built environment of the subject property is not likely to yield valuable information which will contribute to our understanding of human history because the property is not and never was the principal source of important information pertaining to significant events, people, or engineering. Therefore, the resource is recommended not eligible for listing in the National Register under Criterion D and the California Register under Criterion 4.

Lacking significance, this property is recommended as ineligible for listing in the National Register and California Register. It is not a historic property as defined by 36 CFR 800.16(l)(1) nor is it a historical resource as defined by CEQA Guidelines Section 15064.5(a).

Overall, based on the records search, literature review, field survey, and interested parties' consultation, there are no historical resources located in the project area that could be impacted by the proposed project development. Impacts would be less than significant in this regard.

Mitigation Measures: No mitigation measures are required.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines §15064.5?

Less Than Significant Impact With Mitigation Incorporated. As discussed in Response 4.5(a) and detailed in the Cultural Report, no previously recorded cultural resources were identified within the project site as part of the records search or field survey. The archaeological sensitivity for potential unknown prehistoric archaeological sites within the project area is low. The project is located on what USGS maps indicate was a slight rise in the marshy land surrounding Newport Bay. Historically, the Santa Ana River would have meandered through this area, sometimes debouching into the Pacific Ocean in the project vicinity. The project site would have provided an important resource procurement locale for prehistoric inhabitants, but the unstable nature of the land would have lent itself toward temporary use, leaving ephemeral remains. The five archaeological sites documented within 0.5-mile of the project site exemplify this land use; they are documented as moderate to light shell scatters, sometimes with small quantities of lithic debitage, on higher ground considerably to the east of the project site. No resources are documented within the project site.

In addition, the project site has been substantially disturbed over the course of the twentieth century. During the twentieth century, Newport Bay was dredged and stabilized. The dredged material was used to build new, stable ground, including Collins Island and Balboa Island. In addition, these mostly artificial islands, while they may contain native soils at their cores, have been further disturbed by major ground-disturbing activities such as bridge construction, building construction, boat dock and slip installation, road construction, and utilities installation. This massive reworking of the coastline would have damaged or destroyed archaeological sites, particularly the kind of small, ephemeral sites documented in the records search area and anticipated to have once existed in the vicinity.

Although the project site is located in an area that is anticipated to have been an important resource procurement area for the Gabrielino and other early inhabitants, the instability of the land and known recent disturbances indicate that the sensitivity for unknown buried resources is low. However, in the unlikely event that archaeological resources are encountered during ground-disturbing activities, Mitigation Measure CUL-1 would require all project construction efforts to halt until an archaeologist examines the find, evaluates the archaeological significance of the find, and recommends a course of action. With implementation of Mitigation Measure CUL-1, the project would not cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5 of the CEQA Guidelines, and impacts would be reduced to less than significant levels.

Mitigation Measures:

CUL-1 In the event that any subsurface cultural resources are encountered during earth-moving activities, all work within 50 feet shall be halted until a qualified archaeologist is retained by the City of Newport Beach and evaluates the find and makes recommendations. The archaeologist shall evaluate the find in accordance with federal, State, and local guidelines, including those set forth in the California Public Resources Code Section 21083.2, to assess the significance of the find and identify avoidance or other measures as appropriate.

c) Disturb any human remains, including those interred outside of formal cemeteries?

Less Than Significant Impact. As discussed in Response 4.5(b), the project site would have provided an important resource procurement locale for prehistoric inhabitants, but the unstable nature of the land would have lent itself toward temporary use, leaving ephemeral remains. Thus, it is not anticipated that human remains, including those interred

outside of formal cemeteries, would be encountered during ground-disturbing activities. Nevertheless, if human remains are found, those remains would require proper treatment, in accordance with applicable laws. State of California Public Resources Health and Safety Code Section 7050.5-7055 describe the general provisions for human remains. Specifically, Health and Safety Code Section 7050.5 describes the requirements if any human remains are accidentally discovered during excavation of a site. As required by State law, the requirements and procedures set forth in Section 5097.98 of the California Public Resources Code would be implemented, including notification of the County Coroner, notification of the Native American Heritage Commission and consultation with the individual identified by the Native American Heritage Commission to be the "most likely descendant." If human remains are found during ground-disturbing activities, activities must stop in the vicinity of the find and any area that is reasonably suspected to overlay adjacent remains until the County Coroner has been called out, and the remains have been investigated and appropriate recommendations have been made for the treatment and disposition of the remains. Following compliance with existing State regulations, which detail the appropriate actions necessary in the event human remains are encountered, impacts in this regard would be considered less than significant.

Mitigation Measures: No mitigation measures are required.

4.6 ENERGY

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?			✓	
b. Conflict with or obstruct a State or local plan for renewable energy or energy efficiency?			✓	

a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Less Than Significant Impact. The project proposes bridge replacement, seawall improvements, as well as stormwater features to accommodate a separate, future pump station project; the project does not propose any buildings and would not introduce land uses which would require new permanent energy usage. Additionally, while the proposed project would provide bridge improvements, the proposed new bridge would not represent a trip generating land use nor is it anticipated to significantly increase the capacity of Collins Island Bridge, which primarily serves the eight single-family residences on Collins Island. As a result, project operations would not result in increased energy consumption from electricity, natural gas, or operational fuel usage. As such, this analysis focuses on one source of energy that is relevant to the proposed project: on-road (automotive) fuel consumption associated with construction vehicle trips and off-road fuel consumption associated with construction equipment usage.

The California Emissions Estimator Model (CalEEMod) version 2022.1 was utilized to calculate the project's fuel consumption during construction; refer to Appendix A, *Air Quality/Greenhouse Gas Emissions/Energy Data*, for the CalEEMod outputs and results. The project's construction equipment fuel consumption is estimated from the project's construction equipment, timing/phasing, and hours of duration for construction equipment as modeled in CalEEMod. The project's construction automotive fuel consumption is estimated using the California Air Resources Board (CARB) Emissions Factor 2021 (EMFAC2021) database, which provides projections for typical daily fuel (i.e., diesel and gasoline) usage in the County, and the project-generated trips during construction as projected in CalEEMod.

The project's estimated construction-related energy consumption is summarized in Table 4.6-1, *Energy Consumption*. As shown in Table 4.6-1, the project would increase the off-road vehicle fuel consumption within the County by 0.0328 percent and on-road vehicle fuel consumption by 0.0004 percent during construction.

Table 4.6-1
Energy Consumption

Energy Type	Project Annual Energy Consumption[1]	Orange County Annual Energy Consumption[2]	Percentage Increase Countywide[2]
Fuel Consumption			
Construction Off-Road Fuel Consumption	32,926 gallons	100,261,094 gallons	0.0328%
Construction On-Road Fuel Consumption	4,971 gallons	1,280,285,436 gallons	0.0004%

Notes:
1. Project electricity consumptions as modeled in California Emissions Estimator Model Version 2022.1 (CalEEMod) computer model. Project fuel consumption calculated based on CalEEMod results.
2. The project increases in construction off-road and on-road fuel consumption are compared with the projected Countywide off-road fuel consumption and Countywide on-road fuel consumption in 2025 (first year of construction). Countywide off-road construction equipment diesel fuel consumption and on-road fuel consumption are from CARB EMFAC2021.

Refer to Appendix A, *Air Quality/Greenhouse Gas Emissions/Energy Data* for assumptions and methodology used in this analysis.

Project construction would consume energy in two general forms: (1) the fuel energy consumed by construction vehicles and equipment; and (2) bound energy in construction materials, such as asphalt, steel, concrete, pipes, and manufactured or processed materials such as lumber and glass.

Fossil fuels used for construction vehicles and other energy-consuming equipment would be used during demolition, bridge construction, street improvements, and landscaping/paving. Fuel energy consumed during construction would be temporary and would not represent a significant demand on energy resources. In addition, some incidental energy conservation would occur during construction through compliance with State requirements that equipment not in use for more than five minutes be turned off. Project construction equipment would also be required to comply with the latest U.S. Environmental Protection Agency (EPA) and CARB engine emissions standards. These emissions standards require highly efficient combustion systems that maximize fuel efficiency and reduce unnecessary fuel consumption. Due to increasing transportation costs and fuel prices, contractors and owners have a strong financial incentive to avoid wasteful, inefficient, and unnecessary consumption of energy during construction. There is growing recognition among developers and retailers that sustainable construction is not prohibitively expensive, and that there is a significant cost-savings potential in green building practices and materials.

Substantial reductions in energy inputs for construction materials can be achieved by selecting building materials composed of recycled materials that require substantially less energy to produce than non-recycled materials. The project-related incremental increase in the use of energy bound in typical roadway construction materials such as asphalt, steel, concrete, pipes and manufactured or processed materials (e.g., lumber and gas) would not substantially increase demand for energy compared to overall local and regional demand for construction materials. It is reasonable to assume that production of construction materials would employ all reasonable energy conservation practices in the interest in minimizing the cost of doing business.

As indicated in Table 4.6-1, the project's off-road fuel consumption and on-road fuel consumption from construction would be approximately 32,926 gallons and 4,971 gallons, respectively. Consequently, the project's off-road construction equipment diesel fuel consumption and on-road construction fuel consumption would increase Orange County's consumption by approximately 0.0328 percent and 0.0004 percent, respectively. As such, project construction would have a minimal effect on the local and regional energy supplies and would not require additional capacity. There are no unusual project characteristics that would necessitate the use of construction equipment that would be less energy-efficient than at comparable construction sites in the region or State. Therefore, construction fuel consumption would not be any more inefficient, wasteful, or unnecessary than other similar development projects of this nature. A less than significant impact would occur in this regard.

Mitigation Measures: No mitigation measures are required.

b) Conflict with or obstruct a State or local plan for renewable energy or energy efficiency?

Less Than Significant Impact. The City adopted the *City of Newport Beach Energy Action Plan* (EAP) in July 2013. The EAP aims to provide a roadmap for the City to reduce greenhouse gas (GHG) emissions through reductions in energy used in facility buildings and operations. The EAP identifies past energy measures that have been implemented and present measures that are currently being implemented, all of which contribute towards the City's energy reduction goal. In addition, the EAP identifies other potential energy reduction measures that the City could consider for future implementation. The EAP's long-term vision for energy efficiency focuses on the following objectives:

- Reduce the City's carbon footprint and its adverse effect on the environment;
- Conserve energy at the local government facilities; and
- Raise energy conservation awareness in local community and improve the quality of life.

This EAP also outlines various measures and strategizes numerous methods on how the City's long-term vision can be achieved. Key goals of this EAP include:

- Meeting and exceeding AB 32 energy reduction goals;
- Being an example for energy efficiency and sustainability at City facilities;
- Continue interacting, educating, and informing the community about energy efficiency and greenhouse gas emissions;
- Exploring the newest "green" technologies and methods to decrease future energy dependency;
- Exploring renewable energy recourses (not limited to solar) and possible financing based on available grants/rebates;
- Enhancing energy efficiency and operations in existing buildings through systematic commissioning strategies or independent energy efficiency studies; and
- Evaluating all the suggested energy efficiency action measures presented in the EAP, establishing a priority for implementation, and determining possible funding sources.

It should be acknowledged that the EAP focuses on improving building efficiency and sustainability of City facilities, and is not directly applicable to the proposed project. As a small-scale transportation improvement project with minimal energy consumption, the proposed project is not anticipated to conflict with or obstruct the EAP or a State plan for renewable energy or energy efficiency. Specifically, as shown in Table 4.6-1, the project's off-road fuel consumption and on-road fuel consumption from construction would increase Orange County's consumption by approximately 0.0328 percent and 0.0004 percent, respectively. In addition, project implementation would not result in increased operational electricity, natural gas, or fuel consumption compared to existing conditions. Further, the project would be required to adhere to all applicable federal, State, and local requirements pertaining to energy efficiency. Therefore, less than significant impacts would occur in this regard.

Mitigation Measures: No mitigation measures are required.

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4.7 GEOLOGY AND SOILS

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
1) 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? Refer to Division of Mines and Geology Special Publication 42.				✓
2) Strong seismic ground shaking?		✓		
3) Seismic-related ground failure, including liquefaction?		✓		
4) Landslides?				✓
b. Result in substantial soil erosion or the loss of topsoil?			✓	
c. 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 on-or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?		✓		
d. Be located on expansive soil, as defined in Table 18-1-B of the California Building Code (2001), creating substantial direct or indirect risks to life or property?		✓		
e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?				✓
f. Directly or indirectly destroy a unique paleontological resource or site or unique geological feature?		✓		

The information presented in this analysis is primarily based on the following technical studies; refer to Appendix D, *Geotechnical Report/Paleontological Resources Assessment*:

- *Draft Foundation Report, Collins Island Bridge, Newport Beach, California* (Geotechnical Report), prepared by Earth Mechanics, Inc. and dated October 27, 2023; and
- *Paleontological Resources Assessment for the Collins Island Bridge Replacement Project, Newport Beach, Orange County, California* (Paleo Report), prepared by Michael Baker International and dated October 11, 2023.

a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

1) 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? Refer to Division of Mines and Geology Special Publication 42.

No Impact. Southern California, including the project area, is subject to the effects of seismic activity due to the active faults that traverse the area. Active faults are defined as those that have experienced surface displacement within

Holocene time (approximately the last 11,000 years) and/or are in a State-designated Alquist-Priolo Earthquake Fault Zone. According to the Geotechnical Report, the region consists of numerous active and potentially active faults including the Newport-Inglewood Structural Zone, the Pelican Hill fault, and the San Joaquin Hills fault. Of these faults, the Newport-Inglewood Structural Zone is the nearest fault identified as an Alquist-Priolo Earthquake Fault Zone defined by the Alquist-Priolo Earthquake Hazards Act of 1972 revised in 1994. The project site is located approximately 2.6 miles southeast of the nearest mapped trace of the Newport-Inglewood Structural Zone. Given the distance, the project site does not occur within any Alquist-Priolo fault zones and does not cross any active fault traces. Consequently, no impact would occur in this regard.

Mitigation Measures: No mitigation measures are required.

2) Strong seismic ground shaking?

Less Than Significant Impact With Mitigation Incorporated. The southern California region has numerous active seismic faults that can result in potential earthquake and seismic-related hazards. Seismic activity poses two types of potential hazards for people and structures, categorized either as primary or secondary hazards. Primary hazards are caused by the direct interaction of seismic energy with the ground. Examples include ground rupture, ground shaking, ground displacement, subsidence, and uplift from earth movement. Secondary hazards are consequences of the shaking, such as ground failure (lurch cracking, lateral spreading, and slope failure), liquefaction, water waves (seiches), movement on nearby faults (sympathetic fault movement), dam failure, and fires.

As stated, there are a number of known fault zones within proximity to the project site, including the Newport-Inglewood Structural Zone, Pelican Hill fault, and San Joaquin Hills fault. As such, the project site could be subjected to strong seismic ground shaking that may result from earthquakes on local to distant sources.

The existing Collins Island Bridge was constructed in 1953 and is supported on concrete sheet pile bulkheads, which are insufficient to resist current code level seismic loads. Given the age of the structure, the existing bridge also does not meet current bridge code requirements and is nearing the end of its useful lifetime. Therefore, the proposed project would replace the bridge with a new bridge that meets current bridge standards related to seismic safety and would be a beneficial improvement compared to existing conditions. The Geotechnical Report also includes recommended construction designs and methods to reduce ensure seismic safety of the bridge and seawall improvements. Specifically, the Geotechnical Report recommends pile foundations in the form of secant pile wall abutments, which is a series of alternating reinforced cast-in-drilled-hole piles and un-reinforced concrete piles, to reduce seismic related hazards (e.g., liquefaction and soil settlement). Additionally, the Geotechnical Report recommends embedding the proposed sheet piles for the sea wall improvements at least five feet below the competent soils. Further, earthwork activities and construction of the concrete and sheet piles would be required to comply with the California Department of Transportation's California Test Methods Standard Specifications and verified in the final construction plans and specifications prior to issuance of grading permits. Mitigation Measure GEO-1 would ensure the project construction plans include the design recommendations from the Geotechnical Report to minimize site-specific geotechnical hazards. Additionally, the design and construction of the project (including the bridge replacement, seawall improvements, and pump station accommodations) would be required to comply with the existing seismic safety requirements of the California Building Code and Title 15, *Buildings and Construction*, of the Municipal Code, which would minimize risks pertaining to seismic ground shaking. Overall, impacts would be less than significant upon implementation of Mitigation Measure GEO-1.

Mitigation Measures:

GEO-1 Prior to issuance of grading permits, the City Engineer shall verify that final construction plans and specifications incorporate the design recommendations from the *Draft Foundation Report, Collins Island Bridge, Newport Beach, California*, prepared by Earth Mechanics, Inc. and dated October 27, 2023, and/or the final geotechnical report for the Collins Island Bridge Replacement Project.

3) Seismic-related ground failure, including liquefaction?

Less Than Significant Impact With Mitigation Incorporated. Liquefaction and seismically induced settlement or ground failure is generally related to strong seismic shaking events where the groundwater table occurs at a relatively shallow depth (generally within 50 feet of the ground surface) or where lands are underlain by loose, cohesionless deposits. Liquefaction generally results in the loss of shear strength of a soil, which occurs due to the increase of pore water pressure caused by the rearrangement of soil particles induced by shaking or vibration. During liquefaction, soil strata typically behave similar to a heavy fluid.

According to the Geotechnical Report, the site is generally underlain by hydraulic fill, which was used originally to create Balboa Island. Underlying the hydraulic fill are alluvial soils deposited into Newport Bay by way of the Santa Ana River (before being re-aligned). These deposits generally consist of grey, fine sands and silts. Underlying the alluvial deposits is the sedimentary bedrock composed of dark to medium brown, well consolidated, highly fractured fine siltstone and claystone of the Capistrano Formation. The near-surface alluvial sediments (upper 20 feet of soils) within the project area are susceptible to liquefaction due to moderate to intense ground shaking. A liquefaction potential screening was conducted with two site-specific cone penetration tests, which identified granular materials susceptible to liquefaction. In addition to the reduction in soil strength, liquefaction could also result in seismically-induced settlements. In the liquefiable layers, seismically-induced soil settlements are expected to be up to 4.5 inch. These potential soil settlements would generate downdrag forces on the proposed piles and thus, would be considered and mitigated for in the foundation design. As such and as described above, the Geotechnical Report recommends pile foundations in the form of secant pile wall abutments to reduce liquefaction and soil settlement hazards. Additionally, the Geotechnical Report recommends embedding the proposed sheet piles for the sea wall improvements at least five feet below the competent soils. Earthwork activities and construction of the concrete and sheet piles would also be required to comply with the California Department of Transportation's *California Test Methods Standard Specifications* and verified in the final construction plans and specifications prior to issuance of grading permits. Mitigation Measure GEO-1 would require the project construction plans include the design recommendations from the Geotechnical Report to ensure site-specific geotechnical hazards are mitigated with proper geotechnical design. Thus, impacts would be less than significant upon implementation of Mitigation Measure GEO-1.

Mitigation Measures: Refer to Mitigation Measure GEO-1.

4) Landslides?

No Impact. The project site is located on Collins Island within the Newport Bay. There are no hillsides or slopes on the island or in the project area that could be susceptible to landslides. Thus, no impacts would occur in this regard.

Mitigation Measures: No mitigation measures are required.

b) Result in substantial soil erosion or the loss of topsoil?

Less Than Significant Impact. Refer to Responses 4.10(a) and 4.10(c)(1). The project would be required to comply with applicable regulations from Municipal Code Chapter 14.36, *Water Quality*, and Title 21, *Local Coastal Program Implementation Plan*, Chapter 21.35, *Water Quality Control*. Specifically, Municipal Code Section 14.36.040, *Control of Urban Runoff*, requirements related to the reduction or elimination of pollutants in stormwater runoff, including soil and sediment erosion. Municipal Code Chapter 21.35 requires a Construction Pollution Prevention Plan that outlines temporary best management practices (BMPs) to minimize erosion and sedimentation during construction, and to minimize pollution of runoff and coastal waters by construction chemicals and materials. Additionally, the project would implement all BMPs related to erosion and sediment control and site management as required by the U.S. Army Corps of Engineers (USACE) Section 404 and Santa Ana RWQCB Section 401 permitting processes. Last, the project would be subject to the South Coast Air Quality Management District's (SCAQMD) Rule 403, which establishes requirements

for dust control during construction activities. Following conformance with local regulations and SCAQMD Rule 403, impacts concerning soil erosion and loss of topsoil would be less than significant.

Mitigation Measures: No mitigation measures are required.

c) 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?

Less Than Significant Impact With Mitigation Incorporated. Refer to Responses 4.7(a)(3), 4.7(a)(4), and 4.7(d) regarding project impacts related to liquefaction, landslides, and expansive soils, respectively.

Lateral Spreading

Lateral spreading is limited displacement ground failure, often associated with liquefaction. Lateral spreading is typically exemplified by the formation of vertical cracks on the surface of liquefied soils, and usually takes place on gently sloping ground or level ground with nearby free surface such as a drainage or stream channel. As stated above, the near-surface alluvial sediments (upper 20 feet of soils) within the project area are susceptible to liquefaction (and associated lateral spreading) due to moderate to intense ground shaking. Mitigation Measure GEO-1 would ensure project design recommendations detailed in the Geotechnical Report related to the proposed foundation piles are identified in the final construction plans and specifications and implemented during construction. Thus, potential hazards associated with lateral spreading would be reduced to less than significant levels.

Subsidence

Subsidence occurs when a large portion of land is displaced or compressed vertically, typically due to human activities, such as the withdrawal of groundwater, oil, or natural gas. No groundwater, oil, or natural gas extraction is proposed as part of the project. Thus, subsidence is not anticipated to occur on-site and no impacts would occur in this regard.

Collapse

Soil collapse is a phenomenon where the soils that have loose soil structures undergo a significant decrease in volume upon increase in moisture content, with or without an increase in external loads. Buildings, structures, and other improvements may be subject to excessive settlement-related distress when compressible soils or collapsible soils are present. According to the Geotechnical Report, the site soils are composed predominantly of coarse-grained soils consisting of loose to medium dense sand at the upper 20 feet. Below that is approximately 30 feet of dense to very dense sand over the sedimentary bedrock (siltstone to claystone). As stated above, the upper 20 feet of soils are susceptible to liquefaction and thus, could be susceptible to collapse with increases in moisture content. Implementation of Mitigation Measure GEO-1 would ensure project design recommendations detailed in the Geotechnical Report related to reducing on-site geotechnical hazards (e.g., liquefaction, lateral spreading, and collapse) are included in the final construction plans and specifications and implemented during construction.

Mitigation Measures: Refer to Mitigation Measure GEO-1.

d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating direct or indirect substantial risks to life or property?

Less Than Significant Impact With Mitigation Incorporated. Expansive soils are those that undergo volume changes as moisture content fluctuates, swelling substantially when wet or shrinking when dry. Soil expansion can damage structures by cracking foundations, causing settlement, and distorting structural elements. The Geotechnical

Report states that Montmorillonitic clays are most susceptible to expansion due to their layered crystalline structure, and claystone beds within Capistrano Formation may have potential to be highly plastic and expansive.

As stated, the project site is underlain by predominantly coarse-grained soils consisting of loose to medium dense sand at the upper 20 feet. Below that is approximately 30 feet of dense to very dense sand over the sedimentary bedrock composed of well consolidated, highly fractured fine siltstone and claystone of the Capistrano Formation. The Geotechnical Report includes recommended design and construction methods to reduce geological hazards, including expansive soils. The project would be required to comply with all site-specific design recommendations identified in the Geotechnical Report per Mitigation Measure GEO-1. As such, impacts would be less than significant in this regard.

Mitigation Measures: Refer to Mitigation Measure GEO-1.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

No Impact. No septic tanks or alternative wastewater systems would be constructed as part of the project. No impacts would occur in this regard.

Mitigation Measures: No mitigation measures are required.

f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less Than Significant Impact With Mitigation Incorporated. The Paleo Report included a paleontological resources records search at the Natural History Museum of Los Angeles County, literature and geologic map review, and a paleontological resources sensitivity analysis; refer to Appendix D. The records search did not identify any paleontological resources within the project site. Several localities have been found within three miles of the project site; however, these localities are from rock formations (Pleistocene Palos Verdes Sand and Fernando Formation deposits) older than those mapped as underlying the project site. Only one locality of Holocene age, equivalent to sediments underlying the project site, was found within three miles of the project site. Per mitigation impact guidelines set forth by the Society of Vertebrate Paleontology (SVP) and due to the fossil sensitivity of the rock formations present within the project site, the project has a low potential to disturb paleontological resources within undisturbed sedimentary deposits and bedrock. Nevertheless, in the event that paleontological resources are encountered during earth-disturbing activities, Mitigation Measure GEO-2 would require all construction activities within 100 feet of the find to halt until a qualified paleontologist assesses the find to determine its significance and any required measures. If the qualified paleontologist finds the resource is potentially significant, then the qualified paleontologist would make recommendations for appropriate treatment in accordance with SVP guidelines for identification, evaluation, disclosure, avoidance, recovery, and/or curation, as appropriate. Thus, following implementation of Mitigation Measure GEO-2, impacts would be reduced to less than significant levels.

Mitigation Measures:

GEO-2 In the event that paleontological resources are encountered during earth-disturbing activities, all construction activities within 100 feet of the discovery shall be temporarily halted until a qualified paleontologist shall evaluate the findings and make a recommendation. The assessment will follow Society of Vertebrate Paleontology (SVP) standards as delineated in the *Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources* (2010). If the qualified paleontologist finds that the resource is not a significant fossil, then work may resume immediately. If the qualified paleontologist finds the resource is potentially significant, then the qualified paleontologist shall make recommendations for appropriate treatment in accordance with SVP guidelines for identification, evaluation, disclosure, avoidance, recovery, and/or curation, as appropriate. The City of Newport Beach shall determine the appropriate treatment of the find. Work cannot resume within the no-work radius until

the City of Newport Beach, through consultation as appropriate, determines that appropriate treatment measures have been completed to the satisfaction of the City. Any fossils recovered during mitigation shall be cleaned, identified, catalogued, and permanently curated with an accredited and permanent scientific institution with a research interest in the materials, such as the Cooper Laboratory in Santa Ana.

A qualified professional paleontologist is a professional with a graduate degree in paleontology, geology, or related field, with demonstrated experience in the vertebrate, invertebrate, or botanical paleontology of California, as well as at least one year of full-time professional experience or equivalent specialized training in paleontological research (i.e., the identification of fossil deposits, application of paleontological field and laboratory procedures and techniques, and curation of fossil specimens), and at least four months of supervised field and analytic experience in general North American paleontology as defined by the SVP.

4.8 GREENHOUSE GAS EMISSIONS

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			✓	
b. Conflict with an applicable plan, policy, or regulations adopted for the purpose of reducing the emissions of greenhouse gases?			✓	

GLOBAL CLIMATE CHANGE

California is a substantial contributor of global greenhouse gases (GHGs), emitting approximately 369.2 million metric tons of carbon dioxide equivalent ($MMTCO_2e$) in 2020.[1] Methane (CH_4) is also an important GHG that potentially contributes to global climate change. GHGs are global in their effect, which is to increase the earth's ability to absorb heat in the atmosphere. As primary GHGs have a long lifetime in the atmosphere, accumulate over time, and are generally well-mixed, their impact on the atmosphere is mostly independent of the point of emission. Every nation emits GHGs and as a result makes an incremental cumulative contribution to global climate change; therefore, global cooperation will be required to reduce the rate of GHG emissions enough to slow or stop the human-caused increase in average global temperatures and associated changes in climatic conditions.

The impact of human activities on global climate change is apparent in the observational record. Air trapped by ice has been extracted from core samples taken from polar ice sheets to determine the global atmospheric variation of CO_2, CH_4, and nitrous oxide (N_2O) from before the start of industrialization (approximately 1750), to over 650,000 years ago. For that period, it was found that CO_2 concentrations ranged from 180 to 300 parts per million (ppm). For the period from approximately 1750 to the present, global CO_2 concentrations increased from a pre-industrialization period concentration of 280 ppm to 379 ppm in 2005, with the 2005 value far exceeding the upper end of the pre-industrial period range. As of August 2023, the highest monthly average concentration of CO_2 in the atmosphere was recorded at 420.97 ppm.[2]

REGULATORY FRAMEWORK

Federal

The Intergovernmental Panel on Climate Change (IPCC) constructed several emission trajectories of GHGs needed to stabilize global temperatures and climate change impacts. It concluded that a stabilization of GHGs at 400 to 450 ppm carbon dioxide equivalent (CO_2e)[3] concentration is required to keep global mean warming below 2 degrees Celsius (^oC), which in turn is assumed to be necessary to avoid dangerous climate change.

[1] California Air Resources Board, *California Greenhouse Gas Emissions for 2000 to 2020*, *Trends* of Emissions and Other Indicators, https://ww2.arb.ca.gov/sites/default/files/classic/cc/inventory/2000-2020_ghg_inventory_trends.pdf, October 26, 2022.

[2] Scripps Institution of Oceanography, *Carbon Dioxide Concentration at Mauna Loa Observatory*, https://scripps.ucsd.edu/programs/keelingcurve/, accessed August 8, 2023.

[3] Carbon Dioxide Equivalent (CO_2e) – A metric measure used to compare the emissions from various greenhouse gases based upon their global warming potential.

State

Various Statewide and local initiatives to reduce the State's contribution to GHG emissions have raised awareness that, even though the various contributors to and consequences of global climate change are not yet fully understood, global climate change is under way, and there is a real potential for severe adverse environmental, social, and economic effects in the long term.

Assembly Bill 32 (California Global Warming Solutions Act of 2006). California passed the California Global Warming Solutions Act of 2006 (AB 32; California Health and Safety Code Division 25.5, Sections 38500 - 38599). AB 32 establishes regulatory, reporting, and market mechanisms to achieve quantifiable reductions in GHG emissions and establishes a cap on Statewide GHG emissions. AB 32 requires that Statewide GHG emissions be reduced to 1990 levels by 2020. AB 32 specifies that regulations adopted in response to AB 1493 should be used to address GHG emissions from vehicles. However, AB 32 also includes language stating that if the AB 1493 regulations cannot be implemented, then the California Air Resources Board (CARB) should develop new regulations to control vehicle GHG emissions under the authorization of AB 32.

Executive Order S-3-05. Executive Order S-3-05 set forth a series of target dates by which Statewide emissions of GHGs would be progressively reduced, as follows:

- By 2010, reduce GHG emissions to 2000 levels;
- By 2020, reduce GHG emissions to 1990 levels; and
- By 2050, reduce GHG emissions to 80 percent below 1990 levels.

Senate Bill 32. Signed into law on September 2016, SB 32 codifies the 2030 GHG reduction target in Executive Order B-30-15 (40 percent below 1990 levels by 2030). The bill authorizes CARB to adopt an interim GHG emissions level target to be achieved by 2030.

CARB Scoping Plan. On December 11, 2008, CARB adopted the *Climate Change Scoping Plan* (Scoping Plan), which functions as a roadmap to achieve GHG reductions in California required by AB 32 through subsequently enacted regulations. The Scoping Plan contains the main strategies California will implement to reduce GHG emissions by 174 million metric tons (MT), or approximately 30 percent, from the State's projected 2020 emissions level of 596 million $MTCO_2e$ under a business as usual (BAU)[4] scenario. This is a reduction of 42 million $MTCO_2e$, or almost ten percent, from 2002 to 2004 average emissions, but requires the reductions in the face of population and economic growth through 2020.

The Scoping Plan calculates 2020 BAU emissions as the emissions that would be expected to occur in the absence of any GHG reduction measures. The 2020 BAU emissions estimate was derived by projecting emissions from a past baseline year using growth factors specific to each of the different economic sectors (e.g., transportation, electrical power, commercial and residential, industrial, etc.). CARB used three-year average emissions, by sector, for 2002 to 2004 to forecast emissions to 2020. The measures described in the Scoping Plan are intended to reduce the projected 2020 BAU to 1990 levels, as required by AB 32.

AB 32 requires CARB to update the Scoping Plan at least once every five years. On December 15, 2022, CARB released the *2022 Scoping Plan for Achieving Carbon Neutrality* (2022 Scoping Plan), which identifies the strategies achieving carbon neutrality by 2045 or earlier. The 2022 Scoping Plan contains the GHG reductions, technology, and clean energy mandated by statutes. The 2022 Scoping Plan was developed to achieve carbon neutrality by 2045

[4] "Business as Usual" refers to emissions that would be expected to occur in the absence of GHG reductions; refer to http://www.arb.ca.gov/cc/inventory/data/bau.htm. Note that there is significant controversy as to what BAU means. In determining the GHG 2020 limit, CARB used the above as the "definition." It is broad enough to allow for design features to be counted as reductions.

through a substantial reduction in fossil fuel dependence, while at the same time increasing deployment of efficient non-combustion technologies and distribution of clean energy. The plan would also reduce emissions of short-lived climate pollutants (SLCPs) and would include mechanical CO_2 capture and sequestration actions, as well as emissions and sequestration from natural and working lands and nature-based strategies. Under the 2022 Scoping Plan, by 2045, California aims to cut GHG emissions by 85 percent below 1990 levels, reduce smog-forming air pollution by 71 percent, reduce the demand for liquid petroleum by 94 percent compared to current usage, improve health and welfare, and create millions of new jobs. This plan also builds upon current and previous environmental justice efforts to integrate environmental justice directly into the plan, to ensure that all communities can reap the benefits of this transformational plan.

Local

City of Newport Beach Energy Action Plan

In July 2013, the City prepared an Energy Action Plan (EAP), created in partnership with Southern California Edison (SCE) and Southern California Gas Company (SCG). The EAP provides the City guidance in reducing greenhouse gas (GHG) emissions by lowering municipal and community wide energy use. The EAP assists in identifying a clear path to successfully implementing goals, policies, and actions that will achieve the City's reduction targets. The EAP aims to provide a roadmap for the City to reduce emissions through reductions in energy used in facility buildings and operations. The EAP identifies past energy measures that have been implemented and present measures that are currently being implemented, all of which contribute towards the City's energy reduction goal. In addition, the EAP identifies other potential energy reduction measures that the City could consider for future implementation. The EAP's long-term vision for energy efficiency focuses on the following objectives:

- Reduce the City's carbon footprint and its adverse effect on the environment;
- Conserve energy at the local government facilities; and
- Raise energy conservation awareness in local community and improve the quality of life.

This EAP also outlines various measures and strategizes numerous methods on how the City's long-term vision can be achieved. Key goals of this EAP include:

- Meeting and exceeding AB 32 energy reduction goals;
- Being an example for energy efficiency and sustainability at City facilities;
- Continue interacting, educating, and informing the community about energy efficiency and greenhouse gas emissions;
- Exploring the newest "green" technologies and methods to decrease future energy dependency;
- Exploring renewable energy recourses (not limited to solar) and possible financing based on available grants/rebates;
- Enhancing energy efficiency and operations in existing buildings through systematic commissioning strategies or independent energy efficiency studies; and
- Evaluating all the suggested energy efficiency action measures presented in the EAP, establishing a priority for implementation, and determining possible funding sources.

Threshold of Significance

At this time, there is no absolute consensus in the State of California among CEQA lead agencies regarding the analysis of global climate change and the selection of significance criteria. In fact, numerous organizations, both public and private, have released advisories and guidance with recommendations designed to assist decision-makers in the evaluation of GHG emissions given the current uncertainty regarding when emissions reach the point of significance. Lead agencies may elect to rely on thresholds of significance recommended or adopted by State or regional agencies with expertise in the field of global climate change.

The project is located within the South Coast Air Basin (Basin), which is governed by the South Coast Air Quality Management District (SCAQMD). The SCAQMD has formed a GHG CEQA Significance Threshold Working Group (Working Group) to provide guidance to local lead agencies on determining significance for GHG emissions in their CEQA documents. As of the last Working Group meeting (Meeting No.15) held in September 2010, the SCAQMD is proposing to adopt a tiered approach for evaluating GHG emissions for development projects where SCAQMD is the lead agency.[5]

With the tiered approach, the project is compared with the requirements of each tier sequentially and would not result in a significant impact if it complies with any tier. Tier 1 excludes projects that are specifically exempt from SB 97 from resulting in a significant impact. Tier 2 excludes projects that are consistent with a GHG reduction plan that has a certified final CEQA document and complies with AB 32 GHG reduction goals. Tier 3 excludes projects with annual emissions lower than a screening threshold. For all non-industrial projects, the SCAQMD is proposing a screening threshold of 3,000 $MTCO_2e$ per year. SCAQMD concluded that projects with emissions less than the screening threshold would not result in a significant cumulative impact. Tier 4 consists of three options. Under the Tier 4 first option, the SCAQMD initially outlined that the project would be excluded if design features and/or mitigation measures resulted in emissions 30 percent lower than business as usual emissions. However, the Working Group did not provide a recommendation for this approach. Under the Tier 4 second option, the Working Group folded this into the third option. Under the Tier 4 third option, the project would be excluded if it was below an efficiency-based threshold of 4.8 $MTCO_2e$ per service population per year or 3.0 $MTCO_2e$ per service population for post-2020 projects.[6] Tier 5 would exclude projects that implement off-site mitigation (GHG reduction projects) or purchase offsets to reduce GHG emission impacts to less than the proposed screening level.

The City has not adopted a qualifying climate action plan (CAP) or a numerical significance threshold for assessing impacts related to GHG emissions. As such, for the purpose of this analysis, the SCAQMD's screening threshold (3,000 $MTCO_2e$ per year) for non-industrial projects (such as the proposed project) within its October 2008 document is used to determine the significance of project-related GHG impacts. Project-related GHG emissions resulting in exceedance of 3,000 $MTCO_2e$ would be considered significant.

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Less Than Significant Impact.

The project's anticipated GHG emissions are identified in Table 4.8-1, *Estimated Greenhouse Gas Emissions*. The most recent version of the California Emissions Estimator Model (CalEEMod), version 2022.1 was used to calculate project-related GHG emissions. Project-related GHG emissions would include direct emissions from construction activities; as the project does not propose any buildings and would not introduce new stationary sources, no GHG emissions associated with project operation (such as those from area sources, refrigerants, energy consumption, water demand, and solid waste generation) are anticipated or quantified. Additionally, while the proposed project would provide bridge improvements, the proposed new bridge would not represent a trip generating land use nor is it anticipated to significantly increase the capacity of Collins Island Bridge, which primarily serves the eight single-family residences on Collins Island. Rather, the project would facilitate safe travel for Collins Island users by constructing a bridge that meets current bridge code requirements. Similarly, both the proposed seawall improvements as well as

[5] South Coast Air Quality Management District, *Board Letter – Interim CEQA GHG Significance Threshold for Stationary Sources, Rules and Plans*, December 5, 2008.

[6] The project-level efficiency-based threshold of 4.8 $MTCO_2e$ per service population per year is relative to the 2020 target date. The SCAQMD has also proposed efficiency-based thresholds relative to the 2035 target date to be consistent with the GHG reduction target date of SB 375. GHG reductions by the SB 375 target date of 2035 would be approximately 40 percent. Applying this 40 percent reduction to the 2020 targets results in an efficiency threshold for plans of 4.1 $MTCO_2e$ per service population per year and an efficiency threshold at the project-level of 3.0 $MTCO_2e$/year.

stormwater features for the separate, future pump station project would not represent a trip generating land use. Generally, the project is a bridge improvement project which would not generate any emissions during operations.

Table 4.8-1
Estimated Greenhouse Gas Emissions

Source	CO_2	CH_4	N_2O	Refrigerants	CO_2e
	Metric Tons/year[1]				
Direct Emissions					
Construction (amortized over 30 years)2	16.02	<0.01	<0.01	<0.01	16.09
Total Project-Related Emissions[3]	***16.09 $MTCO_2e$/year***				
SCAQMD Threshold	***3,000 $MTCO_2e$/year***				
Exceed Thresholds?	***No***				

Notes:
1. Emissions calculated using California Emissions Estimator Model Version 2022.1 (CalEEMod) computer model.
2. The amount of GHG emissions from project construction would total 16.09 $MTCO_2e$ per year when amortized over 30 years, or 482.59 $MTCO_2e$ total. The standard 30-year project lifetime assumption is based on South Coast Air Quality Management District, *Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold*, October 2008.
3. Totals may be slightly off due to rounding.

Refer to Appendix A, *Air Quality/Greenhouse Gas Emissions/Energy Data* for assumptions used in this analysis.

Construction GHG emissions are typically summed and amortized over the lifetime of the project (assumed to be 30 years), then added to the operational emissions.[7] As shown in Table 4.8-1, the proposed project would result in 16.09 $MTCO_2e$ per year construction emissions when amortized over 30 years (or a total of 482.59 $MTCO_2e$ in 30 years). As discussed above, the project would not generate emissions during operation. As such, the amount of project related GHG emissions from direct and indirect sources combined would total approximately 16.09 $MTCO_2e$ per year. Therefore, project-related GHG emissions would not exceed the SCAQMD interim threshold of 3,000 $MTCO_2e$ per year, and impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

b) Conflict with an applicable plan, policy, or regulations adopted for the purpose of reducing the emissions of greenhouse gases?

Less Than Significant Impact. The City has not adopted a qualifying CAP for assessing impacts related to GHG emissions. Nonetheless, the City adopted the *City of Newport Beach Energy Action Plan* (EAP) in July 2013, created in partnership with SCE and SCG.

It should be acknowledged that the EAP focuses on improving building efficiency and sustainability of City facilities and is therefore not directly applicable to the proposed project. It should also be acknowledged that the EAP is not considered a qualified GHG emissions reduction plan in accordance with State CEQA Guidelines Section 15183.5. Additionally, CARB's 2022 Scoping Plan describes the approach California will take to reduce GHG emissions by 40 percent below 1990 levels by the year 2030.

As a small-scale transportation improvement project with minimal construction GHG emissions, the proposed project is not anticipated to conflict with or obstruct the EAP or a State plan for GHG emissions reductions. Specifically, as shown in Table 4.8-1, project-related GHG emissions would only result in a total of approximately 16.09 $MTCO_2e$ per

[7] The project lifetime is based on the standard 30-year assumption of the South Coast Air Quality Management District (South Coast Air Quality Management District, *Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold*, October 2008).

year and are well below SCAQMD's 3,000 $MTCO_2e$/year screening threshold for non-industrial projects. Compared to other development projects, the proposed project would generate a nominal amount of GHG emissions and would not have the potential to conflict with the EAP, 2022 Scoping Plan, or any other applicable plans, policies, or regulations adopted for the purpose of reducing the emissions of GHGs. Impacts would be less than significant in this regard.

Mitigation Measures: No mitigation measures are required.

4.9 HAZARDS AND HAZARDOUS MA`TERIALS

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			✓	
b. 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?			✓	
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				✓
d. Be located on a site which 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?				✓
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?				✓
f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?		✓		
g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?				✓

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Less Than Significant Impact. Limited amounts of hazardous materials could be used in the short-term construction of the project, including standard construction materials (i.e., paints and solvents), gasoline, diesel fuels, and other hazardous materials routinely utilized with construction equipment. However, these activities would be short-term, and the materials used would not be in such quantities, or stored in such a manner, as to pose a significant safety hazard. Further, all project construction activities would demonstrate compliance with the applicable laws and regulations governing the use, storage, and transportation of hazardous materials, which would ensure all potentially hazardous materials are used and handled in an appropriate manner. Specifically, regulations established by the U.S. Department of Transportation (DOT), California Department of Transportation (Caltrans), and California Highway Patrol (CHP) as well as the Hazardous Materials Transportation Uniform Safety Act (HMTUSA) statute would ensure that impacts concerning the hauling or disposal of hazardous materials during construction are reduced to less than significant levels.

The proposed project would replace the existing Collins Island Bridge with a new bridge structure, implement seawall improvements, and install future pump station accommodations. Additionally, project implementation would provide street, sidewalk, and landscaping improvements. The project would not construct habitable structures, nor would the project introduce new land uses that would require the use of hazardous materials. Thus, the proposed project would

not involve the routine transport, use, or disposal of hazardous materials during long-term operations. Less than significant impacts would occur in this regard.

Mitigation Measures: No mitigation measures are required.

b) 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 Impact.

CONSTRUCTION

One of the means through which human exposure to hazardous substances could occur is through accidental release. Incidents that result in an accidental release of hazardous substances into the environment can cause contamination of soil, surface water, and groundwater, in addition to any toxic fumes that might be generated. Human exposure of contaminated soil, soil gas, or water can have potential health effects based on a variety of factors, such as the nature of the contaminant and the degree of exposure.

During project construction, unanticipated discovery of existing hazardous materials may occur during ground disturbance activities. There is also a possibility of accidental release of hazardous substances such as petroleum-based fuels or hydraulic fluid used for construction equipment. The level of risk associated with the accidental release of hazardous substances from construction equipment is not considered significant due to the small volume and low concentration of hazardous materials anticipated during the limited construction duration. Nevertheless, regulations established by the DOT, Caltrans, and CHP as well as the HMTUSA statute would ensure that impacts concerning hazardous materials during construction, including ground disturbing activities, are reduced to less than significant levels. Further, the construction contractor would be required to use standard construction controls and safety procedures that would avoid and minimize the potential for accidental release of such substances into the environment. Standard construction practices would be observed such that any materials released are appropriately contained and remediated as required by local, State, and federal law. Upon compliance with all applicable regulations, impacts in this regard would be less than significant.

OPERATIONS

The proposed project would replace the existing Collins Island Bridge with a new bridge structure, implement seawall improvements, and install future pump station accommodations. Additionally, project implementation would provide street, sidewalk, and landscaping improvements. As noted in Response 4.9(a), project implementation would not introduce a change in land use that would result in the use of hazardous materials. The project site is the Collins Island Bridge and its immediate vicinity located on Balboa Island. Upon project completion, no operational impacts would occur that could result in a significant hazard to the public or the environment through the reasonably foreseeable upset or accident conditions involving the release of hazardous materials into the environment. Long-term impacts in this regard would be less than significant.

Mitigation Measures: No mitigation measures are required.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

No Impact. There are no existing or proposed schools located within 0.25-mile of the project site. The nearest school is the Newport Elementary School, located approximately 1.0 mile to the west at 1327 West Balboa Boulevard on the Balboa Peninsula. As such, no impacts would occur in this regard.

Mitigation Measures: No mitigation measures are required.

d) Be located on a site which 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. Government Code Section 65962.5 requires the Department of Toxic Substances Control (DTSC) and State Water Resources Control Board (SWRCB) to compile and update a regulatory site listing (per the criteria of the Section). The California Department of Health Services is also required to compile and update, as appropriate, a list of all public drinking water wells that contain detectable levels of organic contaminants and that are subject to water analysis pursuant to Section 116395 of the Health and Safety Code. Section 65962.5 requires the local enforcement agency, as designated pursuant to Section 18051 of Title 14 of the California Code of Regulations (CCR), to compile, as appropriate, a list of all solid waste disposal facilities from which there is a known migration of hazardous waste.

The project site is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5.[1] As such, no impacts would occur in this regard.

Mitigation Measures: No mitigation measures are required.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

No Impact. The closest public use airport, John Wayne Airport, is located approximately five miles to the northeast of the project site at 18601 Airport Way in the City of Santa Ana. The project site is located outside of the John Wayne Airport Influence Area and is not within the vicinity of a private airstrip or any airport land use plan, or within two miles of a public airport.[2] As such, no impacts would occur in this regard.

Mitigation Measures: No mitigation measures are required.

f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less than Significant Impact with Mitigation Incorporated. The proposed project would not impair emergency access in the site vicinity. Given the age of the structure, the existing Collins Island Bridge does not meet current bridge code requirements and is nearing the end of its useful lifetime. According to a 2012 bridge inspection report, the Collins Island Bridge was designated as functionally obsolete and has not been improved since 2012. Thus, the proposed bridge replacement would provide a long-term beneficial impact by providing safe, reliable emergency access and evacuation for the Balboa Island community. Further, the current slope along the roadway and sidewalk bridge approaches on both sides of the bridge exceed five percent. Therefore, the profiles would be adjusted to comply with ADA standards. Landscaped areas and the bridge monument would also be improved to increase sight distance along the adjacent walkways and improve pedestrian safety. A new stop sign and limit line would also be added at the intersection on both sides of the bridge. Through these project improvements, safety, access, and mobility across Collins Island Bridge would be improved, resulting in a beneficial impact in this regard.

[1] California Environmental Protection Agency, *Cortese List Data Resources*, http://calepa.ca.gov/SiteCleanup/CorteseList/, accessed August 10, 2023.

[2] County of Orange Airport Land Use Commission, Airport Environs Land Use Plan for John Wayne Airport, amended April 17, 2008, https://files.ocair.com/media/2021-02/JWA_AELUP-April-17-2008.pdf?VersionId=cB0byJjdad9OuY5im7Oaj5aWaT1FS.vD, accessed August 10, 2023.

As shown on Exhibits 2-7a and 2-7b, the bridge would be replaced in portions to ensure either vehicular or pedestrian access to Collins Island during construction activities to the maximum extent feasible. However, construction activities may require temporary partial bridge, roadway, or sidewalk closures. Short-term full bridge closures limited to a few hours in a day (i.e., not full day or multi-day closures) may also be required and thus, may impede emergency access to Collins Island. As such, implementation of a Traffic Management Plan (TMP) would be required to maintain adequate emergency access during the construction process (Mitigation Measure TRA-1). The TMP shall include measures such as construction signage, limitations on timing for lane closures to avoid peak hours of traffic, temporary striping plans, and, if necessary, use of construction flag person(s) to direct traffic during heavy equipment use. Further, the City would be required to coordinate with the Newport Beach Fire and Police Departments to arrange for adequate alternative access options in the event an emergency event occurs during a temporary full bridge/roadway closure. As such, with implementation of Mitigation Measure TRA-1, the project's impacts in this regard would be reduced to less than significant levels.

Mitigation Measures: Refer to Mitigation Measure TRA-1.

g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

No Impact. The project site and surrounding area are built-out with urbanized uses or open water; no wildland vegetation that could fuel wildfires is present. Additionally, as discussed in Section 4.20, *Wildfire*, the project site is not located in an area identified by the California Department of Forestry and Fire as a Very High Fire Hazard Severity Zone. Thus, there would be no impact in this regard.

Mitigation Measures: No mitigation measures are required.

4.10 HYDROLOGY AND WATER QUALITY

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?			✓	
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?				✓
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of stream or river or through the addition of impervious surfaces, in a manner which would:				
1) Result in substantial erosion or siltation on- or off-site?			✓	
2) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?			✓	
3) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?			✓	
4) Impede or redirect flood flows?			✓	
d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?			✓	
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?				✓

a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?

Less Than Significant Impact. As part of Section 402 of the Clean Water Act, the U.S. Environmental Protection Agency (EPA) has established regulations under the National Pollution Discharge Elimination System (NPDES) program to control direct stormwater discharges. In California, the State Water Resources Control Board (SWRCB) administers the NPDES permitting program and is responsible for developing NPDES permitting requirements. The NPDES program regulates industrial pollutant discharges, which include construction activities. The SWRCB works in coordination with the Regional Water Quality Control Boards (RWQCB) to preserve, protect, enhance, and restore water quality. The project site is located within the jurisdiction of the Santa Ana RWQCB.

Impacts related to water quality typically range over three different periods: 1) during the earthwork and construction phase, when the potential for erosion, siltation, and sedimentation would be the greatest; 2) following construction, prior to the establishment of ground cover, when the erosion potential may remain relatively high; and 3) following completion of the project, when impacts related to sedimentation would decrease markedly, but those associated with urban runoff would increase.

CONSTRUCTION

The proposed project may result in water quality impacts during short-term construction activities. Project-related demolition, excavation, and drilling activities would expose soils to wind and water erosion. During partial bridge demolition, a drop net over the waterway would be used to catch debris during removal of the concrete bridge and coping on existing seawalls.

The project would be required to comply with applicable regulations from Municipal Code Chapter 14.36, *Water Quality*, and Title 21*, Local Coastal Program Implementation Plan*, Chapter 21.35, *Water Quality Control*. Specifically, Municipal Code Section 14.36.040, *Control of Urban Runoff*, requires all new development and significant redevelopment within the City to comply with the Orange County Drainage Area Management Plan and conditions/requirements established by the City related to the reduction or elimination of pollutants in stormwater runoff from the project site. Municipal Code Chapter 21.35 requires a Construction Pollution Prevention Plan that outlines temporary best management practices (BMPs) to minimize erosion and sedimentation during construction, and to minimize pollution of runoff and coastal waters by construction chemicals and materials. Further, the project would implement all BMPs related to erosion and sediment control and site management as required by the U.S. Army Corps of Engineers (USACE) Section 404 and Santa Ana RWQCB Section 401 permitting processes. Following implementation of temporary construction BMPs per Municipal Code Chapter 21.35, adherence to permitting requirements (USACE Section 404, Santa Ana RWQCB Sections 401), and conformance with Municipal Code Chapter 14.36, the project's short-term impacts to water quality would be less than significant.

OPERATIONS

At project completion, the proposed bridge replacement would not substantially alter drainage or water quality in comparison to existing conditions as development would not entail activities or changes in land use other than construction. However, the project would implement storm drain improvements simultaneously within street and sidewalk improvements, including the relocation of one catch basin along the Park Avenue right-of-way and the installation of discharge and outlet pipes to accommodate a future separate pump station project. These improvements would ensure that water quality impacts are reduced to a less than significant level during long-term operations.

Mitigation Measures: No mitigation measures are required.

b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

No Impact. The proposed project would replace the existing Collins Island Bridge with a new bridge structure, implement seawall improvements, and install future pump station accommodations; it would not introduce any new uses that would substantially decrease groundwater supplies or interfere substantially with groundwater recharge. Although a nominal amount of water may be used during construction these activities would be minimal and temporary in nature and would have no impact on groundwater supplies. Additionally, the site is not currently utilized as a groundwater recharge area. The project would not result in any water demand at project completion and thus, would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge. No impacts would occur in this regard.

Mitigation Measures: No mitigation measures are required.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of stream or river or through the addition of impervious surfaces, in a manner which would:

1) Result in substantial erosion or siltation on- or off-site?

Less Than Significant Impact. The proposed project would not result in a substantial alteration to existing drainage patterns, including through the alteration of the course of a stream or river. Currently, stormwater from the project site sheet flows southwesterly into an existing catch basin at the corner of Park Avenue and the Bay Front sidewalk, and eventually into Newport Bay. There is one existing catch basin along the Park Avenue right-of-way, which the project would relocate. Soil disturbance during project construction would include earth-moving activities such as excavation, drilling for bridge pile foundations, and steel sheet piling installation, among others. Disturbed soils would be susceptible to high rates of erosion from wind and rain, resulting in sediment transport via runoff from the project site; however, soil disturbance is anticipated to be nominal and temporary in nature.

As discussed in Response 4.10(a), the proposed project would not result in water quality pollutants (including erosion/siltation) during short-term construction or long-term operations. The project would include the implementation of construction and operational BMPs, including the utilization of a drop net over the waterway to be used to catch debris during removal of the concrete bridge and coping on existing seawalls, and installing landscaped areas adjacent to the bridge and Bay Front sidewalk areas. These short-term construction and operational BMPs would minimize the potential for erosion or siltation on- or off-site. Additionally, the project would implement storm drain improvements simultaneously within street and sidewalk improvements, such as relocation of an existing catch basin. While the separately proposed future pump station is not a part of the proposed project, the proposed project does include accommodations for the pump station (i.e., discharge and outlet pipes), which would facilitate stormwater conveyance into the bay.

As further discussed in Response 4.10(a) the project would be required to develop a Construction Pollution Prevention Plan in accordance with Municipal Code Section 21.35. Additionally, the project would be required to comply with applicable regulations from Municipal Code Chapter 14.36, *Water Quality*. Specifically, Municipal Code Section 14.36.040, *Control of Urban Runoff*, would require all new development and significant redevelopment within the City to comply with the Orange County Drainage Area Management Plan and conditions/requirements established by the City related to the reduction or elimination of pollutants in stormwater runoff from the project site. Additionally, the project would be required to comply with Municipal Code Section 14.36.030, *Illicit Connections and Prohibited Discharges*, which prohibits the construction, maintenance, operation, and utilization of any illicit connection or prohibited discharge. As such, project implementation would not substantially alter the existing drainage pattern on-site in a manner that would result in substantial erosion or siltation on- or off-site. Impacts would be less than significant in this regard.

Mitigation Measures: No mitigation measures are required.

2) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?

Less Than Significant Impact. Refer to Responses 4.10(a) and 4.10 (c)(1).

Mitigation Measures: No mitigation measures are required.

3) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

Less Than Significant Impact. Refer to Responses 4.10(a) and 4.10(c)(1). Stormwater runoff from the project site would not exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources or polluted runoff. Given the nature of the proposed project as primarily a bridge replacement, project implementation would not introduce any new land uses that could increase stormwater runoff on-site. Less than significant impacts would occur in this regard.

Mitigation Measures: No mitigation measures are required.

4) Impede or redirect flood flows?

Less Than Significant Impact. Refer to Responses 4.10(a), 4.10 (c)(1), and 4.10(c)(3).

Mitigation Measures: No mitigation measures are required.

d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

Less Than Significant Impact.

Flood Hazard

According to the Federal Emergency Management Agency (FEMA), the project site is situated within Zone AE, which is within the 100-year flood hazard area.[1] However, as discussed throughout this section, the project would implement temporary construction BMPs under the project's Construction Pollution Prevention Plan per Municipal Code Chapter 21.35, and conform to Municipal Code Section 14.36.040, which would collectively prevent release of pollutants in the instance of flooding. Impacts would be less than significant in this regard.

Tsunami

A tsunami is a great sea wave, commonly referred to as a tidal wave, produced by a significant undersea disturbance such as tectonic displacement of a sea floor associated with large, shallow earthquakes. General Plan Figure S1, *Coastal Hazards*, identifies the project site as located within a 100-year tsunami inundation at extreme high tide zone, with an identified inundation elevation of 13.64 feet. Although a potential tsunami hazard exists for the project area, the proposed project would not increase the potential for inundation in comparison to existing conditions. The proposed bridge replacement, seawall improvements, and pump station accommodations could not release any pollutants during a tsunami inundation. Rather, the project is anticipated to result in beneficial impacts related to rising sea levels due to climate change, as it would replace the existing bridge with one that meets current bridge code requirements and improve seawalls adjacent to the bridge to protect properties from high tides and storm surges. Thus, impacts in this regard are less than significant.

[1] Federal Emergency Management Agency, *Flood Insurance Rate Map #06059C0382K*, March 3, 2019, https://hazards-fema.maps.arcgis.com/apps/webappviewer/index.html?id=8b0adb51996444d4879338b5529aa9cd&extent=-117.87113952835794,33.61505203269935,-117.86594677170439,33.61728568259848, accessed August 11, 2023.

Seiche

A seiche is a standing wave in an enclosed or partially enclosed body of water. Although the project site is located adjacent to Newport Bay, according to the General Plan EIR, the probability that damaging seiches would develop in Newport Bay is considered low. Thus, no impacts would occur in this regard.

Mitigation Measures: No mitigation measures are required.

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

No Impact. The *Water Quality Control Plan for the Santa Ana River Basin* (Basin Plan) designates beneficial uses for water bodies in the Santa Ana Region and establishes water quality objectives and implementation plans to protect those beneficial uses. As noted above, the project would not result in significant impacts to water quality following compliance with the Basin Plan and conformance with Municipal Code Chapter 14.36, *Water Quality*, and Chapter 21.35, *Water Quality Control*.

The Sustainable Groundwater Management Act (SGMA) requires local public agencies and groundwater sustainability agencies in high- and medium-priority basins to develop and implement groundwater sustainability plans or prepare an alternative to a groundwater sustainability plan. According to the California Department of Water Resources SGMA Basin Prioritization Dashboard, the project is not underlain by a groundwater basin.[2] Thus, the proposed project is not anticipated to conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan and no impact would occur.

Mitigation Measures: No mitigation measures are required.

[2] California Department of Water Resources, *SGMA Basin Prioritization Dashboard,* https://gis.water.ca.gov/app/bp-dashboard/final/, accessed August 11, 2023.

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4.11 LAND USE AND PLANNING

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Physically divide an established community?			✓	
b. 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?			✓	

a) Physically divide an established community?

Less Than Significant Impact. Activities and features that could physically divide a community include, but are not limited to:

- Construction of major highways or roadways;
- Construction of storm channels;
- Closing bridges or roadways; and
- Construction of utility transmission lines.

The key factor with respect to this threshold is the potential to create physical barriers that change the connectivity between areas of a community to the extent that persons are separated from other areas of the community. Given the age of the structure, the existing Collins Island Bridge does not meet current bridge code requirements and is nearing the end of its useful lifetime. Thus, the proposed project would replace the existing Collins Island bridge with a new bridge, construct seawall improvements adjacent to the new bridge, and accommodate discharge and outlet pipes associated with a separate pump station project within Park Avenue. Given the nature of the bridge replacement activity, the project would physically divide the greater Balboa Island from Collins Island temporarily during bridge replacement activities. In an effort to reduce temporary closure durations of the existing bridge, the bridge would be replaced in portions to ensure access to Collins Island during construction activities to the maximum extent feasible. As shown on Exhibits 2-7a and 2-7b, a 14-foot wide portion would first be removed and replaced and the remaining 5-foot wide portion would be removed and replaced. Short-term bridge closures limited to a few hours in a day (i.e., not full day or multi-day closures) may be required. However, steel plates would be placed over temporary excavations to allow traffic to remain open after work hours.

The other project improvements associated with the seawall and pump station accommodations would not physically divide the existing Balboa Island community. Temporary construction activities would occur within the Park Avenue and Bay Front sidewalk right-of-way with limited construction staging on-site given the site constraints.

The Balboa Island community, including Collins Island, would maintain connection upon completion of all construction activities. Thus, no permanent physical division of the established Balboa Island community would occur as a result of project implementation. Further, the new bridge would provide long-term benefits for the Balboa Island community by providing safe and continued access between Collins Island and the greater Balboa Island. Impacts would be less than significant in this regard.

Mitigation Measures: No mitigation measures are required.

b) 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?

Less Than Significant Impact.

GENERAL PLAN CONSISTENCY

According to the General Plan and Zoning Map, Collins Island is designated Single-Unit Residential Detached (RS-D) and zoned Single Unit Residential (R-1). Uses to the east of the Collins Island Bridge on the greater Balboa Island are designated Two-Unit Residential (RT) and zoned Two-Unit Residential (R-BI [Balboa Island]). As a public roadway facility, the bridge itself does not have a land use designation or zoning district. Table 4.11-1, *General Plan Land Use Element Project Consistency Analysis*, provides a consistency analysis of the proposed project and relevant General Plan Land Use Element goals and policies. As indicated in Table 4.11-1, the proposed project would be consistent with the General Plan, and impacts would be less than significant in this regard.

Table 4.11-1
General Plan Land Use Element Project Consistency Analysis

Relevant Policies	Project Consistency Analysis
Goal LU 1: A unique residential community with diverse coastal and upland neighborhoods, which values its colorful past, high quality of life, and community bonds, and balances the needs of residents, businesses, and visitors through the recognition that Newport Beach is primarily a residential community.	
LU 1.1: Maintain and enhance the beneficial and unique character of the different neighborhoods, business districts, and harbor that together identify Newport Beach. Locate and design development to reflect Newport Beach's topography, architectural diversity, and view shed.	Consistent. The project proposes to replace the existing Collins Island Bridge with a new bridge that meets current bridge code standards; implement seawall improvements along both ends of the bridge to accommodate future sea level rise; and install discharge and outline pipes to accommodate a separate pump station project near the project site within Park Avenue. The primary intent of the proposed improvements is to replace structurally deficient infrastructure to ensure safety for residents and visitors on Balboa Island. The improvements would be limited to the area surrounding the Collins Island Bridge and project impacts would be limited to temporary construction impacts. Construction activities are anticipated to occur for approximately 11 months and may temporarily impact existing scenic views of Newport Bay near the project area. However, view impacts would be temporary and would be limited to the areas immediately adjacent to the project site; refer to Exhibit 2-3. Given the site constraints, no construction staging areas would be present during construction; materials and equipment would be brought in daily on an as-needed basis. Thus, temporary construction impacts to scenic views in the local area would be less than significant. Additionally, given the nature of the project, no changes would occur to the topography and architecture of the project area.
LU 1.3: Protect the natural setting that contributes to the character and identify of Newport Beach and the sense of place it provides for its resident and visitors. Preserve open space resources, beaches, harbor, parks, bluffs, preserves, and estuaries as visual, recreational and habitat resources.	Consistent. As stated, project impacts would be limited to temporary construction activities. Thus, visual, recreational, and habitat resources associated with Newport Bay near the Collins Island Bridge would only experience temporary impacts from project-related construction activities. Refer to response to Policy LU 1.1 with regards to project impacts on visual resources. With regards to recreational resources, barges would be utilized to bring in construction equipment and materials and thus, would require relocating some private recreational boat docks of Balboa Island residents near the site; refer to Exhibit 2-2. At project completion, the private docks would be located back at their original locations to ensure

Table 4.11-1 [cont'd]
General Plan Land Use Element Project Consistency Analysis

Relevant Policies	Project Consistency Analysis
	recreational harbor activities could resume. With regards to habitat resources, Section 4.4, *Biological Resources*, evaluates potential project impacts related to biological resources, including sensitive habitats. Specifically, an essential fish habitat (EFH) assessment and eelgrass survey report were prepared to identify and evaluate project impacts on EFH and eelgrass communities in the project area. As analyzed in Response 4.4(a), the project's temporary construction activities would not adversely impact EFH or eelgrass habitat upon implementation of Mitigation Measures BIO-1 and BIO-2. Additionally, based on a jurisdictional delineation of the project area, the project would be required to obtain regulatory permits from the U.S. Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB), and California Coastal Commission (CCC) per Mitigation Measure BIO-3. Upon implementation of Mitigation Measures BIO-1 through BIO-3, the project would minimize impacts to habitat resources in the project area.
LU 1.6: Protect and, where feasible, enhance significant scenic and visual resources that include open space, mountains, canyons, ridges, ocean, and harbor from public vantage points.	Consistent. Refer to responses to Policies LU 1.1 and LU 1.3.
Goal LU 2: A living, active, and diverse environment that complements all lifestyles and enhances neighborhoods, without compromising the valued resources that make Newport Beach unique. It contains a diversity of uses that support the needs of residents, sustain and enhance the economy, provide job opportunities, serve visitors that enjoy the City's diverse recreational amenities, and protect its important environmental setting, resources, and quality of life.	
LU 2.5: Preserve the uses of the Harbor and the waterfront that contribute to the charm and character of Newport Beach and provide needed support for recreational and commercial boaters, visitors, and residents, with appropriate regulations necessary to protect the interests of all users as well as adjoining residents.	Consistent. Refer to responses to Policies LU 1.1 and LU 1.3.
LU 2.6: Provide uses that serve visitors to Newport Beach's ocean, harbor, open spaces, and other recreational assets, while integrating them to protect neighborhoods and residents.	Consistent. Refer to responses to Policies LU 1.1 and LU 1.3.
Goal LU 3: A development pattern that retains and complements the City's residential neighborhoods, commercial and industrial districts, open spaces, and natural environment.	
LU 3.7: Require that new development is located and designed to protect areas with high natural resource value and protect residents and visitors from threats to life or property.	Consistent. Refer to responses to Policies LU 1.1 and LU 1.3.
Goal LU 5.6: Neighborhoods, districts, and corridors containing a diversity of uses and building that are mutually compatible and enhance the quality of the City's environment.	
LU 5.6.4: Require that sites be planned and buildings designed in consideration of the property's topography, landforms, drainage patterns, natural vegetation, and relationship to the Bay and coastline, maintaining the environmental character that distinguishes Newport Beach.	Consistent. Refer to responses to Policies LU 1.1 and LU 1.3.
Source: City of Newport Beach, *City of Newport Beach General Plan Land Use Element*, July 25, 2006.	

ZONING CODE CONSISTENCY

As stated, Collins Island is zoned R-1 and uses to the east of the Collins Island Bridge on the greater Balboa Island are zoned R-BI (Balboa Island). The bridge itself does not have a zoning district. Based on Municipal Code Section 20.18.010, *Purposes of Residential Zoning Districts*, the R- 1 zoning district is intended to provide for areas appropriate for a range of detached single-family residential dwelling units, each located on a single legal lot, and does not include condominiums or cooperative housing. The R-BI zoning district is intended to provide for a maximum of two residential dwelling units (i.e., duplexes) located on a single legal lot on Balboa Island.

The project does not propose any new land use development. Rather, the project would replace an existing bridge structure with a new bridge that meets current bridge code requirements. Seawall improvements and discharge and outlet pipe accommodations associated with a separate pump station project adjacent to the project site would also be implemented. Additionally, street, sidewalk, and landscaping improvements are proposed on the Balboa Island side along the Bay Front sidewalk and Park Avenue eastward until the alley; refer to Exhibit 2-2. Overall, the proposed public works improvements would occur within existing rights-of-way and thus, would not conflict with existing zoning standards that regulate development on the adjacent parcels. Impacts would be less than significant in this regard.

CALIFORNIA COASTAL ACT CONSISTENCY

The California Coastal Act (Coastal Act; Public Resources Code Division 20, *California Coastal Act*, Chapter 3, *Coastal Resources Planning and Management Policies*) contains specific sections pertaining to land use and planning within the Coastal Zone. The entire project site is located within the Coastal Zone. Thus, Table 4.11-2, *California Coastal Act Project Consistency Analysis*, provides an analysis of the proposed project's consistency with relevant Coastal Act sections.

Table 4.11-2
California Coastal Act Project Consistency Analysis

Applicable Coastal Act Sections	Project Consistency Analysis
Public Access	
Section 30211. Development shall not interfere with the public's right of access to the sea where acquired through use or legislative authorization, including, but not limited to, the use of dry sand and rocky coastal beaches to the first line of terrestrial vegetation.	Consistent. The project proposes to replace the existing Collins Island Bridge with a new bridge that meets current bridge code standards; implement seawall improvements along both ends of the bridge to accommodate future sea level rise; and install discharge and outlet pipes to accommodate a separate pump station project near the project site within Park Avenue. The proposed improvements would occur within the vicinity of the existing bridge. Within the project area, private access to Newport Bay is provided by private docks of residences on both Collins Island and the greater Balboa Island. As shown on Exhibit 2-2, project-related construction activities would require temporary relocation of several private docks on Collins Island and Balboa Island to allow barges to deliver construction equipment and materials. The dock relocations would be temporary and would still allow boat use at the relocated docks. At construction completion, the docks would be replaced back at their original locations. Additionally, the existing bridge is publicly accessible via a public sidewalk; the proposed bridge improvements would provide similar public access on the bridge. Thus, the project would not interfere with the public's right of access to the sea.

Table 4.11-2 [cont'd]
California Coastal Act Project Consistency Analysis

Applicable Coastal Act Sections	Project Consistency Analysis
Recreation	
Section 30220. Coastal areas suited for water-oriented recreational activities that cannot readily be provided at inland water areas shall be protected for such uses.	Consistent. Refer to response to Section 30211.
Section 30224. Increased recreational boating use of coastal waters shall be encouraged, in accordance with this division, by developing dry storage areas, increasing public launching facilities, providing additional berthing space in existing harbors, limiting non-water-dependent land uses that congest access corridors and preclude boating support facilities, providing harbors of refuge, and by providing for new boating facilities in natural harbors, new protected water areas, and in areas dredged from dry land.	Consistent. Refer to response to Section 30211.
Marine Environment	
Section 30230. Marine resources shall be maintained, enhanced, and, where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance. Uses of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes.	Consistent. Section 4.4 evaluates potential project impacts related to marine resources, including essential fish habitat (EFH) and eelgrass communities. Specifically, an EFH assessment and eelgrass survey report were prepared to identify and evaluate project impacts on EFH and eelgrass communities in the project area. As analyzed in Response 4.4(a), the project's temporary construction activities would not adversely impact EFH or eelgrass habitat upon implementation of Mitigation Measures BIO-1 and BIO-2. Additionally, based on a jurisdictional delineation of the project area, the project would be required to obtain regulatory permits from the USACE, RWQCB, and CCC per Mitigation Measure BIO-3. Upon implementation of Mitigation Measures BIO-1 through BIO-3, the project would minimize impacts to marine resources in the project area.
Section 30231. The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface waterflow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.	Consistent. Refer to response to Section 30230. Additionally, as discussed in Section 4.10, *Hydrology and Water Quality*, project construction and operations would be required to comply with NPDES program requirements regarding water quality, stormwater runoff, and soil erosion. Additionally, Municipal Code Section 14.36.040, *Control of Urban Runoff*, requires all new development and significant redevelopment within the City to comply with the Orange County Drainage Area Management Plan and conditions/requirements established by the City related to the reduction or elimination of pollutants in stormwater runoff from the project site. Further, Municipal Code Chapter 21.35 requires a Construction Pollution Prevention Plan that outlines temporary best management practices (BMPs) to minimize erosion and sedimentation during construction, and to minimize pollution of runoff and coastal waters by construction chemicals and materials. Further, the project would implement all BMPs related to erosion and sediment control and site management as required by the USACE Section 404 and Santa Ana RWQCB Section 401 permitting processes.

Table 4.11-2 [cont'd]
California Coastal Act Project Consistency Analysis

Applicable Coastal Act Sections	Project Consistency Analysis
Section 30232. Protection against the spillage of crude oil, gas, petroleum products, or hazardous substances shall be provided in relation to any development or transportation of such materials. Effective containment and cleanup facilities and procedures shall be provided for accidental spills that do occur.	Consistent. As analyzed in Section 4.9, *Hazards and Hazardous Materials*, during project construction, there is a possibility of accidental release of hazardous substances such as petroleum-based fuels or hydraulic fluid used for construction equipment. The level of risk associated with the accidental release of hazardous substances is not considered significant due to the small volume and low concentration of hazardous materials anticipated during the limited construction duration. Nevertheless, regulations established by the U.S. Department of Transportation, California Department of Transportation, and California Highway Patrol as well as the Hazardous Materials Transportation Uniform Safety Act would ensure that impacts concerning hazardous materials during construction are reduced to less than significant levels. Further, the construction contractor would be required to use standard construction controls and safety procedures that would avoid and minimize the potential for accidental release of such substances into the environment. Standard construction practices would be observed such that any materials released are appropriately contained and remediated as required by local, State, and federal law.
Section 30235. Revetments, breakwaters, groins, harbor channels, seawalls, cliff retaining walls, and other such construction that alters natural shoreline processes shall be permitted when required to serve coastal-dependent uses or to protect existing structures or public beaches in danger from erosion and when designed to eliminate or mitigate adverse impacts on local shoreline sand supply. Existing marine structures causing water stagnation contributing to pollution problems and fishkills should be phased out or upgraded where feasible.	Consistent. The project proposes to increase the height of existing seawalls on the eastern end of the bridge; refer to Exhibits 2-3 and 2-5. Currently, most seawalls along Collins Island Bridge and along the Bay Front sidewalk consist of concrete sheet pile bulkheads with a concrete cap (coping) elevation of approximately 9 feet. The proposed seawall improvements would be designed to have a top of wall coping elevation of 11 feet with a future cap extension up to 14 feet. The seawalls are necessary to protect residences on Balboa Island from erosion and sea level rise.
Land Resources	
Section 30240. (a) Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas. (b) Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas, and shall be compatible with the continuance of those habitat and recreation areas.	Consistent. Refer to response to Section 30230.
Section 30244. Where development would adversely impact archaeological or paleontological resources as identified by the State Historic Preservation Officer, reasonable mitigation measures shall be required.	Consistent. Section 4.5, *Cultural Resources*, analyzes the project's potential impacts on archaeological resources, and Section 4.7, *Geology and Soils*, evaluates the project's potential impacts on paleontological resources. Mitigation Measure CUL-1 would reduce potential impacts to archaeological resources if found during ground-disturbing construction activities. Further, Mitigation Measure GEO-2 would reduce potential impacts to paleontological resources if found during ground-disturbing activities. As such, implementation of Mitigation Measures CUL-1 and GEO-2 would ensure project

Table 4.11-2 [cont'd]
California Coastal Act Project Consistency Analysis

Applicable Coastal Act Sections	Project Consistency Analysis
	development does not adversely impact archaeological or paleontological resources.
Development	
Section 30251. The scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance. Permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural landforms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded areas. New development in highly scenic areas such as those designated in the California Coastline Preservation and Recreation Plan prepared by the Department of Parks and Recreation and by local government shall be subordinate to the character of its setting.	Consistent. As analyzed in Section 4.1, *Aesthetics*, the project site is located within a developed residential area on Balboa Island/Collins Island within Newport Bay. According to General Plan Figure NR3, Coastal Views, the existing Collins Island Bridge and surrounding area are not designated as a "Public View Point" or "Coastal View Road." During project construction, views towards the project site from surrounding residences, beach areas, and open water may be temporarily altered by construction activities and equipment. However, project construction would occur over a short duration (11 months) and would not block expansive public views of Newport Bay; upon completion, views of construction activities would cease. While the project involves seawall improvements that would increase the height of seawalls adjacent to the Collins Island Bridge, the Bay Front sidewalk would also be raised to provide a minimum of 42 inches from sidewalk to top of coping for pedestrian safety. Existing public views from the walkway would not be obstructed by the proposed seawall and sidewalk improvements. Further, given the nature of the development as a bridge replacement project, operational impacts of the project would have no adverse aesthetic impact on the project area. The new bridge would continue to operate similar to the existing bridge.
Section 30253. New development shall do all of the following: (a) Minimize risks to life and property in areas of high geologic, flood, and fire hazard. (b) Assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs. (c) Be consistent with requirements imposed by an air pollution control district or the State Air Resources Board as to each particular development. (d) Minimize energy consumption and vehicle miles traveled. (e) Where appropriate, protect special communities and neighborhoods that, because of their unique characteristics, are popular visitor destination points for recreational uses.	Consistent. Refer to lettered corresponding analysis below. (a) As analyzed in Sections 4.7, *Geology and Soils*, 4.10, *Hydrology and Water Quality*, and 4.20, *Wildfire*, the project would result in less than significant impacts in these regards, respectively. (b) The primary intent of the project is to replace structurally deficient infrastructure, including the Collins Island Bridge and adjacent seawalls. Thus, implementation of the project would ensure stability and structural integrity of the bridge and seawalls. Further, there are no natural landforms along bluffs or cliffs in the project vicinity. (c) As analyzed in Section 4.3, *Air Quality*, the project would not exceed established air quality emission thresholds for construction and operational activities upon compliance with existing regulations. (d) Section 4.6, *Energy*, concludes that the project would not cause wasteful, inefficient, and unnecessary consumption of building energy during project construction or operation or preempt future energy development or future energy conservation. Additionally, given the nature of the project, no vehicle trips would be generated and thus, no vehicle miles traveled impacts would occur. (e) Balboa Island is a unique residential community of Newport Beach. The proposed project components, including the bridge replacement, seawall improvements, and pump station accommodations, would protect Balboa Island by improving existing infrastructure.

Table 4.11-2 [cont'd]
California Coastal Act Project Consistency Analysis

Applicable Coastal Act Sections	Project Consistency Analysis
Section 30254. New or expanded public works facilities shall be designed and limited to accommodate needs generated by development or uses permitted consistent with the provisions of this division; provided, however, that it is the intent of the Legislature that State Highway Route 1 in rural areas of the coastal zone remain a scenic two-lane road. Special districts shall not be formed or expanded except where assessment for, and provision of, the service would not induce new development inconsistent with this division. Where existing or planned public works facilities can accommodate only a limited amount of new development, services to coastal-dependent land use, essential public services and basic industries vital to the economic health of the region, state, or nation, public recreation, commercial recreation, and visitor-serving land uses shall not be precluded by other development.	Consistent. Refer to response to Section 30211. The primary intent of the proposed improvements is to replace structurally deficient public works infrastructure to ensure continued safety for residents and visitors on Balboa Island. No impacts would occur to State Highway Route 1.
Sea Level Rise	
Section 30270. The commission shall take into account the effects of sea level rise in coastal resources planning and management policies and activities in order to identify, assess, and, to the extent feasible, avoid and mitigate the adverse effects of sea level rise.	Consistent. One of the proposed project components is to implement seawall improvements to accommodate future sea level rise. Specifically, the project proposes to increase the height of existing seawalls adjacent to the bridge. Currently, most seawalls along Collins Island Bridge and along the Bay Front sidewalk consist of concrete sheet pile bulkheads with a concrete cap (coping) elevation of approximately 9 feet. The proposed seawall improvements would be designed to have a top of wall coping elevation of 11 feet with a future cap extension up to 14 feet.

Source: Public Resources Code Division 20, California Coastal Act, Chapter 3, *Coastal Resources Planning and Management Policies*.

As analyzed in Table 4.11-2, the project would be consistent with each of the relevant Coastal Act coastal resources planning and management policies and a less than significant impact would occur in this regard.

LOCAL COASTAL PROGRAM CONSISTENCY

The City's Local Coastal Program consists of the *City of Newport Beach Local Coastal Program Coastal Land Use Plan* (CLUP), adopted in 2005 and most recently amended in 2019, and the *Local Coastal Program Implementation Plan* (Implementation Plan), included as Title 21 in the Municipal Code. The CLUP sets forth goals, objectives, and policies that address the requirements of the Coastal Act to ensure the City guides development in the Coastal Zone in a manner that is consistent with the Coastal Act. Similarly, the intent of the Implementation Plan is to implement the policies of the CLUP, consistent with the Coastal Act, by establishing and regulating zoning district standards, site planning and development standards, and other standards for specific land use types. Table 4.11-3, *Local Coastal Program Project Consistency Analysis*, provides an analysis of the proposed project's consistency with the CLUP and Implementation Plan.

Table 4.11-3
Local Coastal Program Project Consistency Analysis

Applicable Local Coastal Program Policies	Project Consistency Analysis
COASTAL LAND USE PLAN	
Policy 2.1.20-1. Land uses and new development in the coastal zone shall be consistent with the Coastal Land Use Plan Map and all applicable LCP policies and regulations.	Consistent. As a public roadway facility, the bridge itself does not have a land use designation or zoning district. However, as detailed in Table 4.11-3, the proposed project would be consistent with the applicable CLUP and Implementation Plan policies and regulations.
Policy 2.2.1-2. Require new development be located in areas with adequate public services or in areas that are capable of having public services extended or expanded without significant adverse effects on coastal resources.	Consistent. Refer to Section 4.15, *Public Services*. Currently, the Collins Island Bridge provides public and private access to Collins Island, including emergency vehicle access. During construction of the proposed project, the bridge would be replaced in portions to maintain access to Collins Island during construction activities to the maximum extent feasible. Short-term full bridge closures limited to a few hours in a day (i.e., not full day or multi-day closures) may also be required and thus, may impede Newport Beach Fire Department and/or Newport Beach Police Department access to Collins Island. As such, implementation of a Traffic Management Plan (TMP) would be required to maintain adequate emergency access during the construction process (Mitigation Measure TRA-1). Utility services (e.g., water, sewer, natural gas, and electricity) would continue to be provided to Collins Island residences during and after construction activities. No project impacts to other public services, including schools, parks, and libraries, are anticipated.
Policy 2.2.2-1. After certification of the LCP, require a coastal development permit for all development within the coastal zone, subject to exceptions provided for under the Coastal Act as specified in the LCP.	Consistent. The project would require approval of a Coastal Development Permit; refer to Section 2.5, *Permits and Approvals*.
Policy 2.2.2-3. Prior to approval of any coastal development permit, the City shall make the finding that the development conforms to the policies and requirements contained in the Coastal Land Use Plan.	Consistent. As detailed in Table 4.11-3, the proposed project would be consistent with the applicable CLUP and Implementation Plan policies and regulations.
Policy 2.8.1-1. Review all applications for new development to determine potential threats from coastal and other hazards.	Consistent. Refer to Section 4.7, *Geology and Soils*, and Section 4.9, *Hazards and Hazardous Materials* Following compliance with existing regulatory requirements and implementation of Mitigation Measures GEO-1 and TRA-1, the proposed project would have less than significant impacts related to seismic hazards and emergency access.
Policy 2.8.6-5. Permit revetments, breakwaters, groins, harbor channels, seawalls, cliff retaining walls and other structures altering natural shoreline processes or retaining walls when required to serve coastal-dependent uses or to protect existing principal structures or public beaches in danger from erosion and when designed to eliminate or mitigate adverse impacts on local shoreline sand supply, unless a waiver of future shoreline protection was required by a previous coastal development permit.	Consistent. The primary intent of the project is to replace structurally deficient infrastructure, including the Collins Island Bridge and adjacent seawalls. The project proposes to increase the height of existing seawalls on both sides of the bridge; refer to Exhibits 2-3 and 2-5. The proposed seawall improvements would be designed to have a top of wall coping elevation of 11 feet with a future cap extension up to 14 feet. The seawalls are necessary to protect residences on Balboa Island from erosion and sea level rise. Thus, implementation of the project would ensure stability and structural integrity of the bridge and seawalls.
Policy 2.8.6-6. Design and site protective devices to minimize impacts to coastal resources, minimize alteration of natural shoreline processes, provide for coastal access, minimize visual impacts, and eliminate or mitigate adverse impacts on local shoreline sand supply.	Consistent. The primary intent of the project is to replace structurally deficient infrastructure, including the Collins Island Bridge and adjacent seawalls. The existing bridge provides one raised public sidewalk to provide public access to the bridge; proposed bridge improvements would afford similar public access on the bridge. The Bay Front sidewalks adjacent to the new proposed seawalls would be raised to provide a minimum of 42 inches from sidewalk to

Table 4.11-3 [cont'd]
Local Coastal Program Project Consistency Analysis

Applicable Local Coastal Program Policies	Project Consistency Analysis
	top of coping to meet Americans with Disabilities Act (ADA) standards and maintain public views.
Policy 2.8.7-2. Require new development to provide adequate drainage and erosion control facilities that convey site drainage in a non-erosive manner in order to minimize hazards resulting from increased runoff, erosion and other hydrologic impacts to streams.	Consistent. As discussed in Section 4.10, *Hydrology and Water Quality*, project construction and operations would be required to comply with NPDES program requirements regarding water quality, stormwater runoff, and soil erosion. Additionally, Municipal Code Section 14.36.040, *Control of Urban Runoff*, requires all new development and significant redevelopment within the City to comply with the Orange County Drainage Area Management Plan and conditions/requirements established by the City related to the reduction or elimination of pollutants in stormwater runoff from the project site. Further, Municipal Code Chapter 21.35 requires a Construction Pollution Prevention Plan that outlines temporary BMPs to minimize erosion and sedimentation during construction, and to minimize pollution of runoff and coastal waters by construction chemicals and materials. Further, the project would implement all BMPs related to erosion and sediment control and site management as required by the USACE Section 404 and Santa Ana RWQCB Section 401 permitting processes.
Policy 2.8.7-3. Require applications for new development, where applicable [i.e., in areas of known or potential geologic or seismic hazards], to include a geologic/soils/geotechnical study that identifies any geologic hazards affecting the proposed project site, any necessary mitigation measures, and contains a statement that the project site is suitable for the proposed development and that the development will be safe from geologic hazard. Require such reports to be signed by a licensed Certified Engineering Geologist or Geotechnical Engineer and subject to review and approval by the City.	Consistent. As detailed in Section 4.7, *Geology and Soils*, the proposed project would incorporate the design recommendations of the *Draft Foundation Report, Collins Island Bridge, Newport Beach, California* (Geotechnical Report), prepared by Earth Mechanics, Inc. and dated October 27, 2023 in accordance with Mitigation Measure GEO-1.
Policy 3.1.5-3. Require public access consistent with public access policies for any new development in private/gated communities causing or contributing to adverse public access impacts.	Consistent. The existing bridge provides public access along the bridge via a public sidewalk; the proposed bridge improvements would provide similar public access on the bridge. Thus, the project would not interfere with the public's right of access.
Policy 3.2.3-1. Ensure that planned public facilities include provisions for adequate access for the persons with disabilities and that existing facilities are appropriately retrofitted to include such access as required by the Americans with Disabilities Act in a manner consistent with the protection of coastal resources.	Consistent. The proposed project would replace the existing Collins Island Bridge with a new bridge structure that would have slightly reduced slopes along the roadway and sidewalk bridge approaches compared to existing conditions to meet ADA standards. The project would also increase the height of seawalls adjacent to the bridge to accommodate future sea level rise and maintain consistency with surrounding seawalls on Collins Island and Balboa Island. Thus, the project would continue to provide adequate access to Collins Island and along the Bay Front sidewalk to persons with disabilities.
Policy 4.1.2-1. Maintain, enhance, and, where feasible, restore marine resources.	Consistent. Section 4.4, *Biological Resources*, evaluates potential project impacts related to marine resources, including EFH and eelgrass communities. Specifically, an EFH assessment and eelgrass survey report were prepared to identify and evaluate project impacts on EFH and eelgrass communities in the project area. As analyzed in Response 4.4(a), the project's temporary construction activities would

Table 4.11-3 [cont'd]
Local Coastal Program Project Consistency Analysis

Applicable Local Coastal Program Policies	Project Consistency Analysis
	not adversely impact EFH or eelgrass habitat upon implementation of Mitigation Measures BIO-1 and BIO-2. Additionally, based on a jurisdictional delineation of the project area, the project would be required to obtain regulatory permits from the USACE, RWQCB, and CCC per Mitigation Measure BIO-3. Upon implementation of Mitigation Measures BIO-1 through BIO-3, the project would minimize impacts to marine resources in the project area.
Policy 4.1.2-2. Provide special protection to marine resource areas and species of special biological or economic significance.	Consistent. Refer to response to Policy 4.1.2-1.
Policy 4.1.2-5. Continue to require Caulerpa protocol surveys as a condition of City approval of projects in the Newport Bay and immediately notify the SCCAT when found.	Consistent. As detailed in Section 4.4, *Biological Resources*, pre-construction surveys for eelgrass and Caulerpa were conducted by Six Scientific Service, the results of which were compiled in a report dated October 2023; refer to Appendix B, *Jurisdictional Delineation/Marine Reports*.
Policy 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.	Consistent. Refer to response to Policy 4.1.2-1. Given the small footprint of the proposed in-water activity, short construction duration, and lack of eelgrass observed adjacent to the bridge and seawalls, the Eelgrass Survey Report concluded that the project would not result in any long-term adverse impacts to the health of eelgrass communities in the project area.
Policy 4.1.4-3. Site and design boardwalks, docks, piers, and other structures that extend over the water to avoid impacts to eelgrass meadows. Encourage the use of materials that allow sunlight penetration and the growth of eelgrass.	Consistent. Refer to responses to Policies 4.1.2-1 and 4.1.4-1.
Policy 4.1.4-5. Where applicable require eelgrass and Caulerpa taxifolia surveys to be conducted as a condition of City approval for projects in Newport Bay in accordance with operative protocols of the Southern California Eelgrass Mitigation Policy and Caulerpa taxifolia Survey protocols.	Consistent. Refer to responses to Policy 4.1.2-5.
Policy 4.2.2-2. Require a survey and analysis with the delineation of all wetland areas when the initial site survey indicates the presence or potential for wetland species or indicators. Wetland delineations will be conducted in accordance with the definitions of wetland boundaries contained in section 13577(b) of the California Code of Regulations.	Consistent. As detailed in Section 4.4, *Biological Resources*, a Jurisdictional Delineation was conducted by Michael Baker International, the results of which were compiled in a report dated November 16, 2023; refer to Appendix B. As analyzed in the Jurisdictional Delineation, portions of the project site include non-wetland tidal areas of Newport Bay. The project site is subject to permanent tidal inundation and high tide events. Little to no lateral variation occurs due to the presence of sea walls around the northern and southern limits of the project site. No other jurisdictional areas were noted during the time of the assessment. To reduce impacts associated with the proposed seawall improvements, Mitigation Measure BIO-3 would be required to ensure the City of Newport Beach coordinates with the USACE, RWQCB, and CCC to obtain the required regulatory permits, which would include verifying delineation results, determining permanent losses and temporary impact areas, and identifying any compensatory mitigation, as applicable.

Table 4.11-3 [cont'd]
Local Coastal Program Project Consistency Analysis

Applicable Local Coastal Program Policies	Project Consistency Analysis
Policy 4.2.3-16. Design and site all structures permitted to encroach into open coastal waters, wetlands, and estuaries to harmonize with the natural appearance of the surrounding area.	Consistent. The primary intent of the project is to replace structurally deficient infrastructure, including the Collins Island Bridge and adjacent seawalls. The new bridge and seawalls would look similar to the existing bridge and seawalls and would harmonize with the natural appearance of the project area.
Policy 4.2.5-1. Avoid impacts to eelgrass (Zostera marina) to the greatest extent possible. Mitigate losses of eelgrass at a 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.	Consistent. Refer to response to Policy 4.1.2-1.
Policy 4.3.1-4. Preserve, or where feasible, restore natural hydrologic conditions such that downstream erosion, natural sedimentation rates, surface flow, and groundwater recharge function near natural equilibrium states.	Consistent. As discussed in Section 4.10, *Hydrology and Water Quality*, project construction and operations would be required to comply with NPDES program requirements regarding water quality, stormwater runoff, and soil erosion. Additionally, Municipal Code Section 14.36.040, *Control of Urban Runoff*, requires all new development and significant redevelopment within the City to comply with the Orange County Drainage Area Management Plan and conditions/requirements established by the City related to the reduction or elimination of pollutants in stormwater runoff from the project site. Further, Municipal Code Chapter 21.35 requires a Construction Pollution Prevention Plan that outlines temporary BMPs to minimize erosion and sedimentation during construction, and to minimize pollution of runoff and coastal waters by construction chemicals and materials. Further, the project would implement all BMPs related to erosion and sediment control and site management as required by the U.S. Army Corps of Engineers (USACE) Section 404 and Santa Ana RWQCB Section 401 permitting processes. Thus, the project would not adversely impact the hydrologic conditions of the project area.
Policy 4.3.1-6. Require grading/erosion control plans to include soil stabilization on graded or disturbed areas.	Consistent. Refer to response to Policy 4.3.1-4. The project would be required to comply with existing City regulations related to grading/erosion control.
Policy 4.3.1-7. Require measures be taken during construction to limit land disturbance activities such as clearing and grading, limiting cut-and-fill to reduce erosion and sediment loss, and avoiding steep slopes, unstable areas, and erosive soils. Require construction to minimize disturbance of natural vegetation, including significant trees, native vegetation, root structures, and other physical or biological features important for preventing erosion or sedimentation.	Consistent. Refer to response to Policy 4.3.1-4.
Policy 4.3.1-8. Protection against the spillage of crude oil, gas, petroleum products, or hazardous substances shall be provided in relation to any development or transportation of such materials. Effective containment and cleanup facilities and procedures shall be provided for accidental spills that do occur.	Consistent. As analyzed in Section 4.9, *Hazards and Hazardous Materials*, during project construction, there is a possibility of accidental release of hazardous substances such as petroleum-based fuels or hydraulic fluid used for construction equipment. The level of risk associated with the accidental release of hazardous substances is not considered significant due to the small volume and low concentration of hazardous materials anticipated during the limited construction duration. Nevertheless, regulations established

Table 4.11-3 [cont'd]
Local Coastal Program Project Consistency Analysis

Applicable Local Coastal Program Policies	Project Consistency Analysis
	by the U.S. Department of Transportation, California Department of Transportation, and California Highway Patrol as well as the Hazardous Materials Transportation Uniform Safety Act would ensure that impacts concerning hazardous materials during construction are reduced to less than significant levels. Further, the construction contractor would be required to use standard construction controls and safety procedures that would avoid and minimize the potential for accidental release of such substances into the environment. Standard construction practices would be observed such that any materials released are appropriately contained and remediated as required by local, State, and federal law.
Policy 4.3.2-7. Incorporate BMPs into the project design in the following progression: • Site Design BMPs. • Source Control BMPs. • Treatment Control BMPs. Include site design and source control BMPs in all developments. When the combination of site design and source control BMPs are not sufficient to protect water quality as required by the LCP or Coastal Act, structural treatment BMPs will be implemented along with site design and source control measures.	Consistent. Refer to response to Policy 4.3.1-4.
Policy 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.	Consistent. During project construction, views towards the project site from surrounding residences, beach areas, and open water may be temporarily altered by construction activities and equipment. However, project construction would occur over a short duration (11 months) and would not block expansive public views of Newport Bay. While the project involves seawall improvements that would increase the height of seawalls adjacent to the Collins Island Bridge, the Bay Front sidewalk would also be raised to provide a minimum of 42 inches from sidewalk to top of coping for pedestrian safety. Existing public views from the walkway would not be obstructed by the proposed seawall and sidewalk improvements. Further, given the nature of the development as a bridge replacement project, operational impacts of the project would have no adverse aesthetic impact on the project area. The new bridge would continue to operate similar to the existing bridge.
Policy 4.4.1-2. Design and site new development, including landscaping, so as to minimize impacts to public coastal views.	Consistent. Minimal landscaping is proposed adjacent to the bridge and sidewalk areas, similar to existing conditions. No impacts to public coastal views from the proposed landscaping would occur.
Policy 4.5.1-1. Require new development to protect and preserve paleontological and archaeological resources from destruction, and avoid and minimize impacts to such resources. If avoidance of the resource is not feasible, require an in situ or site-capping preservation plan or a recovery plan for mitigating the effect of the development	Consistent. Section 4.5, *Cultural Resources*, analyzes the project's potential impacts on archaeological resources, and Section 4.7, *Geology and Soils*, evaluates the project's potential impacts on paleontological resources. Mitigation Measure CUL-1 would reduce potential impacts to archaeological resources if found during ground-disturbing construction activities. Further, Mitigation Measure GEO-2 would reduce potential impacts to paleontological resources if found during ground-disturbing activities. As such, implementation of Mitigation Measures CUL-1 and GEO-2 would ensure project development does not adversely impact archaeological or paleontological resources.

Table 4.11-3 [cont'd]
Local Coastal Program Project Consistency Analysis

Applicable Local Coastal Program Policies	Project Consistency Analysis
Policy 4.5.1-3. Notify cultural organizations, including Native American organizations, of proposed developments that have the potential to adversely impact cultural resources. Allow qualified representatives of such groups to monitor grading and/or excavation of development sites.	Consistent. As discussed in Section 4.18, *Tribal Cultural Resources*, in compliance with Assembly Bill (AB) 52, the City distributed letters notifying each tribe that requested to be on the City's list for the purposes of AB 52 of the opportunity to consult with the City regarding the proposed project; refer to Appendix F, *AB 52 Documentation*.
Policy 4.6-1. Review all new development subject to California Environmental Quality Act (CEQA) and coastal development permit requirements in accordance with the principles, objectives, and criteria contained in CEQA, the State CEQA Guidelines, the Local Coastal Program, and any environmental review guidelines adopted by the City.	Consistent. As discussed in Chapter 1.0, *Introduction*, the proposed project is subject to the guidelines of CEQA; this Initial Study addresses the direct, indirect, and cumulative environmental effects of the project, as proposed. The analysis herein details compliance between the proposed project and the principles, objectives, and criteria contained in CEQA, the State CEQA Guidelines, and LCP. Further, as discussed in Chapter 2.0, *Project Description*, implementation of the proposed project would include approval of a Coastal Development Permit from the CCC and City of Newport Beach, as well as CEQA clearance from the City.
Policy 4.6-2. Integrate CEQA procedures into the review procedures for new development within the coastal zone.	Consistent. Refer to response to Policy 4.6-1.
Policy 4.6-9. Require applications for new development, where applicable, to include a geologic/soils/geotechnical study that identifies any geologic hazards affecting the proposed project site, any necessary mitigation measures, and contains statements that the project site is suitable for the proposed development and that the development will be safe from geologic hazard for its economic life. For development on coastal bluffs, including bluffs facing Upper Newport Bay, such reports shall include slope stability analyses and estimates of the long-term average bluff retreat rate over the expected life of the development. Reports are to be signed by an appropriately licensed professional and subject to review and approval by qualified city staff member(s) and/or contracted employee(s).	Consistent. A Geotechnical Report was prepared for the proposed project; refer to Appendix D, *Geotechnical Report/Paleontological Resources Assessment*. As detailed in Section 4.7, *Geology and Soils*, the proposed project would incorporate the design recommendations of the Geotechnical Report in accordance with Mitigation Measure GEO-1. The project site is not located along a coastal bluff.
IMPLEMENTATION PLAN	
Section 21.30.015(B), Location of New Development. New development shall be located in areas with adequate public services or in areas that are capable of having public services extended or expanded without significant adverse effects on coastal resources. Redevelopment and infill development shall be allowed within and adjacent to the existing developed areas in the coastal zone subject to the density and intensity limits and resource protection policies of the Coastal Land Use Plan.	Consistent. Refer to response to Policy 2.2.1-2.
Section 21.30.015(C)(3)(a), General Site Planning and Development Standards. Public Access to Bay Front. Public access and recreational opportunities shall be protected, and where feasible, expanded and enhanced. The dedication and improvement of public	Consistent. Public access to bay front areas in the project vicinity include the Bay Front sidewalk and along the existing bridge, which has one raised public sidewalk. The proposed bridge improvements would similarly provide public access on the bridge. Additionally, the Bay Front sidewalks adjacent to the new

Table 4.11-3 [cont'd]
Local Coastal Program Project Consistency Analysis

Applicable Local Coastal Program Policies	Project Consistency Analysis
access to and along the waterfront, in conjunction with proposed development and new land uses, shall be required pursuant to Chapter 21.30A (Public Access and Recreation).	proposed seawalls would be raised to comply with ADA standards and maintain public coastal views. Thus, the project would not interfere with public access to the bay front.
Section 21.30.015(D)(3)(a), General Site Planning and Development Standards. New development shall be designed and sited to assure stability and structural integrity and avoid destruction of the site and surrounding area by providing setbacks for principal structures that avoid the need for new or perpetuation of existing shoreline protective devices to the extent possible.	Consistent. Given the age of the structure, the existing Collins Island Bridge does not meet current bridge code requirements and is nearing the end of its useful lifetime. Thus, the primary intent of the project is to replace the structurally deficient bridge to ensure safe public infrastructure. Additionally, the project proposes seawall improvements to accommodate future sea level rise and protect existing residences and structures on the greater Balboa Island and Collins Island.
Section 21.30.015(D)(3)(f), General Site Planning and Development Standards. New development shall protect, and where feasible, expand and complete lateral public pedestrian access along the waterfront with connectivity to beaches, street-ends and shoreline areas providing public access (see Chapter 21.30A (Public Access and Recreation).	Consistent. Refer to responses to Section 21.30.015(C)(3)(a) and Section 21.30.015(D)(3)(a).
Section 21.30.070(A)(1), Outdoor Lighting. All outdoor lighting fixtures shall be designed, shielded, aimed, located, and maintained to shield adjacent properties, and not flood light toward the shoreline, coastal waters and coastal bluffs and to not produce glare onto adjacent properties, roadways, the shoreline, coastal waters or coastal bluffs. Parking lot light fixtures and light fixtures on buildings shall be full cut-off fixtures.	Consistent. The proposed project may include lighting for pedestrian safety similar to the existing lighting fixtures in the project area. It is not anticipated that the project would introduce new lighting that would substantially alter nighttime views in the project area. All project lighting would be designed, shielded, aimed, located, and maintained to shield adjacent properties and to not produce glare onto adjacent properties or roadways.
Section 21.30.070(C), Outdoor Lighting. Outdoor Lighting Standards for Buildings, Statues, Other Manmade Objects, and Landscapes. Spotlighting or floodlighting used to illuminate buildings, statues, signs, or any other objects mounted on a pole, pedestal, or platform or used to accentuate landscaping shall consist of full cut-off or directionally shielded lighting fixtures that are aimed and controlled so that the directed light shall be substantially confined to the object intended to be illuminated to minimize glare, sky glow, and light trespass. The beam width shall not be wider than that needed to light the feature with minimum spillover. The lighting shall not shine directly into the window of a residence or directly into a roadway. Light fixtures attached to a building shall be directed downward.	Consistent. Refer to response to Section 21.30.070(A)(1).
Section 21.30.100(D), Scenic and Visual Quality Protection. Siting and Design. Development shall be sited and designed in accordance with the following principles, where applicable in order to meet the purpose of section:	Consistent. According to CLUP Map 4-3, *Coastal Views*, the existing Collins Island Bridge and surrounding area are not designated as a "Public View Point" or "Coastal View Road." The proposed project would replace the existing Collins Island Bridge with a new bridge structure that would have slightly reduced slopes along the roadway and sidewalk bridge approaches compared to existing conditions to meet ADA standards. Landscaped areas and a bridge monument

Table 4.11-3 [cont'd]
Local Coastal Program Project Consistency Analysis

Applicable Local Coastal Program Policies	Project Consistency Analysis
7. Minimization of landscape, fencing, parked cars, and other nonstructural elements that block views and access to the harbor. 8. Prevention of the appearance of the harbor being walled off from the public right-of-way.	would also be improved. A new stop sign and limit line would also be added at the intersection on both sides of the bridge. Street, sidewalk, and landscaping improvements are also proposed on the Balboa Island side along the Bay Front sidewalk and Park Avenue eastward until the alley. The project would also increase the height of seawalls adjacent to the bridge to accommodate future sea level rise and maintain consistency with surrounding seawalls on Collins Island and Balboa Island. The Bay Front sidewalks adjacent to the proposed seawalls would also be raised for pedestrian safety. The proposed improvements would not obstruct existing public coastal views on Collins Island or the greater Balboa Island.
Section 21.30.100(F), Scenic and Visual Quality Protection. Landscape Standards**.** Landscape improvements shall be installed and maintained to ensure that landscape materials do not unnecessarily obstruct public views at maturity. Landscaping at the edges of roads from which there is an identified public view should be designed, planted and maintained to frame and accent public views.	Consistent. Landscaped areas and a bridge monument would be provided along the adjacent walkways. The proposed landscaping would be limited to replacement of existing ornamental vegetation and would not obstruct public views.
Section 21.30.100(G), Scenic and Visual Quality Protection. Utilities**.** New utility connections and appurtenant and associated utility equipment for proposed new development shall be sited and designed to minimize visual impacts to scenic and visual qualities of the coastal zone and placed underground, unless the Public Works Director determines that undergrounding is physically infeasible. New major utilities shall be sited and designed to protect public views to and along the ocean and scenic coastal areas and to be visually compatible with the character of surrounding areas.	Consistent. The proposed project would include the temporary relocation of existing utilities lines within the existing Collins Island Bridge to allow for continued utility service to Collins Island residences throughout the duration of the construction process. Upon completion of the proposed project, all utility lines would be placed within the new bridge structure and would operate similar to existing conditions.
Section 21.30.105(A)(3)(a)(i), Cultural Resource Protection. When a development is proposed in an area where there are known or has potential for archaeological or paleontological resources on the site an Archaeological Research Plan (ARP) shall be prepared by a qualified archaeologist/paleontologist and implemented through a coastal development permit before the submittal of a coastal development permit for the proposed development of the site. The purpose of the ARP is to determine whether or not significant cultural resources are present, determine the boundaries of cultural resources, and provide measures that result in the avoidance and/or minimization of impact to archaeological or paleontological cultural resources present on the site. A coastal development permit is required to implement an ARP since such implementation involves development (e.g., excavating shovel test pits, trenching, etc.) that has the potential to result in significant impacts to known or suspected on-site	Consistent. A Cultural Report and Paleo Report were prepared for the proposed project; refer to Appendix C, *Cultural Resources Assessment*, and Appendix D, *Geotechnical Report/Paleontological Resources Assessment*. Section 4.5 analyzes the project's potential impacts on archaeological resources; Mitigation Measure CUL-1 would reduce potential impacts to archaeological resources if found during ground-disturbing construction activities, which would ensure project development does not adversely impact archaeological resources. Section 4.7 analyzes the project's potential impacts on paleontological resources and requires implementation of Mitigation Measure GEO-2 to reduce potential impacts to unanticipated discoveries of paleontological resources.

Table 4.11-3 [cont'd]
Local Coastal Program Project Consistency Analysis

Applicable Local Coastal Program Policies	Project Consistency Analysis
cultural resources. Subsequent development of the site shall be subject to approval of a coastal development permit and shall be guided by the results of the approved ARP.	
Section 21.30A.030 Protection and Provision of Public Access Required (B)(1). Protection of Existing Public Access. Development shall not interfere with public right of access to the shoreline or coastal bluff tops where the rights have been acquired through use or legislative authorization, including, but not limited to, the public accessways identified in the Coastal Land Use Plan. Public access rights may include, but are not limited to, the use of dry sand and rocky beaches to the first line of terrestrial vegetation.	Consistent. The proposed bridge improvements would provide public access on the bridge, similar to existing conditions. Additionally, the Bay Front sidewalks adjacent to the new proposed seawalls would be raised to comply with ADA standards and maintain public coastal views. Thus, the project would not interfere with public access to the bay front.
Section 21.30A.030 Protection and Provision of Public Access Required (B)(2). Maximization of Existing Public Access. Proposed new development shall be encouraged to provide new and to improve, expand or enhance existing public access to and along the shoreline and to beaches, coastal waters, tidelands, coastal parks, and trails. Improvements or enhancements include, but are not limited to: a. Expanding of hours of public use; b. Widening existing public accessways to and along the shoreline to conform with current standards or as needed to accommodate present and foreseeable future demand; c. Closing curb cutouts to create new on-street parking spaces; d. Wayfinding signage, consistent with the standards contained in Appendix B, that encourages public use of the shoreline and recreational facilities; and e. Prohibiting gates, guardhouses, barriers, or other structures where they would inhibit public access to and along the shoreline, beaches, coastal parks, trails, or coastal bluffs.	Consistent. Refer to response to Section 21.30.100(D).
Section 21.30A.050(10), Bay Front Amenities. Nonresidential development along the bay front shall provide amenities to assure access for coastal visitors. Bay front amenities include, but are not limited to, seating, trash enclosures, water fountains, lighting, viewing areas, lighting, and other pedestrian-oriented improvements.	Consistent. Refer to response to Section 21.30.015(C)(3)(a).
Section 21.30B.020(A), Initial Site Resource Survey. An initial site resource survey, recently prepared (within one year), identifying the presence or potential for wetlands or sensitive habitat, vegetation or wildlife species on the site shall be required for coastal development permit applications on a development site that:	Consistent. Refer to response to Policies 4.1.2-1, 4.1.2-5, and 4.2.2-2.

Table 4.11-3 [cont'd]
Local Coastal Program Project Consistency Analysis

Applicable Local Coastal Program Policies	Project Consistency Analysis
1. Is located within or within one hundred (100) feet of an Environmental Study Area (ESA) indicated in Map 4-1 (Environmental Study Areas) in the Coastal Land Use Plan; or 2. Contains southern coastal foredune or southern dune scrub habitats; or 3. Contains or is located within one hundred (100) feet of a delineated wetland, designated Environmentally Sensitive Habitat Area (ESHA), ESHA buffer, or wetland buffer; or 4. Contains or is located within one hundred (100) feet of a habitat area where there is substantial evidence of the presence of a wetland or ESHA.	
Section 21.30B.040(A), Wetlands, Deepwater Areas, and Other Water Areas. 1. The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes shall be protected, maintained and, where feasible, restored. 2. All uses of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes. 3. Marine resources shall be maintained, enhanced, and, where feasible, restored. 4. Special protection shall be provided to marine resource areas and species of special biological or economic significance.	Consistent. Refer to response to Policy 4.1.2-1.
Section 21.30B.040(B), Wetland Delineation. When the initial site resources survey indicates the presence or potential for wetland species or indicators, coastal development permit applications shall include a recently prepared (within one year) site survey and wetlands delineation analysis.	Consistent. Refer to response to Policy 4.2.2-2.

Sources: City of Newport Beach, *City of Newport Beach Local Coastal Program Coastal Land Use Plan*, adopted 2005 and amended 2019; City of Newport Beach, *Newport Beach Municipal Code*, Title 21, *Local Coastal Program Implementation Plan*.

As analyzed in Table 4.11-3, the project would be consistent with the CLUP and Implementation Plan. In order to ensure that development within the Coastal Zone is consistent with the Local Coastal Program and any applicable policies from Chapter 3 of the Coastal Act, the City requires a Coastal Development Permit (CDP) prior to commencement of any development in the Coastal Zone, with some exceptions. As stated in Section 2.5, *Permits and Approvals*, the project requires discretionary approval of a CDP from the City and California Coastal Commission. As such, the project would be reviewed for approval by the City and CCC. Upon approval, the project would be consistent with the Local Coastal Program, inclusive of the CLUP and Implementation Plan, and impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

4.12 MINERAL RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				✓
b. Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?				✓

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

No Impact. The California Department of Conservation's Surface Mining and Reclamation Act of 1975 identifies a range of Mineral Resource Zones (MRZs) within California based on geologic and economic factors that identify the potential importance of mineral deposits in a particular area. According to the General Plan Natural Resources Element, MRZ within the City are either classified as containing no significant mineral deposits (MRZ-1) or the significance of mineral deposits has not been determined (MRZ-3). According to the California Geological Survey, the project site is identified as MRZ-1.[1] As such, no impacts would occur in this regard.

Mitigation Measures: No mitigation measures are required.

b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

No Impact. Refer to Response 4.12(a), above.

Mitigation Measures: No mitigation measures are required.

[1] California Geological Survey Division of Mines and Geology, *Update of Mineral Land Classification of Portland Cement Concrete Aggregate in Ventura, Los Angeles, and Orange Counties, California, Part II- Orange County Special Report 143: Mineral Land Classification of the Greater Los Angeles Area: Part III - Classification of Sand and Gravel Resource Areas, Orange County-Temescal Valley Production-Consumption Region*, *Mineral Land Classification Map Plate 3.29*, 1981.

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4.13 NOISE

Would the project result in:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Generation of a substantial temporary or permanent increase in ambient noise levels in in the vicinity of the project excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?		✓		
b. Generation of excessive groundborne vibration or groundborne noise levels?			✓	
c. 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 two 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?				✓

Sound is mechanical energy transmitted by pressure waves in a compressible medium such as air and is characterized by both its amplitude and frequency (or pitch). The human ear does not hear all frequencies equally. In particular, the ear deemphasizes low and very high frequencies. To better approximate the sensitivity of human hearing, the A-weighted decibel scale (dBA) has been developed. On this scale, the human range of hearing extends from approximately 3 dBA to around 140 dBA.

Noise is generally defined as unwanted or excessive sound, which can vary in intensity by over one million times within the range of human hearing; therefore, a logarithmic scale, known as the decibel scale (dB), is used to quantify sound intensity. Noise can be generated by several sources, including mobile sources such as automobiles, trucks, and airplanes, and stationary sources such as construction sites, machinery, and industrial operations. Noise generated by mobile sources typically attenuates (is reduced) at a rate between 3 dBA and 4.5 dBA per doubling of distance. The rate depends on the ground surface and the number or type of objects between the noise source and the receiver. Hard and flat surfaces, such as concrete or asphalt, have an attenuation rate of 3 dBA per doubling of distance. Soft surfaces, such as uneven or vegetated terrain, have an attenuation rate of about 4.5 dBA per doubling of distance. Noise generated by stationary sources typically attenuates at a rate between 6 dBA and about 7.5 dBA per doubling of distance.

There are a number of metrics used to characterize community noise exposure, which fluctuate constantly over time. One such metric, the equivalent sound level (L_{eq}), represents a constant sound that, over the specified period, has the same sound energy as the time-varying sound. Noise exposure over a longer period of time is often evaluated based on the Day-Night Sound Level (L_{dn}). This is a measure of 24-hour noise levels that incorporates a 10-dBA penalty for sounds occurring between 10:00 p.m. and 7:00 a.m. The penalty is intended to reflect the increased human sensitivity to noises occurring during nighttime hours, particularly at times when people are sleeping and there are lower ambient noise conditions.

Two of the primary factors that reduce levels of environmental sounds are increasing the distance between the sound source to the receiver and having intervening obstacles such as walls, buildings, or terrain features between the sound source and the receiver. Factors that act to increase the loudness of environmental sounds include moving the sound source closer to the receiver, sound enhancements caused by reflections, and focusing caused by various meteorological conditions.

REGULATORY FRAMEWORK

State

The State Office of Planning and Research (OPR) Guidelines include recommended exterior and interior noise level standards for local jurisdictions to identify and prevent the creation of incompatible land uses due to noise. Table 4.13-1, *Noise and Land Use Compatibility*, shows the compatibility of various land uses with a range of environmental noise levels in terms of the Community Noise Equivalent Level (CNEL).

Table 4.13-1
Noise and Land Use Compatibility

Land Use Category	Community Noise Exposure (L_{dn} or CNEL, dBA)			
	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Residential - Low Density, Single-Family, Duplex, Mobile Homes	50 - 60	55 - 70	70 - 75	75 - 85
Residential - Multiple Family	50 - 65	60 - 70	70 - 75	70 - 85
Transient Lodging - Motel, Hotels	50 - 65	60 - 70	70 - 80	80 - 85
Schools, Libraries, Churches, Hospitals, Nursing Homes	50 - 70	60 - 70	70 - 80	80 - 85
Auditoriums, Concert Halls, Amphitheaters	NA	50 - 70	NA	65 - 85
Sports Arenas, Outdoor Spectator Sports	NA	50 - 75	NA	70 - 85
Playgrounds, Neighborhood Parks	50 - 70	NA	67.5 - 75	72.5 - 85
Golf Courses, Riding Stables, Water Recreation, Cemeteries	50 - 70	NA	70 - 80	80 - 85
Office Buildings, Business Commercial and Professional	50 - 70	67.5 - 77.5	75 - 85	NA
Industrial, Manufacturing, Utilities, Agriculture	50 - 75	70 - 80	75 - 85	NA

Notes: NA = Not Applicable
Normally Acceptable – Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.
Conditionally Acceptable – New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning, will normally suffice.
Normally Unacceptable – New construction or development should be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.
Clearly Unacceptable – New construction or development should generally not be undertaken.

Source: State of California Office of Planning and Research, *General Plan Guidelines*, October 2017.

Local

Newport Beach Noise Ordinance

The City of Newport Beach has a noise ordinance that provides noise guidelines and standards for significant noise generators. Noise standards from Municipal Code Chapter 10.26, *Community Noise Control*, are presented in Table 4.13-2, *City of Newport Beach Exterior Noise Standards*, and Table 4.13-3, *City of Newport Beach Interior Noise Standards*. The following sections are applicable to the project.

Table 4.13-2
City of Newport Beach Exterior Noise Standards

Zone	Allowable Exterior Noise Level (L_{eq})[1]	
	7 a.m. to 10 p.m.	10 p.m. to 7 a.m.
1- Single-, two- or multiple-family residential properties	55 dBA	50 dBA
2- Commercial properties	65 dBA	60 dBA
3- Residential portions of mixed-use properties	60 dBA	50 dBA
4- Industrial or manufacturing	70 dBA	70 dBA
1. If the ambient noise level exceeds the resulting standards, the ambient shall be the standard.		
Source: City of Newport Beach, Newport Beach Municipal Code Chapter 10.26, *Community Noise Control*, Section 10.26.025(A), 2018.		

Section 10.26.025, *Exterior Noise Standards*

A. The following noise standards, unless otherwise specifically indicated, shall apply to all property with a designated noise zone:

B. It is unlawful for any person at any location within the incorporated area of the City to create any noise, or to allow the creation of any noise on property owned, leased, occupied or otherwise controlled by such person, which causes the noise level when measured on any other property, to exceed the following:

1. The noise standard for the applicable zone for any 15-minute period;
2. A maximum instantaneous noise level equal to the value of the noise standard plus 20 dBA for any period of time (measured using A-weighted slow response).

C. In the event the ambient noise level exceeds the noise standard, the maximum allowable noise level under said category shall be increased to reflect the maximum ambient noise level.

D. The Noise Zone III standard shall apply to that portion of residential property falling within 100 feet of a commercial property, if the intruding noise originates from that commercial property.

E. If the measurement location is on boundary between two difference noise zones, the lower noise level standard applicable to the noise zone shall apply.

Section 10.26.030, *Interior Noise Standards*

A. The following noise standard, unless otherwise specifically indicated, shall apply to all residential property within all noise zones:

Table 4.13-3
City of Newport Beach Interior Noise Standards

Noise Zone	Type of Land Use	Allowable Interior Noise Level[1]	
		7 a.m. to 10 p.m.	10 p.m. to 7 a.m.
I	Residential	45 dBA	40 dBA
III	Residential portions of mixed-use properties	45 dBA	40 dBA
1. If the ambient noise level exceeds the resulting standards, the ambient shall be the standard.			
Source: City of Newport Beach, Newport Beach Municipal Code Chapter 10.26, *Community Noise Control*, Section 10.26.030(A), 2018.			

B. It is unlawful for any person at any location within the incorporated area of the City to create any noise, or to allow the creation of any noise on property owned, leased, occupied or otherwise controlled by such person, which causes the noise level when measured on any other property, to exceed the following:

    1. The noise standard for the applicable zone for any 15-minute period;
    2. A maximum instantaneous noise level equal to the value of the noise standard plus 20 dBA for any period of time (measured using A-weighted slow response).

C. In the event the ambient noise level exceeds the noise standard, the maximum allowable noise level under said category shall be increased to reflect the maximum ambient noise level.

D. The Noise Zone III standard shall apply to that portion of residential property falling within 100 feet of a commercial property, if the intruding noise originates from that commercial property.

E. If the measurement location is on boundary between two difference noise zones, the lower noise level standard applicable to the noise zone shall apply.

10.28.040, *Construction Activity – Noise Regulations*

The following noise regulations regarding construction activity from Municipal Code Chapter 10.28, *Loud and Unreasonable Noise*, are applicable to the proposed project:

A. Weekdays and Saturdays. No person shall, while engaged in construction, remodeling, digging, grading, demolition, painting, plastering or any other related building activity, operate any tool, equipment or machine in a manner which produces loud noise that disturbs, or could disturb, a person of normal sensitivity who works or resides in the vicinity, on any weekday except between the hours of 7:00 a.m. and 6:30 p.m., nor on any Saturday except between the hours of 8:00 a.m. and 6:00 p.m.

B. Sundays and Holidays. No person shall, while engaged in construction, remodeling, digging, grading, demolition, painting, plastering or any other related building activity, operate any tool, equipment or machine in a manner which produces loud noise that disturbs, or could disturb, a person of normal sensitivity who works or resides in the vicinity, on any Sunday or any federal holiday.

C. No landowner, construction company owner, contractor, subcontractor, or employer shall permit or allow any person or persons working under their direction and control to operate any tool, equipment or machine in violation of the provisions of this section.

City of Newport Beach General Plan Noise Element

The General Plan Noise Element discloses guiding information pertaining to noise sensitive land uses and noise sources and defines areas of noise impact for the purpose of developing policies to ensure that Newport Beach residents will be protected from excessive noise intrusion. The Noise Element includes goals, objectives, and policies that apply to the proposed project, including those identified below.

Goal N-5: Minimized excessive construction-related noise.

Policy N 5.1: Enforce the limits on hours of construction activity.

EXISTING CONDITIONS

Collins Island is designated as Single-Unit Residential Detached (RS-D) and zoned Single Unit Residential (R-1) The bridge itself does not have designation or zoning district. The closest noise sensitive receptors are single-family uses along North and South Bay Front on Balboa Island, situated adjacent to the construction activities. The existing noise environment is predominately characterized by vehicular traffic noise along Park Avenue.

Noise Measurements

In order to quantify existing ambient noise levels in the project area, Michael Baker conducted two short-term noise measurements on August 30, 2023; refer to Table 4.13-4, *Noise Measurements*. The noise measurement sites were representative of typical existing noise exposure within and immediately adjacent to the project site. The ten-minute measurements were taken between 10:00 a.m. and 11:00 a.m.

Table 4.13-4
Noise Measurements

Site No.	Location	L_{eq} (dBA)	L_{min} (dBA)	L_{max} (dBA)	Start Time
1	6 Collins Isle (in public right-of-way)	60.9	37.9	84.5	10:05 a.m.
2	101 North Bay Front (in public right-of-way)	54.5	40.3	68.0	10:29 a.m.
Source: Refer to Appendix E, *Noise Data*.					

Meteorological conditions when the measurements were taken consisted of clear skies, warm temperatures, with moderately light wind speeds (less than five miles per hour), and low humidity. Measured noise levels during the daytime measurements ranged from 54.5 to 60.9 dBA L_{eq}. The source of ambient noise in the project area is vehicular traffic along Park Avenue. Noise monitoring equipment used for the ambient noise survey consisted of a Brüel & Kjær Hand-held Analyzer Type 2250 equipped with a Type 4189 pre-polarized microphone. The monitoring equipment complies with applicable requirements of the American National Standards Institute (ANSI) for Type I (precision) sound level meters. The results of the field measurements are included in Appendix E, *Noise Data*.

a) Generation of a substantial temporary or permanent increase in ambient noise levels in in the vicinity of the project excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Less Than Significant Impact With Mitigation Incorporated. It is difficult to specify noise levels which are acceptable to everyone, what is annoying to one individual may be acceptable to another. However, standards usually address the needs of most of the general population and can be based on documented complaints in response to documented noise levels or based on studies of the ability of people to sleep, talk, or work under various noise conditions. All such studies recognize that individual responses vary considerably.

Short-Term (Construction) Impacts

Construction activities are generally temporary and have a short duration, resulting in periodic increases in the ambient noise environment. Construction activities are scheduled to occur over a period of 11 months. Typical noise levels generated by construction equipment are shown in Table 4.13-5, *Maximum Noise Levels Generated by Construction Equipment*. Operating cycles for these types of construction equipment may involve one or two minutes of full power operation followed by three to four minutes at lower power settings. Other primary sources of acoustical disturbance would be due to random incidents, which would last less than one minute (such as dropping large pieces of equipment).

As shown in Table 4.13-5, construction-generated noise levels could be up to 105 dBA L_{max} at the nearest sensitive receptors (single-family residences) located immediately adjacent to the proposed construction boundary; the distance is estimated to be approximately 5 feet. Ambient noise level at the single-family residential receptors was measured to range from 54.5 to 60.9 dBA L_{eq}; refer to Table 4.13-4. Pursuant to the City's Noise Ordinance Section 10.28.040, construction activities are exempt from standards of the Noise Ordinance if limited between the hours of 7:00 a.m. to 6:30 p.m. Mondays through Fridays, and 8:00 a.m. to 6:00 p.m. on Saturdays, with no activity allowed on Sundays or national holidays. These permitted hours of construction are required in recognition that construction activities undertaken during permitted hours are a typical part of living in an urban environment and do not cause a significant disruption. Project construction activities would be conducted during allowable hours per the Municipal Code.

Further, to ensure that noise generated during construction of the project would be lessened to the furthest extent possible, the project would be required to implement Mitigation Measure NOI-1. Mitigation Measure NOI-1 would require the City of Newport Beach to prepare a construction noise mitigation plan that incorporates best management practices during construction and ensure nuisances do not occur. Mitigation Measure NOI-1 also requires construction equipment to be equipped with properly operating and maintained mufflers and other State-required noise attenuation devices such as noise shielding device. Thus, with implementation of Mitigation Measure NOI-1, impacts would be reduced to less than significant levels.

Table 4.13-5
Maximum Noise Levels Generated by Construction Equipment

Type of Equipment	Acoustical Use Factor[1]	L_{max} at 50 Feet (dBA)	L_{max} at 5 Feet (dBA)
Backhoe	20	80	100
Compactor	20	80	100
Compressor	40	80	100
Concrete Pump	20	82	102
Concrete Saw	20	90	110
Crane	16	85	105
Dump Truck	40	84	104
Excavator	40	85	105
Flatbed Truck	40	84	104
Forklift	20	78	98
Generator	50	82	102
Grader	40	85	105
Loader	40	80	100
Paver	50	85	105
Pile Driver	20	95	115
Pump	50	77	97
Roller	20	85	105
Soil Mix Drill Rig	50	80	100
Tractor	40	84	104
Water Truck	40	80	100
Welder	40	73	93

Note:
1. Acoustical Use Factor (percent): Estimates the fraction of time each piece of construction equipment is operating at full power (i.e., its loudest condition) during a construction operation.

Source: Federal Highway Administration, *Roadway Construction Noise Model (FHWA-HEP-05-054),* January 2006.

Long-Term (Operational) Impacts

The project proposes bridge, seawall, and stormwater improvements, which would not represent any trip generating land uses, and no expansion of vehicular capacity would occur. Furthermore, the proposed improvements would not introduce new stationary noise sources. As such, no long-term noise impacts would occur.

Mitigation Measures:

NOI-1 Prior to issuance of any grading or building permit, the City of Newport Beach shall prepare a Construction Noise Mitigation Plan and demonstrate that the project complies with the following:

- The construction contractor shall ensure that power construction equipment (including combustion or electric engines), fixed or mobile, shall be equipped with noise shielding and muffling devices (consistent with manufacturers' standards) during the entirety of construction of the project. The combination of muffling devices and noise shielding shall be capable of reducing noise by at least 5 dBA from non-muffled and shielded noise levels. Prior to initiation of construction the contractor shall demonstrate to the City that equipment is properly muffled, shielded and maintained. All equipment shall be properly maintained to assure that no additional noise, due to worn or improperly maintained parts, would be generated.

- The Construction Noise Mitigation Plan shall depict the location of construction equipment storage and maintenance areas, and document methods to be employed to minimize noise impacts on adjacent noise sensitive land uses.

- Property owners and occupants located within 100 feet of the construction limits shall be sent a notice, at least 15 days prior to commencement of construction, regarding the construction schedule of the project. A sign, visible to the public, shall also be posted at the project construction site. All notices and signs shall be reviewed and approved by the City of Newport Public Works Department prior to mailing or posting and shall indicate the dates and duration of construction activities, as well as provide a contact name and a telephone number where residents can inquire about the construction process and register complaints.

- The construction contractor shall provide evidence that a construction staff member is designated as a Noise Disturbance Coordinator and shall be present on-site during construction activities. The Noise Disturbance Coordinator shall be responsible for responding to any local complaints about construction noise. When a complaint is received, the Noise Disturbance Coordinator shall notify the City within 24-hours of the complaint and determine the cause of the noise complaint (e.g., starting too early, bad muffler, etc.) and shall implement reasonable measures to resolve the complaint, as deemed acceptable by the City of Newport Beach Public Works Department. All notices that are sent to residential units immediately surrounding the construction site and all signs posted at the construction site shall include the contact name and the telephone number for the Noise Disturbance Coordinator.

- The City shall demonstrate to the satisfaction of the City of Newport Beach Public Works Department that construction noise reduction methods shall be used, including but not limited to, shutting off idling equipment, maximizing the distance between construction equipment staging areas and occupied residential areas, and the use of electric air compressors and similar power tools, to the extent feasible.

- During construction, stationary construction equipment shall be placed such that emitted noise is directed away from sensitive noise receivers.

- In compliance with *Newport Beach Municipal Code* Section 10.28.040, construction activities shall only occur between the hours of 7:00 a.m. to 6:30 p.m. on Mondays to Fridays, and 8:00 a.m. to 6:00 p.m. on Saturdays, with no activity allowed on Sundays or national holidays.

b) Generation of excessive groundborne vibration or groundborne noise levels?

Less Than Significant Impact.

Construction

Project construction can generate varying degrees of groundborne vibration, depending on the construction equipment used and the type of activity. Construction equipment operation would generate groundborne vibrations which decrease with distance from the source. The effect on buildings located near the construction site often varies depending on soil type, ground strata, and construction characteristics of the receiver building(s). The results from vibration can range from no perceptible effects at the lowest vibration levels, to low rumbling sounds and perceptible vibration at moderate levels, to slight damage at the highest levels. Ground-borne vibrations from construction activities rarely reach levels that damage structures.

The types of construction vibration impacts include human annoyance and building damage. Human annoyance occurs when construction vibration rises significantly above the threshold of human perception for extended periods of time. Building damage can be cosmetic or structural. The California Department of Transportation (Caltrans) *Transportation and Construction Vibration Guidance Manual* identifies various vibration damage criteria for different building classes. This evaluation uses the Caltrans architectural damage threshold for continuous vibrations at residential buildings of 0.5 inch-per-second (in/sec) PPV. Table 4.13-6, *Typical Vibration Levels for Construction Equipment*, identifies typical vibration levels for construction equipment.

Table 4.13-6
Typical Vibration Levels for Construction Equipment

Equipment	Approximate peak particle velocity at 25 feet (in/sec)	Approximate peak particle velocity at 5 feet (in/sec)	Approximate peak particle velocity at 20 feet (in/sec)
Sonic Pile Driving -- Typical	0.170	-	0.2173
Loaded trucks	0.076	0.4464	-
Small bulldozer	0.003	0.2056	-
Jackhammer	0.035	0.0176	-

Notes:
1. Calculated using the following formula:
$PPV_{equip} = PPV_{ref} \times (25/D)^{1.1}$
where: PPV (equip) = the peak particle velocity in inches per second (in/sec) of the equipment adjusted for the distance
PPV (ref) = the reference vibration level at 25 feet in in/sec
D = the distance from the equipment to the receiver

Source: Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual*, September 2018.

Groundborne vibration decreases rapidly with distance. The nearest structures are located approximately 5 feet from the bridge construction and 20 feet from the pile driving of the new sheet pile bulkheads. However, precast/prestressed concrete slab girders would be utilized during construction to accelerate bridge construction and minimize impacts to adjacent residents. As indicated in Table 4.13-6, the typical pile driving would generate vibration velocities of approximately 0.2173 in/sec PPV at 20 feet from pile driving activities. The vibration velocities from typical heavy construction equipment used during project construction would range from 0.0176 to 0.4464 in/sec PPV at 5 feet from the source of activity, which would not exceed the Caltrans 0.5 in/sec PPV threshold. Therefore, groundborne vibration impacts would be less than significant.

Operations

Operations of the proposed project would not generate groundborne vibration that could be felt at surrounding uses. The proposed project would not involve railroads or substantial heavy truck operations, and therefore would not result in vibration impacts at surrounding uses. No impact would occur in this regard.

Mitigation Measures: No mitigation measures are required.

c) 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 two 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. The project is not located within an airport land use plan and there are no public or private airports or airstrips within two miles of the project site. The nearest airport to the project site is the John Wayne Airport located approximately five miles to the northeast of the project site at 18601 Airport Way in the City of Santa Ana. Thus, project implementation would not expose people residing or working in the project area to excessive noise levels. No impact would occur.

Mitigation Measures: No mitigation measures are required.

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4.14 POPULATION AND HOUSING

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Induce substantial population unplanned growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?				✓
b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?				✓

a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

No Impact. The proposed project would not involve the construction of any homes, businesses, or other uses that would result in direct or indirect population growth.

The proposed project would replace the existing Collins Island Bridge with a new bridge structure, implement seawall improvements, and install future pump station accommodations. Short-term temporary construction jobs would be created during construction of the project, however, given the temporary nature of the construction process and limited duration of construction, it is anticipated that local construction workers would be employed, and no new workers would relocate to Newport Beach to construct the project.

While the bridge replacement would improve safety in the project area by replacing a functionally obsolete bridge with a new bridge that meets current code requirements, this is not expected to induce population growth because: 1) the project area is urbanized and completely built out; 2) the project would not increase the vehicular capacity of the Collins Island Bridge; and 3) the project would not represent the removal of a barrier to growth, since roadway facilities already exist throughout the project area. As such, the proposed project would not induce substantial unplanned population growth and no impacts would occur.

Mitigation Measures: No mitigation measures are required.

b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

No Impact. The project site is the Collins Island Bridge and its immediate vicinity located on Balboa Island. Construction activities would temporarily relocate some existing boat docks but would not displace any residents of surrounding Balboa Island residences. Thus, the project would not displace residents or housing, necessitating the construction of replacement housing elsewhere. No impact would occur.

Mitigation Measures: No mitigation measures are required.

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4.15 PUBLIC SERVICES

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
1) Fire protection?		✓		
2) Police protection?		✓		
3) Schools?				✓
4) Parks?				✓
5) Other public facilities?				✓

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

1) Fire protection?

Less Than Significant Impact With Mitigation Incorporated. The Newport Beach Fire Department (NBFD) provides fire and emergency medical services for the City. The NBFD staffs eight fire stations 24 hours a day, seven days a week. Each are staffed, per shift, with one battalion chief, 10 fire captains, 10 fire apparatus engineers, 14 paramedic/firefighters, and three firefighters.[1] The project site is served by Fire Station #4, located at 124 Marine Avenue, approximately 0.6-mile east of the project site.

The proposed project would replace the existing Collins Island Bridge with a new bridge structure, implement seawall improvements, and install future pump station accommodations. The project would not increase the City's existing population; refer to Section 4.14, *Population and Housing*. Additionally, the proposed project would not construct habitable structures or introduce any new land uses capable of substantially increasing the need for fire protection services.

Currently, the Collins Island Bridge provides emergency vehicle access to Collins Island. During construction of the proposed project, the bridge would be replaced in portions to maintain access to Collins Island during construction activities to the maximum extent feasible. Short-term full bridge closures limited to a few hours in a day (i.e., not full day or multi-day closures) may also be required and thus, may impede NBFD access to Collins Island. As such, implementation of a Traffic Management Plan (TMP) would be required to maintain adequate emergency access during the construction process (Mitigation Measure TRA-1). The TMP shall include measures such as construction signage,

[1] City of Newport Beah, *Fire Operations Division*, https://www.newportbeachca.gov/government/departments/fire-department/fire-operations-division, accessed August 14, 2023.

limitations on timing for lane closures to avoid peak hours of traffic, temporary striping plans, and, if necessary, use of construction flag person(s) to direct traffic during heavy equipment use. Further, the City would be required to coordinate with the NBFD and Newport Beach Police Department (NBPD) to arrange for adequate alternative access options in the event an emergency event occurs during a temporary full bridge/roadway closure. As such, with implementation of Mitigation Measure TRA-1, fire response capability and access would be maintained and impacts in this regard would be less than significant.

Mitigation Measures: Refer to Mitigation Measure TRA-1.

2) Police protection?

Less Than Significant Impact With Mitigation Incorporated. The NBPD provides police protection services to the City. The NBPD station is located approximately 1.5 miles to the northeast of the project site at 870 Santa Barbara Drive. As stated, implementation of the project would not increase the City's existing population. Further, no habitable structures or other land uses capable of substantially increasing the need for police protection services are proposed. Therefore, the project would not increase the need for additional police protection services or involve construction of any new or physically altered police protection facilities. Refer to Response 4.15(a)(1) regarding emergency access during construction and operation; as discussed, Mitigation Measure TRA-1 would require implementation of a TMP and coordination with the NBFD and NBPD to arrange for adequate alternative access options in the event of an emergency event during a temporary full bridge/roadway closure. As such, impacts would be reduced to less than significant levels.

Mitigation Measures: Refer to Mitigation Measure TRA-1.

3) Schools?

No Impact. The project site is located within the Newport-Mesa Unified School District (NMUSD). Implementation of the proposed project would not increase the City's residential population and thus, would not impact existing capacities and resources at NMUSD schools and facilities. No impact is anticipated in this regard.

Mitigation Measures: No mitigation measures are required.

4) Parks?

No Impact. Given the nature of the proposed improvements, the project would not generate the need for new or physically altered park facilities. No habitable structures are proposed as part of the project. Moreover, as discussed in Response 4.14(a), the project would not directly or indirectly induce substantial population growth in the project area. Thus, no impacts are anticipated in this regard.

Mitigation Measures: No mitigation measures are required.

5) Other public facilities?

No Impact. As detailed above in Responses 4.15(a)(1) through 4.15(a)(4), the proposed project would not result in any potentially significant impacts related to public services. The project would not increase the City's existing population and would not introduce any uses that would increase demand for other public facilities, including library services. No impacts would occur in this regard.

Mitigation Measures: No mitigation measures are required.

4.16 RECREATION

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. 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?				✓
b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				✓

a) 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?

No Impact. Refer to Response 4.15(a)(4). Given the nature of the project, the proposed project would not result in an increase in demand for parks or other recreational facilities and would not result in physical deterioration of these facilities. No impact would occur.

Mitigation Measures: No mitigation measures are required.

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

No Impact. The project does not include recreational facilities, nor would it require the construction or expansion of existing recreational facilities. No impacts would result in this regard.

Mitigation Measures: No mitigation measures are required.

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4.17 TRANSPORTATION

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadways, bicycle and pedestrian facilities?		✓		
b. Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?				✓
c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?			✓	
d. Result in inadequate emergency access?		✓		

a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadways, bicycle and pedestrian facilities?

Less Than Significant Impact with Mitigation Incorporated.

ROADWAY FACILITIES

The project site is served by Park Avenue, one of the major roadways on Balboa Island. Park Avenue is not classified in the General Plan Circulation Element but is primarily a two-lane roadway with some segments divided by a landscaped median. Construction activities associated with the project would include short-term trips associated with the transfer of construction equipment, construction worker trips, and hauling trips for soil and construction material. Although construction traffic may have the potential to impact the local circulation system, construction activities would be temporary (approximately 11 months) and would occur during permitted hours as detailed in Municipal Code Section 10.28.040, *Construction Activity - Noise Regulations*. Specifically, construction activities would be limited to weekdays 7:00 a.m. to 6:30 p.m. and Saturdays from 8:00 a.m. to 6:00 p.m. No construction activities would occur on Sundays or federal holidays. Given the site constraints, most construction materials would be precast/prestressed and ready for installation upon delivery to the site. Additionally, some construction equipment would be brought to the site via barges to reduce impacts on adjacent residences and roadways on Balboa Island.

As shown on Exhibits 2-7a and 2-7b, the bridge would be replaced in portions to ensure either vehicular or pedestrian access to Collins Island during construction activities to maximum extent feasible. A 14-foot wide portion would first be removed and replaced and the remaining 5-foot wide portion would be removed and replaced. Short-term bridge closures limited to a few hours in a day (i.e., not full day or multi-day closures) may be required. However, steel plates would be placed over temporary excavations to allow traffic to remain open after work hours.

Construction activities associated with the proposed seawall improvements, outlet and discharge pipe installations, and street improvements (e.g., street, sidewalk, and storm drain modifications) along Park Avenue and the Bay Front sidewalk may impact vehicular travel along Park Avenue and require temporary partial lane closures. Implementation of Mitigation Measure TRA-1 would require a Traffic Management Plan (TMP) be prepared to maintain vehicular traffic flow and pedestrian access, and emergency access during the construction process. The TMP would be required to include potential measures such as construction signage, limitations on timing for lane closures to avoid peak hours, temporary striping plans, and the use of a construction flagperson to direct traffic during heavy equipment use, among others. Additionally, should temporary full bridge, vehicular lane, or sidewalk closures be required, the TMP would require notification to all residences within a 500-foot radius of the site at least one week before scheduled full closure(s)

with details regarding anticipated closure duration and any available detours. Coordination with the Newport Beach Fire and Police Departments would also be required to arrange for adequate alternative access options in the event an emergency event occurs during a temporary full bridge/roadway closure. With implementation of Mitigation Measure TRA-1, short-term construction impacts on roadways would be reduced to less than significant levels.

Upon construction completion, Park Avenue and the new Collins Island Bridge would continue to operate similar to existing conditions. No operational impacts would occur in this regard.

TRANSIT FACILITIES

No transit services are provided on Balboa Island. The closest transit stop to Balboa Island is located at the intersection of Jamboree Road and Bayside Drive to the north of Balboa Island and is serviced by Orange County Transportation Authority (OCTA) Route 55. As such, implementation of the proposed project would not impact existing OCTA transit facilities.

Water transportation via the Balboa Island Ferry is also available between Balboa Island and the Balboa Peninsula. Similarly, the proposed project would not impact ferry services and thus and no impacts would occur in this regard. The project would not conflict with any polices or regulations pertaining to transit facilities.

BICYCLE FACILITIES

Based on Figure CE3, *Bikeways Master Plan*, of the General Plan Circulation Element, the City recommends designated Class III bike routes throughout Balboa Island. Class III bike routes would provide for shared use with vehicular traffic and may be identified by signage and stencil markings. However, there are currently no existing designated bicycle facilities on Collins Island or Balboa Island. Given that there are no existing designated bicycle facilities on Collins Island or Balboa Island, project implementation would have no impact on such facilities and would not conflict with any policies or regulations pertaining to bicycle facilities.

PEDESTRIAN FACILITIES

Pedestrian facilities, such as sidewalks, are provided throughout the Balboa Island residential community. Near the project site, Park Avenue has sidewalks on both sides of the roadway and the Bay Front sidewalk is a pedestrian-only walkway that circles around the greater Balboa Island perimeter (excluding Collins Island). The existing bridge provides one raised public sidewalk for public access along the bridge; proposed bridge improvements would provide similar public access on the bridge. On Collins Island, there are no existing sidewalks.

Construction activities associated with the project may temporarily impact pedestrian facilities in the project vicinity, primarily along Park Avenue and the Bay Front sidewalk. Specifically, the project proposes to adjust the slope along Park Avenue and sidewalk bridge approaches to comply with Americans with Disabilities Act (ADA) standards. Landscaped areas and the bridge monument would also be improved to increase sight distance along the adjacent walkways to increase pedestrian safety. A new stop sign and limit line would also be added at the intersection on both sides of the bridge. Street, sidewalk, and landscaping improvements are also proposed on the Balboa Island side along the Bay Front sidewalk and Park Avenue eastward until the alley; refer to Exhibit 2-3. Anticipated improvements include monument sign construction, irrigation, paving, and landscaping.

As detailed in Section 2.4, *Construction/Phasing*, partial street improvements for street, sidewalk, and storm drain modifications would occur concurrently with the seawall construction and take approximately three months. The remaining portions of partial street improvements would occur for a duration of approximately two months, and landscaping improvements consisting of monument sign construction, sign construction, irrigation, paving, and landscaping would occur for an additional one month. As such, street related improvements that may impact existing pedestrian facilities would occur for approximately six of the 11 months of anticipated construction. As stated, temporary

partial lane closures, including pedestrian facilities along Park Avenue, may be required during project construction activities. As such, a TMP would be required to maintain vehicular traffic flow and pedestrian access, and emergency access during the construction process (Mitigation Measure TRA-1). Pedestrian sidewalks would be required to remain open and accessible, to the greatest extent feasible, during construction or be re-routed to ensure continued connectivity. With implementation of Mitigation Measure TRA-1, impacts to pedestrian facilities would be less than significant in this regard.

Upon construction completion, pedestrian facilities along Park Avenue and the Bay Front sidewalk would be similar to existing conditions. No operational impacts would occur in this regard.

Mitigation Measures:

TRA-1 Prior to initiation of construction activities, the City of Newport Beach Public Works Department shall prepare a Traffic Management Plan (TMP). The TMP shall specify that one lane of travel for vehicles and pedestrians on Park Avenue shall be maintained during project construction activities to the greatest extent feasible. The TMP shall include measures such as construction signage, limitations on timing for lane closures to avoid peak hours of traffic, temporary striping plans, and, if necessary, use of construction flag person(s) to direct traffic during heavy equipment use. Additionally, the TMP shall establish dedicated truck routes approved by the City of Newport Beach Public Works Department. To reduce congestion and impacts to parking on Balboa Island, the TMP shall also identify proposed mainland parking areas for construction workers. Pedestrian sidewalks shall remain open and accessible, to the greatest extent feasible, during construction or shall be re-routed to ensure continued connectivity while maintaining Americans with Disabilities Act (ADA) accessibility. The TMP shall be incorporated into project specifications for verification prior to final plan approval.

Should temporary full bridge, roadway, or sidewalk closures be required, the City of Newport Beach Public Works Department shall notify all residences within a 500-foot radius of the site at least one week before scheduled closure and provide details regarding anticipated closure duration and any available detours. The City of Newport Beach Public Works Department shall also conduct advanced notification and coordination with the Newport Beach Fire and Police Departments to arrange for adequate alternative access options in the event an emergency event occurs during a temporary full bridge/roadway closure.

b) Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?

No Impact. In accordance with Senate Bill 743, the City has developed a vehicle miles traveled (VMT) analysis methodology as part of Council Policy K-3, *Implementation Procedures for the California Act*. The City's VMT analysis methodology is also supplemented by the *City SB 743 VMT Implementation Guide*, dated April 6, 2020, the General Plan, Coastal Land Use Plan, and Municipal Code. The City's VMT analysis methodology establishes screening criteria and thresholds of significance to determine whether a project would result in a significant transportation impact under CEQA.

Given the nature of the proposed infrastructure improvement project, the project does not explicitly fall within any of the City's land use or transportation project screening categories. The project does not involve any new land uses that would generate new vehicle trips and associated VMT. Thus, no VMT impacts would occur, and the project would not conflict or be inconsistent with CEQA Guidelines Section 15064.3(b).

Mitigation Measures: No mitigation measures are required.

c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Less Than Significant Impact. Project improvements would not introduce hazards on surrounding roadways due to geometric design features or incompatible uses. The proposed bridge would replace the existing Collins Island Bridge along the same alignment and the other project components (i.e., seawall improvements and pump station accommodations) would not introduce geometric design features along Park Avenue. No new land uses are proposed that would be incompatible with the surrounding neighborhood. Impacts would be less than significant in this regard.

Mitigation Measures: No mitigation measures are required.

d) Result in inadequate emergency access?

Less Than Significant Impact with Mitigation Incorporated. As stated, construction activities may require temporary partial bridge, roadway, or sidewalk closures. Short-term full bridge closures limited to a few hours in a day (i.e., not full day or multi-day closures) may also be required and thus, may impede emergency access to Collins Island. As such, implementation of a TMP would be required to maintain adequate emergency access during the construction process (Mitigation Measure TRA-1). With the implementation of Mitigation Measure TRA-1, and with compliance with State and City regulations pertaining to emergency access, impacts in this regard would be reduced to less than significant levels.

Mitigation Measures: Refer to Mitigation Measure TRA-1.

4.18 TRIBAL CULTURAL RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. 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:				
1) 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				✓
2) 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.				✓

As of July 1, 2015, California Assembly Bill 52 (AB 52) was enacted and expanded CEQA by establishing a formal consultation process for California tribes within the CEQA process. The bill specifies that any project may affect or cause a substantial adverse change in the significance of a tribal cultural resource would require a lead agency to "begin consultation with a California Native American tribe that is traditional and culturally affiliated with the geographic area of the proposed project." Section 21074 of AB 52 also defines a new category of resources under CEQA called "tribal cultural resources." Tribal cultural resources are defined as "sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe" and is either listed on or eligible for the California Register of Historical Resources (CRHR) or a local historic register, or if the lead agency chooses to treat the resource as a tribal cultural resource.

On February 19, 2016, the California Natural Resources Agency proposed to adopt and amend regulations as part of AB 52 implementing Title 14, Division 6, Chapter 3 of the California Code of Regulations, CEQA Guidelines, to include consideration of impacts to tribal cultural resources pursuant to Government Code Section 11346.6. On September 27, 2016, the California Office of Administrative Law approved the amendments to Appendix G of the CEQA Guidelines, and these amendments are addressed within this Initial Study.

a) 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:

1) 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).

No Impact. According to the Cultural Report, no historic resources listed or eligible for listing in a State or local register of historic resources are located within the project site. The Waters Way Bridge (No. 55C-0265),[1] colloquially known as the Collins Island Bridge, was evaluated to determine potential National Register of Historic Resources (National Register) and California Register of Historical Resources (California Register) eligibility. As evaluated in Response 4.5(a), the property is recommended as ineligible for listing in the National Register and California Register. Thus, no impacts related to historic tribal cultural resources defined in Public Resources Code Section 5020.1(k) would occur in this regard.

Mitigation Measures: No mitigation measures are required.

2) 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.

No Impact. In compliance with AB 52, the City distributed letters notifying each tribe that requested to be on the City's list for the purposes of AB 52 of the opportunity to consult with the City regarding the proposed project; refer to Appendix F, *AB 52 Documentation*. The letters were distributed by certified mail on September 7, 2023. The tribes had 30 days to respond to the City's request for consultation. The Gabrieleno Band of Mission Indians – Kizh Nation responded on September 16, 2023 stating that it is highly unlikely that any cultural resources exist at the project site and that the tribe is available to the City if tribal support is needed for the project's permits. The City acknowledges the tribe's comments. No other tribes responded to the notification letter. Thus, no impacts would occur in this regard.

Mitigation Measures: No mitigation measures are required.

[1] The Collins Island Bridge is referred to as the Waters Way Bridge in this section and the Cultural Report as it is referred to as such in the California Department of Transportation directory and in bridge inspection reports.

4.19 UTILITIES AND SERVICE SYSTEMS

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects?			✓	
b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?			✓	
c. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?				✓
d. Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?			✓	
e. Comply with federal, State, and local management and reduction statutes and regulations related to solid waste?			✓	

a) Require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunication, the construction or relocation of which could cause significant environmental effects?

Less than Significant Impact.

Water

The City of Newport Beach Water Services Department provides water supply and conveyance services throughout Newport Beach. Although a nominal amount of water may be used during construction, construction-related water usage would be minimal and temporary in nature. Existing water lines within Collins Island Bridge would be temporarily relocated during construction so as not to disrupt water services to Collins Island residents; all lines would be replaced within the new bridge structure. The project does not propose any new land uses that would increase operational water demand. Impacts would be less than significant in this regard.

Wastewater

The project does not propose any new land uses that would generate wastewater and result in increased demand for wastewater treatment. The existing Collins Island Bridge contains wastewater lines that provide service to the Collins Island residents; all lines would be temporarily relocated during construction, and service would be maintained. Upon project completion, all wastewater lines would be replaced within the new bridge structure and service to Collins Island residents would continue. As such, no impacts would occur in this regard.

Stormwater Drainage

The project does not propose any new land uses that would require installation of new storm drainage infrastructure on-site. The project would relocate on catch basin along the Park Avenue right-of-way and would install discharge and outlet pipes to accommodate a future separate pump station project. As discussed in Section 4.10, *Hydrology and Water Quality*, the project would not substantially alter the existing drainage pattern and runoff volumes in the project area. As such, the project would not require the relocation or construction of new or expanded facilities. Less than significant impacts would occur in this regard.

Dry Utilities

The proposed project would include the temporary relocation of existing utilities lines within the existing Collins Island Bridge to allow for continued utility service to Collins Island residences throughout the duration of the construction process. Upon completion of the proposed project, all utility lines would be placed within the new bridge structure, and would operate similar to existing conditions. No new dry utility facilities would be required. As such, project impacts in this regard would be less than significant.

Mitigation Measures: No mitigation measures are required.

b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?

Less Than Significant Impact. The proposed project would not substantially increase water demand during construction or operational activities. Although a nominal amount of water may be used during construction, these activities would be minimal and temporary in nature and would have a negligible impact on the City's overall water supplies. It is not anticipated that operation of the new bridge structure, seawall improvements, or pump station accommodations would generate water demand. Therefore, impacts would be less than significant in this regard.

Mitigation Measures: No mitigation measures are required.

c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

No Impact. Project construction and operational activities would not introduce a new land use that would generate wastewater. Thus, no impacts would occur in this regard.

Mitigation Measures: No mitigation measures are required.

d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Less Than Significant Impact. The proposed project would replace the existing Collins Island Bridge with a new bridge structure, implement seawall improvements, and install future pump station accommodations. While some solid waste in the form of construction waste/debris may be generated during construction activities, such activities are temporary and limited in nature and would not substantially impact solid waste capacities of nearby landfills. At project completion, no solid waste would be generated. Thus, impacts in this regard would be less than significant.

Mitigation Measures: No mitigation measures are required.

e) Comply with federal, State, and local management and reduction statutes and regulations related to solid waste?

Less than Significant Impact. As stated, the project may generate a nominal amount of solid waste during construction activities, however, the project would be required to comply with existing regulations related to construction waste and state the regulations, including Assembly Bill 939. Specifically, the project would be required to recycle, reduce, or compost at least 50 percent of construction and demolition debris. As such, the project would comply with all applicable federal, State, and local solid waste management and reduction regulations. Impacts would be less than significant in this regard.

Mitigation Measures: No mitigation measures are required.

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4.20 WILDFIRE

If located in or near State responsibility areas or lands classified as very high fire hazard severity zones, would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Substantially impair an adopted emergency response plan or emergency evacuation plan?				✓
b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?				✓
c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?				✓
d. Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?				✓

a) Substantially impair an adopted emergency response plan or emergency evacuation plan?

No Impact. According to the California Department of Forestry and Fire, the project site is not located within or near a State responsibility area or lands classified as a Very High Fire Hazard Severity Zone.[1] Therefore, no impacts would occur in this regard.

Mitigation Measures: No mitigation measures are required.

b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

No Impact. Refer to Response 4.20(a).

Mitigation Measures: No mitigation measures are required.

c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

No Impact. Refer to Response 4.20(a).

Mitigation Measures: No mitigation measures are required.

[1] California Department of Forestry and Fire, *Very High Fire Hazard Severity Zones Viewer*, https://egis.fire.ca.gov/FHSZ/, accessed July 13, 2023.

d) ***Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?***

No Impact. Refer to Response 4.20(a).

Mitigation Measures: No mitigation measures are required.

4.21 MANDATORY FINDINGS OF SIGNIFICANCE

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?		✓		
b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?		✓		
c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?		✓		

a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

Less Than Significant Impact With Mitigation Incorporated. As discussed in Section 4.4, *Biological Resources*, the terrestrial areas of the project limits are fully developed with urban uses, including the existing bridge, boat docks, Park Avenue, the Bay Front sidewalk, and associated rights-of-way. These areas have limited ornamental trees and vegetation associated with the adjacent single-family residences and along the Park Avenue right-of-way. No special-status species or sensitive natural communities occur in these areas and thus, no impacts would occur. However, sensitive natural communities occur within the marine areas of the project limits. An essential fish habitat (EFH) assessment was prepared to determine potential project impacts to EFH protected under the Magnuson-Stevens Fishery Conservation and Management Act, including covered species under the Coastal Pelagic Species and Pacific Groundfish Fishery Management Plans (FMPs). Additionally, an eelgrass survey report was prepared that surveyed existing eelgrass communities within the project area and evaluated potential project impacts on such communities. Based on the studies, it was determined that project-related construction activities would not adversely impact covered species under the Coastal Pelagic Species and Pacific Groundfish FMPs or existing eelgrass communities upon implementation of construction best management practices detailed in Mitigation Measures BIO-1 and BIO-2. Proposed seawall improvements would also impact jurisdictional tidal waters regulated by the U.S. Army Corps of Engineers, Regional Water Quality Control Board, and California Coastal Commission. Thus, Mitigation Measure BIO-3 would require the project to consult with the appropriate responsible resource agencies to obtain the required regulatory permits prior to initiating construction activities. Upon implementation of Mitigation Measures BIO-1 through BIO-3, the project is not anticipated to reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or reduce the number or restrict the range of a rare or endangered plant or animal.

Additionally, as analyzed in Section 4.5, *Cultural Resources*, and Section 4.18, *Tribal Cultural Resources*, no historic, archaeological, or tribal cultural resources occur on-site. Should previously undiscovered cultural or tribal cultural resources or human remains be uncovered during project ground-disturbing activities, implementation of Mitigation Measure CUL-1 would reduce the project's potential effects to less than significant levels. Thus, the project would not eliminate important examples of major periods of California history or prehistory and impacts in this regard would be less than significant.

b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?

Less Than Significant Impact With Mitigation Incorporated. Cumulative impacts can occur as a result of the interactions of environmental changes from multiple projects that affect the same resources, transportation network, watershed, air basin, noise environment, or other environmental conditions. Such impacts could be short-term and temporary from overlapping construction impacts, or long-term due to permanent land use changes.

The project would not result in substantial population growth within the area, either directly or indirectly; refer to Section 4.14, *Population and Housing*. While other projects and development in the project area are considered probable and foreseeable, environmental analysis of these future projects would be conducted on a project-by-project basis in accordance with CEQA. Although the project may incrementally affect other resources that were determined to be less than significant, the project's contribution to these effects is not considered "cumulatively considerable," in consideration of the relatively nominal project impacts and required mitigation measures.

c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Less Than Significant Impact With Mitigation Incorporated. This Initial Study reviewed the proposed project's potential impacts related to aesthetics, air quality, geology and soils, greenhouse gases, hydrology/water quality, noise, hazards and hazardous materials, traffic, among other disciplines. As concluded in this Initial Study, the proposed project would result in less than significant impacts with implementation of the recommended mitigation measures. Therefore, the proposed project would not result in environmental impacts that would cause substantial adverse effects on human beings.

4.22 REFERENCES

The following references were utilized during preparation of this IS/MND. These documents are available for review at the City of Newport Beach, 100 Civic Center Drive, Newport Beach, California 92660, or accessed at the indicated web page.

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5.0 INVENTORY OF MITIGATION MEASURES

BIOLOGICAL RESOURCES

BIO-1 Prior to issuance of grading permits, the City of Newport Beach City Engineer shall ensure the following construction best management practices are incorporated into the project's final construction plans and monitored with weekly inspections during construction activities within the water areas:

- Construction equipment shall be inspected regularly (daily) during construction, and any leaks found shall be repaired immediately.
- Refueling of vehicles and equipment shall be in a designated, contained area.
- Drip pans shall be used under stationary equipment when refueling or during maintenance.
- Drip pans that are used shall be covered during rainfall to prevent leaching of contaminants.
- Construction and maintenance of appropriate containment structures to prevent off-site transport of pollutants from spills and construction debris.
- Construction best management practices (BMPs) shall be monitored during weekly inspections to ensure the BMPs are implemented and kept in good working order.
- Drop nets shall be cleared of debris as soon as feasible.

Prior to issuance of grading permits, the City of Newport Beach shall also prepare and implement a Spill and Prevention Plan to minimize and/or prevent discharge of spilled material at the project site. The Spill and Prevention Plan shall include measures to prevent and control spills, contain the spill, clean the spill, and dispose of contaminated materials in compliance with applicable regulatory requirements.

BIO-2 To the extent feasible, the construction contractor shall minimize potential impacts to existing eelgrass beds within the project area by:

- Decreasing sedimentation by utilizing terrestrial construction booms;
- Avoiding any unneeded shading during in-water construction activities;
- Locating temporary docks, barges and vessels, and all barge anchoring outside of existing eelgrass beds in the project area;
- Ensuring anchor chain designs and mooring locations of all barges and vessels avoid eelgrass habitat in the project area;
- Implementing best management practices (BMPs) such as perimeter debris booms. If debris is observed falling into the water, debris shall be retrieved as soon as feasible;
- Installing silt curtains around demolition areas, to the extent feasible, and restricting turbidity plumes to the smallest possible area during all in-water construction phases to minimize water turbidity and sedimentation;
- Conducting comprehensive pre- and post-construction surveys for eelgrass beds and patches in accordance with the National Marine Fisheries Service's California Eelgrass Mitigation Policy (CEMP). If unavoidable eelgrass impacts occur, compensatory mitigation using guidance specified in the CEMP shall be implemented; and
- If eelgrass harvest and transplant is required for mitigation, obtaining a Scientific Collecting Permit (SCP) from the California Department of Fish and Wildlife prior to harvest and transplant activities. The SCP may include permit conditions such as donor eelgrass surveys, submittal of an eelgrass harvest and transplant plan, limits on number of turions collected, methods for collection and transplanting, notification of activities, and reporting requirements.

BIO-3 Prior to any construction activity within the project limits, the City of Newport Beach shall consult with the appropriate responsible resource agency (i.e., U.S. Army Corps of Engineers, Regional Water Quality Control Board, and California Coastal Commission) to verify delineation results, determine permanent losses and temporary impact areas, and identify compensatory mitigation, as applicable. Prior to undertaking ground-disturbing activities on or immediately adjacent to any aquatic resource areas, the City of Newport Beach and/or their designee shall obtain all applicable discretionary permits/authorizations.

CULTURAL RESOURCES

CUL-1 In the event that any subsurface cultural resources are encountered during earth-moving activities, all work within 50 feet shall be halted until a qualified archaeologist is retained by the City of Newport Beach and evaluates the find and makes recommendations. The archaeologist shall evaluate the find in accordance with federal, State, and local guidelines, including those set forth in the California Public Resources Code Section 21083.2, to assess the significance of the find and identify avoidance or other measures as appropriate.

GEOLOGY AND SOILS

GEO-1 Prior to issuance of grading permits, the City Engineer shall verify that final construction plans and specifications incorporate the design recommendations from the *Draft Foundation Report, Collins Island Bridge, Newport Beach, California*, prepared by Earth Mechanics, Inc. and dated October 27, 2023, and/or the final geotechnical report for the Collins Island Bridge Replacement Project.

GEO-2 In the event that paleontological resources are encountered during earth-disturbing activities, all construction activities within 100 feet of the discovery shall be temporarily halted until a qualified paleontologist shall evaluate the findings and make a recommendation. The assessment will follow Society of Vertebrate Paleontology (SVP) standards as delineated in the *Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources* (2010). If the qualified paleontologist finds that the resource is not a significant fossil, then work may resume immediately. If the qualified paleontologist finds the resource is potentially significant, then the qualified paleontologist shall make recommendations for appropriate treatment in accordance with SVP guidelines for identification, evaluation, disclosure, avoidance, recovery, and/or curation, as appropriate. The City of Newport Beach shall determine the appropriate treatment of the find. Work cannot resume within the no-work radius until the City of Newport Beach, through consultation as appropriate, determines that appropriate treatment measures have been completed to the satisfaction of the City. Any fossils recovered during mitigation shall be cleaned, identified, catalogued, and permanently curated with an accredited and permanent scientific institution with a research interest in the materials, such as the Cooper Laboratory in Santa Ana.

A qualified professional paleontologist is a professional with a graduate degree in paleontology, geology, or related field, with demonstrated experience in the vertebrate, invertebrate, or botanical paleontology of California, as well as at least one year of full-time professional experience or equivalent specialized training in paleontological research (i.e., the identification of fossil deposits, application of paleontological field and laboratory procedures and techniques, and curation of fossil specimens), and at least four months of supervised field and analytic experience in general North American paleontology as defined by the SVP.

NOISE

NOI-1 Prior to issuance of any grading or building permit, the City of Newport Beach shall prepare a Construction Noise Mitigation Plan and demonstrate that the project complies with the following:

- The construction contractor shall ensure that power construction equipment (including combustion or electric engines), fixed or mobile, shall be equipped with noise shielding and muffling devices (consistent with manufacturers' standards) during the entirety of construction of the project. The combination of muffling devices and noise shielding shall be capable of reducing noise by at least 5 dBA from non-muffled and shielded noise levels. Prior to initiation of construction the contractor shall demonstrate to the City that equipment is properly muffled, shielded and maintained. All equipment shall be properly maintained to assure that no additional noise, due to worn or improperly maintained parts, would be generated.

- The Construction Noise Mitigation Plan shall depict the location of construction equipment storage and maintenance areas, and document methods to be employed to minimize noise impacts on adjacent noise sensitive land uses.

- Property owners and occupants located within 100 feet of the construction limits shall be sent a notice, at least 15 days prior to commencement of construction, regarding the construction schedule of the project. A sign, visible to the public, shall also be posted at the project construction site. All notices and signs shall be reviewed and approved by the City of Newport Public Works Department prior to mailing or posting and shall indicate the dates and duration of construction activities, as well as provide a contact name and a telephone number where residents can inquire about the construction process and register complaints.

- The construction contractor shall provide evidence that a construction staff member is designated as a Noise Disturbance Coordinator and shall be present on-site during construction activities. The Noise Disturbance Coordinator shall be responsible for responding to any local complaints about construction noise. When a complaint is received, the Noise Disturbance Coordinator shall notify the City within 24-hours of the complaint and determine the cause of the noise complaint (e.g., starting too early, bad muffler, etc.) and shall implement reasonable measures to resolve the complaint, as deemed acceptable by the City of Newport Beach Public Works Department. All notices that are sent to residential units immediately surrounding the construction site and all signs posted at the construction site shall include the contact name and the telephone number for the Noise Disturbance Coordinator.

- The City shall demonstrate to the satisfaction of the City of Newport Beach Public Works Department that construction noise reduction methods shall be used, including but not limited to, shutting off idling equipment, maximizing the distance between construction equipment staging areas and occupied residential areas, and the use of electric air compressors and similar power tools, to the extent feasible.

- During construction, stationary construction equipment shall be placed such that emitted noise is directed away from sensitive noise receivers.

- In compliance with *Newport Beach Municipal Code* Section 10.28.040, construction activities shall only occur between the hours of 7:00 a.m. to 6:30 p.m. on Mondays to Fridays, and 8:00 a.m. to 6:00 p.m. on Saturdays, with no activity allowed on Sundays or national holidays.

TRANSPORTATION

TRA-1 Prior to initiation of construction activities, the City of Newport Beach Public Works Department shall prepare a Traffic Management Plan (TMP). The TMP shall specify that one lane of travel for vehicles and pedestrians on Park Avenue shall be maintained during project construction activities to the greatest

extent feasible. The TMP shall include measures such as construction signage, limitations on timing for lane closures to avoid peak hours of traffic, temporary striping plans, and, if necessary, use of construction flag person(s) to direct traffic during heavy equipment use. Additionally, the TMP shall establish dedicated truck routes approved by the City of Newport Beach Public Works Department. To reduce congestion and impacts to parking on Balboa Island, the TMP shall also identify proposed mainland parking areas for construction workers. Pedestrian sidewalks shall remain open and accessible, to the greatest extent feasible, during construction or shall be re-routed to ensure continued connectivity while maintaining Americans with Disabilities Act (ADA) accessibility. The TMP shall be incorporated into project specifications for verification prior to final plan approval.

Should temporary full bridge, roadway, or sidewalk closures be required, the City of Newport Beach Public Works Department shall notify all residences within a 500-foot radius of the site at least one week before scheduled closure and provide details regarding anticipated closure duration and any available detours. The City of Newport Beach Public Works Department shall also conduct advance notification and coordination with the Newport Beach Fire and Police Departments to arrange for adequate alternative access options in the event an emergency event occurs during a temporary full bridge/roadway closure.

6.0 CONSULTANT RECOMMENDATION

Based on the information and environmental analysis contained in the Initial Study, we recommend that the City of Newport Beach prepare a Mitigated Negative Declaration for the Collins Island Bridge Replacement Project. We find that the proposed project could have a significant effect on a number of environmental issues, but that mitigation measures have been identified that reduce such impacts to a less than significant level. We recommend that the second category be selected for the City's determination (see Section 7.0, *Lead Agency Determination*).

7/7/2024
Date

Alan Ashimine, Project Manager
Michael Baker International

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7.0 LEAD AGENCY DETERMINATION

On the basis of this initial evaluation:

I find that the proposed use COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared. _

I find that although the proposal could have a significant effect on the environment, there will not be a significant effect in this case because the mitigation measures described in Section 4 have been added. A MITIGATED NEGATIVE DECLARATION will be prepared. ✓

I find that the proposal MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required. _

I find that the proposal MAY have a significant effect(s) on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets, if the effect is a "potentially significant impact" or "potentially significant unless mitigated." An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed. _

Signature: Robert Stein

Title: Assistant City Engineer

Printed Name: Robert Stein

Agency: City of Newport Beach

Date: July 7, 2024

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PART II RESPONSES TO COMMENTS

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PART II: RESPONSE TO COMMENTS

During the public review period, comments were received on the Draft IS/MND from interested parties. The following is a list of the interested parties that submitted comments on the Draft IS/MND during the public review period:

Comment Letter No.	Person, Firm, or Agency	Letter Dated
1	California Department of Fish and Wildlife Craig Shuman, D. Env., Marine Regional Manager	August 20, 2024
2	California Department of Transportation District 12 Scott Shelley, Branch Chief	August 21, 2024

Although CEQA Guidelines Section 15088 does not require a Lead Agency to prepare written responses to comments received, the City of Newport Beach has elected to prepare the following written responses with the intent of conducting a comprehensive and meaningful evaluation of the proposed project. The number designations in the responses are correlated to the bracketed and identified portions of each comment letter.

State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
Marine Region
1933 Cliff Drive, Suite 9
Santa Barbara, CA 93109
www.wildlife.ca.gov

GAVIN NEWSOM, Governor
CHARLTON H. BONHAM, Director

COMMENT LETTER 1

August 20, 2024

Robert Stein
Assistant City Engineer
City of Newport Beach
100 Civic Center Drive
Newport Beach, CA 92660
rstein@newportbeachca.gov

COLLINS ISLAND BRIDGE REPLACEMENT PROJECT
MITIGATED NEGATIVE DECLARATION
SCH #2024070802

Dear Mr. Stein:

The California Department of Fish and Wildlife (Department) received a Mitigated Negative Declaration (MND) from the City of Newport Beach (City) for the Collins Island Bridge Replacement Project (Project), pursuant the California Environmental Quality Act (CEQA) and CEQA Guidelines.[1]

Thank you for the opportunity to provide comments and recommendations regarding those activities involved in the Project that may affect California fish and wildlife. Likewise, we appreciate the opportunity to provide comments regarding those aspects of the Project that the Department, by law, may be required to carry out or approve through the exercise of its own regulatory authority under the Fish and Game Code.

DEPARTMENT ROLE

1-1

The Department is California's Trustee Agency for fish and wildlife resources and holds those resources in trust by statute for all the people of the state (Fish and Game Code, Section 711.7, subd. [a] & 1802; Public Resources Code, Section 21070; CEQA Guidelines Section 15386, subd. [a]). The Department, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species (Id., Section 1802). Similarly for purposes of CEQA, the Department is charged by law to provide, as available, biological expertise during public agency environmental review efforts, focusing specifically on projects and related activities that have the potential to adversely affect fish and wildlife resources. The Department is also responsible for marine biodiversity protection under the Marine Life Protection Act (Fish & G. Code,

[1] CEQA is codified in the California Public Resources Code in section 21000 et seq. The "CEQA Guidelines" are found in Title 14 of the California Code of Regulations, commencing with section 15000.

Section 2850-2863) and the Marine Managed Areas Improvement Act (Pub. Resources Code, Section 36700) in coastal marine waters of California and ensuring fisheries are sustainably managed under the Marine Life Management Act (Fish & G. Code, Section 7050-7090). Pursuant to our jurisdiction, the Department has the following comments and recommendations regarding the Project.

PROJECT DESCRIPTION SUMMARY

Proponent: City of Newport Beach

Objective: The objective of the Project is to replace the Collins Island Bridge, improve the seawall, and make future pump station accommodations. The proposed bridge would be 31 feet in length spanning over existing concrete sheet pile bulkheads, and the width would be 20 feet and 6 inches to accommodate one vehicle travel lane, one public sidewalk, and concrete barriers on each side to provide protection from projected sea level rise. The Project proposes to construct a new seawall in front of the existing seawalls adjacent to the bridge. Additionally, the Project includes an underground pump station and catch basin that will have a discharge pipe near the new seawall and east bridge approach to convey stormwater outflow into the bay adjacent to the new bridge. 1-1 contd

Primary project activities include demolition, excavation, utility relocation, drilling for bridge pile foundations, steel sheet piling installation with press-in method, formwork framing and concrete placement for bridge and seawall improvements construction, street paving (concrete), and landscaping. Marine construction would involve barges delivering construction materials and would require the temporary relocation of several docks which consist of floats and access gangways. The bridge removal would consist of saw-cutting long portions of the bridge and lifting them onto nearby flatbed trucks for removal. The City plans to place a drop net over the waterway to catch debris during the concrete bridge removal process and coping on existing seawalls. The bridge replacement would consist of drilling 24-inch concrete pile foundations into the sea floor and precast/prestressed concrete slab girders would be used.

Location: The Project site is located at the Collins Island Bridge on Balboa Island in Newport Bay within the City of Newport Beach.

Timeframe: Construction activities are scheduled to occur over a period of 11 months in two phases. The anticipated construction start date was not included in the MND.

BIOLOGICAL SIGNIFICANCE

Discussion and Comment: The Newport Bay waters support many resident and migratory fish and special status wildlife such as seabirds, marine mammals, and sea turtles. Important marine plants such as eelgrass (*Zostera marina*) support those fish and wildlife species and may be present throughout shallow coastal environments in the

Harbor. Eelgrass is important as fish nursery habitat and supports juvenile and adult fish. The Newport Bay waters also support commercially and recreationally important fish and invertebrate species such as California halibut (*Paralichthys californicus*), California spiny lobster (*Panulirus interruptus*), and the important forage fish Northern anchovy (*Engraulis mordax*).

1-1 cont'd

COMMENTS AND RECOMMENDATIONS

The Department offers the comments and recommendations below to assist the City in adequately identifying and/or mitigating the Project's significant, or potentially significant, direct, and indirect impacts on fish and wildlife resources.

I. Project Level Impacts and Other Considerations

Native Eelgrass Impacts

Comments: The MND indicated that medium to low density patches of eelgrass were observed during a preliminary eelgrass survey, conducted on September 16, 2023, at the proposed Project site where in-water bridge removal construction, pile driving, and seawall improvements may occur. Eelgrass also has the potential to occur where several docks may be temporarily relocated during construction. Native eelgrass species create large beds beneficial for fish habitat and have been identified as special aquatic sites and given protections by the Clean Water Act. The Magnuson-Stevens Fishery Conservation and Management Act (MSA) identifies eelgrass as a Habitat Area of Special Concern. Additionally, the importance of eelgrass protection and restoration, as well as the marine ecological benefits of eelgrass, is identified in the California Public Resources Code (PRC §35630). The Department uses the California Eelgrass Mitigation Policy (CEMP) (NOAA 2014, Attachment 1), developed by the National Marine Fisheries Service (NMFS), for guidance on identifying eelgrass impacts, eelgrass mitigation measures and compensation, and for identifying appropriate eelgrass mitigation and donor sites.

1-2

Recommendations: The Department recommends that plans should be developed to avoid and minimize potential impacts to eelgrass to the maximum extent feasible if eelgrass beds or patches are identified within or adjacent to the Project area. The proposed Project should avoid and minimize disturbance and damage or losses of eelgrass beds from the in-water bridge removal/replacement and seawall improvements construction, pile driving and pulling, associated barges and vessels, and temporary dock relocations. Impacts to avoid and minimize may include, at a minimum, barge shading and anchoring within eelgrass habitat, pile driving and pulling bottom disturbances, demolition and construction turbidity, sedimentation, and falling debris. The Department recommends the following since eelgrass beds or patches were identified within and adjacent to the Project area:

- To avoid direct eelgrass impacts, locate temporary docks, pile driver barges and vessels, and all barge anchoring outside of eelgrass habitat.

- To avoid scouring of eelgrass and potential eelgrass habitat, anchor chain designs, and locations of barge and vessel moorings, should avoid eelgrass habitat impacts.
- To avoid and minimize eelgrass impacts from demolition and construction debris, the City should use Best Management Practices (BMPs) such as perimeter debris booms. If debris is observed falling into the water, retrieve debris as soon as possible.
- To minimize eelgrass impacts from water turbidity and sedimentation, install silt curtains around pile driving or demolition areas if feasible. Restrict the turbidity plumes to the smallest possible area during all phases of in-water construction.

Since eelgrass was identified in the Project area, comprehensive pre-and post-construction surveys for eelgrass beds or patches should be conducted consistent with the CEMP. If any unavoidable eelgrass impacts occur, these impacts should be compensated using guidance described within the CEMP. Indirect eelgrass impacts such as shading from new piles should also be avoided. Since pile driving work conducted outside of the peak eelgrass growing period may reduce shading impacts when eelgrass beds may have died back, pile location and time of year for pile driving should be considered to avoid eelgrass and other fish and wildlife impacts generated by pile driving.

1-2 cont'd

If eelgrass harvest and transplanting 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 permit conditions such as donor eelgrass surveys, submittal of an eelgrass harvest and transplant plan, limits on number 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.

Pile Driving and Sound Criteria

Comments: Underwater noise associated with pile driving and pulling activities may cause temporary or permanent impacts to fish, such as temporary movement out of the Project area, barotrauma injury, or mortality. The Department relies on guidance from the Fisheries Hydroacoustic Working Group to set safe sound pressure level (SPL) criteria for pile driving and pulling activities (Fisheries Hydroacoustic Working Group 2008, Attachment 2). The SPL dual criteria include a peak level of 206 dB and a cumulative sound exposure (SEL) level of 187 dB for fish 2 grams and heavier or a cumulative SEL of 183 dB for fish less than 2 grams. Additionally, if hydraulic jetting or an impact hammer is used for pile driving, this may impact water quality, releasing contaminants from sediments into the water and/or creating turbidity that could harm fish and shade or smother eelgrass beds.

1-3

Recommendations: The Department recommends using a vibratory hammer for pile driving to the greatest extent feasible, or an alternative technology that produces the least amount of noise such as the press-in method mentioned in the MND. If an

impact hammer must be used (e.g., due to pile material, refusal at bedrock), multiple minimization measures may be used to reduce sound levels. The Department recommends the following:

- A sound attenuation and monitoring plan should be submitted to the resource agencies for review prior to initiating pile driving activities.
- A wood, or similar material, cushion block should be used between the pile and hammer during all pile driving using an impact hammer.
- To further reduce hydroacoustic impacts to fish and marine mammals, a bubble curtain may be used during all impact pile driving to reduce sound below levels that have been shown to cause injury and/or mortality.
- Underwater sound level monitoring should be conducted during pile driving. If SPLs and SELs exceed agreed upon levels as per the Interim Criteria for Injury to Fish, additional steps should be taken to reduce the underwater noise to acceptable levels.

1-3 cont'd

The Department recommends the use of a silt curtain to control turbidity during high turbidity generating activities, such as hydraulic jetting. Additionally, high turbidity generating activities should be conducted when there are no strong outgoing tides since this could exacerbate turbid conditions and negatively impact marine life.

Marine Mammal and Sea Turtle Monitoring

Comments: Harbor seals (*Phoca vitulina*), California sea lions (*Zalophus californianus*), other species of marine mammals, and sea turtles (including listed species under the Endangered Species Act such as the green sea turtle (*Chelonia mydas*)) may be present or occur within the Project area. Project activities, particularly noise from pile driving, could impact these animals if they are present.

Recommendations: The Department recommends that the City prepare and implement a marine mammal and sea turtle monitoring plan that includes, but is not limited to:

- Establishment of an underwater exclusion zone.
- Pre-construction monitoring to update the animals' occurrence and use of the area.
- Monitoring of marine mammals and sea turtles by an experienced observer immediately prior to and during all pile driving activities.
- Pile driving should not occur while marine mammals or sea turtles are present within the exclusion zone.

1-4

The Department recommends that the City consult with the National Marine Fisheries Service and U.S. Fish and Wildlife Service regarding the above recommendations and any other necessary avoidance and mitigation measures to reduce impacts to marine mammals and sea turtles.

Floating Debris and Spill and Prevention Plan

Comments: The Project's bridge removal/demolition has the potential to generate debris and cause material spills that may pollute the Project site's surrounding waters and impact important marine species and habitats.

Recommendation: The Department appreciates the City's plan to place a drop net over the waterway to catch debris during the bridge demolition construction activities. The collected debris should be removed as soon as possible and disposed of in an appropriate manner. The Department recommends that the City prepares and implements a spill and prevention plan to minimize and/or prevent discharge of spilled material at the Project site. This plan should include measures to prevent and control spills, contain the spill, clean the spill, and dispose of contaminated materials. 1-5

Invasive Species Impacts

Comments: Disturbance of the bottom sediments from pile construction and anchoring may redistribute non-native species that compete with native species. This could cause widespread adverse impacts to eelgrass and marine ecology. The invasive alga *Caulerpa taxifolia* is listed as a federal noxious weed under the U.S. Plant Protection Act and while deemed eradicated in 2006 is monitored for potential future emergence. Another invasive alga species found recently in Newport Bay and San Diego Bay is *Caulerpa prolifera*, which is also a potential threat to growth and expansion of native eelgrass beds and other native algae. *Caulerpa prolifera* can grow as deep as 50 meters and appears to be more tolerant of low light environments than most other macroalgae. Additionally, since all *Caulerpa* species pose a serious risk in harming native marine life, Fish and Game Code Section 2300 was amended in 2023 so that no person shall sell, possess, import, transport, transfer, release alive in the state, or give away without consideration all species of the genus *Caulerpa*, with the exception of bona fide scientific research upon authorization by the Department. 1-6

Recommendations: The Department recommends conducting pre-construction *Caulerpa Spp.* surveys to identify potential existence of invasive *Caulerpa Spp.* in accordance with the Caulerpa Control Protocol https://media.fisheries.noaa.gov/2021-12/caulerpa-control-protocol-v5.pdf (October 2021). Any sightings of *Caulerpa Spp.* should be reported within 24 hours to the Department (Caulerpa@wildlife.ca.gov), and NMFS at 562-980-4037 (nmfs.wcr.caulerpa@noaa.gov).

ENVIRONMENTAL DATA

CEQA requires that information developed in environmental impact reports and negative declarations be incorporated into a database which may be used to make subsequent or supplemental environmental determinations. (Pub. Resources Code, § 1-7

21003, subd. (e).) Accordingly, please report any special status species and natural communities detected during Project surveys to the California Natural Diversity Database (CNDDB). The CNNDB field survey form can be filled out and submitted online at the following link: https://wildlife.ca.gov/Data/CNDDB/Submitting-Data. The types of information reported to CNDDB can be found at the following link: https://www.wildlife.ca.gov/Data/CNDDB/Plants-and-Animals. 1-7 cont'd

ENVIRONMENTAL DOCUMENT FILING FEES

The Project, as proposed, would have an impact on fish and/or wildlife, and assessment of environmental document filing fees is necessary. Fees are payable upon filing of the Notice of Determination by the Lead Agency and serve to help defray the cost of environmental review by the Department. Payment of the environmental document filing fee is required for the underlying project approval to be operative, vested, and final. (Cal. Code Regs, tit. 14, § 753.5; Fish & G. Code, § 711.4; Pub. Resources Code, § 21089.) 1-8

CONCLUSION

The Department appreciates the opportunity to comment on the MND to assist the City in identifying and mitigating Project impacts on biological resources. Questions regarding this letter or further coordination should be directed to Leslie Hart, Environmental Scientist at R7CEQA@wildlife.ca.gov.

Sincerely,

Craig Shuman, D. Env
Marine Regional Manager

ec: Eric Wilkins, Senior Environmental Scientist
Department of Fish and Wildlife

Office of Planning and Research, State Clearinghouse
state.clearinghouse@opr.ca.gov

ATTACHMENTS

Attachment 1: NMFS. 2014. California Eelgrass Mitigation Policy, National Marine Fisheries Service.

Attachment 2: Fisheries Hydroacoustic Working Group. 2008. Interim Criteria for Injury of Fish Exposed to Pile Driving Operations: Memorandum. Washington: Federal Highway Administration.

NOAA FISHERIES
West Coast Region

California Eelgrass Mitigation Policy and Implementing Guidelines

October 2014

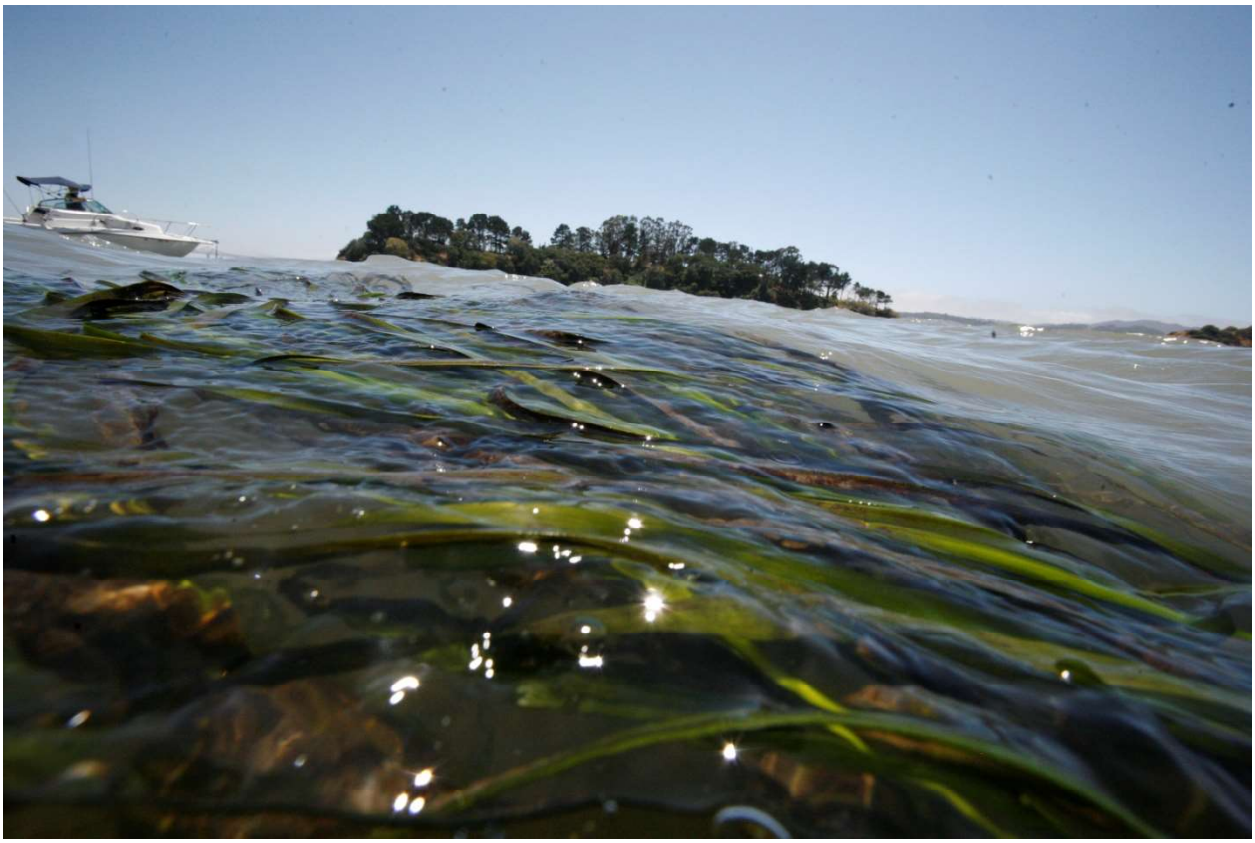

Photo credit: www.Lorenz-Avelar.com

Table of Contents

I. National Marine Fisheries Service's (NMFS) California Eelgrass Mitigation Policy

A. Policy Statement

It is NMFS' policy to recommend **no net loss of eelgrass habitat function** in California.

For all of California, compensatory mitigation should be recommended for the loss of existing eelgrass habitat function, but only after avoidance and minimization of effects to eelgrass have been pursued to the maximum extent practicable. Our approach is congruous with the approach taken in the federal Clean Water Act guidelines under section 404(b)(1) (40 CFR 230). In absence of a complete functional assessment, eelgrass distribution and density should serve as a proxy for eelgrass habitat function. Compensatory mitigation options include comprehensive management plans, in-kind mitigation, mitigation banks and in-lieu-fee programs, and out-of-kind mitigation. While in-kind mitigation is preferred, the most appropriate form of compensatory mitigation should be determined on a case-by-case basis.

Further, it is the intent of this policy to ensure that there is no loss associated with delays in establishing compensatory mitigation. This should be accomplished by creating a greater amount of eelgrass than is lost, if the mitigation is performed contemporaneously or after the impacts occur. To achieve this, NMFS, in most instances, should recommend compensatory mitigation for vegetated and unvegetated eelgrass habitat be successfully completed at a ratio of at least 1.2:1 mitigation area to impact area. This ratio is based on present value calculation[1] using a discount rate of 0.03 (NOAA-DARP 1999). This ratio assumes that restored eelgrass habitat achieves habitat function comparable to existing eelgrass habitat within a period of three years or less (Hoffman 1986, Evans & Short 2005, Fonseca *et al.* 1990).

For ongoing projects, once mitigation has been successfully implemented to compensate for the loss of eelgrass habitat function within a specified footprint, NMFS should not recommend additional mitigation for subsequent loss of eelgrass habitat if 1) ongoing project activities result in subsequent loss of eelgrass habitat function within the same footprint for which mitigation was completed and 2) the project applicant can document that no new area of eelgrass habitat is impacted by project activities.

This policy does not address mitigation for potential eelgrass habitat. NMFS recognizes impacts to potential eelgrass habitat may preclude eelgrass movement or expansion to suitable unvegetated areas in the future, potentially resulting in declines in eelgrass abundance over time. In addition, it does not address other shallow water habitats. Regulatory protections in the estuarine/marine realm typically focus on wetlands and submerged aquatic vegetation. Mudflats, sandflats, and other superficially bare habitats do not garner the same degree of recognition and

[1] Present Value (PV) is a calculation used in finance to determine the present day value of an amount that is received at a future date. The premise of the equation is that receiving something today is worth more than receiving the same item at a future date; $PV = C_1/(1+r)^n$ where C_1= resource at period 1, r= interest or discount rate, n=number of periods.

concern, even though these are some of the most productive and fragile ecosystems (Reilly *et al*. 1999). NMFS will continue to collaborate with federal and state partners on these issues.

B. Eelgrass Background and Information

Eelgrass species (*Zostera marina* L. and *Z. pacifica*) are seagrasses that occur in the temperate unconsolidated substrate of shallow coastal environments, enclosed bays, and estuaries. Eelgrass is a highly productive species and is considered to be a "foundation" or habitat forming species. 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 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 fish such as the Pacific herring. Eelgrass also provides a significant source of carbon to the detrital pool which provides important organic matter in sometimes food-limited environments (*e.g.*, submarine canyons). In addition, eelgrass has the capacity to sequester carbon in the underlying sediments and may help offset carbon emissions. Given the significance and diversity of the functions and services provided by seagrass, Costanza *et al.* (2007) determined seagrass ecosystems to be one of Earth's most valuable.

California supports dynamic eelgrass habitats that range in extent from less than 11,000 acres to possibly as much as 15,000 acres statewide. This is inclusive of estimates for poorly documented beds in smaller coastal systems as well as open coastal and insular areas. While among the most productive of habitats, the overall low statewide abundance makes eelgrass one of the rarest habitats in California. Collectively just five systems, Humboldt Bay, San Francisco Bay, San Diego Bay, Mission Bay and Tomales Bay support over 80 percent of the known eelgrass in the state. The uneven distribution of eelgrass resources increases the risk to this habitat and also contributes to its dynamic nature. Further, the narrow depth range within which eelgrass can occur further places this habitat at risk in the face of global climate change and sea level rise predictions.

Seagrass habitat has been lost from temperate estuaries worldwide (Duarte 2002, Lotze *et al.* 2006, Orth *et al.* 2006). While both natural and human-induced mechanisms have contributed to these losses, impacts from human population expansion and associated pollution and upland development is the primary cause (Short and Wyllie-Echeverria 1996). Human activities that affect eelgrass habitat distribution and abundance, including, but not limited to, urban development, harbor development, aquaculture, agricultural runoff, effluent discharges, and upland land use associated sediment discharge (Duarte 2008) occur throughout California. For example, dredging and filling; shading and alteration of circulation patterns; and watershed inputs of sediment, nutrients, and unnaturally concentrated or directed freshwater flows can directly and indirectly destroy eelgrass habitats. Conversely, in many areas great strides have been made at restoring water quality and expanding eelgrass resources through directed efforts at environmental improvements and resource enhancement. While improvements in eelgrass management have occurred overall, the importance of eelgrass both ecologically and economically, coupled with ongoing human pressure and potentially increasing degradation and losses associated with climate change, highlight the need to protect, maintain, and where feasible, enhance eelgrass habitat.

C. Purpose and Need for Eelgrass Mitigation Policy

Eelgrass warrants a strong protection strategy because of the important biological, physical, and economic values it provides, as well as its importance to managed species under the Magnuson-Stevens Fishery Conservation and Management Act (MSA). Vegetated shallows that support eelgrass are also considered special aquatic sites under the 404(b)(1) guidelines of the Clean Water Act (40 C.F.R. § 230.43). The National Oceanic and Atmospheric Administration's (NOAA) National Marine Fisheries Service (NMFS) developed this policy to establish and support a goal of protecting this resource and its habitat functions, including spatial coverage and density of eelgrass habitats. This NMFS policy and implementing guidelines are being shared with agencies and the public to ensure there is a clear and transparent process for developing eelgrass mitigation recommendations.

Pursuant to the MSA, eelgrass is designated as an essential fish habitat (EFH) habitat area of particular concern (HAPC) for various federally-managed fish species within the Pacific Coast Groundfish Fishery Management Plan (FMP) (PFMC 2008). An HAPC is a subset of EFH that is rare, particularly susceptible to human-induced degradation, especially ecologically important, and/or located in an environmentally stressed area. HAPC designations are used to provide additional focus for conservation efforts.

This policy and guidelines support but do not expand upon existing NMFS authorities under the MSA, the Fish and Wildlife Coordination Act (FWCA), and the National Environmental Policy Act (NEPA). Pursuant to the EFH provisions of the MSA, FWCA, and obligations under the NEPA as a responsible agency, NMFS annually reviews and provides recommendations on numerous actions that may affect eelgrass resources throughout California. Section 305(b)(1)(D) of the MSA requires NMFS to coordinate with, and provide information to, other federal agencies regarding the conservation and enhancement of EFH. Section 305(b)(2) requires all federal agencies to consult with NMFS on all actions or proposed actions authorized, funded, or undertaken by the agency that may adversely affect EFH. Under section 305(b)(4) of the MSA, NMFS is required to provide EFH Conservation Recommendations to federal and state agencies for actions that would adversely affect EFH (50 C.F.R. § 600.925). NMFS makes its recommendations with the goal of avoiding, minimizing, or otherwise compensating for adverse effects to EFH. When impacts to NMFS trust resources are unavoidable, NMFS may recommend compensatory mitigation to offset those impacts. In order to fulfill its consultative role, NMFS may also recommend, among other things, the development of mitigation plans, habitat distribution maps, surveys and survey reports, progress milestones, monitoring programs, and reports verifying the completion of mitigation activities.

Eelgrass impact management and mitigation throughout California has historically been undertaken without a statewide strategy. Federal actions with impacts to eelgrass require considerable NMFS staff time for project review, coordination and development of conservation recommendations. As federal staff resources vary with budgets, and threats to aquatic resources remain steady or increase, regulatory streamlining and increased efficiency are crucial for continued protection of important coastal habitats, including eelgrass. The California Eelgrass Mitigation Policy (CEMP) is meant to increase efficiency of existing regulatory authorities in a

programmatic manner, provide transparency to federal agencies and action proponents, and ensure that unavoidable impacts to eelgrass habitat are fully and appropriately mitigated. It is the intent of NMFS to collaborate with other federal, state, and local agencies charged with the protection of marine resources to seek a unified approach to actions affecting eelgrass such that consistency across agencies with respect to this resource may be enhanced.

D. Relevance to Other Federal and State Policies

Based on our understanding of existing federal and state policies regarding aquatic resource conservation, the CEMP does not conflict with existing policies and complements the federal and state wetland policies as described below. NMFS does not intend to make any recommendations, which, if adopted by the action agency and carried out, would violate other federal, state, or local laws. The CEMP also complements the NOAA Aquaculture Policy and National Shellfish Initiative and builds upon the NOAA Seagrass Conservation Guidelines and the Southern California Eelgrass Mitigation Policy.

1. Corps/EPA Mitigation Rule and supporting guidance

In 2008, the Environmental Protection Agency (EPA) and the U.S. Army Corps of Engineers (Corps) issued revised regulations governing compensatory mitigation for authorized impacts to wetlands, streams, and other waters of the U.S. under Section 404 of the Clean Water Act. The regulations emphasize avoiding impacts to wetlands and other water resources. For unavoidable impacts, the rule incorporates Natural Resource Council recommendations to improve planning, implementing and managing wetland replacement projects, including: science-based assessment of impacts and compensation measures, watershed assessments to drive mitigation sites and plans, measurable and enforceable ecological performance standards for evaluating mitigation projects, mitigation monitoring to document whether the mitigation employed meets ecological performance standards, and complete compensation plans. The regulations also encourage the expansion of mitigation banking and in lieu fee agreements to improve the quality and success of compensatory mitigation projects.

The NMFS policy to recommend no net loss of eelgrass function and the eelgrass mitigation guidelines offered herein align with the provisions of the EPA and Corps mitigation rule, but provide more specific recommendations on how to avoid and minimize impacts to eelgrass and how to implement eelgrass surveys, assessments, mitigation, and monitoring.

2. State of California Wetland Conservation Policies

The 1993 State of California Wetlands Conservation Policy established a framework and strategy to ensure no overall net loss and long-term gain in the quantity, quality, and permanence of wetlands acreage and values in California in a manner that fosters creativity, stewardship, and respect for private property, reduce procedural complexity in administration of state and federal wetlands conservation programs, and encourage partnerships to make landowner incentive programs and cooperative planning efforts the primary focus of wetlands conservation and restoration.

The State of California is also developing a Wetland and Riparian Area Protection Policy. The first phase of this effort was published as the "Preliminary Draft Wetland Area Protection Policy" with the purpose of protecting all waters of the State, including wetlands, from dredge and fill discharges. It includes a wetland definition and associated delineation methods, an assessment framework for collecting and reporting aquatic resource information, and requirements applicable to discharges of dredged or fill material. The draft specifies that dredge or fill projects will provide for replacement of existing beneficial uses through compensatory mitigation. The preliminary policy includes a determination that compensatory mitigation will sustain and improve the overall abundance, diversity and condition of aquatic resources in a project watershed area.

Based on the definition of wetlands included in these state wetland policies, the policies do not directly apply to subtidal eelgrass habitat, but may apply to intertidal eelgrass habitat. The NMFS policy of recommending no net loss to eelgrass habitat function and recommendations for compensatory mitigation for eelgrass impacts complement the state protection policies for wetlands.

3. NOAA Aquaculture Policy and National Shellfish Initiative

In 2011, NOAA released the National Marine Aquaculture Policy and the National Shellfish Initiative. The Policy encourages and fosters sustainable aquaculture development that provides domestic jobs, products, and services and that is in harmony with healthy, productive, and resilient marine ecosystems, compatible with other uses of the marine environment, and consistent with the National Policy for the Stewardship of the Ocean, our Coasts, and the Great Lakes (National Ocean Policy). The goal of the Initiative is to increase populations of bivalve shellfish in our nation's coastal waters—including oysters, clams, abalone, and mussels—through both sustainable commercial production and restoration activities. The Initiative supports shellfish industry jobs and business opportunities to meet the growing demand for seafood, while protecting and enhancing habitat for important commercial, recreational, and endangered and threatened species and species recovery. The Initiative also highlights improved water quality, nutrient removal, and shoreline protection as benefits from shellfish production and restoration. Both the Policy and the Initiative seek to improve interagency coordination for permitting commercial and restoration shellfish projects, as well as support research and other data collection to assess and refine conservation strategies and priorities.

The regulatory efficiencies, transparency, and compensation for impacts to eelgrass promoted by the CEMP directly support the National Aquaculture Policy statements and National Shellfish Initiative through: (1) protection of eelgrass, an important component of productive and resilient coastal ecosystems in California and habitat for wild species, and (2) improved coordination with federal partners regarding planning and permitting for commercial shellfish projects. Furthermore, research conducted under the direction of the National Shellfish Initiative could be informed by and also inform NMFS consultations regarding eelgrass impacts and mitigation in California.

4. NOAA Seagrass Conservation Guidelines

The NOAA publication, "Guidelines for the Conservation and Restoration of Seagrasses in the United States and Adjacent Waters" (1998) was developed by Mark Fonseca of NOAA's Beaufort Laboratory along with Jud Kenworthy and Gordon Thayer and was funded by NOAA's Coastal Ocean Program. The document presents an overview of seagrass conservation and restoration in the United States, discusses important issues that should be addressed in planning seagrass restoration projects, describes different planting methodologies, proposes monitoring criteria and means for evaluation success, and discusses issues faced by resource managers. The CEMP considers information presented in the Fonseca *et al*. document, but deviates in some cases in order to provide reasonable and practicable guidelines for eelgrass conservation in California.

5. Southern California Eelgrass Mitigation Policy

In southern and central California, eelgrass mitigation has been addressed in accordance with the Southern California Eelgrass Mitigation Policy applied by NMFS, US Fish & Wildlife Service, California Department of Fish and Wildlife, California Coastal Commission, US Army Corps of Engineers, and other resource and regulatory agencies since 1991, and which has generally been effective at ensuring eelgrass impacts are mitigated in most circumstances. Given the success of the Southern California Eelgrass Mitigation Policy over its 20-year history, this policy reflects an expansion of the application of the Southern California policy with minor modifications to ensure a high standard of statewide eelgrass management and protection. This policy will supersede the Southern California Eelgrass Mitigation Policy for all areas of California upon its adoption.

II. Implementing Guidelines for California

This policy and guidelines will serve as the guidance for staff and managers within NMFS for developing recommendations concerning eelgrass issues through EFH and FWCA consultations and NEPA reviews throughout California. This policy will inform NMFS's position on eelgrass issues for California in other roles as a responsible, advisory, or funding agency or trustee. In addition, this document provides guidance to assist NMFS in performing its consultative role under the statutes described above. Finally, pursuant to NMFS obligation to provide information to federal agencies under Section 305(b)(1)(D) of the MSA, this policy serves that role by providing information intended to further the conservation and enhancement of EFH. Should this policy or guidelines be inconsistent with any formally-promulgated NMFS regulations, those formally-promulgated regulations will take precedence over any inconsistent provisions of this policy.

While many of the activities impacting eelgrass are similar across California, eelgrass stressors and growth characteristics differ between southern California (U.S./Mexico border to Pt. Conception), central California (Point Conception to San Francisco Bay entrance), San Francisco Bay, and northern California (San Francisco Bay to the California/Oregon border). The amount of scientific information available to base management decisions on also differs among areas within California, with considerably more information and history with eelgrass habitat management in southern California than the other regions. Gaps in region-specific scientific

information do not override the need to be protective of eelgrass habitat while relying on the best information currently available from areas within and outside of California. Although the primary orientation of this policy is toward statewide use, where indicated below, specific elements of this policy may differ between southern California, central California, northern California and San Francisco Bay.

NMFS will continue to explore the science of eelgrass habitat and improve our understanding of eelgrass habitat function, impacts, assessment techniques, and mitigation efficacy. Approximately every 5 years, NMFS intends to evaluate monitoring and survey data collected by federal agencies and action proponents per the recommendations of these guidelines. NMFS managers will determine if updates to these guidelines are appropriate based on information evaluated during the 5-year review. Updates to these guidelines and supporting technical information will be available on the NMFS website.

The information below serves as a common starting place for NMFS recommendations to achieve no net loss of eelgrass habitat function. NMFS employees should not depart from the guidelines provided herein without appropriate justification and supervisory concurrence. However, the recommendations that NMFS ultimately makes should be provided on a case-by-case basis to provide flexibility when site specific conditions dictate. In the EFH context, NMFS recommendations are provided to the action agency, which has final approval of the action; in accordance with the MSA, the action agency may take up NMFS recommendations or articulate its reasons for not following the recommendations. In the FWCA context, NMFS makes recommendations which must be considered, but the action agency is ultimately responsible for the wildlife protective measures it adopts (if any). For these reasons, neither this policy nor its implementing guidelines are to be interpreted as binding on the public.

A. Eelgrass Habitat Definition

Eelgrass distribution fluctuates and can expand, contract, disappear, and recolonize areas within suitable environments. Vegetated eelgrass areas can expand by as much as 5 meters (m) and contract by as much as 4 m annually (Donoghue 2011). Within eelgrass habitat, eelgrass is expected to fluctuate in density and patch extent based on prevailing environmental factors (*e.g.*, turbidity, freshwater flows, wave and current energy, bioturbation, temperature, etc.). To account for seagrass fluctuation, Fonseca *et al.* (1998) recommends that seagrass habitat include the vegetated areas as well as presently unvegetated spaces between seagrass patches.

In addition, there is an area of functional influence, where the habitat function provided by the vegetated cover extends out into adjacent unvegetated areas. Those functions include detrital enrichment, energy dampening and sediment trapping, primary productivity, alteration of current or wave patterns, and fish and invertebrate use, among other functions. The influence of eelgrass on the local environment can extend up to 10 m from individual eelgrass patches, with the distance being a function of the extent and density of eelgrass comprising the bed as well as local biologic, hydrographic, and bathymetric conditions (Bostrom and Bonsdorff 2000, Bostrom *et al*. 2001, Ferrell and Bell 1991, Peterson *et al*. 2004, Smith *et al.* 2008, van Houte-Howes *et al.* 2004, Webster *et al*. 1998). Detrital enrichment will generally extend laterally as well as down slope from the beds, while fish and invertebrates that utilize eelgrass beds may move away from the

eelgrass core to areas around the bed margins for foraging and in response to tides or diurnal cycles (Smith *et al*. 2008).

To encompass fluctuating eelgrass distribution and functional influence around eelgrass cover, for the purposes of this policy and guidelines, eelgrass habitat is defined as areas of vegetated eelgrass cover (any eelgrass within 1 m^2 quadrat and within 1 m of another shoot) bounded by a 5 m wide perimeter of unvegetated area (See Attachment 1 for a graphical depiction of this definition). Unvegetated areas may have eelgrass shoots a distance greater than 1 m from another shoot, and may be internal as well as external to areas of vegetated cover. For isolated patches and on a case-by-case basis, it may be acceptable to include an unvegetated area boundary less than or greater than 5 m wide. The definition excludes areas of unsuitable environmental conditions such as hard bottom substrates, shaded locations, or areas that extend to depths below those supporting eelgrass. Suitable depths can vary substantially depending upon site-specific conditions. In general, eelgrass does not extend deeper than 12 feet mean lower low water (MLLW) in most protected bays and harbors in Southern California, and is more limited in Central and Northern California embayments. However, eelgrass can grow much deeper in entrance channels and offshore areas

B. Surveying Eelgrass

NMFS may recommend action agencies conduct surveys of eelgrass habitat to evaluate effects of a proposed action. Eelgrass habitat should be surveyed using visual or acoustic methods and mapping technologies and scales appropriate to the action, scale, and area of work. Surveys should document both vegetated eelgrass cover as well as unvegetated areas within eelgrass habitat (See section II.A. for definition). Assessing impacts to eelgrass habitat relies on the completion of quality surveys and mapping. As such, inferior quality of surveys and mapping (*e.g.*, completed at an inappropriate scale or using inappropriate methods) may make proper evaluation of impacts impossible, and may result in a recommendation from NMFS to re-survey and re-map project areas. Also, to account for fluctuations in eelgrass habitat due to environmental variations, a reference site(s) should be incorporated into the survey (See section V.B.4 below for more details).

1. Survey Parameters

Because eelgrass growth conditions in California vary, eelgrass mapping techniques will also vary. Diver transects or boundary mapping may be suited to very small scale mapping efforts, while aerial and/or acoustic survey with ground-truthing may be more suited to larger survey areas. Aerial and above-water visual survey methods should be employed only where the lower limit of eelgrass is clearly visible or in combination with methods that adequately inventory eelgrass in deeper waters.

The survey area should be scaled as appropriate to the size of the potential action and the potential extent and distribution of eelgrass impacts, including both direct and indirect effects. The resolution of mapping should be adequate to address the scale of effects reasonably expected to occur. For small projects, such as individual boat docks, higher mapping resolution is appropriate in order to detect actual effects to eelgrass at a scale meaningful to the project size. At larger scales, the mapping resolution may be less refined over a larger area, assuming that

minor errors in mapping will balance out over the larger scale. Survey reports should provide a detailed description of the survey coverage (*e.g.*, number, location, and type of samples) and any interpolation methods used in the mapping.

While many parameters may be useful to describe eelgrass habitat condition (*e.g.*, plant biomass, leaf length, shoot:root ratios, epiphytic loading), many are labor intensive and may be impractical for resource management applications on a day-to-day basis. For this reason, four parameters have been identified for use in eelgrass habitat surveys and assessment of effects of an action on eelgrass. These parameters that should be articulated in eelgrass surveys are: 1) spatial distribution, 2) areal extent, 3) percentage of vegetated cover, and 4) the turion (shoot) density.

a) Spatial Distribution

The spatial distribution of eelgrass habitat should be delineated by a contiguous boundary around all areas of vegetated eelgrass cover extending outward a distance of 5 m, excluding gaps within the vegetated cover that have individual plants greater than 10 m from neighboring plants. Where such separations occur, either a separate area should be defined, or a gap in the area should be defined by extending a line around the void along a boundary defined by adjacent plants and including the 5 meter perimeter. The boundary of the eelgrass habitat should not extend into areas where depth, substrate, or existing structures are unsuited to supporting eelgrass habitat.

b) Aerial Extent

The eelgrass habitat aerial extent is the quantitative area (*e.g.*, square meters) of the spatial distribution boundary polygon of the eelgrass habitat. The total aerial extent should be broken down into extent of vegetated cover and extent of unvegetated habitat. Areal extent should be determined using commercially available geo-spatial analysis software. For small projects, coordinate data for polygon vertices could be entered into a spreadsheet format, and area could be calculated using simple geometry.

c) Percent Vegetated Cover

Eelgrass vegetated cover exists when one or more leaf shoots (turions) per square meter is present. The percent bottom cover within eelgrass habitat should be determined by totaling the area of vegetated eelgrass cover and dividing this by the total eelgrass habitat area. Where substantial differences in bottom cover occur across portions of the eelgrass habitat, the habitat could be subdivided into cover classes (*e.g.*, 20% cover, 50% cover, 75% cover).

d) Turion (Shoot) Density

Turion density is the mean number of eelgrass leaf shoots per square meter within mapped eelgrass vegetated cover. Turion density should be reported as a mean ± the standard deviation of replicate measurements. The number of replicate measurements (n) should be reported along with the mean and deviation. Turion densities are determined only within vegetated areas of

eelgrass habitat and therefore, it is not possible to measure a turion density equal to zero. If different cover classes are used, a turion density should be determined for each cover class.

2. Eelgrass Mapping

For all actions that may directly or indirectly affect eelgrass habitat, an eelgrass habitat distribution map should be prepared on an accurate bathymetric chart with contour intervals of not greater than 1 foot (local vertical datum of MLLW). Exceptions to the detailed bathymetry could be made for small projects or for projects where detailed bathymetry may be infeasible. Unless region-specific mapping format and protocols are developed by NMFS (in which case such region-specific mapping guidance should be used), the mapping should utilize the following format and protocols:

a) Bounding Coordinates

Horizontal datum - Universal Transverse Mercator (UTM), NAD 83 meters, Zone 11 (for southern California) or Zone 10 (for central, San Francisco Bay, and northern California) is the preferred projection and datum. Another projection or datum may be used; however, the map and spatial data should include metadata that accurately defines the projection and datum.

Vertical datum - Mean Lower Low Water (MLLW), depth in feet.

b) Units

Transects, grids, or scale bars should be expressed in meters. Area measurements should be in square meters.

c) File Format

A spatial data layer compatible with readily available commercial geographic information system software producing file formats compatible with ESRI® ArcGIS software should be sent to NMFS when the area mapped supports at least 10 square meters of eelgrass. For those areas supporting less than 10 square meters of eelgrass, a table may alternatively be provided giving the vertices bounding x, y coordinates of the eelgrass areas in a spreadsheet or an ASCII file format. In addition to a spatial layer and/or table, a hard-copy map should be included with the survey report. The projection and datum should be clearly defined in the metadata and/or an associated text file.

Eelgrass maps should, at a minimum, include the following:

- A graphic scale bar, north arrow, legend, horizontal datum and vertical datum;
- A boundary illustrating the limits of the area surveyed;
- Bathymetric contours for the survey area, including both the action area(s) and reference site(s) in increments of not more than 1 foot;
- An overlay of proposed action improvements and construction limits;
- The boundary of the defined eelgrass habitat including an identification of area exclusions based on physical unsuitability to support eelgrass habitat; and

- The existing eelgrass cover within the defined eelgrass habitat at the time of the survey.

3. Survey Period

All mapping efforts should be completed during the active growth period for eelgrass (typically March through October for southern California, April through October for central California, April through October for San Francisco Bay, and May through September for northern California) and should be considered valid for a period of 60 days to ensure significant changes in eelgrass distribution and density do not occur between survey date and the project start date. The 60 day period is particularly important for eelgrass habitat survey conducted at the very beginning of the growing season, if eelgrass habitat expansion occurs as the growing season progresses. A period other than 60 days could be warranted and should be evaluated on a case-by-case basis, particularly for surveys completed in the middle of the growing season. However, when the end of the 60-day validity period falls outside of the region-specific active growth period, the survey could be considered valid until the beginning of the next active growth period. For example, a survey completed in southern California in the August-October time frame would be valid until the resumption of the active growth phase (i.e., in most instances, March 1). In some cases, NMFS and the action agency may agree to surveys being completed outside of the active growth period. For surveys completed during or after unusual climatic events (*e.g.*, high fluvial discharge periods, El Niño conditions), NMFS staff should be contacted to determine if any modifications to the common survey period are warranted.

4. Reference Site Selection

Eelgrass habitat spatial extent, aerial extent, percent cover and turion density are expected to naturally fluctuate through time in response to natural environmental variables. As a result, it is necessary to correct for natural variability when conducting surveys for the purpose of evaluating action effects on eelgrass or performance of mitigation areas. This is generally accomplished through the use of a reference site(s), which is expected to respond similarly to the action area in response to natural environmental variability. It is beneficial to select and monitor multiple reference sites rather than a single site and to utilize the average reference site condition as a metric for environmental fluctuations. This is especially true when a mitigation site is located within an area of known environmental gradients, and reference sites may be selected on both sides of the mitigation site along the gradient. Environmental conditions (*e.g.*, sediment, currents, proximity to action area, shoot density, light availability, depth, onshore and watershed influences) at the reference site(s) should be representative of the environmental conditions at the impact area (Fonseca *et al*. 1998). Where practical, the reference site(s) should be at least the size of the anticipated impact and/or mitigation area to limit the potential for minor changes in a reference site (*e.g.*, propeller scarring or ray foraging damage) overly affecting mitigation needs. The logic for site(s) selection should be documented in the eelgrass mitigation planning documents.

C. Avoiding and Minimizing Impacts to Eelgrass

This section describes measures to avoid and minimize impacts to eelgrass caused by turbidity, shading, nutrient loading, sedimentation and alteration of circulation patterns. Not all measures

are equally suited to a particular project or condition. Measures to avoid or minimize impacts should be focused on stressors where the source and control are within the purview of the permittee and action agency. Action agencies in coordination with NMFS should evaluate and establish impact avoidance and minimization measures on a case-by-case basis depending on the action and site-specific information, including prevailing current patterns, sediment source, characteristics, and quantity, as well as the nature and duration of work.

1. Turbidity

To avoid and minimize potential turbidity-related impacts to eelgrass:

- Where practical, actions should be located as far as possible from existing eelgrass; and
- In-water work should occur as quickly as possible such that the duration of impacts is minimized.

Where proposed turbidity generating activities must occur in proximity to eelgrass and increased turbidity will occur at a magnitude and duration that may affect eelgrass habitat, measures to control turbidity levels should be employed when practical considering physical and biological constraints and impacts. Measures may include:

- Use of turbidity curtains where appropriate and feasible;
- Use of low impact equipment and methods (*e.g.*, environmental buckets, or a hydraulic suction dredge instead of clamshell or hopper dredge, provided the discharge may be located away from the eelgrass habitat and appropriate turbidity controls can be provided at the discharge point);
- Limiting activities by tide or day-night windows to limit light degradation within eelgrass habitat;
- Utilizing 24-hour dredging to reduce the overall duration of work and to take advantage of dredging during dark periods when photosynthesis is not occurring; or
- Other measures that an action party may propose and be able to employ to minimize potential for adverse turbidity effects to eelgrass.

NMFS developed a flowchart for a stepwise decision making process as guidance for action agencies to determine when to implement best management practices (BMPs) for minimizing turbidity from dredging actions as part of a programmatic EFH consultation in San Francisco Bay. The parameters considered in the flow chart are relevant to all marine areas of California. This document is posted on the NMFS West Coast Region web page (http://www.westcoast.fisheries.noaa.gov/habitat/habitat_types/seagrass_info/california_eelgrass.html) and may be used to evaluate avoidance and minimization measures for any project that generates increased turbidity.

2. Shading

A number of potential design modifications may be used to minimize effects of shading on eelgrass. Boat docks, ramps, gangways, and similar structures should avoid eelgrass habitat to the maximum extent feasible. If avoidance of eelgrass or habitat is infeasible, impacts should be minimized by utilizing, to the maximum extent feasible, design modifications and construction materials that allow for greater light penetration. Action modifications should include, but are not limited to:

- Avoid siting over-water or landside structures in areas where shading of eelgrass habitat would occur;
- Maximizing the north-south orientation of the structure;
- Maximizing the height of the structure above the water;
- Minimizing the width and supporting structure mass to decrease shade effects;
- Relocating the structure in deeper water and limiting the placement of structures in shallow areas where eelgrass occurs to the extent feasible; and
- Utilizing light transmitting materials in structure design.

Construction materials used to increase light passage beneath the structures may include, but are not limited to, open grating or adequate spacing between deck boards to allow for effective illumination to support eelgrass habitat. The use of these shade reducing options may be appropriate where they do not conflict with safety, ADA compliance, or structure utility objectives.

NMFS developed a stepwise key as guidance for action agencies to determine which combination of modifications are best suited for minimizing shading effects from overwater structures on eelgrass as part of a programmatic EFH consultation in San Francisco Bay. The parameters considered in the flow chart are relevant to all marine areas of California. This document is posted on the West Coast Region web page (http://www.westcoast.fisheries.noaa.gov/habitat/habitat_types/seagrass_info/california_eelgrass.html) and may be used to evaluate avoidance and minimization measures for any project that results in shading.

3. Circulation patterns

Where appropriate to the scale and nature of potential eelgrass impacts, action parties should evaluate if and how the action may alter the hydrodynamics of the action area such that eelgrass habitat within or in proximity to the action area may be adversely affected. To maintain good water flow and low residence time of water within eelgrass habitat, action agencies should ensure actions:

- Minimize scouring velocities near or within eelgrass beds;
- Maintain wind and tidal circulation to the extent practical by considering orientation of piers and docks to maintain predominant wind effects;
- Incorporate setbacks on the order of 15 to 50 meters from eelgrass habitat where practical to allow for greater circulation and reduced impact from boat maneuvering, grounding, and propeller damage, and to address shading impacts; and
- Minimize the number of piles and maximize pile spacing to the extent practical, where piles are needed to support structures.

For large-scale actions in the proximity of eelgrass habitats, NMFS may request specific modeling and/or field hydrodynamic assessments of the potential effects of work on characteristics of circulation within eelgrass habitat.

4. Nutrient loading

Where appropriate to the scale and nature of potential eelgrass impacts, the following measures should be considered for implementation to reduce the potential for excessive nutrient loading to eelgrass habitat:

- diverting site runoff from landscaped areas away from discharges around eelgrass habitat;
- implementation of fertilizer reduction program;
- reduction of watershed nutrient loading;
- controlling local sources of nutrients such as animal wastes and leach fields; and
- maintaining good circulation and flushing conditions within the water body.

Reducing nutrient loading may also provide opportunities for establishing eelgrass as mitigation for project impacts.

5. Sediment loading

Watershed development and changes in land use may increase soil erosion and increase sedimentation to downstream embayments and lagoons.

- To the extent practicable, maintain riparian vegetation buffers along all streams in the watershed.
- Incorporate watershed analysis into agricultural, ranching, and residential/commercial development projects.
- Increase resistance to soil erosion and runoff. Sediment basins, contour farming, and grazing management are examples of key practices.
- Implement best management practices for sediment control during construction and maintenance operations (*e.g.,* Caltrans 2003).

Reducing sediment loading may also provide opportunities for establishing eelgrass as mitigation for project impacts in systems for which sedimentation is a demonstrable limiting factor to eelgrass.

D. Assessing Impacts to Eelgrass Habitat

If appropriate to the statute under which the consultation occurs, NMFS should consider both direct and indirect effects of the project in order to assess whether a project may impact eelgrass. NMFS is aware that many of the statutes and regulations it administers may have more specific meanings for certain terms, including "direct effect" and "indirect effect", and will use the statutory or regulatory meaning of those terms when conducting consultations under those statutes.[2] Nevertheless, it is useful for NMFS to consider effects experienced

[2] In the EFH context, adverse effects include any impact that reduces quality and/or quantity of EFH, including direct or indirect physical, chemical, or biological alterations of the waters or substrate (50 CFR 600.910). The Council of Environmental Quality (CEQ) regulations regarding NEPA implementation (40 CFR 1508.8(a)) define direct and indirect impacts of an action for the purposes of NEPA. Other NMFS statutes provide their own definitions regarding effects.

contemporaneously with project actions (both at the project site and away from the project site) and which might occur later in time.

Generally, effects to eelgrass habitat should be assessed using pre- and post-project surveys of the impact area and appropriate reference site(s) conducted during the time period of maximum eelgrass growth (typically March through October for southern California, April through October for central California, April through October for San Francisco Bay, and May through September for northern California). NMFS should consider the likelihood that the effects would occur before recommending pre- and post-project eelgrass surveys. The pre-construction survey of the eelgrass habitat in the action area and an appropriate reference site(s) should be completed within 60 days before start of construction. After construction, a post-action survey of the eelgrass habitat in the action area and at an appropriate reference site(s) should be completed within 30 days of completion of construction, or within the first 30 days of the next active growth period following completion of construction that occurs outside of the active growth period. Copies of all surveys should be provided to the lead federal agency, NMFS, and other interested regulatory and/or resource agencies within 30 days of completing the survey. The recommended timing of surveys is intended to minimize changes in eelgrass habitat distribution and abundance during the period between survey completion and construction initiation and completion. For example, a post-action survey completed beyond 30 days following construction or outside of the active growing season may show declines in eelgrass habitat as a result of natural senescence rather than the action.

The lead federal agency and NMFS should consider reference area eelgrass performance, physical evidence of impact, turbidity and construction activities monitoring data, as well as other documentation in the determination of the impacts of the action undertaken. Impact analyses should document whether the impacts are anticipated to be complete at the time of the assessment, or whether there is an anticipation of continuing eelgrass impacts due to chronic or intermittent effects. Where eelgrass at the impact site declines coincident with and similarly to decline at the reference site(s), the percentage of decline at the reference site should be deducted from the decline at the impact site. However, if eelgrass expands within the reference site(s), the impact site should only be evaluated against the pre-construction condition of the reference site and not the expanded condition. If an action results in increased eelgrass habitat relative to the reference sites, this increase could potentially be considered (subject to the caveats identified herein) by NMFS and the action agency as potential compensation for impacts to eelgrass habitat that occur in the future (see Section II. E. 3). An assessment should also be made as to whether impacts or portions of the impact are anticipated to be temporary. Information supporting this determination may be derived from the permittee, NMFS, and other resource and regulatory agencies, as well as other eelgrass experts.

For some projects, environmental planning and permitting may take longer than 60 days. To accommodate longer planning schedules, it may also be necessary to do a preliminary eelgrass survey prior to the pre-construction survey. This preliminary survey can be used to anticipate potential impacts to eelgrass for the purposes of mitigation planning during the permitting process. In some cases, preliminary surveys may focus on spatial distribution of eelgrass habitat only or may be a qualitative reconnaissance to allow permittees to incorporate avoidance and minimization measures into their proposed action or to plan for future mitigation needs. The pre-

and post- project surveys should then verify whether impacts occur as anticipated, and if planned mitigation is adequate. In some cases, a preliminary survey could be completed a year or more in advance of the project action.

1. Direct Effects

Biologists should consider the potential for localized losses of eelgrass from dredging or filling, construction-associated damage, and similar spatially and temporally proximate impacts (these effects could be termed "direct"). The actual area of the impact should be determined from an analysis that compares the pre-action condition of eelgrass habitat with the post-action conditions from this survey, relative to eelgrass habitat change at the reference site(s).

2. Indirect Effects

Biologists should also consider effects caused by the action which occur away from the project site; furthermore, effects occurring later in time (whether at or away from the project site) should also be considered. Biologists should consider the potential for project actions to alter conditions of the physical environment in a manner that, in turn, reduce eelgrass habitat distribution or density (*e.g.*, elevated turbidity from the initial implementation or later operations of an action, increased shading, changes to circulation patterns, changes to vessel traffic that lead to greater groundings or wake damage, increased rates of erosion or deposition).

For actions where the impact cannot be fully determined until a substantial period after an action is taken, an estimate of likely impacts should be made prior to implementation of the proposed action based on the best available information (*e.g.*, shading analyses, wave and current modeling). A monitoring program consisting of a pre-construction eelgrass survey and three post-construction eelgrass surveys at the impact site and appropriate reference site(s) should be performed. The action party should complete the first post-construction eelgrass survey within 30 days following completion of construction to evaluate any immediate effects to eelgrass habitat. The second post-construction survey should be performed approximately one year after the first post-construction survey during the appropriate growing season. The third post-construction survey should be performed approximately two years after the first post-construction survey during the appropriate growing season. The second and third post-construction surveys will be used to evaluate if indirect effects resulted later in time due to altered physical conditions; the time frames identified above are aligned with growing season (attempting a survey outside of the growing season would show inaccurate results).

A final determination regarding the actual impact and amount of mitigation needed, if any, to offset impacts should be made based upon the results of two annual post-construction surveys, which document the changes in the eelgrass habitat (areal extent, bottom coverage, and shoot density within eelgrass) in the vicinity of the action, compared to eelgrass habitat change at the reference site(s). Any impacts determined by these monitoring surveys should be mitigated. In the event that monitoring demonstrates the action to have resulted in greater eelgrass habitat impacts than initially estimated, additional mitigation should be implemented in a manner consistent with these guidelines. In some cases, adaptive management may allow for increased success in eelgrass mitigation without the need for additional mitigation.

E. Mitigation Options

The term mitigation is defined differently by various federal and State laws, regulations and policies. In a broad sense, mitigation may include a range of measures from complete avoidance of adverse effects to compensation for adverse effects by preserving, restoring or creating similar resources at onsite or offsite locations. The Corps and EPA issued regulations governing compensatory mitigation to offset unavoidable adverse effects to waters of the United States authorized by Clean Water Act section 404 permits and other permits issued by the Corps (73 FR 19594; April 10, 2008). For those regulations (33 CFR 332.2 and 40 CFR 230.92, respectively), the Corps and EPA, define "compensatory mitigation" as "the restoration (re-establishment or rehabilitation), establishment (creation), enhancement, and/or in certain circumstances preservation of aquatic resources for the purposes of offsetting unavoidable adverse effects which remain after all appropriate and practicable avoidance and minimization has been achieved."

When impacts to eelgrass would occur, the action agency should develop a mitigation plan to achieve no net loss in eelgrass function following the recommended steps in this policy. If NMFS determines a mitigation plan is needed, and it was not included with the EFH Assessment for the proposed action, NMFS may recommend, either as comments on the EFH Assessment or as an EFH Conservation Recommendation, that one be provided. Potential mitigation options are described below. The action agency should consider site specific conditions when determining the most appropriate mitigation option for an action.

1. Comprehensive management plans

NMFS supports the development of comprehensive management plans (CMPs) that protect eelgrass resources within the context of broader ecosystem needs and management objectives. Recommendations different from specific elements described below for in-kind mitigation may be appropriate where a CMP (*e.g.,* an enforceable programmatic permit, Special Area Management Plan, harbor plan, or ecosystem-based management plan) exists that is considered to provide adequate population-level and local resource distribution protections to eelgrass. One such CMP under development at the time these guidelines were developed is *City of Newport Beach Eelgrass Protection Mitigation Plan for Shallow Water in Lower Newport Bay: An Ecosystem Based Management Plan.* If satisfactorily completed and adopted, it is anticipated the protection measures for eelgrass within this area would be adequate to meet the objectives of this policy.

In general, it is anticipated that CMPs may be most appropriate in situations where a project or collection of similar projects will result in incremental but recurrent impacts to a small portion of local eelgrass populations through time (*e.g.*, lagoon mouth maintenance dredging, maintenance dredging of channels and slips within established marinas, navigational hazard removal of recurrent shoals, shellfish farming, and restoration or enhancement actions). In order to ensure that these alternatives provide adequate population-level and local resource distribution protections to eelgrass and that the plan is consistent with the overall conservation objectives of this policy, NMFS should be involved early in the plan's development.

2. In-kind mitigation

In-kind compensatory mitigation is the creation, restoration, or enhancement of habitat to mitigate for adverse impacts to the same type of habitat. In most cases in-kind mitigation is the preferred option to compensate for impacts to eelgrass. Generally, in-kind mitigation should achieve a final mitigation ratio of 1.2:1 across all areas of the state, independent of starting mitigation ratios. A starting mitigation ratio is the ratio of mitigation area to impact area when mitigation is initiated. The final mitigation ratio is the ratio of mitigation area to impact area once mitigation is complete. The 1.2:1 ratio assumes: (1) there is no eelgrass function at the mitigation site prior to mitigation efforts, (2) eelgrass function at the mitigation site is achieved within three 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. Variations from these assumptions may warrant higher or lower mitigation ratios. For example, a higher ratio would be appropriate for an enhancement project where the mitigation site has some level of eelgrass function prior to the mitigation action.

Typically, in-kind eelgrass mitigation involves transplanting or seeding of eelgrass into unvegetated habitat. Successful in-kind mitigation may also warrant modification of physical conditions at the mitigation site to prepare for transplants (*e.g.*, alter sediment composition, depth, etc.). In some areas, other in-kind mitigation options such as removing artificial structures that preclude eelgrass growth may be feasible. If in-kind mitigation that does not include transplants or seeding is proposed, post-mitigation monitoring as described below should be implemented to verify that mitigation is successful.

Information provided below in Section II.F includes specific recommendations for in-kind mitigation, including site selection, reference sites, starting mitigation ratios, mitigation methods, mitigation monitoring and performance criteria. Many of the recommendations provided in these guidelines for eelgrass assessments, surveys, and mitigation may apply throughout the state even if a non-transplant mitigation option is proposed.

3. Mitigation banks and in-lieu-fee programs

In 2006 and 2011, the NMFS Southwest Region (merged with the Northwest Region in 2013 to form the West Coast Region) signed interagency Memorandum of Understandings that established and refined a framework for developing and using combined or coordinated approaches to mitigation and conservation banking and in-lieu-fee programs in California. Other signatory agencies include: the California Resources Agency, California Department of Fish and Wildlife, the Corps, the US Fish &Wildlife Service, the EPA, the Natural Resource Conservation Service, and the State Water Resources Control Board.

Under this eelgrass policy, NMFS supports the use of mitigation bank and in-lieu fee programs to compensate for impacts to eelgrass habitat, where such instruments are available and where such programs are appropriate to the statutory structure under which mitigation is recommended. Mitigation banks and in-lieu fee conservation programs are highly encouraged by NMFS in heavily urbanized waters. Credits should be used at a ratio of 1:1 if those credits have been established for a full three-year period prior to use. If the bank credits have been in place for a

period less than three years, credits should be used at a ratio determined through application of the wetland mitigation calculator (King and Price 2004).

At the request of the action party, and only with approval of NMFS and other appropriate resource agencies and subject to the caveats below, surplus eelgrass area that, after 60-months, exceeds the mitigation needs, as defined in section II.F.6 Mitigation Monitoring and Performance Milestones, has the potential to be considered for future mitigation needs. Additionally, only with the approval of NMFS and other appropriate resource agencies and subject to the caveats below, eelgrass habitat expansion resulting from project activities, and that otherwise would not have occurred, has the potential to be considered for future mitigation needs. Exceeding mitigation needs does not guarantee or entitle the action party or action agency to credit such mitigation to future projects, since every future project must be considered on a case-by-case basis (including the location and type of impact) and viewed in light of the relevant statutory authorities.

4. Out-of-kind mitigation

Out-of-kind compensatory mitigation means the adverse impacts to one habitat type are mitigated through the creation, restoration, or enhancement of another habitat type. In most cases, out-of-kind mitigation is discouraged, because eelgrass is a rare, special-status habitat in California. There may be some scenarios, however, where out-of-kind mitigation for eelgrass impacts is ecologically desirable or when in-kind mitigation is not feasible. This determination should be made based on an established ecosystem plan that considers ecosystem function and services relevant to the geographic area and specific habitat being impacted. Any proposal for out-of-kind mitigation should demonstrate that the proposed mitigation will compensate for the loss of eelgrass habitat function within the ecosystem. Out-of-kind mitigation that generates services similar to eelgrass habitat or improves conditions for establishment of eelgrass should be considered first. NMFS and the federal action agency should be consulted early when out-of-kind mitigation is being proposed in order to determine if out-of-kind mitigation is appropriate, in coordination with other relevant resource agencies (e.g., California Department of Fish and Wildlife, California Coastal Commission, U.S. Fish and Wildlife Service)

F. In-kind Mitigation for Impacts to Eelgrass

As all mitigation project specifics will be determined on a case-by-case basis, circumstances may exist where NMFS staff will need to modify or deviate from the recommended measures described below before providing their recommendation to action agencies.

1. Mitigation Site Selection

Eelgrass habitat mitigation sites should be similar to the impact site. Site selection should consider distance from action, depth, sediment type, distance from ocean connection, water quality, and currents. Where eelgrass that is impacted occurs in marginally suitable environments, it may be necessary to conduct mitigation in a preferable location and/or modify the site to be better suited to support eelgrass habitat creation. Mitigation site modification should be fully coordinated with NMFS staff and other appropriate resource and regulatory agencies. To the extent feasible, mitigation should occur within the same hydrologic system

(*e.g.*, bay, estuary, lagoon) as the impacts and should be appropriately distributed within the same ecological subdivision of larger systems (*e.g.*, San Pablo Bay or Richardson Bay in San Francisco Bay), unless NMFS and the action agency concur that good justification exists for altering the distribution based on valued ecosystem functions and services.

In identifying potentially suitable mitigation sites, it is advisable to consider the current habitat functions of the mitigation site prior to mitigation use. In general, conversion of unvegetated subtidal areas or disturbed uplands to eelgrass habitats may be considered appropriate means to mitigate eelgrass losses, while conversion of other special aquatic sites (*e.g.*, salt marsh, intertidal mudflats, and reefs) is unlikely to be considered suitable. It may be necessary to develop suitable environmental conditions at a site prior to being able to effectively transplant eelgrass into a mitigation area. Mitigation sites may need physical modification, including increasing or lowering elevation, changing substrate, removing shading or debris, adding wave protection or removing impediments to circulation.

2. Mitigation Area Needs

In-kind mitigation plans should address the components described below to ensure mitigation actions achieve no net loss of eelgrass habitat function. Alternative contingent mitigation should be specified and included in the mitigation plan to address situations where performance milestones are not met.

a) Impacts to Areal Extent of Eelgrass Habitat

Generally, mitigation of eelgrass habitat should be based on replacing eelgrass habitat extent at a 1.2 (mitigation) to 1 (impact) mitigation ratio for eelgrass throughout all regions of California. However, given variable degrees of success across regions and potential for delays and mitigation failure, NMFS calculated *starting* mitigation ratios using "The Five-Step Wetland Mitigation Ratio Calculator" (King and Price 2004) developed for NMFS Office of Habitat Conservation. The calculator utilizes methodology similar to Habitat Equivalency Analysis (HEA), which is an accepted method to determine the amount of compensatory restoration needed to provide natural resource services that are equivalent to loss of natural resource services following an injury (http://www.darrp.noaa.gov/economics/pdf/heaoverv.pdf). HEA is commonly used by NOAA during damage assessment cases, including those involving seagrass. Similar to HEA, the mitigation calculator is based on the "net present value" approach to asset valuation, an economics concept used to compare values of all types of investments, and then modified to incorporate natural resource services. Using the calculator allows for consistency in methodology for all areas within California, avoids arbitrary identification of size of the mitigation area, and avoids cumulative loss to eelgrass habitat that would likely occur with a standard 1:1 ratio (because of the complexity of eelgrass mitigation and the time for created eelgrass to achieve full habitat function).

The calculator includes a number of metrics to determine appropriate ratios that focus on comparisons of quality and quantity of function of the mitigation relative to the site of impact to ensure full compensation of lost function. (see Attachment 4). Among other metrics, the calculator employs a metric of likelihood of failure within the mitigation site based on regional mitigation failure history. As such, the mitigation calculator identifies a recommended starting

mitigation ratio (the mitigation area to eelgrass impact area) based on regional history of success in eelgrass mitigation. Increased initial mitigation site size should be considered to provide greater assurance that the performance milestones, as specified in Section II.F.6, will be met. This is a common practice in the eelgrass mitigation field to reduce risk of falling short of mitigation needs (Thom 1990). Independent of starting mitigation ratio utilized for a given mitigation action, mitigation success should generally be evaluated against a ratio of 1.2:1.

The elevated starting mitigation ratio should be applied to the area of impact to vegetated eelgrass cover only. For unvegetated eelgrass habitat, a starting mitigation ratio of 1.2:1 is appropriate.

To determine the recommended starting mitigation ratio for each region, the percentage of transplant successes and failures was examined over the history of transplanting in the region. NMFS staff examined transplants projects over the past 25 years in all mitigation regions (see Attachment 6). Eelgrass mitigation in Southern California has a 35-year history with 66 transplants performed over that period. In the past 25 years, a total of 47 eelgrass transplants for mitigation purposes have been conducted in Southern California. Forty-three of these were established long enough to evaluate success for these transplants. The overall failure rate, with failure defined as not meeting success criteria established for the project, was 13 percent. Eelgrass mitigation within central California has a better history of successful completion than within southern California, San Francisco Bay, and northern California. However, the number of eelgrass mitigation actions conducted in this region is low and limited to areas within Morro Bay. While the success of eelgrass mitigation in central California has been high, the low number of attempts makes mitigation in this region uncertain. Eelgrass habitat creation/restoration in San Francisco Bay and in northern California has had varied success.

In all cases, best information available at the time of this policy's development was used to determine the parameter values entered into the calculator formula. As regional eelgrass mitigation success changes and the results of ongoing projects become available, the starting mitigation ratio may be updated. Updates in mitigation calculator inputs should not be made on an individual action basis, because the success or lack of success of an individual mitigation project may not reflect overall mitigation success for the region. Rather NMFS should re-evaluate the regional transplant history approximately every 5 years, increasing the record of transplant success in 5 year increments for new projects implemented after NMFS' adoption of these guidelines. If the 5-year review shows that new efforts are more successful than those from the beginning of the 25-year period, NMFS staff should consider removing early projects (*e.g.*, those completed 20 years prior) from the analysis.

On a case-by-case basis and in consultation with action agencies, NMFS may consider proposals with different starting mitigation ratios where sufficient justification is provided that indicates the mitigation site would achieve the no net loss goal. In addition, CMPs could consider different starting mitigation ratios, or other mitigation elements and techniques, as appropriate to the geographic area addressed by the CMP.

Regardless of starting mitigation ratio, eelgrass mitigation should be considered successful, if it meets eelgrass habitat coverage over an area that is 1.2 times the impact area with comparable

eelgrass density as impacted habitat. Please note, delayed implementation, supplemental transplant needs, or NMFS and action agency agreement may result in an altered mitigation area. In the EFH consultation context, NMFS may recommend an altered mitigation area during implementation of the federal agency's mitigation plan following EFH consultation or NEPA review, or as an EFH Conservation Recommendation if the federal agency re-initiates EFH consultation.

(1) Southern California (Mexico border to Pt. Conception)

For mitigation activities that occur concurrent to the action resulting in damage to existing eelgrass habitat, a starting ratio of 1.38 to 1 (transplant area to vegetated cover impact area) should be recommended to counter the regional failure risk. That is, 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.

(2) Central California (Point Conception to mouth of San Francisco Bay).

For mitigation activities that occur concurrent to the action resulting in damage to existing eelgrass habitat, a starting ratio of 1.20 to 1 (transplant area to vegetated cover impact area) should be recommended based on a 0 percent failure rate over the past 25 years (4 transplant actions). It should however be noted that all of these successful transplants included a greater area of planting than was necessary to achieve success such that the full mitigation area would be achieved, even with areas of minor transplant failure.

(3) San Francisco Bay (including south, central, San Pablo and Suisun Bays).

For mitigation activities that occur concurrent to the action resulting in damage to the existing eelgrass bed resource, a ratio of 3.01 to 1 (transplant area to vegetated cover impact area) should be recommended based on a 60 percent failure rate over the past 25 years (10 transplant actions). That is, for each square meter adversely impacted, 3.01 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.

(4) Northern California (mouth of San Francisco Bay to Oregon border).

For mitigation activities that occur concurrent to the action resulting in damage to the existing eelgrass habitat, a starting ratio of 4.82 to 1 (transplant area to vegetated cover impact area) should be recommended based on a 75 percent failure rate over the past 25 years (4 transplant actions). That is, for each square meter of eelgrass habitat adversely impacted, 4.82 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.

b) Impacts to Density of Eelgrass Beds

Degradation of existing eelgrass habitat that results in a permanent reduction of eelgrass turion density greater than 25 percent, and that is a statistically significant difference from pre-impact density, should be mitigated based on an equivalent area basis. The 25 percent and statistically significant threshold is believed reasonable based on supporting information (Fonseca *et al.* 1998, WDFW 2008), and professional practice under SCEMP. In these cases, eelgrass remains present at the action site, but density may be potentially affected by long-term chronic or intermittent effects of the action. Reduction of density should be determined to have occurred when the mean turion density of the impact site is found to be statistically different (α=0.10 and β=0.10) from the density of a reference and at least 25 percent below the reference mean during two annual sampling events following implementation of an action. The number of samples taken to describe density at each site (*e.g.*, impact and reference) should be sufficient to provide for appropriate statistical power. For small impact areas that do not allow for a sample size that provides statistical power, alternative methods for pre- and post- density comparisons could be considered. Mitigation for reduction of turion density without change in eelgrass habitat area should be on a one-for-one basis either by augmenting eelgrass density at the impact site or by establishing new eelgrass habitat comparable to the change in density at the impact site. For example, a 25 percent reduction in density of 100-square meters (100 turions/square meter) of eelgrass habitat to 75 turions/square meter should be mitigated by the establishing 25 square meters of new eelgrass habitat with a density at or above the 100 turions/square meter pre-impact density.

3. Mitigation Technique

In-kind mitigation technique should be determined on a case-by-case basis. Techniques for eelgrass mitigation should be consistent with the best available technology at the time of mitigation implementation and should be tailored to the specific needs of the mitigation site. Eelgrass transplants have been highly successful in southern and central California, but have had mixed results in San Francisco Bay and northern California. Bare-root bundles and seed buoys have been utilized with some mixed success in northern portions of the state. Transplants using frames have also been used with some limited success. For transplants in southern California, plantings consisting of bare-root bundles consisting of 8-12 individual turions each have proven to be most successful (Merkel 1988).

Donor material should be taken from the area of direct impact whenever practical, unless the action resulted in reduced density of eelgrass at the area of impact. Site selections should consider the similarity of physical environments between the donor site and the transplant receiver site and should also consider the size, stability, and history of the donor site (*e.g.*, how long has it persisted and is it a transplant site). Plants harvested should be taken in a manner to thin an existing bed without leaving any noticeable bare areas. For all geographic areas, no more than 10 percent of an existing donor bed should be harvested for transplanting purposes. Ten percent is reasonable based on recommendations in Thom *et al.* (2008) and professional practice under SCEMP. Harvesting of flowering shoots for seed buoy techniques should occur only from widely separated plants.

It is important for action agencies to note that state laws and regulations affect the harvesting and transplantation of donor plants and permission from the state, where required, should be obtained; for example, California Department of Fish and Wildlife may need to provide written authorization for harvesting and transplanting donor plants and/or flowering shoots.

4. Mitigation Plan

NMFS should recommend that a mitigation plan be developed for in-kind mitigation efforts. During consultation, NMFS biologists should request that mitigation plans be provided at least 60 days prior to initiation of project activities to allow for NMFS review. When feasible, mitigation plans should be developed based on preliminary or pre-project eelgrass surveys. When there is uncertainty regarding whether impacts to eelgrass will occur, and the need for mitigation is based on comparison of pre- and post-project eelgrass surveys, NMFS biologists should request that the mitigation plan be provided no more than 60 days following the post-project survey to allow for NMFS review and minimize any delay in mitigation implementation.

At a minimum, the mitigation plan should include:

- Description of the project area
- Results of preliminary eelgrass survey and pre/post-project eelgrass surveys if available (see Section II.B.1 and II.B.2)
- Description of projected and/or documented eelgrass impacts
- Description of proposed mitigation site and reference site(s) (see Section II.B.4)
- Description of proposed mitigation methods (see Section II.F.3)
- Construction schedule, including specific starting and ending dates for all work including mitigation activities. (see Section II.F.5)
- Schedule and description of proposed post-project monitoring and when results will be provided to NMFS
- Schedule and description of process for continued coordination with NMFS through mitigation implementation
- Description of alternative contingent mitigation or adaptive management should proposed mitigation fail to achieve performance measures (see Section II.F.6)

5. Mitigation Timing

Mitigation should commence within 135 days following the initiation of the in-water construction resulting in impact to the eelgrass habitat, such that mitigation commences within the same eelgrass growing season as impacts occur. If possible, mitigation should be initiated prior to or concurrent with impacts. For impacts initiated within 90 days prior to, or during, the low-growth period for the region, mitigation may be delayed to within 30 days after the start of the following growing season, or 90 days following impacts, whichever is longer, without the need for additional mitigation as described below. This timing avoids survey completion during the low growth season, when results may misrepresent progress towards performance milestones.

Delays in eelgrass mitigation result in delays in ultimate reestablishment of eelgrass habitat functions, increasing the duration and magnitude of project impacts to eelgrass. To offset loss of eelgrass habitat function that accumulates through delay, an increase in successful eelgrass

mitigation is needed to achieve the same compensatory habitat function. Because habitat function is accumulated over time once the mitigation habitat is in place, the longer the delay in initiation of mitigation, the greater the additional habitat area needed (i.e., mitigation ratio increasingly greater than 1.2:1) to offset losses. Unless a specific delay is authorized or dictated by the initial schedule of work, federal action agencies should determine whether delays in mitigation initiation in excess of 135 days warrant an increased final mitigation ratio. If increased mitigation ratios are warranted, NMFS should recommend higher mitigation ratios (see Attachment 7). Where delayed implementation is authorized by the action agency, the increased mitigation ratio may be determined by utilizing the Wetlands Mitigation Calculator (King and Price 2004) with an appropriate value for parameter D (See Attachment 4). Examples of delay multipliers generated using the Wetlands Mitigation Calculator are provided in Attachment 5.

Conversely, implementing mitigation ahead of impacts can be used to reduce the mitigation needs by achieving replacement of eelgrass function and services ahead of eelgrass losses. If eelgrass is successfully transplanted three years ahead of impacts, the mitigation ratio would drop from 1.2:1 to 1:1. If mitigation is completed less than three years ahead of impacts, the mitigation calculator can be used to determine the appropriate intermediate mitigation ratio.

6. Mitigation Monitoring and Performance Milestones

In order to document progress and persistence of eelgrass habitat at the mitigation site through and beyond the initial establishment period, which generally is three years, monitoring should be completed for a period of five years at both the mitigation site and at an appropriate reference site(s) (Section II.B.4. Reference Site Selection). Monitoring at a reference site(s) may account for any natural changes or fluctuations in habitat area or density. Monitoring should determine the area of eelgrass and density of plants at 0, 12, 24, 36, 48, and 60 months after completing the mitigation. These intervals will provide yearly updates on the establishment and persistence of eelgrass during the growing season. These monitoring recommendations are consistent with findings of the National Research Council (NRC 2001), the Corps requirements for compensatory mitigation (33 CFR 332.6(b)), and other regional resource policies (Corps 2010, Evans and Leschen 2010, SFWMD 2007).

All monitoring work should be conducted during the active eelgrass growth period and should avoid the recognized low growth season for the region to the maximum extent practicable (typically November through February for southern California, November through March for central California, November through March for San Francisco Bay, and October through April for northern California). Sufficient flexibility in the scheduling of the 6 month surveys should be allowed in order to ensure the work is completed during this active growth period. Additional monitoring beyond the 60-month period may be warranted in those instances where the stability of the proposed mitigation site is questionable, where the performance of the habitat relative to reference sites is erratic, or where other factors may influence the long-term success of mitigation. Mitigation plans should include a monitoring schedule that indicates when each of the monitoring events will be completed.

The monitoring and performance milestones described below are included as eelgrass transplant success criteria in the SCEMP. These numbers represent milestones and associated timelines

typical of successful eelgrass habitat development based on NMFS' experience with: (1) conducting eelgrass surveys and monitoring and (2) reviewing mitigation monitoring results for projects implemented under SCEMP. Restored eelgrass habitat is expected to develop through an initial 3 year monitoring period such that, within 36 months following planting, it meets or exceeds the full coverage and not less than 85 percent of the density relative to the initial condition of affected eelgrass habitat. Restored eelgrass habitat is expected to sustain this condition for at least 2 additional years.

Monitoring events should evaluate the following performance milestones:

Month 0 – Monitoring should confirm the full coverage distribution of planting units over the initial mitigation site as appropriate to the geographic region.

Month 6 – Persistence and growth of eelgrass within the initial mitigation area should be confirmed, and there should be a survival of at least 50 percent of the initial planting units with well-distributed coverage over the initial mitigation site. For seed buoys, there should be demonstrated recruitment of seedlings at a density of not less than one seedling per four (4) square meters with a distribution over the extent of the initial planting area. The timing of this monitoring event should be flexible to ensure work is completed during the active growth period.

Month 12– The mitigation site should achieve a minimum of 40 percent coverage of eelgrass and 20 percent density of reference site(s) over not less than 1.2 times the area of the impact site.

Month 24– The mitigation site should achieve a minimum of 85 percent coverage of eelgrass and 70 percent density of reference site(s) over not less than 1.2 times the area of the impact site.

Month 36– The mitigation site should achieve a minimum of 100 percent coverage of eelgrass and 85 percent density of reference site(s) over not less than 1.2 times the area of the impact site.

Month 48– The mitigation site should achieve a minimum of 100 percent coverage of eelgrass and 85 percent density of reference site(s) over not less than 1.2 times the area of the impact site.

Month 60– The mitigation site should achieve a minimum of 100 percent coverage of eelgrass and 85 percent density of reference site(s) over not less than 1.2 times the area of the impact site.

Performance milestones may be re-evaluated or modified if declines at a mitigation site are also demonstrated at the reference site, and therefore, may be a result of natural environmental stressors that are unrelated to the intrinsic suitability of the mitigation site. In the EFH consultation context, NMFS should provide recommendations regarding modification of performance milestones as technical assistance during interagency coordination as described in

the mitigation plan or as EFH Conservation Recommendations if the federal action agency re-initiates EFH consultation.

7. Mitigation Reporting

NMFS biologists should request monitoring reports and spatial data for each monitoring event in both hard copy and electronic version, to be provided within 30 days after the completion of each monitoring period to allow timely review and feedback from NMFS. These reports should clearly identify the action, the action party, mitigation consultants, relevant points of contact, and any relevant permits. The size of permitted eelgrass impact estimates, actual eelgrass impacts, and eelgrass mitigation needs should be identified, as should appropriate information describing the location of activities. The report should include a detailed description of eelgrass habitat survey methods, donor harvest methods and transplant methods used. The reports should also document mitigation performance milestone progress (see II.F.6. Mitigation Monitoring and Performance Milestones). The first report (for the 0-month post-planting monitoring) should document any variances from the mitigation plan, document the sources of donor materials, and document the full area of planting. The final mitigation monitoring report should provide the action agency and NMFS with an overall assessment of the performance of the eelgrass mitigation site relative to natural variability of the reference site to evaluate if mitigation responsibilities were met. An example summary is provided in Attachment 3.

8. Supplemental Mitigation

Where development of the eelgrass habitat at the mitigation site falls short of achieving performance milestones during any interim survey, the monitoring period should be extended and supplemental mitigation may be recommended to ensure that adequate mitigation is achieved. In the EFH consultation context, NMFS should provide recommendations regarding extended monitoring as technical assistance during interagency coordination as described in the mitigation plan or as EFH Conservation Recommendations if the federal action agency re-initiates EFH consultation. In some instances, an adaptive management corrective action to the existing mitigation area may be appropriate. In the event of a mitigation failure, the action agency should convene a meeting with the action party, NMFS, and applicable regulatory and/or resource agencies to review the specific circumstances and develop a solution to achieve no net loss in eelgrass habitat function.

As indicated previously, while in-kind mitigation is preferred, the most appropriate form of compensatory mitigation should be determined on a case-by-case basis. In cases where it is demonstrated that in-kind replacement is infeasible, out-of-kind mitigation may be appropriate over completion of additional in-kind mitigation. The determination that an out-of-kind mitigation is appropriate will be made by NMFS, the action agency, and the applicable regulatory agencies, where a regulatory action is involved.

G. Special Circumstances

Depending on the circumstances of each individual project, NMFS may make recommendations different from those described above on a case by case basis. For the scenarios described below,

for example, NMFS could recommend a mitigation ratio or 1:1 or for use of out-of-kind mitigation. Because NMFS needs a proper understanding of eelgrass habitat in the project area and potential impacts of the proposed project to evaluate the full effects of authorized activities, NMFS should not make recommendations that diverge from these guidelines if they would result in surveys, assessments or reports inferior to those which might be obtained through the guidance in Section II. The area thresholds described below are taken from the SCEMP and/or reflect recommendations NMFS staff have repeatedly made during individual EFH consultations. These thresholds minimize impacts to eelgrass habitat quality and quantity, based on NMFS' experience with: (1) conducting eelgrass surveys and monitoring and (2) reviewing project monitoring results for projects implemented under SCEMP. The special circumstance included for shellfish aquaculture longlines is supported by Rumrill and Poulton (2004) and the NMFS Office of Aquaculture.

1. Localized Temporary Impacts

NMFS may consider modified target mitigation ratios for localized temporary impacts wherein the damage results in impacts of less than 100 square meters and eelgrass habitat is fully restored within the damage footprint within one year of the initial impact (e.g., placement of temporary recreational facilities, shading by construction equipment, or damage sustained through vessel groundings or environmental clean-up operations). In such cases, the 1.2:1 mitigation ratio should not apply, and a 1:1 ratio of impact to recovery would apply. A monitoring program consisting of a pre-construction eelgrass survey and three post-construction eelgrass surveys at the impact site and appropriate reference site(s) should be completed in order to demonstrate the temporary nature of the impacts. NMFS should recommend that surveys be completed as follows: 1) the first post-construction eelgrass survey should be completed within 30 days following completion of construction to evaluate direct effects of construction, 2) the second and third post-construction surveys should be performed approximately one year after the first post-construction survey, and approximately two years after the first post-construction survey, respectively, during the appropriate growing season to confirm no indirect, or longer term effects resulted from construction. A compelling reason should be demonstrated before any reduced monitoring and reporting recommendations are made.

2. Localized Permanent Impacts

a) If both NMFS and the authorizing action agencies concur, the compensatory mitigation elements of this policy may not be necessary for the placement of a single pipeline, cable, or other similar utility line across existing eelgrass habitat with an impact corridor of no more than 1 meter wide. NMFS should recommend the completion of pre- and post-action surveys as described in section II.B. and II.D. The actual area of impact should be determined from the post-action survey. NMFS should recommend the completion of an additional survey (after 1 year) to ensure that the action or impacts attributable to the action have not exceeded the 1-meter corridor width. NMFS should recommend that, if the post-action or 1 year survey demonstrates a loss of eelgrass habitat greater than the 1-meter wide corridor, mitigation should be undertaken.

b)) If both NMFS and the authorizing action agencies concur that the spacing of shellfish aquaculture longlines does not result in a measurable net loss of eelgrass habitat in the project

area, then mitigation associated with local losses under longlines may not be necessary. NMFS should recommend the completion of pre- and post-action surveys as described in section II.B. and II.D. NMFS should recommend the completion of additional post-action monitoring surveys (to be completed approximately 1 year and 2 years following implementation of the action) to ensure that the action or impacts attributable to the action have not resulted in net adverse impacts to eelgrass habitat. NMFS should recommend that, if the 1-year or 2-year survey demonstrates measurable impact to eelgrass habitat, mitigation should be undertaken. c) NMFS should consider mitigation on a 1:1 basis for impacts less than 10 square meters to eelgrass patches where impacts are limited to small portions of well-established eelgrass habitat or eelgrass habitat that, despite highly variable conditions, generally retain extensive eelgrass, even during poor years. A reduced mitigation ratio should not be considered where impacts would occur to isolated or small eelgrass habitat areas within which the impacted area constitutes more than 1% of the eelgrass habitat in the local area during poor years.

c) If NMFS concurs and suitable out-of-kind mitigation is proposed, compensatory mitigation may not be necessary for actions impacting less than 10 square meters of eelgrass.

III. Glossary of Terms

Except where otherwise specified, the explanations of the following terms are provided for informational purposes only and are described solely for the purposes of this policy; where a NMFS statute, regulation, or agreement requires a different understanding of the relevant term, that understanding of the term will supplant these explanations provided below.

Compensatory mitigation – restoration, establishment, or enhancement of aquatic resources for the purposes of offsetting unavoidable authorized adverse impacts which remain after all appropriate and practicable avoidance and minimization has been achieved.

Ecosystem – a geographically specified system of organisms, the environment, and the processes that control its dynamics. Humans are an integral part of an ecosystem.

Ecosystem function – ecological role or process provided by a given ecosystem.

Ecosystem services – contributions that a biological community and its habitat provide to the physical and mental well-being of the human population (*e.g.*, recreational and commercial opportunities, aesthetic benefits, flood regulation).

Eelgrass habitat – areas of vegetated eelgrass cover (any eelgrass within 1 square meter quadrat and within 1 m of another shoot) bounded by a 5 m wide perimeter of unvegetated area

Essential fish habitat (EFH) – EFH is defined in the MSA as "...those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity."

EFH Assessment – An assessment as further explained in 50 C.F.R. § 600.920(e).

EFH Consultation – The process explained in 50 C.F.R. § 600.920

EFH Conservation Recommendation – provided by the National Marine Fisheries Service (NMFS) to a federal or state agency pursuant to section 305(b)(4)(A) of the Magnuson-Stevens Act regarding measures that can be taken by that agency to conserve EFH. As further explained in 50 C.F.R. § 600.925, EFH Conservation Recommendations may be provided as part of an EFH consultation with a federal agency, or may be provided by NMFS to any federal or state agency whose actions would adversely affect EFH .

Habitat – environment in which an organism(s) lives, including everything that surrounds and affects its life, including biological, chemical and physical processes.

Habitat function – ecological role or process provided by a given habitat (*e.g.*, primary production, cover, food, shoreline protection, oxygenates water and sediments, etc.).

In lieu fee program – a program involving the restoration, establishment, and/or enhancement of aquatic resources through funds paid to a governmental or non-profit natural resources management entity to satisfy compensatory mitigation needs; an in lieu fee program works like a mitigation bank, however, fees to compensate for impacts to habitat function are collected prior to establishing an on-the-ground conservation/restoration project.

In-kind mitigation – mitigation where the adverse impacts to a habitat are mitigated through the creation, restoration, or enhancement of the same type of habitat.

Mitigation – action or project undertaken to offset impacts to an existing natural resource.

Mitigation bank – a parcel of land containing natural resource functions/values that are conserved, restored, created and managed in perpetuity and used to offset unavoidable impacts to comparable resource functions/values occurring elsewhere. The resource functions/values contained within the bank are translated into quantified credits that may be sold by the banker to parties that need to compensate for the adverse effects of their activities.

Out-of-kind mitigation – mitigation where the adverse impacts to one habitat type are mitigated through the creation, restoration, or enhancement of another habitat type

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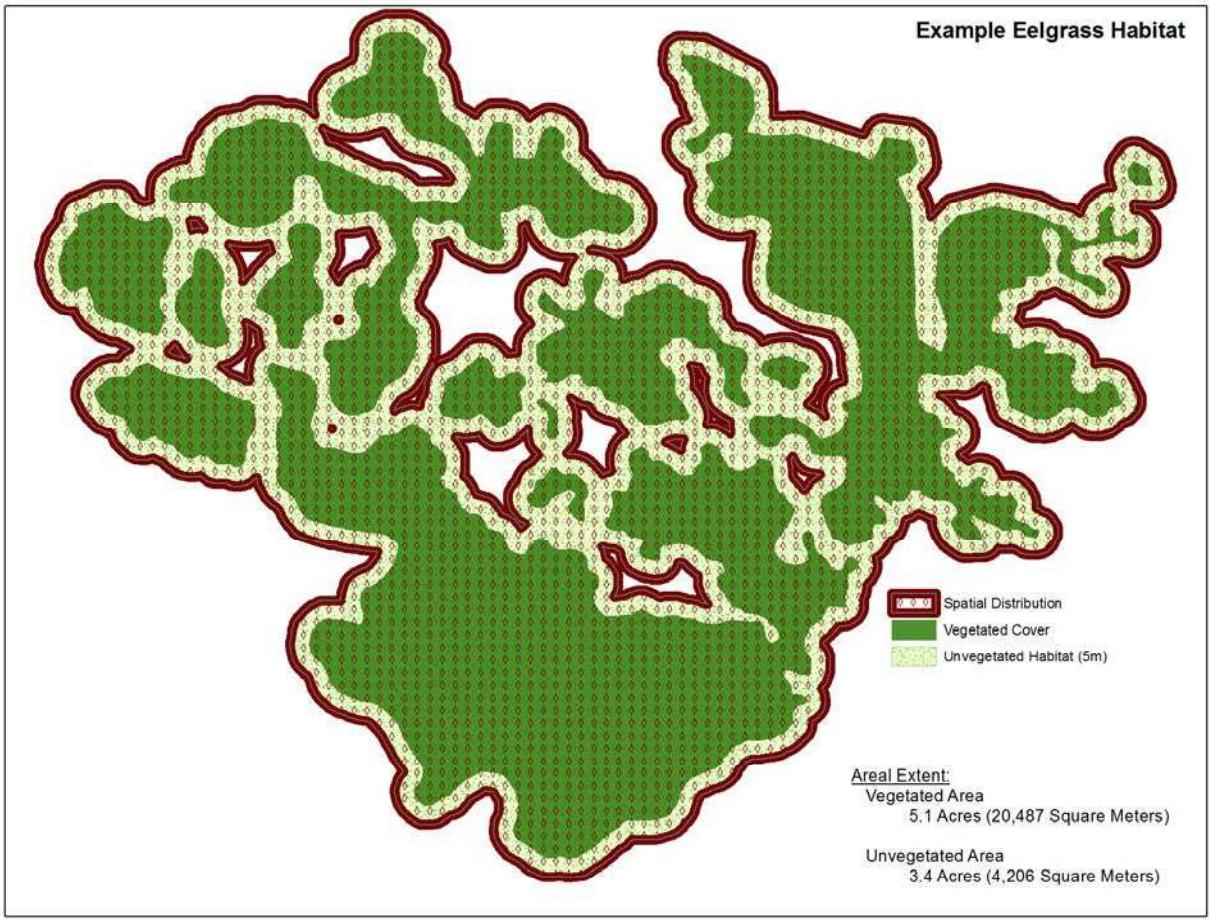
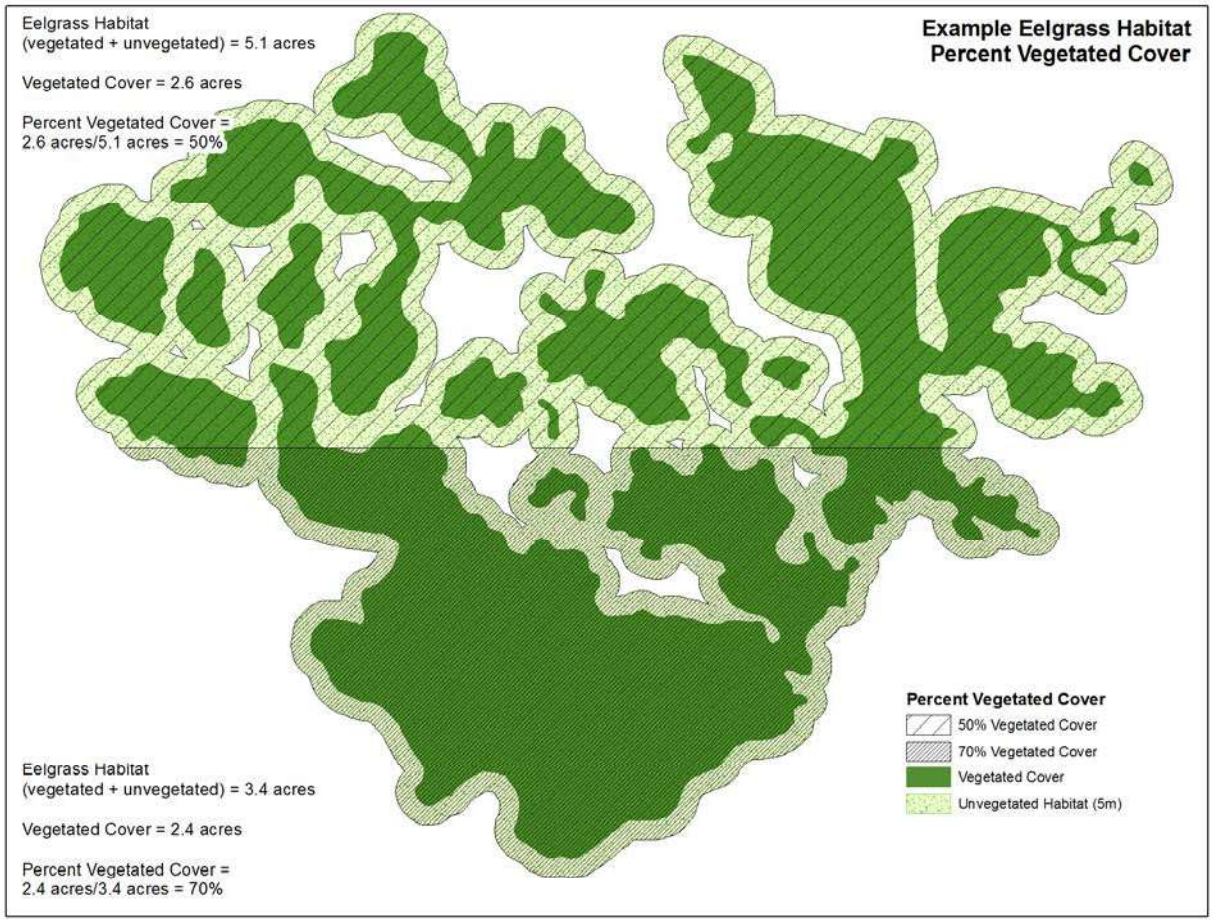
ATTACHMENT 1. Graphic depiction of eelgrass habitat definition including spatial distribution and aerial coverage of vegetated cover and unvegetated eelgrass habitat.

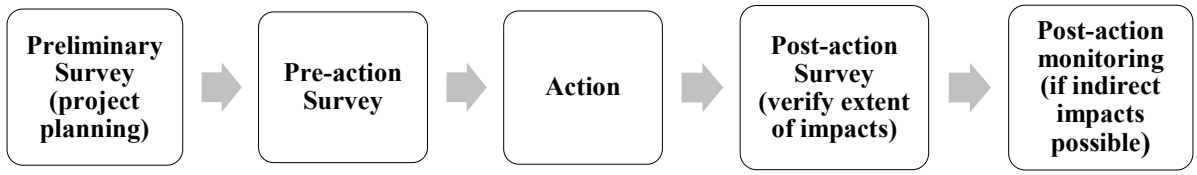


ATTACHMENT 2. Example Eelgrass Habitat Percent Vegetated Cover.



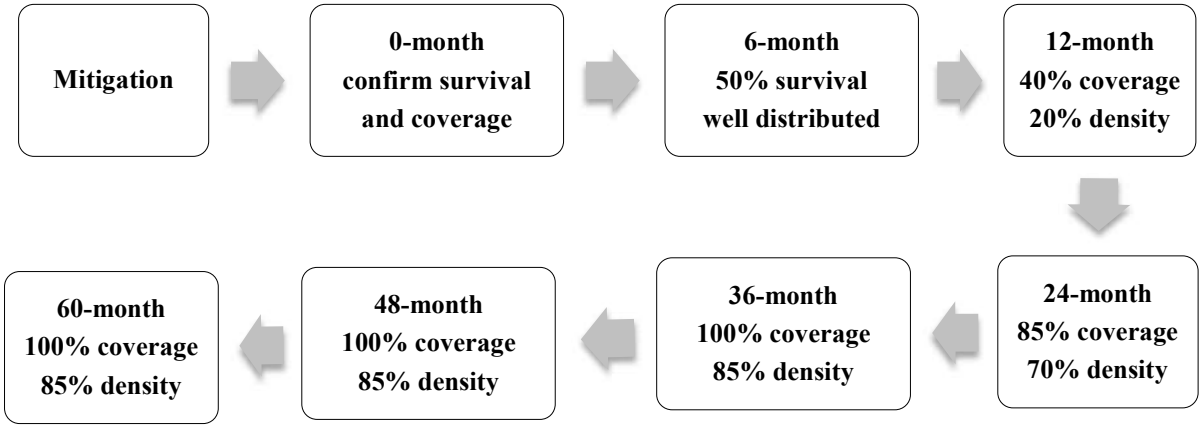
ATTACHMENT 3. Flow chart depicting timing of surveys and monitoring.

a) Eelgrass impact surveys



- All surveys should be completed during the growing season
- Surveys should be completed at the impact site and an appropriate reference site(s)
- A preliminary survey completed for planning purposes may be completed a year or more in advance of the action.
- Pre-action and post-action surveys should be completed within 60 days of the action.
- A survey is good for 60 days, or if that 60 day period extends beyond the end of growing season, until start of next growing season
- Two years of monitoring following the initial post-action monitoring event may be needed to verify lack or extent of indirect effects.
- Survey reports should be provided to NMFS and the federal action agency within 30 days of completion of each survey event

b) Eelgrass mitigation monitoring



- Mitigation should occur coincident or prior to the action
- All monitoring should be completed during the growing season
- Performance metrics for each monitoring event are compared to the 1.2:1 mitigation ratio
- Monitoring reports should be provided to NMFS and the federal action agency 30 days of completion of each monitoring event
- NMFS and action agency will evaluate if performance metrics met, and decide if supplemental mitigation or other adaptive management measures are needed

ATTACHMENT 4. Eelgrass transplant monitoring report.

In order to ensure that NMFS is aware of the status of eelgrass transplants, action agencies should provide or ensure that NMFS is provided a monitoring report summary with each monitoring report. For illustrative purposes only, an example of a monitoring report summary is provided below.

ACTION PARTY CONTACT INFORMATION:

Action Name (same as permit reference):

(a) Action party Information

Name		Address	
Contact Name		City, State, Zip	
Phone		Fax	
Email			

MITIGATION CONSULTANT

Name		Address	
Contact Name		City, State, Zip	
Phone		Fax	
Email			

PERMIT DATA:

Permit	Issuance Date	Expiration Date	Agency Contact

EELGRASS IMPACT AND MITIGATION NEEDS SUMMARY:

Permitted Eelgrass Impact Estimate (m^2):			
Actual Eelgrass Impact (m^2):		On (post-construction date):	
Eelgrass Mitigation Needs (m^2):		Mitigation Plan Reference:	
Impact Site Location:			
Impact Site Center Coordinates (actionion &			

datum):	
Mitigation Site Location:	
Mitigation Site Center Coordinates (actionion & datum):	

ACTION ACTIVITY DATA:

Activity	Start Date	End Date	Reference Information
Eelgrass Impact			
Installation of Eelgrass Mitigation			
Initiation of Mitigation Monitoring			

MITIGATION STATUS DATA:

	Mitigation Milestone	Scheduled Survey	Survey Date	Eelgrass Habitat Area (m^2)	Bottom Coverage (Percent)	Eelgrass Density (turions/m^2)	Reference Information
Month	**0**						
	6						
	12						
	24						
	36						
	48						
	60						

FINAL ASSESSMENT:

Was mitigation met?	
Were mitigation and monitoring performed timely?	
Were mitigation delay increases needed or were supplemental mitigation programs necessary?	

ATTACHMENT 5. Wetlands mitigation calculator formula and parameters.

Starting mitigation ratios for each region within California were calculated using "The Five-Step Wetland Mitigation Ratio Calculator" (King and Price 2004) developed for NMFS Office of Habitat Conservation. The discrete time equation this method uses to solve for the appropriate mitigation ratio is as follows:

$$R = \frac{\sum_{t=0}^{T_{max}} (1+r)^{-t}}{(B(1-E)(1+L)-A)\left[\sum_{t=-D}^{C-D-1} \frac{(t+D)}{C(1+r)^t} + \sum_{C-D}^{T_{max}} (1+r)^{-t}\right] + \left[\sum_{t=-D}^{T_{max}} \frac{\left(1-(1-k)^{(t+D)}\right)}{(1+r)^{(t+D)}}\right](A(1+L))}$$

The calculator parameters in the above equation and values used to calculate starting mitigation ratios for CEMP are as follows:

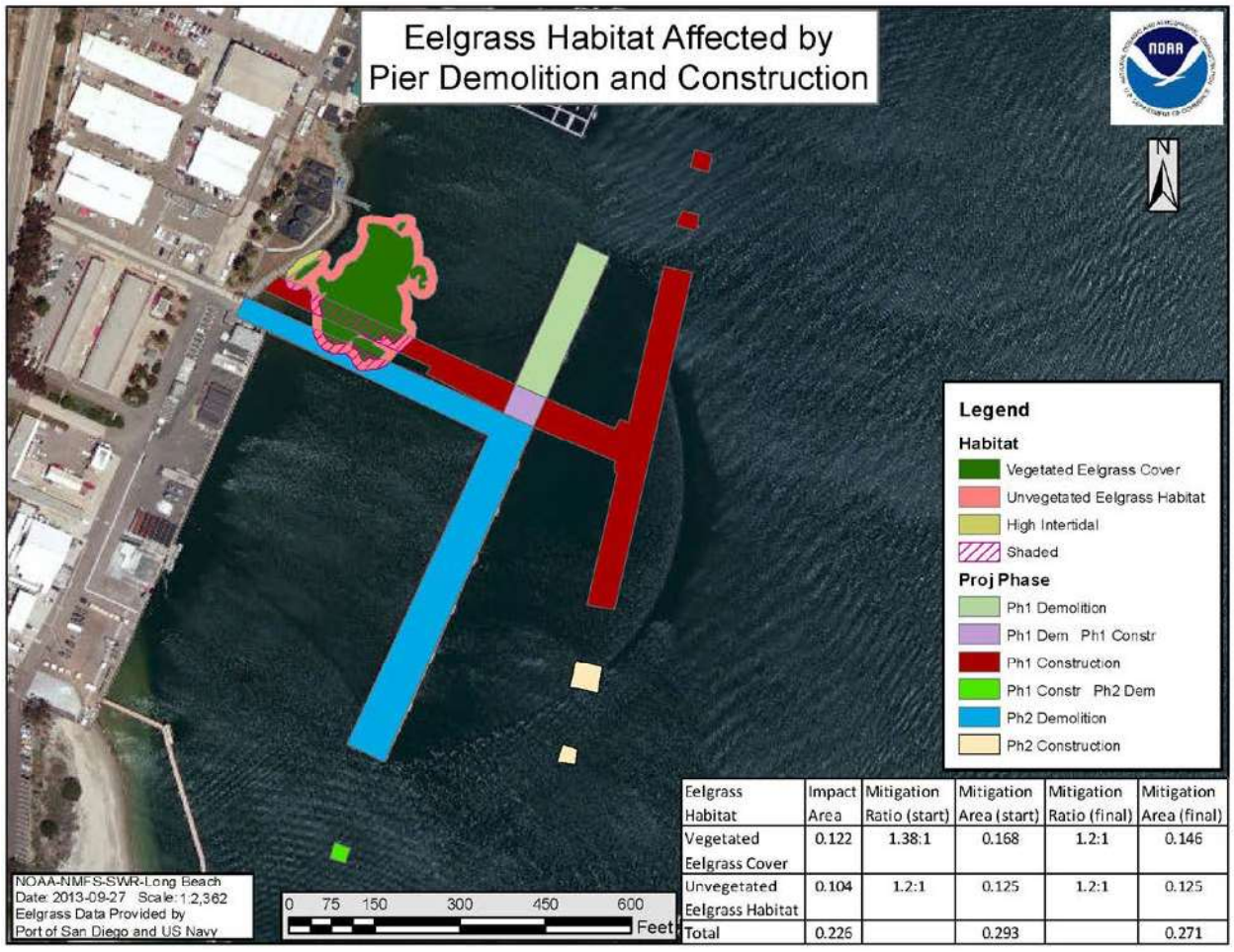
Symbol	Calculator Parameter	Value
A	The level of habitat function provided at the mitigation site prior to the mitigation project	0%
B	The maximum level of habitat function that mitigation is expected to attain, if it is successful	100%
C	The number of years after construction that the mitigation project is expected to achieve maximum function	3 yrs
D	The number of years before destruction of the impacted wetland that the mitigation project begins to generate habitat function	0 yrs
E	The percent likelihood that the mitigation project will fail and provide none of the anticipated benefits	various*
L	The percent difference in expected habitat function based on differences in landscape context of the mitigation site when compared with the impacted wetland	0%
k	The percent likelihood that the mitigation site, in the absence purchase or easement would be developed in any future year	0%
r	The discount rate used for comparing gains and losses that accrue at different times in terms of their present value	3%**
Tmax	The time horizon used in the analysis (chosen to maintain 1.2:1 ratio at E=100% and other parameter values listed above).	13 yrs

* The value for E was based on regional history of success in eelgrass mitigation and varied between regions (see Attachment X).

** NOAA suggests the use of a 3 percent real discount rate for discounting interim service losses and restoration gains, unless a different proxy for the social rate of time preference is more appropriate. (NOAA-DARP 1999) We use this value here, because it is based on best available information and is consistent with the NOAA Damage Assessment and Restoration Program.

ATTACHMENT 6. Example calculations for application of starting and final mitigation ratios for impacts to eelgrass habitat in southern California.

In this example, a pier demolition and construction would impact 0.122 acres of vegetated eelgrass habitat (dark green) and 0.104 acres of unvegetated habitat (pink). Area of impact is indicated by purple hatch mark. Application of recommended starting mitigation ratio for southern California (1.38:1) and final mitigation ratio (1.2:1) to compute starting and final mitigation area for this example are shown in the table.



Eelgrass Habitat	Impact Area	Mitigation Ratio (start)	Mitigation Area (start)	Mitigation Ratio (final)	Mitigation Area (final)
Vegetated Eelgrass Cover	0.122	1.38:1	0.168	1.2:1	0.146
Unvegetated Eelgrass Habitat	0.104	1.2:1	0.125	1.2:1	0.125
Total	0.226		0.293		0.271

ATTACHMENT 7. Example mitigation area multipliers for delay in initiation of mitigation activities.

Delays in eelgrass transplantation result in delays in ultimate reestablishment of eelgrass habitat values, increasing the duration and magnitude of project effects to eelgrass. The delay multipliers in the table below have been generated by altering the implementation start time within "The Five-Step Wetland Mitigation Ratio Calculator" (King and Price 2004).

MONTHS POST-IMPACT	DELAY MULTIPLIER (Percent of Initial Mitigation Area Needed)
0-3 mo	100%
4-6 mo	107%
7-12 mo	117%
13-18 mo	127%
19-24 mo.	138%
25-30 mo.	150%
31-36 mo	163%
37-42 mo.	176%
43-48 mo.	190%
49-54 mo.	206%
55-60 mo.	222%

ATTACHMENT 8. Summary of Eelgrass Transplant Actions in California

See table starting next page.

SUMMARY OF EELGRASS (*ZOSTERA MARINA*) TRANSPLANT PROJECTS IN CALIFORNIA

No.	Region	System	Location	Year	Size*	Type**	Consistent with Permit Conditions	Success Status***	Net Result****
Southern California Eelgrass Restoration History									
	Southern	San Diego Bay	North Island	1976	<0.1	SP	yes	no	-
	Southern	San Diego Bay	"Delta" Beach	1977	1.6	SP	yes	partial	-
	Southern	San Diego Bay	North Island	1978	<0.1	SP	yes	yes	+
	Southern	Newport Bay	Carnation Cove	1978	<0.1	SP	no	no	-
	Southern	Newport Bay	West Jetty	1980	<0.1	SP	yes	partial	0
	Southern	Mission Bay	multiple beaches	1982	<0.1	SP	no	partial	0
	Southern	LA/LB Harbor	Cabrillo Beach	1985	<0.1	BR	yes	yes	+
	Southern	Alamitos Bay	Peninsula	1985	<0.1	BR	yes	yes	+
	Southern	Huntington Hbr.	Main Channel	1985	<0.1	BR	yes	no	0
	Southern	Newport Bay	Upper	1985	<0.1	BR	yes	no	0
	Southern	Mission Bay	Sail Bay	1986	2.7	BR	yes	yes	+
	Southern	San Diego Bay	NEMS I	1987	3.8	BR	no	yes	+
	Southern	San Diego Bay	Chula Vista Wildlife Reserve	1987	<0.1	BR	yes	no	+[1]
	Southern	San Diego Bay	Harbor Island	1988	0.1	BR	yes	yes	+
	Southern	Huntington Harbour	Entrance Channel	1989	0.1	BR	no	yes	+
	Southern	San Diego Bay	Le Meridien Hotel	1990	<0.1	BR	yes	yes	+
	Southern	San Diego Bay	Embarcadero	1991	<0.1	BR	yes	yes	+[2]
	Southern	Mission Bay	Sea World Lagoon	1991	<0.1	BR	yes	yes	+
	Southern	San Diego Bay	Loew's Marina	1991	<0.1	BR	yes	yes	+
	Southern	San Diego Bay	NEMS 2	1993	<0.1	BR	yes	yes	+
	Southern	San Diego Bay	Sea Grant Study	1993	<0.1	BR	yes	yes	+
	Southern	Agua Hedionda Lagoon	Outer Lagoon	1993	<0.1	BR	yes	yes	+
	Southern	San Diego Bay	NEMS 5	1994	0.4	BR	yes	yes	+
	Southern	Mission Bay	South Shores Basin	1994	2.9	BR	yes	yes	+
	Southern	Talbert Marsh	Talbert Channel	1995	<0.1	BR	na	yes	+[4]
	Southern	Mission Bay	various sites	1995	4.8	BR	yes	yes	+
	Southern	Mission Bay	Ventura Cove[5]	1996	0.5	BR	yes	yes	+[6]
	Southern	Mission Bay	Santa Clara Cove	1996	<0.1	BR	yes	no	0[10]
	Southern	Mission Bay	West Mission Bay Drive Bridge	1996	<0.1	BR	no	yes	0[10]
	Southern	Mission Bay	De Anza Cove	1996	<0.1	BR	yes	yes	+
	Southern	Batiquitos Lagoon	all basins	1997	21.6[7]	BR	yes	yes	+[4]
	Southern	San Diego Bay	NEMS 5	1997	7.1	BR	yes	yes	+
	Southern	San Diego Bay	Convair Lagoon	1998	2.5	BR	yes	no	-[12]
	Southern	San Diego Bay	NEMS 6	1999	0.3	BR	yes	yes	+
	Southern	Aqua Hedionda	Bristol Cove	1999	0.3	BR	yes	yes	+
	Southern	Aqua Hedionda	Middle Lagoon and Inner Lagoon	1999	4	BR	yes	yes	+
	Southern	Newport Bay	Balboa Is.Grand Cana	1999	<0.1	BR	yes	yes	+
	Southern	Mission Bay	West Ski Island	2001	0.2	BR	yes	yes	+

No.	Region	System	Location	Year	Size*	Type**	Consistent with Permit Conditions	Success Status***	Net Result****
	Southern	San Diego Bay	Expanded NEMS 6	2001	0.6	BR	yes	yes	+
	Southern	Newport Bay	USCG Corona del Mar	2002	<0.1	BR	yes	yes	+
	Southern	Huntington Harbour	Sunset Bay	2002	<0.1	BR	yes	yes	+
	Southern	San Diego Bay	Navy Enhancement Is.	2002	1	BR	yes	yes	+
	Southern	San Diego Bay	Coronado Bay Bridge	2003	0.3	BR	no	no	0
	Southern	LA Harbor	P300 Expansion Area	2003	5.9	BR	yes	partial	-[9]
	Southern	Newport Bay	Newport Bay Channel Dredging	2004	0.4	BR	yes	no	-
	Southern	San Diego Bay	South Bay Borrow Pit	2004	4.2	BR	yes	yes	pending[8]
	Southern	San Diego Bay	USCG ATC Pier	2004	0.1	BR	yes	yes	+
	Southern	San Diego Bay	South Bay Borrow Pit Sup.	2006	4.2	BR	yes	yes	pending[8]
	Southern	San Diego Bay	D Street Marsh	2006	0.3	BR	yes	pending	pending
	Southern	LA Harbor	P300 Supplement	2007	0.8	BR	yes	yes	pending
	Southern	San Diego Bay	Glorietta Bay Shoreline Park	2007	0.2	BR	yes	yes	pending
	Southern	Bolsa Chica	Pilot Eelgrass Restoration	2007	0.5	BR	yes	yes	+[4]
	Southern	San Diego Bay	Borrow Pit Supplement	2007	4.2	BR	yes	yes	pending[8]
	Southern	San Diego Bay	Sweetwater Silvergate Frac-out	2008	<0.1	BR	yes	yes	0[11]
	Southern	San Diego Bay	Harbor Drive Bridge/NTC Channel	2009	<0.1	BR	yes	pending	pending
Southern California Eelgrass Success Rate (1989-2009, Last 20 Years)								**87%**	**n=43**
Central California Eelgrass Restoration History									
	Central	Morro Bay	Anchorage Area	1985	<0.1	BR	no	yes	+
	Central	Morro Bay	Target Rock	1997	<0.1	BR	no	yes	+
	Central	Morro Bay	Morro Bay Launch Ramp	2000	<0.1	BR	yes	yes	+
	Central	Morro Bay	Mooring Area A1	2002	0.3	BR	yes	yes	+
	Central	Morro Bay	Western Shoal	2010	0.8	BR	yes	pending	pending
Central California Eelgrass Success Rate (1985-2009, Inadequate History to Exclude Older Projects)								**100%**	**n=4**
San Francisco Bay Eelgrass Restoration History									
	San Francisco Bay	San Francisco Bay	Richmond Training Wall	1985	<0.1	BR	NA	no	NA[4]
	San Francisco Bay	San Francisco Bay	Keil Cove and Paradise Cove	1989	0.1	Plugs	NA	partial	NA[4]
	San Francisco Bay	San Francisco Bay	Bayfarm Island/Middle Harbor Shoal	1998	0.1	BR and Plugs	NA	partial	NA[4]
	San Francisco Bay	San Francisco Bay	Bayfarm Island	1999	0.1	BR	NA	partial	NA[4]
	San Francisco Bay	San Francisco Bay	Brickyard Cove, Berkeley	2002	0.2	BR	yes	yes	+[13]
	San Francisco Bay	San Francisco Bay	Emeryville Shoals	2002	0.1	Mixed Test	NA	no	NA[4]
	San Francisco Bay	San Francisco Bay	Marin CDay, R&GC, Audubon	2006	0.6	Seed Bouy	NA	partial	pending[4]
	San Francisco Bay	San Francisco Bay	Marin CDay, R&GC, Audubon	2006	<0.1	mod. TERFS	NA	partial	pending[4]
	San Francisco Bay	San Francisco Bay	Marin CDay, R&GC, Audubon	2006	<0.1	Seeding	NA	no	NA[4]
	San Francisco Bay	San Francisco Bay	Clipper Yacht Harbor, Sausalito	2007	<0.1	Frames	yes	pending	pending
	San Francisco Bay	San Francisco Bay	Albany, Emeryville, San Rafael	2007	<0.1	BR	NA	partial	pending[4]
	San Francisco Bay	San Francisco Bay	Belvedere	2008	<0.1	Frames	yes	pending	pending
San Francisco Bay Eelgrass Success Rate (1985-2009, Inadequate History to Exclude Older Projects)								**40%**	**n=10**

No.	Region	System	Location	Year	Size*	Type**	Consistent with Permit Conditions	Success Status***	Net Result****
Northern California Eelgrass Restoration History									
	Northern	Humboldt Bay	Indian Island	1982	unknown	BR	unknown	no	-
	Northern	Bodega Harbor	Spud Point Marina	1984	1.3	BR	yes	no	-
	Northern	Humboldt Bay	Indian Island	1986	<0.1	BR	yes	no	-
	Northern	Humboldt Bay		1986	0.2	unknown	unknown	no	-
	Northern	Humboldt Bay	SR255 Bridge	2004	<0.1	BR	yes	no	-
	Northern	Humboldt Bay	Maintenance Dredging Project	2005	<0.1	BR	yes	yes	+
Northern California Eelgrass Success Rate (1982-2009, Inadequate History to Exclude Older Projects)								**25%**	**n=4**

* size in hectares
SP = sediment laden plug

** BR = bare root

*** success status is measured as yes, no, partial, pending, or unknown. Success rate is reported as percentage of sucessful over total completed within the past 25 years.
yes = 1, partial = 0.5, no = 0, and pending or unknown are not counted in either the numerator or denominator in determining success percentage.

**** + = net increase in eelgrass coverage, 0 = no change in eelgrass coverage, - = net decrease in eelgrass coverage

1 Transplant was initially adversely impacted by an unknown source of sediment and was deemed unsuitable.

2 The transplant declined initially and later recovered from what was determined to be a one time sedimentation event.

3 Transplant was experimental due to dense beds of the exotic muscle *Musculista senhousia*
which inhibited the growth of the transplant. Replacement transplant done elsewhere.
Transplant was completed in an area deemed unsuitable. Insufficient coverage required the construction of a remedial site.
Monitoring continues at both the initial and remedial sites.

4 Transplant was experimental.

5 Multiple sites.

6 Mitigation for marina at Princess Resort, project not built

7 Amount of eelgrass present within all basins as of 2000 mapping.

8 Regional eelgrass decline has resulted in die-offs both within restoration and reference areas equally full recovery had not occurred at the time of evaluation, yet project exceeds control-corrected requ

9 Original site was constructed as a plateau that was underfilled and anticipated to fall short of objectives. A supplemental
transplant was therefore completed when development began to exhibit shortfalls in area.

10 Shortfall mitigated by withdraw from established eelgrass mitigation bank.

11 Exception conditions from SCEMP requiring only replacement in place for unanticipated damage

12 Mitigated out-of-kind with non-eelgrass to satisfy permit requirements after shortfall in eelgrass mitigation.

NOAA's Fisheries Northwest and Southwest Regions	*U.S. Fish and Wildlife Service Regions 1 & 8*	*California/Washington/ Oregon Departments of Transportation*	*California Department of Fish and Game*	*U.S. Federal Highway Administration*

MEMORANDUM

June 12, 2008

From: Fisheries Hydroacoustic Working Group

Subject: Agreement in Principle for Interim Criteria for Injury to Fish from Pile Driving Activities

To: Applicable Agency Staff

The signatory agencies, identified below, have agreed in principle to use the attached Interim Criteria for Injury to Fish from Pile Driving Activities. The agreement was concluded at a meeting in Vancouver, Washington on June 10-11, 2008 with key technical and policy staff from the Federal Highway Administration, NOAA Fisheries, U.S. Fish and Wildlife Service, the Departments of Transportation from California, Oregon, and Washington; and national experts on sound propagation activities that affect fish and wildlife species of concern. The agreed upon criteria identify sound pressure levels of 206 dB peak and 187 dB accumulated sound exposure level(SEL) for all listed fish except those that are less than 2 grams. In that case, the criteria for the accumulated SEL will be 183 dB.

These criteria will apply to all new projects beginning no later than 60 days from the date of this memorandum. During the interim 60 day period, the Transportation Agencies will work with the Services to identify projects currently in the consultation process and reach agreement on which criteria will be used to assess project effects.

The agencies agree to review the science periodically and revise the threshold and cumulative levels as needed to reflect current information. Behavioral impacts to fish and impacts to marine mammals are not addressed in this agreement. Sub-injurious effects will continue to be discussed in future meetings.

The respective agencies also agree to develop appropriate training for staff on these revised criteria, as well as a process to review and possibly refine the criteria, when appropriate.

For questions or concerns about the revised criteria, we recommend staff contact their agency environmental coordinator or agency expert on pile driving issues.

Carol H. Adkins

Federal Highway Administration*

*FHWA supports the use of these interim criteria in the states signing this agreement in principle. FHWA leaves the schedule for implementation to the discretion of the state DOTs in cooperation with their respective FHWA Division Offices and the Services.

Michael Jehan

NOAA Fisheries – NWR

Russell M Strach

NOAA Fisheries – SWR

Ken S Berg

US Fish and Wildlife Service Region 1

Richard E Rogers Jr.

US Fish and Wildlife Service Region 8

California Department of Transportation

California Department of Fish and Game

Oregon Department of Transportation

Washington State Department of Transportation

FHWG Agreement in Principle
Technical/Policy Meeting Vancouver, WA
June, 11 2008

Interim Criteria for Injury	Agreement in Principle
Peak	206 dB (for all size of fish)
Cumulative SEL	187 dB - for fish size of two grams or greater. 183 dB - for fish size of less than two grams.*

**see Table—to be developed*

Response No. 1

California Department of Fish and Wildlife
Craig Shuman, D. Env, Marine Regional Manager
August 20, 2024

1-1 This introductory comment introduces the California Department of Fish and Wildlife's (CDFW) role as a Trustee Agency for fish and wildlife resources and responsibility for biological protection. The commenter also summarizes the proposed project description and biological significance of the Newport Bay waters. This comment is acknowledged, and no further response is required.

1-2 The commenter summarizes the project's potential impacts to eelgrass and applicable regulatory protections for eelgrass. The commenter recommends the inclusion of avoidance and minimization measures to reduce potential construction-related impacts to eelgrass habitat and cites the CDFW California Eelgrass Mitigation Policy (CEMP) included as Attachment 1 to the comment letter. As such, the Draft IS/MND text has been revised and is reflected below and in Section 3.0, *Errata*, of this Final IS/MND.

Draft IS/MND Section 4.4, Biological Resources, Mitigation Measure BIO-2, Pages 4.4-4 and 4.4-5

BIO-2 To the extent feasible, the construction contractor shall minimize potential impacts to existing eelgrass beds within the project area by:

- Decreasing sedimentation by utilizing terrestrial construction booms;
- Avoiding any unneeded shading during in-water construction activities; ~~and~~
- ~~Ensuring any in-water manipulation or dock temporary relocation is conducted with guidance from the Eelgrass Survey Report to minimize disturbance of more dense eelgrass beds in the project area;~~.
- Locating temporary docks, barges and vessels, and all barge anchoring outside of existing eelgrass beds in the project area;
- Ensuring anchor chain designs and mooring locations of all barges and vessels avoid eelgrass habitat in the project area;
- Implementing best management practices (BMPs) such as perimeter debris booms. If debris is observed falling into the water, debris shall be retrieved as soon as feasible;
- Installing silt curtains around demolition areas, to the extent feasible, and restricting turbidity plumes to the smallest possible area during all in-water construction phases to minimize water turbidity and sedimentation;
- Conducting comprehensive pre- and post-construction surveys for eelgrass beds and patches in accordance with the National Marine Fisheries Service's California Eelgrass Mitigation Policy (CEMP). If unavoidable eelgrass impacts occur, compensatory mitigation using guidance specified in the CEMP shall be implemented; and
- If eelgrass harvest and transplanting is required for mitigation, obtaining a Scientific Collecting Permit (SCP) from the California Department of Fish and Wildlife prior to harvest and transplant activities. The SCP may include permit conditions such as donor eelgrass surveys, submittal of an eelgrass harvest and transplant plan, limits on number of turions collected, methods for collection and transplanting, notification of activities, and reporting requirements.

This change provides a minor update, correction, or clarification and does not represent "significant new information" as defined in CEQA Guidelines Section 15088.5 and would not result in any new or substantially greater significant impacts as compared to those identified in the Draft IS/MND.

1-3 The commenter summarizes the project's potential impacts on fish and eelgrass beds from project-related pile driving activities and cites guidance from the Fisheries Hydroacoustic Working Group (included as Attachment 2 of the comment letter). The commenter recommends using a vibratory hammer or an alternative technology that produces the least amount of noise, such as the hydraulic press-in method proposed by the project. As detailed in Draft IS/MND Section 3.0, *Project Description*, the proposed construction activities would not require the use of pile driving and would instead utilize the hydraulic press-in method. As such, the recommended measures to reduce impacts associated with pile driving activities are not required.

1-4 The commenter states that harbor seal (*Phoca vitulina*), California sea lion (*Zalophus californianus*), and green sea turtle (*Chelonia mydas*), among other marine mammals, may be present or occur in the project area. The commenter suggests that construction noise associated with pile driving activities could impact these animals if they are present and recommends the preparation and implementation of a marine mammal and sea turtle monitoring plan. Proposed construction activities would not utilize impact pile driving. As such, the recommended measure to reduce impacts associated with pile driving activities are not required.

1-5 The commenter states that the proposed bridge removal and demolition process could generate debris and cause material spills that may pollute the surrounding waters. The commenter acknowledges that the project proposes to place a drop net over the waterway to catch debris during the bridge demolition construction activities and recommends removing the collected debris from the drop net as soon as feasible. Additionally, the commenter recommends the preparation and implementation of a spill and prevention plan to minimize and/or prevent discharge of spilled material at the project site. As such, the Draft IS/MND text has been revised and is reflected below and in Section 3.0, *Errata*, of this Final IS/MND.

Draft IS/MND Section 4.4, Biological Resources, Mitigation Measure BIO-1, Page 4.4-4

BIO-1	Prior to issuance of grading permits, the City of Newport Beach City Engineer shall ensure the following construction best management practices are incorporated into the project's final construction plans and monitored with weekly inspections during construction activities within the water areas: • Construction equipment shall be inspected regularly (daily) during construction, and any leaks found shall be repaired immediately. • Refueling of vehicles and equipment shall be in a designated, contained area. • Drip pans shall be used under stationary equipment when refueling or during maintenance. • Drip pans that are used shall be covered during rainfall to prevent leaching of contaminants. • Construction and maintenance of appropriate containment structures to prevent off-site transport of pollutants from spills and construction debris. • Construction best management practices (BMPs) shall be monitored during weekly inspections to ensure the BMPs are implemented and kept in good working order. • Drop nets shall be cleared of debris as soon as feasible. Prior to issuance of grading permits, the City of Newport Beach shall also prepare and implement a Spill and Prevention Plan to minimize and/or prevent discharge of spilled

material at the project site. The Spill and Prevention Plan shall include measures to prevent and control spills, contain the spill, clean the spill, and dispose of contaminated materials in compliance with applicable regulatory requirements.

This change provides a minor update, correction, or clarification and does not represent "significant new information" as defined in CEQA Guidelines Section 15088.5 and would not result in any new or substantially greater significant impacts as compared to those identified in the Draft IS/MND.

1-6 The commenter states that invasive species (i.e., *Caulerpa* spp.) may be redistributed as a result of disturbance to bottom sediments. The commenter recommends conducting pre-construction surveys for *Caulerpa* spp. to identify potential existence of invasive *Caulerpa* spp. in accordance with the National Oceanic and Atmospheric Administration (NOAA) *Caulerpa Control Protocol*. As detailed in the *Pre-Construction Surveys Eelgrass (Zostera marina) & Caulerpa taxafolia, Collins Island Bridge Replacement Project, Newport Beach, California Final Report* (Eelgrass Survey Report), prepared by Six Scientific Service and dated October 2023, a pre-construction *Caulerpa taxifolia* survey was conducted on September 16, 2023 in accordance with the NOAA *Caulerpa Control Protocol*; refer to Draft IS/MND Appendix B, *Jurisdictional Delineation/Marine Reports*. As analyzed in the Eelgrass Survey Report, no *Caulerpa taxifolia* was observed in or near the project area during the survey.

1-7 The commenter requests that any special-status species and sensitive natural communities detected during project surveys be submitted to the California Natural Diversity Database. This comment is acknowledged. This comment is not related to the adequacy of the Draft IS/MND analysis. As such, no further response is required.

1-8 The commenter states the proposed project would result in an impact on fish and/or wildlife; and thus, would require payment of environmental document filing fees. This comment is acknowledged and payment of environmental document filing fees will be provided upon filing of the Notice of Determination.

California Department of Transportation

DISTRICT 12
1750 EAST 4TH STREET, SUITE 100
SANTA ANA, CA 92705
PHONE (657) 328-6000
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TTY 711
www.dot.ca.gov/caltrans-near-me/district12

COMMENT LETTER 2

August 21, 2024

Mr. Robert Stein
Assistant City Engineer
City of Newport Beach
100 Civic Center Drive; Bay B
Newport Beach, CA. 92660

File: LDR/CEQA
SCH: 2024070802
12-ORA-2024-02624
SR 1; 17.461

Dear Mr. Stein,

Thank you for including the California Department of Transportation (Caltrans) in the review of the Mitigated Negative Declaration (MND) for the Collins Island Bridge Replacement Project. The proposed project has three major components: 1) bridge replacement, 2) seawall improvements, and 3) future pump station accommodations. The proposed bridge would be designed to be a total of 20 feet and 6 inches in width to accommodate one vehicle travel lane, one sidewalk, and concrete barriers on each side to provide protection from projected sea level rise. The slope profile along the roadway and sidewalk bridge approaches would be adjusted to comply with ADA standards. Street, sidewalk, and landscaping improvements are also proposed on the Balboa Island side along the Bay Front sidewalk and Park Avenue. The proposed seawall improvements would be designed to have an increased top of wall coping elevation to mitigate sea level rise impacts. The City is currently in the process of designing a new storm water pump station on Park Avenue near the Collins Island Bridge as part of a separate project. Therefore, future pump station accommodations are also proposed to accommodate this separate project. 2-1

Collins Island is located on the western tip of Balboa Island and is connected to the greater Balboa Island via the Collins Island Bridge. Regional access to the project site is provided via State Route 1 (SR 1; Pacific Coast Highway) and local access to the site is provided via Marine Avenue (across the Balboa Island North Channel), and North Bay Front and Park Avenue on Balboa Island.

Caltrans is a responsible agency on this project and has the following comments:

1. Consider the creation of an Emergency Plan that includes alternative routes and paths. This can alleviate congestion in the event of an emergency and allow EMS to easily access the site. 2-2

2. Please consider the implementation of a dedicated truck route. This dedicated route can allow for better traffic flow and reduce roadway congestion. 2-3

3. Please consider the installation of green conflict zone striping between Bayside Drive and the southbound Class III bikeway. 2-4

4. Please provide pedestrian scale lighting along the project area. 2-5

5. During construction, please ensure that appropriate detours and safety measures are in place to prioritize the mobility, access, and safety of bicyclists and pedestrians. If adjacent sidewalks or bike lanes need to be closed during construction, please ensure that closures and detours are clearly signed. 2-6

6. Understanding that the Project is anticipated to generate temporary construction truck traffic, mitigation for adverse traffic impacts on SR-1 during construction must be addressed. 2-7

The mission of Caltrans is to provide a safe and reliable transportation network that serves all people and respects the environment. Please continue to coordinate with Caltrans for any future developments that could potentially impact State transportation facilities. If you have any questions, please do not hesitate to contact Julie Lugaro at Julie.lugaro@dot.ca.gov.

Sincerely,

Scott Shelley
Branch Chief,
LDR-Climate Change-Transit Planning
Caltrans, District 12

Response No. 2

California Department of Transportation District 12
Scott Shelley, Branch Chief
August 21, 2024

2-1 The commenter summarizes the proposed project description and location. This comment is not related to the adequacy of the Draft IS/MND analysis. As such, no further response is required.

2-2 The commenter recommends the inclusion of an emergency plan that includes alternative routes and paths to alleviate congestion in the event of an emergency and facilitate emergency medical services (EMS) to easily access the site.

As detailed in Draft IS/MND Section 4.9, *Hazard and Hazardous Materials* (pages 4.9-3 and 4.9-4), the project would not impair emergency access in the site vicinity during the operational phase given that the bridge would operate similar to existing conditions. However, construction activities may require temporary partial bridge, roadway, or sidewalk closures. Short-term full bridge closures limited to a few hours in a day (i.e., not full day or multi-day closures) may also be required and thus, may impede emergency access to Collins Island. As such, implementation of a Traffic Management Plan (TMP) would be required to maintain adequate emergency access during the construction process (Mitigation Measure TRA-1). The TMP shall include measures such as construction signage, limitations on timing for lane closures to avoid peak hours of traffic, temporary striping plans, and, if necessary, use of construction flag person(s) to direct traffic during heavy equipment use. Should temporary full bridge, roadway, or sidewalk closures be required, the City of Newport Beach Public Works Department would be required to notify all residences within a 500-foot radius of the site at least one week before scheduled closure and provide details regarding anticipated closure duration and any available detours. The City of Newport Beach Public Works Department is also required to conduct advanced notification and coordination with the Newport Beach Fire and Police Departments to arrange for adequate alternative access options in the event an emergency event occurs during a temporary full bridge/roadway closure. As such, with implementation of Mitigation Measure TRA-1, the project's impacts in this regard would be reduced to less than significant levels.

2-3 The commenter recommends the implementation of a dedicated truck route to allow for improved traffic flow and reduced congestion during project construction. As such, the Draft IS/MND text has been revised and is reflected below and in Section 3.0, *Errata*, of this Final IS/MND.

Draft IS/MND Section 4.17, Transportation, Mitigation Measure TRA-1, Page 4.17-3

Mitigation Measures:

TRA-1 Prior to initiation of construction activities, the City of Newport Beach Public Works Department shall prepare a Traffic Management Plan (TMP). The TMP shall specify that one lane of travel for vehicles and pedestrians on Park Avenue shall be maintained during project construction activities to the greatest extent feasible. The TMP shall include measures such as construction signage, limitations on timing for lane closures to avoid peak hours of traffic, temporary striping plans, and, if necessary, use of construction flag person(s) to direct traffic during heavy equipment use. Additionally, the TMP shall establish dedicated truck routes approved by the City of Newport Beach Public Works Department. To reduce congestion and impacts to parking on Balboa Island, the TMP shall also identify proposed mainland parking areas for construction workers.

	Pedestrian sidewalks shall remain open and accessible, to the greatest extent feasible, during construction or shall be re-routed to ensure continued connectivity while maintaining Americans with Disabilities Act (ADA) accessibility. The TMP shall be incorporated into project specifications for verification prior to final plan approval. Should temporary full bridge, roadway, or sidewalk closures be required, the City of Newport Beach Public Works Department shall notify all residences within a 500-foot radius of the site at least one week before scheduled closure and provide details regarding anticipated closure duration and any available detours. The City of Newport Beach Public Works Department shall also conduct advanced notification and coordination with the Newport Beach Fire and Police Departments to arrange for adequate alternative access options in the event an emergency event occurs during a temporary full bridge/roadway closure.

This change provides a minor update, correction, or clarification and does not represent "significant new information" as defined in CEQA Guidelines Section 15088.5 and would not result in any new or substantially greater significant impacts as compared to those identified in the Draft IS/MND.

2-4 The commenter recommends installing green conflict zone striping between Bayside Drive and the southbound Class III bikeway. Bayside Drive is located approximately 0.39-mile from the project site on the mainland. As such, installation of bicycle improvements on Bayside Drive is not within the scope of the proposed project.

2-5 The commenter recommends the inclusion of pedestrian scale lighting along the project area. As detailed in Draft IS/MND Section 4.1, *Aesthetics* (page 4.1-3), the project area includes lighting typical of urban/suburban areas, including streetlights, private residential lighting, and motor vehicle headlights. Specifically, existing light posts line the Bay Front sidewalk. The proposed project may include bridge lighting for pedestrian safety and architectural character similar to the existing lighting fixtures in the project area. As such, appropriate pedestrian scale lighting exists in the project area and may be supplemented as part of the proposed project.

2-6 The commenter suggests appropriate detours and safety measures be in place during construction activities to prioritize the mobility, access, and safety of bicyclists and pedestrians. Given that there are no existing designated bicycle facilities on Collins Island or Balboa Island, project implementation would have no impact on such facilities. However, construction activities may require temporary sidewalk closures. As such, implementation of a TMP would be required to maintain pedestrian flow during the construction process (Mitigation Measure TRA-1). The TMP is required to specify that one lane of travel for vehicles and pedestrians on Park Avenue be maintained during project construction activities to the greatest extent feasible. The TMP is also required to include measures such as construction signage, limitations on timing for lane closures to avoid peak hours of traffic, temporary striping plans, and, if necessary, use of construction flag person(s) to direct traffic during heavy equipment use. Pedestrian sidewalks are required to remain open and accessible, to the greatest extent feasible, during construction or be re-routed to ensure continued connectivity while maintaining Americans with Disabilities Act (ADA) accessibility. Should temporary sidewalk closures be required, the City of Newport Beach Public Works Department would be required to notify all residences within a 500-foot radius of the site at least one week before scheduled closure and provide details regarding anticipated closure duration and any available detours. As such, with implementation of Mitigation Measure TRA-1, the project's impacts in this regard would be reduced to less than significant levels.

2-7 The commenter recommends mitigation for anticipated temporary construction traffic impacts along State Route 1 (SR-1). Refer to Responses to Comments 2-2 and 2-3, above.

The commenter also requests continued coordination between the City and Caltrans for any future development that could potentially impact State transportation facilities. This comment is acknowledged.

PART III ERRATA

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PART III: ERRATA

Changes to the Draft IS/MND are noted below. A double-underline indicates additions to the text; ~~strikethrough~~ indicates deletions to the text. Changes have been analyzed and responded to in Section 2.0, *Response to Comments*, of this Final IS/MND. Changes are listed by page and, where appropriate, by paragraph. These clarifications and modifications are not considered to result in any new or substantially greater significant impacts as compared to those identified in the Draft IS/MND.

Draft IS/MND Section 4.4, Biological Resources, Mitigation Measure BIO-1, Page 4.4-4

BIO-1 Prior to issuance of grading permits, the City of Newport Beach City Engineer shall ensure the following construction best management practices are incorporated into the project's final construction plans and monitored with weekly inspections during construction activities within the water areas:

- Construction equipment shall be inspected regularly (daily) during construction, and any leaks found shall be repaired immediately.
- Refueling of vehicles and equipment shall be in a designated, contained area.
- Drip pans shall be used under stationary equipment when refueling or during maintenance.
- Drip pans that are used shall be covered during rainfall to prevent leaching of contaminants.
- Construction and maintenance of appropriate containment structures to prevent off-site transport of pollutants from spills and construction debris.
- Construction best management practices (BMPs) shall be monitored during weekly inspections to ensure the BMPs are implemented and kept in good working order.
- Drop nets shall be cleared of debris as soon as feasible.

Prior to issuance of grading permits, the City of Newport Beach shall also prepare and implement a Spill and Prevention Plan to minimize and/or prevent discharge of spilled material at the project site. The Spill and Prevention Plan shall include measures to prevent and control spills, contain the spill, clean the spill, and dispose of contaminated materials in compliance with applicable regulatory requirements.

Draft IS/MND Section 4.4, Biological Resources, Mitigation Measure BIO-2, Pages 4.4-4 and 4.4-5

BIO-2 To the extent feasible, the construction contractor shall minimize potential impacts to existing eelgrass beds within the project area by:

- Decreasing sedimentation by utilizing terrestrial construction booms;
- Avoiding any unneeded shading during in-water construction activities; ~~and~~
- ~~Ensuring any in-water manipulation or dock temporary relocation is conducted with guidance from the Eelgrass Survey Report to minimize disturbance of more dense eelgrass beds in the project area;~~.
- Locating temporary docks, barges and vessels, and all barge anchoring outside of existing eelgrass beds in the project area;
- Ensuring anchor chain designs and mooring locations of all barges and vessels avoid eelgrass habitat in the project area;
- Implementing best management practices (BMPs) such as perimeter debris booms. If debris is observed falling into the water, debris shall be retrieved as soon as feasible;
- Installing silt curtains around demolition areas, to the extent feasible, and restricting turbidity plumes to the smallest possible area during all in-water construction phases to minimize water turbidity and sedimentation;

- Conducting comprehensive pre- and post-construction surveys for eelgrass beds and patches in accordance with the National Marine Fisheries Service's California Eelgrass Mitigation Policy (CEMP). If unavoidable eelgrass impacts occur, compensatory mitigation using guidance specified in the CEMP shall be implemented; and
- If eelgrass harvest and transplant is required for mitigation, obtaining a Scientific Collecting Permit (SCP) from the California Department of Fish and Wildlife prior to harvest and transplant activities. The SCP may include permit conditions such as donor eelgrass surveys, submittal of an eelgrass harvest and transplant plan, limits on number of turions collected, methods for collection and transplanting, notification of activities, and reporting requirements.

Draft IS/MND Section 4.17, Transportation, Mitigation Measure TRA-1, Page 4.17-3

Mitigation Measures:

TRA-1 Prior to initiation of construction activities, the City of Newport Beach Public Works Department shall prepare a Traffic Management Plan (TMP). The TMP shall specify that one lane of travel for vehicles and pedestrians on Park Avenue shall be maintained during project construction activities to the greatest extent feasible. The TMP shall include measures such as construction signage, limitations on timing for lane closures to avoid peak hours of traffic, temporary striping plans, and, if necessary, use of construction flag person(s) to direct traffic during heavy equipment use. Additionally, the TMP shall establish dedicated truck routes approved by the City of Newport Beach Public Works Department. To reduce congestion and impacts to parking on Balboa Island, the TMP shall also identify proposed mainland parking areas for construction workers. Pedestrian sidewalks shall remain open and accessible, to the greatest extent feasible, during construction or shall be re-routed to ensure continued connectivity while maintaining Americans with Disabilities Act (ADA) accessibility. The TMP shall be incorporated into project specifications for verification prior to final plan approval.

Should temporary full bridge, roadway, or sidewalk closures be required, the City of Newport Beach Public Works Department shall notify all residences within a 500-foot radius of the site at least one week before scheduled closure and provide details regarding anticipated closure duration and any available detours. The City of Newport Beach Public Works Department shall also conduct advanced notification and coordination with the Newport Beach Fire and Police Departments to arrange for adequate alternative access options in the event an emergency event occurs during a temporary full bridge/roadway closure.

PART IV MITIGATION MONITORING AND REPORTING PROGRAM

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PART IV: MITIGATION MONITORING AND REPORTING PROGRAM

The California Environmental Quality Act (CEQA) requires that when a public agency completes an environmental document which includes measures to mitigate or avoid significant environmental effects, the public agency must adopt a reporting or monitoring plan. This requirement ensures that environmental impacts found to be significant will be mitigated. The reporting or monitoring plan must be designed to ensure compliance during project implementation (Public Resources Code Section 21081.6).

In compliance with Public Resources Code Section 21081.6, Table 1, *Mitigation Monitoring and Reporting Checklist*, has been prepared for the Collins Island Bridge Replacement Project (project). This Mitigation Monitoring and Reporting Checklist is intended to provide verification that all applicable Conditions of Approval relative to significant environmental impacts are monitored and reported. Monitoring will include: 1) verification that each mitigation measure has been implemented; 2) recordation of the actions taken to implement each mitigation; and 3) retention of records in the City of Newport Beach Collins Island Bridge Replacement Project file.

This Mitigation Monitoring and Reporting Program (MMRP) delineates responsibilities for monitoring the project, but also allows the City flexibility and discretion in determining how best to monitor implementation. Monitoring procedures will vary according to the type of mitigation measure. Adequate monitoring consists of demonstrating that monitoring procedures took place and that mitigation measures were implemented. This includes the review of all monitoring reports, enforcement actions, and document disposition, unless otherwise noted in the Mitigation Monitoring and Reporting Checklist (Table 1). If an adopted mitigation measure is not being properly implemented, the designated monitoring personnel shall require corrective actions to ensure adequate implementation.

Reporting consists of establishing a record that a mitigation measure is being implemented, and generally involves the following steps:

- The City distributes reporting forms to the appropriate entities for verification of compliance.
- Departments/agencies with reporting responsibilities will review the Draft and Final IS/MND, which provide general background information on the reasons for including specified mitigation measures.
- Problems or exceptions to compliance will be addressed to the City as appropriate.
- Periodic meetings may be held during project implementation to report on compliance of mitigation measures.
- Responsible parties provide the City with verification that monitoring has been conducted and ensure, as applicable, that mitigation measures have been implemented. Monitoring compliance may be documented through existing review and approval programs such as field inspection reports and plan review.
- The City prepares a reporting form periodically during the construction phase and an annual report summarizing all project mitigation monitoring efforts.
- Appropriate mitigation measures will be included in construction documents and/or conditions of permits/approvals.

Minor changes to the MMRP, if required, would be made in accordance with CEQA and would be permitted after further review and approval by the City. Such changes could include reassignment of monitoring and reporting responsibilities, plan redesign to make any appropriate improvements, and/or modification, substitution or deletion of mitigation measures subject to conditions described in CEQA Guidelines Section 15162. No change will be permitted unless the MMRP continues to satisfy the requirements of Public Resources Code Section 21081.6.

Table 1
Mitigation Monitoring and Reporting Checklist

Mitigation Number	Mitigation Measure	Implementation Responsibility	Timing	Monitoring Responsibility	Timing	Verification of Compliance		
						Initials	Date	Remarks
BIOLOGICAL RESOURCES								
BIO-1	Prior to issuance of grading permits, the City of Newport Beach City Engineer shall ensure the following construction best management practices are incorporated into the project's final construction plans and monitored with weekly inspections during construction activities within the water areas: • Construction equipment shall be inspected regularly (daily) during construction, and any leaks found shall be repaired immediately. • Refueling of vehicles and equipment shall be in a designated, contained area. • Drip pans shall be used under stationary equipment when refueling or during maintenance. • Drip pans that are used shall be covered during rainfall to prevent leaching of contaminants. • Construction and maintenance of appropriate containment structures to prevent off-site transport of pollutants from spills and construction debris. • Construction best management practices (BMPs) shall be monitored during weekly inspections to ensure the BMPs are implemented and kept in good working order. • Drop nets shall be cleared of debris as soon as feasible.	City Engineer; Project Construction Contractor	Prior to Issuance of Grading Permits; During Construction Activities	City Engineer; City of Newport Beach Public Works Department	Weekly Inspection During Construction Activities; During Plan Check Review			

Mitigation Number	Mitigation Measure	Implementation Responsibility	Timing	Monitoring Responsibility	Timing	Verification of Compliance		
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	Prior to issuance of grading permits, the City of Newport Beach shall also prepare and implement a Spill and Prevention Plan to minimize and/or prevent discharge of spilled material at the project site. The Spill and Prevention Plan shall include measures to prevent and control spills, contain the spill, clean the spill, and dispose of contaminated materials in compliance with applicable regulatory requirements.							
BIO-2	To the extent feasible, the construction contractor shall minimize potential impacts to existing eelgrass beds within the project area by: • Decreasing sedimentation by utilizing terrestrial construction booms; • Avoiding any unneeded shading during in-water construction activities; • Locating temporary docks, barges and vessels, and all barge anchoring outside of existing eelgrass beds in the project area; • Ensuring anchor chain designs and mooring locations of all barges and vessels avoid eelgrass habitat in the project area; • Implementing best management practices (BMPs) such as perimeter debris booms. If debris is observed falling into the water, debris shall be retrieved as soon as feasible; • Installing silt curtains around demolition areas, to the extent feasible, and restricting turbidity plumes to the smallest possible area during all in-water construction phases to minimize water turbidity and sedimentation; • Conducting comprehensive pre- and post-construction surveys for eelgrass beds and	Project Construction Contractor	During Construction Activities; Post-Construction Activities	City of Newport Beach Public Works Department	During Construction Activities; Post-Construction Activities			

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	patches in accordance with the National Marine Fisheries Service's California Eelgrass Mitigation Policy (CEMP). If unavoidable eelgrass impacts occur, compensatory mitigation using guidance specified in the CEMP shall be implemented; and • If eelgrass harvest and transplanting is required for mitigation, obtaining a Scientific Collecting Permit (SCP) from the California Department of Fish and Wildlife prior to harvest and transplant activities. The SCP may include permit conditions such as donor eelgrass surveys, submittal of an eelgrass harvest and transplant plan, limits on number of turions collected, methods for collection and transplanting, notification of activities, and reporting requirements.							
BIO-3	Prior to any construction activity within the project limits, the City of Newport Beach shall consult with the appropriate responsible resource agency (i.e., U.S. Army Corps of Engineers, Regional Water Quality Control Board, and California Coastal Commission) to verify delineation results, determine permanent losses and temporary impact areas, and identify compensatory mitigation, as applicable. Prior to undertaking ground-disturbing activities on or immediately adjacent to any aquatic resource areas, the City of Newport Beach and/or their designee shall obtain all applicable discretionary permits/authorizations.	City of Newport Beach Public Works Department	Prior to Any Construction Activities	U.S. Army Corps of Engineers, Regional Water Quality Control Board, and California Coastal Commission	Prior to Issuance of Regulatory Permits			
CULTURAL RESOURCES								
CUL-1	In the event that any subsurface cultural resources are encountered during earth-moving activities, all work within 50 feet shall be halted	Qualified Archaeologist	In the Event Any Subsurface	City of Newport Beach Public	In the Event Any Subsurface			

Mitigation Number	Mitigation Measure	Implementation Responsibility	Timing	Monitoring Responsibility	Timing	Verification of Compliance		
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	until a qualified archaeologist is retained by the City of Newport Beach and evaluates the find and makes recommendations. The archaeologist shall evaluate the find in accordance with federal, State, and local guidelines, including those set forth in the California Public Resources Code Section 21083.2, to assess the significance of the find and identify avoidance or other measures as appropriate.		Cultural Resources are Encountered During Earth-Moving Activities	Works Department	Cultural Resources are Encountered During Earth-Moving Activities			
GEOLOGY AND SOILS								
GEO-1	Prior to issuance of grading permits, the City Engineer shall verify that final construction plans and specifications incorporate the design recommendations from the *Draft Foundation Report, Collins Island Bridge, Newport Beach, California*, prepared by Earth Mechanics, Inc. and dated October 27, 2023, and/or the final geotechnical report for the Collins Island Bridge Replacement Project.	Project Construction Contractor	Prior to Issuance of Grading Permits	City Engineer	During Plan Check Review			
GEO-2	In the event that paleontological resources are encountered during earth-disturbing activities, all construction activities within 100 feet of the discovery shall be temporarily halted until a qualified paleontologist shall evaluate the findings and make a recommendation. The assessment will follow Society of Vertebrate Paleontology (SVP) standards as delineated in the *Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources* (2010). If the qualified paleontologist finds that the resource is not a significant fossil, then work may resume immediately. If the qualified paleontologist finds the resource is potentially significant, then the qualified paleontologist shall make recommendations for appropriate treatment in accordance with SVP guidelines for	Qualified Paleontologist	In the Event Paleontological Resources are Encountered During Earth-Disturbing Activities	City of Newport Beach Public Works Department	In the Event Paleontological Resources are Encountered During Earth-Disturbing Activities			

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	identification, evaluation, disclosure, avoidance, recovery, and/or curation, as appropriate. The City of Newport Beach shall determine the appropriate treatment of the find. Work cannot resume within the no-work radius until the City of Newport Beach, through consultation as appropriate, determines that appropriate treatment measures have been completed to the satisfaction of the City. Any fossils recovered during mitigation shall be cleaned, identified, catalogued, and permanently curated with an accredited and permanent scientific institution with a research interest in the materials, such as the Cooper Laboratory in Santa Ana. A qualified professional paleontologist is a professional with a graduate degree in paleontology, geology, or related field, with demonstrated experience in the vertebrate, invertebrate, or botanical paleontology of California, as well as at least one year of full-time professional experience or equivalent specialized training in paleontological research (i.e., the identification of fossil deposits, application of paleontological field and laboratory procedures and techniques, and curation of fossil specimens), and at least four months of supervised field and analytic experience in general North American paleontology as defined by the SVP.							
NOISE								
NOI-1	Prior to issuance of any grading or building permit, the City of Newport Beach shall prepare a Construction Noise Mitigation Plan and	City Engineer; Project Construction Contractor	Prior to Issuance of Grading or Building Permits; During	City of Newport Beach Public Works Department	During Plan Check Review; During Construction Activities			

Mitigation Number	Mitigation Measure	Implementation Responsibility	Timing	Monitoring Responsibility	Timing	Verification of Compliance		
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	demonstrate that the project complies with the following: • The construction contractor shall ensure that power construction equipment (including combustion or electric engines), fixed or mobile, shall be equipped with noise shielding and muffling devices (consistent with manufacturers' standards) during the entirety of construction of the project. The combination of muffling devices and noise shielding shall be capable of reducing noise by at least 5 dBA from non-muffled and shielded noise levels. Prior to initiation of construction the contractor shall demonstrate to the City that equipment is properly muffled, shielded and maintained. All equipment shall be properly maintained to assure that no additional noise, due to worn or improperly maintained parts, would be generated. • The Construction Noise Mitigation Plan shall depict the location of construction equipment storage and maintenance areas, and document methods to be employed to minimize noise impacts on adjacent noise sensitive land uses. • Property owners and occupants located within 100 feet of the construction limits shall be sent a notice, at least 15 days prior to commencement of construction, regarding the construction schedule of the project. A sign, visible to the public, shall also be posted at the project construction site. All notices and signs shall be reviewed and approved by the City of Newport Public Works Department		Construction Activities					

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	prior to mailing or posting and shall indicate the dates and duration of construction activities, as well as provide a contact name and a telephone number where residents can inquire about the construction process and register complaints. • The construction contractor shall provide evidence that a construction staff member is designated as a Noise Disturbance Coordinator and shall be present on-site during construction activities. The Noise Disturbance Coordinator shall be responsible for responding to any local complaints about construction noise. When a complaint is received, the Noise Disturbance Coordinator shall notify the City within 24-hours of the complaint and determine the cause of the noise complaint (e.g., starting too early, bad muffler, etc.) and shall implement reasonable measures to resolve the complaint, as deemed acceptable by the City of Newport Beach Public Works Department. All notices that are sent to residential units immediately surrounding the construction site and all signs posted at the construction site shall include the contact name and the telephone number for the Noise Disturbance Coordinator. • The City shall demonstrate to the satisfaction of the City of Newport Beach Public Works Department that construction noise reduction methods shall be used, including but not limited to, shutting off idling equipment, maximizing the distance between construction equipment staging areas and							

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	occupied residential areas, and the use of electric air compressors and similar power tools, to the extent feasible. • During construction, stationary construction equipment shall be placed such that emitted noise is directed away from sensitive noise receivers. • In compliance with *Newport Beach Municipal Code* Section 10.28.040, construction activities shall only occur between the hours of 7:00 a.m. to 6:30 p.m. on Mondays to Fridays, and 8:00 a.m. to 6:00 p.m. on Saturdays, with no activity allowed on Sundays or national holidays.							
TRANSPORTATION								
TRA-1	Prior to initiation of construction activities, the City of Newport Beach Public Works Department shall prepare a Traffic Management Plan (TMP). The TMP shall specify that one lane of travel for vehicles and pedestrians on Park Avenue shall be maintained during project construction activities to the greatest extent feasible. The TMP shall include measures such as construction signage, limitations on timing for lane closures to avoid peak hours of traffic, temporary striping plans, and, if necessary, use of construction flag person(s) to direct traffic during heavy equipment use. Additionally, the TMP shall establish dedicated truck routes approved by the City of Newport Beach Public Works Department. Pedestrian sidewalks shall remain open and accessible, to the greatest extent feasible, during construction or shall be re-routed to ensure continued connectivity while maintaining Americans with Disabilities Act (ADA)	City of Newport Beach Public Works Department	Prior to Construction Activities	City of Newport Beach Public Works Department	During Plan Check Review; During Construction Activities			

Mitigation Number	Mitigation Measure	Implementation Responsibility	Timing	Monitoring Responsibility	Timing	Verification of Compliance		
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	accessibility. The TMP shall be incorporated into project specifications for verification prior to final plan approval. Should temporary full bridge, roadway, or sidewalk closures be required, the City of Newport Beach Public Works Department shall notify all residences within a 500-foot radius of the site at least one week before scheduled closure and provide details regarding anticipated closure duration and any available detours. The City of Newport Beach Public Works Department shall also conduct advanced notification and coordination with the Newport Beach Fire and Police Departments to arrange for adequate alternative access options in the event an emergency event occurs during a temporary full bridge/roadway closure.							

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